# THE ASTRONEWS

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May 2026

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## A word from your editor by Sapavith 'Ort' Vanapruks

We are moving toward the end of the 2025 -2026 school year. The request for a school star party will be less and less. There will be other organizations like Boy Scouts or Girl Scouts requests that would come in. There was one school event in April at Ma'e Ma'e Elementary School. Your involvement will help with bringing in more club memberships and promoting the club.

On Saturday, 4/11/2026, HAS members, Tom, Steven, & I, were part of the Annual Onizuka Day of Exploration (ODE). Due to weather, many vendors could not make it. Sky was cooperated enough for us to show Sun & Moon. We have quite a few visitors.

We helped Bishop Museum's Star Tonight on Friday, 4/17/2026. There was only 1 group attending The Stars Tonight. We had Chris, Andy, Hiroko, & I there. We were only able to show top of a building.

During ODE 2026, a teacher (Ceci) from Ma'ema'e Elementary School asked if it was possible to do a quick turn around Star Party. We were able to set it up on Wednesday, 4/22/2026. There were 64 students and parents. We were able to do a classroom session with video and activity of Moon Phases

*(Continued on page 7)*

## Inside this issue:



### Upcoming Events:

- The next Board meeting is Sun., May. 3rd 3:30 PM. (**Zoom Meeting**)
- The next meeting is on Tue., May. 5th at the Bishop Museum at 7:30 PM. —**Hybrid (In person and Zoom) Meeting**
- Bishop Museum's planetarium show "Star Tonight" is every 3rd Friday, 5/15/2026, of the month at 7:00 PM.

# President's Message
# May 2026

We all rely on the news media to learn about what's happening in the world, but often, when I'm present at, involved with, or knowledgeable about an event, I'm left with the feeling that the reporters didn't quite get it right. This is certainly true of some of the reporting I heard about the recent Artemis 2 mission to the Moon. The mission was quite successful and deserves to be lauded as an important step toward future lunar exploration by returning astronauts to the vicinity of the Moon for the first time in over 50 years, but some of its accomplishments were overstated.

This was primarily a technology demonstration mission, not a science mission. This rocket and capsule were being tested with a human crew for the first time, and the system passed the test. In this way, it was similar to the Apollo 8 mission that orbited the Moon in December of 1968. While the Artemis 2 astronauts were trained to take more active control of the spacecraft in an emergency, none arose, and they were primarily just passengers.

The most jarring error in reporting that I heard claimed that the astronauts would be seeing the lunar far side with human eyes for the first time. This was far from true, but it was more a misstatement than an outright falsehood. All of the Apollo lunar missions provided views of the far side. With the exception of the damaged Apollo 13 mission, all the Apollo missions went into orbit around the Moon and provided multiple opportunities to view portions of the farside. However, all the missions were at different phases of the Moon. Missions typically landed during local mid-morning so that the sun angle would provide good visibility and the ground temperature would not be at its maximum.

The Artemis 2 mission was the first to fly by the farside when the Orientale Basin area was in daylight, so that is the kernel of truth that gave rise to the misstatements. The best antidote to misinformation is possessing the correct information, so I hope this has helped


**Hawaiian Astronomical Society**
**P.O. Box 17671**
**Honolulu, Hawaii 96817**





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# Observer's Notebook—May 2026 by Ort

## Planets Close to the Moon
**Times are Hawaii Standard Time**

May 12, 21h, Moon 3.7° NNW of Neptune; 49° from Sun in morning sky; magnitudes -8.2 and 7.9
May 13, 8h, Moon 5.1° NNW of Saturn; 43° from Sun in morning sky; magnitudes -7.8 and 0.9
May 14, 12h, Moon 4.7° NNW of Mars; 27° from Sun in morning sky; magnitudes -6.7 and 1.2
May 16, 16h, Moon 4.4° N of Mercury; 6° and 3° from Sun in evening sky; magnitudes -4.7 and -2.0
May 16, 19h, Moon 5.2° N of Uranus; 7° and 5° from Sun in evening sky; magnitudes -4.8 and 5.8
May 16, 19h, Moon 5.2° N of Uranus; 7° and 5° from Sun in evening sky; magnitudes -4.8 and 5.8
May 18, 17h, Moon 2.95° N of Venus; 33° and 32° from Sun in evening sky; magnitudes -7.1 and -4.0
May 20, 5h, Moon 3.0° NNE of Jupiter; 53° and 52° from Sun in evening sky; magnitudes -8.5 and -1.9

## Other Events of Interest
**Times are Hawaii Standard Time**

May 5, 12h, Mars and Neptune at heliocentric conjunction; longitude 2.1°
May 5, 14h, Eta Aquarid meteors; ZHR 50; 4 days before Last Quarter Moon
May 12, 7h, Mars and Saturn at heliocentric conjunction; longitude 6.4°
May 16, 15h, Moon, Mercury, and the Pleiades within circle of diameter 4.40°; only about 5° from the Sun; magnitudes -5, -2, 3
May 16, 15h, Mercury, Uranus, and the Pleiades within circle of diameter 4.30°; only about 5° from the Sun; magnitudes -2, 6, 3
May 16, 18h, Moon, Mercury, and Uranus within circle of diameter 5.16°; only about 5° from the Sun; magnitudes -5, -2, 6
May 18, 19h, Moon, Venus, and M35 cluster within circle of diameter 3.69°; about 33° from the Sun in the evening sky; magnitudes -7, -4, 5

## Planets in May

### ☿ Mercury
will soon pass behind the Sun. From Honolulu, it is not readily observable since it is very close to the Sun, at a separation of only 1° from it.

### ♀ Venus
will soon pass behind the Sun. From Honolulu, however, it will become visible at around 19:16 (HST), 25° above your western horizon, as dusk fades to darkness

### ♂ Mars
recently passed behind the Sun at solar conjunction. From Honolulu, it is not observable – it will reach its highest point in the sky during daytime and is no higher than 11° above the horizon at dawn.

### ♃ Jupiter
recently passed behind the Sun at solar conjunction. From Honolulu, however, it will become visible at around 19:16 (HST), 50° above your western horizon, as dusk fades to darkness.

### ♄ Saturn
– recently passed behind the Sun at solar conjunction. From Honolulu, however, it is visible in the dawn sky, rising at 03:33 (HST) – 2 hours and 17 minutes before the Sun.

### ♅ Uranus
recently passed behind the Sun at solar conjunction. From Honolulu, it is not readily observable since it is very close to the Sun, at a separation of only 6° from it.

### ♆ Neptune
recently passed behind the Sun at solar conjunction. From Honolulu, however, it is visible in the dawn sky, rising at 03:08 (HST) – 2 hours and 42 minutes before the Sun.

### ♇ Pluto (Dwarf Planet)
visible in the dawn sky, rising at 00:07 (HST) and reaching an altitude of 44° above the southern horizon before fading from view as dawn breaks at around 04:53.

### ⚶ 4 Vesta (Asteroid)
is visible in the dawn sky, rising at 03:11 (HST) – 2 hours and 39 minutes before the Sun – and reaching an altitude of 22° above the eastern horizon.

# Meeting Minutes

H.A.S. Secretary

*April 7th 2026 7:30 PM (Bishop Museum Planetarium and Zoom Meeting)*
*Andy Stroble*

Meeting called to order at 7:30 pm by President Chris Peterson. As the AstroNews has not been distributed until a short time prior, approval of the minutes of the previous meeting was tabled.

Star party reports: Kahala had low attendence, but good weather. Club Dillingham event was cancelled due to Kona storms, and there was discussion on Cancellation policy, and communication tools. Spectrum was down during the storm, so email notifications were not possible. The Board has decided to place Green-Yellow-Red light notices on the webpage, to alert the public to possible and actual cancellations.

The State Science Fair was held, and President Chris judged astronomy entries. Our awards went to Mia McFall, Niu Valley Middle School for "What's the SCOPE on SPECTROSCOPY?" and in the Senior Division, Emma Fuleky, Punahou School, "Tracing Hidden Walls in the Cosmic Web". Congratulations to our winners, and we hope to enjoy a presentation from them in the near future.

Attending for the first time was Mathilda, recently from England.

School Star Party Coordinator Leilani reported that there are no school star parties for this month, but we are awaiting a date for Maryknoll, and the Tiger Den Scout event is scheduled for May 9. Bishop Museum Stars Tonite is on April 17th . The Pearl Harbor Kai rescheduled event went well, with 5 club members volunteering, and 80 students attending, and clear skies!

AstroNews Editor Ort shared some info and images of the Artemis 2 launch. Tom Giguere reported on the Lunar Targeting Plan for Artemis II, and the Quickmaps app for the Moon (https://quickmap.im-ldi.com/ ).

Hiroko Stroble shared images from a trip to the Southern Hemisphere, New Zealand, taken by a Dwarf III, including the Tarantula Nebula, the Gabriela Mistral Nebula, and 47 Tucanae, as well as phone shots of the southern Milky Way and our attendant dwarf galaxies, the Magellanic Clouds.

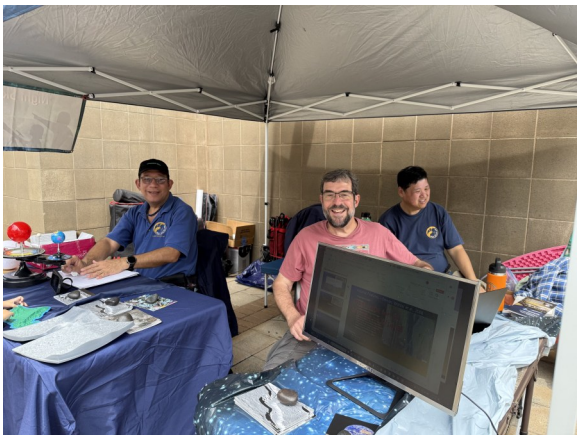
Shane shared images from the evening before, including NGC 5566 and Arp 288 (or was it 283?)

Tom returned to share his trip to Muskville (SpaceX Starbase) in Texas, SpaceX's launch facility at Boca Chica. Pictures of the Star Hopper and many Cybertrucks.

Treasurer Peter informed us of Chinese efforts at exploding rockets and video of the Artemis II launch.

We adjourned at 9:00. There were some dozen present in person, and half that on zoom. Approximately.

Faithfully submitted,
James Andy Stroble, Secretary.
Honolulu, Hawaii



***Hawaiian Astronomical Society***

◄ Apr **May 2026** Jun ►

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| | | | | | 1  Full Moon 7:23AM | 2 |
| 3 BoD Meeting 3:30PM Zoom | 4 | 5 Cinco De Mayo General Meeting 7:30 PM Hybrid Planetarium | 6 | 7 | 8 | 9  3rd Qtr 11:10AM Public Party Dillingham Airfield Gate Closes 7P |
| 10 Mother's Day | 11 | 12 | 13 | 14 | 15 Star Tonight 7P Bishop Museum Gate Closes 7P --> | 16  New Moon 10:01A Club Party Dillingham Airfield |
| 17 | 18 | 19 | 20 | 21 | 22 Sunset 7:06PM --> | 23  1st Qtr 1:10AM Public Party Kahala / Geiger |
| 24 | 25 Memorial Day | 26 | 27 | 28 | 29 | 30  Full Moon 10:45PM |
| 31 | Notes: | | | | | |

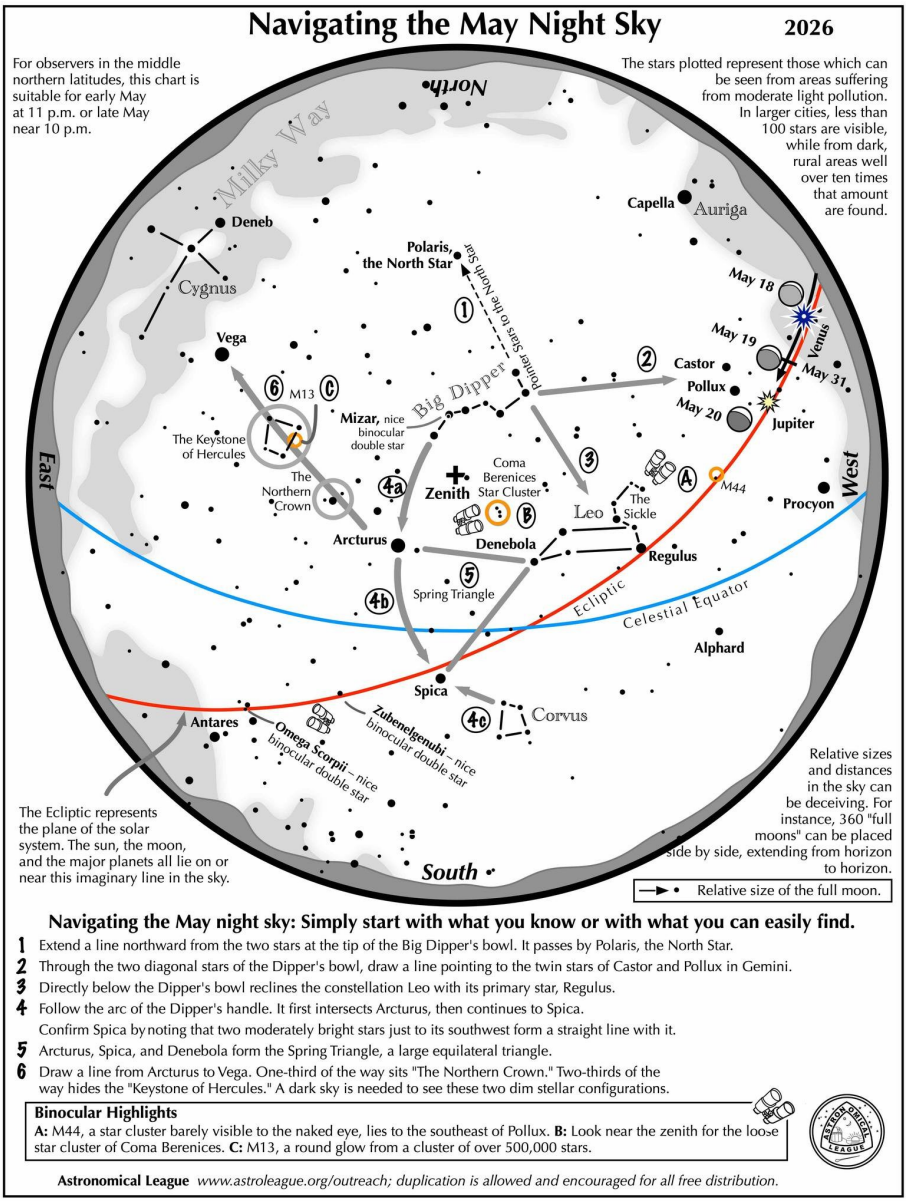
## <<Upcoming Star Parties>>

**Public Party-Dillingham May 9 — Gate closes 7 PM**
**Club Party Dillingham May 16 — Gate closes 7 PM**
**Public Party Geiger/Kahala May 23 — Sunset 6:54 PM**

Upcoming School Star Parties

| Date | Time | Location |
|---|---|---|
| | | |
| | | |

Watch the interplay among the crescent moon, Venus, and Jupiter. The two planets are getting closer!




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

1. Extend a line northward from the two stars at the tip of the Big Dipper's bowl. It passes by Polaris, the North Star.
2. Through the two diagonal stars of the Dipper's bowl, draw a line pointing to the twin stars of Castor and Pollux in Gemini.
3. Directly below the Dipper's bowl reclines the constellation Leo with its primary star, Regulus.
4. Follow the arc of the Dipper's handle. It first intersects Arcturus, then continues to Spica. Confirm Spica by noting that two moderately bright stars just to its southwest form a straight line with it.
5. Arcturus, Spica, and Denebola form the Spring Triangle, a large equilateral triangle.
6. Draw a line from Arcturus to Vega. One-third of the way sits "The Northern Crown." Two-thirds of the way hides the "Keystone of Hercules." A dark sky is needed to see these two dim stellar configurations.

**Binocular Highlights**
**A:** M44, a star cluster barely visible to the naked eye, lies to the southeast of Pollux. **B:** Look near the zenith for the loose star cluster of Coma Berenices. **C:** M13, a round glow from a cluster of over 500,000 stars.




*(Continued on page 10)*

# Meteor Log—May 2026 by Tom Giguere

Looking back at the April Lyrids, we had a single report from the windward side of Oahu. Long time meteor observer Rob Lancaster observed from 1:30 to about 3:30am on the morning of April 22nd. He saw four Lyrids, however, his best view was of the 5th one, which was a semi-bright, bluish-colored meteor that traveled in the opposite direction. A nice sporadic, indeed!

The η -Lyrids (ELY) are weak shower is associated with Comet C/1983 H1 IRAS-Araki-Alcock. Most of the observational data on the shower has come from video results which define the radiant and the maximum position reliably. Visual data obtained between 2007 and 2021 yield an average peak ZHR of 3–4 between λ□ = 49◦ and 50◦ . Care needs to be taken to separate any potential η-Lyrids from the sporadics. The radiant area is usefully on-view all night from the northern hemisphere (primarily). The maximum occurs after the last quarter of the Moon, so the circumstances to observe meteors of the shower are reasonably good.

**Phases of the Moon** (courtesy timeanddate.com )

| First Quarter | Full Moon | Last Quarter | New Moon |
|---|---|---|---|
| May 23 | May 1/30 | May 9 | May 16 |

| Shower | Activity | Maximum | | Radiant | | $V_\infty$ | *r* | ZHR |
|---|---|---|---|---|---|---|---|---|
| | | Date | λ⊙ | α | δ | km/s | | |
| η-Aquariids (ETA), 031 ETA | Apr 19–May 28 | May 06 | 45.5° | 338° | -01° | 66 | 2.4 | 50 |
| η -Lyrids (ELY), 145 ELY | May 03–May 14 | May 11 | 50.0° | 291° | +43° | 43 | 3.0 | 3 |

The challenge this month is to view one of the few Eta Lyrids! Tom Giguere, 808-782-1408, Thomas.giguere1@gmail.com. Credit: IMO for meteor information.

*(Continued from page 1)* *A word from your editor*

with Oreo Cookies). I played a video of Moon Phases for all attendees. Ceci then helped with activities with half of the group. The 2nd half of the group went to the field where Peter and I set up telescope. Leilani had her binocular. Mark also came and talked with attendees. We were able to show Moon, Venus, & Jupiter.

2 of the star parties happened in April. Our club star party at Dillingham Airfield on 4/11/2026 was canceled due to bad weather. The Dillingham Airfield Public Star Party on 4/18/2026 was on. We had 8 members & 3 visitors. Weather was iffy all day but cleared up by the evening. Sue had a decent image of Horsehead Nebula (Bernard 33).

*(Continued on page 8)*

## Treasurer's Report

by Peter Besenbruch

# Cash Flow - 3/10/2026 to 4/9/2026

| | |
|---|---|
| **Beginning Balance** | **$9,910.62** |
| **Money into selected accounts comes from** | |
| Donation | $47.00 |
| Membership - Electronic | $120.00 |
| Membership - Electronic - Student | $12.00 |
| Membership - Family | $10.00 |
| Membership - Paper | $50.00 |
| Subscription - Astronomy | $34.00 |
| **Total Money In** | **$273.00** |
| **Money out of selected accounts goes to** | |
| | |
| **Total Money Out** | |
| Difference | **$273.00** |
| **Ending Balance** | **$10,183.62** |

Here are the financials up through April 9. Thanks to everyone who renewed, and donated.

Covid wastewater Oahu figures remain very low. Hilo levels are somewhat higher. Nationally, avoid Guam, Wyoming, and Mississippi. RSV levels are low on Oahu, medium on Maui, and very high in Hilo. There is an RSV vaccine for all people 75 and older, and for people at increased risk (or living with a person at increased risk, or simply because you want one) from 50 and up.

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*(Continued from page 7) A word from your editor*

In-town Star Parties on 4/25/2026 were on. Steven said "Had 4 visitors (one family) that Tom talked to earlier when we got to the park. Skies were clear."

On Sunday, 4/26/2026, HAS had a booth at Institute of Astronomy (IfA) Open House. The event was from 11:00 AM – 4:00 PM. There were quite a few telescopes set up to view the Sun. The Sun was pretty active with quite a few prominences & Sunspots. We even saw an M Class flare (M6.02) in the telescope from sunspot AR4420. Chris, Andy, Hiroko, & Sue manned the booth.

Many members now use Electronically Assisted Astronomy (EAA) devices. So, if you are observing and able to capture any night sky object. You can share it in AstroNews by emailing it to me at astronews@hawastsoc.org with some detail. I will post it. I will be needing more of your photos & articles than ever to fill up the June AsroNews.

# Message From Your Vice President
## May 2026 by Bill Barr

Equipment sales have all but stopped as there have been no donations to the club as of late. If you wish to sell something you can email me with a price and pictures and/or post it on our Discord.

**Here is a list of targets for May in Hawaii. These targets are good for 50-100mm aperture.**

- Broadband/LP filters (e.g., CLS, L-Pro) or UV/IR cut for color cameras in all cases. Narrowband (Ha, dual/triple-band like Optolong L-eNhance) for emission nebulae if camera modified. Galaxies/clusters: minimal filtering (broadband or none).

- Bortle 4 (darker skies): Faint extensions, dust lanes, and natural colors pop with shorter total integration; excellent contrast.

- Bortle 6 (brighter suburban): Sky glow limits faint halos/nebulosity—use LP filters aggressively, stack more frames, and focus on brighter cores/features.

- Targets viable in both, but darker skies unlock more detail in nebulae/galaxies.

**Galaxy Season Targets (high south/southwest, ~40–80° alt after dark)**

These Virgo/Leo/Coma/Boötes objects dominate early evening and frame beautifully in wide fields with surrounding stars/galaxies.

Markarian's Chain (Virgo Cluster galaxies, including M84/M86 + NGCs): ~1.5–2° chain of 5–8 galaxies. Multiple can fit in one frame. Bortle 4: faint members/extensions; Bortle 6: brighter cores with LP filter. Minimal filtering.

Leo Triplet (M65/M66/NGC 3628): ~1° group of interacting spirals with dust lanes. Bortle 4: full structure; Bortle 6: cores visible. Broadband/no filter.

Sombrero Galaxy (M104): Bright bulge + prominent dust lane (~9′×4′ but with halo). Fits with Virgo context. LP or none.

Whirlpool Galaxy (M51) + companion: Spiral arms + bridge (~11′ field). High northish. Broadband.

Black Eye Galaxy (M64): Prominent dust lane in bright core. Wide framing with nearby stars. Broadband.

Sunflower Galaxy (M63): Bright spiral with flocculent arms. Fits wide fields easily. Broadband.

M106: Large spiral with anomalous arms. High, great with surrounding field. Broadband.

M100: Face-on spiral in Virgo. Good group shot potential. Broadband.

M87 (Virgo A): Giant elliptical with jet (faint in wide field). Context with chain. Broadband.

M49: Bright elliptical in Virgo. Wide Virgo mosaic/framing. Broadband.

*(Continued on page 11)*

*(Continued from page 6) Astronomical League*

*A fun gibbous and full moon observing activity!*

## Observing the gibbous & full moon without optical aid

The gibbous and full moons can be quite bright, producing an abundance of refracted glare when viewed by the unaided eye. Little, if any lunar detail can be seen – just a frustrating blur.

To nearly eliminate the glare while increasing your ability to discern surface detail, try the following:

1. Drill a 1/16 inch (or 1.5 mm) hole in a thin opaque card. A plastic soft drink bottle cap works nicely. (A smaller hole dims the moon too much.)
2. Remove any burrs.
3. Hold the card/bottle cap to your eye so that it is within 1/2 inch of the pupil, and look at the bright moon.
4. The dark markings (maria) on the lunar surface should be discernible.

This works because of two reasons.
1. Only about 6% of the moonlight is allowed to enter the pupil, nearly eliminating glare.
2. Light traveling through the outer portions of the eye, where most common eye distortions occur, is blocked by the opaque card. The light that passes through the central part of the pupil has little distortion, resulting in greatly improved visual acuity.


The larger lunar maria might be seen including Maria Crisium, Tranquilitatis, and Serenitatis – even for observers with less than 20/20 vision. The distance gap between Mare Crisium and the limb can be estimated, and over time, the observer can notice the effect of changing eastern lunar libration.

2405

*(Continued from page 9)* *Message From Your Vice President*

**Coma Berenices & Northern Spring Targets (high overhead/north)**

Coma Star Cluster (Melotte 111): Huge open cluster (~5–8° across) of bright stars—perfect starscape. Excellent in both Bortle classes (stars pop even in B6); no special filter.

M81/M82 pair (Bode's & Cigar Galaxies): Interacting pair (~1–2° separation) high north. Bortle 4: dust/ halo details; Bortle 6: cores + LP. Broadband.

M3 Globular Cluster: Dense globular with surrounding star field (~16′). Wide framing shows context. Minimal filter; good in both skies.

M13 (Hercules Globular): Brightest northern globular (~20′) rising NE to high altitude later. Star field context ideal for wide lenses. Minimal filter.

**Rising Summer Milky Way & Scorpius/Ophiuchus Targets (southeast/east after dark, climbing to 30–50°+)**

These become prime shortly after dark or by late evening.

Rho Ophiuchi Cloud Complex (near Antares): Large (~5°) colorful reflection/emission nebulae + dark lanes/dust. Striking wide-field favorite. Bortle 4: full vivid colors/extensions; Bortle 6: brighter core with strong LP or narrowband (Ha).

IC 4592 (Blue Horsehead reflection nebula): Blue reflection near Antares; frames with Rho area. Narrowband or unfiltered in dark skies.

M4 Globular (near Antares): Large loose globular (~36′) with star field. Minimal filter.

M6 (Butterfly Cluster) & M7 (Ptolemy's Cluster): Large open clusters (~1–1.5° each) in Scorpius—rising SE. Bright stars ideal for wide-field starscapes. No filter needed; great in B6.

Pipe Nebula (dark nebula in Ophiuchus): Prominent dark lanes (~8°+ area) in Milky Way. Bortle 4: best contrast; Bortle 6: LP helps silhouette. Unfiltered or broadband.

**Later-rising additions (30°+ by ~10 PM or worth waiting for):**

M8 (Lagoon Nebula) + nearby (M20 Trifid, M21 cluster): Emission nebulae/star-forming region (~1–2°). Narrowband (Ha/dual-band) essential. Bortle 4: full extent; Bortle 6: bright parts with filters.

M17 (Swan/Omega Nebula) & M16 (Eagle Nebula): Emission regions in Sagittarius—wide framing possible later. Narrowband.

M24 (Sagittarius Star Cloud): Dense Milky Way star field (~2°). No filter; excellent wide-field target.

Clear skies!

**H.A.S.**
**P.O. Box 17671**
**Honolulu, HI 96817**

Earthset

The Artemis II crew captured this view of Earth setting on April 6, 2026, as they flew around the Moon. As the astronauts flew over the Moon's far side, the crew photographed and described terrain features including impact craters, ancient lava flows, and surface cracks and ridges formed as the Moon slowly evolved over time.

Image credit: NASA