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the Skyscraper

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AMATEUR ASTRONOMICAL SOCIETY OF RHODE ISLAND ⋆ 47 PEEPTOAD ROAD ⋆ NORTH SCITUATE, RHODE ISLAND 02857 ⋆ WWW.THESKYSCRAPERS.ORG

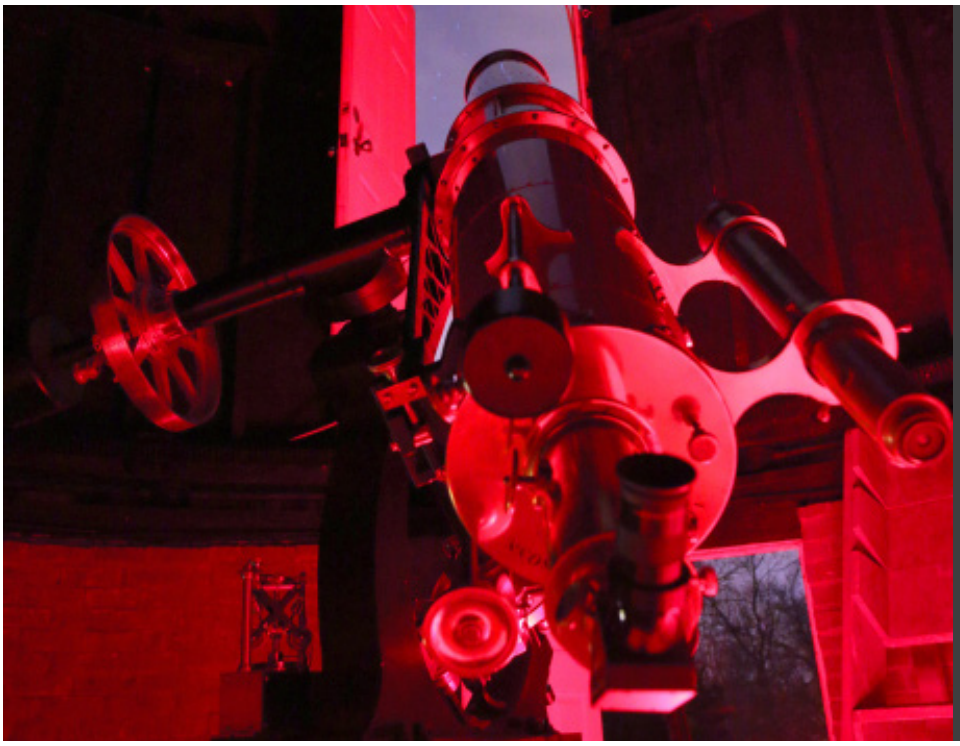
In This Issue:

June Meeting: The Newest Great Observatory in Chile by Ian Dell'Antonio

Saturday, June 7 @ 6:30pm EDT
at Seagrave Memorial Observatory
In-person and on Zoom
https://us06web.zoom.us/j/87338930081?pwd=lMhrkhx7Jd3O2ScGHdQt51SzP5W9Lw.1

Ian Dell'Antonio has been a professor of physics at Brown since 1999, and a member of Skyscrapers since 2003. Before that, he was a postdoctoral researcher at Bell Labs and a research fellow at the National Optical Astronomy Observatories in Tucson, Arizona. His research involves using the bending of light due to gravity to study galaxies, galaxy clusters, and the contents of the Universe as a whole.

After many years in construction, the Vera Rubin Observatory is finally on sky, and midway through commissioning. I'll talk about the observatory, its characteristics, the long work by hundreds of engineers and researchers it took to get to this point, and the Legacy Survey of Space and Time (LSST) the telescope will undertake over the next ten years. As a bonus, I MAY be able to show you the first pretty pictures from the camera.



Observing Events:

Open Nights at Seagrave*
June 7, 9-11 PM
June 14, 9-11 PM
June 21, 9-11 PM
June 28, 9-11 PM

Off-site Public Observing*

River Bend Farm, Uxbridge MA
Friday, June 6, 8:30 PM

*Members are welcome and appreciated at all of these events

President's Message

by Linda Bergemann

I am sitting here trying to think of something to write about Skyscrapers or astronomy for the newsletter. A gust of wind just rattled the windows and a few raindrops just hit the skylight over my head. No doubt about it – it must be Saturday. Oh, and the email cancelling observing tonight at Seagrave just arrived.

The good news is that we received a new member application in the mail today; we bought a new walk-behind lawnmower this past week so we can attempt to keep up with the ever-growing grass; and, Saturday night is our monthly meeting with speaker Ian Dell'Antonio. All good things for which I am grateful.

Since I haven't thought of something meaningful to write about, I peeked at the long-term weather forecast. Surprise! Rain is forecast for Friday and Saturday; both days we have observing events planned. Let's all hope that the forecasters are wrong and there is better weather ahead.

Until next time,
Linda
401-322-9946
lbergemann@aol.com

New Member

Welcome to Skyscrapers

Evan Siegel
of Providence

Skyscrapers Presentations on YouTube

Many of our recent monthly presentations on Zoom have been recorded and published, with permission, on the Skyscrapers YouTube channel. Go to the URL below to view recent presentations.

https://www.youtube.com/c/SeagraveObservatorySkyscrapersInc

The Skyscraper is published monthly by Skyscrapers, Inc. Meetings are held monthly, usually on the first or second Friday or Saturday of the month. Seagrave Memorial Observatory is open every Saturday night, weather permitting.

Directions
Directions to Seagrave Memorial Observatory are located on the back page of this newsletter.

Submissions
Submissions to The Skyscraper are always welcome. Please submit items for the newsletter no later than **June 15** to Jim Hendrickson at hendrickson.jim@gmail.com.

E-mail subscriptions
To receive The Skyscraper by e-mail, send e-mail with your name and address to hendrickson.jim@gmail.com.. Note that you will no longer receive the newsletter by postal mail.

Skylights: June 2025

by Jim Hendrickson

June brings the shortest nights, with the solstice occurring at 10:42pm on the 20th. The earliest sunrise is at 5:10am on the 14th, and the latest sunset is at 8:24pm on the 27th. In the days in between, astronomical darkness is barely 4.5 hours.

The Sun crosses the galactic equator during the morning of the 21st, and begins a 29-day trek through Gemini about three hours later.

The first evening of June gives us a pairing of the **Moon** and Regulus, with the Moon passing as close at 0.5° to the north of Leo's brightest star at about midnight. The Moon is first quarter at 11:41pm on the 2nd.

The waxing gibbous Moon pairs with Spica, in Virgo, on the 5th-6th, and on the 9th, it joins Antares, in Scorpius.

The Moon is full at 3:44am on the 11th. Known as the **Strawberry Moon** due to its proximity to the strawberry harvest, this month's full Moon is notable for residing in the non-zodiacal constellation Ophiuchus, despite it being 5.8° south of the ecliptic.

The Moon rises at 8:21pm on the 10th, just one minute after sunset. Located between Antares in Scorpius and Alnasl, the star marking the archer's arrowhead as well as the end of the spout of the teapot asterism of Sagittarius, the Moon transits the meridian at 12:37am on the 11th, during which time it will be just 19.4° above the southern horizon (for latitude 41.85°N), making this the most southerly full Moon of the year. But if you miss the Strawberry Moon, next month's Buck Moon is just 0.1° higher. The Moon sets at 4:50am, 20 minutes before sunrise.

Last quarter Moon is at 3:19pm on the 18th, in Pisces.

On the 19th, the waning crescent Moon joins Saturn and Neptune. Saturn is 3.5° to the west-southwest, and Neptune is 2.4° to the southwest of the Moon at 2:00am.

On the 22nd, the 13.4% illuminated waning crescent is 6.0° north of Venus, and on the 23rd, the 6.3% illuminated crescent with Earthshine is 2.3° east of the Pleiades.

The Moon is new at 6:32am on the 25th, marking the start of Lunation 1267. Try for a 14-hour young, 0.5% illuminated Moon about 20 minutes after sunset.

The 3.2% crescent will be easier to find on the following evening, the 26th, when it is positioned midway between Mercury to its left and Pollux to its right.

While it may be somewhat challenging to observe, the following evening, the 27th, has the 8.7% crescent Moon within 3° of the Beehive cluster, M44, in Cancer. Use larger binoculars or a small telescope that provides a wide field of view to best see this pairing.

June presents a favorable opportunity to observe **Mercury** in the evening sky. Having passed superior conjunction at the end of last month, one week into June it becomes visible in the west-northwest about 30 minutes after sunset.

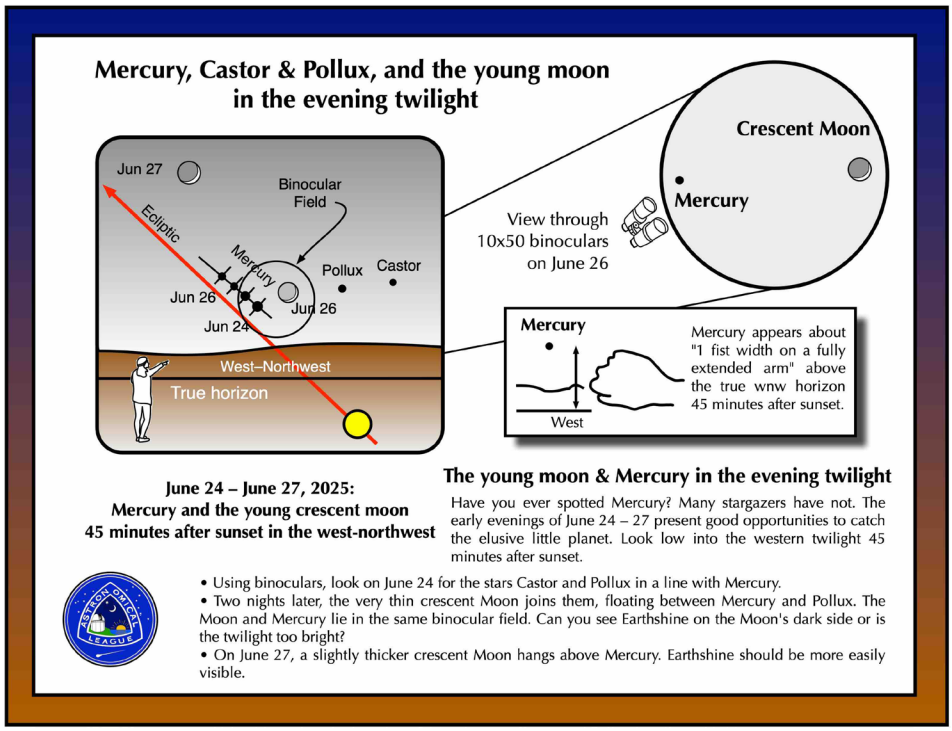
Using Jupiter as a guide, find Mercury positioned horizontally 2.4° towards the north on the 7th. On the 8th, it is a bit closer, at 2° to the north, at about the one-o'clock position, and on the 9th, it appears almost directly above the giant planet, by 3.0°.

Mercury is visible for at least an hour after sunset from the 8th, and 90 minutes after sunset by the 17th.

The latest Mercuryset for this apparition is 10:00pm on the 24th.

On the 26th, the 3.1% illuminated waxing crescent Moon joins Mercury in sending off the last remaining winter stars from the evening sky, Pollux and Castor in Gemini. The four objects are in a nearly straight, horizontal line, and spread equidistantly apart from each other, making an interesting target for binoculars and landscape photographers.

Mercury is 50% illuminated on the 28th,



Events in June

1	17:00	Venus 50% Illuminated
2	00:00	Moon 0.5° N of Regulus
2	23:41	**First Quarter Moon**
6	02:00	Moon 4.4° SE of Spica
10	02:00	Moon 2.7° WSW of Antares
11	03:44	**Full Strawberry Moon**
11	20:39	Jupiter in Gemini
12		Equation of Time = 0
14	05:10	Earliest sunrise
17	22:00	Mars 0.8° NE of Regulus
18	15:19	**Last Quarter Moon**
19	02:00	Moon 3.5° NNE of Saturn
19	02:00	Moon 2.4° NE of Neptune
20	22:42	Solstice
21	08:16	Sun at 0° Galactic Latitude
21	11:00	Sun in Gemini (29d)
22	02:00	Moon 6.0° N of Venus
22	14:36	Saturn Quadrature (90° W)
22	23:00	Saturn Minimum Illuminated Fraction (99.72°)
23	04:00	Moon 2.3° E of M45
23	04:29	Neptune Quadrature (90° W)
24	11:17	Jupiter Conjunction
24	22:00	Latest Mercuryset
25	06:32	**New Moon** (Lunation 1267)
27	20:24	Latest sunset
28	17:00	Mercury 50% Illuminated
29	22:00	Moon 0.4° SSE of Mars

Ephemeris times are in EDT (UTC-4) for Seagrave Observatory (41.845N, 71.590W)

displaying a waning crescent over the following days.

Venus is the dazzlingly bright "Morning Star" in June, rising at least two hours before sunrise. It is at its maximum elongation of 45.9° west of the Sun and is 50% illuminated at the beginning of June. From now through its next superior conjunction early next year, Venus will show a waxing gibbous phase through a telescope.

The waning crescent Moon is 6.0° north of Venus on the 22nd.

Venus is in Pisces through the 9th, will be in Cetus on the morning of the 10th, then moves through Aries for 18 days, when it enters Taurus on the 28th.

Venus ends the month located 8.0° south-southwest of the Pleiades cluster, and 5.0° southwest of Uranus.

The **Red Planet** is sufficiently distant to prevent meaningful observations of its sub-5 arcsecond disk with a telescope, but it remains easily visible to the naked eye and is worth watching as it moves through Leo and spends some time with Leo's brightest star Regulus this month.

Mars is closest to Regulus on the 16th and 17th, when it will be just 0.8° from the class B7 blue star. Binoculars or a small telescope will reveal the striking color contrast of this pair, which match each other in brightness at about magnitude 1.4.

Mars continues to trek eastward, and is joined by the 24.1% waxing crescent Moon on the 29th.

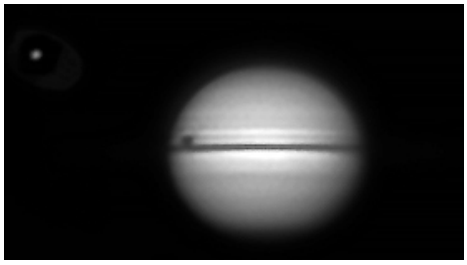
During early June, **Jupiter** can be found low in the west-northwest after sunset. It joins Mercury from the 6th to the10th, passing as close as 2° south of the innermost planet on the 8th.

Although not readily apparent to us, Jupiter enters Gemini on the 11th, and will spend the next year within the celestial twins.

Jupiter leaves our evening sky in June, passing superior conjunction on the 24th. The giant planet will spend 15 hours occulted by the solar disk before emerging on the western side, but it will be difficult for us to observe until the second week of July.

Saturn has emerged from the glow of twilight and is now visible low in the east-southeast in the early morning.

Shadow transits of Saturn's largest moon **Titan**, which began in November 2024 but have all been hidden by daylight, will start to become visible on June 16. The transit begins on Saturn's western limb at about 4:05am, during nautical twilight. It will take about 15 minutes before the full shadow disk becomes apparent. A large telescope and high magnification will work best to reveal this event. Subsequent shadow transits, which occur every 16 days, will become more favorable to eastern North American observers as they will occur in darker skies and when Saturn is higher in elevation.



Shadow transit of Titan on May 15, 2025 by Greg Shanos using a Meade LX200GPS 2500mm fl & VernonScope 1.25x Barlow, ZWO ASI462MM monochrome camera, derotated 5 mins with WinJupos. Additional shadow transits will be visible on June 16, July 2 & 18, August 3 & 19, September 4 & 20, with the last one on October 6.

Saturn is at western quadrature on the 22nd. It is the weeks surrounding quadrature that offer the best views of the three-dimensionality of the Saturnian system due to the maximum offset of the shadow angles. Since Saturn just passed equinox, and the ring plane angle remains at a shallow 4.0° from Earth's perspective, the shadow cast by the rings on Saturn's globe are difficult to observe, but the shadow of the globe on the rings produces a distinct "gap" that is easily visible in any telescope that can produce about 100x magnification.

Also note that Saturn is now in proximity to Neptune, and will be through early 2026. During the second half of June, find the magnitude 7.8 ice giant just 1.0° north of Saturn.

The waxing crescent Moon is 3.5° to the north-northeast on the 19th. Neptune reaches its western quadrature 14 hours after Saturn.

Uranus resides in Taurus, about 4.0° south of the Pleiades cluster, and is too low in twilight to observe until the latter half of the month.

Venus is 5.0° southwest of Uranus on the 30th.

Neptune is in Pisces, and is easy to locate due to its proximity to Saturn. In early June, find distant Neptune 1.6° north-northeast of the ringed planet, and by month's end, the distance closes to within 1.0° due north.

The waning crescent Moon is 2.4° northeast of Neptune on the 19th.

Pluto is well-placed for observation during late evenings in June, but it is located in a fairly remote region of southeastern Capricornus, requiring a bit of a trek to locate unless you use a Go To mount. The magnitude 14.5 dwarf planet is 8.3° south of Dabih (beta Capricorni), 5.3° west-northwest of psi Capricorni, and 1.7° north of NGC 6907, a magnitude 11.1 spiral galaxy that lies 115 million light years away.

Ceres is in Cetus, and shines at magnitude 9.2. To find Ceres, look 8.0° south-southeast of Saturn to find magnitude 4 iota Ceti. From this star, Ceres is located towards the east-northeast, and moving eastward about 0.3° per day. On the 4th, it is 4.2° away, 6.2° on the 10th, 8.0° on the 18th, and 9.6° on the 25th.

Ceres closes to within 3 au after the 19th.

4 **Vesta**, which reached opposition in early May, remains fairly bright at magnitude 5.9, and well-positioned in eastern Virgo, in the vicinity of Syrma (iota Virginis). It is 3.3° east-northeast of the star on June 1. During the second half of June, it remains roughly equidistant from Syrma to its west and the magnitude 10.0 globular cluster NGC 5634 to its east, as it moves southward, ending its retrograde loop. It lies roughly along the line connecting mu Virginis and Syrma on the 21st and 22nd.

Asteroid 2 **Pallas** is inside of 3 au from Earth beginning on June 3, and begins its retrograde loop through Delphinus. It shines at 10th magnitude, and appears to draw a loop around the globular cluster Caldwell 42 (NGC 7006), spending much of the month about 1° from the cluster. During June 5-8, Pallas passes by the Toadstool asterism, appearing to hop over its mushroom cap.

The Stars

June brings us the latest sunsets and the earliest sunrises, and therefore, the shortest periods of darkness. Astronomical dark spans as little as 4.5 hours for observers at our latitude of about 42° north during much of the month.

It may seem counterintuitive, but the last of winter's stars remain visible for a brief time after dusk during June evenings. Castor and Pollux, the twin stars of Gemini, don't completely depart our evening sky until early July.

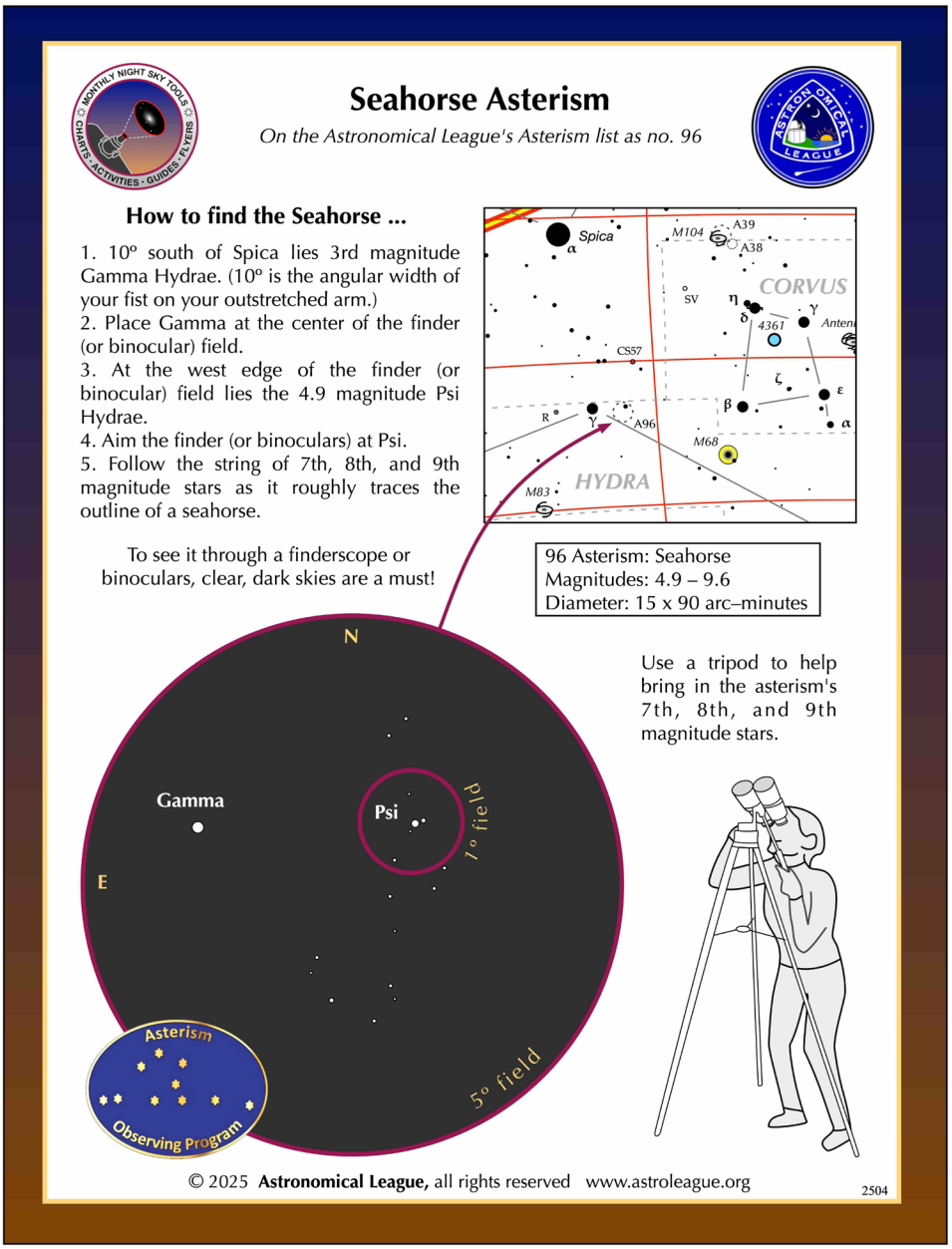
There is also still some time to observe some of spring's best galaxies during June, as Leo, Virgo, Coma Berenices and Ursa Major remain well-positioned during early evening hours in June.

The Blaze Star, T Coronae Borealis, is high in the south during June evenings,

and still well above the horizon early in the mornings. As we approach the next anticipated outburst, which we're still not sure when it will occur, it will be easier to note any changes in its brightness. Make T CrB part of your nightly sky tour by pointing your binoculars or telescope at it. During its quiescent stage, it hovers around 10th magnitude, but when it flares, it will briefly become nearly as bright as Alphecca, the brightest star in the Northern Crown that lies 4.5° to its west.

As the Sun crosses the galactic equator in June, the opposite side of the Milky Way galaxy, the broader and brighter interior sections, are best positioned for Earth's night-facing hemisphere. The core of the Milky Way, along with its host constellations Scorpius and Sagittarius, come into view during June evenings, and is high in the south after midnight. During Summer Milky Way season, devote at least one moonless night to find someplace dark, take nothing but the simplest telescope or just binoculars, don't make a plan, and just cruise the sights of the galaxy.

Finally, while June nights may be notable for their celestial sights, they may be more anticipated for the lights that emerge from the forests and meadows this time of year– the fireflies. Our favorite glowing beetles herald the start of summer, but their silent, rhythmic blinking is not with us for very long, as they're usually active from late June through early July, so go out to see them while they're here; also, the good thing is, we do not need clear skies to enjoy them.



End of Observer's Challenge

by Glenn Chaple

Hi Folks, I'm so sorry to drop this bombshell on you. But I will no longer be writing the Observer's Challenge articles. In recent months, I've been having a hard time getting something out to you on a timely monthly basis. The straw that broke the camel's back came this month when my laptop crashed and I had to send it to the shop for repairs. When I got it back the other day, I was unable to retrieve the Word doc that contained the article for this month's Observer's Challenge. I got a message that said I need to download an app to retrieve my files. I tried a few things to no avail. I've groused to you in the past how annoyed I get when changes to computer format and systems complicate things for me. This time, it was too much. I hope you've enjoyed my work in the past. It's been a honor to share my enthusiasm for backyard astronomy with you.

Clear Skies, Glenn

Observer's Challenge Reports For The Years 2009-2024: All 185 Monthly Reports Are Included For Future Reference Use

https://rogerivester.com/category/observers-challenge-reports-complete/

If you're looking for additional monthly observing challenges, try Phil Harrington's Cosmic Challenge

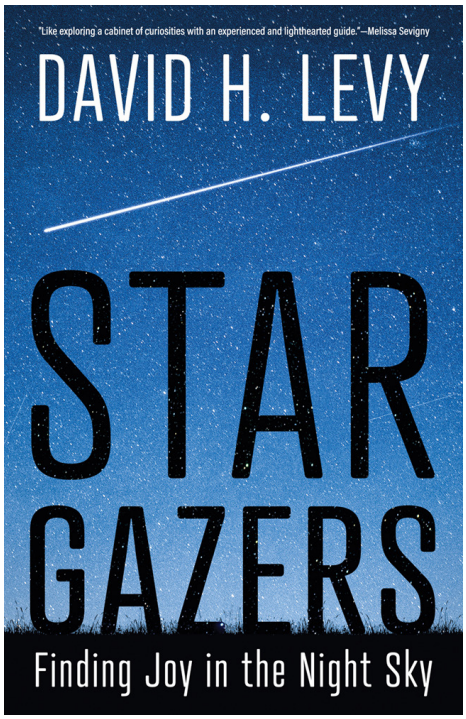
https://www.cloudynights.com/articles/cat/column/phil-harrington-s/

Book Review

Star Gazers: Finding Joy in the Night Sky

by David H. Levy, Tucson: The University of Arizona Press, 2025, ISBN 978-0-8165-5464-5 paperback, $19.95 US

Reviewed by Francine Jackson



Every so often, a book comes along that is not meant to actually teach a topic, but to introduce an author as a living human being who has a love of life, and wants to reveal it to the public. Such is the case with *Star Gazers*, where the author introduces himself, not as a professional astronomer, but a dedicated amateur who has spent most of his life enjoying the beauty of the sky.

Levy's love of the sky apparently began with a streak of light in the sky when he was very young, what years later he would identify as an Omicron Draconid meteor. From that moment, he never stopped looking up. Although he never went on to become a professional scientist, instead becoming proficient in Literature, Levy became known for his astronomy writing and his telescopes. Each instrument had a unique name, and brought him closer to the stars.

Star Gazers, rather than a book about the sky, per se, is more a memoir of Levy's life, detailing his many journeys to observe solar eclipses, to tour observatories, and, of course, to discover comets. Of them all, his best known is one found with husband and wife Gene and Carolyn Shoemaker, their ninth, that they discovered soon before it was to impact the planet Jupiter. The frenzy with which this discovery caused became one of astronomy's most public moments.

This book introduces one of the most prolific astronomy writers to his life, both as a sky watcher, and as a person, who brings himself to the reader as someone everyone would want to know. From his early life, to his life with Wendee – and the sadness of her fatal illness – all is encapsulated in this very formative book. Also, as a part of his other love, literature, snippets of relevant historical writing is placed throughout.

As each section is a separate sector of his life, the reader can pick up and read any part of this book, and learn how he became the famous observer we all know. In addition, you, the reader, as the author has, may find joy in the night sky This is a book for everyone to read and enjoy.

June Night Sky Notes:

Seasons of the Solar System

by Kat Troche

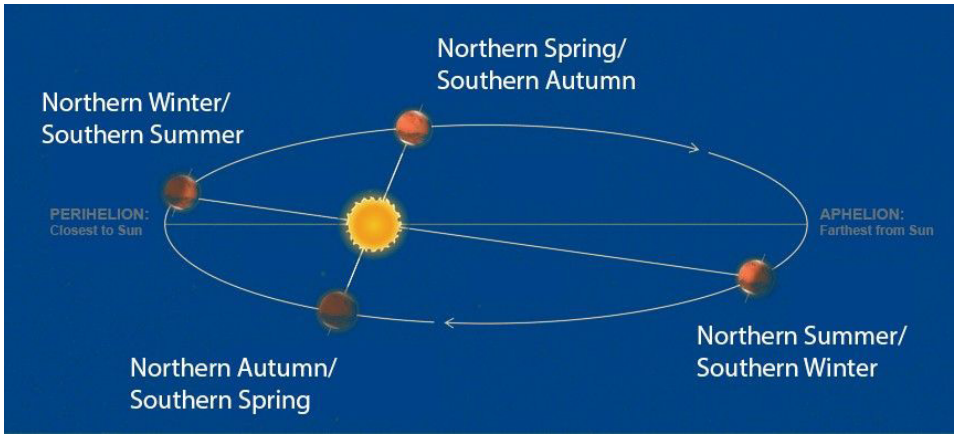
Here on Earth, we undergo a changing of seasons every three months. But what about the rest of the Solar System? What does a sunny day on Mars look like? How long would a winter on Neptune be? Let's take a tour of some other planets and ask ourselves what seasons might look like there.

Martian Autumn

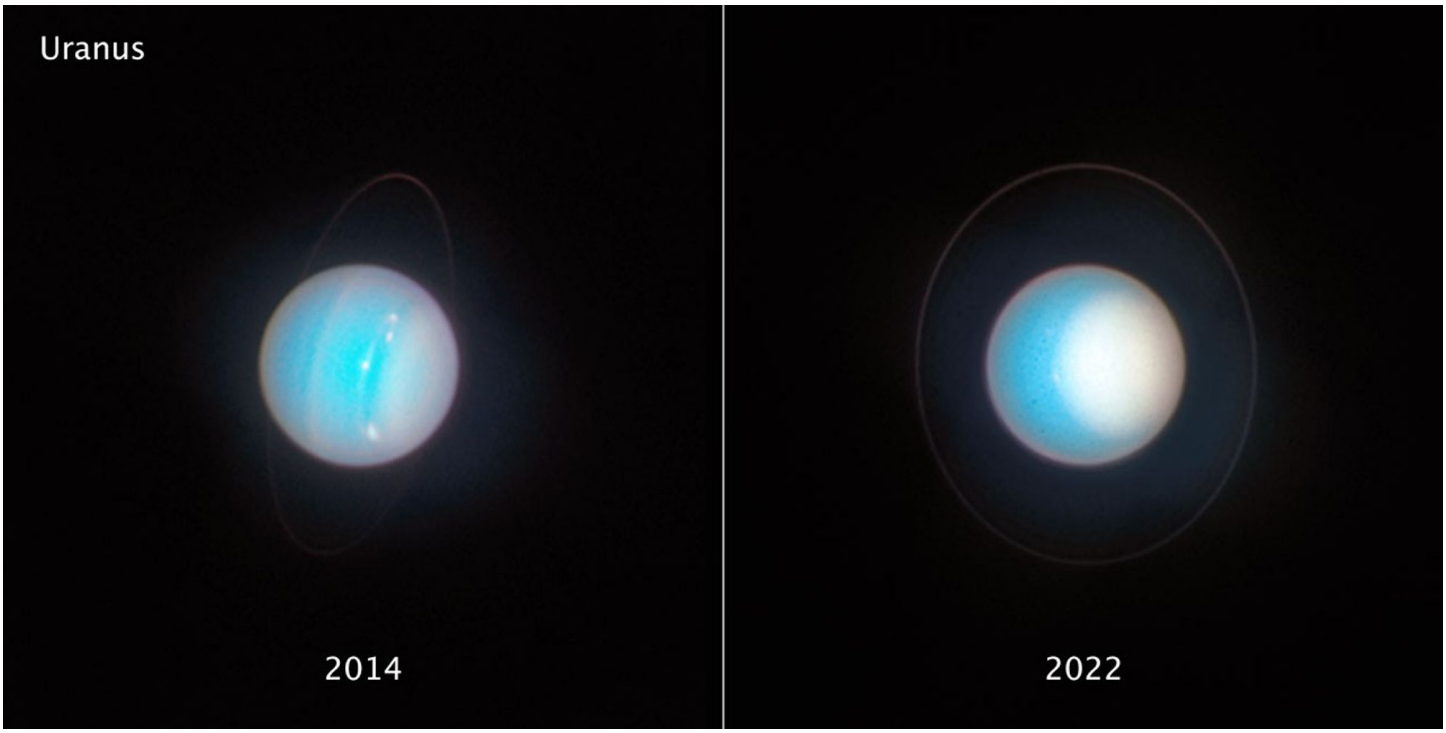
Although Mars and Earth have nearly identical axial tilts, a year on Mars lasts 687 Earth days (nearly 2 Earth years) due to its average distance of 142 million miles from the Sun, making it late autumn on the red planet. This distance and a thin atmosphere make it less than perfect sweater weather. A recent weather report from Gale Crater boasted a high of -18 degrees Fahrenheit for the week of May 20, 2025.

Seven Years of Summer

Saturn has a 27-degree tilt, very similar to the 25-degree tilt of Mars and the 23-degree tilt of Earth. But that is where the similarities end. With a 29-year orbit, a single season on the ringed planet lasts seven years. While we can't experience a Saturnian season, we can observe a ring plane crossing here on Earth instead. The most recent plane crossing took place in March 2025, allowing us to see Saturn's rings 'disappear' from view.



An artist's rendition of Mars' orbit around the Sun, and its seasons. Credit: NASA/JPL-Caltech



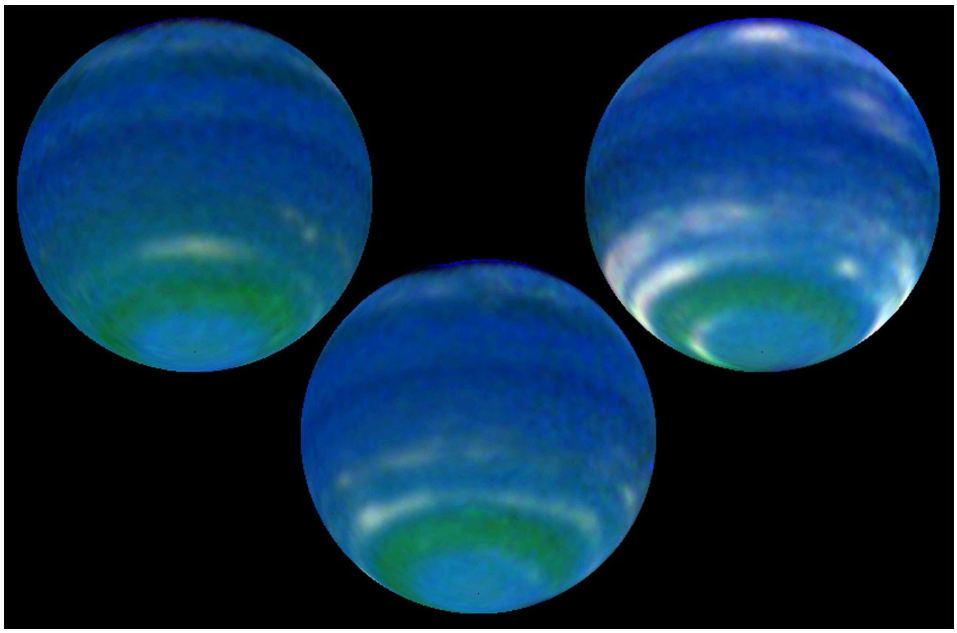
Uranus rolls on its side with an 84-year orbit and a tilt just 8° off its orbital plane. Its odd tilt may be from a lost moon or giant impacts. Each pole gets 42 years of sunlight or darkness. Voyager 2 saw the south pole lit; now Hubble sees the north pole facing the Sun. Credit: NASA, ESA, STScI, Amy Simon (NASA-GSFC), Michael Wong (UC Berkeley); Image Processing: Joseph DePasquale (STScI)

A Lifetime of Spring

Finally, Even further away from the Sun, each season on Neptune lasts over 40 years. Although changes are slower and less dramatic than on Earth, scientists have observed seasonal activity in Neptune's atmosphere. These images were taken between 1996 and 2002 with the Hubble Space Telescope, with brightness in the southern hemisphere indicating seasonal change.

As we welcome summer here on Earth, you can build a Suntrack model that helps demonstrate the path the Sun takes through the sky during the seasons. You can find even more fun activities and resources like this model on NASA's Wavelength and Energy activity.

This article is distributed by NASA's Night Sky Network (NSN). The NSN program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.gov to find local clubs, events, and more!

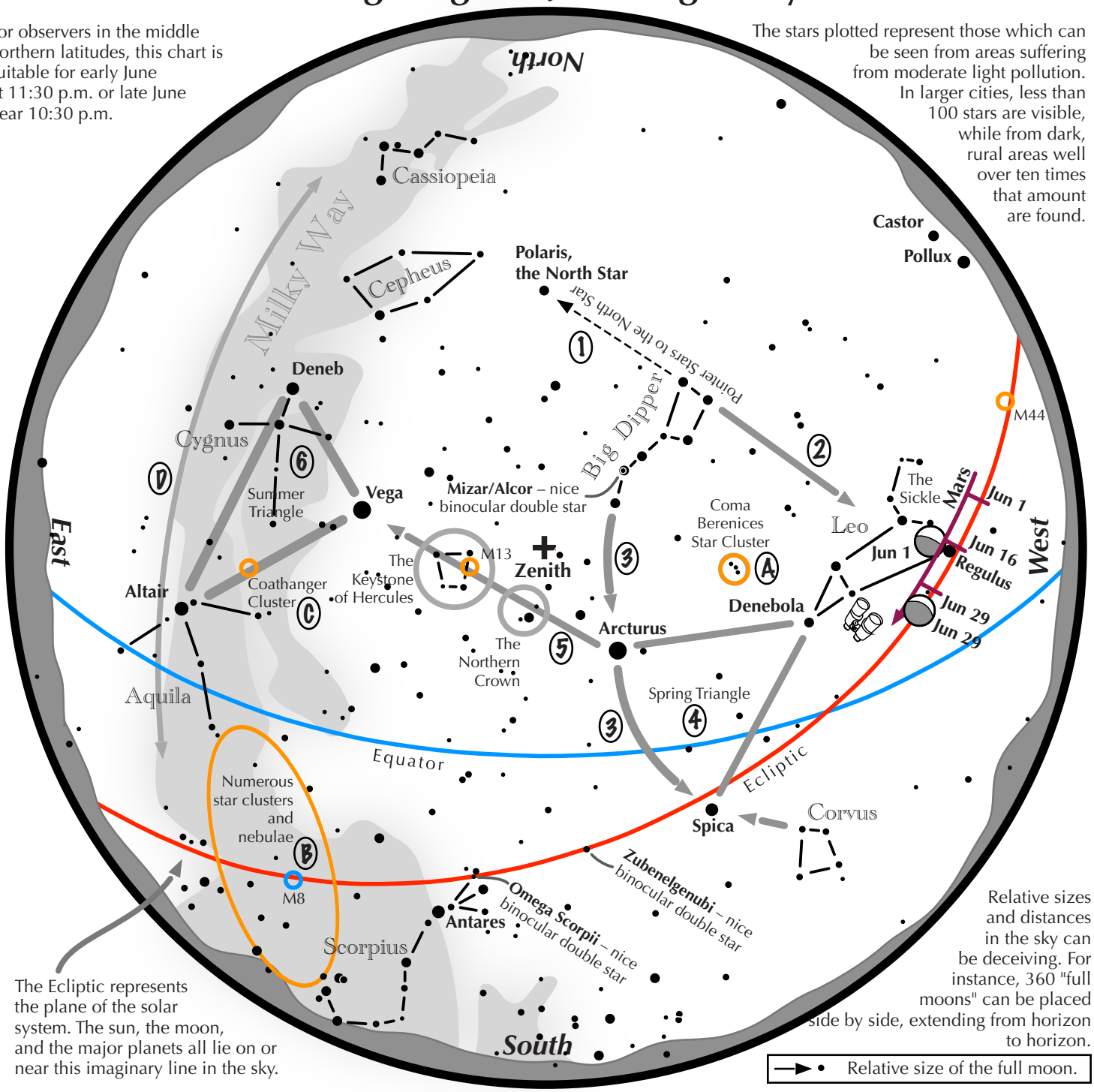


NASA Hubble Space Telescope observations in August 2002 show that Neptune's brightness has increased significantly since 1996. The rise is due to an increase in the amount of clouds observed in the planet's southern hemisphere. Credit: NASA, L. Sromovsky, and P. Fry (University of Wisconsin-Madison)

Navigating the June Night Sky

For observers in the middle northern latitudes, this chart is suitable for early June at 11:30 p.m. or late June near 10:30 p.m.

The stars plotted represent those which can be seen from areas suffering from moderate light pollution. In larger cities, less than 100 stars are visible, while from dark, rural areas well over ten times that amount are found.



The Ecliptic represents the plane of the solar system. The sun, the moon, and the major planets all lie on or near this imaginary line in the sky.

Relative sizes and distances in the sky can be deceiving. For instance, 360 "full moons" can be placed side by side, extending from horizon to horizon.

Relative size of the full moon.

Navigating the June night sky: Simply start with what you know or with what you can easily find.

1. Extend a line north from the two stars at the tip of the Big Dipper's bowl. It passes by Polaris, the North Star.
2. Draw another line in the opposite direction. It strikes the constellation Leo high in the west.
3. Follow the arc of the Dipper's handle. It first intersects Arcturus, the brightest star in the June evening sky, then Spica.
4. Arcturus, Spica, and Denebola form the Spring Triangle, a large equilateral triangle.
5. To the northeast of Arcturus shines another star of the same brightness, Vega. Draw a line from Arcturus to Vega. It first meets "The Northern Crown," then the "Keystone of Hercules." A dark sky is needed to see these two dim stellar configurations.
6. High in the east are the three bright stars of the Summer Triangle: Vega, Altair, and Deneb.

Binocular Highlights

A: Between Denebola and the tip of the Big Dipper's handle, lie the stars of the Coma Berenices Star Cluster.
B: Between the bright stars of Antares and Altair, hides an area containing many star clusters and nebulae.
C: 40% of the way between Altair and Vega, twinkles the "Coathanger," a group of stars outlining a coathanger.
D. Sweep along the Milky Way for an astounding number of faint glows and dark bays.

The Sun, Moon & Planets in June

This table contains the ephemeris of the objects in the Solar System for each Saturday night in June 2025. Times in Eastern Daylight Time (UTC-4). Ephemeris times are for Seagrave Observatory (41.845N, 71.590W).

Object	Date	RA	Dec	Const	Mag	Size	Elong	Phase(%)	Dist(S)	Dist(E)	Rise	Transit	Set
Sun	**7**	5 01.4	22 45.2	Tau	-26.8	1891.3	-	-	-	1.015	05:11	12:45	20:19
	14	5 30.4	23 15.7	Tau	-26.8	1889.8	-	-	-	1.016	05:10	12:46	20:23
	21	5 59.5	23 26.2	Tau	-26.8	1888.7	-	-	-	1.016	05:11	12:48	20:25
	28	6 28.6	23 16.4	Gem	-26.8	1888.0	-	-	-	1.017	05:13	12:49	20:25
Moon	**7**	13 44.0	-14 29.6	Vir	-12.3	1784.7	132° E	84	-	-	17:10	22:11	03:05
	14	19 50.4	-25 57.3	Sgr	-12.5	1819.3	149° W	93	-	-	22:49	03:19	07:54
	21	1 42.5	13 04.2	Psc	-11.3	1941.0	61° W	26	-	-	01:47	08:59	16:26
	28	8 51.7	20 19.7	Cnc	-10.0	1911.7	34° E	9	-	-	08:32	15:56	23:05
Mercury	**7**	5 42.2	25 01.0	Tau	-1.4	5.3	10° E	92	0.320	1.272	05:45	13:29	21:14
	14	6 43.2	25 05.8	Gem	-0.7	5.7	17° E	78	0.355	1.174	06:18	14:02	21:45
	21	7 34.9	23 28.3	Gem	-0.2	6.4	22° E	64	0.395	1.055	06:50	14:25	21:59
	28	8 16.1	20 49.9	Cnc	0.2	7.2	25° E	52	0.430	0.935	07:15	14:37	21:59
Venus	**7**	1 58.1	9 29.0	Psc	-4.2	22.7	46° W	53	0.728	0.747	03:04	09:41	16:20
	14	2 25.6	11 40.2	Ari	-4.2	21.1	45° W	56	0.728	0.803	02:55	09:41	16:28
	21	2 54.3	13 49.7	Ari	-4.1	19.7	45° W	59	0.728	0.859	02:48	09:43	16:38
	28	3 24.1	15 52.5	Ari	-4.1	18.5	44° W	62	0.728	0.913	02:42	09:45	16:48
Mars	**7**	9 48.2	14 42.4	Leo	1.3	5.4	68° E	91	1.653	1.744	10:33	17:30	00:26
	14	10 03.0	13 18.0	Leo	1.4	5.2	65° E	92	1.649	1.799	10:26	17:17	00:08
	21	10 17.8	11 49.3	Leo	1.4	5.1	62° E	92	1.645	1.853	10:19	17:04	23:49
	28	10 32.8	10 16.6	Leo	1.5	4.9	59° E	92	1.641	1.904	10:12	16:52	23:31
1 Ceres	**7**	0 39.6	-6 33.7	Cet	9.2	0.4	70° W	97	2.970	3.153	02:43	08:21	14:00
	14	0 47.0	-6 06.3	Cet	9.2	0.4	75° W	97	2.968	3.063	02:21	08:01	13:42
	21	0 53.8	-5 43.3	Cet	9.1	0.4	80° W	97	2.967	2.970	01:59	07:40	13:22
	28	1 00.2	-5 25.3	Cet	9.0	0.4	85° W	97	2.965	2.876	01:36	07:19	13:02
Jupiter	**7**	5 57.2	23 16.1	Tau	-1.8	32.1	13° E	100	5.136	6.121	06:05	13:38	21:12
	14	6 04.1	23 16.7	Gem	-1.8	32.0	8° E	100	5.139	6.144	05:44	13:18	20:51
	21	6 11.0	23 16.1	Gem	-1.8	32.0	3° E	100	5.141	6.156	05:24	12:57	20:30
	28	6 18.0	23 14.4	Gem	-1.8	31.9	2° W	100	5.144	6.159	05:03	12:36	20:10
Saturn	**7**	0 06.5	-1 36.8	Psc	1.1	16.9	76° W	100	9.583	9.783	01:52	07:48	13:44
	14	0 07.9	-1 29.6	Psc	1.1	17.1	82° W	100	9.580	9.669	01:25	07:22	13:19
	21	0 09.1	-1 24.3	Psc	1.0	17.3	88° W	100	9.578	9.553	00:58	06:55	12:52
	28	0 09.9	-1 20.8	Psc	1.0	17.5	95° W	100	9.576	9.437	00:31	06:29	12:26
Uranus	**7**	3 45.0	19 36.5	Tau	5.8	3.4	18° W	100	19.526	20.489	04:09	11:26	18:43
	14	3 46.6	19 41.6	Tau	5.8	3.4	24° W	100	19.525	20.446	03:43	11:00	18:17
	21	3 48.2	19 46.5	Tau	5.8	3.5	31° W	100	19.524	20.391	03:17	10:34	17:51
	28	3 49.6	19 51.1	Tau	5.8	3.5	37° W	100	19.523	20.325	02:50	10:08	17:26
Neptune	**7**	0 09.3	-0 24.9	Psc	7.9	2.3	75° W	100	29.890	30.144	01:50	07:51	13:51
	14	0 09.6	-0 23.0	Psc	7.9	2.3	81° W	100	29.890	30.029	01:23	07:23	13:24
	21	0 09.9	-0 21.7	Psc	7.9	2.3	88° W	100	29.890	29.912	00:55	06:56	12:57
	28	0 10.0	-0 21.1	Psc	7.9	2.3	94° W	100	29.890	29.794	00:28	06:29	12:30
Pluto	**7**	20 27.2	-22 54.2	Cap	14.5	0.2	133° W	100	35.279	34.581	23:35	04:09	08:43
	14	20 26.8	-22 56.8	Cap	14.5	0.2	140° W	100	35.284	34.504	23:08	03:41	08:15
	21	20 26.3	-22 59.6	Cap	14.4	0.2	146° W	100	35.289	34.438	22:40	03:13	07:47
	28	20 25.7	-23 02.5	Cap	14.4	0.2	153° W	100	35.294	34.384	22:12	02:45	07:18

Star Party Reports

Starry, Starry Nite at Chase Farm
Thursday, May 1, 2025
(rescheduled from April 11)
Weather: Light haze to mostly clear, 50° calm
Participants: Francine Jackson, Jim Hendrickson, John Kocur
Attendees: 6
Observed: Moon, Jupiter, Mars & M44
Photos: https://flic.kr/s/aHBqjCdbBN
Report by Francine Jackson

Up until May 1st, this year has been one of weather not conducive to observing; however, on May 1st and 2nd, we were finally able to dust off our telescopes and head outside.

May 1st was the rescheduled night of Starry, Starry Night at Chase Farm, Lincoln, from April 11. It was touch and go until the mid afternoon, but, fortunately we did go through with it, as the sky became totally clear.

Sadly, as often happens, only a handful of those who had signed up for the earlier program came, but those who did were all very enthusiastic to learn about the sky. At first, Francine gave a short PowerPoint presentation on visible constellations and planets, then ended with several slides on the problem of light pollution, and how it affects us all.

Following that the night was dark enough to venture outside where Jim Hendrickson, John Kocer and Francine had telescopes waiting. Francine concentrated on the Moon, and John and Jim showed Jupiter and Mars. Jim also showed Mars close to the open cluster M44, the Beehive, in the same field of view, a nice touch.

The night became quite cold, so the public left fairly early, after which we broke down our telescopes, just in time to see the clouds rushing in. Though it was a bit disappointing to only have a small number of the public show, it was very nice to have the clouds hold off until everyone was leaving.

River Bend Farm, Uxbridge MA
Friday, May 2, 2025
Weather: Light haze to mostly clear, 70° calm
Participants: Francine Jackson, Jim Hendrickson
Attendees: 15
Observed: Moon, Jupiter, Mars & M44
Photos: https://flic.kr/s/aHBqjCd4Cz
Report by Francine Jackson

Nights at River Bend State Park in Uxbridge very often cloud up, and for much of the day, Friday, May 2nd, this was thought to be no exception. However, ever the optimist, Jim Hendrickson informed the ranger on duty that we were coming, and the sky surprisingly cooperated. Because the weather was so iffy, only Jim and Francine came out, but so did over a dozen members of the public, who were very happy to see the Moon and the planets.

One member of the public brought a spotting scope, and set it up near us, so we did have the advantage of a third instrument. As there were several families who came, the children, who were very well behaved, enjoyed looking through the telescopes as much as their parents did.

This was the second public night in Uxbridge, as the first was, as usual, cloudy, but there are still six scheduled nights this year. The next is Friday, June 6. If anyone is free and would like to join us, please do. It's a nice observing spot, right by a pond, and often the sounds of night can be very relaxing.

Seagrave Observatory Night
Saturday, May 10, 2025
Weather: Clear, 60° calm
Participants: Bob Horton, Jay Baccala, Francine Jackson, Jim Hendrickson
Attendees: 10
Observed: Moon, Mars, M44, M64, M104, NGC 4656, M81, M82, International Space Station
Photos: https://flic.kr/s/aHBqjCeUZ9
Report by Jim Hendrickson

Our first open night starting at the summer hours of 9-11pm to accommodate late darkness occurred on Saturday, May 10, 2025. Clear skies prevailed throughout the session and the evening was brightly illuminated by the 97.6% waxing gibbous Moon.

Bob Horton operated the Clark telescope, giving views of the Moon, and later, Mars.

Jay Baccala operated the 12-inch Meade scope in conjunction with a Seestar S50 and viewed a variety of objects, including globular clusters M3, M5, and galaxies M51, M81 & M82.

Jim Hendrickson set up a Seestar S50 in the front yard and pointed to M67, open cluster in Cancer, NGC 4565, edge-on spiral galaxy in Coma Berenices, M64, spiral galaxy in Coma Berenices, M104, spiral galaxy in Virgo, and the Moon.

Francine Jackson greeted visitors, shared her knowledge of the sky, and gathered everyone to view a very favorable pass of the International Space Station that was observed at 9:36pm.

About ten guests came to observe with us, including a local couple who are friends of Skyscrapers member Terry Turner. They expressed interest in returning and becoming members.

Events canceled due to unfavorable weather: Moonrise on the Seekonk, April 12; North Scituate Library, May 9; Seagrave Observatory Nights, May 3, 17, 24 & 31

Double rainbow over Seagrave Observatory before the May 3, 2025 meeting by Steve Hubbard.

Mars enters the Beehive
by Jim Hendrickson

Taken on consecutive outreach events on May 1 & 2 with 80mm refractor and cell phone camera through a 40mm eyepiece.

Galaxy M108 & Owl Nebula M97
in Ursa Major by Jeff Padell

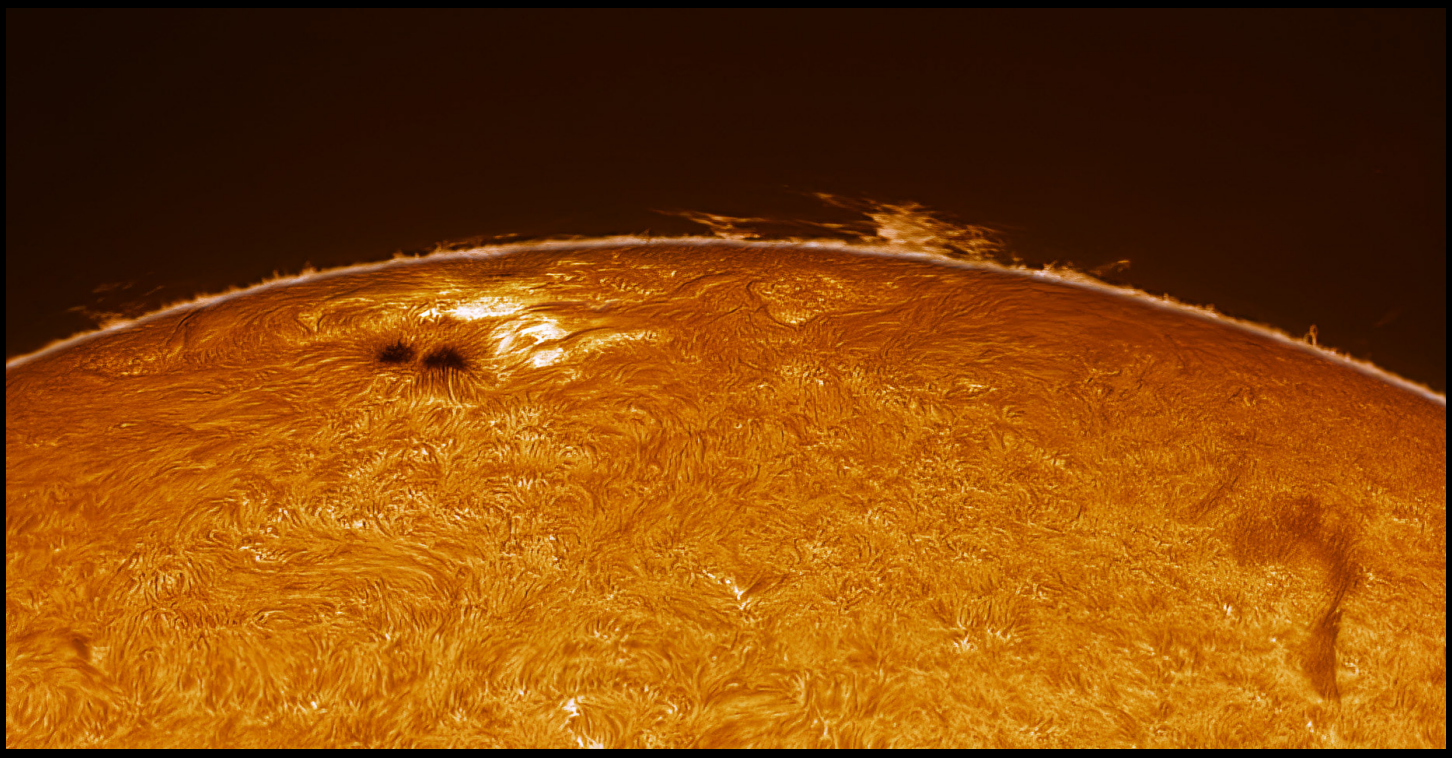
3 hour mosaic in Alt/Az with the S50 of the Owl M97 and a galaxy M108, only processed in the Seestar S50.

Solar Activity by Conrad Cardano

This was a 2 hour video shoot (https://flic.kr/p/2r8GEL3) of a solar prominence on the afternoon of May 12, 2025. It went from 1pm to 3 pm. I took a 1000 frame video of the sun every 5 minutes for two hours. There was a total of 100 gigabytes of data.

Scope: WO 71mm f/5.9 apo, Camera: ASI174MM, Quark Chromosphere, Stacked with Autostakkert, Enhanced with Astro Art.

Notice the solar eruption on the left hand side.



Largest Sunspot of 2025 by Jeff Padell

I managed to image the monster sunspot AR4079 on April 29th before the clouds moved in for the week!

June 2025 Volume 63

STARRY SCOOP

Editor: Kaitlynn Goulette

WHAT'S UP

The "Starry Scoop" recently reached its five-year anniversary and to celebrate reaching this milestone, I have launched a new radio show titled "Starry Scoop Live." To watch new episodes, find me on Facebook, Instagram, YouTube, or contact me at starryscoop@gmail.com. Thank you to all my readers for the support I've received throughout the years.

The June Solstice occurs this month on the 20th and signifies the beginning of summer for those in the Northern Hemisphere. The blazing sun reaches its most northern position directly over the Tropic of Cancer and slowly begins to wander southward as our days grow shorter and shorter.

This month, the planets are scattered throughout the morning and evening sky. After the sun dips below the horizon, ruddy-colored Mars can be found in the constellation Leo the Lion, near the first-magnitude star Regulus. As the month progresses, Mercury rises out of the sun's twilight glow but remains a difficult target, reaching only about eight degrees above the horizon. In the early morning hours, Saturn and Venus dominate the heavens. Saturn rises around 1am and climbs to about 30 degrees above the horizon before the sun brightens the sky. The crescent moon visits the "Ringed Planet" on the 18th and 19th. Venus, located lower in the sky, is visited by the Moon on the 21st and 22nd.

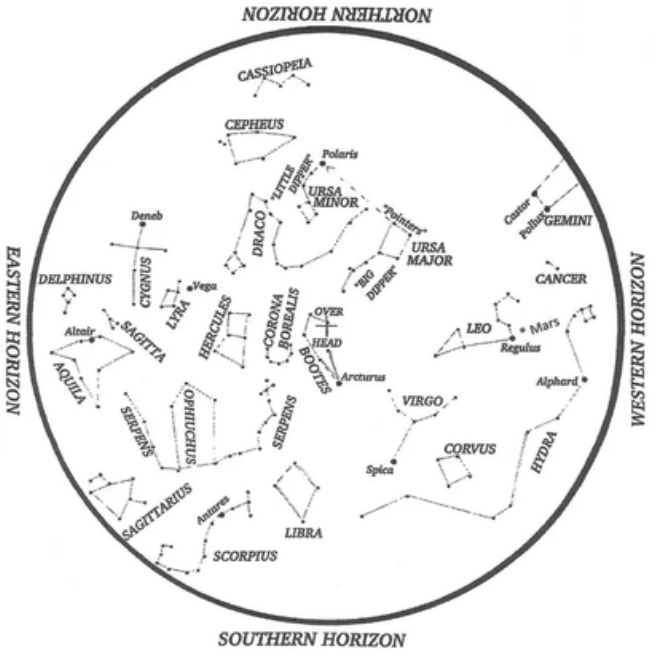
The warm weather of the summer months brings the seasonal summer stars that are now beginning to rise in the east. Ophiuchus, the unofficial 13th zodiacal constellation, spans a large portion of the sky and is the host of countless globular clusters. Nearby lies the Summer Triangle, peaking over the tree line and traversing higher each day. This asterism includes three stars, Vega, Deneb, and Altair, which are each the brightest in their respective constellations.

JUNE'S SKY

11: Full Moon

21: June Solstice

25: New Moon



Credit: Roger B. Culver

Hold star map above your head and align with compass points.

OBSERVATIONS

I recently had an opportunity to visit the Arunah Hill Nature and Science Center for their “Smart Telescope Extravaganza” event. Arunah Hill, located in Cummington, MA, is far from major light pollution and hosts events and programs using its large array of telescopes and the wealth of knowledge that its members possess.

Rocket competitions are always a highlight of any Arunah Hill event. Attendees build model rockets, adapting them to the day’s weather and their own aesthetic, and later launch them into the sky. The rocket launchers compete to land their rocket closest to the selected target, oftentimes positioned far from cars or telescopes.

After the rocket launches, a variety of presentations on astrophotography using smart telescopes were given. Participants learned the basics of post-processing using the platform PixInsight and also discovered the wide abilities of smart telescopes. Ed Faits and Bob Donohue gave great presentations and did an excellent job of making the complicated workings of astrophotography and post-processing within reach of beginners.

After darkness overtook the skies, guests were excited to see the smart telescopes in action. Unfortunately, the weather in New England doesn’t always cooperate with stargazers and clouds blanketed the sky throughout the entire night Although the heavens remained invisible, the event was a success and brought together astronomers from across the region.

The purpose of the Starry Scoop is to communicate current astronomy and space events. If you want to share your observations or get digital copies of the Starry Scoop, contact starryscoop@gmail.com. The Starry Scoop is now on Facebook and Instagram. Clear skies!

OBJECT OF THE MONTH

The featured object for the month of June is the Rho Ophiuchi Nebula, designated IC 4603. This 5th magnitude stellar nursery, located in the southwest corner of the Ophiuchus constellation, is one of the closest star-forming regions to Earth. It flaunts an impressive display of colorful nebulosity and is crossed by bands of dark nebulae, which makes it a popular target for astrophotographers.

Find this object just north of the bright star Antares. Under dark skies, Rho Ophiuchi can be spotted with binoculars, but a telescope brings out more detail. Good luck!

Rho Ophiuchi Nebula
Photo Credit: NASA, ESA, CSA, STScI, K. Pontoppidan (STScI), A. Pagan (STScI)

Arunah Hill during its “Smart Telescope Extravaganza” event.
Photo Credit: Kaitlynn Goulette

Directions to Seagrave Memorial Observatory

www.theSkyscrapers.org

From the Providence area:
Take Rt. 6 West to Interstate 295 in Johnston and proceed west on Rt. 6 to Scituate. In Scituate bear right off Rt. 6 onto Rt. 101. Turn right onto Rt. 116 North. Peeptoad Road is the first left off Rt. 116.

From Coventry/West Warwick area:
Take Rt. 116 North. Peeptoad Road is the first left after crossing Rt. 101.

From Southern Rhode Island:
Take Interstate 95 North. Exit onto Interstate 295 North in Warwick (left exit.) Exit to Rt. 6 West in Johnston. Bear right off Rt. 6 onto Rt. 101. Turn right on Rt. 116. Peeptoad Road is the first left off Rt. 116.

From Northern Rhode Island:
Take Rt. 116 South. Follow Rt. 116 thru Greenville. Turn left at Knight's Farm intersection (Rt. 116 turns left) and follow Rt. 116. Watch for Peeptoad Road on the right.

From Connecticut:
• Take Rt. 44 East to Greenville and turn right on Rt. 116 South. Turn left at Knight's Farm intersection (Rt. 116 turn left) and follow Rt. 116. Watch for Peeptoad Road on the right.
• or • Take Rt. 6 East toward Rhode Island; bear left on Rt. 101 East and continue to intersection with Rt. 116. Turn left; Peeptoad Road is the first left off Rt. 116.

From Massachusetts:
Take Interstate 295 South (off Interstate 95 in Attleboro). Exit onto Rt. 6 West in Johnston. Bear right off Rt. 6 onto Rt. 101. Turn right on Rt. 116. Peeptoad Road is the first left off Rt. 116.

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