Canterbury Astronomical Society

CASMag

Upcoming Notable events for your calendar:

July 1 – Wednesday Group booking

July 4 - 18 – Kids Fest!! every clear night – WE NEED YOU!!

**** Please volunteer for at least 1 or 2 nights of KIDS Fest – it really helps share the load & helps CAS outreach efforts****

July 6th - Public Astronomy Lecture: Scanning The Darkest Skies by Richard Easther @ 7:30pm at The Arts Centre

July 21st – *CAS Monthly Meeting, Ernest Rutherford 225 @7:30pm*

- ***New Astronomers session 630 – 730 pm run by Orlon Petterson***
- ***Meeting Speaker: Karina Leppik, Engineer at the Giant Magellan Telescope Near Infrared Spectrograph @8pm***

July 25th - CAS Members Night at the Observatory 600pm onwards

Inside this July 2026 Issue

Editor's Thoughts

Our winter programme has been plagued by clouds hopefully the clouds will part and we will have lovely clear nights for Kids Fest which CAS runs from July 4th – 18th. As Mandy pointed out in our last CASMag volunteering for Kids Fest can be particularly gratifying when the kids voice their amazement and wonder at what you show them. I cannot emphasize enough how important volunteers are to this particular CAS outreach activity – if we are lucky and get a run of clear nights it can be quite taxing on the regular volunteers. If you have never volunteered before, now is the PERFECT time to start and inspire our Tamariki with the wonders of our beautiful night sky. CAS' outreach activities like our Wednesday night groups, our Friday Public Open nights and Kids Fest generate a significant portion of our income for the year and this income allows CAS to do a lot of good for our members, the observatory and in educating the public about our night sky. Even if you can volunteer for one or two nights it would help and you don't need to be experts! I started as a complete newbie and over time have managed to learn and expand my knowledge just by volunteering. It is very rewarding. Alan Gilmore has added some pointers on how to find Matariki in the sky so make sure to check out his "Night Sky in July". This is a slim CASMag as I am away on a 2 week holiday. But I'll be back in time for the second week of Kids Fest. Until then, clear skies everyone – *Preetha*

KidsFest 2026 is HERE!!!

We will run every clear night from Saturday 4 July until Saturday 18 July. We NEED your help to make it a success. Volunteering a night or two can be a huge support for CAS. No expertise needed to be an amazing volunteer. The telescopes are setup ahead of time and pointed a lovely object. From there, you find some information about that object – usually how far away it is in light years is great start 😊 If manning telescopes is not your thing then you can still help by directing people around the site, be at hand to answer simple questions or point people to volunteers who may be able to help them. It's a fantastic way to see firsthand the impact we have on inspiring the next generation of stargazers. It's also a great way to learn how to use some of our telescopes. It's how most of us volunteers started 😊 We'd love to have you involved!

Adventures with a small but mighty DWARF – *by Mandy Heslop*

Hi everyone, I'm Mandy!

A few of you might already know me—I've been a member for many years and have served as the Society's Secretary for the last four. You'll usually find me browsing the night sky through the 14" and the Dobsonian telescopes during our private group nights and public open nights. I've always loved the 14" because of its purely manual nature; to be honest, I'm not tech-savvy at all, and the computerised scopes usually scare me a tad (much to the frustration of those trying to teach me, I'm sure!).

I've been watching the evolution of smart scopes over the last couple of years with a lot of curiosity, but they were changing so fast I felt completely lost for choice, so I held off. However, a talk on the Dwarf scopes at Stardate really got me thinking, and a few weeks ago, I finally took the plunge!

Wanting to avoid a fortune in costs (and import taxes), I bought the Dwarf Mini Smart Telescope with the EQ tripod and a little carrying bag. And I mean little—the scope itself isn't much bigger than a smartphone! I even bought a dedicated tablet for the venture, then impatiently waited for clear skies to bumble my way through my first imaging session.

I had already decided that Centaurus A would be my first target. When the skies finally cleared, I set it up and was absolutely blown away by what this tiny thing produced! The app is quite intuitive and guides you through the process, though it's still a learning curve for me. It has basic processing built right into the software, which is a massive bonus for a non-techy like me.

I live in town with two hideous streetlights right outside, so I set up a table out back to hide from the worst of the glare. The scope actually does a fantastic job of cutting through the light pollution, but every little bit of darkness helps.

There is still so much to learn, which will come with time and clear nights (which are few and far between at the moment, gah!). But if you're like me and a bit cautious about making the leap into smart scopes, don't be! Jump on the digital scope train and enjoy the sky, day and night. You won't regret it!


Help us light up the 2027 Calendar!
Canterbury Astronomical Society
Cosmic Calendar 2026
Canterbury Astronomical Society
Cosmic Calendar 2024
GAS
January 2026
April 2026
We're on the hunt for YOUR amazing space shots!
Got a jaw-dropping nebula, a stunning galaxy,
or a local night sky that makes people go "WOW"?
Your photo could be in the next Cosmic Calendar!
Send your best image to
calendar@cas.org.nz
Images to be submitted by 1 Oct 2026
Let's make 2027 out of this world!
With thanks, Mandy and Dale
CANTERBURY ASTRONOMICAL SOCIETY
CAS

Events/Programmes of interest

6 July 2026, 7:30pm Public Astronomy Lecture: Scanning The Darkest Skies *by Richard Easther*

https://www.artscentre.org.nz/whats-on/public-astronomy-lecture-scanning-the-darkest-skies

Matariki 2026

Public Astronomy Lecture: Scanning The Darkest Skies

Monday 6 July 2026

Time: 7.30PM – 8.30PM

Venue: Great Hall, The Arts Centre

Free

Matariki reminds us that astronomy begins with humanity's shared view of the night sky. Yet today's astronomers often explore invisible features of the cosmos – dark matter, gravitational waves, and black holes. Drawing connections between these two perspectives, Richard Easther will shine a light on how our small country can play a key part in answering the biggest questions.

Dr Richard Easther is a professor in the Department of Physics at the University of Auckland, and is a scientist, teacher, communicator and commentator. Professor Easther helped to set up Te Pūnaha Ātea Auckland Space Institute and is currently President of the New Zealand Institute of Physics.

Richard is in Ōtautahi Christchurch as part of The International Symposium on Cosmology and Particle Astrophysics (CosPA2026) and the 13th Australasian Conference on General Relativity and Gravitation (ACGRG13).

CAS Monthly Meeting venues for the rest of 2026 at the University of Canterbury

– It's a bit of a mix so do make sure you make a note of it and head to the right room!

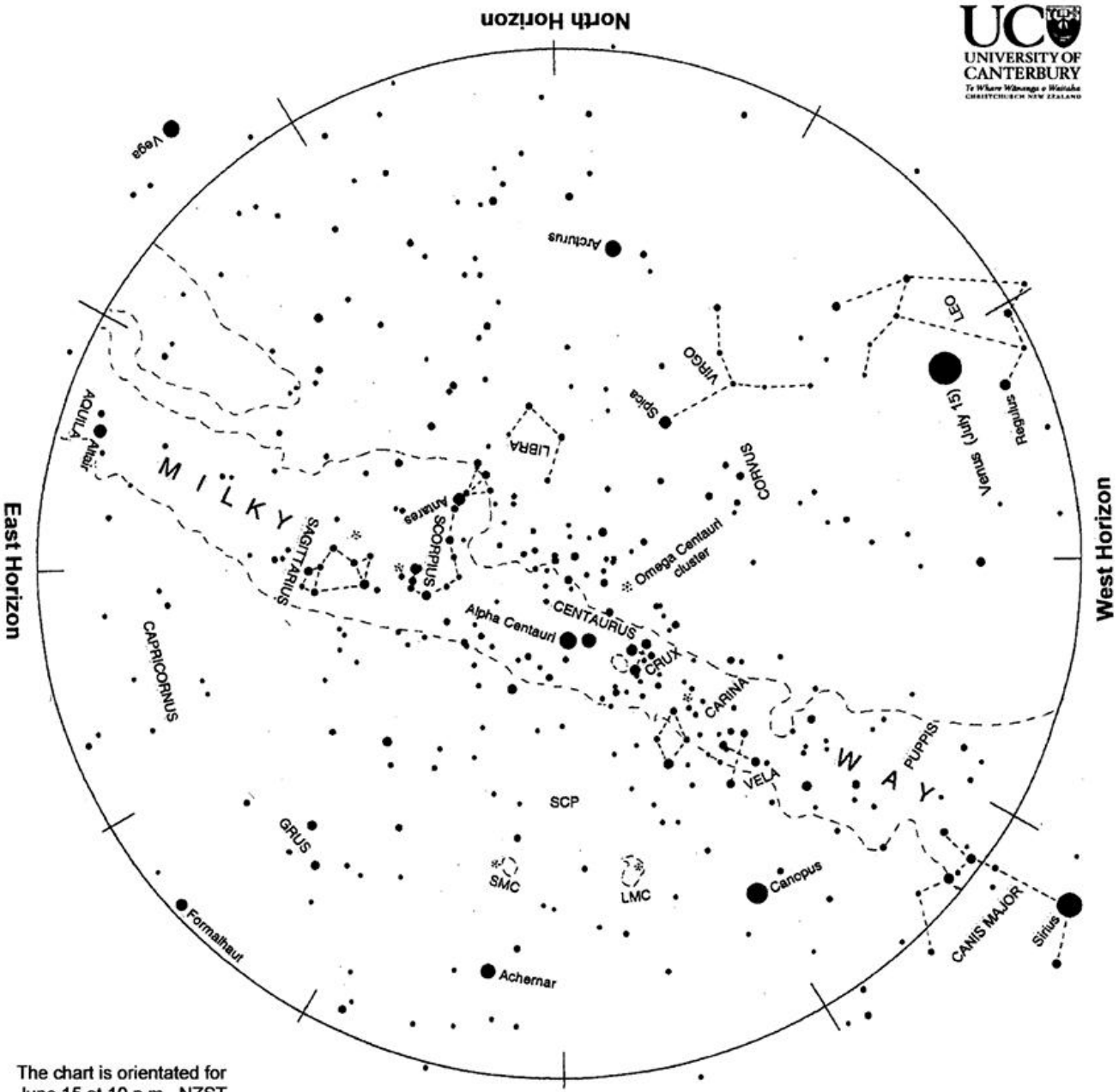
Date	Location	Speaker
21/7/2026	Ernest Rutherford 225	Karina Leppik, Engineer at the Giant Magellan Telescope Near Infrared Spectrograph – topic TBA
18/8/2026	Jack Erskine 111	Marcos Van Dam - Taking the twinkle out of the stars: adaptive optics on extremely large telescopes
15/9/2026	Jack Erskine 111	Paula Jofre – Topic to be advised
20/10/2026	Ernest Rutherford 225	Ryan Ridden – Topic to be advised
17/11/2026	Ernest Rutherford 225	To be advised

From CAS Membership - CAS Membership subscriptions were due 1st April 2026

Payment by either, bank deposit or eftpos at a meeting. If by bank deposit, please use your name and membership as a reference so it can be matched to your membership. (if you know your member number please use this). Also advise any of your contact detail changes for your membership (e.g.: address, phone number) to membership@cas.org.nz

Online Banking Details (Please identify your payment): 03 0802 0098273 00

		Full
☐	Adult (any person 18years of age or over who is not eligile for any other category)	$70
☐	Family (two or more persons living at the same address)	$105
☐	Junior (under 18 years of age on 1st April in the current year)	$35
☐	Senior (over 65 Years)	$35
☐	Community Services Card Holder	$35
☐	Student (any person studying full-time at a tertiary institution, must reapply annually)	$35
☐	Corporate (members have voting rights of one member, but cannot take office)	$210



The chart is orientated for
June 15 at 10 p.m. NZST
July 1 at 9 p.m. "
July 15 at 8 p.m. "
Aug. 1 at 7 p.m. "

Evening sky in July 2026

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 makes a small extra clockwise rotation each night as we orbit the sun.

Jupiter and Venus are the 'evening stars' appearing in the northwest soon after sunset. Jupiter sets early, so isn't on the chart. Venus is a brilliant object in the mid-evening sky, setting around 9 p.m. Sirius, the brightest true star, sets in the southwestern twilight, sparkling colourfully. Low in the north is orange Arcturus, often twinkling red and green. The Pointers and Crux, the Southern Cross, are south of the zenith. Canopus, the second brightest star, is low in the southwest. It swings down to the southern horizon later. Vega rises on the opposite horizon around 9 p.m.

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

The Night Sky in July 2026

At the beginning of July **Venus** and **Jupiter** are the 'evening stars', appearing in the northwest soon after sunset. Jupiter has a golden colour and is low in the sky (so not on the chart.) Venus is brilliant white, bright enough to cast shadows in dark locations. Jupiter sets earlier each night as we move to the far side of the Sun from it. By mid-month it is getting lost in the twilight, setting 50 minutes after the Sun.

Venus moves higher night-to-night as it catches up on us from the far side of the Sun. By the end of the month it is setting four hours after the Sun, a brilliant object in the dark sky. Venus is bright enough to see by eye in daylight, if you can focus on infinity. Around 3:30 pm it is due north, one-third to halfway up the sky, depending on your location. On the 17th Venus will be 6.5° to the right of the thin crescent Moon. On the 18th it will be a similar angle below and left of the Moon. 6.5° is 13 full-moon widths.

Sirius, the brightest true star, sets in the southwest as twilight ends, twinkling like a diamond. **Canopus**, the second brightest star, is also in the southwest at dusk. It swings down to the southern skyline before midnight where it also twinkles colourfully. It then moves up into the southeast sky in the morning hours. It is a 'circumpolar star'. Seen from Aotearoa it never sets, except in the most northern places. Canopus is a truly bright star: 13 000 times the sun's brightness and 300 light-years* away.

South of the zenith are 'The Pointers', Beta and **Alpha Centauri**. They point to **Crux**, the Southern Cross, on their right. Alpha Centauri is the third brightest star in the sky. It is also the closest of the naked eye stars, 4.3 light-years away. Beta Centauri, like most of the stars in Crux, is a hot blue-giant star hundreds of light-years away. Crux and the Pointers are also circumpolar. They are always somewhere in our southern sky. In summer they are upside down and low in the south.

East of overhead is **Scorpius**. The orange-red star **Antares** marks the scorpion's body. Its tail and sting curl off to the right. Later in the night the tail curls around the zenith. The Moon will be near Antares on the 24th and 25th. The name Antares comes from ancient Greek meaning "rival to Mars". Ares was the Greek name for Mars. Mars has a similar colour and brightness to Antares, except when it is close to us.

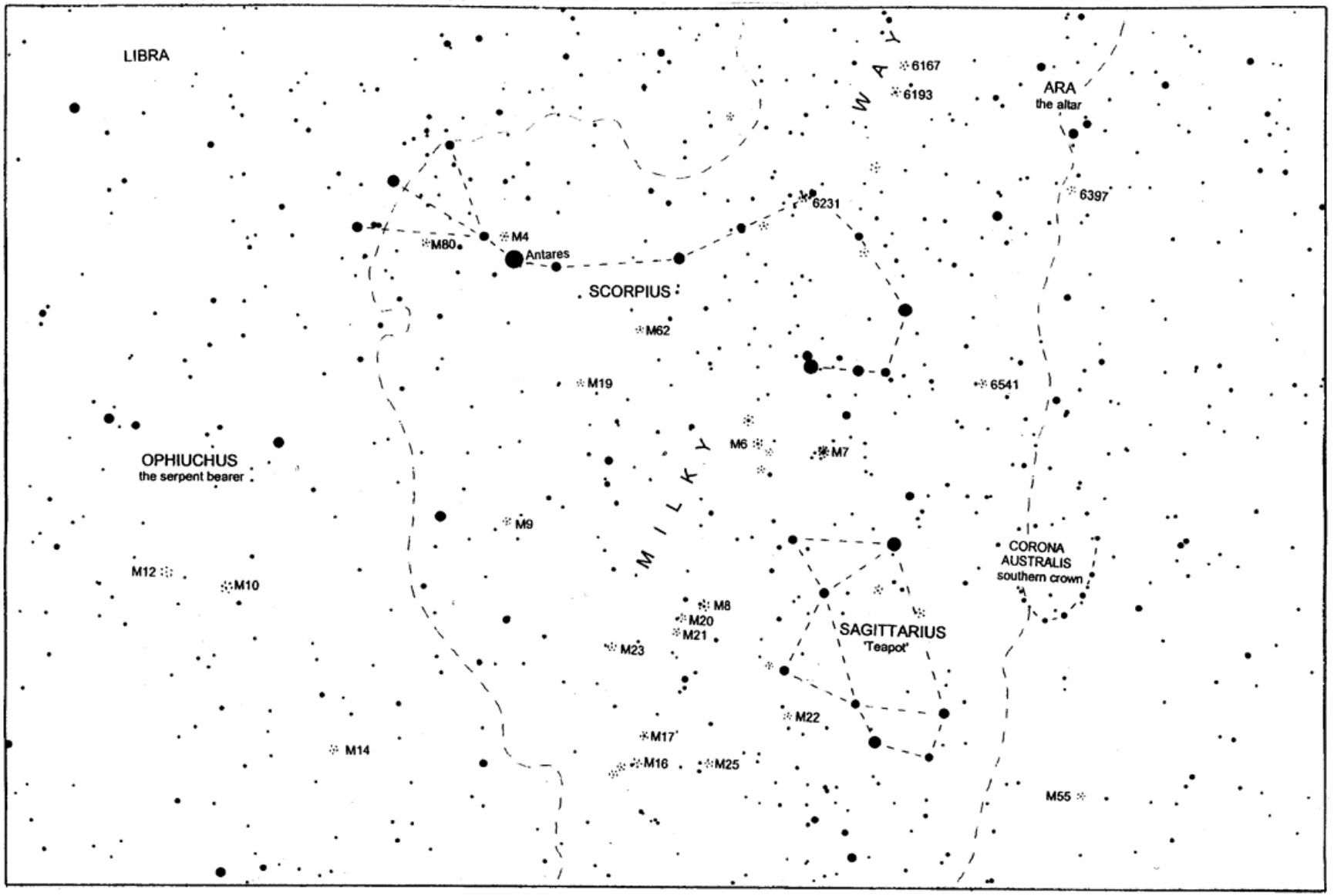
Midway down the north sky is orange **Arcturus**. It sets in the northwest around midnight, twinkling red and green as it goes. It is the fourth brightest star and the brightest in the northern hemisphere sky. It is 120 times the sun's brightness and 37 light-years away. It has an orange colour because it is cooler than the Sun; around 4000°C. Above Arcturus is a lone bright star, **Spica**, the brightest star in Virgo. The Moon will be close to Spica on the 21st. **Vega** rises in the northeast around 9 pm. It is on the opposite side of the sky to Canopus: low in the north when Canopus is low in the south. Vega is the fifth-brightest star in the sky and the second-brightest northern hemisphere star. It is 52 times brighter than the Sun and 25 light-years away.

The **Milky Way** is brightest and broadest in the east toward **Scorpius** and **Sagittarius**. In a dark sky it can be traced up past the Pointers and Crux, fading toward Sirius. The Milky Way is our edgewise view of the galaxy, the pancake of billions of stars of which the sun is just one. The thick hub of the galaxy, 30 000 light-years away, is in Sagittarius. The actual centre is hidden by dust clouds in space. A scan along the Milky Way with binoculars shows many clusters of stars and some glowing gas clouds.

Saturn rises due east around midnight. It is a lone cream-coloured 'star'. By dawn it is due north, halfway up the sky. Orange-red Mars is in the morning sky, rising before 5 a.m. At the beginning of July, it will be between orange Aldebaran and the Matariki/Pleiades star cluster. They move higher, leaving Mars behind. On the morning of the 4th the planet Uranus will be 21', two-thirds of a full moon's width, below Mars. On the 5th it will be 20' above and left of Mars. In a dark sky Uranus is just visible without a telescope. Unfortunately, moonlight will be bright on the above dates, hiding the faint planet. Both Mars and Uranus show tiny disks in a telescope with Uranus having a blue-green tint.

*A **light-year** (**l.y**.) is the distance that light travels in one year: nearly 10 million million km. Sunlight takes eight minutes to get here; moonlight about one second. Sunlight reaches Neptune, the outermost major planet, in four hours. It takes sunlight four years to reach the nearest star, Alpha Centauri.

Notes by Alan Gilmore, University of Canterbury's Mt John Observatory, P.O. Box 56, Lake Tekapo 7945, New Zealand.
www.canterbury.ac.nz 260607



Eastern Evening Sky in July

The chart shows the eastern sky at nightfall. The Milky Way is here bright and broad as we look toward the centre of the galaxy. Many star clusters and a few nebulae are seen, some obvious to the naked eye. Those visible in binoculars or small telescopes are indicated with asterisks. They are described on the other side of this page.

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

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Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Interesting Objects East of Overhead on Winter Evenings

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Antares is the brightest star in the region. It is orange coloured; being a 'red giant' star. (The 'red' of red giants is usually more an orange tint.) It is 600 light years* away, 19 000 times brighter than the sun, and big enough to fill Earth's orbit. Its mass or weight is about 20 times that of the sun, so most of the star is very thin gas spread around a hot dense core. Red giants are the last stage in the evolution of stars. The dense core of the star has shrunk and heated. The outer regions of the star have expanded to a very spread-out gas. The core is wringing the last of the thermo-nuclear energy out of elements like helium, carbon, oxygen and neon. In about two million years the core of Antares will run out of energy and collapse, triggering a spectacular supernova explosion. (The sun will become a red-giant in about seven billion years time but it ends up as a white dwarf star, not a supernova.)

Antares marks the heart of Scorpius. In the evening at this time of year the Scorpion is on its back with its tail on the right, curving upward then turning down and curling clockwise. The sting is the horizontal line of bright stars pointing toward Antares. In Maori star lore the tail's hook is the 'fish hook of Maui'.
By midnight the scorpion's tail is directly overhead.

At the right-angle bend in the tail is a large and bright cluster of stars, NGC **6231,** looking like a small comet. It is around 6000 l.y. away. Its brightest stars are 60 000 times brighter than the sun. The cluster is about 8 light years across, similar in size to the Pleiades/Matariki cluster in our summer sky. Were it as close at the Pleiades (400 l.y.) then its brightest stars would be as bright as Sirius. Below the Scorpion's sting is **M7** a cluster obvious to the eye and nicely seen in binoculars. M7 is about 800 l.y. away and around 260 million years old. (The older a star cluster, the fewer bright stars it has.)

Below M7 and fainter is **M6**, the 'butterfly cluster'. M6 is around 1300 l.y. away and is half the age of M7. Other clusters worth a look in binoculars are **M21**, **M23**, NGC **6167**, and NGC **6193**. The 'M' objects were listed by the 18th Century French astronomer Charles Messier. He hunted comets, so made a catalogue of fuzzy objects that could be mistaken for comets. The NGC (New General Catalogue) objects shown are bright to enough to have been seen by Messier but are too far south to be seen from Paris.

Left of the Sagittarius 'Teapot' is the glowing gas cloud **M8**, the 'Lagoon Nebula'. It is a star-forming region where gas and dust have recently gathered into new stars. ('Recently' = the past million years or so.) Ultraviolet light from one particularly hot star is lighting up the leftover gas, making it glow. On colour photos it appears pink due to hydrogen atoms fluorescing in the UV light. Below M8 is **M20**, the Trifid Nebula, small glowing patch in binoculars, also a pink hydrogen region in photos. Right alongside it is a blue reflection nebula where starlight is scattered by dust. Other nearby nebulae (gas and dust clouds) are **M16** and **M17.**

Globular clusters, spherical clusters of ancient stars, are found throughout the region. The brightest is **M4** by Antares. It is also one of the closest at 10 000 l.y. away. In binoculars and small telescopes 'globs' appear as round fuzzy spots. Others marked on the chart are **M9**, **M10**, **M12**, **M14**, **M19**, **M22**, **M55**, **M54**, **M62, M80** and NGC **6541**. The concentration of globular clusters in this area was an early clue that the centre of the galaxy lay in this direction.

This part of the Milky Way is broad and bright as we are looking to the centre of the galaxy. The actual centre, 27 000 light years away, is hidden from our view by intervening dust clouds. The nearer clouds make gaps and slots along the Milky Way. The hub of the galaxy is a great sphere of stars, called the 'central bulge'. Some of the central bulge is glimpsed in gaps between the dust clouds. At the very centre lies a black hole four million times the sun's mass but only the size of our solar system. Infra-red telescopes, peering through the dust, show stars orbiting the invisible black hole at high speed. By plotting the movements of these stars over the past two decades, astronomers have been able to deduce the mass of the central black hole and its distance. All big galaxies have a massive black hole at their centre.

Notes by Alan Gilmore, University of Canterbury's Mt John Observatory, P.O. Box 56, Lake Tekapo 7945, New Zealand.
www.canterbury.ac.nz
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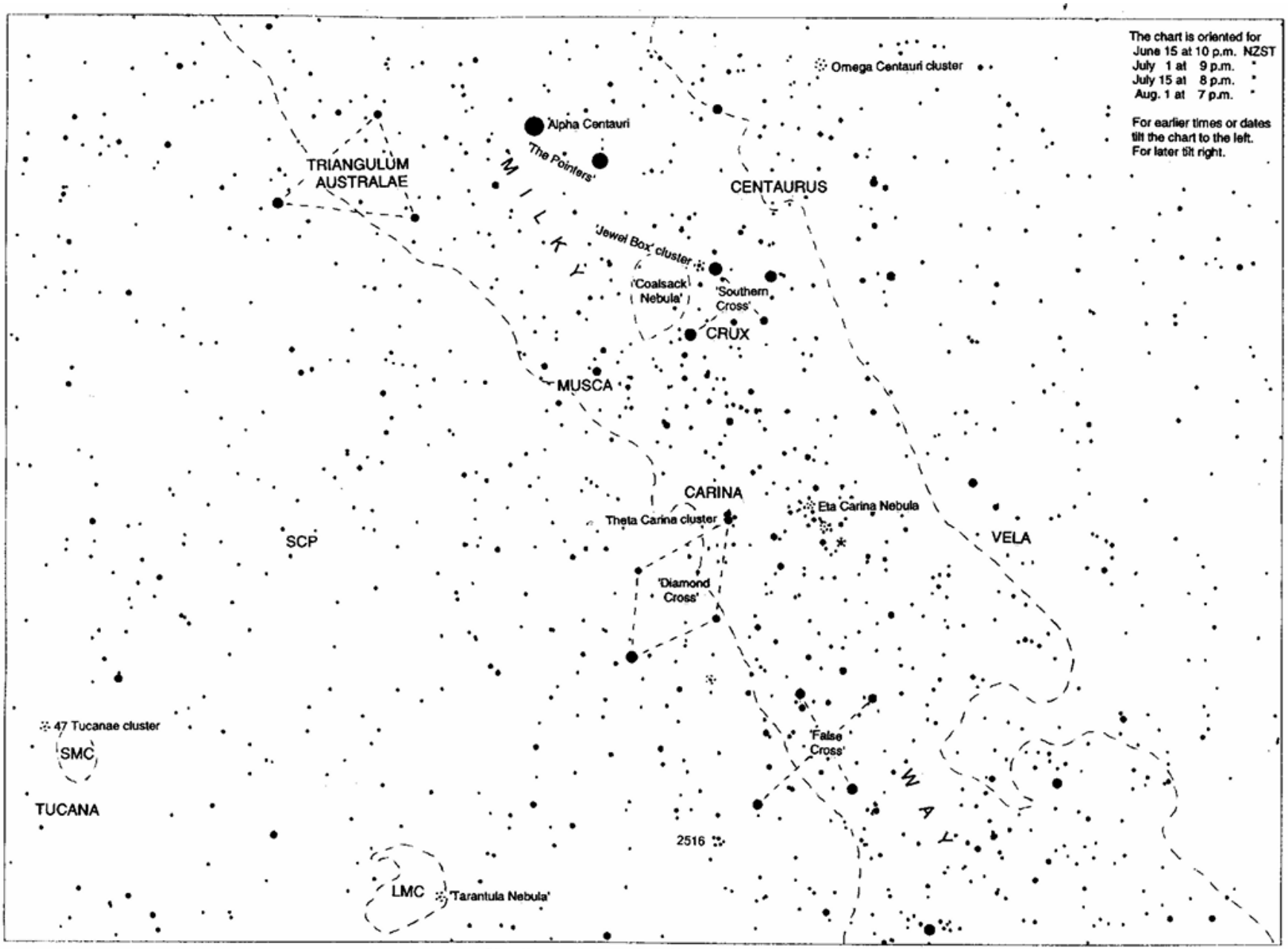


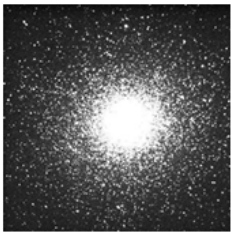
Southern Evening Sky in July

The chart shows the southern and southwest sky. Interesting star clusters and nebulae are indicated with asterisks. They are described on the other side of this page.

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

Interesting Objects in the Winter Southern Sky

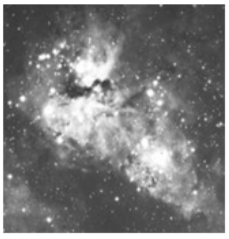
Centaurus, with the bright 'Pointers', and **Crux**, the Southern Cross are south of overhead, the tightest grouping of bright stars in the whole sky. Originally Crux was the hind legs of the Centaur, the horse-man of Greek mythology. The complete Centaur, with bow, is outlined at left. It was only in the 17th Century that Crux was split off as a separate constellation. The slow wobble of Earth's axis allowed this part of the sky to be seen from more northerly places in ancient times. The fainter Pointer and the three bluish-white stars of the Crux are all super-bright stars hundreds of light years away. Alpha Centauri is just 4.3 light years* away and the reddish top star of Crux is 90 light years from us.



Omega Centauri is a globular cluster, a ball-shaped cluster of millions of stars. Its total mass is six million times the sun's mass. It is 17 000 light years away and 200 light years across. Globular clusters are very ancient, around 10 billion years old, twice the age of the sun. Omega Centauri is the biggest of the hundred-odd globulars randomly orbiting our galaxy. It may originally have been the core of a small galaxy that collided with the Milky Way and was stripped of its outer stars. 47 Tucanae, near the SMC, is a similar but smaller cluster about 16 000 light years away.

Coalsack nebula, left of Crux, looks like a hole in the Milky Way. It is a cloud of dust and gas 600 light years away, dimming the distant stars in the Milky Way. Many 'dark nebulae' can be seen along the Milky Way, appearing as slots and holes. These clouds eventually form new stars.

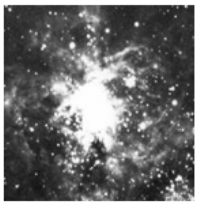
The Jewel Box is a compact cluster of young bright stars about 7000 light years away. The cluster formed about 16 million years ago. To the eye it looks like a faint star close to the second-brightest star in Crux. A telescope is needed to see it well.



Eta Carinae nebula, a luminous spot in the Milky Way to the right of Crux and lower, is a glowing gas cloud about 8000 light years from us. The thin gas glows in the ultra-violet light of nearby hot young stars.

The golden star in the cloud, visible in binoculars, is Eta [Greek 'e'] Carinae. It is estimated to be to be 80 times heavier than the sun. It is four million times brighter than the sun but is dimmed by dust clouds around it. It is expected to explode as a supernova in the next few thousand years. Many star clusters are found in this part of the sky.

Large & Small Clouds of Magellan (LMC & SMC) appear as two luminous clouds, easily seen by eye in a dark sky. They are galaxies like the Milky Way but much smaller. Each is made of billions of stars. The LMC contains many clusters of young bright stars seen as spots of light in binoculars. The LMC is 160 000 l.y away; the SMC 200 000 l.y. Both are very close by for galaxies.



Tarantula nebula is a glowing gas cloud in the LMC. The gas glows in the ultra-violet light from a cluster of very hot stars at the centre of the nebula. The cloud is about 800 light years across. It is easily seen in binoculars and can be seen by eye on moonless nights.

This nebula is one of the brightest known. If it was as close as the Orion nebula then it would be as bright as the full moon.

*A **light year** (**l.y**.)is the distance that light travels in one year: nearly 10 million million km, or 10^{13} km. Sunlight takes eight minutes to get here; moonlight about one second. Sunlight reaches Neptune, the outermost major planet, in four hours. It takes four years to reach the nearest star, Alpha Centauri.

Text and photos by Alan Gilmore, Mt John Observatory of the University of Canterbury,
P.O. Box 56, Lake Tekapo 8770, New Zealand. www.canterbury.ac.nz

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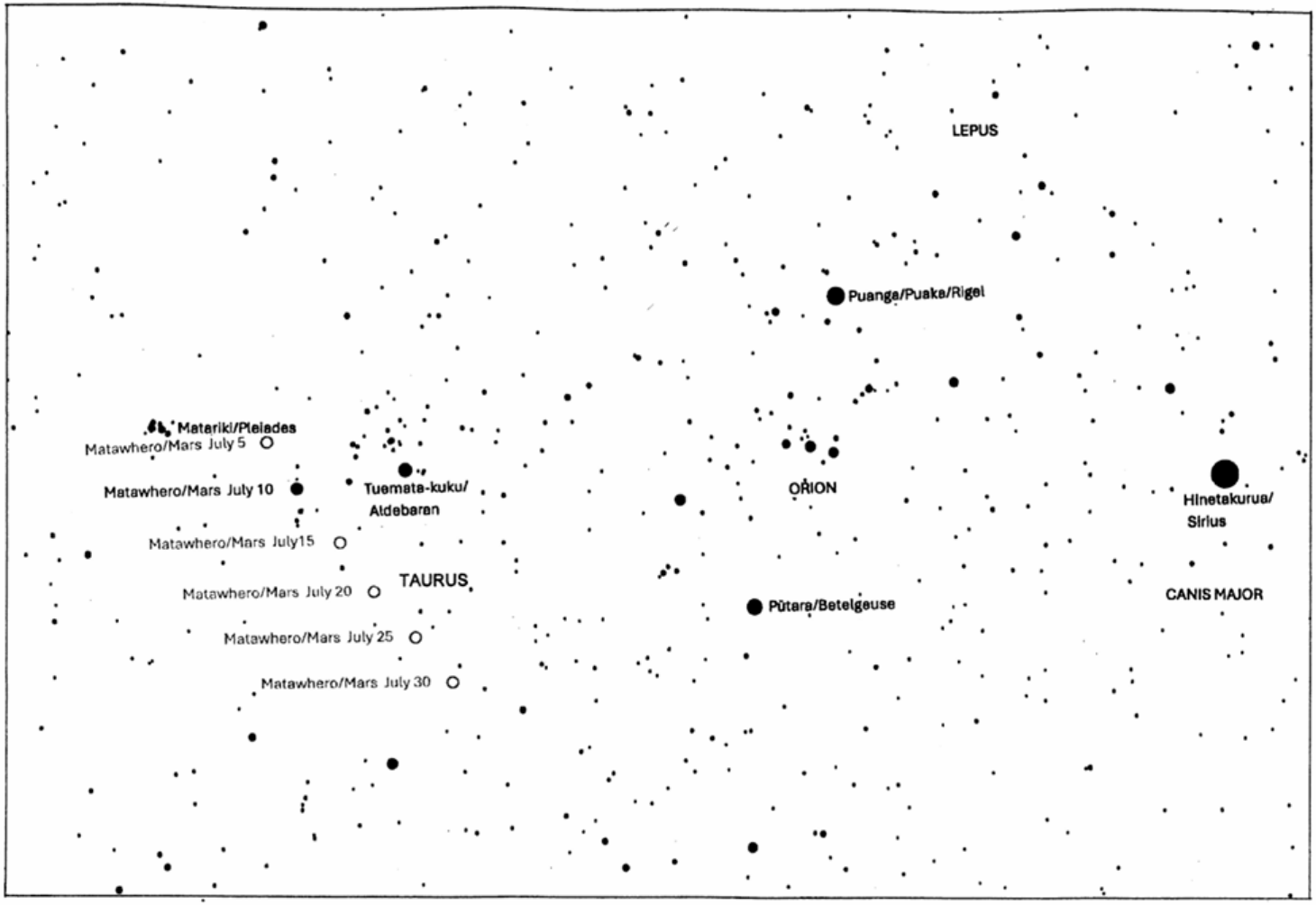

Eastern dawn sky in July 2026

The chart shows the eastern sky at dawn in July. Puanga/Puaka/Rigel is the first star to appear, rising around 4:30 a.m. It is followed by Hinetakurua/Sirus around 5:20, depending on your location. The Matariki/Pleiades star cluster rises before 5 a.m. in July but needs to be several degrees up before it is visible to the eye. Matawhero/Mars crosses the region in June and July. On July 5 it will be between Matariki and the orange star Tuemata-kuku/Aldebaran. Matawhero /Mars has the same orange-red colour as Tuemata-kuku/Aldebaran and is a bit fainter. To the right of them is a brighter orange star, Pūtara/Betelgeuse. Above Pūtara/Betelgeuse is the line of three stars, Tautoru, making Orion's belt or the bottom of The Pot.

Chart produced by Guide 9 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

Eastern Dawn Sky in July 2026

This chart is intended for skywatchers who want to find the Matariki/Pleiades star cluster in the dawn sky.

The Matariki/Pleiades/Subaru cluster is quite faint. So even in a dark sky it has to be well above the horizon before it is visible. It is also easily hidden by twilight, bright moonlight and artificial light. The need for some elevation and not too much twilight means the cluster is hard to see till mid-June.

This year the Moon is a thin crescent on Matariki Day, July 10. It is beside the star cluster on the 11th. The orange-red planet Matawhero/Mars crosses the Matariki region in late June and July. On July 5 it will be between Matariki and Tuemata-kuku/Aldebaran. Mars has a similar colour to Tuemata-kuku/Aldebaran and is a bit fainter.

As the Earth moves around the Sun, the Sun appears to move against the background stars. We can't see the stars in the daytime, so the movement isn't obvious. What we see is the stars being a little further west each night. Because of the tilt of Earth's axis to its orbit the Sun's track is tilted on the sky. At this time of year the Sun is near its most northern position, our winter solstice.

The Matariki/Pleiades cluster is near the Sun's track, so it disappears into the western evening twilight in March as the Sun approaches it. It remains hidden through April and May as the Sun passes it by. It reappears in the eastern dawn sky as the Sun moves east of the cluster, or downward and away in our dawn-sky view. This happens everywhere in the world as the Sun's track is near the cluster.

Because the cluster reappears in mid to late June it makes a good marker for the southern winter solstice, our shortest day.

Alan Gilmore 7 June 2026

Members Interest Section

This section is for members who have as an interest under the umbrella of Astronomy. Your interests could be around Meteors / Comets / Photometry / Solar observing / Photography / Telescope building / Spectroscopy / Aurora's / Occultation's / Variable Stars / Satellite tracking / Lunar observations/ Jupiter impact monitoring / Radio Astronomy / Eclipses. You are welcome to share your thoughts and see who other like minded people would like to join you. You can form your own interest section. Below are a few members who have started their own interests sections. You can also use the CAS forum to discuss other ideas to check out who else would be interested in starting a new members interest section.

- **Tune into Jupiter or the Sun with Radio Astronomy**

Radio astronomy can be done during the day and even cloudy nights. Terry has built a receiver and with his computer can log activity of the Sun and Jupiter.
For more information contact Terry Richardson, email: president@cas.org.nz Cell: 021 776 458

- **Bounce Signals off the Moon**

Beam a signal at the Moon or at a lunar orbiting satellite
For more information email: president@cas.org.nz

- **Spectroscopy**

CAS has recently purchased a diffraction grating which can be attached to a telescope eyepiece or camera on the telescope. The grating, like a prism, spreads the light from starlight into component colours (distribution of wavelengths). Thus begins the engaging look into the not so private lives of stars, nebulas and galaxies.
For more information contact Ray Pointon, email: rpointon@cyberxpress.co.nz

Other Information

***** IMPORTANT NOTE - UC PARKING ******

There are bollards now installed by the Rehua Building and these will be raised at 6pm daily till 7am. Do not park in the areas by these as you risk getting locked in! Please note its just this one area where the EV chargers are located that has been protected by bollards. All the rest of the campus remains the same. Be wary where you are parking!! The map at this link shows where accessibility parks are >>> https://www.canterbury.ac.nz/about-uc/our-campus-and-environment/maps

CASMag will be published every alternate month at the very least but if there are sufficient articles of interest submitted, CASMag can be published monthly. CASMag will contain information on CAS activities, articles contributed by CAS members or others with interest in astronomy which members may find interesting, monthly star charts. Members new and experienced, young and mature are invited to send in your contributions and these can be short articles (50 – 100 words) on what your experience has been being a CAS member, what you have learnt, what astronomy projects you're working on, astronomy or astronomy related images etc. Send your contributions to Editor@cas.org.nz by the 3rd week of the month at the latest.

Application for Membership

If you wish to apply for CAS membership, then please head on over to our website https://cas.org.nz/register to register and apply for membership.

Contacts information:

For Public Group Bookings - bookings@cas.org.nz

CAS COMMITTEE AND OFFICERS 2026/2027

President:	Terry Richardson	president@cas.org.nz
Vice President:	Rob Glassey	vice.president@cas.org.nz
Treasurer:	Brent Schroeder	treasurer@cas.org.nz
Secretary:	Mandy Heslop	secretary@cas.org.nz
Observatory Director:	Jason Kruger	observatory.director@cas.org.nz
Editor:	Preetha Sreedharan	editor@cas.org.nz
Membership Secretary:	Dale Kershaw	membership@cas.org.nz
Librarian:	Ray Pointon	librarian@cas.org.nz
Digital Services Officer :	Orlon Petterson	casweb@cas.org.nz
Committee Members:	Gary Steel	TBC
	Marc Bunyan	TBC

You can also see the contact information page on www.cas.org.nz

CAS Mailing address:
Canterbury Astronomical Society Inc.
218 Bells Rd, West Melton 7671

Web: www.cas.org.nz

Canterbury Astronomical Society Facebook Group: www.facebook.com/groups/CanterburyAstronomicalSociety