Tāhuna GLENORCHY DARK SKIES SANCTUARY

Happy New Year!

Newsletter January 2026

The Dark Skies Group has some exciting projects on the horizon for the year ahead.

One of our members is diving into an online course on archeo-astronomy—the fascinating study of ancient monuments and their connection to the stars. This fits hand in glove with our Star Compass project, so stay tuned for some cool updates.

We're also tossing around ideas for a "Star Walk," so you could learn more while out walking around the lagoon. We're sorting out ideas for what this may look like, what is involved and figuring out how to make that experience come alive.

Meanwhile, work on the star compass itself is moving forward. We're hopeful to see some marker stones set soon, helping us map out the spot where the compass will live!

To celebrate the return of the Milky Way's centre in April, we're planning a "night picnic" gathering for anyone curious to join us under the stars.

We also expect to be able to submit our application to be a Dark Sky Community by the end of 2026, too. And of course, there'll be a Matariki celebration in July, too!

Venus takes the spotlight as our Planet of the Month, so we'll be shining a light on our closest planetary neighbour and what we know about it.

Coming up this month:

- 1st Jan: New Year's Day
- 3rd Jan: Full moon
- 3rd Jan: Race Day
- 10th Jan: Jupiter reaches opposition making it big and bright in the constellation of Taurus
- 19th Jan: New moon

Web Site updates

We have updated our website so that you can sign up to get this newsletter link delivered directly to your inbox, and you can also catch up on previous newsletters you might have missed. (Click on the news/blog page https://glenorchydarkskies.org.nz/)

You will soon be able to book star tours directly from our website...watch this space!

We hope you have all received your fridge magnet Christmas Season gift from the Dark Skies Group. If you haven't, or would like extra ones for holiday homes, please reach out to us via our website.

Please take the time to read the fridge magnet and if you can, please put in place some of the suggestions that will keep our night sky pristine. Even since becoming a Dark Sky Sanctuary the measurements show light pollution in Glenorchy itself has INCREASED (yikes!). This is a trend we need to reverse if we want to become a Dark Sky Community!

World Astronomy News

Return to the Moon

This month, all eyes are on NASA's Artemis program. Artemis II marks the first crewed mission, aiming to fly around the Moon sometime between February and April 2026.

It's a critical step on the path to Artemis III — the mission planned to land astronauts on the lunar surface. Artemis III is NASA's bold effort to return people to the Moon, including the first woman and the first person of colour to set foot there.

But the lunar landing isn't happening anytime soon. Delays with SpaceX's Starship HLS lander and issues with Orion's heat shield have pushed the launch well past mid-2027, possibly into 2028. Because of these challenges, Artemis III might end up visiting the Gateway space station without actually landing on the Moon. NASA officials have even said they're open to such a crewed Gateway mission if the landing can't happen as planned.

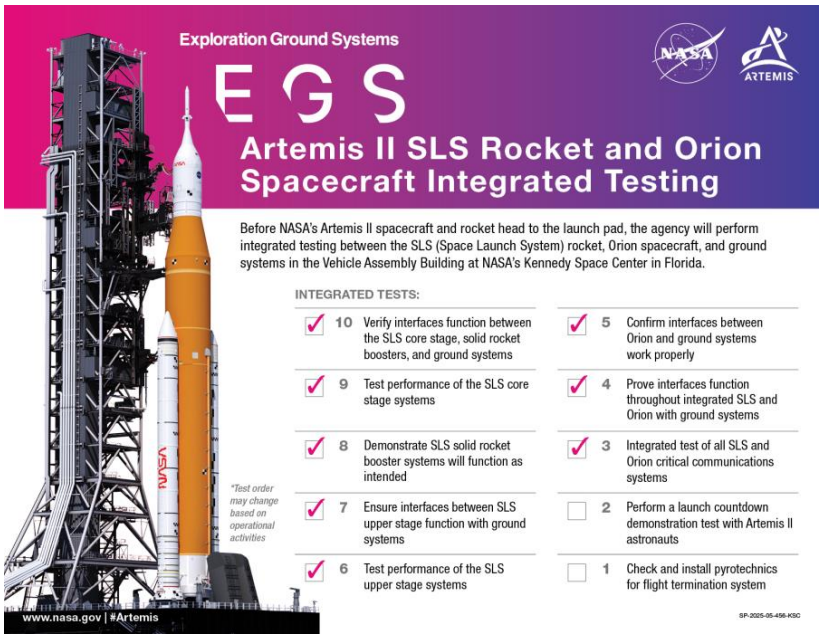


Photo credit: NASA

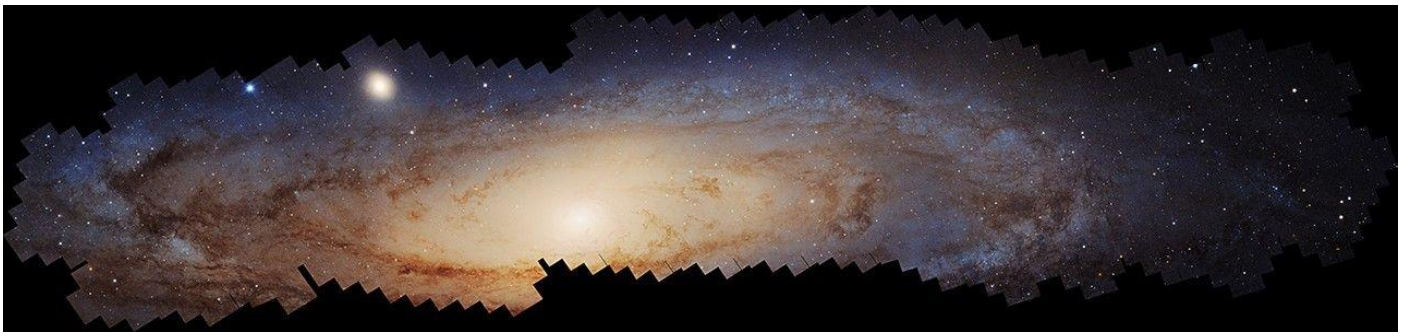
HOT TIP Check out this link for more information on the Artemis programme

Check out this amazing image!

The Hubble telescope has produced the largest image to date of the Andromeda galaxy.

Hubble's sharp imaging capabilities can resolve more than 200 million stars in the Andromeda galaxy, detecting only stars brighter than our Sun. They look like grains of sand across the beach. But that's just the tip of the iceberg. Andromeda's total population is estimated to be 1 trillion stars, with many less massive stars falling below Hubble's sensitivity limit.

Photographing Andromeda was a herculean task because the galaxy is a much bigger target on the sky than the galaxies Hubble routinely observes, which are often billions of light-years away. In total, it required over 1,000 Hubble orbits, spanning more than a decade.



Learn the night sky

This month...

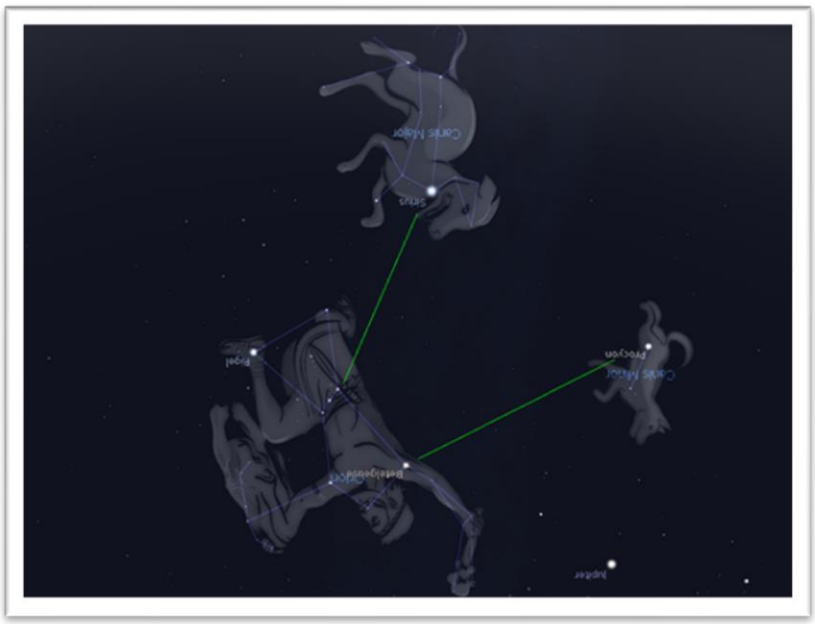
The Moon will be full on January the 3rd and the New Moon is on January the 19th.
Dark night begins at 12.04 on the 1st of January and begins at 11.20 PM by the end of the month on the 31st of January.

We're still occasionally getting hit by solar storms and CME's so your camera may still catch an aurora display if you are out photographing the night sky. Check out the Aurora App if you want alerts on possible good nights to see the aurora.

In the Evening Sky

Jupiter is in opposition on the 15th of January. This means it is closest to Earth and so is big and bright in the sky. The moon will be near Jupiter on the 3rd and 4th of Jan. If you look at it through binoculars or a telescope you will be able to see the small stars around it that are the 4 largest moons.

To the west is Saturn. It sets at 1 am at the beginning of the month and about 11 pm at the end. The Moon will be close to Saturn on the 23rd.



Last month we looked at the Pleiades and Hyades, two star clusters in the constellation of Taurus the bull. This month let's take a look at Canis Major and Canis Minor

To find these two constellations, first find Orion's belt. (At this time of the year it is towards the North East) Follow the direction of the stars to the right and look for the brightest star in that direction. This is Sirius, the Dog Star. This star marks the neck of the larger dog. It is upside down for us at the moment. Below Sirius and to the right of the red star Betelgeuse (The arm pit or shoulder of Orion) is a bright star called Procyon. This marks the smaller dog, or sometimes it is known as a fox.

There are a couple of deep sky objects within the Canis Major constellation. The nebula Thor's helmet and also the dolphin nebula, as well as several star clusters M41 and C64 (The Mexican jumping star). There is also the Canis Major dwarf galaxy, but it is very faint and hard to see without a telescope.

Laelaps was a divine hunting dog that never failed to catch its prey. When he was used to hunt the Teumessian fox, a creature destined never to be caught, it created a paradox and so Zeus placed them in the sky as the constellations Canis Major (Laelaps) and Canis Minor (the fox), eternally chasing each other.

Let's talk about Venus

The planet Venus is named for the Roman Goddess of love, beauty and fertility. In Roman mythology, she was the ancestor of the Roman people through her son, Aeneas, who survived the fall of Troy and fled to Italy. Julius Caesar claimed her as his ancestor.

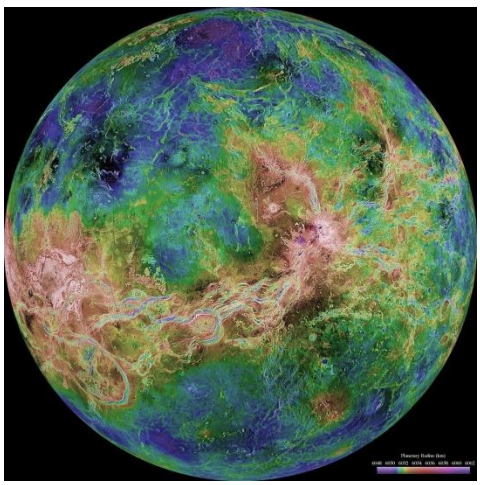
Venus is roughly the same size as Earth, and has the "sister planet" nick name. However the planet is more like an evil twin.

FUN FACT Venus was once covered in oceans similar to Earth

Venus is known for its scorching heat, crushing pressure, and thick, toxic atmosphere of carbon dioxide and sulfuric acid clouds.

Its thick atmosphere traps heat in a runaway greenhouse effect, making it the hottest planet in our solar system with surface temperatures hot enough to melt lead. Below the dense, persistent clouds, the surface has volcanoes and deformed mountains.

It's the second planet from the Sun, the brightest in our sky (often called the Morning/Evening Star). This is because the clouds that cover the entire planet reflect sunlight making it the brightest object in the sky next to the Sun and Moon. If you know where to look it can sometimes be seen in daylight.



Another fun fact:
Venus spins backwards (the only planet that does this) and also spins extremely slowly. One day on Venus lasts 243 Earth days, which is longer than the Venusian year (225 Earth days.) If it was possible to stand on the surface of Venus you would see the Sun rise in the west and set in the east.

A critical question for scientists who search for life among the stars: How do habitable planets get their start? The close similarities of early Venus and Earth, and their very different fates, provide a kind of test case for scientists who study planet formation. Similar size, similar interior structure, both harbouring oceans in their younger days, yet one is now an inferno, while the other is the only known world to host abundant life.

For more Venus information check out: https://science.nasa.gov/venus/