Issue 291

ISSN 2816-1513

NEWSLETTER

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PRESIDENT'S DESK

By Duncan Hall

Reregistration as an Incorporated Society

In November's Newsletter I reported that the reregistration process was continuing, with a goal of achieving reregistration as an Incorporated Society before the end of this year.

On November 17 I submitted RASNZ's new Constitution (that was approved at the October 22 Special General Meeting) along with various other required items of information to the Registrar of Incorporated Societies. Success was almost immediate!

I received an email from the Registrar, with an attached Certificate of Incorporation, reproduced in the image on the next page.

Many thanks to all those who contributed towards keeping the RASNZ alive as an Incorporated Society.

Next steps: Because RASNZ is a registered as a charity, we must also register the new Constitution with - and provide additional information to - the Department of Internal Affairs Charities Services.

In addition, work is underway to revise RASNZ's Bylaws to bring them up to date with how the society now operates.

NEW ZEALAND COMPANIES OFFICE

NZBN More business Less work
NEW ZEALAND BUSINESS NUMBER

Certificate of Incorporation

ROYAL ASTRONOMICAL SOCIETY OF NEW ZEALAND INCORPORATED

215513

NZBN: 9429042800736

This is to certify that ROYAL ASTRONOMICAL SOCIETY OF NEW ZEALAND INCORPORATED was incorporated under the Incorporated Societies Act 1908 on the 28th day of January 1924 and was reregistered to become a society under the Incorporated Societies Act 2022 on 17th day of November 2025

Registrar of Incorporated Societies
17th day of November 2025

REGISTRAR OF INCORPORATED SOCIETIES NEW ZEALAND

To check the validity of this certificate visit
https://app.businessregisters.govt.nz/sber-businesses/verify/9429042800736/IncorporatedSociety-39316402.html

Certificate generated on 17 November 2025 03:14 PM NZDT

PRESIDENT'S DESK

Dark Sky News

In early November, the Kaikōura Dark Sky Trust reported that their member Larry Field had been awarded one of the most prestigious honours in global night sky protection, the DarkSky International Dr Arthur Hoag and William T. Robinson Award for 2025. The award is given to an individual who has been outstanding in educating governmental organisations, businesses, and the public about the merits of outdoor lighting control ordinances.

The Trust notes that the award recognises Larry's hard work, dedication and being a key force behind the Trust from its beginning, combining science, advocacy, and community engagement to protect and celebrate the night sky.

Congratulations Larry:

Also in November, in conjunction with the Illuminating Engineering Society of Australia and New Zealand (IESANZ) the 2025 RASNZ Dark Sky Award was awarded to the project Te Rimutahi, designed by Beca for their client Auckland Council. For some years the RASNZ Dark Sky Award has been part of the IESANZ's annual Lighting Design Awards, and RASNZ's involvement in these awards has been coordinated by Steve Butler.

The RASNZ judge, David Britten, noted that the project transformed a former retail and parking site, creating a safe, welcoming public space for communal evening activities. Glare mitigation and design choices ensure well-lit sightlines across the corner site.

The RASNZ Dark Sky Award is a great way to celebrate lighting design that protects the night environment.

Regards,
Duncan Hall
RASNZ President on behalf of the RASNZ Council

Want to become a member? Check out RASNZ Annual memberships:
Adult: $40
Students: $20
Gift membership: LINK

Kaikōura Dark Sky Trust

by Colette Doughty and Larry Field

Our Journey

The Kaikōura Dark Sky story began in 2020 when Nicky McArthur, owner of Puhi Peaks Nature Reserve, was inspired by the plight of Kaikōura's endangered seabird, the Hutton's shearwater / Kaikōura tītī. This unique alpine nesting bird, which travels nightly between the mountains and the sea is disoriented by artificial light at night. What started as an effort to protect a bird quickly became a mission to protect an entire nightscape.

Figure: Kaikōura Peninsula

A small but passionate group of volunteers formed the Kaikōura Dark Sky Trust working to protect, enhance, and celebrate Kaikōura's pristine night skies. Today the Trust still continues to operate almost entirely through volunteer effort, supported by one part time coordinator.

Figure: Trustee Brian Horsfall - school engagement

DarkSky International Sanctuary Accreditation

After several years of research, lighting audits, community consultation and council policy reform, Kaikōura was officially accredited on 12 September 2024 as the 22nd DarkSky International Sanctuary in the world and only the third in Aotearoa New Zealand.

The Sanctuary covers 98% of the district (approx 2,039 square kms) making it one of the largest protected dark sky areas in the Southern Hemisphere. This milestone recognised both the district's exceptional sky darkness and its commitment to conservation and education. The remaining 2% covers the town itself and immediate surrounding area which we hope one day will become DarkSky Community.

Continuing to Protect Night and Nature

Kaikōura's Sanctuary exists at the intersection of astronomy, ecology, and community. By continuing to control artificial light at night, we help ensure that both the Hutton's shearwater and Kaikōura's residents can continue to thrive beneath truly dark skies as well as private the perfect platform for astro tourism.

The Trust is working hard to keep the lighting conversations alive with our local community to reduce light pollution. We've built a visual mobile outdoor lighting display showing what "good" and "bad" lighting looks like, and this is being shared around the schools and community spaces. We are extremely grateful to the support from our local council and to NZTA who have recently completed a full refit of our street and highway lights.

Figure: Lighting display unit

What is special about Kaikōura Dark Skies?

One of the major advantages of the Dark Sky Sanctuary in Kaikōura is its location where the mountains meet the sea. The rugged Seaward Kaikōura Range towers above the small township, which is spread along the seafront below and which contains numerous motels and one hotel.

From the town shoreline the nighttime view of the mountains set against the starry sky is unforgettable. In winter time the snow-covered range stands out in the moonlight giving excellent nightscape photography opportunities.

From the town, a road and a recently completed modern boardwalk led to the Kaikōura Peninsula, which attracts visitors for viewing seals and scenic rocky coastal ocean views in the daytime, and two signposted stargazing sites for nighttime viewing of Kaikōura's southern skies. One site is at Fyffe House, a shorefront remainder from the early whaling days in the 1850s. Close by is an old chimney on the shoreline which provides an iconic nightscape view, especially when the Milky Way is rising from the east. At the end of the Peninsula the parking space provides another sign posted stargazing site, where one can either station themselves with binoculars or telescope, or ascend to the top of the Peninsula for day and night vistas to the east and south from a viewing platform. Viewing the stars with the sea and waves crashing far below is a memorable experience, especially then the aurora australis is glowing in the southern sky.

Figure: Aurora from Kaikōura Peninsula, by Larry Field

Figure: Kaikōura stargazing signs

Another attractive stargazing site is called the Lookout, on a Peninsula hilltop easily reached from Highway 1 before entering the town. This site has a large viewing platform which affords panoramic views of the night sky, especially to the south, west and north. The platform also contains four camera mounts aimed at the south celestial pole to allow photographing circular star trails with smartphones, mirrorless or DSLR cameras. Instructions are posted nearby.


Figure: Kaikōura Lookout - self stargazing location. By Larry Field

Another two stargazing sites are located at South Bay before arriving at the town from the south. One is at an open coastal parking site called Pohowhera just south of the turnoff for South Bay. This has wide open views of all the sky except for the north. The second site is at the South Bay Reserve parking area which gets the last of the setting sun, it also allows access to a lookout on top of the south side of the Peninsula, where panoramic views are open in all directions. This is reached by a 10 min walk along a paved track. The Kaikōura Dark Sky Trust website has a comprehensive self-guided stargazing section with a map showing all these suggested locations which are easily accessible from the town.

During the rebuild of the coastal highway after the 2016 earthquake the NCTR planners created a 60km cultural artwork trail from Oaro in the south to Clarence in the north. These provide roadside parks with attractive sculptures and historical significance of early Maori inhabitants. These sites can provide a full schedule for visitors: good daytime activity watching seals and seabirds, having a picnic or exploring the shore, while the above stargazing sites can provide nighttime exploration of the skies.

AFFILIATED SOCIETIES

Figure: Cultural pou at Sandy Bay

With the accreditation of the Kaikōura Dark Sky Sanctuary, the town has seen a growing selection of astro tourism amenities which offer a variety of opportunities to enjoy the night sky. This includes stargazing with telescopes and binoculars at night and solar observing in the daytime, a nightscape astrophotography tour and training, a dinner experience under the stars and an amazing zip line ride at night while looking at the stars and Milky Way. Accommodation providers are joining in too offering stargazing decks, night sky hot tubs, and private astro tours. Details can be found on our website.

Kaikōura also has one private observatory with a 4m dome, a few amateur astronomers and an astronomy society is currently being formed.

This will offer the residents a chance to learn about the wonders of the southern skies, how to obtain and use telescopes and astronomical cameras and to bring astronomy to the wider audiences who live and visit this remarkable town.

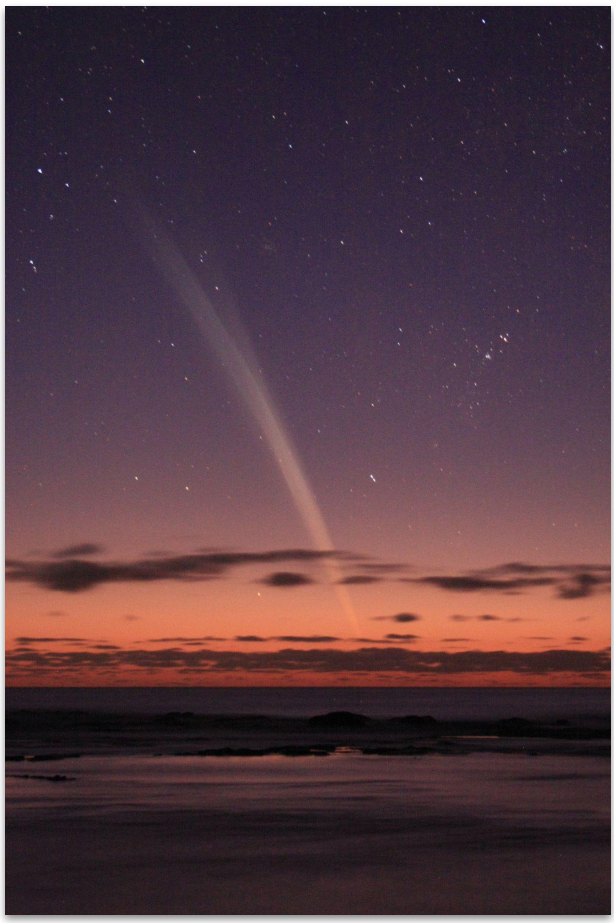

Figure: Comet Lovejoy from Point Kean car park, by Larry Field

Kaikōura Dark Sky Trust
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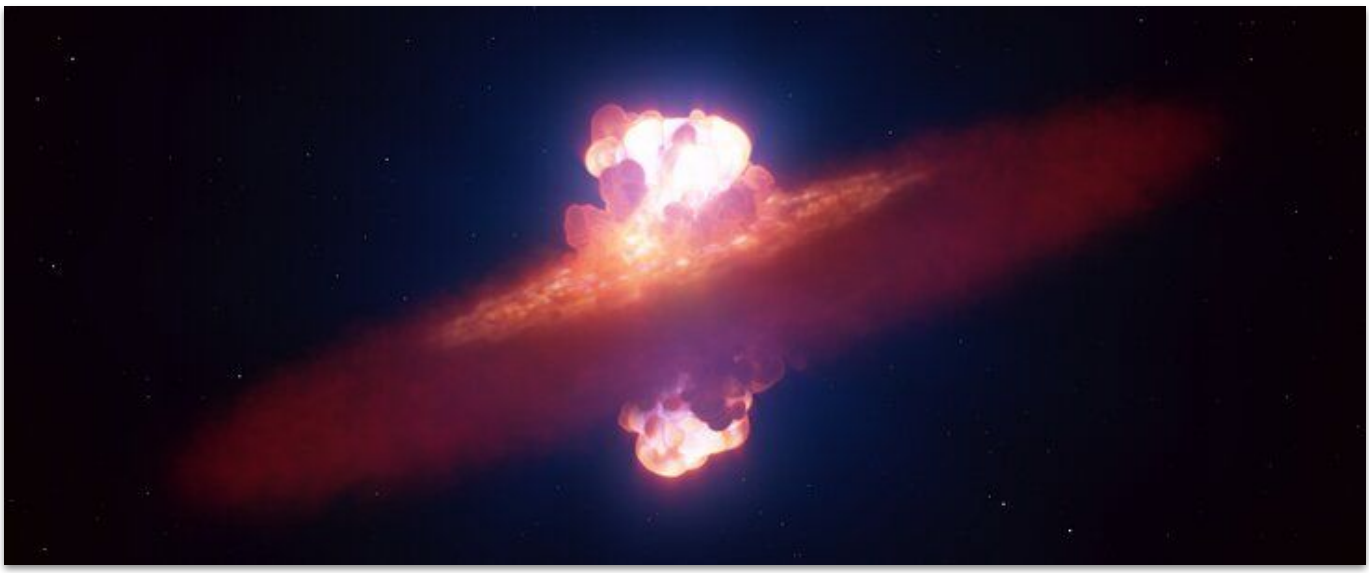
Registered Charity No. CC61093



Unique shape of star's explosion revealed just a day after detection

European Southern Observatory

Swift observations with the European Southern Observatory's Very Large Telescope (ESO's VLT) have revealed the explosive death of a star just as the blast was breaking through the star's surface. For the first time, astronomers unveiled the shape of the explosion at its earliest, fleeting stage. This brief initial phase wouldn't have been observable a day later and helps address a whole set of questions about how massive stars go supernova.

When the supernova explosion SN 2024ggi was first detected on the night of 10 April 2024 local time, Yi Yang, an assistant professor at Tsinghua University in Beijing, China, and the lead author of the new study, had just landed in San Francisco after a long-haul flight.

He knew he had to act quickly. Twelve hours later, he had sent an observing proposal to ESO, which, after a very quick approval process, pointed its VLT telescope in Chile at the supernova on 11 April, just 26 hours after the initial detection.

SN 2024ggi is located in the galaxy NGC 3621 in the direction of the constellation Hydra 'only' 22 million light-years away, close by in astronomical terms. With a large telescope and the right instrument, the international team knew they had a rare opportunity to unravel the shape of the explosion shortly after it happened. "The first VLT observations captured the phase during which matter accelerated by the explosion near the centre of the star shot through the star's surface. For a few hours, the geometry of the star and its explosion could be, and were, observed together," says Dietrich Baade, an ESO astronomer in Germany, and co-author of the study published today in Science Advances.

"The geometry of a supernova explosion provides fundamental information on stellar evolution and the physical processes leading to these cosmic fireworks," Yang explains. The exact mechanisms behind supernova explosions of massive stars, those with more than eight times the mass of the Sun, are still debated and are one of the fundamental questions scientists want to address. This supernova's progenitor was a red supergiant star, with a mass 12 to 15 times that of the Sun and a radius 500 times larger, making SN 2024ggi a classical example of a massive-star explosion.

We know that during its life a typical star keeps its spherical shape as a result of a very precise equilibrium of the gravitational force that wants to squeeze it and the pressure of its nuclear engine that wants to expand it. When it runs out of its last source of fuel, the nuclear engine starts sputtering. For massive stars this marks the beginning of a supernova: the core of the dying star collapses, the mass shells around fall onto it and bounce off. This rebound shock then propagates outward, disrupting the star.

Once the shock breaks through the surface, it unleashes immense amounts of energy — the supernova then brightens dramatically and becomes observable. During a short-lived phase, the supernova's initial 'breakout' shape can be studied before the explosion interacts with the material surrounding the dying star.

This is what astronomers have now achieved for the very first time with ESO's VLT, using a technique called 'spectropolarimetry'. "Spectropolarimetry delivers information about the geometry of the explosion that other types of observation cannot provide because the angular scales are too tiny," says Lifan Wang, co-author and professor at the Texas A&M University in the US, who was a student at ESO at the start of his astronomy career. Even though the exploding star appears as a single point, the polarisation of its light carries hidden clues about its geometry, which the team were able to unravel.

The only facility in the southern hemisphere capable of capturing the shape of a supernova through such a measurement is the FORS2 instrument installed on the VLT. With the FORS2 data, the astronomers found that the initial blast of material was shaped like an olive. As the explosion spread outwards and collided with the matter around the star, the shape flattened but the axis of symmetry of the ejecta remained the same. "These findings suggest a common physical mechanism that drives the explosion of many massive stars, which manifests a well-defined axial symmetry and acts on large scales," according to Yang.

Full article and research paper here.

Webb First to Show 4 Dust Shells 'Spiraling' Apep

NASA

NASA's James Webb Space Telescope has delivered a first of its kind: a crisp mid-infrared image of a system of four serpentine spirals of dust, one expanding beyond the next in precisely the same pattern. (The fourth is almost transparent, at the edges of Webb's image.) Observations taken prior to Webb only detected one shell, and while the existence of outer shells was hypothesized, searches using ground-based telescopes were unable to uncover any. These shells were emitted over the last 700 years by two aging Wolf-Rayet stars in a system known as Apep, a nod to the Egyptian god of chaos.

Webb's image combined with several years of data from the European Southern Observatory's Very Large Telescope (VLT) in Chile narrowed down how often the pair swing by one another: once every 190 years. Over each incredibly long orbit, they pass closely for 25 years and form dust.

Webb also confirmed that there are three stars gravitationally bound to one another in this system. The dust ejected by the two Wolf-Rayet stars is "slashed" by a third star, a massive supergiant, which carves holes into each expanding cloud of dust from its wider orbit. (All three stars are shown as a single bright point of light in Webb's image.)

Figure: Webb's mid-infrared image shows four coiled shells of dust around a pair of Wolf-Rayet stars known as Apep for the first time. Previous observations by other telescopes showed only one. Webb's data also confirmed that there are three stars gravitationally bound to one another.

The dust-producing Wolf-Rayet stars in Apep aren't exactly on a tranquil cruise. They are whipping through space and sending out dust at 1,200 to 2,000 miles per second (2,000 to 3,000 kilometers per second).

That dust is also very dense. The specific makeup of the dust is another reason why Webb was able to observe so much more: It largely consists of amorphous carbon. "Carbon dust grains retain a higher temperature even as they coast far away from the star," Han said. While the exceptionally tiny dust grains are considered warm in space, the light they emit is also extremely faint, which is why it can only be detected from space by Webb's MIRI (Mid-Infrared Instrument).

Full article here.

View Interstellar Comet 3I/ATLAS Through NASA's Multiple Lenses

NASA

NASA is in the midst of an unprecedented solar system-wide observation campaign, turning its spacecraft and space telescopes to follow comet 3I/ATLAS, the third known interstellar object to pass through our solar system. Twelve NASA assets have captured and processed imagery of the comet since it was first discovered on July 1, and several others will have opportunities to capture more images as the comet continues to pass through our solar system.

By observing the comet from so many locations, NASA has an opportunity to learn about the ways that 3I/ATLAS differs from our solar system's home-grown comets and give scientists a new window into how the compositions of other systems may differ from our own.

Observations from Mars

The closest imagery of the comet was taken by NASA's spacecraft at Mars. Earlier this fall, 3I/ATLAS passed by Mars from a distance of 19 million miles, where it was observed by three NASA spacecraft. The Mars Reconnaissance Orbiter (MRO) captured one of the closest images of the comet, while the MAVEN (Mars Atmosphere and Volatile EvolutioN) orbiter obtained ultraviolet images that will help scientists understand the comet's make-up.

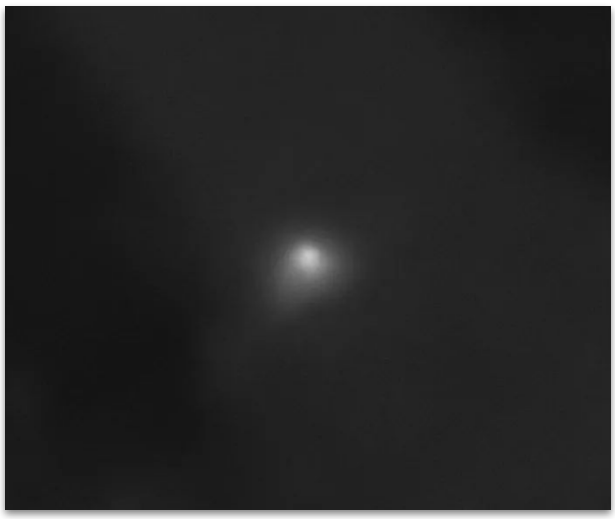


Figure: 3I/ATLAS, Mars Reconnaissance Orbiter, HiRISE

NASA's Psyche and Lucy spacecraft, currently on their respective outbound journeys to study various asteroid targets throughout the solar system, were able to observe 3I/ATLAS en route. On Sept. 8 and 9, Psyche acquired four observations of the comet over eight hours from a distance of 33 million miles. These images will help scientists refine the comet's trajectory. On Sept. 16, Lucy took a series of images from 240 million miles away. Stacking these images together provides detail on the comet's coma and tail.

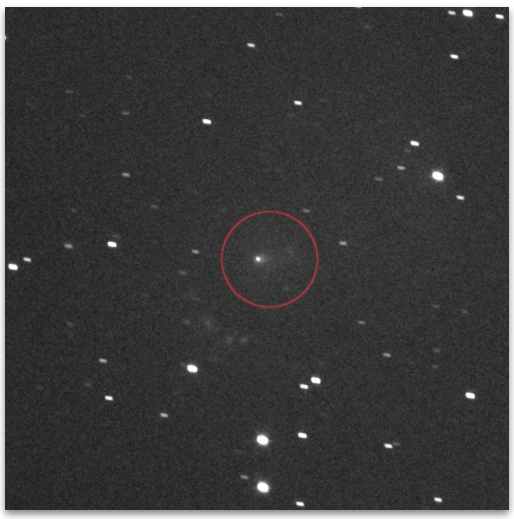


Figure: 3I/ATLAS, Lucy, L'LORRI

Full article here.

First Emergency Mission to Tiangong

space.com

Three Chinese astronauts won't be "stranded" in orbit for much longer.

A Long March 2F/G rocket lifted off from the Jiuquan Satellite Launch Center in northwest China at 11:11 p.m. EST (0411 GMT and 12:11 p.m. on Nov. 25 Beijing time).

The rocket sent the Shenzhou 22 spacecraft toward China's Tiangong space station in low Earth orbit, on a dramatic and unprecedented rescue mission.

Shenzhou missions typically fly three astronauts to Tiangong, where they stay for six-month stints. However, the Shenzhou 22 vehicle is uncrewed, because it will serve as the ride home for the orbiting outpost's three current residents.

Those astronauts are flying on the Shenzhou 21 mission, which arrived at Tiangong on Halloween night. But the spacecraft they rode up on is already gone; it was pressed into service to take their predecessors, the Shenzhou 20 trio, home on Nov. 14.

The Shenzhou 20 astronauts were supposed to leave Tiangong on Nov. 5, but inspections revealed a crack in the window of their spacecraft, the apparent consequence of an impact by a piece of space debris.

Chinese space officials delayed the crew's departure to analyze the issue, then ultimately deemed the Shenzhou 20 craft unsafe to take astronauts down to Earth.

So, for the past 10 days, the Shenzhou 21 astronauts have been in a somewhat precarious position: Should Tiangong suffer a serious problem, they have no way to safely evacuate.

That is about to change. Provided that Shenzhou 22 docks with Tiangong as planned about 4.5 hours after launch, the Shenzhou 21 astronauts will serve out the remainder of their half-year mission aboard the outpost. They will be relieved by the three astronauts of Shenzhou 23, which is expected to launch in April 2026.

The Shenzhou 20 capsule will need to leave before Shenzhou 23 arrives to free up a docking port. Chinese space officials have said the damaged spacecraft will remain in orbit for a spell to host some experiments, but they have not yet announced a timeline for its departure.

Full article here.

The Evening Sky in December 2025

Alan Gilmore

Saturn is northwest of the zenith at dusk. It looks like a medium-bright cream-coloured star and sets due west around 1 a.m. The Moon will be below Saturn on the 27th. A small telescope will show the disk of Saturn. The ring is nearly edge-on, so it looks like a spike through the planet. Saturn's biggest moon, Titan, looks like a star in line with the ring.

Jupiter (not on the chart) rises in the northeast around 11:40 pm at the beginning of the month and around 9:30 at the end. It is the brightest 'star' in the late-night sky and shines with a steady golden light. There is an unreliable rule that stars twinkle and planets don't. It works for Jupiter. Though it isn't obvious to the eye, Jupiter appears as a disk. This blurs the twinkling effect of the air, giving the steady glow that we see. Jupiter crosses the sky during the night so is in the north to northwest at dawn. Any telescope will show Jupiter's 'Galilean' moons, but not all four every night as they cross in front of and behind Jupiter. Two of the brightest moons can be seen in binoculars, if you can hold them steady enough. The near-full Moon will be near Jupiter on the night of the 7th-8th.

Sirius is the brightest true star, low in the east at dusk, twinkling colourfully. **Canopus** , the second brightest, is a bit higher in the southeast. Left of Sirius is the constellation of **Orion** . Bluish **Rigel** and orange **Betelgeuse** are Orion's brightest stars. Between them is the line of three stars making the bottom of 'The Pot' in our southern hemisphere view.

A faint line of stars above the bright three is the Pot's handle. At its centre is the Orion Nebula, a glowing gas cloud nicely seen in binoculars.

Left of Orion is a triangular group making the upside-down face of **Taurus** the bull. Orange **Aldebaran** , at one tip of the V shape, is one eye of Taurus. The stars on and around the V, except for Aldebaran, are the Hyades cluster. Aldebaran is not a member of the cluster but closer and on the line-of-sight. Further left is the **Pleiades** /**Matariki** /**Subaru** cluster, a tight grouping of six naked-eye stars. Many more stars are seen in binoculars.

Almost overhead is **Achernar** . It marks the end of Eridanus, the river. The scattered river of faintish stars meanders down the sky to Orion.

Low in the south are the Pointers, Beta and **Alpha Centauri** , and **Crux** the Southern Cross, upside down at this time of the year. The **Milky Way** is wrapped around the horizon. The broadest part is in Sagittarius, low in the southwest at dusk. It narrows toward Crux in the south and becomes faint in the east below Orion. Several star clusters and a glowing gas cloud can be seen in the Milky Way above and left of Crux.

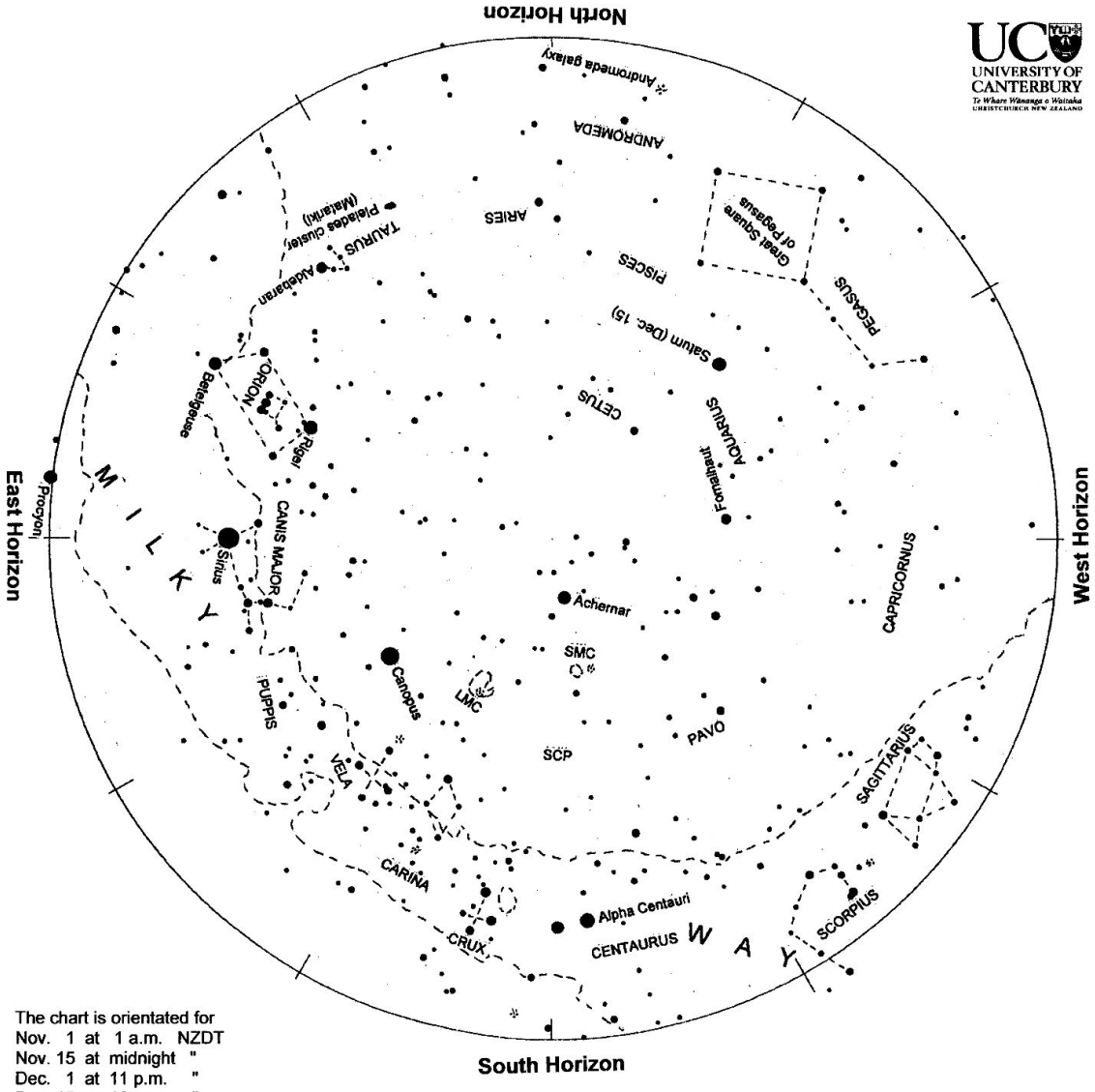
The Clouds of Magellan, **LMC** and **SMC**, high in the southern sky, are two small galaxies about 160 000 and 200 000 light-years away, respectively. They are easily seen by eye on a dark moonless night as misty patches of light. Just right of the SMC, the Small Cloud, is a faint fuzzy 'star'. It is the globular cluster 47 Tucanae, a globe-shaped cluster of millions of stars.

THE EVENING SKY

Very low in the north is the **Andromeda Galaxy** . In binoculars in a dark sky it looks like a spindle of light. It is a bit bigger than our Milky Way Galaxy and nearly three million light-years away.

Mercury rises in the southeast an hour before the Sun mid-month. The thin crescent Moon will be near it on the mornings of the 18th and 19th

Find all (large) charts here.



The chart is orientated for
Nov. 1 at 1 a.m. NZDT
Nov. 15 at midnight "
Dec. 1 at 11 p.m. "
Dec. 15 at 10 p.m. "

Evening sky in December 2025

To use the chart, hold it up to the sky. Turn the chart so the direction you are looking is at the bottom of the chart. If you are looking to the south then have 'South horizon' at the lower edge. As the earth turns the sky appears to rotate clockwise around the south celestial pole (SCP on the chart). Stars rise in the east and set in the west, just like the sun. The sky also does a small extra clockwise rotation each night as we orbit the sun.

Saturn is midway down the northwestern sky. Due east is Sirius, the brightest true star, twinkling like a diamond. Left of it is Orion, with 'The Pot' at its centre. Bright bluish Rigel is above the Pot and reddish Betelgeuse below. Left of Orion is orange Aldebaran with a V-shaped cluster making the face of Taurus the Bull. Further left is the Pleiades/Matariki/Seven Sisters star cluster. The Pointers and Crux, the Southern Cross, are low in the south. Above and right of Sirius is Canopus, the second brightest star. Above it are two misty patches, the Clouds of Magellan, LMC and SMC on the chart, small nearby galaxies. The Great Square of Pegasus spans the lower northwest sky with the Andromeda Galaxy below and right of it. Jupiter rises in the northeast in the late evening (so isn't on the chart). It is the brightest 'star' in the late-night sky.

Chart produced by Guide 8 software; www.projectpluto.com. Labels and text added by Alan Gilmore,
Mt John Observatory of the University of Canterbury, P.O. Box 56, Lake Tekapo 7945, New Zealand. www.canterbury.ac.nz

Astronomy and Astrotourism Course coming to Naseby in March 2026

from John Hearnshaw

Figure: Astrotourists at Mt John. Photo: Fraser Gunn

An astronomy and astrotourism course for RASNZ members, amateur astronomers and the public Naseby, Central Otago, in March next year. The dates will be the afternoon of Friday March 27 to 5 pm on Sunday March 29.

The course is being offered by the Aotearoa Astrotourism Academy (AAA), a non-profit organization founded in 2021 by Professor John Hearnshaw, Emeritus Professor of Astronomy at Canterbury University, and Nalayini Davies, who was until recently President of the Royal Astronomical Society of New Zealand. She is now the president of DarkSky International, based in Tucson Arizona.

The AAA website at https://aaanz.org gives more details and accepts on-line registrations.

AAA gives immersive courses over 2½ days for anyone who wants to be inspired by the beauty of the night sky and wants to learn more about the stars and how to observe them using binoculars or a small telescope.

GENERAL NOTICES

Professor John Hearnshaw said that the course will offer an intensive programme of talks and practical workshops, including night-time observing, and will have six instructors from some of New Zealand's most knowledgeable astronomy and astrotourism experts. Practical advice on astrophotography and on Māori astronomy and Matariki will be part of the AAA course. The course is for anyone wanting to learn how to appreciate the beauty of the night sky and learn more about the stars. No previous astronomy knowledge was required.

Earth and Space Science teachers in New Zealand high schools, who want a refresher on astronomy, astrophysics and practical observing and astrophotography are also welcome.

The main course venue will be the Naseby Town Hall, in Leven St, Naseby. Naseby recently gained Dark Sky accreditation as a Dark Sky Community from DarkSky International.

Bruce Ngataierua, the Holt Planetarium director in Napier, will give a talk on Matariki and Te Arorangi Māori at the course. John Drummond will offer a talk and run a workshop on astrophotography. Nalayini Davies will offer a workshop on how to set up an astrotourism business. John Hearnshaw will give talks on coordinates and time, the naming of stars and stellar astrophysics. John and Nalayini will also cover information on the 22 July 2028 total solar eclipse, which will be visible from Central Otago. Alan Gilmore will present the main objects of interest in the southern sky and Gareth Davies will present images from his Unistellar EVscope and discuss the accreditation process of dark sky places with DarkSky International.

Jill Wolff from Naseby Vision will be the manager of the Naseby AAA course.

More details and on-line registrations are at https://aaanz.org; enquiries to info@aaanz.org.

John Hearnshaw

Emeritus Professor of Astronomy, University of Canterbury

Request for Historic New Zealand Comet Observations and Photographs

from John Drummond

As part of his PhD through the University of Southern Queensland on New Zealand's historical role in the observation, photography and discovery of comets, John Drummond (Gisborne) is currently writing a paper on New Zealand's official comet discoverers. Six people discovered (or co-discovered) eleven comets from New Zealand (refer to the list below). They are John Grigg, Murray Geddes, Albert Jones, Mike Clark, Rodney Austin, and Alan Gilmore. John asks if any RASNZ members (or affiliates) have observations, recounts, photographs or sketches on any of the comets these six New Zealanders discovered or relevant information about the discoverers, could they please scan and email it to John at kiwiastronomer@gmail.com. Due recognition will of course be made in the research paper. If they need to post material, can they please email John first.

The New Zealand comet discoverers and their comets:

1. 16P/1902 O1 (Grigg-Skjellerup). Discovered by John Grigg (& later by Frank Skjellerup) on 23 Jul 1902.
2. C/1903 H1 (Grigg). Discovered by John Grigg on 17 Apr 1903.
3. C/1907 G1 (Grigg-Mellish). Discovered by John Grigg and Mellish on ~8 Apr 1907.
4. C/1932 M2 (Geddes). Discovered by Murray Geddes on 22 June 1932.
5. C/1946 P1 (Jones). Discovered by Albert Jones on 6 Aug 1946.
6. 71P/1973 L1 (Clark). Discovered by Mike Clark on 9 Jun 1973.
7. C/1982 M1 (Austin). Discovered by Rod Austin on 18 Jun 1982.
8. C/1984 N1 (Austin). Discovered by Rod Austin on 8 Jul 1984.
9. C/1989 X1 (Austin). Discovered by Rod Austin on 6 Dec 1989.
10. C/2000 W1 (Utsunomiya-Jones). Discovered by Albert Jones & Utsunomiya on ~26 Nov 2000.
11. P/2007 Q2 (Gilmore). Discovered by Alan Gilmore on 20 Aug 2007.

John Drummond

PhD student, FRASNZ, MSc (Astronomy), Dip Tchg, BMin (Adult Ed)

Kingdon-Tomlinson Grant

from the Secretary

Applications due 1st November 2025.

The Kingdon-Tomlinson Grant is awarded to projects and venture that promote astronomy in New Zealand. Grants are not restricted to members of the RASNZ, but where there is competition for limited funds RASNZ membership may be an advantage.

The RASNZ Council considers each application in accordance with the objectives of the Trust Deed and makes recommendations to the Trustees of the Kingdom-Tomlinson Fund accordingly. The Trustees of the Fund have the final decision as to successful applications.

More information including the application form can be found here.

The Kingdon-Tomlinson Fund was set up under the will of the late Julie Annie Tomlinson of Nelson for the purposes of promoting the study of astronomy in New Zealand.

Applications may be made for any projects or ventures which promote the progress of astronomy in New Zealand. Council of the RASNZ considers each application in accordance with the objectives of the Trust Deed and makes recommendations to the Trustees of the Kingdon-Tomlinson Fund accordingly.

Grants are not restricted to members of the RASNZ, but where there is competition for limited funds membership of the RASNZ may be an advantage for the applicant.

Applications should be made on the official application form here. Alternatively you may obtain the form and further information from the Executive Secretary of RASNZ. Email enquiries to secretary@rasnz.org.nz.

MEMBER NOTICES

Notice to Existing RASNZ Members

from the Membership Manager

This year on 15 December an email will be sent to all existing paying members with the invitation to register for 2026 and to pay the membership fee.

Please take note of the correct procedure that is outlined on the RASNZ website here and make sure that we have the correct email address for you in our database.

For any inquiries contact members@rasnz.org.nz.

MEMBER NOTICES

RASNZ Content Manager

from the Secretary

The Royal Astronomical Society of New Zealand is seeking a member to manage the content of the RASNZ Facebook page, as well as potentially RASNZ's Instagram and Twitter. This role involves promotion of RASNZ-affiliated events and communication with the public. If you are interested, please submit an expression of interest to the Executive Secretary at secretary@rasnz.org.nz.

KEY CONTACTS

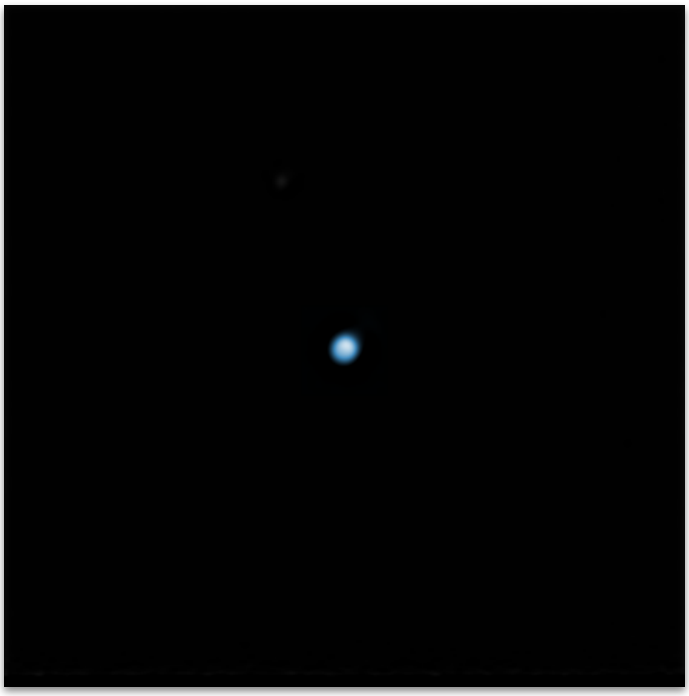
Position	Contact	Name
President	president@rasnz.org.nz	Duncan Hall
Vice President	vice.president@rasnz.org.nz	Raul Elias-Drago
Executive Secretary	secretary@rasnz.org.nz	Penglong Zhou
Membership Manager	mm1@rasnz.org.nz	Erik Vermaat
Newsletter Editor	enews.editors@rasnz.org.nz	Victor Bao

ASTROPHOTOGRAPHY

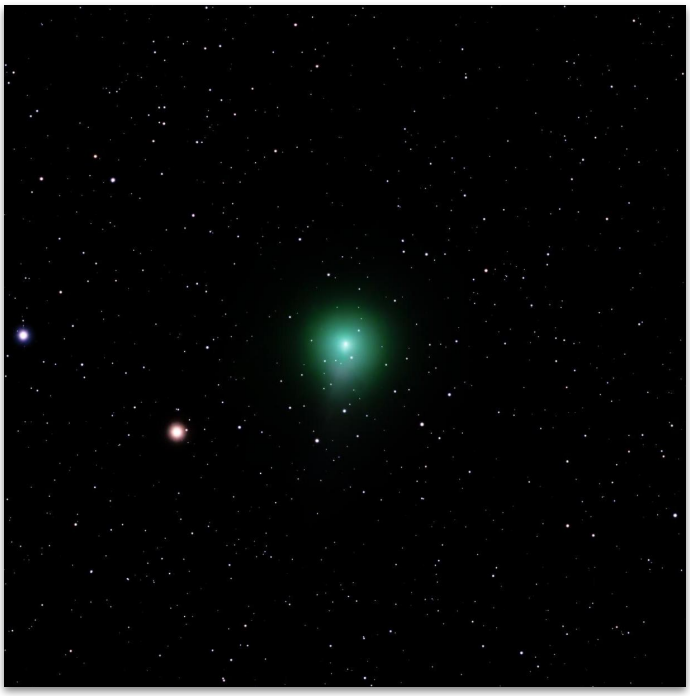
Welcome to the Astrophotography section of the new RASNZ Newsletter. We encourage astrophotographers to share their own pictures to our e-mail to be featured in the next edition!

Sculptor Galaxy NGC 253, A. Hart. C9.25 at f/7, IMX571, LRGB. 11 Nov 2025

Orion Nebula, V. Bao. 70mm ED refractor, IMX533, dual narrowband (SII/Hb). 22 Nov 2025



Neptune and Triton, V. Bao. C11, IMX462, IR-pass, colourised. 21 Nov 2025



Comet C/2025 R2 (SWAN), A. Hart. 130mm f/5.4 Petzval Refractor, IMX571, RGB. 29 Oct 2025

Newsletter Archive

You can now find links to all new style issues in the archive on the RASNZ website here. (both the Slides version and the PDF format)

Join RASNZ

RASNZ membership is open to all individuals with an interest in astronomy in New Zealand. Information about the society and its objects can be found at https://www.rasnz.org.nz/rasnz-info/membership-benefits For membership complete the online application form found at Membership Application.
Basic membership for a calendar year starts at $40 for an ordinary member, which includes an email subscription to our journal 'Southern Stars'.

Until next time!

Let us know if you have something to share! It could be an article or your research.

Contact Us

enews.editors@rasnz.org.nz