



CASMAG

The official magazine of the Canterbury Astronomical Society

www.cas.org.nz www.facebook.com/CanterburyAstronomicalSociety

Monthly Meetings: MEETINGS CANCELLED

While the country has any Alert levels due to Covid-19, CAS has suspended all Member Meetings, Members Nights, All Public Events including Public Open Nights & Kids Fest along with any Observatory Activity's.

While we have all been doing our bit during these very different times we here in New Zealand are facing, I would like to say a huge shout out of thanks to our members or your family members who have been working, during the last couple of months, Personally even though I have been at home, things have been very strange and completing tasks has been a struggle, Therefore this issue is a combined April/May issue and there will be a June issue of casmag in the next couple of weeks, (If you sent items to me and they are not included in this issue they will be in the next and thank you) Again to those who have been working, Essential Workers and those working from home **THANK YOU**

Dale (Cas Editor)



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CAS Calendar, MAY- JULY 2020

May 2020

Friday 1st	First Quarter
Thursday 7th	Full Moon
Friday 15th	Last Quarter
Saturday 23rd	New Moon
Saturday 30th	First Quarter

June 2020

Monday 1st	Queens Birthday Holiday
Saturday 6th	Full Moon
Tuesday 9th	Committee Meeting
Saturday 13th	Last Quarter
Sunday 21st	New Moon
Sunday 28th	First Quarter

July 2020

Sunday 5th	Full Moon
Monday 13th	Last Quarter
Tuesday 14th	Committee Meeting
Tuesday 21st	New Moon
Tuesday 28th	First Quarter

**Please note we have cancelled both our
Mid-Winter Bon-Fire Night and
Kids Fest events**

UPCOMING EVENTS:**2020 Calendar:**

1st April 2020: 2020 CAS Membership Subs Due



ALL PUBLIC AND MEMEBERS
EVENTS ARE CANCELLED FOR
THE FORSEEABLE FUTURE
OUR MID-WINTER BON-FIRE NIGHT IS
CANCELLED THIS YEAR!

The Cas Covid-19/Events sub-committee are still meeting via Webchat, discussing regularly any updates/guidelines and changes as announced by the government, and these updates will be published on our website as changes are made,

Happy 80th Birthday LIONEL HUSSEY

Just before we went into lockdown one of our life members, Lionel Hussey celebrated his 80th Birthday with a gathering of family and friends.



Thanks to
Carol
McAlavey
for these
photos



MONTHLY MEETINGS:**New Meeting Venue:**

Room ER 225 in the Ernest Rutherford Building, University of Canterbury,
(1 building over from the east building we used last year)

Entrance to the building will be via the north side entrance,

Carol McAlavey is asking you, our members to make suggestions or offer to give a talk at our monthly meetings.

PLEASE CONTACT CAROL WITH YOUR SUGGESTIONS OR IF YOU CAN GIVE A TALK via member2@cas.org.nz

**ALL MEETINGS ARE CANCELLED
FOR THE FORESEEABLE FUTURE,
Meeting's will start again when
we are able to use the facility's
at the University**

Upcoming Meetings

NO MEETINGS for April, May & June

21st July. TBA

18th August. TBA

15th September. Members Soap Box

20th October. TBA

17th November. TBA

(correct as at 15th May 2020, Subject to change as required)

Many thanks go to Sharlene Wilson and Orlon Petterson from the School of Physical and Chemical Sciences, University of Canterbury for arranging the meeting room for CAS this year

Also Thanks to Associate Professor Karen Pollard for organising the Lecture theatres for our public talks



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CANTERBURY ASTROMONICAL SOCIETY AGM

The 2020 Agm was held 17th March 2020 and was well attended by members

The Motions/By-laws as previously advised were discussed and with minor alterations were voted on and accepted (see page 6)

The results of the Election for Officers of The society were as follows

President	Rob Glassey
Vice-President	Simon Lewis
Treasurer	David Brian
Secretary	David Hill
Membership Secretary	Marc Bunyan
CASMAG Editor	Dale Kershaw
Librarian	Sasha Crawford
Webmaster	Marc Bunyan
Observatory Director	Terry Richardson

The following were elected as committee members

Carol McAlavey
Kerien Edan
Mak Matthews
Raewyn Marles

We as a committee look forward to working for you our members this coming year,

Full reports from the AGM will be included in the next Casmag and will also include profiles of your committee.

Your new committee is still holding meetings each month but Due to Covid_19 Alert levels and lockdown requirements the committee has had to change the way it holds these meeting's and this is now being done via google meeting chat, We will return to the normal meeting format when we are able.

“STAY SAFE ALL”

NOTICE OF MOTION

The following were discussed and with several small wording changes voted on and accepted at the AGM 17th March 2020

SECTION 10: To Add the following.

10.1

The society's observatory and equipment are intended to further the Society's objects as set out in section 2.

They will not be used for the purposes of generating profits for any person or other organisation.

Then re-number all other clauses in section 10 by adding 0.1 to their labels

BY-LAWS: To ADD the following By-Law

LASER USE

Current members who have legally obtained lasers may use them at the observatory.

Users of lasers at the observatory must observe the code of practice at all times (Published at the Observatory).

Unsafe use observed by any committee member or reported use will result in a warning and advice regarding safe use.

Continued unsafe use will result in a written warning from the committee.

If a person continues to use a laser in an unsafe manner after a written warning, the committee has the right to ban that person from using a laser at the observatory.

CAS does not take any responsibility for members or past members who use lasers.

Laser users are personally responsible for their behaviour.

2020 Conference and RASNZ Centenary

RASNZ HAS POSTPONED THE MAY 2020 CONFERENCE UNTIL LABOUR WEEKEND: 23rd—25th OCTOBER CHECK THE RASNZ WEBSITE FOR UPDATES

The 2020 Conference will be held at Wellington with the Wharewaka Function Centre the venue (near the Michael Fowler Centre) in downtown Wellington.

The Wellington Astronomical Society is hosting this conference.

2020 marks a significant milestone in the life of the Society as it was founded in November 1920 with 75 members.

The SCC invites ideas from members how the Society might commemorate its centenary at next year's conference.

Please send your suggestions to the SCC at conference@rasnz.org.nz.

Conference registrations and more information at www.rasnz.org.nz

WELCOME TO OUR NEW MEMBERS:

A warm welcome to our new members, We look forward to meeting you at our meetings or events, Please make yourselves known to others. It is always great to see our new members coming along to our Members Meetings, Members Nights and Events.

WE LOOK FORWARD TO MEETING YOU WHEN WE ARE ABLE TO HOLD MEETINGS ETC



OBSERVATORY NEWS

CAS RESPONSE TO COVID-19 LEVEL 2 – COMMITTEE UPDATE

As we move to COVID-19 Level 2 we thought we would give you a short update on our COVID response actions.

The CAS COVID Response sub-committee has been constantly reviewing the restrictions placed on organisations over the past weeks and assessing how the new rules impact observatory operations.

We are currently awaiting clear guidelines as to the change in restrictions under Level 2, once we have received and assessed these we will make a further announcement on CAS operations and plans for the next months.

We know you are as anxious as we are to get back into operation and we will provide an update as soon as we possibly can.

Kind regards Your CAS Committee

From Your Editor

This is your Casmag, for YOU our members, So I welcome any ideas or articles you would like to share with the other members.

So please email your Article or favourite photo with details for me to include in future issues.

Remember you can have your advert added in the future casmag's, Contact me for detail's

Please email to editor@cas.org.nz

Dale Kershaw

NOTES FROM YOUR COMMITTEE

At our AGM it was moved and carried to remove the discounted date for paying your membership, (this was pay by 31st May for discount)
All memberships are now at the lower amount, See back page for updated fee structure

CAS COFFEE MUGS & PENS

With our new logo we have had Coffee Mugs printed and also Pens which we have for sale to our members,
Coffee Mugs are \$15.00 each
Pens are now free to members
Payment can be cash or bank deposit



They are available from Editor (Dale),
contact via editor @cas.org.nz
or 0272426376



We are still looking at other items like beanies and patches, And will advise when they are available for you to purchase, Any other items you might like to suggest please let Dale know

CAS Membership Subscriptions for 2020-2021

THIS YEARS MEMBERSHIP SUBSCRIPTIONS ARE NOW DUE AS FROM 1ST APRIL 2020

Please use your name and member number as a reference when banking,
then email membership@cas.org.nz to advise so payments can be matched to you correctly.

PLEASE also include any changes to your contact details (eg: phone, email, address)
It is important your details are kept up to date

Full details are included on the last page of this newsletter.

During the lockdown time the PO Box is not being checked, So If you have sent your payment in the last 8 weeks please be advised this will be picked up when the PO Box is able to be cleared, If you have any questions please contact Dale on 027 2426376, or editor@cas.org.nz and I will follow it up for you, (This will continue during Covid-19 Alert Levels and some of the committee are either still working or working from home)

HEATHERS NOTES:

Astronomy in Lockdown..

I have no idea what the conditions will be on the following Casmag, but, life has been very strange for the last several weeks and a challenge in many ways for perhaps, all of us; a long list of things we cannot do but, on a clear night, even if they are few and far between, we can go outside look up, and enjoy the night sky. If you have a lot of light pollution where you are, perhaps you may be able to enjoy some of the brighter objects. I noticed, [you can't really miss it] one of those lovely big bright LED lights at the end of our street,--- she is being sarcastic of course!!!

If I get in the right place, it is not too close spoil observing but, @## --[colourful metaphor] it is bright and really horrible.

Well, there was a clear night though there had not been many of them, but when taking a look outside one night I noticed it was clear so, I decided "Yes come on let's have a look around and enjoy a bit of a catch-up"

I was in my jammies, cosy dressing gown, red woolly hat and, head torch and took my 20 X 80 bino out..

I had a look around Orion at the majestic M42 and 43 which is really part of the same nebular,

I had a scan around the Belt- outstanding, and a nice star field around there too. The two stars either 'end' of the Belt have companion stars.. I also found, very faint, M78, a small elongated reflection nebular which has a double star to the head [not seen through the bino]-- it looks a little like a short tail comet.. Being wide FOV [field of view] I find objects easier to find using a bino and, a bino is best for open clusters but, I enjoy using my 8inch Dob scope for details and, using my UHC [Ultra High Contrast] I get the most detail out of the nebulosity..

I also had a scan around the open clusters in Carina.

With everything going on at present, I found it a comfort just to enjoy a look around and catch up with 'old friends' in the night sky..

Take of yourselves everyone and take a little time out to look up... from Heather

More notes from Heather next month: Ed

IMAGES FROM LOCKDOWN 2020
BY ROB GLASSEY



Comet
Swan
taken
2nd May
2020

The Spiral
planetary
nebula
NGC5189
In Musca
(near the
Southern
Cross)



More photos next month for you to enjoy- Ed

The Evening Sky in June 2020

Sirius is the 'evening star'. At the beginning of the month it appears due west at dusk and sets in the southwest before 10 pm. By the end of June it sets at 8 pm. Being bright and white, Sirius twinkles with all colours when low in the sky. **Mercury** is low in the northwest for much of the month, setting 80 minutes after the Sun (so not on the chart). It fades as it moves between us and the Sun and more of its sunlit side is pointed away from us. It sinks into the twilight at the end of June.

Jupiter is the brightest 'star' in the later evening. It rises in the southeast after 8 pm at the beginning of the month. By June's end it is up after 6 pm. Jupiter shines with a steady golden light.

Saturn is just below Jupiter. It looks like a cream-coloured star. The Moon will be above Jupiter and Saturn on the 8th and below them on the 9th. Jupiter and Saturn are good targets for small telescopes. Jupiter's disk is obvious, even in binoculars. A telescope shows its four 'Galilean' moons lined up on either side. It is 640 million km away. A small telescope shows Saturn's rings and its biggest moon, Titan, about four ring-diameters from the planet. Saturn is 1370 million km away mid-month.

Mars (not shown) rises due east before 1 a.m. through the month. It look like a bright orange-red star. The Moon will be above Mars on the morning of the 13th and below Mars on the 14th.

Canopus, the second brightest true star, is higher in the southwest sky, swinging lower in the south later. Canopus is 310 light years away and 13,000 times brighter than the sun. **Arcturus** is a lone bright star in the northeast. Its orange light often twinkles red and green when it is low in the sky. It sets in the northwest in the morning hours.

Crux, the Southern Cross, is south of the zenith. Beside it and brighter are Beta and **Alpha Centauri**, often called 'The Pointers' because they point at Crux. Alpha Centauri is the closest naked-eye star, 4.3 light years away. Beta Centauri and many of the stars in Crux are hot, extremely bright blue-giant stars around 550 light years away.

Antares is a medium-bright orange star midway up the eastern sky. It marks the scorpion's body. Antares is a red giant star: about 600 light years away and 19 000 times brighter than the sun. Red giants are much bigger than the sun but cooler, hence the orange-red colour. Below Scorpius is **Sagittarius**, its brighter stars making 'the teapot'.

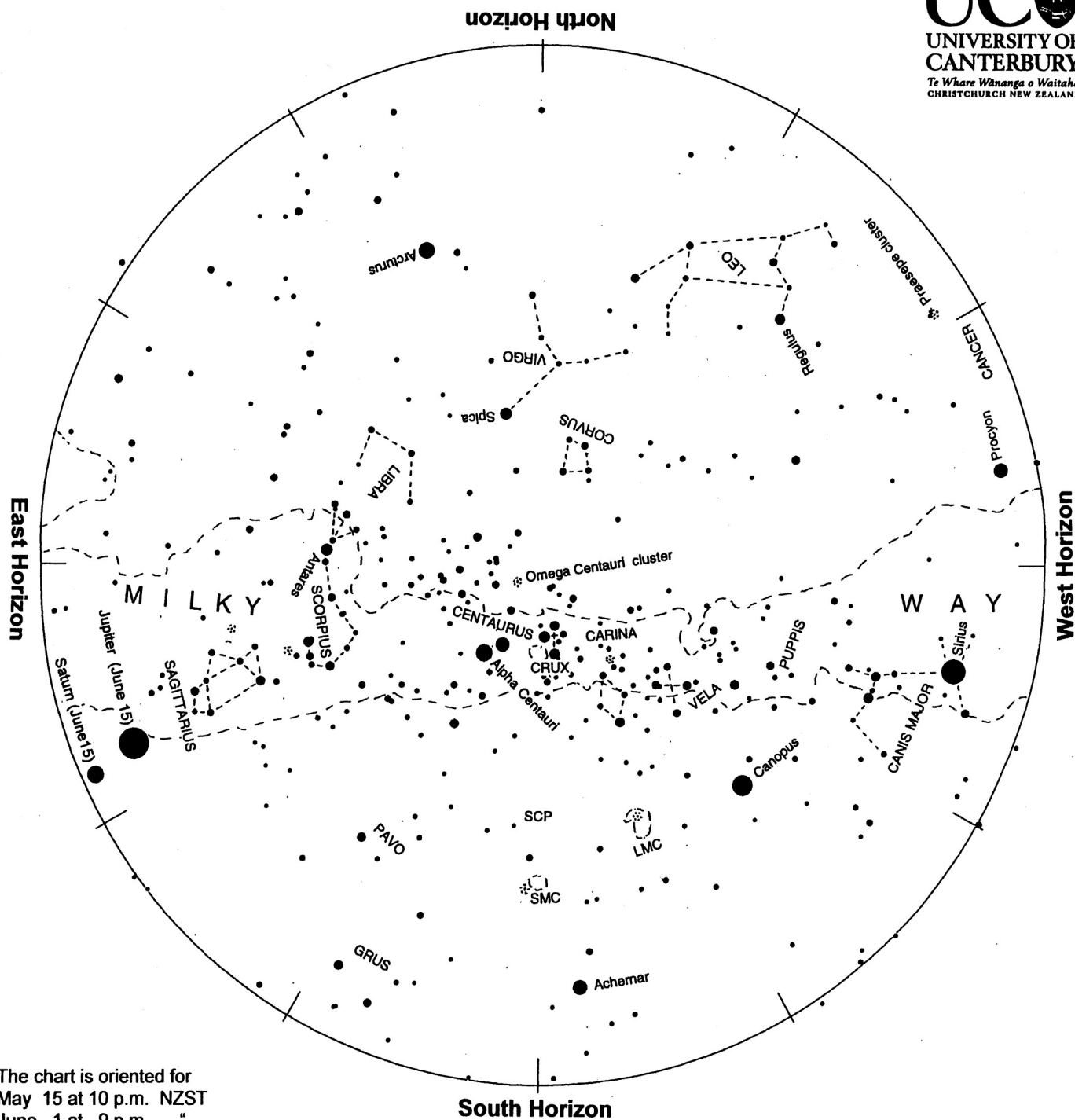
The **Milky Way** is brightest and broadest in the southeast toward Scorpius and Sagittarius. It remains bright but narrower through Crux and Carina then fades in the western sky. The Milky Way is our edgewise view of the galaxy, the pancake of billions of stars of which the sun is just one. The thick hub of the galaxy, 30 000 light years away, is in Sagittarius. A scan along the Milky Way with binoculars will find many clusters of stars and some glowing gas clouds. Relatively nearby dark clouds of dust and gas dim the light of distant stars in the Milky Way. The dust clouds look like holes and slots in the Milky Way. These clouds eventually coalesce into new stars.

The Clouds of Magellan, **LMC** and **SMC**, in the lower southern sky, are luminous patches easily seen by eye in a dark sky. They are two small galaxies about 160 000 and 200 000 light years away. The Large Cloud is about 5% the mass of the Milky Way; the Small Cloud is about 3%.

Venus is the brilliant 'morning star'. It moves quickly up the morning sky, dawn to dawn, rising an hour before the Sun on June 10th and two hours before by the 20th. The **Matariki/Pleiades** star cluster is left of Venus from mid-month, when the cluster is first seen, till the end of June. The crescent Moon will be above Venus and Matariki on the morning of the 19th.

On the morning of June 6th, around 7:30, the setting full moon will be grazing Earth's outer (penumbral) shadow, making the Moon's top half appear a little darker than the bottom half.

*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 sunlight four years to reach the nearest star, Alpha Centauri.



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

Evening sky in June 2020

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 westward shift each night as we orbit the sun.

Sirius is the 'evening star'. It appears in the west at dusk and sets in the southwest twinkling like a diamond. Mercury (not shown) is in the northwest, setting 80 minutes after the Sun. In the later evening Jupiter rises in the southeast. It is the brightest 'star' in the late night sky, shining with a steady golden light. Saturn is just below it. Canopus is in the southwest, swinging low in the south later. South of overhead are the Pointers, Alpha and Beta Centauri, with the Southern Cross (Crux) to their right. Orange Arcturus, low in the north, often twinkles red and green.

CAS COMMITTEE AND OFFICERS 2019/2020

Public Nights and Group Bookings		bookings.liaison@cas.org.nz
President:	Rob Glassey	president@cas.org.nz
Vice President:	Simon Lewis	vice.president@cas.org.nz
Treasurer:	David Brian	treasurer@cas.org.nz
Secretary:	David Hill	secretary@cas.org.nz
Observatory Director:	Terry Richardson	observatory.director@cas.org.nz
Editor:	Dale Kershaw	editor@cas.org.nz
Membership Secretary:	Marc Bunyan	membership@cas.org.nz
Librarian:	Sasha Crawford	librarian@cas.org.nz
Web Master:	Marc Bunyan	casweb@cas.org.nz
Committee Members:	Carol McAlavey	member2@cas.org.nz
	Mak Matthews	
	Raewyn Marles	
	Kerien Edan	

For more specialized information please see the contact information page on www.cas.org.nz

CAS Contact Information

Canterbury Astronomical Society Inc.

PO Box 25-137

City East

Christchurch 8141

Web: www.cas.org.nz

Canterbury Astronomical Society Facebook Group:

www.facebook.com/groups/CanterburyAstronomicalSociety

West Melton Observatory: 43° 29' 55.5" S, 172° 20' 59.0" E 218 Bells Road, West Melton

CAS Members Meetings:

The CAS monthly members meetings are currently held from 7.30pm onwards every third Tuesday of the month (except December and January) at the University of Canterbury, Venue for 2020 is still to be confirmed. Any member of the public who is considering in joining the society are most welcome to attend the meetings.

CAS on Facebook:

Cas has a Facebook presence, Useful to keep up to date with events, interesting articles, asking for advice, For members please use the website forums for more detailed information etc

CAS Membership:

Subscriptions are due 1st April each year

Fees for current members who renew before 31st May are at the discounted price shown on the membership form included on the back page of your Casmag, Full details are included on our website.

Contributions to CASMAG:

Member contributions to CASMAG are always most welcome (letters, observing notes, articles, news)

Please submit articles by email to editor@cas.org.nz

The deadline for each issue is the 1st of each month

Small personal advertisements are free to financial members, (less than 8 lines in a column)

Charges for larger items range from \$5 to \$40, email the editor for more details.

The Constitution of The Canterbury Astronomical Society Inc:

This is available on request, Please ask for a copy if required

DISCLAIMER:

This newsletter is for general information purposes only. The views expressed herein are not necessarily those of the Canterbury Astronomical Society Inc (CAS)

CAS has taken all reasonable measures to ensure that the material contained herein is correct, but gives no warranty for, and accepts no responsibility for its accuracy or completeness.

Readers are advised not to rely solely on this information, and should seek independent advice before making any decision, CAS reserves the right to make changes at any time, as deemed necessary.

Canterbury Astronomical Society Inc

APPLICATION FOR MEMBERSHIP

To: Membership Secretary
Canterbury Astronomical Society Inc.
P.O.Box 25-137
City East
Christchurch 8141



Applicants Name in Full _____

Address: (Note a P.O.Box is NOT a legal address) _____

Home Phone: _____ Cell Phone: _____

Email: _____ Date of Birth: (if under 18) _____

Membership Category (tick, subscripton must accompany application)**Online Banking Details (Please identify your payment):** 03 0802 0098273 00

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

Name:	Date of Birth(if Under 18yrs)	Signature

All CAS members receive CSMAG a monthly newsletter, Would you prefer to receive this (please tick)
☐ by email as a PDF attatchment ? ☐ or by post as a hard copy?

Do you have access to a telescope? What type and size? _____

I the undersigned declare that the information given herein is true.

Signature: _____ Date: _____

By signing this application the applicant agrees to comply with the Constitution and By-Laws
of the Canterbury Astronomical Society Inc.

Date Approved: _____