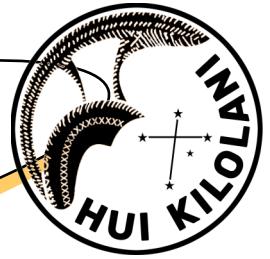


THE ASTRONEWS



Volume 76, Issue 2

February 2026

www.hawastsoc.org

A word from your editor by
Sapavith 'Ort' Vanapuru

The 2nd half of 2025-2026 school year is here, the request for a school star party will continue to come in. There will also be other organizations like Boy Scouts or Girl Scouts requests that would come in. There was one school event in January. There will be another event for February 2026. Your involvement will help with bringing in more club memberships and promoting the club.

We helped out Bishop Museum's Star Tonight on Friday, 1/16/2026. There was only 1 group attending The Stars Tonight. Peter, Chris, Leilani, and I were there to help out. The weather was not bad at Bishop Museum. We showed Saturn, Jupiter, & M42 from my Dwarf 3.

Star Party at WES on Friday, 1/23/2026, from 6P - 8P was busy. We had 5 telescopes from HAS and 2 telescopes from IFA for 350 attendees. IFA also had a planetarium dome inside the cafeteria. Weather was clear enough to look at Saturn, Moon, Jupiter, and M42.

Our 3 star parties were pretty good. For the public star party on 1/10/2026, Bill reported that "Some blue here at Kawaihapai. The European model forecast calls for clear skies at 8 PM... other models are far worse. European forecast model is considered the most accurate. We stayed till 11pm. The sky improved drastically after most everyone left". Sue said it was a nice evening after 8PM.

(Continued on page 11)

Inside this issue:

Club Information	2
President's Message	2
Observer's Notebook	3
Meeting Minutes	4
Event Calendar	5
Astronomical League	6
Meteor Log	7
Treasurer's Report	8
Vice President's Message	9

Upcoming Events:

- The next Board meeting is Sun., Feb. 1st 3:30 PM. (**Zoom Meeting**)
- The next meeting is on Tue., Feb. 3rd 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, 2/20/2026, of the month at 7:00 PM.

President's Message

February 2026

The Artemis 2 mission is scheduled to take four astronauts into lunar orbit as early as February 6th. This will be the first return of humans to the vicinity of the Moon since Apollo 17 in 1972. The Moon is the only major astronomical object to have been visited by humans.

Does it change the nature of astronomical observation when we can visit the target, land on it, and return samples to Earth? Perhaps that's a philosophical question with only subjective answers, but it is worth considering. We certainly understand the Moon better than we did before the Apollo missions. Earth-based observations of the Moon don't hold the potential to advance our understanding of it that they once did, but most amateur astronomers are not trying to do that anyway. Our enjoyment of our observations can be enhanced by the increased knowledge we now possess.

Existing technology and foreseeable developments (e.g., nuclear-propelled rockets) should eventually make the rest of our solar system reachable by humans. As we move away from Earth, we will probably also spend some time looking back at it. Earth will become more of an astronomical target.

The International Geophysical Year, an 18-month period in 1957 and '58, marked one of the first major international efforts to understand Earth as a system. The U.S. announced that we would launch an artificial Earth satellite as part of our contribution, but the Soviet Union beat us to it with Sputnik. This was the dawn of the Space Age, and we've been observing the Earth from space, with increasing sophistication, ever since.

From more distant locations than Earth orbit, our home planet will appear different. From the Moon's (nearside) surface, Earth is a large disk four times the diameter of the Moon in our sky, hanging in one spot and slowly spinning. We may gain new insights into our weather, for example, by having this view of an entire hemisphere constantly available. Views from more distant outposts might help us determine ways to identify planets bearing life and technology since we will have an example to look at from afar. Who knows what we will learn when we turn the telescopes around?

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

President

Chris Peterson
(808) 732-7046
chrisp@higp.hawaii.edu

Vice President

Bill Barr
dustythepath@gmail.com

Secretary

Andy Stroble
jstroble@hawaii.rr.com

Treasurer

Peter Besenbruch
peter@besenbruch.info

Board Members-at-Large

Steven Chun
sctchun@usa.net

Heather Nolan
heathernolan26@hotmail.com

Astronews Editor
Sapavith 'ORT' Vanapruks
astronews@hawastsoc.org

HAS Webmasters
Peter Besenbruch
peter@besenbruch.info

School Star Party Coordinators

Lailani Gamboa
leilanitgamboa@gmail.com

THE ASTRONEWS is the monthly newsletter of the Hawaiian Astronomical Society. Some of the contents may be copyrighted. We request that authors and artists be given credit for their work. Contributions are welcome. Send them to the Editor via e-mail. The deadline is the last Wednesday of each month. We are not responsible for unsolicited artwork.

Observer's Notebook—February 2026 by Ort










Planets Close to the Moon Times are Hawaii Standard Time

- Feb 16, 9h, Moon 0.79° SE of Mars; 9° from Sun in morning sky; magnitudes -4.8 and 1.2
- Feb 17, 23h, Moon 1.59° NNW of Venus; 10° from Sun in evening sky; magnitudes -5.1 and -3.9
- Feb 18, 14h, Moon 0.20° E of Mercury; 18° from Sun in evening sky; magnitudes -5.8 and -0.5
- Feb 19, 11h, Moon 4.1° NNW of Saturn; 29° and 30° from Sun in evening sky; magnitudes -6.8 and 1.1
- Feb 19, 11h, Moon 3.3° NNW of Neptune; 30° from Sun in evening sky; magnitudes -6.8 and 7.9
- Feb 23, 13h, Moon 5.4° N of Uranus; 83° and 82° from Sun in evening sky; magnitudes -9.9 and 5.7
- Feb 26, 22h, Moon 3.9° NNE of Jupiter; 127° from Sun in evening sky; magnitudes -11.4 and -2.5

Other Events of Interest Times are Hawaii Standard Time

- Feb 1, 4h, Moon 1.48° NE of Beehive Cluster; 175° from Sun in evening midnight sky; magnitudes -12.7 and 3.7
- Feb 2, 19h, Moon 0.54° ENE of Regulus; 164° from Sun in morning sky; magnitudes -12.4 and 1.4
- Feb 6, 22h, Moon 1.68° SSW of Spica; 114° from Sun in morning sky; magnitudes -10.9 and 1.0
- Feb 10, 19h, Moon 0.75° SE of Antares; 72° from Sun in morning sky; magnitudes -9.3 and 1.0
- Feb 19, 10h, Moon, Saturn, and Neptune within circle of diameter 4.08"; about 29° from the Sun in the evening sky; magnitudes -7, 1, 8
- Feb 23, 13h, Moon, Uranus, and the Pleiades within circle of diameter 5.42"; about 83° from the Sun in the evening sky; mag. -10, 6, 3
- Feb 27, 12h, Mercury 4.5° NNW of Venus; 13° from Sun in evening sky; magnitudes 1.6 and -3.9

Planets in February

 <h3>Mercury</h3> <p>recently passed behind the Sun at superior solar conjunction. From Honolulu, however, it will become visible at around 18:43 (HST), 11° above your western horizon, as dusk fades to darkness.</p>	 <h3>Venus</h3> <p>recently passed behind the Sun at superior solar conjunction. From Honolulu, it is not observable – it will reach its highest point in the sky during daytime and is no higher than 4° above the horizon at dusk.</p>	 <h3>Mars</h3> <p>will soon pass 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 8" from it.</p>
 <h3>Jupiter</h3> <p>recently passed opposition. From Honolulu, it is visible in the evening sky, becoming accessible around 18:42 (HST), 45° above your eastern horizon, as dusk fades to darkness.</p>	 <h3>Saturn</h3> <p>will soon pass behind the Sun at solar conjunction. From Honolulu, it will become visible at around 19:00 (HST), 24° above your western horizon, as dusk fades to darkness.</p>	 <h3>Uranus</h3> <p>is currently an early evening object, now receding into evening twilight. From Honolulu, it will become visible at around 19:22 (HST), 76° above your western horizon, as dusk fades to darkness.</p>
 <h3>Neptune</h3> <p>will soon pass 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 19° above the horizon at dusk.</p>	 <h3>Pluto (Dwarf Planet)</h3> <p>is not observable – it will reach its highest point in the sky during daytime and is no higher than 2° above the horizon at dawn.</p>	 <h3>1 Ceres (Asteroid)</h3> <p>will become visible at around 19:22 (HST), 38° above your western horizon, as dusk fades to darkness. It will then sink towards the horizon, setting 3 hours and 46 minutes after the Sun at 22:14.</p>

January 6th 2026 7:30 PM (Bishop Museum Planetarium and Zoom Meeting)

Andy Stroble

New year's salutations were offered, and President Chris moved approval of the minutes of December's meeting. Sue Girard seconded, and motion passed unanimously.

Attending for the first time were Joe Little, and Nisko Minori

Mark Watanabe announced he has obtained our permit for the Kahala Community Park Star Parties. Copies to be made available to responsible parties.

Tom Giguere had a left over LROC calendar, which was claimed by AstroNews emeritus Charles.

Current AstroNews editor Ort presented some pictures of Geminid meteors, and New Year's fireworks.

President Chris relayed some news on NASA funding, looks promising.

VP Bill gave us a glimpse into the OCAL Electronic Collimator, for SCTs, tested on a C8, and is looking forward to an actual star test. He also asked if there is any interest in a club sponsored trip to the Big Island this year. And, a suggestion was made to host a star party for Roosevelt High School, so that they could access some help with all their newly donated equipment.

School star party coordination Leilani reported that we have an event at Waikiki Elementary on the 23rd, with some 350 expected to attend, and another at Pearl Harbor Kai on February 20th.

Treasurer Peter shared video of recent tests of the Chinese attempts at re-useable rockets. Some were disappointed in the lack of sudden unscheduled disassemblies. He also shared some 2hours of smart scope exposures of NGC 247, with Burbidge's Chain.

Tom Giguere reported on the recent meeting of the Lunar Exploration Analysis Group, with planning for Artemis missions.

Joanne once again enthralled us with the Planetarium, helped us to locate the current position of the Southern Cross, and potentially glimpse the Small Magellanic Cloud. We then flew to Jupiter, and, fortunately, back.

There were approximately 18 persons in attendance, and 7 unique non-present zoom log-ins. Meeting adjourned at 8:55,

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



NASA's Day of Remembrance 2026

The Space Shuttle Challenger Memorial is seen during a wreath laying ceremony that was part of NASA's Day of Remembrance, Thursday, Jan. 22, 2026, at Arlington National Cemetery in Arlington, Va. Wreaths were laid in memory of those men and women who lost their lives in the quest for space exploration. A wreath with red and white flowers, green leaves, and white ribbon bows rests on a tripod stand with three thin metal legs. It stands in front of the Space Shuttle Challenger Memorial.

Image credit: NASA/Keegan Barber

Hawaiian Astronomical Society

Event Calendar

February 2026						
Jan						Mar
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1  Full Moon 12:09PM BoD Meeting Zoom 3:30PM	2 Groundhog Day	3 General Meeting Planetarium Hybrid 7:30PM	4	5	6	7 Public Star Party Dillingham Airfield Gate closes 6PM
8 Super Bowl	9  3rd Qtr 2:43AM	10	11	12	13	14 Valentine's Day Club Star Party Dillingham Airfield Gate closes 6PM
15	16 Presidents Day	17  New Moon 2:01AM	18 Ash Wednesday	19	20 Pearl Harbor Kai Grade 5 Star Party 6:30 pm - 8:30 pm Star Tonight Bishop Museum	21 Public Star Party Geiger / Kahala Sunset 6:32PM
22 Washington's Birthday	23	24  1st Qtr 2:27AM	25	26	27	28

<<Upcoming Star Parties>>

Public Party-Dillingham February 7 — Gate closes 6 PM

Club Party Dillingham February 14 — Gate closes 6 PM

Public Party Geiger/Kahala February 21 — 6:32 PM

Upcoming School Star Parties

Date	Time	Location
2/20/2026	6:30P-8:30P	Pearl Harbor Kai Elementary School



The bright stars of winter swing into full view, while the constellations of spring begin to rise. Head outside and take it all in!

Navigating the mid February Night Sky 2026

For observers in the middle northern latitudes, this chart is suitable for mid February at 8 p.m. or late February at 7 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.

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 February night sky: Simply start with what you know or with what you can easily find.

- Above the northeast horizon rises the Big Dipper. Draw a line from its two end bowl stars upwards to the North Star.
- Face south. Overhead twinkles the bright star Capella in Auriga. Jump northwestward along the Milky Way first to Perseus, then to the "W" of Cassiopeia. Next jump southeastward from Capella to the twin stars of Castor and Pollux in Gemini.
- Directly south of Capella stands the constellation of Orion with its three Belt stars, its bright blue-white star Rigel.
- Use Orion's three Belt stars to point northwest to the red star Aldebaran and the Hyades star cluster, then to the Pleiades star cluster. Travel southeast from the Belt stars to the brightest star in the night sky, Sirius, a member of the Winter Triangle.

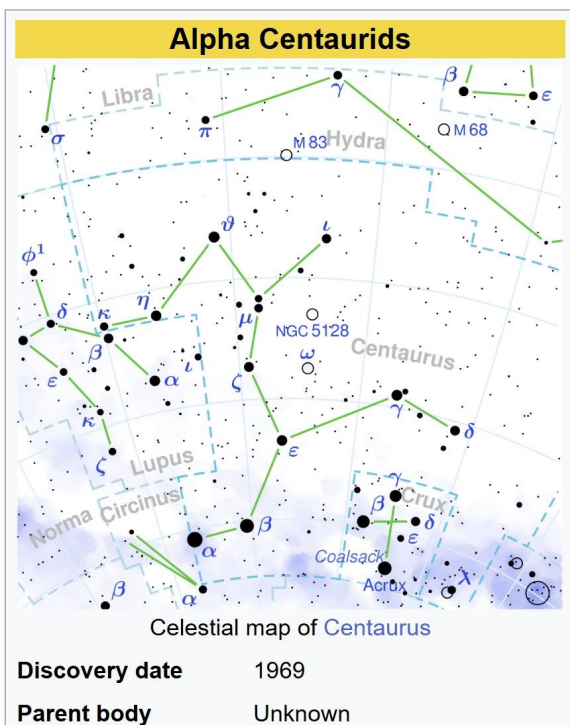
Binocular Highlights

A: Examine the stars of two naked eye star clusters, the Pleiades and the Hyades.
 B: Between the "W" of Cassiopeia and Perseus lies the Double Cluster.
 C: The three westernmost stars of Cassiopeia's "W" point south to M31, the Andromeda Galaxy, a "fuzzy" oval.
 D: M42 in Orion is a star forming nebula. E: Look south of Sirius for the star cluster M41. F: M44, a star cluster barely visible to the naked eye, lies southeast of Pollux.

Astronomical League www.astroleague.org/outreach; duplication is allowed and encouraged for all free distribution.

(Continued on page 10)

The α -Centaurids are mainly known from their appearances in 1974 and 1980 when bursts of only a few hours' duration apparently yielded ZHRs close to 20–30. The average peak ZHR between 1988–2007 was merely 6 though (WB, p. 18), albeit coverage has frequently been extremely patchy. Significant activity was reported on 2015 February 14 (airborne observation) although there was no confirmation of an outburst predicted for 2015 February 8. An outburst during 2021 February 13–15 associated with the γ -Crucids (1047 GCR) might have been a return of the α -Centaurids. Conditions for visual observations are better for the period after the assumed maximum (last quarter Moon on Feb 09). The shower's radiant is nearly circumpolar for much of the sub-equatorial inhabited Earth and is at a useful elevation from late evening onwards.



Phases of the Moon (courtesy timeanddate.com)

First Quarter	Full Moon	Last Quarter	New Moon
February 24	February 1	February 9	February 17

Major Shower	Activity	Maximum		Radiant		V_{∞} km/s	r	ZHR
		Date	$\lambda \odot$	α	δ			
α -Centaurids (102 ACE)	Jan 31 – Feb 20	Feb 8	319.4°	211°	-58°	58	2.0	6

Good luck observing this small but interesting meteor shower! Tom Giguere, 808-782-1408, Thomas.giguere1@gmail.com

Cash Flow - 12/10/2025 to 1/11/2026

Beginning Balance	\$10,031.65
Money into selected accounts comes from	
Income:Donation	\$136.00
Income:Membership - Electronic	\$140.00
Income:Membership - Family	\$12.00
Income:Membership - Paper	\$26.00
Total Money In	\$314.00
Money out of selected accounts goes to	
Expenses:Insurance	\$315.00
Expenses:Office-supplies	\$248.00
Total Money Out	\$563.00
Difference	-\$249.00
Ending Balance	\$9,782.65

Here are the financials up through January 11. Thanks to everyone who renewed, and donated. The expenses are all in a single check made out to yours truly, and reimbursing me for club liability insurance, and our P.O. box.

Covid wastewater Oahu figures fluctuated a bit last month, but overall remain very low. Influenza A peaked in mid-January, and may be declining. RSV, in contrast, increased sharply to high levels. You defend against all three similarly, with a vaccine, and N95 masking.

December’s weather was pretty bad. January offered somewhat better options. All of the scheduled star parties showed something. Let’s keep getting out there.



Hubble Glimpses Galactic Gas Making a Getaway

A sideways spiral galaxy shines in this NASA/ESA Hubble Space Telescope image. Located about 60 million light-years away in the constellation Virgo (the Maiden), NGC 4388 is a resident of the Virgo galaxy cluster.

Image credit: ESA/Hubble & NASA, S. Veilleux, J. Wang, J. Greene

Message From Your Vice President

February 2026

by Bill Barr

After holding on to various telescopes and accessories for quite some time I proposed to the board that we donate what we had to Roosevelt High School's Astronomy Club. That being said, there is nothing left for sale at this time. If you wish to donate something or need something let me know. More donations will certainly come in the future! There is also equipment available to purchase from club members.

As shown at last meeting, I am testing out the OCAL Collimator. This is a camera with software that allows you to collimate a Schmidt Cassegrain Telescope in the daytime. My first impression is that the equipment you use in your observation/image train should be self-centering. I have had wildly different results using various accessories to test the OCAL. The point is that old style single screw, double screw and even the brass ring capture that many extensions and diagonals use will change your perceived collimation.

Some people only collimate once in a while, others do so at every session. It seems the latter is a best practice. You can get around this by using eyepiece centering accessories such as those made by William Optics and Baader. Imaging using threads to secure your extensions and camera will also preserve your good collimation for repeated use.

Be sure to test your equipment on this late January waxing and waning Moon. Hopefully we will have clear skies for the March 2-3 eclipse!

At the meeting Tuesday the 3rd we have a speaker from Keck Observatory. Matt will once again speak to us, this time about behind the scenes engineering at Keck the last year. He will also share some of his personal astrophotography.



Scientific Balloon Begins Antarctic Ascent

A scientific balloon starts its ascent into the air as it prepares to launch carrying NASA's Payload for Ultrahigh Energy Observations (PUEO) mission. The mission lifted off from Antarctica at 5:56 a.m. NZST, Saturday, Dec. 20 (11:56 a.m., Friday, Dec. 19 in U.S. Eastern Time).

Image credit: NASA/Scott Battaion

And keep an eye on Mercury low in the bright western twilight 40 minutes after sunset.

Mercury and the young moon in the bright evening twilight

The diagram illustrates the positions of Saturn, Mercury, and the Moon in the evening twilight. A red line represents the ecliptic. Saturn is shown as a grey circle, Mercury as a smaller grey circle, and the Moon as a larger grey circle. The Moon is labeled "1.5 day old Moon". A binocular field is shown as a circle around Mercury. A view through 10x50 binoculars on February 18 shows Mercury and the Moon. Mercury appears about "1 fist width on a fully extended arm" above the true western horizon forty minutes after sunset.

February 18 and 19, 2026:
Mercury and the young crescent moon
forty minutes after sunset in the west

• Using binoculars, look on February 18 for the very thin crescent Moon floating either below or left of Mercury. Can you see Earthshine on the Moon's dark side or is the twilight too bright? The Moon may be difficult to spot appearing as a washed-out sliver. Some areas in the extreme southcentral US might see the moon occult the planet before the twilight brightens too much.
• On the next evening, Mercury is in the same place, but the moon has moved higher and next to Saturn.



Lightning from Above

NASA astronaut Nichole Ayers captured this image of lightning while orbiting aboard the International Space Station more than 250 miles above Milan, Italy on July 1, 2025.

Image credit: NASA/Nichole Ayers

(Continued from page 1) A word from your editor



Sue's Horsehead Nebula using Dwarf 3

The club star party on 1/17/2026 was also good. Ed Lau said "It was great! Clouds interrupted for about 1/2 hour but cleared the rest of the night. Good turnout. Surprisingly cold". Sue said it was enjoyable evening.



DWARF 3
2026.01.18 00:10

Rosette A | 1 h 13 min
Duo-Band

Rosette A by Ed

The public star party in-town was great considering the weather early in the day. At Geiger Park, we had 4 members with telescopes. Total visitors count were around 25. We were able to show Moon, Saturn, Jupiter, M42, & M31. Last visitor showed while we were loading up the car. I set up my Astronomy without Border telescope 5.5" dob for quick look at the Moon. He was very happy.

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 March AstroNews.

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



NASA's Artemis II Rocket and Spacecraft Make Their Way to Launch Pad

This Jan. 17, 2026, image shows NASA's SLS (Space Launch System) and Orion spacecraft rolling out of the Vehicle Assembly Building at NASA's Kennedy Space Center in Florida. NASA's massive Crawler-Transporter, upgraded for the Artemis program, carries the powerful SLS rocket and Orion spacecraft to Launch Pad 39B in preparation for the Artemis II mission.

Image credit: NASA/Sam Lott