

Cover image - Exmouth Ningaloo Solar eclipse 20th April 2023,  
imaged at Pebble beach by *Fred Prata*



# SCORPIUS

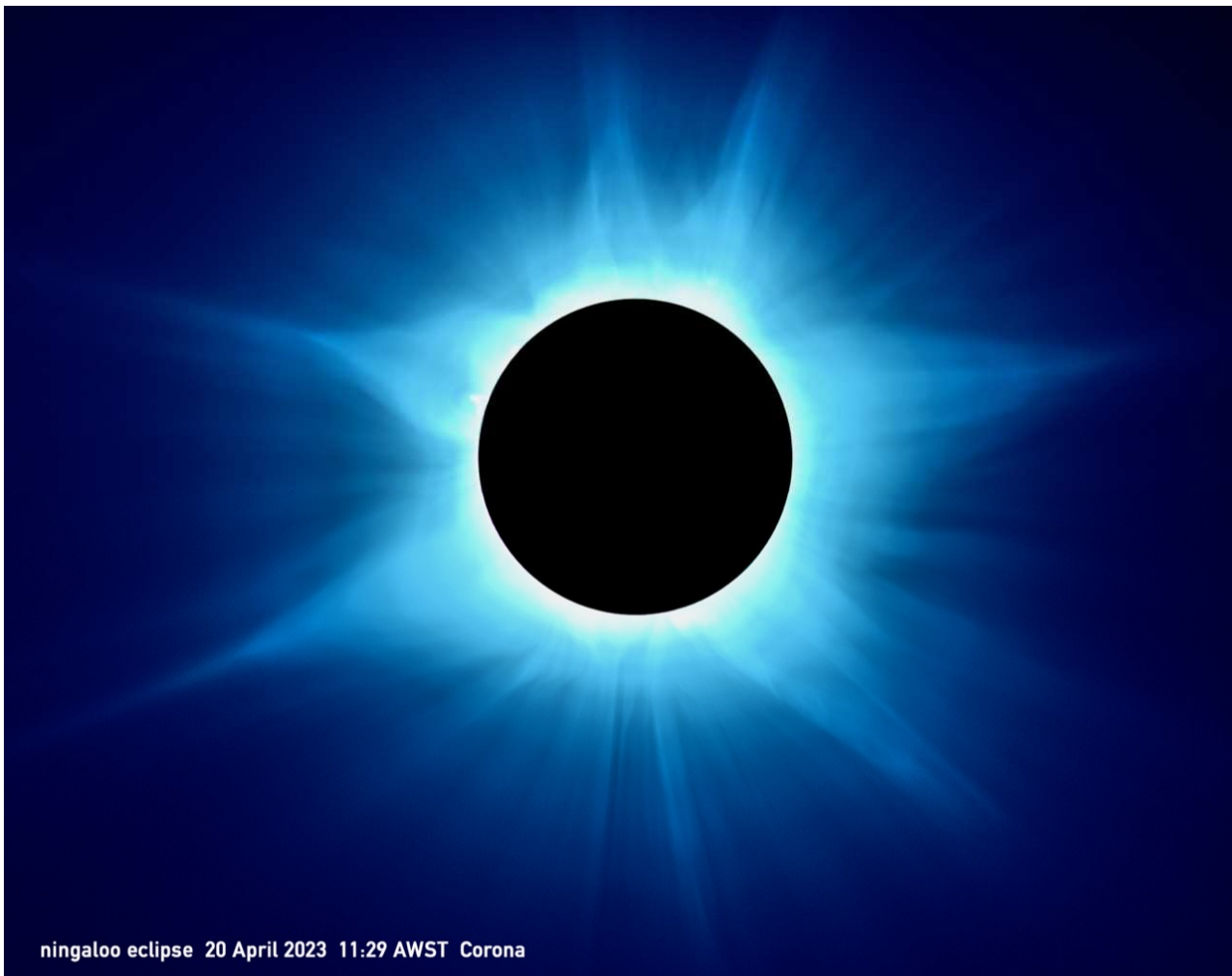
THE JOURNAL OF THE  
MORNINGTON PENINSULA ASTRONOMICAL SOCIETY INC.

Reg No: A268 ABN: 34569548751 ISSN: 1445-7032

Vol. XXVIII, No. 4 (July / August) 2023

The Mornington Peninsula Astronomical Society (formerly the Astronomical Society of Frankston) was founded in 1969 with the aim of fostering the study and understanding of astronomy by amateurs and promoting the hobby of amateur astronomy to the general community at all levels.

The Society holds a focused general meeting each month for the exchange of ideas and information. Regular public and private observing nights are arranged to observe currently available celestial objects and phenomena. In addition, the Society encourages the service of its members for on-site or off-site educational presentations and observing nights for schools and community groups.



ningaloo eclipse 20 April 2023 11:29 AWST Corona

MPAS - <https://www.facebook.com/mpas0/>

MPAS Members - <https://www.facebook.com/groups/MPAS1/>

Scorpius MPAS - <https://www.facebook.com/Scorpius-MPAS-1694951307446763/>

**Mornington Peninsula Astronomical Society**

facebook

# SOCIETY NEWS



**School viewing May 2nd** - Mornington Primary School's first batch of 90 Year-3 and Year-4 pupils came to visit the Briars last night. This was their final night being on camp, with yesterday apparently being a long day for the teachers, and ending about midnight.

Things started slowly with dessert being served about half an hour late at the camp, so the pupils missed any hope of seeing the international space station come over before they'd finished and cleaned up, and missed some large clear stretches where the Moon and 1 or 2 planets were visible.

Then things were able to start indoors with the talk being given by Katherine McCoy and Peter Skilton, followed by groups moving outdoors to see the Moon and anything else visible in the cloud gaps, while those indoors continued eagerly to lob questions for answering. And I could tell, even though many were tired, that they were still reading text on the slides that we'd skipped over presenting to save time, and then asking questions about those very same skipped bits.

While most of the evening was very cloudy, fortunately everyone got to see something in the gaps before returning to the camp.

Helping outside with the telescopes were Maria Remova with her sons, David and Senya, and their very clean looking 12 inch Dobsonian, Phil Peters, Chris Kostokanellis, Nerida Langcake, Fred Crump, Mark Stephens and Jamie Pole. And one member there was seen to have a different coloured nail polish on each finger. I'll let you ponder which member it was.

I'll also have to check next time to see if it was a very clever, subtle solar system theme being used - yellow thumb for the Sun, first finger beige for Mercury, middle finger white for Venus, light blue ring finger for Earth and red little finger for Mars. And on the other hand's little finger with bands and red spot for Jupiter, yellow for Saturn, aqua for Uranus, dark blue for Neptune and either a burgundy thumb for Pluto as a token former planet, or perhaps black for deep space.

*Regards, Peter Skilton*

**School viewing May 3rd** - Last Wednesday saw MPAS visit 75 Year 5/6 students from St. Augustine's Primary School at Camp Manyung. Cloud was looking unpromising initially, with drizzle encountered on the way there by car. So they began up at the oval seeing the Moon and other visible objects through the gaps. Then they came indoors to hear Katherine McCoy and Peter Skilton give the talk.

Alas, there were lots of technical issues, both before and during the talk, because Camp Manyung has migrated to using a wireless-only data projector since we were last there. And it didn't want to know us, and we tried on two different laptops. After calling in the IT guy from the Camp, he eventually got us through the first password layer into their wireless network, but was then confronted by a second password to access the projector. And he didn't know that. And that password kept changing at random every half minute or so as an extra security measure. It's mystifying why anyone would want such a high level of security on a data projector inside a hall building in the middle of nowhere. Then a couple times mid-talk, the data projector froze and didn't keep up with the slides progressing on the screen, and the only way to wake it up was to stop the presentation and restart it. In the end, these IT issues shaved about half an hour off the talk, but such is life. By the end of the talk, the skies were 75% clear of cloud, somewhat contrary to predictions.

Helping on the oval with telescopes were Phil Holt, Nerida Langcake, Fred Crump, Ben Claringbold, Mark Stephens and Chris Kostokanellis. Despite the dramas of the evening, everyone seemed to enjoy it. The questions just kept coming from the audience until the teachers had to stop them, because they wanted to get to bed. *Regards, Peter Skilton*

**School viewing May 4th** - Mornington Primary School's second batch of Year 3 and Year 4 pupils (64 of them this time) came to visit the Briars yesterday. This was their final night on camp.

Dessert was again a little delayed, but they all managed to get on-site in time to see the nearly Full Moon through cloud gaps. A bright International Space Station pass was also anticipated, but the sky was far too cloudy in the south-westerly direction where it'd occur. Indeed, the cloud level increased over time and did not improve later in the evening. So it was just as well they saw the Moon initially. Everyone then came indoors to hear Katherine McCoy and Peter Skilton give the talk and, again, this group's teachers had to stop the questions flowing thick and fast at the end of the talk.

Helping outside with the telescopes were Fred Crump, Cathie Dethick, Nerida Langcake, Connor Mathieson, Mark Stephens and Jamie Pole.

By strange coincidence, the lead teachers of both schools this week had come up to both Katherine and I after the talks and asked us if we were both teachers, because it was pitched at just the right level and the answers to questions were explained so clearly and succinctly. So I think they were impressed, despite the cloud this week, and we might see them again next year.

*Regards, Peter Skilton*

**Public viewing Night May 5th** - Capping off the week of stargazing nights with slowly deteriorating weather conditions, the May public night had drizzle or light rain most of the evening, with no real prospect of sky viewing, other than of clouds. Nevertheless, 49 visitors came regardless, and heard Guido Tack give the talk indoors, needing to wear the microphone to speak over the noise of bursts of rain on the roof at times. Waiting in the wings, ready to haul out the telescopes or help in other ways as needed, were Connor Mathieson, Fred Crump, Phil Peters, Nerida Langcake, Ben Claringbold, Peter Skilton, David Rolfe, Simon Hamm, Michael Smith, Chris Kostokanellis, Anders Hamilton and Rosemary Shand. No doubt we'll be seeing some return at the next public night, where hopefully the skies are clearer.  
*Regards, Peter Skilton*

**Society meeting May 15th** - For those of you who are not yet subscribed (it's free) to the MPAS YouTube channel, this month's meeting has been uploaded for viewing.

The meeting features Trevor Hand, well-known member, cruise enthusiast and speaker, on the topic of "Sailing into Darkness: The Great Ningaloo Eclipse" as he becomes a "one-timer" and experiences his first total solar eclipse.

Also covered is a walk through the Royal Greenwich Observatory, founded by King Charles II, a look at spacecraft ejection thrusters seats and mechanisms over the years and basics of the Aurora Australis.

We close with String Theory, produced by the Acapella Science channel as a fun and very clever parody of the rock song "Bohemian Rhapsody" by Queen.

And a very special Coronation cake was had by those in attendance on the night, care of Ros Skilton.

You can also watch it here by clicking on this link and going to the most recent video on the channel:

<https://www.youtube.com/channel/UCm6XOKIcIflt4y0XRBXpXuw>

or watch it on the MPAS site once it's refreshed for this month: <https://www.mpas.asn.au/meeting-recordings/>

*Regards, Peter Skilton*



### **Members BBQ & Working Bee March 18th –**

The members working bee and BBQ turned out to be quite popular last Saturday, with about 20 in attendance despite the rainy weather. Although little mowing was done, Leigh Hornsby and Marlene did a great job moving some branches, and Kit Penfold did an outstanding job weeding the garden. Everyone chipped in to clean around the place, and set up the chairs and tables for dinner. Jamie Pole cooked as usual, with Mark Stephens and others all helping to prepare the meal in the kitchen. There were also many desserts, including a very popular chocolate cake.

Maria Remova and her sons David and Senya had some friends visiting from Trafalgar, Roger and Annette, who were warmly welcomed and enjoyed the night, taking in the many images on display and our large Sky Drover telescope. And Rosemary Shand also had some friends, Eva and Zara Mether, who were made most welcome. Please see photos.

A special thanks to Sylvie Grandit, who helped out early, but had to leave before dinner. *Warm regards, Phil Peters*



*Photos by Phil Peters*



**Scout viewing May 26th** - The May 26th Scout, Cubs and Guides night saw 30 Sorrento Scouts and their leaders attend the Briars for some astronomy. The talk indoors was given by Katherine McCoy and Peter Skilton, while outside, wistfully hoping for the total cloud cover to clear, were Nerida Langcake, Jamie Pole, Anders Hamilton, Fred Crump, Guido Tack, David Rolfe, Mark Stephens, Ben Claringbold, Phil Peters and Chris Kostokanellis. Nevertheless, tours of the observatory were able to happen, and everyone seemed most happy at the end of the night. *Regards, Peter Skilton*

**Public viewing Night June 2nd** - June's Friday public night saw 87 visitors at the Briars, despite persistent medium level cloud all evening. The nearly Full Moon wasn't attenuated much by the cloud, so plenty of lunar observing was possible, though fainter stellar objects and planets were not nearly so forthcoming through the cloud layer due to the scattering of the bright moonlight. There was a very noticeable lunar halo, spanning 44 degrees, photographed handheld by Nerida and readily seen by eye.

Trevor Hand gave a talk indoors about the eclipse he recently attended off the coast of Exmouth in north-west Australia.

Outdoors were Phil Peters, Nerida Langcake, Fred Crump & Bonnie Cass, Ben Claringbold, Connor Mathieson, Chris Kostokanellis, Peter Skilton, Jamie Pole, Simon Hamm, David Rolfe, Rosemary Shand, Pam and Peter Halsall, Jason Heath and Alan Predjak, with Sylvie Grandit looking after the reception area. Greg Walton was also there after his loooong drive back from the Exmouth solar eclipse.

Cloud cover averaged about 80% across the evening and, as luck would have it, was clearing by 10pm after most of the visitors had left!

As usual, the small dome operated by Chris proved very popular with a long queue, with cloud no obstacle to his enthusiasm with southern sky objects. It remains a mystery as to what exactly he does in there to draw the crowds each time so successfully. Must be an especially good song and dance routine.

But outdoors highlight for the night was arguably Phil on the big Dobsonian, convincingly showing the assembled eager crowd the bright planet Venus for 5 minutes - right up to the moment he realised you could see the triangular beams of its forward-facing white navigation lights scattering off the cloud ahead, and was moving away from Tullamarine too quickly to be able to convince anyone it was a planet.

*Regards, Peter Skilton*

**Society meeting June 21st** - Wednesday's meeting at the Briars, 8pm. Andrew Campbell, a multi-award winning professional photographer coming along in person to tell us about some of the secrets of photography and about the inaugural Australian Photographic Prize for astrophotography.

Chris showed us the AstroMoPho Photography Challenge from last month, and Nerida told us all about her great Buchan adventure. There wasn't a Sky for the Month this time.

Then we looked at the physics and psychology of colour and colour perception, and learn all about rainbows, haloes, glories and white rainbows. Closure will share the start of the recent eruption of one of the Hawaiian volcanoes; a very different beast from the Icelandic one covered in the April 2021 meeting.

You can watch it at your leisure at a later date on the MPAS YouTube channel at <http://www.youtube.com/channel/UCm6XOKlCfl4y0XRBXpXuw> or <https://www.mpas.asn.au/meeting-recordings/>

Also a reminder that the subsequent meeting in July will include the Annual General Meeting. *Regards, Peter Skilton*

**Members BBQ & Working Bee April 24th** – Our members working bee and BBQ on Saturday ended up being a resounding success, despite earlier rain, which luckily only lasted about 20 minutes.

All the lawns were mowed, with Geoff and Leigh doing an excellent job. Marlene did a great job of blowing the grass from the paths, and sweeping out the dome. Sylvie and Anne got busy cleaning, while Pia and Peter stacked the chairs and set up the tables. And Lara did her magic in the library.

Meanwhile, Greg repaired the tracking system on the Sky Venture 18 inch telescope, which ended up needing some fresh grease on the worm drive. All fixed! He even had time to remove a dead tree from behind the observatory. Jamie and Chris, with help from Ben and myself, took down and fitted a new rain gathering cup in the weather station, which had been cleverly 3D printed by Dave. We also replaced the batteries. Roland oversaw the refit, with his large Russian style hat keeping him warm. (See photos on next page)

Everyone chipped in to prepare dinner, with Jamie and Ben manning the BBQ, which included some vegetarian snags and burgers. Greg moved inside to add two new additions to the Star Wars collection, while being watched by the R2D2, which also received some new batteries.

We then settled down for dinner, with Paramdeep bringing along two excellent bottles of wine to share from his very own winery. Eden White presented his talk on the Milky Way, with plenty of questions asked. Then came dessert, with a large range as usual to choose from.

Being a nice clear night, the observatory was open and Simon, Ben and Fred all had their scopes out. Sky Venture 18 inch Newtonian and Big Blue 8 inch refractor were popular as well. Objects included Venus and the Moon, Eta Carinae, Omega Centauri, the Jewel Box, the Ghost of Jupiter, the Pin Cushion, and lots of Messier objects.

A great end to a great day. Photos on next page.

*Kind regards, Phil*



*Photo by Nerida Langcake*

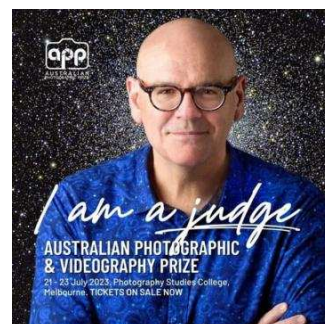




Photo by Phil Peters



Photo by Phil Peters



Photo by Phil Peters



Photo by Phil Peters

What a great night it was last night and thanks for all your help, fantastic turnout, and the questions that kept on coming.

The talk last night was on The Milky Way (MW), incorporating: Where the Solar System is situated in the MW, its contents, the governing forces that act on the galaxy and how the universe will end.

The 2 books I quoted last night are at right:

Hope this is of assistance, see you soon. Warm regards, Eden White

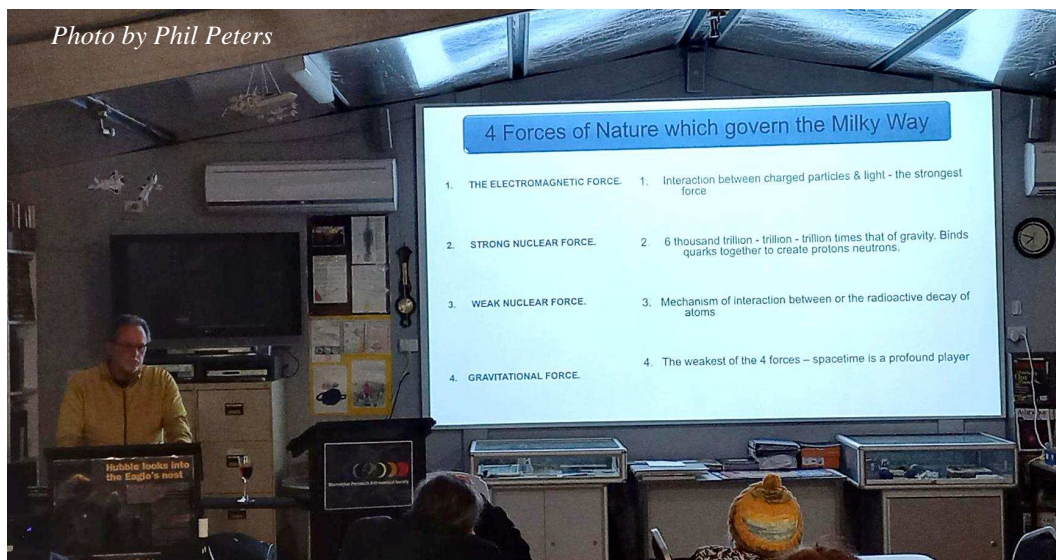
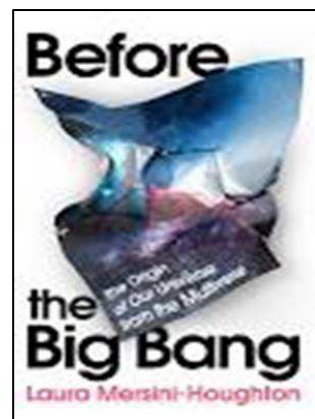


Photo by Phil Peters

**Saturday 16th September 2023**

Mornington Peninsula Astronomical Society

# Astrophotography Workshop 2023

SUITABLE FOR BEGINNERS & EXPERIENCED PHOTOGRAPHERS

- DSLR and Smartphone Astrophotography
- Aurora, nightscape and deep sky imaging
- Time-lapse photography
- Image processing

Photo Credit  
MPAS member David Rolfe

DOOR PRIZE:  
SKYWATCHER  
STAR ADVENTURER  
MINI PRO KIT.

Proudly Sponsored by SIDEREAL TRADING

The Astrophotography Workshop continues this year with new and updated content on Smartphone Astrophotography, Aurora and Nightscape Imaging, Deep Sky Imaging, and more.

Are you a photographer looking to capture nightscape images, aurora, or even create a time-lapse? This event could be for you!

Entry includes a pizza, drinks, practical assistance with your equipment at our registered observatory in Mt Martha as well as a Q&A with the presenters and astronomers.

PLUS each entry ticket goes into the draw for the door prize - a Skywatcher Star Adventurer Mini Pro Kit, proudly sponsored by Sidereal Trading.

- Bring your camera and tripod to the event.
- Vegetarian pizza available however those with special dietary needs are welcome to self-cater in our kitchen (hot water, microwave).
- Tea / coffee and biscuits will be available.
- Under 16s must have a guardian attending.

Program (subject to change):

12:30 pm	Registration
1:00	Event Welcome & Introduction Introduction to Astrophotography
1:30	The Night Sky
2:20	DSLR Photography
3:10	Aurora & Nightscape Photography
4:00	Afternoon tea
4:20	Time Lapse
4:50	Smartphone Astrophotography
5:20	Deep Sky Imaging Introduction
6 pm	Pizza Party! plus ASI Air Demo
7:30	Outside Practical Session + Inside Image Processing
8:00	In the event of clouds, a Q&A session with the guest speakers
11 pm	Event Concludes

Bookings can be made here, at a discounted price for members of \$50 (regular price \$75)

<https://www.trybooking.com/RKCCQ>

Hope to see you there!

# WHAT'S ON



## The 2023 timetable of public events.

### JULY

Friday 7th, 8pm Briars. Public stargazing night. Speaker TBD. 85 booked.  
 Friday 28th, 8pm Briars. Scout, Cubs & Guides night. Speaker TBD. 70 anticipated.  
 Saturday 29th, 7pm Briars. Devon Meadows Cubs night. 30+ anticipated. Speaker TBD.

### AUGUST

Friday 4th, 8pm Briars. Public stargazing night. Speaker TBD. 85 booked.  
 Friday 18th, 8pm Briars. Science Week public stargazing night. Speaker TBD. 70 anticipated.  
 Tuesday 29th, 7pm. Strathmore Girls Grammar at Merricks Lodge, 3670 Frankston Flinders Rd. 50 Year 10. Speaker Peter Skilton.

### SEPTEMBER

Friday 1st, 8pm Briars. Public stargazing night. Speaker TBD. 85 anticipated.  
 Saturday 16th, 2pm Briars. Astrophotography Workshop. Public & members. Speakers Various. 70 anticipated.

### OCTOBER

Friday 6th, 8pm Briars. Public stargazing night. Speaker TBD. 85 anticipated.  
 Saturday 21st, 4pm Briars. Telescope Learning Day. Public & members. Speakers Various. 70 anticipated.  
 Thursday 26th, 8pm. Mentone Primary School, Childers Rd, Mentone. 57 Year 2's on sleepover. Speaker Peter Skilton.  
 Tuesday 24th, 7pm. Stella Maris Primary School, 113 Oak St, Beaumaris. 130 Year 1-6. Speaker Peter Skilton.  
 Friday 27th, 8pm Briars. Scout, Cubs & Guides night. Speaker TBD. 85 anticipated.

### NOVEMBER

Friday 3rd, 8pm Briars. Public stargazing night. Speaker TBD. 85 anticipated.  
 Sunday 19th, all Day marquee. Bentleigh Street Festival, Main St, Bentleigh. 6,000 Public anticipated. To be confirmed.  
 Saturday 25th, all Day Briars. Victorian Astronomy Convention (VASTROC). All VIC astronomical societies & public.

### DECEMBER

Friday 1st, 8pm Briars. Public stargazing night. Speaker TBD. 70 anticipated.

## The 2024 timetable of public events.

### JANUARY

Friday 5th, 8pm Briars. Public stargazing night. Speaker TBD. 85 anticipated.  
 Saturday 6th, 8pm Briars. Public stargazing night. Speaker TBD. 85 anticipated. To be confirmed.  
 Friday 12th, 8pm Briars. Public stargazing night. Speaker TBD. 85 anticipated. To be confirmed.  
 Friday 26th, 8pm Briars. Public stargazing night, Australia Day. Speaker TBD. 85 anticipated. To be confirmed.

### FEBRUARY

Fri 2nd, 8pm Briars. Public stargazing night. Speaker TBD. 85 anticipated.

### MARCH

Friday 1st, 8pm Briars. Public stargazing night. Speaker TBD. 85 anticipated.  
 Monday 11th, all Day marquee. Somerville Family Day, Fruit Growers Reserve, Somerville. 10,000 Public anticipated.

**SAVE THE DATE!**  
**VASTROC XIX**  
**SATURDAY 25TH NOVEMBER 2023**

The Victorian Astronomy Convention is back face-to-face  
 for the first time in 4 years. Hosted in 2023 by MPAS at Mt Martha.  
 More details to follow...

Mornington Peninsula Astronomical Society

# MPAS - Society AGM

The AGM is in July each year.

## Current Committee

**President:** Peter Skilton

**Vice President:** Mark Stephens

**Secretary:** Nerida Langcake

**Treasurer:** Jamie Pole

**General Committee:** Anders Hamilton, Trevor Hand, Simon Hamm, Guido Tack & Chris Kostokanellis.

**MPAS members  
please consider a  
position on committee,  
as we have much work  
to be done for the year  
ahead.**

### AGM Invitation

19th July 2023 at 8PM  
The MPAS Briars site  
Don Leggett Astronomy Centre  
Nepean Hwy, Mt Martha  
(Melway ref. 151/E1)

### Agenda

1. Apologies
2. Confirm Minutes of previous AGM
3. President's Report
4. Treasurer's Report
5. Election of Incoming Committee
6. Special Business (Constitution updates – details to follow)
7. Special thanks
8. Close of AGM.

## Have you considered joining the MPAS committee?

If you feel you would like to get involved in the society business or have a particular skill you think would be useful to the society, please give some thought to becoming a committee member.

The Annual General Meeting will be held on Wednesday 19th of July, 2023. In this edition of Scorpius there is a 'Committee Election Form' that can be used for the submission of nominations for the next committee. This can be posted to MPAS, 450 Nepean Hwy, Mt Martha 3934 or handed to the Secretary. Alternatively, nominations can also be submitted electronically to [welcome@mpas.asn.au](mailto:welcome@mpas.asn.au), stating which position on the committee you would like to nominate for. Please note that voting will occur if there are more nominations than positions available.

2023 AGM Committee Position Nomination -  
(Leave blank if not applicable)

I .....  
..... would like to nominate for the position of  
(circle)

PRESIDENT      VICE PRESIDENT  
SECRETARY      TREASURER  
GENERAL COMMITTEE

for the Mornington Peninsula Astronomical Society  
committee of 2023/2024.

Seconded by

..... Dated ...../...../2023

Both the nominee and the seconder need to be financial members of MPAS at the time of the AGM. Nominations must reach the Secretary by the 12th July 2023.

## ✦ New Members Welcome ✦

Paramdeep Ghuman  
Peter Jackman  
Rudi, Lucy & Dion Everts  
Kowhai Dowd

Lana Shestakova  
Richard & Karyn Childs  
Deborah Woods  
Stephan Gercovich

### MPAS SUBSCRIPTIONS 2023

Each ticking over of the New Year also means that Society fees are due to be paid. The committee has worked hard to ensure that 2023 fees are still the same as the previous many years' prices. So to assist the society in maintaining the facilities and services we provide and share, we appreciate your prompt payment for each and every year ahead.

As a reminder, the following structure of the 2023 fees is:

Subscriptions can be paid in a number of ways:

- On-line (preferred, see at right)
- Cash payments to a committee member
- Send a cheque, made out to "Mornington Peninsula Astronomical Society", to MPAS. P O Box 596, Frankston 3199
- Make a direct electronic payment into the society working bank account (state your name clearly).

The account details are BSB 033-272 Account 162207. Remember to add your name and details to the transfer so we can identify the payment in the bank records. If you have any concerns please talk to a committee member.

### SOCIETY FEES

- \$50 – Full Member
- \$45 – Pensioner Member
- \$65 – Family Membership
- \$60 – Family Pensioner Membership

*See more options on-line*



You can renew your membership online using the link included in the annual mailout email, which is sent near the end of each year. Please ensure to renew before Feb 1. Any late renewals may be required to re-join as a new membership.



CALENDAR		July / 2023					Red Days indicate School Holidays
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
30 Ceres near NGC4772 Virgo Comet C/2021 T4 near NGC6169 Norma	31 Comet C/2020 K1 near Delta Chamaeleontis					1 Saturn rises at 10pm Jupiter rises at 3am	
2	3 Full Moon	4 Comet C/2021 T4 near NGC7793 in Sculptor	5 Moon at 360,149km Comet C/2020 K1 near south celestial pole	6 Saturn below Moon	7 Public night 8pm Saturn above Moon	8	
9	10 Last Quarter Mars & Regulus 0.7 degrees apart	11 Comet C/2021 T4 near IC5267 Grus	12 Jupiter right of the Moon dawn	13	14	15	
16	17	18 New Moon	19 AGM - Society Meeting 8pm	20 Venus above a thin crescent Moon eve Moon at 406,289km	21 Mars left of a thin crescent Moon eve	22 Working bee 4pm BBQ 6pm	
23 Ceres near NGC4665 in Virgo	24	25	26 First Quarter Venus & Mercury close	27 Venus & Mercury close	28 SCAG	29	

**Monthly Events**

**Public night** - 8pm to 10pm on the 7th @ The Briars MPAS

**Society Meeting** - 8pm to 10pm on the 19th @ The Briars

**Working Bee** - 4pm - **Members night & BBQ** - 6pm on the 22nd @ The Briars

**SCAG = Scout, Cubs & Guides** 8pm to 10pm on the 28th @ the Briars

Watch your emails, as on any clear nights the Observatory may be opened for members-only viewing.

CALENDAR		August / 2023					Red Days indicate School Holidays
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
	Supermoon is when Full Moon happens when the Moon is at its closest point to Earth	1 Saturn rises at 8pm Jupiter rises at 1am	2 Full Moon (Super) Moon at 357,311km	3 Saturn left of Moon	4 Public night 8pm Comet C/2021 T4 near NGC5986 in Lupus	5	
6	7	8 Last Quarter	9 Jupiter above the Moon dawn	10	11	12	
NSW 13	NSW 14	NSW 15	NSW 16 Society Meeting 8pm New Moon	NSW 17	NSW 18 Public night 8pm	NSW 19 Working Bee 4pm BBQ 6pm Mars left of a thin crescent Moon eve	
20	21	22	23 Scorpius Deadline	24 First Quarter	25 Moon at 405,385km	26	
27	28	29	30 Saturn below Moon	31 Full Moon (Blue) Saturn above Moon	Blue Moon is a term used to mark the second Full Moon in a month		

**Monthly Events**

**Southern Comets website** - <http://members.westnet.com.au/mmatti/sc.htm>

**Public night** - 8pm to 10pm on the 4th @ The Briars MPAS

**Society Meeting** - 8pm to 10pm on the 16th @ The Briars

**Working Bee** - 4pm - **Members night & BBQ** - 6pm on the 19th @ The Briars

**NSW = National Science Week** 13th to 19th August (Public)

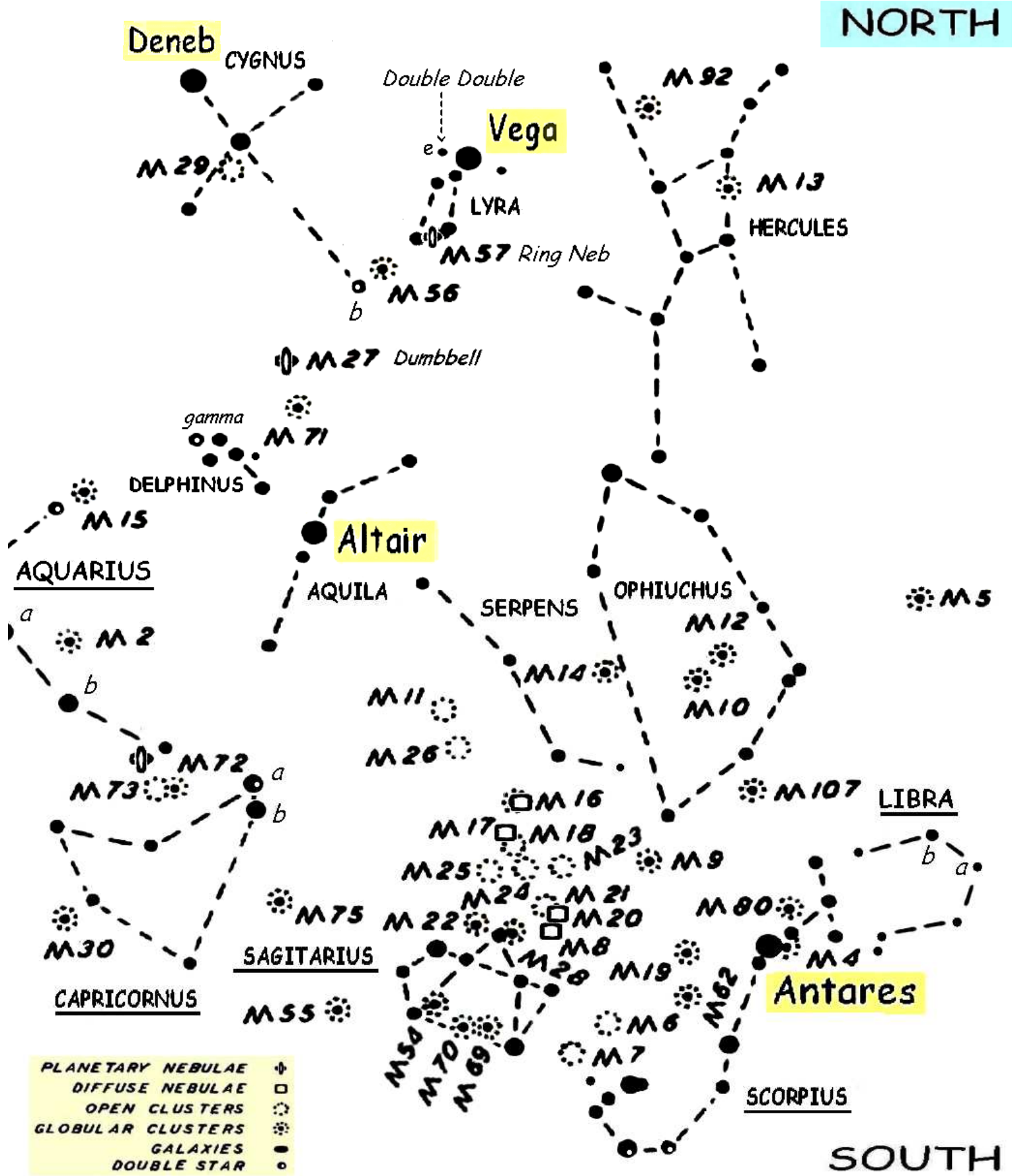
# THE BRIARS SKY

By Greg Walton



Winter is the perfect time for a Messier challenge with Scorpius and Sagittarius directly overhead. French astronomer Charles Messier (1730 - 1817) unwittingly produced one of the best catalogues of some 109 deep sky objects. Messier was more concerned with hunting comets with his poor quality 90mm refractor and would often confuse deep sky objects with comets. So he decided to make a catalogue of objects that looked like comets, such as open star clusters, globular clusters, planetary nebulas, galaxies and bright nebulas.

With one of the GoTo telescope in the MPAS observatory and the chart below, see how many Messier objects you can find.



## Glimpse 45,000 baby galaxies in the early universe

On June 5, 2023, NASA released a new composite image from the James Webb Space Telescope (JWST). It shows our universe when it was less than 600 million years old. And, you can explore more than 45,000 baby galaxies in this image, especially if you zoom into the large interactive image.

Our universe is thought to be more than 13 billion years old. So – at 600 million years – the cosmos was in its infancy. The galaxies had just formed from the expanding cloud of most hydrogen gas, moving outward from the Big Bang. The statement accompanying the new Webb composite image release said, “The sheer number of these galaxies was far beyond predictions from observations made before Webb’s launch.”

This composite image is part of the JWST Advanced Deep Extragalactic Survey, or JADES, program. It focuses on an area in Fornax called GOODS-South.



[Zoom into a large interactive version of this composite image.](#) | The James Webb Space Telescope (JWST) captured more than 45,000 baby galaxies, at a time when the universe was less than 600 million years old.

Composite image via NASA/ESA/CSA/Brant Robertson (UC Santa Cruz)/Ben Johnson (CfA)/Sandro Tacchella (Cambridge)/Marcia Rieke (University of Arizona)/Daniel Eisenstein (CfA)/Alyssa Pagan (STScI).

### Acquiring the images

Scientists using Webb acquired these images between September 29 and October 10, 2022. The scientists used the NIRCam instrument on Webb with various filters for a wide sample of wavelength ranges. The image captures a region of sky about 6 arcminutes across. For comparison’s sake, the width of a full moon is about 30 arcminutes across.

Some of the galaxies in this image existed during the Epoch of Reionization. This is a time period that includes the appearance of the first stars and galaxies. It’s when the universe went from dark, dense, and opaque to transparent and lit with stars. Galaxies from this epoch show strong emission lines due to the creation of so many hot, massive stars.

Take some time to view the larger-sized image. Zoom in and explore the colourful array of distinct shapes of these island universes, composed of trillions of stars.

## South Pacific Star Party 2023.

By Chris Kostokanellis

The announcement of the South Pacific Star Party (SPSP) 2023 was met with enthusiasm by several MPAS Members. Held at the Wiruna property of Astronomical Society of NSW, near the town of Ilford, this premier star gazing event was back after a 3 year hiatus, due to that which shall not be named. Despite the enthusiasm at the announcement of the event, attrition due to unforeseen circumstances took its toll on the size of the MPAS delegation. Ultimately Dave Rolfe, Nerida Langcake, Guido Tack and Chris Kostokanellis decided to undertake the 2200 km journey in what was to be a star gazing extravaganza. Last minute equipment purchases were made, travel snacks were stocked up, equipment checks were undertaken, batteries charged, cars were fuelled.

### Day 1. Wednesday 17<sup>th</sup> May 2023.

Our pre sunrise departure saw the 2 cars towing caravans of Dave and Guido, get a head start on the tenting contingent, Chris and Nerida. After a day of driving, we all arrived at the Spicer Caravan Park in Parkes within 1 hr of each other.

We made a trip to the local supermarket for some fresh supplies, sparked up the electric BBQ and settled down for our first meal together.

A night cap, and an early night after a long day of driving bought an end to day 1.

### Day 2. Thursday 18<sup>th</sup> May 2023.

#### Parkes NSW.

Rested and breakfasted, we made our way to the CSIRO Parkes Radio Telescope



Figure 2. The MPAS Contingent in front of the CSIRO Parkes Radio Telescope

### Days 2 to 4. Wiruna Property. Ilford NSW. SPSP

Having completed our tour of the Dish at Parkes, it was onward to Bathurst where Chris and Nerida completed a couple of hot laps (maybe luke warm) of Mount Panorama before heading to sample what was claimed to be the “Best Burger in Bathurst” for lunch. Conflicting opinions on the quality of the burger ensued, but we could all agree it was the best burger any of us had ever tried in Bathurst.

Having settled the argument, it was onward at full steam to Ilford NSW and the ASNSW Wiruna property. We were amongst the first arrivals to the site and made our way to the Barry Gerdes lodge where we were warmly welcomed by the local ponies, and the late Barry Gerdes’ son, Trevor Gerdes. We staked our claim to our lots and proceeded to set up our mobile command centre (Daves van), Guidos camper and Chris’s and Nerida’s tents. Within a couple of hours, tents were up, Dave’s caravan was positioned and unhitched, telescopes were assembled, while Guido was still trying to master the dark art of reversing a trailer.



Figure 3. Our campsite, "CaMPAS".



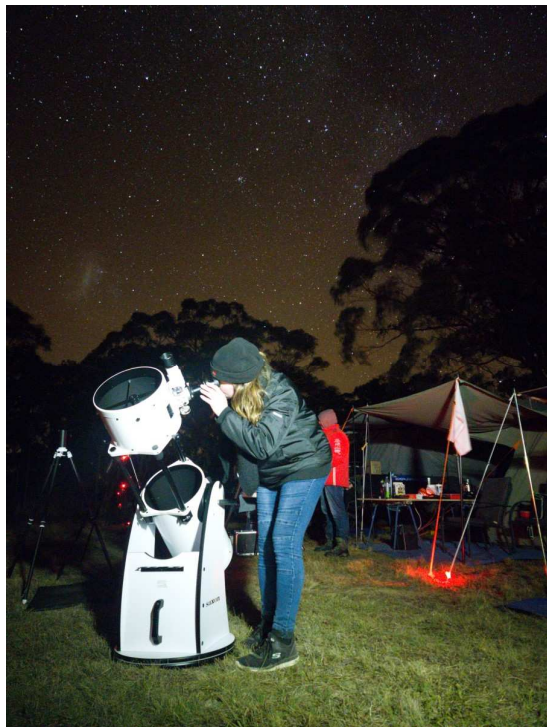
Figure 1. Night Cap at Parkes. From Left, Chris Kostokanellis, David Rolfe, Guido Tack, Nerida Langcake

only a short drive from the Caravan Park. The 64 metre diameter “Dish” cuts an impressive sight amongst the sheep paddocks. We took in the sights and exhibits of the visitor centre, then sat down for a 3D cinematic experience which included a 3D tour of the solar system and beyond.

Interactive displays in the visitor centre included an audio playback of several Pulsars discovered by the dish. Displays around the grounds include sun dials, radio dishes, and one of the old receiver cabins which once sat at the focal point of the dish.

Famously used to communicate with the Apollo moon missions, the dish was also used to receive data from several interplanetary missions, including receiving data from the Voyager probe as recently as 2019. Parkes is also responsible for finding almost half of the more than 2000 known pulsars, and over 2500 new galaxies in our local region.

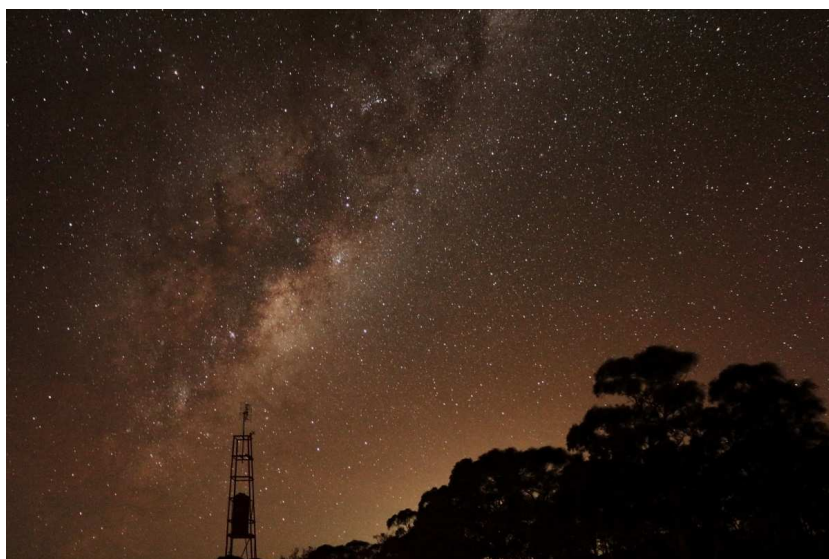
Our equipment list consisted of 2 Dobsonian telescopes, a set of Vixen binoculars, 3 Astrophotography refractors, and an assortment of DSLR and smart phone cameras.



**Figure 4-7.** Above: Nerida Observing through her Dob. Centre top: Dave's 130mm refractor. Centre Bottom: Chris's 80mm refractor. Right: Dave and his Binos.



The temperature began to drop as day turned to night, revealing a spectacularly dark and clear Bortle 3 sky.



**Figure 8,** The view to the East from our camp site with the sky glow from Sydney behind the trees.



**Figure 9.** Some SPSP attendees and the Gentlemen from Testar with their refractor, Baader Herschel wedge and Bino viewers.

Despite our rural location, the faint glow of the Sydney and Newcastle metropolitan areas some 150 km away could still be seen low on the eastern horizon.

The night sky was spectacular, with the glow of the Milky Way and the shadow of the Emu dominating the view. The Magellanic Clouds were easily naked eye objects as were the 2 great southern Globular clusters, Omega Centauri and 47 Tucanae. Several star clusters reserved only for telescopes at the Briars could also be seen unaided.

Our first night was spent setting up our equipment, polar aligning our scopes and dealing with some gremlins in our gear. Dave and Chris both had equipment issues on the first night. Thankfully the gentlemen from Testar were in attendance with some supplies to get us up and running the next day.

Testar also bought along a significantly sized refractor with a Baader Herschel wedge attached, and a set of Bino Viewers to boot! The view of the sun through this was breathtaking. Taking control of the hand controller you could scan the surface of the sun and pick out individual features.



**Figure 10. The main viewing field at Wiruna prior to the arrival of the crowd. There are several permanently housed scopes here.**



**Figure 11. Astrophotographers arriving and setting up their hardware in "Imaging Alley".**

A strict ‘Red light only’ policy applied to the event, with white lights and torches forbidden around the viewing areas at night. The event also included several astronomy related talks, an Astrophotography competition, and a Raffle with several worthwhile prizes. The amenities on site were of a reasonable standard. Hot showers were available, although water pressure did drop if there were too many going at once. There were battery charging stations, communal kitchen facilities, and the local scouts were also on hand selling an assortment of hot food. Indoor areas with fireplaces for those seeking refuge from the cold were also available. And it did get cold, with temperatures



**Figure 12. Some of the Entrants in the Astrophotography Competition**



**Figure 13. Keeping warm by the fire.**

dropping below zero, and frost covering any equipment left out overnight. We managed to get 2 fantastic clear nights on Thursday and Friday night, and some of the deep sky images we took are posted in the ‘Gallery’ section of the newsletter, with more to come in the next issue. Saturday night was not suitable for astronomy, as the sky Gods did not see fit to give us a third clear night. So, we took the opportunity to hoist the antenna on Dave's Mobile Communications Centre, and spent some time finding people to speak to around the world. The army of volunteers did a fabulous job of keeping everything running smoothly and credit must be given to all of them. This was a terrific event and a great opportunity to view the cosmos through a large array of equipment at a dark site.

#### Day 5. Mt Stromlo

Sunday morning was time to pack away our tents and equipment, hitch the caravan and trailer and say good bye to Wiruna. Our next stop was Canberra where a private tour of the Australian National University awaited us. We were greeted by Astronomy and Astrophysics PhD Student Madeleine McKenzie, who is studying chemical abundances in Globular clusters, and will be presenting a talk at the VASTROC Conference this November, hosted by MPAS. Our tour included a look at the labs housing the WOMBAT Vacuum and space environment simulation chamber which is used to test equipment and satellites in a space environment, including simulating the differential heating and cooling that can be experienced. We also had a look at the vibration test bed, which is used to simulate launch conditions. The Optics lab where various components are assembled and tested was inspected by the MPAS team. We had a look at the telescope domes used for public out reach



**Figure 14. Nerida in front of one of the large telescope domes, currently housing destroyed equipment**

events, as well as the telescopes and dome destroyed in the 2003 bush fire, and tried to steal the 250 kg “Henbury” iron/nickel meteorite however the sophisticated security system known as “gravity” proved too difficult for us to crack.

We decided to take a quick drive to the NASA Deep Space Network Communication complex at Tidbinbilla before it got too dark to have a look at the large radio dishes. The facility is used to communicate with interplanetary probes including New Horizons, the Mars rovers and the Juno probe Unfortunately the Visitors centre was closed, but we managed to get some spectacular dusk views of the facility. To check what the Deep Space network stations are currently communicating with, go to <https://eyes.nasa.gov/dsn/dsn.html>.

We then returned to Mount Stromlo after dark, and proceeded to spend some time looking at the Satellite Laser Ranging facility shoot its green laser at various satellite targets to check their orbits, and take some nightscape photos from inside the destroyed dome of the Yale-Columbia Telescope.

The next morning we were on the road again. We made a stop for lunch at the Ettamogah Pub, and made our way to our homes from there. About 2,200 km travelled, an unknown quantity of road snacks consumed, and a terrific time had by all.

If you are interested in attending a star party, keep an eye out for them. MPAS will alert members to any up coming events. One event that several members have already shown interest in is the VicSouth Desert Spring Star Party between November 3<sup>rd</sup> and 7<sup>th</sup>, at the Little Desert Nature Lodge. Information can be found and bookings made at <https://vicsouth.info/vicsouth.htm>



Figure 15. Optics Lab at ANU



Figure 16. The 250 kg Henbury Meteorite fragment



Figure 17. Tidbinbilla Deep Space Communications dish.



Figure 18. The 2023 SPSP MPAS Delegation. From Left, Chris Kostokanellis, Nerida Langcake, Guido Tack, Dave Rolfe.



Lake Tyrrell in north western Victoria is a Mecca for nature and astrophotographers. At the entrance to the Park there is a new paved car park, viewing platform with information boards and modern toilets. With the recent upgrades now it's much easier to access the salt lake. A 2 kilometre long dirt road leads you to a second car park on the edge of the lake. A new boardwalk makes it easy to get up close to the lake and get that perfect shot. The Lake changes with the seasons, sometime it's completely under water, giving the most beautiful reflections of the stars in the lake. When we visited in April the lake was completely dry, with many photographers setting up. A giant metal TYRRELL sign has been installed on the foreshore, adding an extra dimension to a very featureless horizon. A new sky lounge has also been installed so you can lay back and view the stars; there are 10 single chairs and 3 double chairs for the more romantic couples.

*All images by Greg Walton and Pia Pedersen*





# YOUR ASTRO QUESTIONS



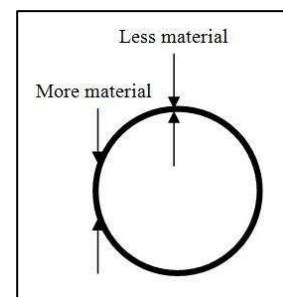
## What is a Planetary Nebula? by Greg Walton

They usually have a round compact appearance that resembles a planetary disk when viewed through a telescope. The word planetary means, something that is circulating around a centre point.

Planetary nebulas are formed when a Sun-like star gets to the end of its life. As it burns through the last of its fuel at an every increasing speed it explodes in a runaway event called a nova. (*Nova is the term used for a new star from the Latin novus. It's called new because the star brightened to the point in which we can observe it for the first time*). In doing so gravity can no longer hold the star together, the outer layers of the star move away from the star's core forming a shell of material. Over time this shell of material gets larger and fainter. If the star survives the explosion it usually becomes a white dwarf, which can't be seen through amateur telescopes.

The most curious aspect of planetary nebula is that no two look alike. You would think if 2 explosions were the same size they would end up looking the same. But like snowflakes, the tiniest difference in a star makes a large difference in the appearance of a planetary nebula. As the planetary nebula expands it becomes less circular, caused by the movement and spin of a star. Also most stars have a close partner and if this star survives the destruction of its partner, it will certainly drag the planetary nebula into different shapes.

I have spent many nights hoping from planetary nebula to planetary nebula and very rarely two will look alike. In a telescope we usually see planetary nebulas as a flat disc or ring, but they are spherical in shape with most of the material making up a shell of material around white dwarf. This doughnut or disc shape is only an optical illusion. The sphere of material in front of the star is almost invisible, like when looking through a sheet of glass. Whereas the material farthest from the central star would be seen edge on, like looking through a piece of glass edge on. In other words you are looking through a lot more material at the outer edge of the planetary nebula. As time passes planetary nebula expands and the material becomes less dense, making them more difficult to see. You will need to purchase a nebula filters such as a UHC - ultra high contrast or O-III, oxygen 3 filter. Both work equally as good.



I was quite surprised to see hundreds marked on my Sky Atlas 2000 paper star charts. Stars live a very long time, so you would think planetary nebulas would be fairly rare in the night sky, as the shell of gas should dissipate quickly compared to the long life of a star. The only conclusion is that we live in a time when most of the stars in the night sky are very old.

If you have ever used Sky Map or similar software, you would have noticed most of the planetary nebulas have a PK catalogue number. The PK is the abbreviation for Perek - Kohoutek catalogue which contains 1,510 planetary nebulas compiled and published by two Czech astronomers in the 1967.

The PK objects list can be uploaded to an Argo Navis control from the website. <https://www.wildcard-innovations.com.au/forum/posts/list/12.page>

You won't find the PK objects on your EQ6 SynScan hand controller. But you can download a PDF of the catalogue which contains five columns of information, such as their RA / Dec coordinates and alternative designation/names such as NGC, IC, or Messier. Like NGC objects, the PK planetary nebulas start at RA zero hours with number 1, to 1510 at the RA 24 hour mark. To find these PK objects you can add the RA / Dec coordinates to the user's objects on your EQ6 SynScan hand controller.



**Argo Navis Users' Group**

[Search](#) | [Recent Topics](#) | [Hottest Topics](#)

[Register / Login](#) | [Desktop view](#)

**User Catalogs** » [Perek-Kohoutek \('PK'\) Catalogue of Planetary Nebulae](#)

Author: wildcard  
20/10/2019 12:49:17 [quote](#)

The Perek-Kohoutek Catalogue of Planetary Nebulae

Filename PK.txt  
Description No description given  
Filesize 48 Kbytes  
Downloaded 15554 time(s)

[Download](#)

## The Perek-Kohoutek Catalogue of Planetary Nebulae

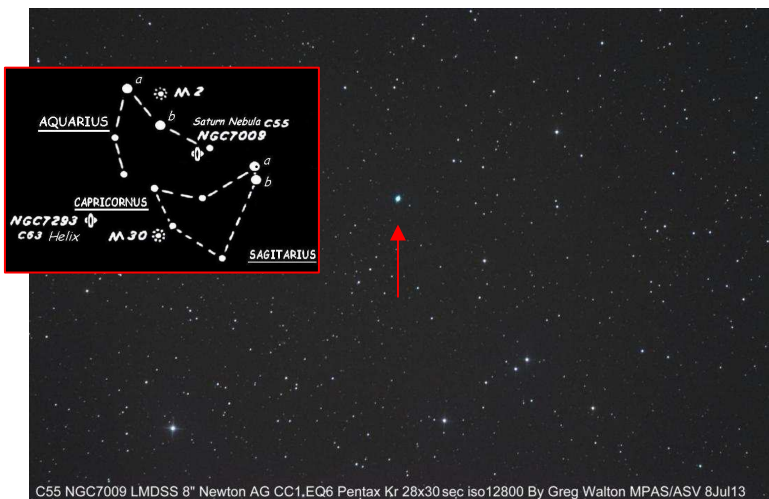
Data is from *Catalogue of Galactic Planetary Nebulae*, updated version 2000, by L. Kohoutek, Hamburg-Berfedorf, 2001.

Catalog number	Perek-Kohoutek number	Other designation	Right ascension (2000.0)	Declination (2000.0)
1	119+06.1	A 1	0h12.9m	69°11'
2	120+09.1	NGC 40	0h13.0m	72°32'
3	118-08.1	Vy 1-1	0h18.7m	53°53'
4	119+00.1	BV 1	0h19.9m	62°59'
5	119-06.1	Hu 1-1	0h28.3m	55°58'
6	120-05.1	Sh 2-176	0h31.8m	57°23'
7	108-76.1	BOBN 1	0h37.2m	-13°43'
8	121+03.1	We 1-1	0h38.9m	66°23'
9	121+00.1	BV 2	0h40.3m	62°51'

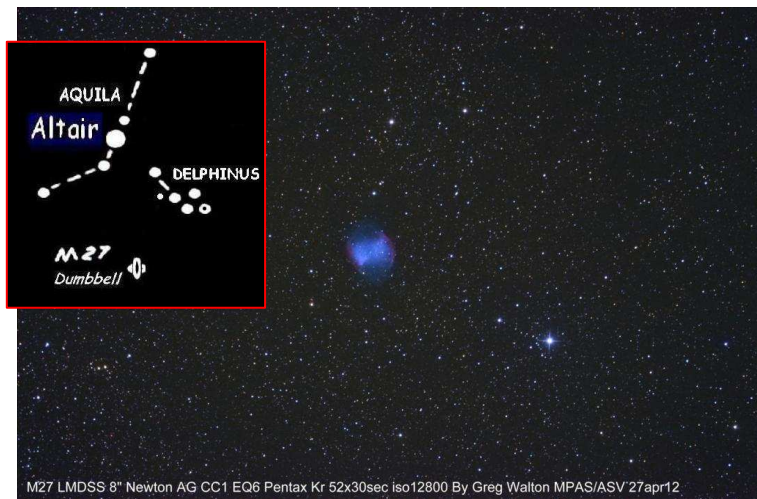
Downloadable File - [Perek-KohoutekHYPERLINK "https://authoring.kalmbachservices.com/wp-content/uploads/sites/2/2023/03/Perek-Kohoutek-Catalog.pdf"](https://authoring.kalmbachservices.com/wp-content/uploads/sites/2/2023/03/Perek-Kohoutek-Catalog.pdf) HYPERLINK "https://authoring.kalmbachservices.com/wp-content/uploads/sites/2/2023/03/Perek-Kohoutek-Catalog.pdf" catalog (1093kB)

Most planetary nebulas look like an ordinary star until you crank up the magnification to around 200 times and for most you still only get just a hint that it's not a star. It's best to use a large GoTo telescope with a long focal length to view most planetary nebulas. The 350mm Meade in the MPAS observatory is an excellent telescope for this purpose. I always look upon planetary nebulas as a bit of a challenge; it's very rewarding once I find the target object. As you will see on the next few pages, I often photograph them as a record, no matter how faint they appear in the eyepiece. Most of the planetary nebulas I have imaged with my F4 - 8 inch telescope with a focal length of 800mm.

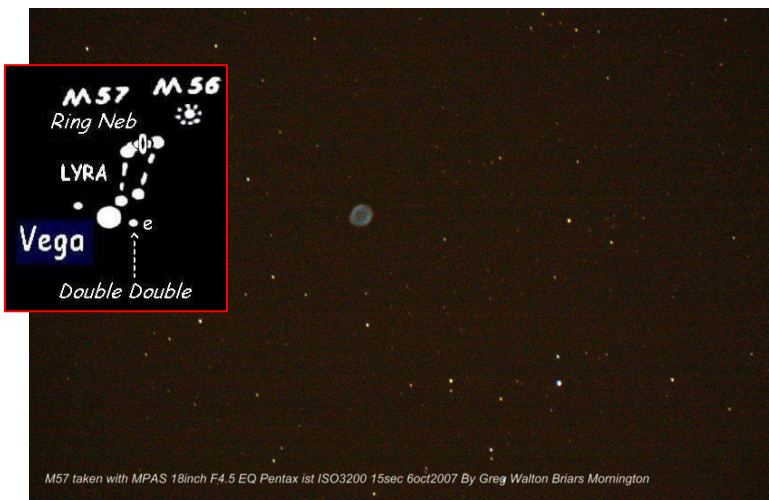
This selection of planetary nebulas can be seen from Winter to Spring:



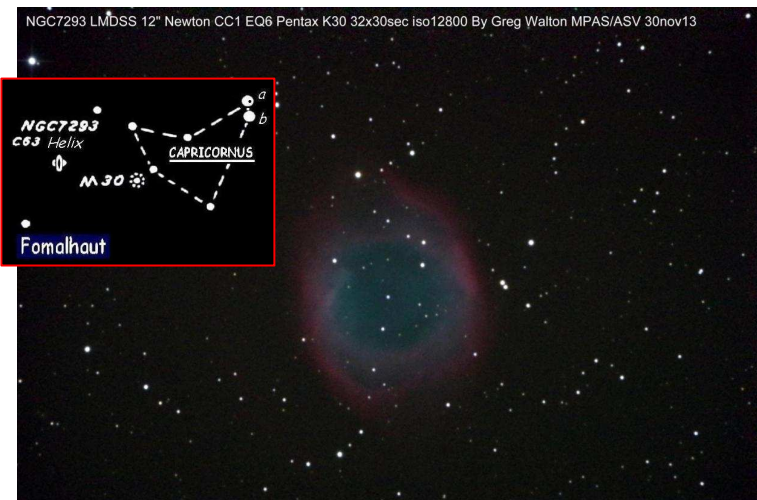
NGC7009 C55 Saturn nebula - This small bright planetary nebula is overhead in winter and does resemble Saturn. 4 degrees from the star epsilon Aquarius, can be spotted in a 50mm finder scope.



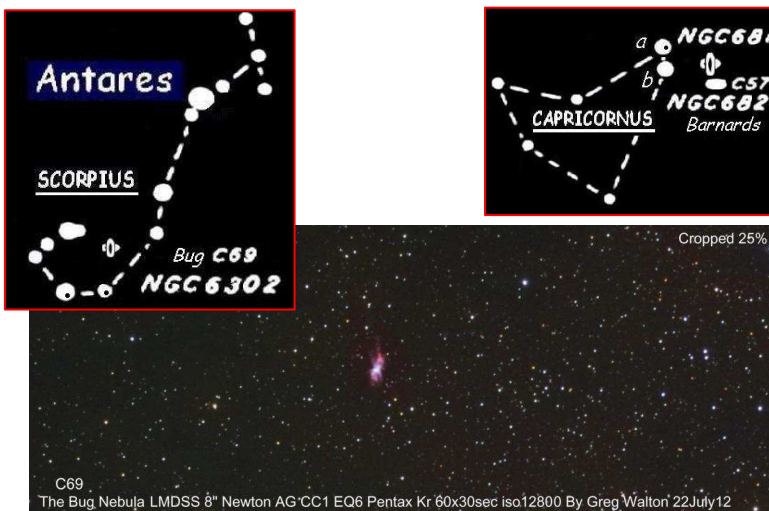
M27 Dumbbell - This large planetary nebula is a winter object in the northern sky about 12 degrees below the star Altair. Not easy to find in the light polluted sky without a GoTo telescope.



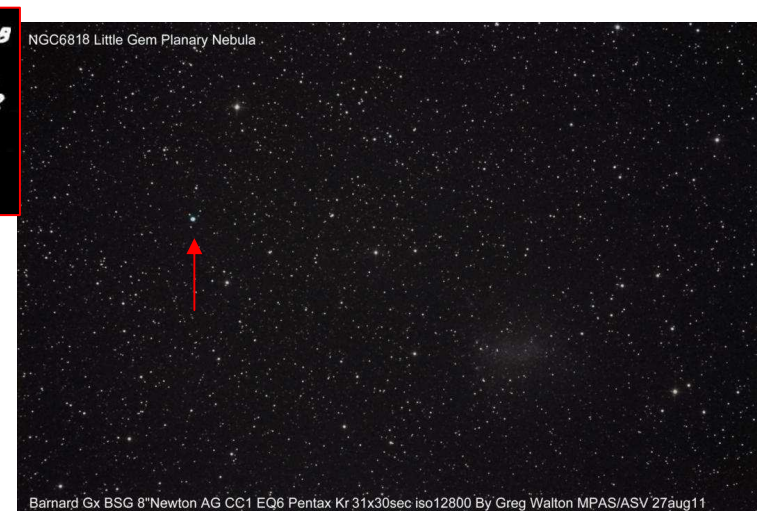
NGC6720 M57 Ring nebula - This winter object is low on the northern horizon above the bright star Vega. It's easy to find as it lays between 2 bright stars in LYRA.



NGC7293 C63 Helix nebula - Spring object north of the star Fomalhaut. This very large faint object needs a large telescope with low magnification and a UHC or O-III filter for the best

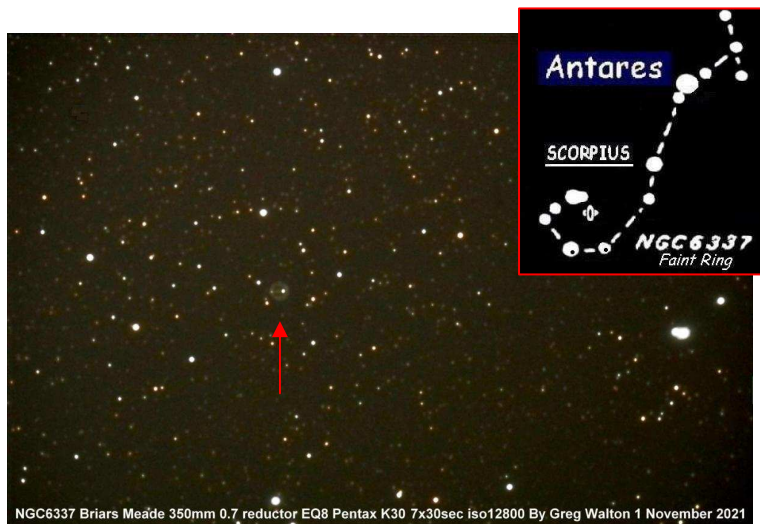


NGC6302 C69 Bug nebula - Classified as a bipolar planetary, its irregular shape looks more like an insect and is found within the tail of the Scorpius and best view in winter.

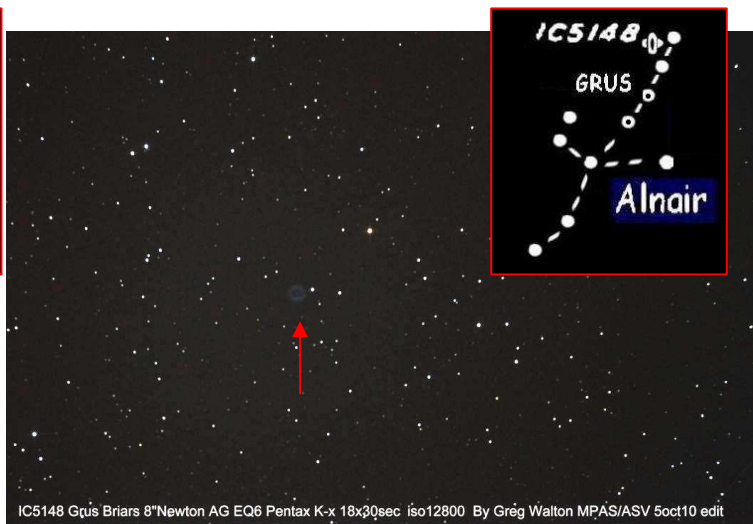


NGC6818 Little Gem - This small bright planetary nebula is overhead in winter near Barnard galaxy about 10 degrees to the east of stars Capricornus a & b.

These two planetary nebulas have a beautiful ring shape and best viewed in Winter with a large telescope and a UHC filter:

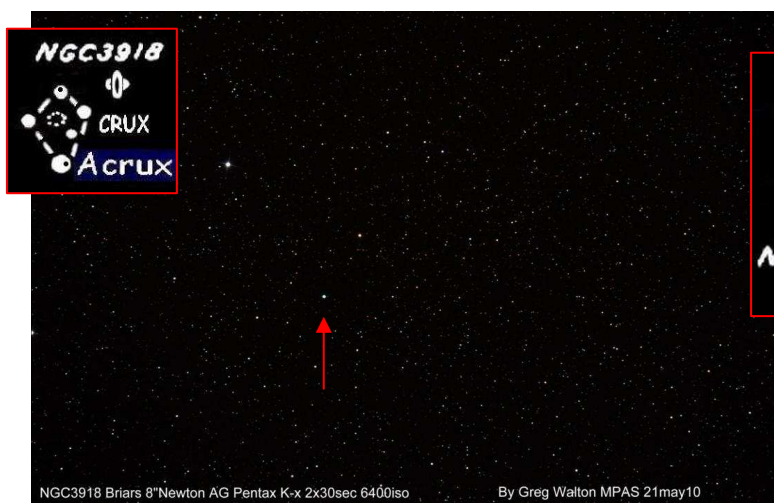


NGC6337 Cheerio - This winter object has a perfect ring and is found within the tail of the Scorpius. Very faint but visible with large telescope and an O-III or UHC filter, one of my favourites.

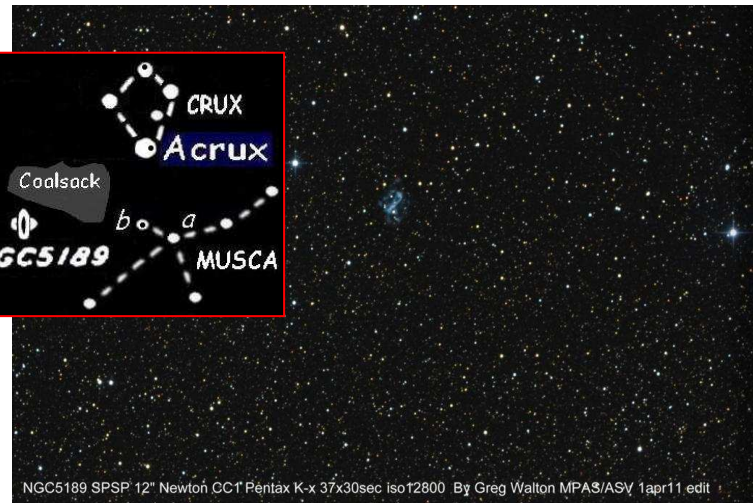


IC5148 Spare Tyre - This very faint perfect ring is found near the head of the Grus and best view in winter to spring. Visible with large telescope and an O-III or UHC filter, another favourite.

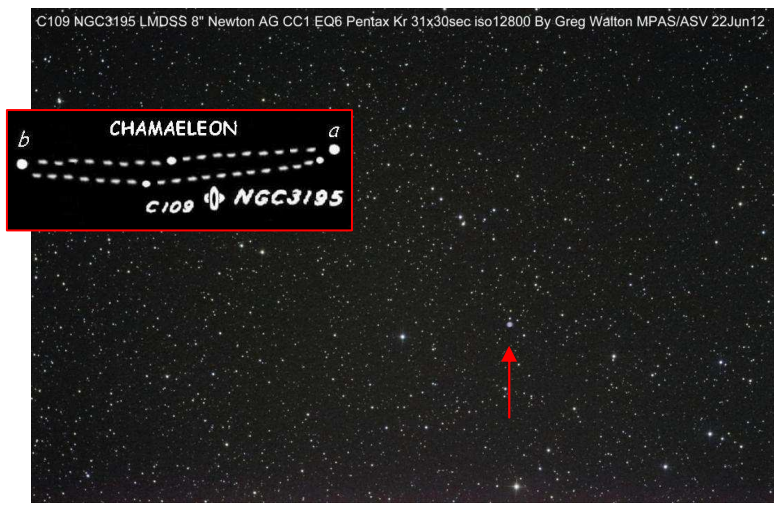
This selection of planetary nebulas is best viewed in Winter and lies near the Southern Cross:



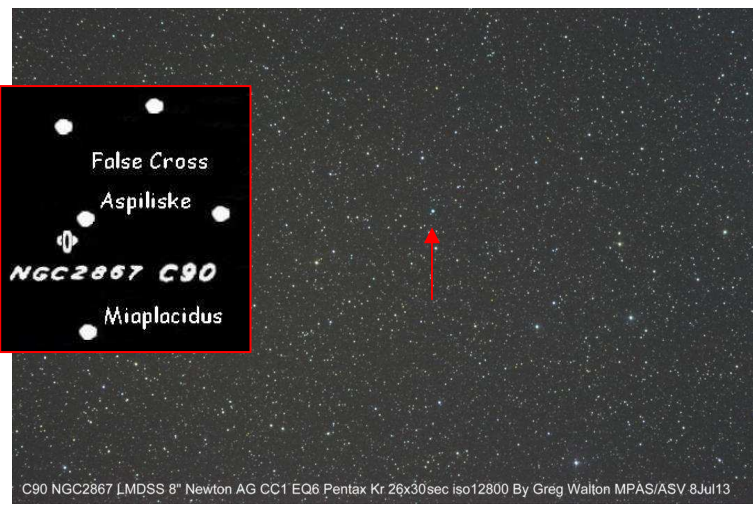
NGC3918 Blue planetary - This bright blue planetary near the Southern Cross is a very popular target and surprisingly easy to find without a computerized telescope.



NGC5189 Spiral - This irregular shape planetary looks more like a spiral galaxy and is found within Musca near the Coal Sack below the Southern Cross.

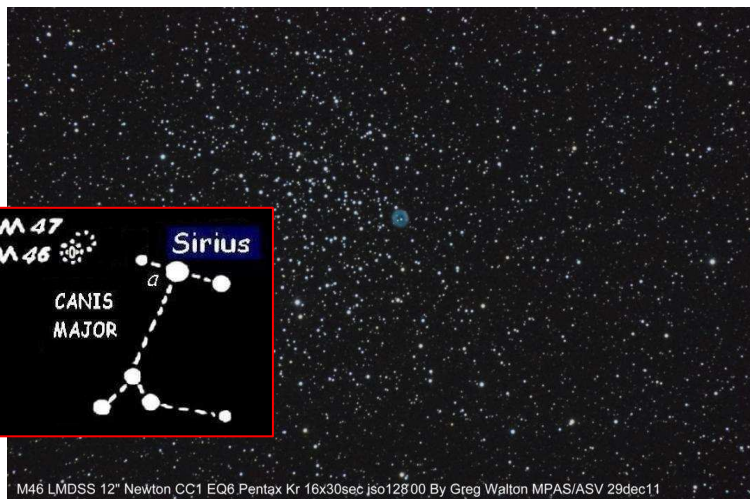


NGC3195 C109 - This small bright planetary nebula in Chamaeleon not far from the south celestial pole, so can be viewed all year around and does closely resembles the planet Uranus. Not easy to find without a GoTo telescope.

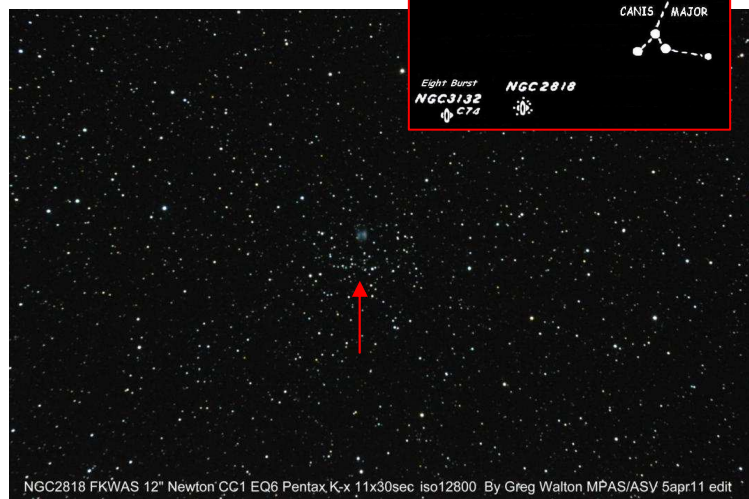


NGC2867 C90 - This small blue planetary nebula in Carina can be a bit of a challenge. Only 12 arc sec across, it blends into the starry background and closely resembles Neptune. Near the star Aspiliske which is one of the stars in the False Cross.

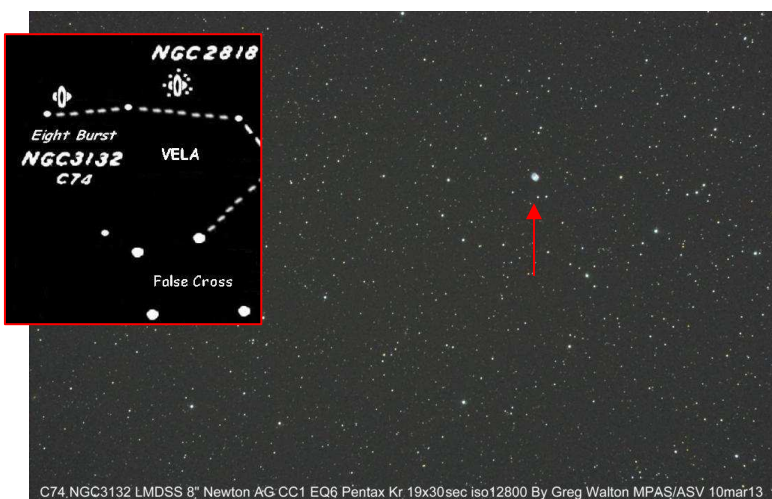
This selection of planetary nebulas can be seen in Summer to Autumn:



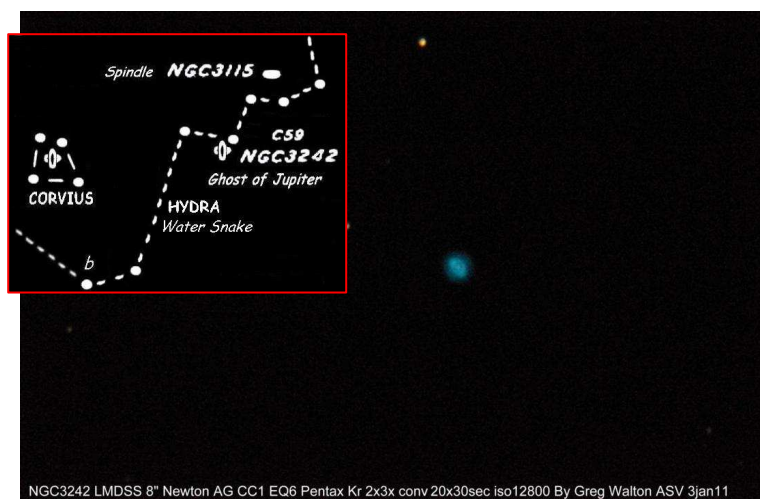
NGC2438 in M46 open cluster - This summer object is one of my favourite planetary nebula which sits in the open star cluster M46 which lies near the brightest star in the night sky Sirius.



NGC2818A lies in open cluster NGC2818 - This summer object is very similar to NGC2438 M46 which also sits in the open star cluster. Located near the eight burst NGC3132.

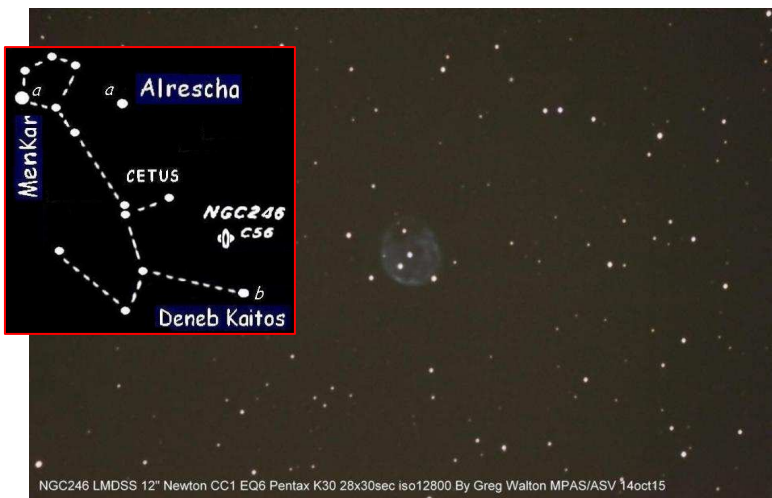


NGC3132 C74 Eight Burst - This bright planetary nebula is over head in autumn and does resemble a planet at low magnification, at higher magnification it shows more complex structure.

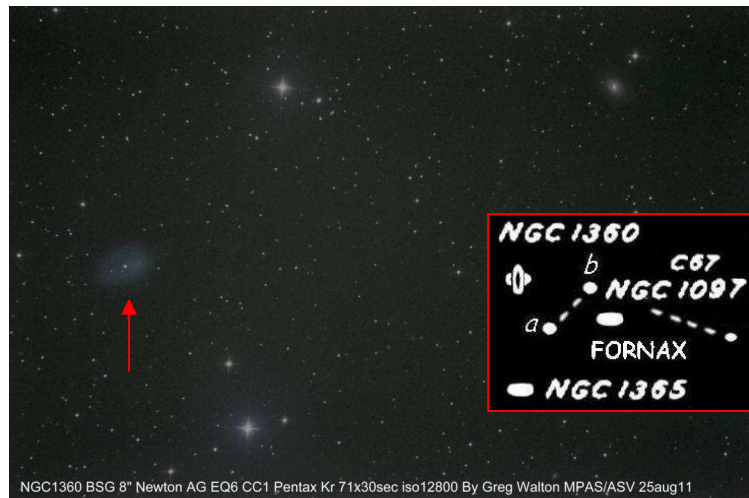


NGC3242 C59 Ghost Jupiter - This very bright planetary nebula is over head in autumn and does resemble Jupiter at low magnification, at higher magnification it becomes oval.

These two planetary nebulas can be seen in Spring with a large telescope and a UHC filter:



NGC246 C56 Skull nebula - This large but faint planetary nebula is overhead in Spring and lies in Cetus. Faint object best viewed with a large Dobsonian and UHC filter at a dark sky location. The stars within the planetary make this object very beautiful.



NGC1360 Robin's Egg nebula - This large but faint planetary nebula is overhead in Spring to Summer and lies in Fornax. This faint object is best viewed with a large Dobsonian and an O-III or UHC filter at a dark sky location.

# PRODUCT REVIEW

By Renato Alessio



Review of,

## “Neewer Telescope Filter 1.25” UHC Filter, Astrophotography Accessory Filter to Improve Image Contrast and Reduce Light Pollution for Astronomical Photography”

I recently noticed a lot of similar looking filters labelled “UHC” going fairly inexpensively on Amazon. Costs ranged from \$20 to \$3. Had there been some manufacturing breakthrough, I wondered? Out of curiosity I bought the most inexpensive one by Neewer to check it out, choosing Neewer because it is well known for its filters and making some pretty decent manual camera lenses.

When I got the filter, I noticed that it didn’t have a mirror coating like all my other narrow-band and broad-band filters, instead it had a bluish mauve colour in the glass. And if one checks the pictures of the inexpensive UHC filters on Amazon, most seem to have bluish glass in the pictures. Thus I was a bit dubious, but went on to do a comparison.

In my 80mm f/6.25 ED telescope, I compared the views in the Neewer filter to those in a Kson UHC filter, a Lumicon UHC filter and an Orion Ultrablock filter. I observed the Eta Carinae nebula with 16mm and 20mm eyepieces, in my moderately light polluted back yard. The UHC filters darken the image considerably, diminishing star and background brightness, but letting the light of emission and planetary nebula through unimpeded. I like my Kson filter best in 5" or smaller telescopes, and the other two best in bigger diameter telescopes.

Result - the Neewer filter was not a UHC filter in any sense of the words “Ultra High Contrast” (UHC), compared to those other narrow-band filters.

I then compared the Neewer filter to the Lumicon Deep Sky Filter and Celestron LPR filter - which are two broadband filters. Both of them gave a significantly darker image than the Neewer filter, with a better view of the nebula itself.

So, am I going to say that the Neewer filter is a piece of junk?

Answer - No, because the image through the filter was actually very nice. It was always better than viewing the nebula and stars without it, and - while the nebula wasn't enhanced as much as with the other filters - it was enhanced a small amount and the stars weren't diminished as with the other filters. The image was more aesthetically pleasing than with all the other filters.

So, it doesn't do the job of a UHC filter, but seems to do the job of a very broad broad-band filter.

I tried the Neewer filter again on another night in my 5" f/11.8 MAK telescope on the same nebula with a 25mm eyepiece, and I couldn’t see any difference between the filtered and unfiltered views – though that’s an unfair comparison as the exit pupil was smaller than the ones I used in the refractor (i.e. the image was darker). Unfortunately, I’d lent my 30mm 1.25" eyepiece to my nephew, and my other 30 and 32mm eyepieces were 2" ones that I couldn’t attach the filter to, in order to do the equivalent exit pupil comparison.

Finally, on yet another night I tried the filter in my 120mm f/5 refractor with a 14mm eyepiece, on the same nebula. Again, as with the 80mm refractor, the view of the nebula was enhanced a small amount compared to the unfiltered view.

In conclusion, if one wants a real UHC filter, don’t buy the cheap ones labelled “UHC” on Amazon.

But, if one has a short tube refractor and likes its low power views, the Neewer filter might be worth the current \$20 price tag.

Regards, Renato Alessio



# MEMBERS GALLERY

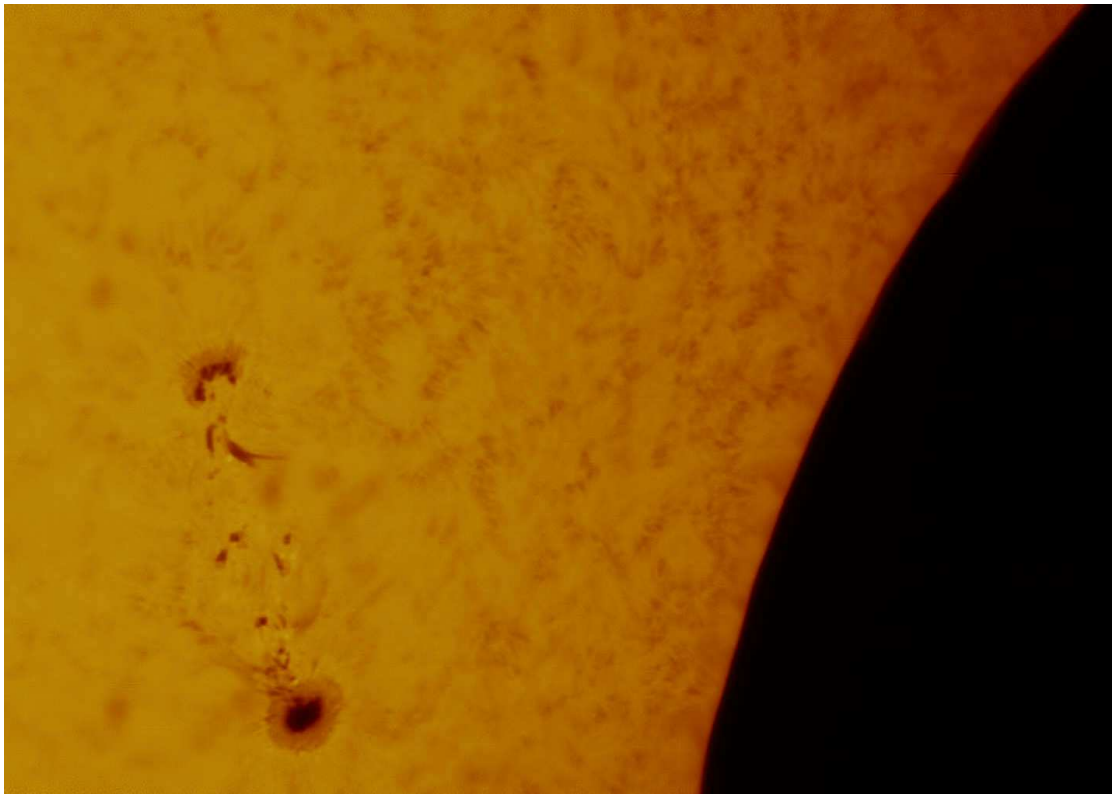
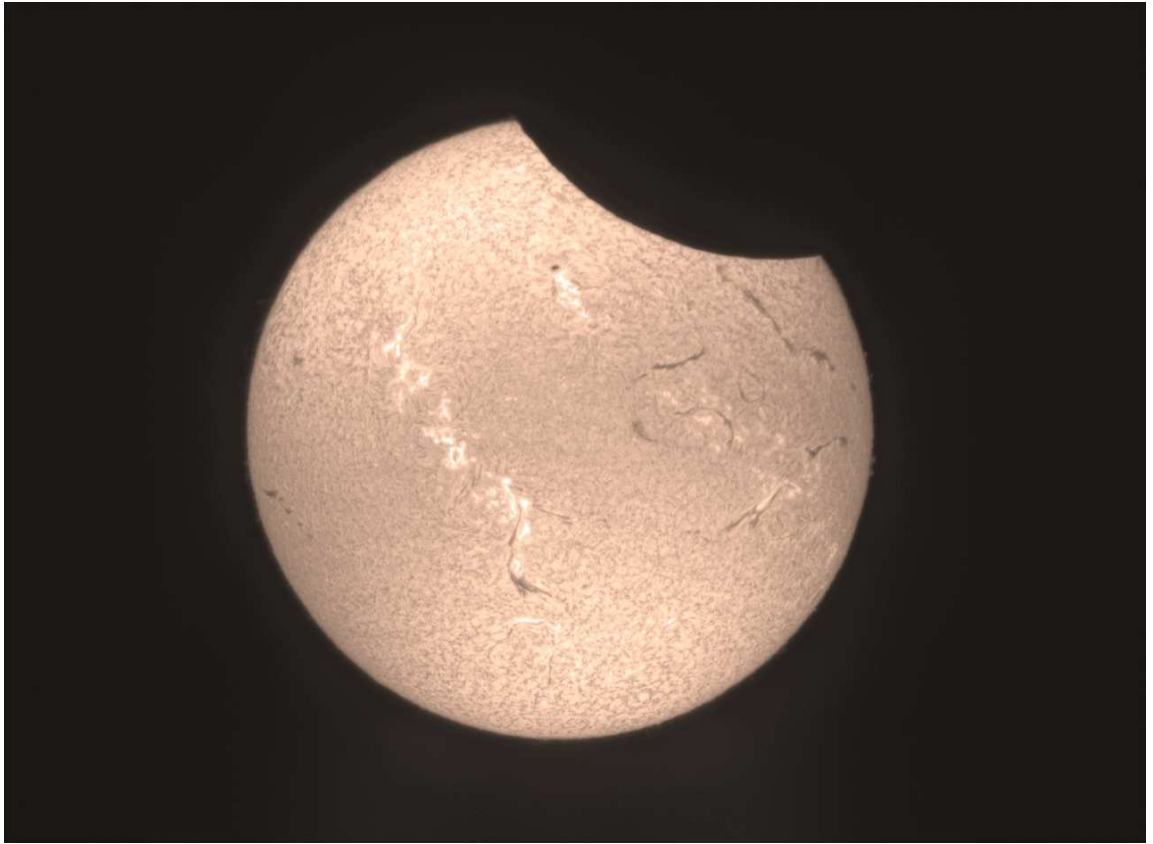
By Chris Kostokanellis



## Solar Eclipse

Solar Eclipse from  
Melbourne.  
Lunt 60mm  
ASI 1600MM

*By Dave Rolfe*

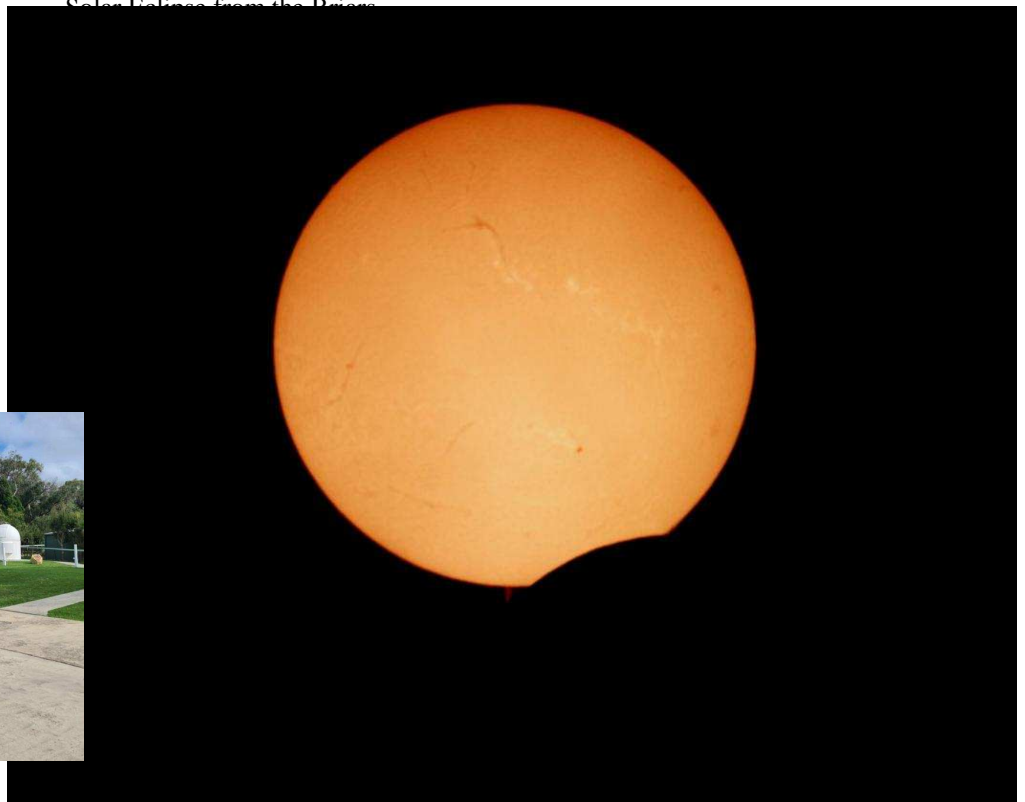


Solar Eclipse and sun spot.

*By Russell Smith.*

Using the MPAS LUNT 60mm Ha Solar telescope and an ASI 294 MC Camera.

*By Chris Kostokanellis*

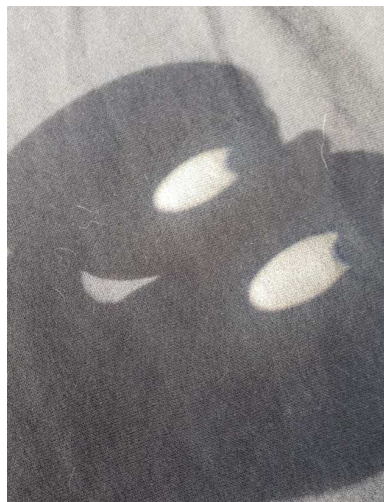


**Creative Eclipsage.**



Solar Sun Glasses on smart phone.

*By Steve Mohr*



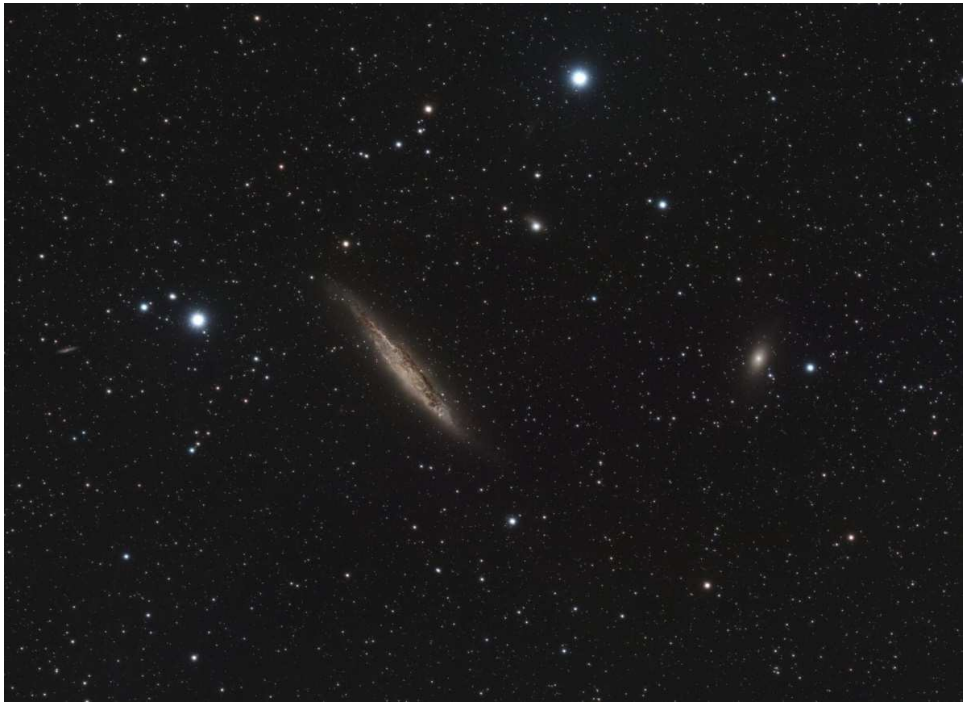
Projection onto cloth through Binoculars

*By Sue Stoner*



Magic mirror box

*By Chris Black*

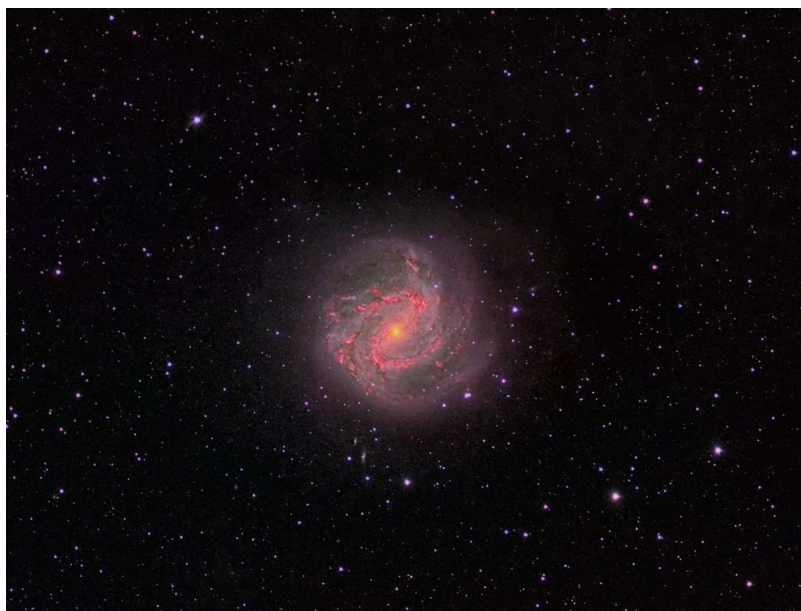


NGC 4945, a barred spiral galaxy in Centaurus (and there's a few other galaxies in the frame as well).  
64 x 300s, William Optics ZS73, ASI294MC, Optolong L-Pro filter. Processed in PixInsight.

*By Guido Tack*

Leo Triplet.  
18 x 180 Sec Exposures  
80mm x 500mm FL Refractor  
UVIR Filter  
ASI 294 MC Pro Camera  
Processed in Siril

*By Chris Kostokanellis*



M83, Southern Pin Wheel Galaxy.  
HaLRGB 130mm refractor zwo 6200mm camera (bin2x2)

*By Russell Smith*





Top.

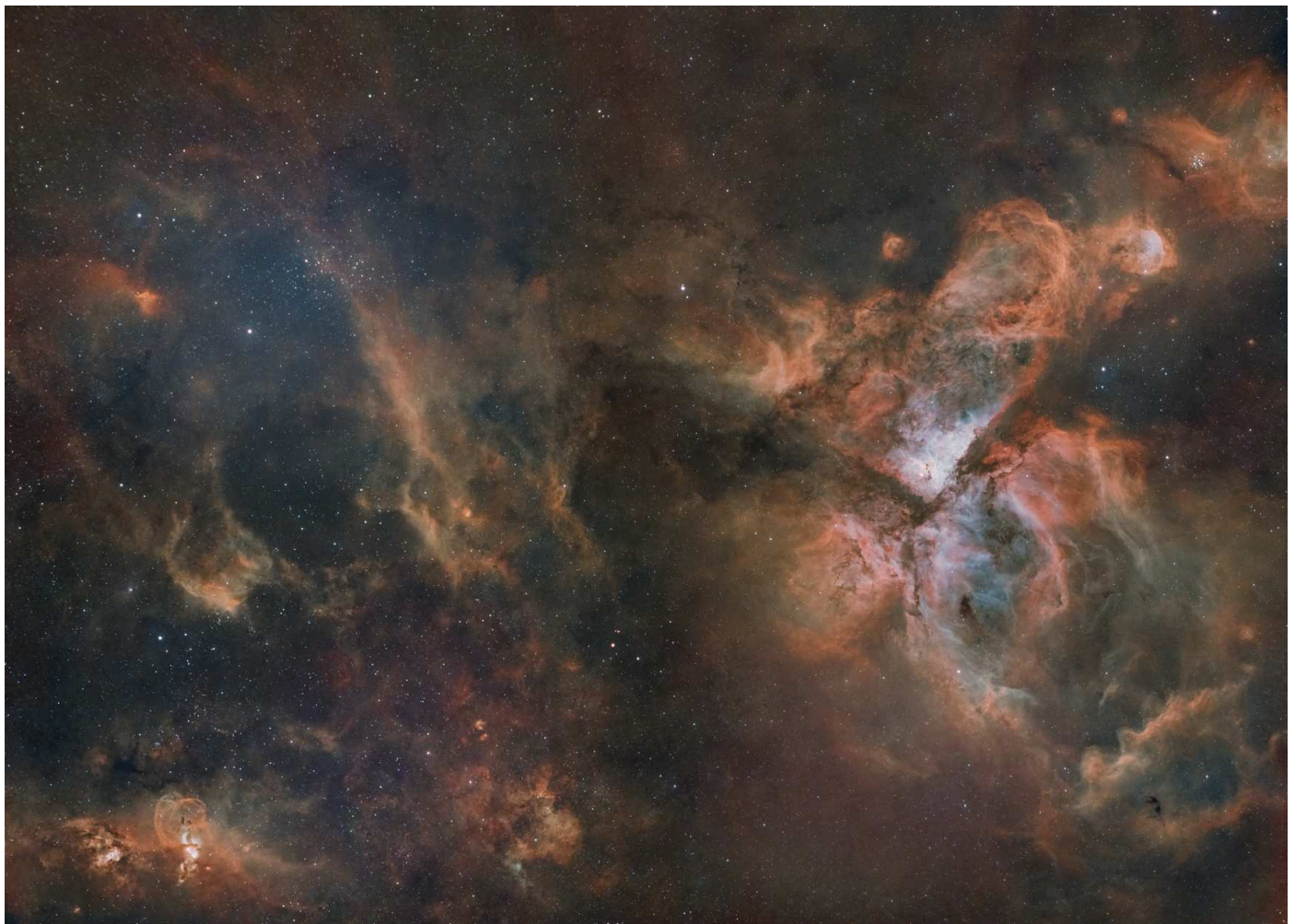
Centaurus A and NGC 6744 taken with the 533mc pro and a slippery focus, on my TS Apo Photoline 130 the focus was a real issue and I didn't manage anything good, this was the best I could do considering the issues I had Barely 2-3 hours in total

Bottom

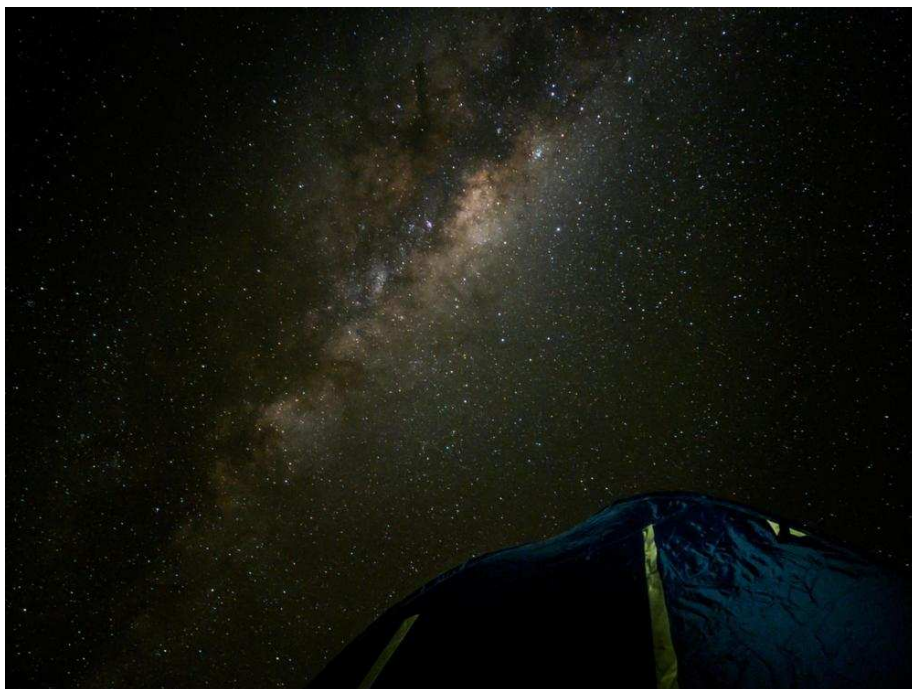
Carina and Statue of Liberty Nebula widefield mosaic

Four panels taken over 2 nights using the ASI AIR mosaic planner then stacked and combined in Astropixel Processor, Processed in Pixinsight and finished off in Photoshop Telescope Askar FRA 300 Camera ZWO 294mc Pro Optolong L-Ultimate Filter. Each panel was 600 seconds x 23 give or take a bad sub here or there.

*By Nik Axaris*

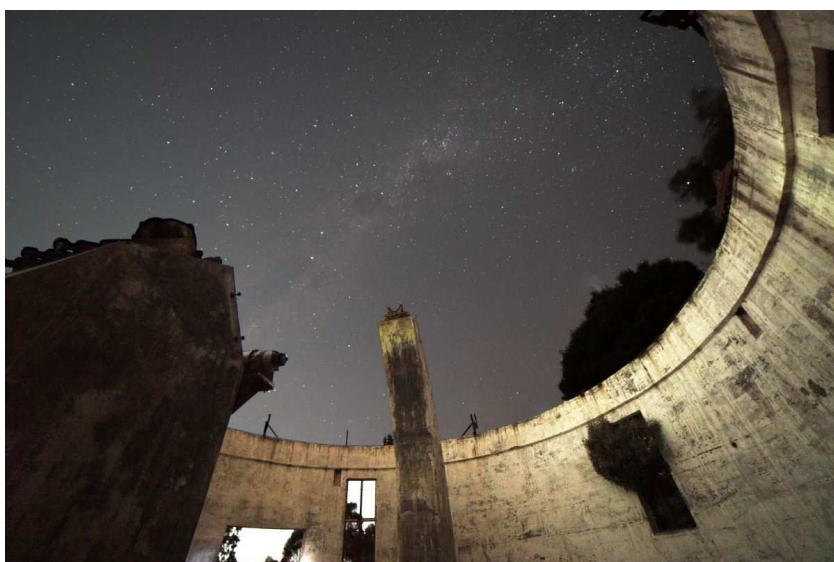


South Pacific Star Party 2023.



Camping under the Milky Way.  
The view from my tent at the SPSP! Taken with my Samsung Note20 Ultra smartphone, 30 seconds @ iso1600.

*By Nerida Langcake*



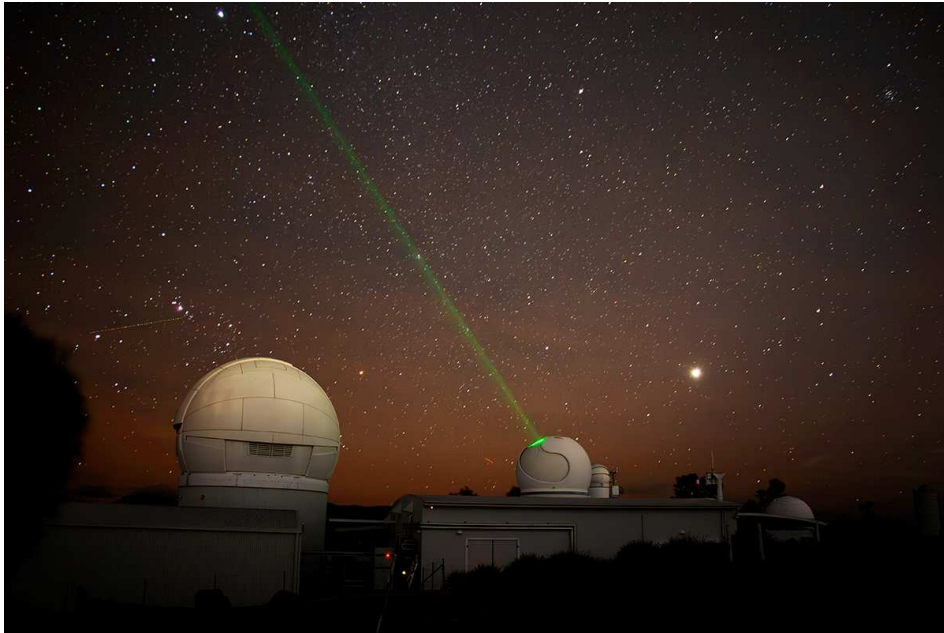
The view from inside the destroyed dome of the Yale  
– Columbia Telescope at Mt Stromlo Observatory.

*By Dave Rolfe*



IC 4604, Rho Ophiuchi Nebula  
Luminance frames from Wiruna, SPSP 2023

*By Dave Rolfe*



The Mount Stromlo Satellite Laser Ranging (SLR) facility at Mount Stromlo.

“Data from a global network of SLR stations are used to estimate the orbital parameters of satellites which revolve around the Earth's centre of mass. Therefore the position of the Earth's geocentre, the origin of the global reference frame, can be monitored through time.”

Source: Geoscience Australia.  
ga.gov.au

Belt and Sword of Orion over the large dome, and a bright Venus to the left.

*By Chris Kostokanellis*



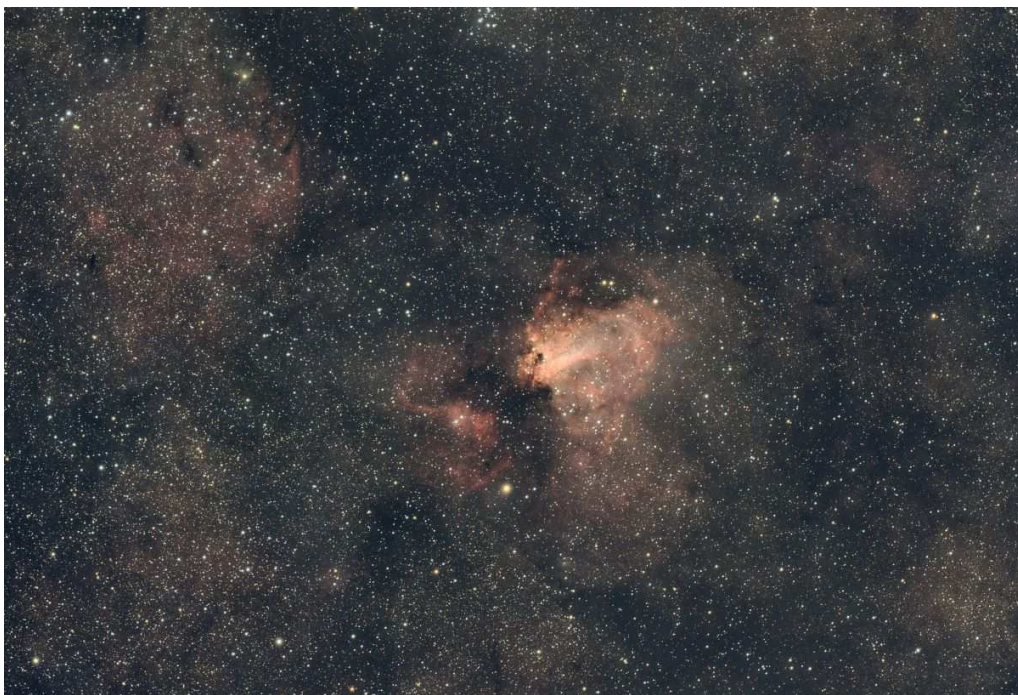
Deep Sky images from SPSP 2023 at Wiruna.

Left to right: Dark Nebulae LDN 1771 Parrot Head Nebula - 60 Min Exposure, LDN 66 Snake Nebula – 100 Minutes, and LDN 1758 with the M7 (Ptolemy Cluster) in the bottom right corner – 40 Minutes.

Below: M17 Omega Nebula – 65 Minutes of exposure. My last image for the SPSP, as clouds rolled in overnight during the imaging of this on our last night.

All with 80mm refractor, UVIR filter and ASI294 MC Pro.

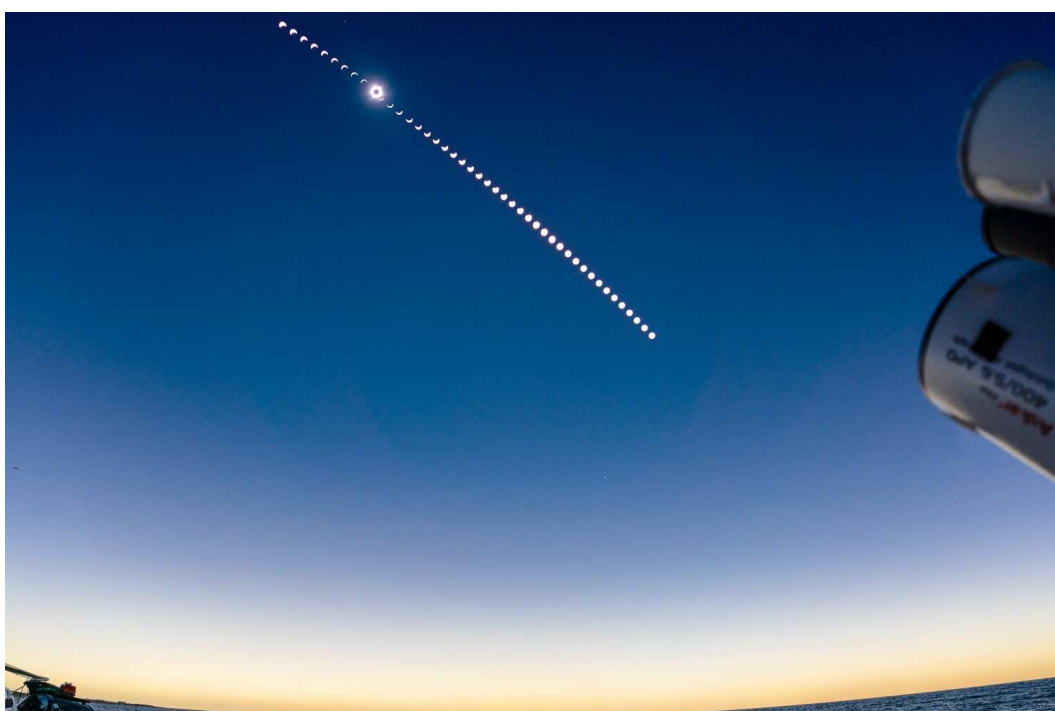
*By Chris Kostokanellis*



Here are some of my processed images from the Ningaloo eclipse. I tried to get the “flash” spectrum by inserting a diffraction grating behind a 200 mm scope and imaging with a ZWO colour camera, but I failed. I think it is quite hard to achieve as you need to have one of “Baily’s beads” as the source and everything happened so quickly. My source turned out to be a crescent Sun! Next time ...

*Regards Fred Prata*

Cover image also by Fred Prata



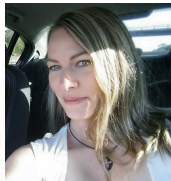
SOCIETY INFORMATION



Peter Skilton



Mark Stephens



Nerida Langcake



Jamie Pole



Anders Hamilton



Trevor Hand



Chris Kostokanellis



Guido Tack



Simon Hamm



Greg Walton

OFFICE BEARERS OF THE MORNINGTON PENINSULA ASTRONOMICAL SOCIETY

**President:** Peter Skilton  
**Vice President:** Mark Stephens  
**Committee:** Anders Hamilton, Trevor Hand, Guido Tack, Simon Hamm and Chris Kostokanellis

**Secretary:** Nerida Langcake  
**Treasurer:** Jamie Pole  
**Web master:** Guido Tack  
**Scorpius editor:** Greg Walton  
**Librarian:** Fred Crump

SOCIETY MEETINGS

**Meeting Venue:** MPAS Astronomy Centre  
 The Briars, Nepean Hwy, Mt Martha  
 (Melways ref. 151/E1)

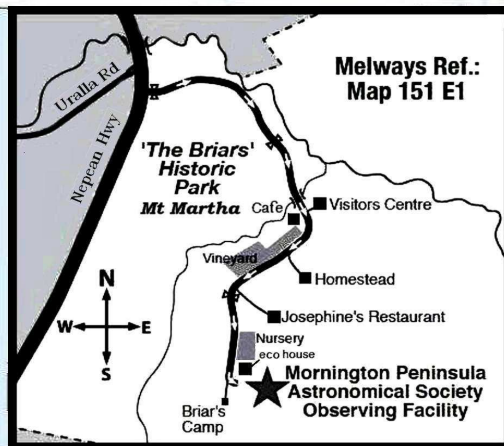
**Society meetings:** Don Leggett Astronomy Centre  
 8pm on the third Wednesday of the month  
 (except December)  
 (See map at right & Below)



**For addition details:**  
 Internet: [www.mpas.asn.au](http://www.mpas.asn.au)  
 email: [welcome@mpas.asn.au](mailto:welcome@mpas.asn.au)

**Phone:** 0419 253 252

**Mail:** PO Box 596, Frankston 3199, Victoria, Australia



Melways Ref.: Map 151 E1



Fred Crump

LIBRARY

The Society also has books & videos for loan from its library, made available on most public & members nights at The Briars site. Contact Fred Crump or Lara Conway

E-SCORPIUS NEWSGROUP

M.P.A.S. main line of communication is the online newsgroup called E-Scorpius. Here you will be kept up to date with the latest M.P.A.S. news & events information as well as being able to join in discussions & ask questions with other members. To join, email [welcome@mpas.asn.au](mailto:welcome@mpas.asn.au) say that you want to join E-Scorpius & you will be added to the E-Scorpius list.

**facebook** MPAS members - <https://www.facebook.com/groups/MPAS1/>  
 MPAS - <https://www.facebook.com/mpas0/>

VIEWING NIGHTS - MEMBERS ONLY

**Viewing Night** - Members only any night, at The Briars, Nepean Hwy, Mt Martha, starting at dusk. Members visiting The Briars for the first time must contact Greg Walton on 0415172503 if they need help getting to The Briars site. Upon arrival at the site, remember to sign the attendance book in the observatory building.

**For additional details:**  
 Internet: [www.mpas.asn.au](http://www.mpas.asn.au)  
 email: [welcome@mpas.asn.au](mailto:welcome@mpas.asn.au)

**Phone:** 0419 253 252

**Mail:** PO Box 596, Frankston 3199, Victoria, Australia



Members please write a story about your astronomy experiences and add some pictures. Send them to the editor: Greg Walton [gwpas@gmail.com](mailto:gwpas@gmail.com)  
**MPAS newsletters online** - [https://drive.google.com/folderview?id=0ByvxkzZGI9g\\_SUNmZVhkZTFGWTA](https://drive.google.com/folderview?id=0ByvxkzZGI9g_SUNmZVhkZTFGWTA)

SCORPIUS The journal of the Mornington Peninsula Astronomical Society

**Newsletter Disclaimer** - The Scorpius Newsletter is published online, once every two months for its membership, by the Mornington Peninsula Astronomical Society, for Educational Purposes Only. As a newsletter, this publication presents news spanning a spectrum of activities, reports, and publications in order to keep society members abreast of a variety of events and views pertaining to astronomy. While prudent, reasonable effort has been utilized to verify factual statements made by authors, inclusion in this newsletter does not constitute or imply official MPAS endorsement. All materials (except previously published material, where credited) are subject to copyright protection © 2023, Mornington Peninsula Astronomical Society