NOV 2026

COOL SPACE/COSMOLOGY/ASTROPHYSICS NEWS



Yep there another Smart Telescope coming

The Vaonis Atlas

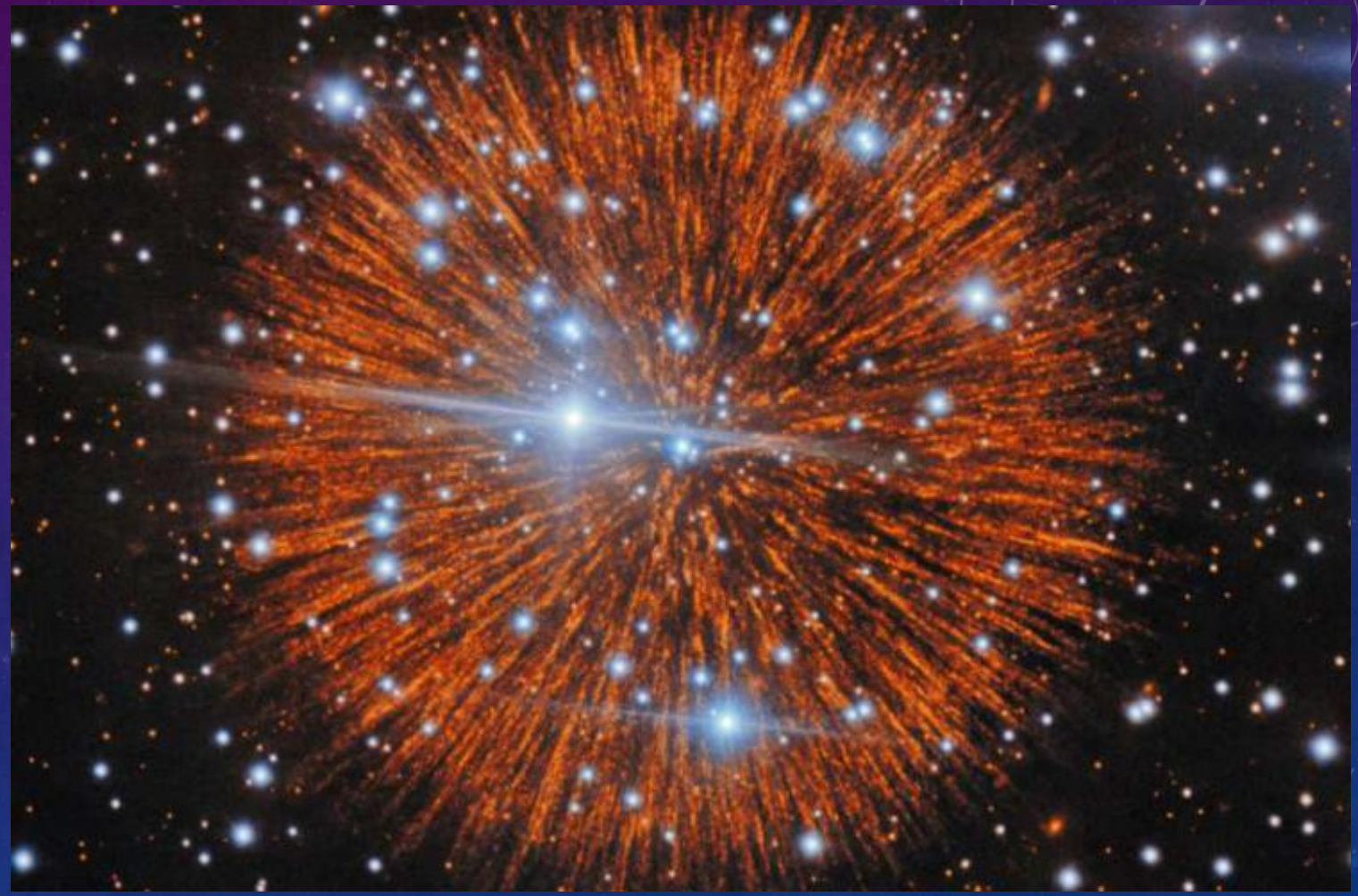
Twin price ~$10,000 cdn

Key Specifications & Features

- **Optics (Atlas 80 Module):** 80 mm apochromatic quadruplet refractor, 360 mm focal length, f/4.5 focal ratio (no central obstruction).
- **Sensor:** Sony IMX585 color back-illuminated sensor with 8.3 MP (3,840 x 2,160) and 2.9 µm pixels.
- **SkyGuard All-Sky Camera:** Built-in 185° fisheye camera (Sony IMX676, 12 MP) on the mount that projects a live, horizon-to-horizon night sky map inside the Gaia app for instant, tap-to-point target selection.
- **Modularity:**
  - **Single Configuration:** Includes one 80 mm module (f/4.5).
  - **Twin Configuration:** Adds a second 80 mm module to the mount to image the same target simultaneously, doubling light collection and giving an f/3.2 equivalent speed.
  - **Sky Dock System:** Tool-free mechanical and electronic quick-coupling interface that attaches or swaps modules in under 5 seconds.
- **Durability & Environment:** IP64-rated against dust and water splashes, operating temperature range of -20 °C to +40 °C, built-in automated dew heaters, and 60W USB-C fast charging.
- **App & Control:** Controlled via the Gaia app (iOS/Android), supporting live stacking, session planning, and multi-screen viewing for up to 10 connected devices

Striking new images of unique supernova remnant reveal pearl-like chains

The only known supernova remnant of its kind in the Milky Way has an unexpectedly intricate structure: chains of gas knots resembling pearls on a string, each wide enough to fit the solar system multiple times. Using the Gemini North telescope, an international team co-led by Ilaria Caiazzo, assistant professor at the Institute of Science and Technology Austria (ISTA), captured the most detailed view yet of Pa 30, revealing striking new features of the remnant associated with a historical supernova witnessed nearly 850 years ago. At about 7,500 light-years away, Pa 30 is relatively close to Earth by astronomical standards—much nearer than the center of the Milky Way, about 26,000 light-years away. his type of incomplete explosion is known as a Type Iax supernova, a rare class of stellar explosion. Researchers have proposed that Pa 30 resulted from a collision between two white dwarfs.

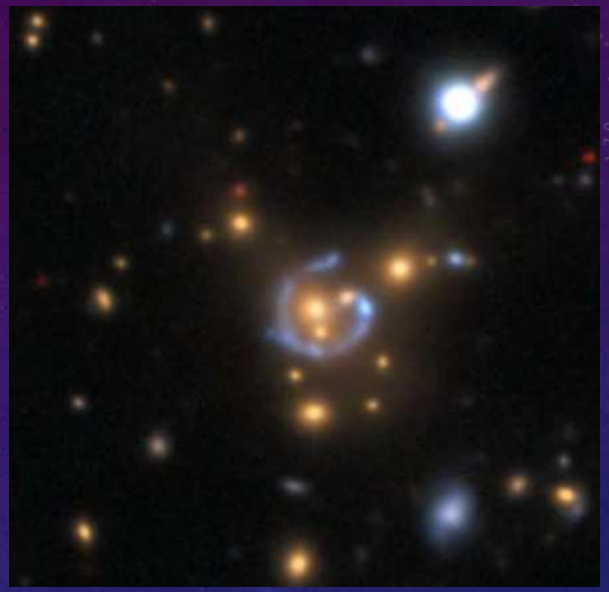


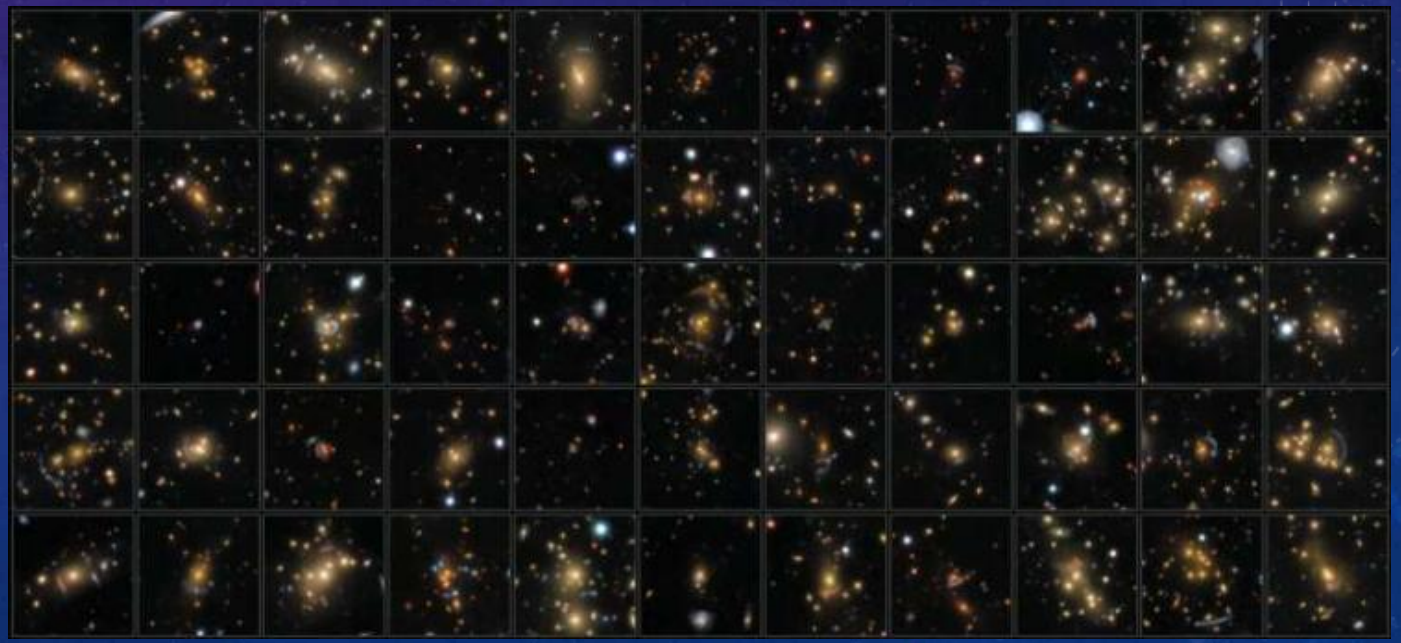
Largest 2D map of the universe helps scientists discover new gravitational lenses

In August 2026, the DESI Legacy Imaging Surveys team released the largest 2D map of the universe ever created. The 5.6-trillion-pixel map contains nearly 4 billion celestial objects, including stars, galaxies, black holes and asteroids.

This map was created using data from three ground-based sky surveys:

The Dark Energy Camera Legacy Survey (DECaLS) was conducted using the 570-megapixel Department of Energy (DOE)–fabricated Dark Energy Camera (DECam), mounted on the U.S. National Science Foundation (NSF) Víctor M. Blanco 4-meter Telescope at NSF Cerro Tololo Inter-American Observatory (CTIO) in Chile, a program of NSF NOIRLab. The Mayall z-band Legacy Survey (MzLS) was conducted using the NSF Nicholas U. Mayall 4-meter Telescope at NSF Kitt Peak National Observatory (KPNO) in Arizona. The Beijing-Arizona Sky Survey (BASS) at the University of Arizona's Steward Observatory was conducted with the UA Bok 2.3-meter Telescope at KPNO and supplemented by years of data from NASA's Wide-field Infrared Survey Explorer (WISE) satellite mission.







IN THIS PICTURE OF THE MONTH FROM THE NASA/ESA JAMES WEBB SPACE TELESCOPE

- We visit a turbulent cauldron of star formation to see what is brewing inside dense clumps of gas. This is a star-forming region named LHA 120-N 159, or simply N159, located 161,000 light-years away in the Large Magellanic Cloud (LMC), one of the satellite galaxies orbiting the Milky Way galaxy. This image spans about 230 light-years across.



RADIO IMAGES REVEAL DISTURBANCES FROM BETELGEUSE'S MYSTERIOUS COMPANION THAT LURKS WITHIN ITS SHADOWS

- Betelgeuse, the bright red supergiant marking the shoulder of Orion, has long captivated astronomers and skywatchers alike—never more so than in late 2019 and early 2020, when it dramatically dimmed to its faintest in more than a century of record-keeping.
- Now, a new study that used the U.S. National Science Foundation's Karl G. Jansky Very Large Array (NSF VLA) and the Atacama Large Millimeter/submillimeter Array (ALMA) shows that the star's extended atmosphere has largely recovered from that episode—and the same data reveal compelling new evidence that Betelgeuse's atmosphere is being actively perturbed by the aforementioned close-in stellar companion.
- Perhaps the most striking result concerns Betelgeuse's recently identified companion star, Siwarha, whose existence was proposed in 2024 to explain the star's mysterious 2,100-day brightness cycle and has since been supported by direct imaging and spectroscopic studies. Since Betelgeuse means "the hand of al-Jawza" in Arabic, the companion star was dubbed Siwarha, meaning "her bracelet."
- The paper is published in *The Astronomical Journal*.

SWIFT TELESCOPE COMING HOME



NASA's Swift space telescope is expected to crash back to Earth in the next few days.

The Neil Gehrels Swift Observatory will re-enter Earth's atmosphere in an uncontrolled fashion, after a robotic rescue mission failed to boost the scope to a higher orbit.

Swift launched to Earth orbit back in November 2004. Over the next two decades, it studied gamma-ray bursts — the most powerful explosions in the universe — and other cosmic objects and events using a trio of telescopes: a Burst Alert Telescope (BAT), an X-Ray Telescope (XRT), and its Ultraviolet/Optical Telescope (UVOT).

Key Details of the Rescue Attempt

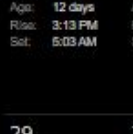
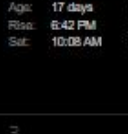
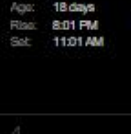
- **The Target:** The Swift gamma-ray burst space telescope, launched in 2004, saw its orbit decay due to increased solar activity and atmospheric drag.
- **The Rescue Spacecraft:** NASA contracted Katalyst Space Technologies to build and deploy **LINK**, an experimental robotic servicing craft launched in early July 2026 on a Pegasus XL rocket.
- **What Went Wrong:** Shortly after launch (on July 28, 2026), LINK suffered failures in two of its three reaction wheels and its cold gas thruster system, causing the craft to spin out of control with sporadic communications.
- **Cancellation:** Engineers attempted software fixes and managed to slow the spin, but full attitude control could not be restored. NASA officially called off the reboost rescue mission on **August 19, 2026**.

What’s Up

‹ October

November 2026

December ›

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 TODAY  **Last Quarter** 3:39 PM Visible: 52% ↓ Age: 21 days Rise: 11:35 PM Set: 1:42 PM	2  Waning crescent Visible: 41% ↓ Age: 23 days Rise: – Set: 2:10 PM	3  Waning crescent Visible: 30% ↓ Age: 24 days Rise: 12:50 AM Set: 2:33 PM	4  Waning crescent Visible: 21% ↓ Age: 25 days Rise: 2:02 AM Set: 2:54 PM	5  Waning crescent Visible: 13% ↓ Age: 26 days Rise: 3:12 AM Set: 3:13 PM ★ Dark night	6  Waning crescent Visible: 7% ↓ Age: 27 days Rise: 4:20 AM Set: 3:34 PM ★ Dark night	7  Waning crescent Visible: 3% ↓ Age: 28 days Rise: 5:28 AM Set: 3:56 PM ★ Dark night
8  Waning crescent Umbi Visible: 0% ↓ Age: 28 days Rise: 6:37 AM Set: 4:21 PM ★ Dark night	9  **New Moon** 2:03 AM Visible: 0% ↑ Age: 0 days Rise: 7:44 AM Set: 4:51 PM ★ Dark night	10  Waxing crescent Visible: 2% ↑ Age: 1 day Rise: 8:50 AM Set: 5:28 PM ★ Dark night	11  Waxing crescent Visible: 5% ↑ Age: 2 days Rise: 9:51 AM Set: 6:12 PM ★ Dark night	12  Waxing crescent Visible: 11% ↑ Age: 3 days Rise: 10:45 AM Set: 7:04 PM ★ Dark night	13  Waxing crescent Visible: 17% ↑ Age: 4 days Rise: 11:30 AM Set: 8:03 PM ★ Dark night	14  Waxing crescent Visible: 25% ↑ Age: 4 days Rise: 12:06 PM Set: 9:05 PM
15  Waxing crescent Visible: 33% ↑ Age: 5 days Rise: 12:37 PM Set: 10:10 PM	16  Waxing crescent Visible: 43% ↑ Age: 6 days Rise: 1:02 PM Set: 11:15 PM	17  **First Quarter** 6:48 AM Leonids meteor shower Visible: 52% ↑ Age: 7 days Rise: 1:23 PM Set: –	18  Waxing gibbous Visible: 62% ↑ Age: 8 days Rise: 1:43 PM Set: 12:21 AM	19  Waxing gibbous Visible: 72% ↑ Age: 9 days Rise: 2:03 PM Set: 1:27 AM	20  Waxing gibbous Visible: 81% ↑ Age: 10 days Rise: 2:23 PM Set: 2:35 AM	21  Waxing gibbous Visible: 89% ↑ Age: 11 days Rise: 2:46 PM Set: 3:47 AM
22  Waxing gibbous Visible: 96% ↑ Age: 12 days Rise: 3:13 PM Set: 5:03 AM	23  Waxing gibbous Visible: 99% ↑ Age: 13 days Rise: 3:48 PM Set: 6:23 AM	24  **Full Moon** 8:55 AM Beaver Moon Supermoon Visible: 100% Age: 14 days Rise: 4:33 PM Set: 7:44 AM	25  Waning gibbous Visible: 98% ↓ Age: 16 days Rise: 5:31 PM Set: 9:02 AM	26  Waning gibbous Visible: 94% ↓ Age: 17 days Rise: 6:42 PM Set: 10:08 AM	27  Waning gibbous Visible: 87% ↓ Age: 18 days Rise: 8:01 PM Set: 11:01 AM	28  Waning gibbous Visible: 77% ↓ Age: 19 days Rise: 9:22 PM Set: 11:41 AM
29  Waning gibbous Visible: 67% ↓ Age: 20 days Rise: 10:40 PM Set: 12:12 PM	30  Waning gibbous Visible: 56% ↓ Age: 21 days Rise: 11:54 PM Set: 12:37 PM	1 	2 	3 	4 	5 

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Close approach of the Moon and M44 Moon at Last Quarter	2 Close approach of the Moon and Mars Conjunction of the Moon and Mars Conjunction of the Moon and Jupiter	3 Lunar occultation of Regulus	4 Mercury at inferior solar conjunction	5	6	7 Lunar occultation of Venus Conjunction of the Moon and Venus
8	9 New Moon	10 Mercury at perihelion Lunar occultation of Antares	11 The Moon at perihelion	12 Comet 69P/Taylor passes perihelion Northern Taurid meteor shower 2026	13 The Moon at apogee Lunar occultation of Sigma Sagittarii	14 Conjunction of Jupiter and Mars
15 Close approach of Jupiter and Mars	16	17 Moon at First Quarter	18 Leonid meteor shower 2026 Mercury at dichotomy The Pleiades cluster is well placed	19	20 Mercury at highest altitude in morning sky Close approach of the Moon and Saturn Mercury at greatest elongation west	21 α-Monocerotid meteor shower 2026
22 The Moon at aphelion	23	24 Close approach of the Moon and M45 Full Moon	25 The Moon at perigee Uranus at opposition Lunar occultation of Beta Tauri	26	27 Venus at greatest brightness	28 November Orionid meteor shower 2026 The Hyades cluster is well placed Close approach of the Moon and M44
29	30 Lunar occultation of Jupiter Lunar occultation of Regulus Close approach of the Moon and Mars Conjunction of the Moon and Mars					



Rise 23:22
Set 13:36

The Moon is a 22-day-old waning crescent, and recently passed last quarter. From Stratford, it is visible from soon after it rises, at 23:22, until soon before it sets at 13:36.

26 Oct 2026 – Full Moon
01 Nov 2026 – Moon at Last Quarter
09 Nov 2026 – New Moon
17 Nov 2026 – Moon at First Quarter



Rise 07:37
Set 17:23

Mercury will soon pass in front of the Sun at inferior solar conjunction. From Stratford, it is not readily observable since it is very close to the Sun, at a separation of only 7° from it.

12 Oct 2026 – Mercury at greatest elongation east
20 Nov 2026 – Mercury at highest altitude in morning sky
20 Nov 2026 – Mercury at greatest elongation west
03 Feb 2027 – Mercury at greatest elongation east



Rise 05:59
Set 16:15

Venus recently passed in front of the Sun at inferior solar conjunction. From Stratford, it is not observable – it will reach its highest point in the sky during daytime and is no higher than 5° above the horizon at dawn.

14 Aug 2026 – Venus at greatest elongation east
09 Dec 2026 – Venus at highest altitude in morning sky
03 Jan 2027 – Venus at greatest elongation west
21 Mar 2028 – Venus at greatest elongation east



Rise 00:57
Set 14:16

Mars is currently emerging from behind the Sun. From Stratford, it is visible in the dawn sky, rising at 00:55 (EST) and reaching an altitude of 61° above the south-eastern horizon before fading from view as dawn breaks at around 06:16.

23 Feb 2025 – Mars ends retrograde motion
10 Jan 2027 – Mars enters retrograde motion
19 Feb 2027 – Mars at opposition
19 Feb 2027 – Mars at perigee



Rise 01:28
Set 14:25

Jupiter is currently emerging from behind the Sun. From Stratford, it is visible in the dawn sky, rising at 01:28 (EST) and reaching an altitude of 58° above the south-eastern horizon before fading from view as dawn breaks at around 06:37.

10 Mar 2026 – Jupiter ends retrograde motion
12 Dec 2026 – Jupiter enters retrograde motion
10 Feb 2027 – Jupiter at opposition
12 Apr 2027 – Jupiter ends retrograde motion



Rise 16:07
Set 04:22

Saturn recently passed opposition. From Stratford, it is visible in the evening sky, becoming accessible around 17:49 (EST), 17° above your eastern horizon, as dusk fades to darkness. It will then reach its highest point in the sky at 22:15, 47° above your southern horizon. It will continue to be observable until around 03:19, when it sinks below 10° above your western horizon.

04 Oct 2026 – Saturn at opposition
10 Dec 2026 – Saturn ends retrograde motion
09 Aug 2027 – Saturn enters retrograde motion
17 Oct 2027 – Saturn at opposition



Rise 19:22
Set 09:18

Uranus is currently approaching opposition and is visible as a morning object. From Stratford, it is visible in the morning sky, becoming accessible around 21:30, when it reaches an altitude of 21° above your eastern horizon. It will then reach its highest point in the sky at 01:50, 67° above your southern horizon. It will be lost to dawn twilight around 05:47, 36° above your western horizon.

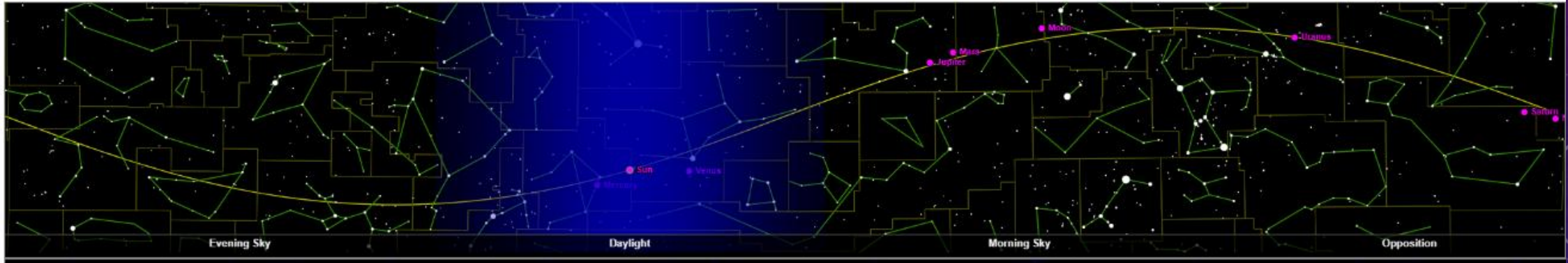
10 Sep 2026 – Uranus enters retrograde motion
25 Nov 2026 – Uranus at opposition
08 Feb 2027 – Uranus ends retrograde motion
15 Sep 2027 – Uranus enters retrograde motion



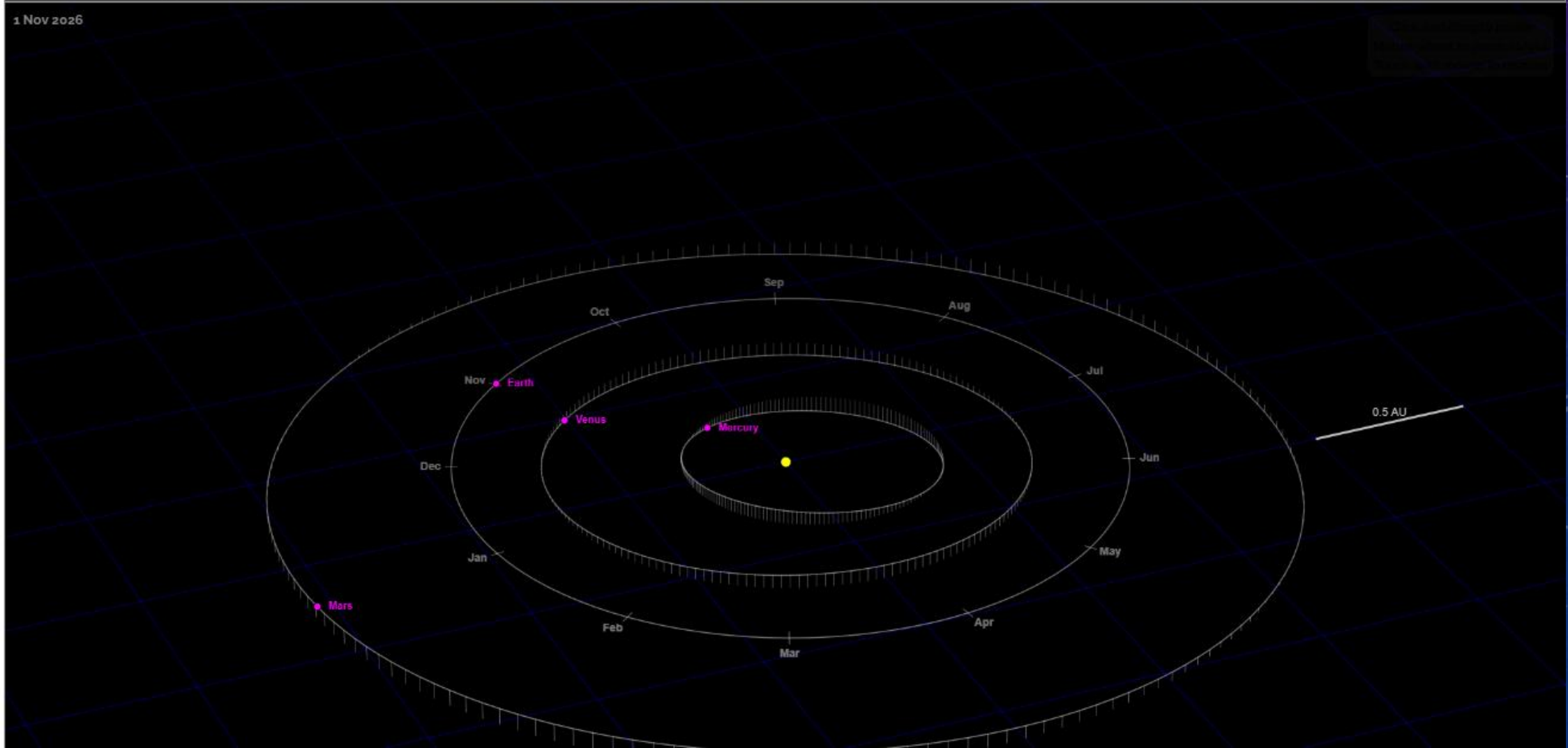
Rise 15:45
Set 03:47

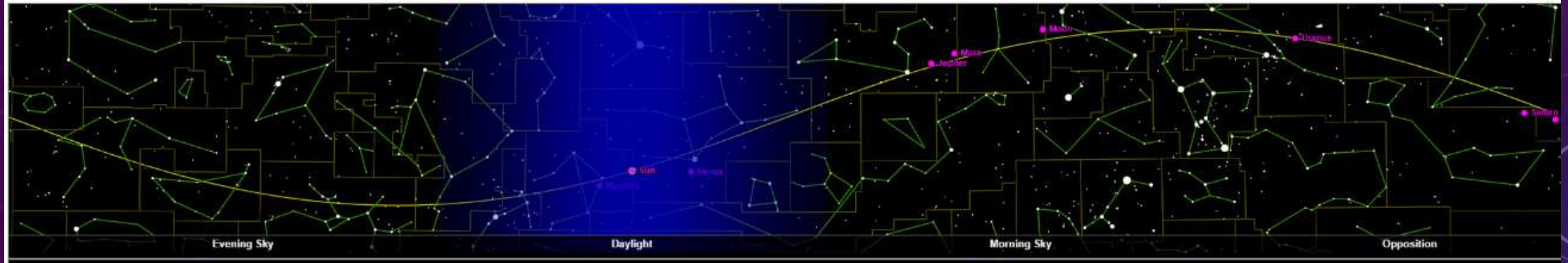
Neptune recently passed opposition. From Stratford, it is visible in the evening sky, becoming accessible around 18:24 (EST), 26° above your south-eastern horizon, as dusk fades to darkness. It will then reach its highest point in the sky at 21:46, 46° above your southern horizon. It will continue to be observable until around 01:39, when it sinks below 21° above your south-western horizon.

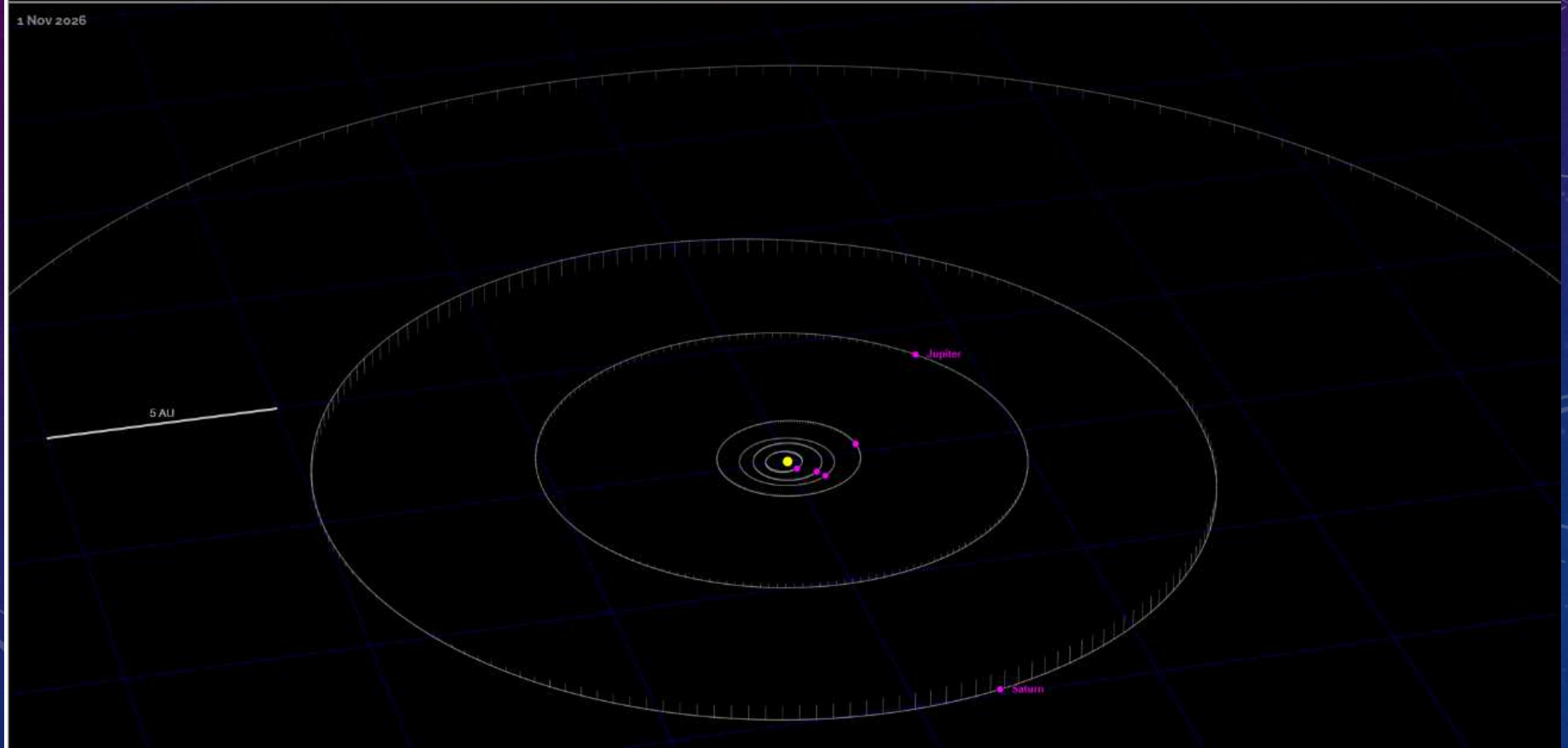
25 Sep 2026 – Neptune at opposition
12 Dec 2026 – Neptune ends retrograde motion
09 Jul 2027 – Neptune enters retrograde motion
28 Sep 2027 – Neptune at opposition


Moon
Uranus
Mars
Jupiter
Saturn
Sun
Venus
Mercury
Evening Sky
Daylight
Morning Sky
Opposition

1 Nov 2026


Sep
Oct
Aug
Nov
Earth
Jul
Venus
Mercury
0.5 AU
Dec
Jun
Jan
May
Mars
Feb
Apr
Mar


Mars
Jupiter
Uranus
Saturn
Sun
Venus
Mercury
Evening Sky
Daylight
Morning Sky
Opposition


1 Nov 2026
Jupiter
5 AU
Saturn

Boundaries