Cover image - Briars Star trails taken at the April public night. *By Jamie Pole*
Time-lapse from the April PVN... https://vimeo.com/931085628

SCORPIUS

THE JOURNAL OF THE
MORNINGTON PENINSULA ASTRONOMICAL SOCIETY INC.

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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.

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

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

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Mornington Peninsula Astronomical Society

SOCIETY NEWS

Public Viewing Night March 1st - The March public night at the Briars went ahead after originally being cancelled due to roadworks that temporarily cut our access to the MPAS site. With only one-week notice that the roadworks would be completed earlier than anticipated, we were able to fully book the event, and the observatory was buzzing with activity that saw 90 visitors under clear viewing conditions. Almost everyone who had booked turned up, plus many more who were returning for the viewing part of the night after being clouded out at a previous public night.

Trevor Hand gave the talk indoors, before everyone popped outside to wave to a bright ISS pass-over. Not long after returning inside to continue the talk, there was a bright Starlink satellite train that had been recently launched and so the satellites were quite bunched together as they passed over. It's always quite an amazing sight and particularly for those who have never seen it before.

After the talk concluded the visitors moved outside for some telescope usage under the clear night sky. Members present and/or helping on the night were Chris Kostokanellis, Sylvie Grandit, Katherine McCoy, Simon Hamm, Phil Peters, Pam Halsall, Nerida Langcake, Piper Grierson, John Goodall, Ben Claringbold, Jamie Pole, Greg Walton, Simon Birch, Fred Crump, Ingrid Pinkerton, Karen Webber, Steve Mohr and Domenic Lucarelli. If you attended but I've missed you, please do remember to write your name in the logbook each time so you can be acknowledged here. *Regards, Nerida Langcake*

School viewing night March 6th - Strathaird Primary school had 77 senior year 5 and 6 students staying at the Briars Camp. Following dinner and cleaning up after, they moseyed over to the observatory and were given a look of Jupiter starting to get low in the west, ahead of clouds coming in from across the Bay. There were no other planets in the sky and neither was the Moon that evening. If they'd arrived 15 minutes earlier, they might have seen the Tiengong space station as well, but it was not to be.

The talk indoors was given by Katherine McCoy and Peter Skilton, and lots of questions ensued as we expected from this school from last year. At one point while the lights were low there was a substantial thud on the floor as the meteorite left its mark on the concrete, where some student had probably overestimated their strength at holding it while trying to impress the person seated next to them. No one was stretchered out, so the talk went well!

The cloud steadily increased and was completely covering the sky by the end of the talk, giving about a 50% average cover across the evening. Helping out with the running of the night were Phil Peters, Sylvie Grandit, Greg Walton, Chris Kostakanellis, Jamie Pole and Ben Claringbold. *Regards, Peter Skilton*

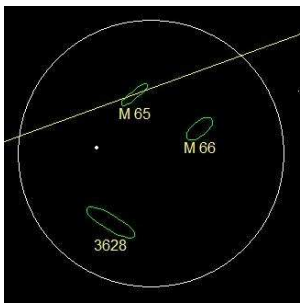
Special viewing night March 9th - Saturday 9th March saw a birthday party at the Briars camp. For the lucky 60 year old we were some of the entertainment for the evening. They were given a short talk by Katherine McCoy and Peter Skilton before moving outside for a look at the stars and Jupiter through the telescopes. They had 30 staying at the camp, but then another 45 turned up to gate crash the festivities. Fortunately we'd anticipated this might occur and we had plenty of members and telescopes at hand.
The feedback we had was that they were positively delighted by the out of this world experience, and I suspect we'll be seeing some of them come back to a public stargazing night in the future, if not even becoming members.

Helping with the telescopes and selling merchandise were Sylvie Grandit, Simon Hamm, Phil Peters, Nerida Langcake, Neil Thompson, Ben Claringbold, Jamie Pole, Dave Rolfe and Chris Kostokanellis, while Katherine also had her instrument in use. *Regards, Peter Skilton*

Somerville Family Day March Monday 11th at Fruit Growers Reserve - It was an early start, and a long and hot day, but always good fun to setup the MPAS marquee, this time at the Somerville Family Day event. We had the solar scope watching the Sun, the 90mm refractor on a nearby communications tower, and my 12" Dob trained on the best pinecone in Somerville located at the top of a tree a few hundred metres away. There were thousands in attendance, and it's estimated we attracted 700+ visitors through our marquee. Well done to everyone who volunteered or visited. It was a great day! *Nerida Langcake*

The first Gippsland Star Party was held at the Stockman's camp Buchan South over the weekend from 15th to 17th March. This event was a collaboration between MPAS, LVAS & ASV. As it was the first, the public were not invited, but next year we hope to have the public on one of the nights till 10pm. There were about 70 amateur astronomers in attendance and next year we hope to increase that number. There were only 12 powered sites but almost unlimited unpowered camp sites and there were also some cabins on site. Buchan is a 4-hour drive from Melbourne and has some of the darkest night skies in Australia, mainly because there is almost nothing there, just a petrol station, a café, and Buchan Hotel where some attendees also stayed. Unfortunately the famous Buchan caves were closed due to recent flooding, but should be open soon. The deeply rutted road into the camp was a little challenging; luckily nobody got stuck. Once signed in, came the job of setting up camp and my 21.5 inch Dobsonian telescopes (Sky Dancer). The observing field has a clear view to the north, very handy for those of us like myself wanting to see all the northern objects that can't be seen from the Briars.

The first night saw clear skies and the annoying 5-day-old Moon, which was to set at 10 pm. The temperature dropped rapidly and a very heavy dew settled in, which persisted throughout the night. I found myself changing eyepiece very often, as one eyepiece dewed over I replaced it with one that I had been warming in my pocket. It didn't help either if someone breathed on the eyepiece just before they were to look through it. I also found that my telescope was slowly sunk into the ground, upsetting my alignment. While the Moon was up, I did a quick walk around the field to see if anyone needed help and I found a few, which I did my best to sort out and get them on their way.



Once the Moon had set, things became much better; galaxies which were almost impossible to see became clear as day. Most of the galaxies showed structure that is impossible to see from the Briars sky. When I wasn't showing fellow astronomers the usual objects, I was hunting down the more difficult to see or to find. The Leo triplet (M65, M66, NGC3628) fitted nicely in my 31mm Nagler eyepiece and M86 & M84 with 6 smaller galaxies also fitted nicely. Around 1 am I covered my telescope and went off to bed.

Saturday lunch time, many of the attendees went to the Buchan hotel for lunch or drinks, while others went for a drive in the countryside. Chris had the MPAS solar telescope running and was also able to get a few quick images in.

Then at 5 pm we gathered for a group photo and then waited around for the Big BBQ dinner and dessert, ice-cream and fruit salad in the rustic shed; after which some of us had a nap before sunset, knowing it could be a long night at the telescopes.

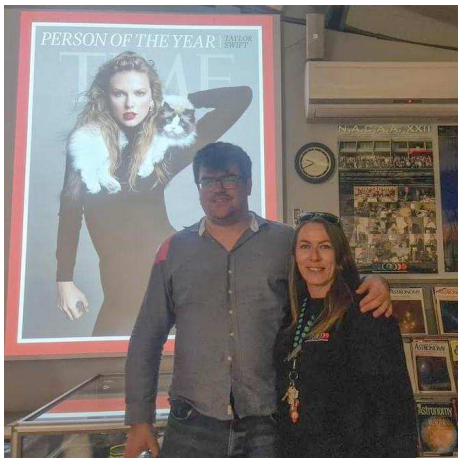
By 8 pm, most were back at their telescopes, readying them for the night ahead. Again I did a lap of the field, helping anyone who was having trouble with their telescopes. The dew was less of a problem and the seeing conditions better then the previous night. But that pesky Moon wouldn't be setting till around 11 pm. Once it was gone we had some of the best views we have had in a long time. I had fewer people stopping by for a look through my telescope, probably because everyone's telescope was working better. I dropped in on many of my favourite objects. Antennae Galaxies NGC4038/39, Sombrero Galaxy M104, Southern Pinwheel M83, to name a few. By 1 am the legs were getting tied, so I covered the telescope and went off to bed.

On Sunday, came the big job of packing up the telescopes and then breaking camp. Most had a long drive back to Melbourne. The weekend was a success and planning for next year's event is already underway. *By Greg Walton*

School viewing night March 19th - MPAS visited the Year 7 pupils of Parkdale Secondary School on March 19th for their annual dose of stargazing. The talk on the night to the 112 students, plus numerous teachers, was given by Peter Skilton in the main auditorium that can seat about 330. Unfortunately, with a well-placed Moon and Jupiter in the sky, the weather didn't co-operate and it was cloudy throughout the evening. Phil Peters had also kindly set up a telescope in the stage area after the talk to enable any questions about how they work.

Out in the elements, and all set up to go in the adjoining park with telescopes ready for that fleeting glimpse through the clouds, were Phil, Josh & Jamie Pole, Sylvie Grandit, Greg Walton, and Katherine McCoy. *Regards, Peter Skilton*

Society meeting March 20th - Wednesday evening at the Briars, we had the monthly MPAS meeting featuring a very exclusive international visitor who was making a whistlestop tour speaking with us, at Parkdale to science and media students, and at Geelong and Ballarat A.S. after gigs at Mount Stromlo observatory, Canberra, Sydney and NZ.



Stephen Slater is an internationally renowned film and television documentary producer with dozens of titles to his name, visiting from the UK and touring Australia and New Zealand. He has special exclusive access to the hidden space archives of NASA.

His credits include Apollo 11, the highest grossing documentary worldwide for 2019.

It has been 55 years since humans first went around the Moon on Apollo 8. Next year, NASA will do it again on Artemis 2. Join Stephen Slater with this exclusive look into Apollo 8 and one of human's riskiest journeys. Using never-before-seen archival film clips, Stephen will take us on an out-of-this world multimedia experience. You will also have the opportunity to meet him, ask questions and get autographs if desired.

There was no certainty whether this talk could be made available online afterwards. *Regards, Peter Skilton*

March 20th was a very busy day. Noon saw the UK visitor, and documentary film Producer, Stephen Slater, picked up by me at Flinders Street after he travelled south that morning following speaking the night before at Ballarat Observatory on his whistlestop tour of the regions. Then it was a hasty battle with Melbourne traffic to drive him south to speak to the Year 8 and senior science and media studies students at Parkdale Secondary College. This drive took 90 minutes! With the auditorium packed with 250 students and teachers, eagerly anticipating it all, we arrived with a good 3 minutes to spare. No doubt some of the teachers were wondering about a Plan B at that point in case we didn't show up before the rioting began.

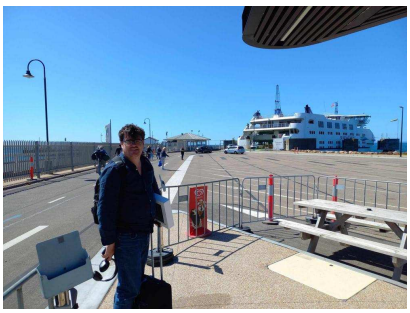
Stephen gave a talk about Apollo 11 and 8 and the previously unseen archival footage he'd unearthed in NASA's dust-free archives while researching for other documentaries over the years. I was called in during the talk to answer any science questions arising from what Stephen talked about, such as does your head explode if you take off your space helmet? There were plenty of those types of question, conspiracy theorists and a flat-Earther in the audience as well, but also plenty of more sensible enquiries. The talk was naturally ended when the school bell rang and the attention was shifted elsewhere within seconds. Stephen then had a meet-and-greet with the staff and Year 12 students over a scone and tea in the staff room, and more questions ensued for about another hour.

Following that, it was a drive down to check in to his accommodation at Mornington before reception closed, followed by a speedy intimate dinner at the Mornington Hotel on Tanti Avenue, highly recommended by Katherine McCoy who has been there a few times in the last 30 years. Then it was back in the seat of my car on the way back home from the bar, singing Taylor Swift songs all the way to the Briars. Yes, he's a Swiftie without any doubt in my mind as he knew all the words. I'll never hear "Cruel Summer" on the radio in quite the same way again! Just as well I had it my car ready to play by pure coincidence. That's my story and I'm sticking to it :)

In the meantime, Jamie Pole and Guido Tack had the 2-hour surprise challenge of getting Zoom working well enough at the Briars, because Stephen had quietly arranged a link for Mike Dinn from Canberra during his talk. Mike was the Deputy Director of Honeysuckle Creek, near Tidbinbilla, during the Apollo missions, and sat there listening and conversing with the astronauts live at the time. He is now retired and recounted his experiences. With the help of a portable 5G router, the link worked and held together well, with Stephen and Mike both talking during the evening to a group of 50 members and public. We didn't get much prior notice about the whirlwind visit, so to get that number attending in a few days was impressive.

The next day Phil Peters kindly showed Stephen around Mornington and the other wildlife areas of the Briars. He took a good photo of Stephen next to one of the electric fences. The last time he was visiting Australia pre-COVID era, he'd been struck by lightning in the Blue Mountains, so the fence probably brought back some hair-raising memories of Australia. Then it was quickly up Arthurs Seat and down to Sorrento where Phil saw him off on the ferry across to Geelong. He was speaking to the Astronomical Society of Geelong that night, before flying to Adelaide the next day after first visiting a film work acquaintance in Melbourne for lunch, hastily arranged while at the school.

Regards, Peter Skilton



Telescope learning day Members BBQ March 23rd - Saw 70 members of the public in attendance

Good event last night, team MPAS – all seemed to run very well. Lots of happy people, clear skies for most of the night, then some clouds to encourage the more enthusiastic to leave in a timely manner. I think I was home a little after 11 – so not bad. Great event! Thanks Guido for stumping up two talks yesterday – that was a big effort: the TLD talk you've previously delivered, and the public night talk as a fill-in that kept the crowd engaged and allowed us to get dinner cooked etc; all worked well. *Jamie Pole* *Photos by Sylvie Grandit*

School viewing night March 25th - The first of two nights for Flinders Christian College Year 7 students went ahead at the Briars on 25th March, with 42 visitors and mild conditions for observing. A look at Jupiter and 3 of its moons ensued early in the evening before it set too low in the west, then everyone moved indoors to hear the talk given by Peter Skilton. At about a quarter to nine, everyone moved outdoors to see the Tiangong space station move from west to east up near the zenith. The Jewel Box was also on display, as well as other nebulous objects. And, of course, there was a penumbral lunar eclipse this evening; however, it was too faint to notice any difference in the lunar brightness by eye. There was also a reasonable chance of an aurora being visible later in the evening, but it'd have to compete with a full moon. Helping outside with operating the telescopes were Fred Crump, Sylvie Grandit, Simon Hamm, Chris Kostokanellis, Jamie Pole, Phil Peters and Greg Walton. *Regards, Peter Skilton*


By Sylvie Grandit


By Sylvie Grandit

School viewing night March 26th - The second of two nights for Flinders Christian College Year 7 students went ahead at the Briars on 26th March, with 43 visitors and mild and cloud-free conditions for observing. After an initial beginning of the talk by Peter Skilton indoors, everyone moved outdoors to see Jupiter and 4 moons, the nearly full moon and a bright pass of the Tiangong space station, traversing nearly the whole sky in twilight. Everyone then moved indoors for the remainder of the talk, before going out to the telescopes again. In the meantime, the sky had darkened and clouds had encroached, but not enough to hide the Moon and some of the brighter deep sky objects of course. These clouds then dispersed within half an hour. Helping outside with operating the telescopes were Fred Crump, Phil Peters, Ben Claringbold, Chris Kostokanellis, Simon Hamm, Nerida Langcake, Greg Walton, and Jamie Pole. *Regards, Peter Skilton*

NACAA 2024 = 29th March to 1st April over Easter @ Parkes NSW

Easter saw the 31st binennial NACAA held at Parkes, NSW. NACAA is the National Australian Convention of Amateur Astronomers, and always draws the most well-recognised amateurs from across all of Australia, New Zealand and sometimes other countries. This was the first in-person NACAA since COVID-19 put a stop to gatherings, so there was always a risk of people still being reluctant to travel. It was hosted this year by the very capable regional Central West Astronomical Society (CWAS) who did a top job of it, and who run an Astrofest each year. Astrofest is similar to our VASTROC gathering in Victoria.

CWAS was originally lined up to host the previous NACAA, however, the threat of lockdowns at the very last moment forced it to be changed to a cut-down online event in a hasty change of plans. So this time they were well-rehearsed to host the event, with the same Convenor, Christine Speers.

NACAA is essentially an information sharing astronomy conference but without the starchy formalities of a conference, and which focuses on key amateur achievements and adventures like eclipse expeditions. It therefore comprises talks, both in-person and online, workshops and poster papers and of course ample time for networking with other societies' members and super keen individuals with loose (or no) association with any society.

After a 2-day drive north with moderate traffic levels, pausing in Wagga Wagga on the way, I set up base in the Henry Parkes hotel in Parkes on Good Friday. Parkes was surprisingly packed, also hosting a car rally as well over Easter. I think they've hosted an Elvis convention as well before. The hotel mercifully was a very short walk from the main venue, given no day was under 30 Celsius. There was a Planetary Imaging workshop due to be run by Anthony Wesley that afternoon, but alas he was still COVID-19 infectious and so did not attend in person and it was necessarily called off hours before.

The social start of NACAA began on Good Friday evening with a welcome function over drinks and finger food for 3 hours at a nearby motel, with the Convenor welcoming everyone. Then bright and early on the Saturday morning it was into the talks, starting with Anthony Wesley via Zoom giving an informative and warts and all keynote presentation on the latest and greatest camera technology for amateurs, including devices that are yet to be released which he'd been lucky enough to trial. This was followed by talks on getting started in observing variable stars, amateur radio interferometry, bubbles in the early Universe, amateur radioastronomy, occultation observing, double star projects, nova hunting, and a mathematical simulation from New Zealand on the stability of the Solar System. Colin Bembrick then talked about his life's journey in amateur astronomy as part of an invited talk.

The Annual General Meeting then ensued, voting in the next NACAA Inc committee, then it was time for the convention dinner. The Astronomical Society of Australia (ASA) is the only professional society of astronomers in Australia, the equivalent of the Royal Astronomical Society of New Zealand (RASNZ) across the Tasman, and the ASA presents at NACAA the Page Medal to the amateur nominated who has achieved the highest scientific value to the profession. This year it was awarded to Rod Stubbings, a humble plumber from Gippsland and a member of the Latrobe Valley Astronomical Society, who this year passed the milestone of 400,000 visual measurements of variable stars to date. Only 2 other people have ever achieved this in their lifetime: one from Japan and a late observer from New Zealand. He has had the Hubble Space Telescope interrupt planned observing runs and turn around a couple of times to point at a star where he alerted professional astronomers of something unusual happening to its brightness.

At the last moment, Rod unfortunately was unable to attend NACAA due to adverse family circumstances, so John Sarkissian, the Parkes Radiotelescope's Operations Scientist and ASA member, presented the medal to me in Rod's place. The ASA Prizes' Co-ordinator and I, in turn, will on-present it as soon as feasible. Rod was featured on the television a few days later for his achievement and he's still incrementing about 300 more measurements each night.

On Sunday, I chaired the morning talks that began with astronomy software, backyard radio telescopes (using Murchison-like antennas), and an amusing talk on Comet Halley in 1910 by the past President of the RASNZ, John Drummond. This was followed by the history of amateur domes, latest insights on emergence of life in the early Earth's Hadean period, and making the eyepieces of the Great Melbourne Telescopes as presented by Barry Adcock by Zoom and supported by Stewart Beveridge who had the eyepieces with him (minus the precious optics). I then presented a paper, co-authored by John Cleverdon, about the Cranbourne Meteorite Fall, handing a piece of the meteorite around the room for the attendees to examine. Another mathematical talk was given on projecting the orbit into the future of a new asteroid discovered inside the orbit of Mercury.

This talk predicted it would come close to both Mercury and Venus in about 60 million years and be flung in a troubling manner across Earth's orbit soon after. The afternoon talks then concluded with talks on background radiation, eclipsing binary light curves, and how to determine the orbital eccentricity and axis tilt of Earth using low sensitivity photographic paper that is still available.

During the weekend, there were several poster papers on display boards, covering eclipsing binary stars, star nomenclature, innovations and lesson development in astronomy education, asteroid research for amateurs, and who discovered the bright NGC & IC objects.

The farewell BBQ was then held at the radiotelescope 20km north of town. Parkes, of course, is home to the world-renowned 64-metre diameter radiotelescope, weighing 300 tonnes, that sits in what used to be a sheep paddock. Affectionately called The Dish, I've visited it several times over the years and had the privilege of seeing it by helicopter at scarily close quarters at its 50th anniversary, as well as touching its surface access hatch from inside. Such adventures are strictly forbidden these days due to health and safety rules. It's surface is a perfect parabola to within 0.8mm. As it slews and tilts it sags under its own weight, however, it is designed to always to be a perfect parabola (but a different parabola) regardless of the orientation of the dish. Just the focal point changes as it moves, which they can easily compensate for in the detector.

At The Dish, the next society, Tamworth Regional Astronomical Society, was announced and the NACAA shield was officially passed from CWAS to the next Convenor, Bryce Little of TRAC. Speaking at length at the BBQ with both Bryce and the President of TRAC, Garry Copper, I have no doubt their 200 members' society will host an excellent event in 2026. They are another 5 hours' drive north of Parkes, but this is their first ever attempt at NACAA and their leased facilities are impressive to say the least, after having secured State Government grants for developing it. They also have a huge professional research grade optical telescope donated from Mt. Stromlo if I recall correctly.

There was also the 18th trans-Tasman Occultation workshop held on Easter Monday, however, I had to head back to Melbourne for work so couldn't attend that add-on to NACAA 31. The traffic was heavy for a lot of the way back, but generally was moving. As always with these field trips, half the adventure is getting there and back in one piece.

Regards, Peter Skilton

Public Viewing Night April 5th - The public stargazing on April 5th went ahead under clear skies, with 97 visitors in attendance, including some from earlier clouded-out attendances.

The talk indoors was given by Manfred Berger. Fortunately the skies had only about 5% cloud cover, so viewing of most objects on show was easy. Unfortunately the planets were not visible during the evening, but there was still plenty to see even with the Harry Potter lights over the hill.

Members participating in the night and with telescopes included Phil Peter, John Goodall, Nerida Langcake and Piper Grierson, Greg Walton, Peter Skilton, Ben Claringbold, Guido Tack, Simon Hamm, Katherine McCoy, Mike Smith, Leigh Hornsby, Ingrid Pinkerton, Chris Kostokanellis, Jamie Pole, Michelle Moore, Sebastian Moore and Alira Coffey. Apologies if any member was missed. Do please remember to add your name to the log book by the reception counter, otherwise we might not realise you're there.

Regards, Peter Skilton

Society meeting April 17th - Peter Skilton (President) updated members on past and future events, then Chris Kostokanellis (Vice President) did Astro Mo Pho and Guido Tack did Sky for the Month. The monthly topic that followed was explaining why everything in the Universe spins. We also heard about the latest on the expansion rate of the Universe.

Closure music was an a capella look at the arrow of time. https://youtu.be/i6rVHr6OwjI?si=_o4FSpXZmAUbDRkS

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 Night BBQ and working bee April 20th - We had a good turnout of members to help with the working bee. Before the weekend, we had 4 metres of topsoil delivered to the lower concrete slab. The edge of the concrete had a step down which was a tripping hazard. The team quickly moved and levelled the soil. Phil used the ride-on mower to cut the grass while other members did the Whipper Snipping around the buildings and trees. We dusted off the telescopes, removed the cobwebs, swept the floor, cleaned the toilets and kitchen. I final got around to fixing the tracking motor on the Society's 18 inch fork mount Newtonian telescope. Lucky we had a spare motor as the old motor had become a bit tired.

A 6 o'clock we all stopped for dinner and a chat. Unfortunately there was no viewing due to 100 per cent cloud cover.
A big thank-you to all members who helped out on the day and who brought along salads and cakes. *Regards Greg Walton*

Scout Viewing Night April 22nd - Last night saw 20 A.B. Balcombe Rovers visit the Briars under pleasantly mild conditions and under cloud-free skies. The talk indoors was given by Peter Skilton, then everyone moved outdoors for some night sky viewing. There were no planets visible, and the Moon was Full, meaning there was noticeable loss of contrast of fainter objects. And, of course, the lights from the Harry Potter event over the hill were blazing away. The last of the Rovers departed around 10 pm, such was the interest in the objects on offer, even with the Full Moon on display. Helping with telescopes were Neil Thomson, Phil Peters, Fred Crump, Rod & David Brackenridge, Jamie Pole, Greg Walton, Chris Kostokanellis and Ben Claringbold. *Regards, Peter Skilton*

Scout Viewing Night April 27th - cancelled due to no Bookings.

Call for articles.

Members please write a story about your astronomy experiences, subject of interest, tip and tricks, how you got into astronomy and also please add some pictures.

Send them to the editor: Greg Walton gwmpas@gmail.com

Observatory Update

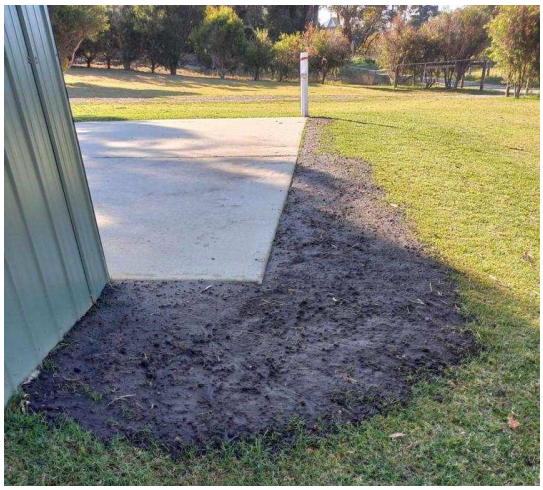
By Greg Walton

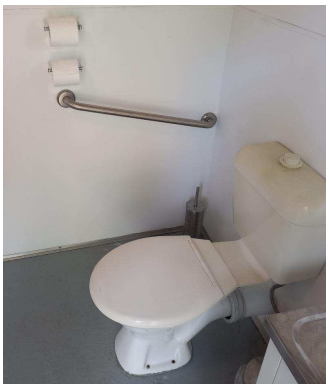
Phil Peters organized with Mornington Shire the pruning back of the 3 dead trees in the camp, which had been obstructing our view to the south.

Phil Peters has varnished the benchtops in the kitchen and filled a tripping hazard on the lower concrete slab with soil.

Phil has Zeroed the weeds on the paths and watered the young trees on hot days. He also fitted a handrail in the toilet.

Big thanks from everyone.





Bridge work has been completed, which will help members in getting to the observatory.

WHAT'S ON

The 2024 timetable of events.

MAY
Wednesday 1st, 7:30pm. Moriac Primary School at CYC The Island, 41-53 Church St, Cowes. 75 Year 3/4s. Speaker Peter Skilton.
Friday 3rd, 8pm Briars. Public stargazing night. Speaker TBD. 90 anticipated.
Friday 24th, 8pm Briars. Scout, Cubs & Guides night. Speaker TBD. 90 anticipated. Bookings not yet open.

JUNE
Friday 7th, 8pm Briars. Public stargazing night. Speaker TBD. 90 anticipated. Bookings not yet open.
Thursday 20th, 5:30pm. Karingal Primary School, 15 Mallum Ave, Frankston. 220 whole of school anticipated. Speaker Peter Skilton. Telescopes at 6:30pm.

JULY
Friday 5th, 8pm Briars. Public stargazing night. Speaker TBD. 90 anticipated. Bookings not yet open.
Friday 26th, 8pm Briars. Scout, Cubs, Guides & Joeys night. Speaker TBD. 90 anticipated. Bookings not yet open.

AUGUST
Friday 2nd, 8pm Briars. Public stargazing night. Speaker TBD. 90 anticipated. Bookings not yet open.
Friday 16th, 8pm Briars. Public stargazing night for National Science Week. Speaker TBD. 90 anticipated. Bookings not yet open.
Wednesday 28th, 7pm. Strathcona Baptist Girls. 30 Year 10 pupils, held at Merricks Lodge (aka Peninsula Outdoors), 3670 Frankston-Flinders Rd, Merricks. Speaker Katherine McCoy & Peter Skilton.

SEPTEMBER
Friday 6th, 8pm Briars. Public stargazing night. Speaker TBD. 90 anticipated. Bookings not yet open.
Saturday 14th, 1pm Briars. Astrophotography Workshop (public & members). Speakers various. 90 anticipated. Bookings not yet open.

OCTOBER
Friday 4th, 8pm Briars. Public stargazing night. Speaker TBD. 90 anticipated. Bookings not yet open.
Saturday 19th, 4pm Briars. Telescope Learning Day (public & members). Speakers various. 90 anticipated. Bookings not yet open.
Friday 25th, 8pm Briars. Scout, Cubs & Guides night. Speaker TBD. 90 anticipated. Bookings not yet open.

NOVEMBER - Friday 1st, 8pm Briars. Public stargazing night. Speaker TBD. 90 anticipated. Bookings not yet open.

DECEMBER - Friday 6th, 8pm Briars. Public stargazing night. Speaker TBD. 90 anticipated. Bookings not yet open.

To attend the school events and scout/girl guide events, these days you need to have a Working with Children Check done first. It takes about a fortnight from the time you apply online to when you get the card in the mail. For volunteers it is free. It's essentially a check of police and justice records over the decades that sees if there might be anything in the past that would preclude participating in these sorts of outreach events involving kids. Once you receive your card, let the Secretary know your card number and expiry details as we are required as an organisation to record them. https://www.workingwithchildren.vic.gov.au/ *Regards, Peter Skilton*

New Members Welcome

Mark Godden
Leanne Downing
Victor Duque
Ehsan & Elham Nikzad
Mike Randall
Kawal Singh & Family
Phillip Cooke
Sandra McCormick
Wayne Redpath
Paul Tuchtan & Family
Alex Richardson
Suresh Nanduru & Family
Dennis Cooke & Mary Connolly
Adel Talbot & Family

MPAS SUBSCRIPTIONS 2024

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 2024 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 2024 fees is:

SOCIETY FEES

$50 – Full Member
$45 – Pensioner Member
$65 – Family Membership
$60 – Family Pensioner Membership
See more options on-line

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, The Briars, 450 Nepean Highway, Mount Martha VIC 3934 (The P.O. Box in Frankston is no longer used).**
- **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.

JOIN NOW

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 — May / 2024

Red Days indicate School Holidays

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
18th Comet C/2023 A3 near 4536	**31st** Comet C/2023 A3 near 4073		1 **Last Quarter** Moriac Primary School	2	3 **Public night 8pm**	4 **Saturn below the Moon dawn**
5 **Mars below the Moon dawn** Moon Occultation of Neptune 4am	6 **Moon at 363,163km** **Mercury below thin crescent Moon dawn**	7 **Venus below a thin crescent Moon dawn**	8 **New Moon**	9	10 **Mars below a thin crescent Moon dawn**	11
12 **Mother's Day**	13	14 Comet C/2023 A3 near 4643	15 **Society Meeting 8pm** **First Quarter**	16	17 **Moon at 404,640km**	18 **Working Bee 4pm** **BBQ 6pm**
19	20	21	22	23 **Full Moon**	24 **SCAG**	25
26	27	28	29 Comet C/2023 A3 near 4123	30	31 **Last Quarter** **Saturn below the Moon dawn**	

Monthly Events

Public night - 8pm to 10pm on the 3rd @ The Briars MPAS
Society Meeting - 8pm to 10pm on the 15th @ The Briars (Public & members)
Working Bee 4pm, **Members night BBQ & Cosmology speaker** - 6pm on the 18th @ The Briars
SCAG - Scout, Cubs & Guides - 8pm to 10pm @ the Briars

CALENDAR — June / 2024

Red Days indicate School Holidays

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30						1
2 **Moon at 368,102km**	3 **Mars right the Moon dawn**	4 **Mercury and Jupiter close dawn**	5 **Mercury and Jupiter close dawn**	6 **New Moon**	7 **Public night 8pm**	8
9	10 **King's Birthday**	11	12	13	14 **First Quarter** **Moon at 404,077km**	15 **Cosmology 2pm** Comet 12P near NGC2280
16	17	18	19 **Society Meeting 8pm**	20 **Karingal Primary School**	21	**Full Moon** 22 **Working bee 4pm** **BBQ**
23	24	25	26 **Scorpius Deadline** Comet C/2023 A3 near 3640	27 **Moon at 369,286km**	28 **Saturn above the Moon dawn**	**29** **Last Quarter**

Monthly Events

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

Public night - 8pm to 10pm on the 7th @ The Briars MPAS
Cosmology Meeting - 2pm on the 15th @ The Briars
Society Meeting - 8pm to 10pm on the 19th @ The Briars (Public & members)
Working Bee 4pm, **Members night BBQ** - 6pm on the 22nd @ The Briars

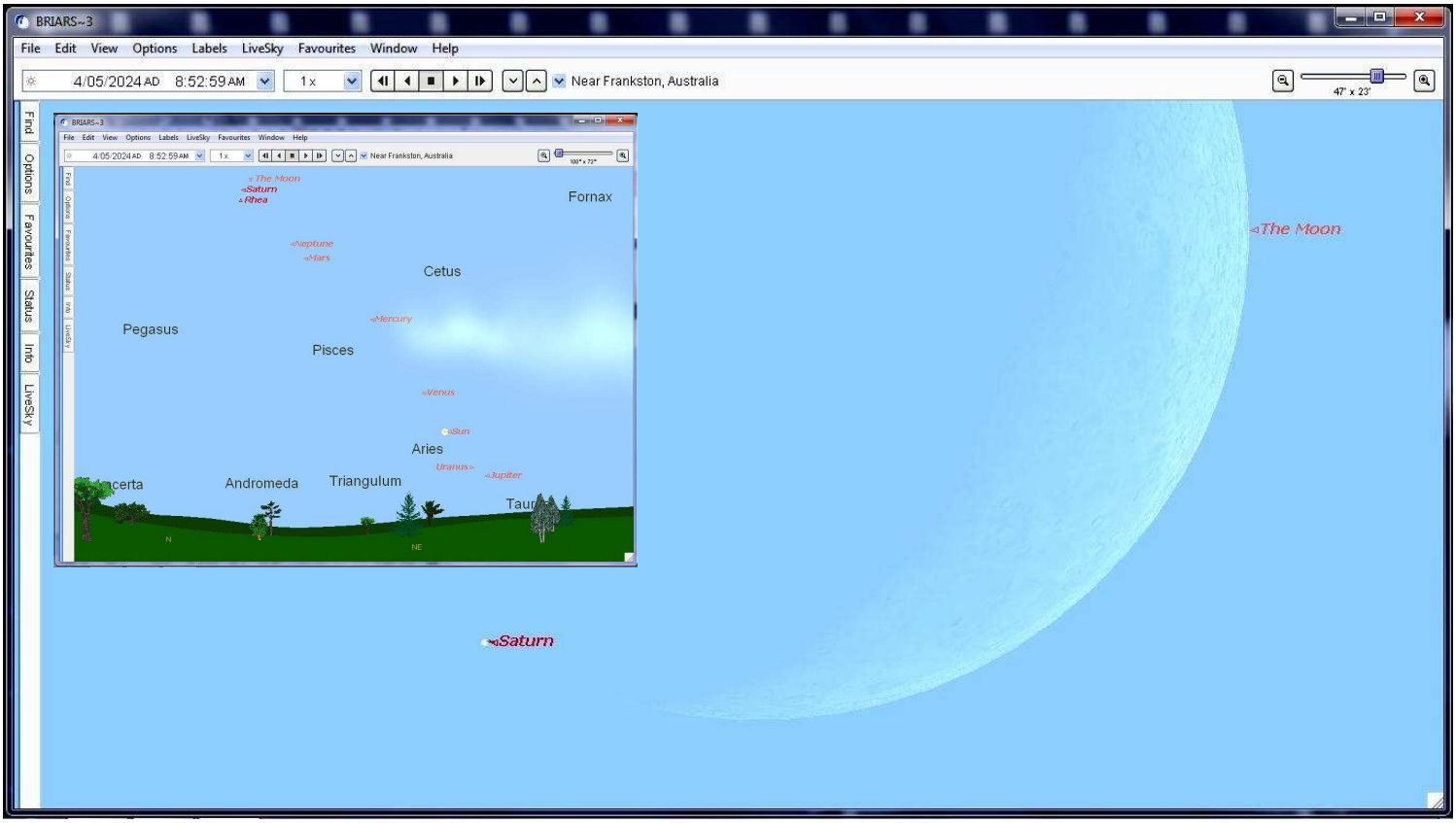
Watch your emails, as on any clear nights the Observatory may be opened for members-only viewing.

THE BRIARS SKY

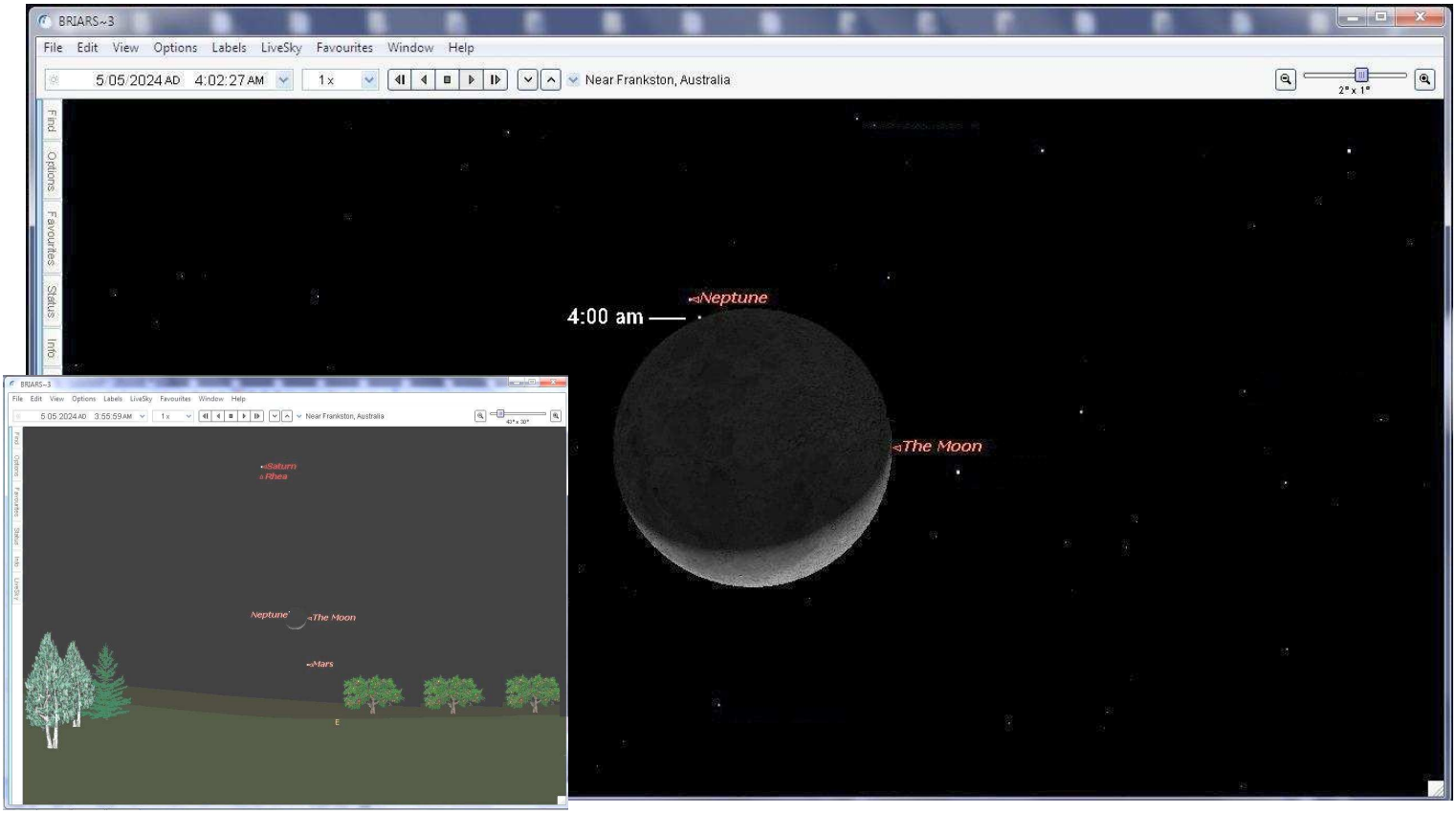
By Greg Walton

Mornington Peninsula Astronomical Society

From the Briars at 8:53 am on the 4th of May, Saturn will almost graze the Moon, which will be 58 degrees above the northern horizon. I have seen this in the past, viewed through my 12 inch Dobsonian. The most important thing we need is clear sky without any haze. The Moon is very easy to find during the day and a video could be made for the Astro Mo Pho challenge.



From the Briars at 3:55 am on the 5th of May, Neptune will reappear from behind the Moon. The bad news is that the Moon will be only 7 degrees above the eastern horizon, which usually means poor seeing conditions. With high magnification it should be possible to video the moment. Also Mars will be 4 degrees below the Moon.



ASTRO NEWS

By Nerida Langcake

Mornington Peninsula Astronomical Society

Voyager 1 has phoned home with engineering updates

For the first time since November, NASA's Voyager 1 spacecraft is returning usable data about the health and status of its onboard engineering systems. The next step is to enable the spacecraft to begin returning science data again. The probe and its twin, Voyager 2, are the only earthly spacecraft to ever fly in interstellar space (the space between stars).

Voyager 1 stopped sending readable science and engineering data back to Earth on November 14, 2023, even though mission controllers could tell the spacecraft was still receiving their commands and otherwise operating normally. In March, the Voyager engineering team at NASA's Jet Propulsion Laboratory in Southern California confirmed that the issue was tied to one of the spacecraft's three onboard computers, called the flight data subsystem (FDS). The FDS is responsible for packaging the science and engineering data before it's sent to Earth.
ing data before it's sent to Earth.

The team discovered that a single chip responsible for storing a portion of the FDS memory – including some of the FDS computer's software code – isn't working. The loss of that code rendered the science and engineering data unusable. Unable to repair the chip, the team decided to place the affected code elsewhere in the FDS memory. But no single location is large enough to hold the section of code in its entirety.

Here's how they fixed it:
So they devised a plan to divide the affected code into sections and store those sections in different places in the FDS. To make this plan work, they also needed to adjust those code sections to ensure, for example, that they all still function as a whole. Any references to the location of that code in other parts of the FDS memory needed to be updated as well.

The team started by singling out the code responsible for packaging the spacecraft's engineering data. They sent it to its new location in the FDS memory on April 18. A radio signal takes about 22.5 hours to reach Voyager 1, which is over 24 billion kilometres from Earth, and another 22.5 hours for a signal to come back to Earth. When the mission flight team heard back from the spacecraft on April 20, they saw that the modification worked: for the first time in five months, they have been able to check the health and status of the spacecraft.

During the coming weeks, the team will relocate and adjust the other affected portions of the FDS software. These include the portions that will start returning science data.

Meanwhile, Voyager 1's twin spacecraft – Voyager 2 – continues to operate normally. Launched over 46 years ago, the twin Voyager spacecraft are the longest-running and most distant spacecraft in history. Before the start of their interstellar exploration, both probes flew by Saturn and Jupiter, and Voyager 2 flew by Uranus and Neptune.

NASA's Voyager 1 become the first spacecraft to enter interstellar space on September 12, 2013. This artist rendering released by NASA shows Voyager 1 spacecraft barrelling through space. (AP)

After receiving data about the health and status of Voyager 1 for the first time in 5 months, members of the Voyager flight team celebrate in a conference room at NASA's Jet Propulsion Laboratory on April 20.
Image via NASA/ JPL-Caltech.

YOUR ASTRO QUESTIONS

Are there volcanoes on the Moon? *By Greg Walton*

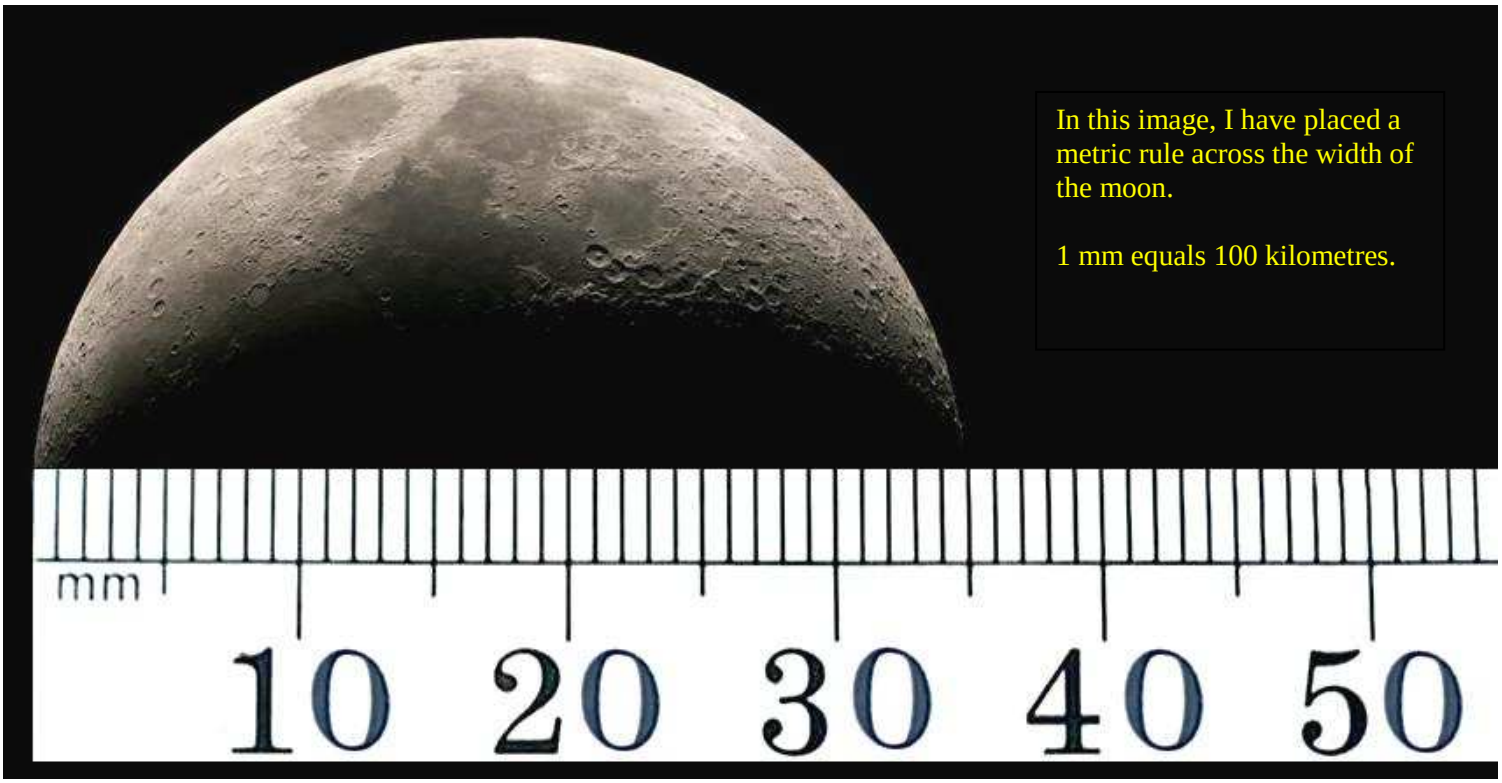
When Galileo first looked at the Moon in 1609, he saw mountains and flat lands. Not until telescopes improved did man question how these mountains were formed. Most of the mountains on the Moon were circular and astronomers asked, could they be volcanoes or are they impact craters? For many years astronomers thought it must be one or the other. So either you were in the volcanism camp or the impact camp. Both had valid agreements. The impact camp said, there can't be that many volcanoes and we can't see any plumes of ash coming out of the volcanos. The volcanism camp said, why haven't we seen new craters being formed and why are all the craters round, you would think if they were impacts, the craters would be all different shapes. And why are there large areas with no craters? The 2 sides couldn't agree for more then 3 hundred years. Remember at the time many thought the Moon was only 6,000 years old.

In the 20th century large professional telescopes were constructed and very precise maps were made of the Moon. This didn't help and just brought up new augments. Many of the craters had a central peak, the same seen in volcanos on Earth. It was thought that this central peak was created as the volcano starts to rebuild itself, the same as volcanos do on Earth. Some experiments were made and it was found that these central peaks were materials that have rebound up after a meteoroid impact. As the ground was liquefied after an impact, the molten rock could have rebound many times, until eventually freezing. See video https://youtu.be/gS_tU6chC4A?si=V45GTzKU3VxsUcMq

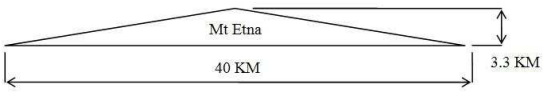
It was also found that meteorites striking the Moon at almost any angle created a perfectly round crater, this is because of the extreme speed at which the meteorites struck the surface of the Moon. Travelling at an average of 30 kilometres a second, the meteorites would explode on impact, creating a round crater. The Wolf Creek Crater in Western Australia being 1.5 kilometres in diameter was created by a meteorite only 70 metres in diameter. *See right*

Another thing that was realised, is that the craters on the Moon are enormous compared with the volcanos on Earth, in fact if we move any of the volcanos on Earth to the Moon, we would have trouble seeing them from Earth.

The Moon has a diameter of 3,475 kilometres and if we divide the width of the Moon by 35, then each 35th would be equal to 100 kilometres. You can clearly see dozens of craters 100 kilometres in diameter and the mares or dark patches are 500 kilometres in diameter. *See below*



The largest volcano in Europe is Mt Etna which has a height of 3,327 metres and a diameter of 40 km. If we could place Mt Etna on the Moon it would be difficult to spot, mainly because its height to width ratio. As the Moon has a smaller diameter than Earth, the horizon would look much closer, in fact only 2 kilometres away. You could be standing in front of a volcano and not know it.

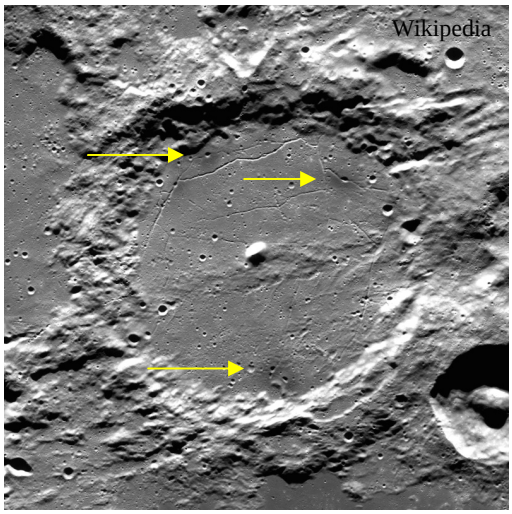


So it looks like the volcanism camp has lost and the surface of the Moon was shaped by meteorite impacts.

Not long after the solar system was formed, a planet the size of Mars crashed into the Earth. A large amount of material was ejected out into space and this material eventually formed the Moon. We know this because the Moon has no iron core and is made from material the same as the outer layer of the Earth, which is mostly silica.

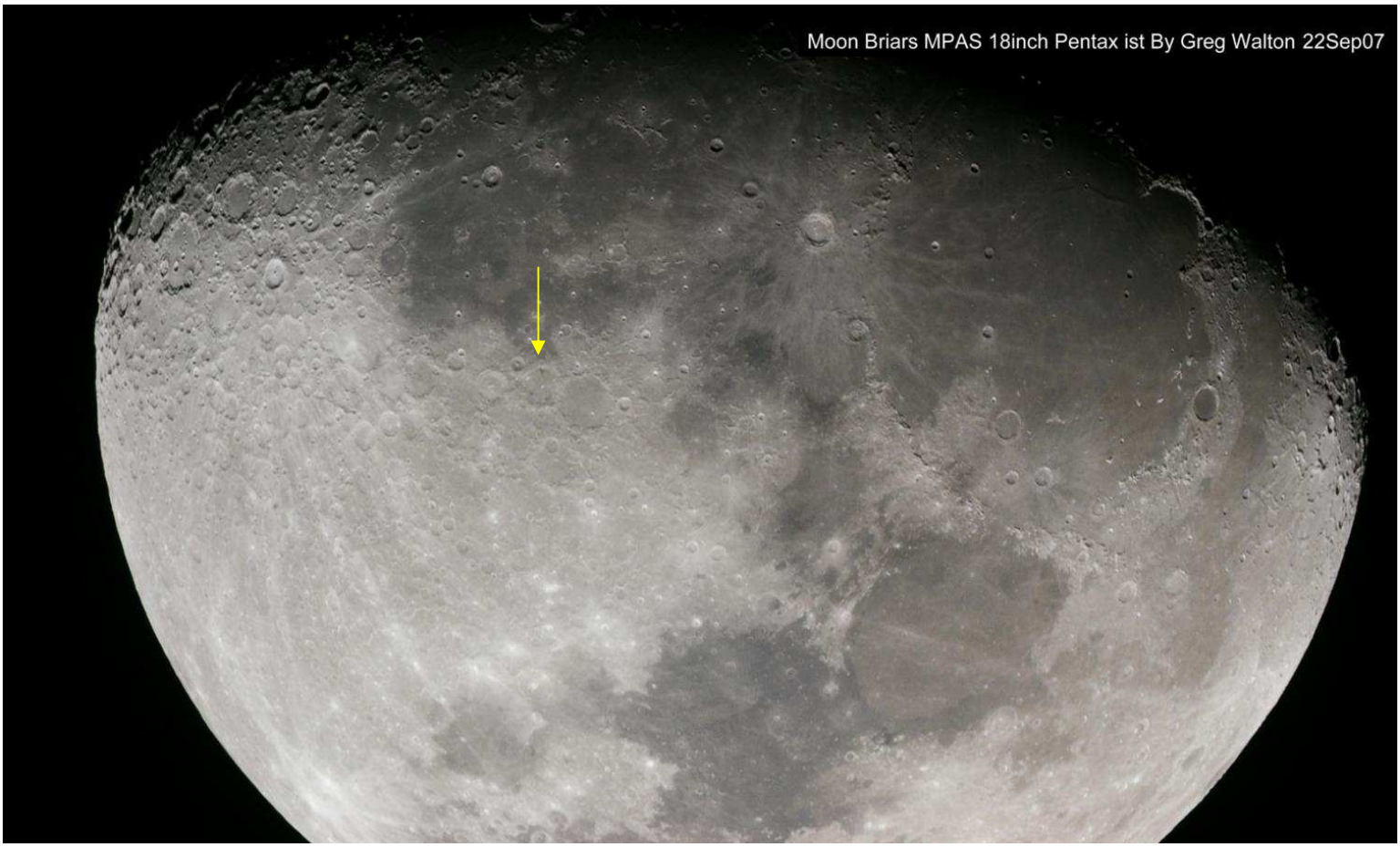
The Moon being much smaller than the Earth would have cooled much faster. As the Moon cooled the crust would have cooled first and shrunk in the process. As the surface shrunk the interior could have flowed to the surface, creating volcanoes similar to the volcanoes on earth. The early Moon would have had the consistency of a chocolate royal and if we hit the chocolate royal with the back of a spoon, cracks will extend across the surface. But these would have happened very early on in the Moon's history and any trace of them buried or erased by the large number of impact craters. After the solar system was formed, there were a lot of small rocky planet-size objects crossing paths with the major planets and impacts became more violent. This is called the Late Heavy Bombardment. The mares were created by very large impacts which broke through the crust flooding large areas with molten rock, erasing many of the smaller craters and volcanoes. Also the vast amounts of material ejected out into space would have rained down over the surface of the Moon and buried any volcanoes.

There is no chance of finding any active volcanoes on the Moon today. We know this because seismic detectors were left on the Moon in the 1970's which sent back a continuous radio signal for many months and there was no Moon quakes detected. To help get information about the interior of the Moon, once the Apollo crew had return to the command module, the Lunar Lander was crashed into the surface of the Moon. What the seismic detectors heard, was that the Moon rang like a bell, proving the moon has cooled right through to its core.



Looking at the Moon through a telescope, we can see a very complicated history where the surface has been rewritten over and over again. This makes finding any volcanoes extremely difficult. But the volcano camp didn't give up and were able to pinpoint a few likely candidates. What astronomers have been looking for is material on the surface that had been ejected out of a nearby volcano. The only place on the Moon that fits this description is in the impact crater Alphonsus. What they found was 3 dark areas which looked a lot like the ejector from volcano around small crater. But not everyone is convinced and it's most likely darker material which has come to the surface after a more recent impact. Alphonsus is one of the most viewed craters near the central area and is 110 kilometres in diameter and 3 kilometres deep and has what looks like collapsed lava tubes, which are most likely cracks. Alphonsus is best viewed 8 days after the New Moon and can be an interesting challenge at high magnification. See right.

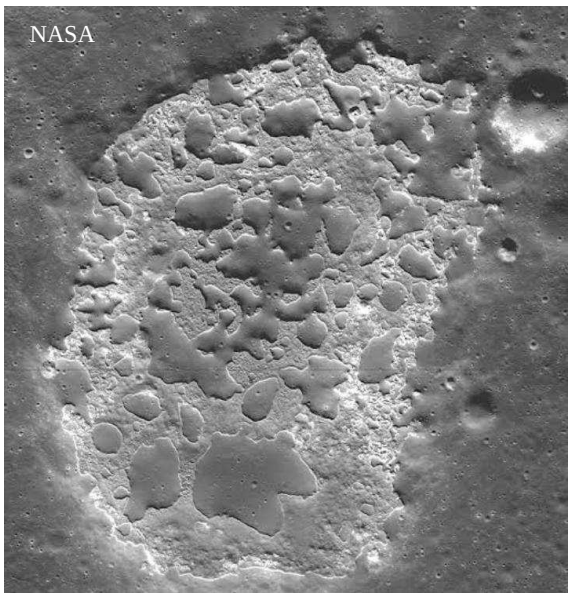
If you have a good telescope and good seeing conditions, you can see or image the 3 dark patches in Alphonsus.

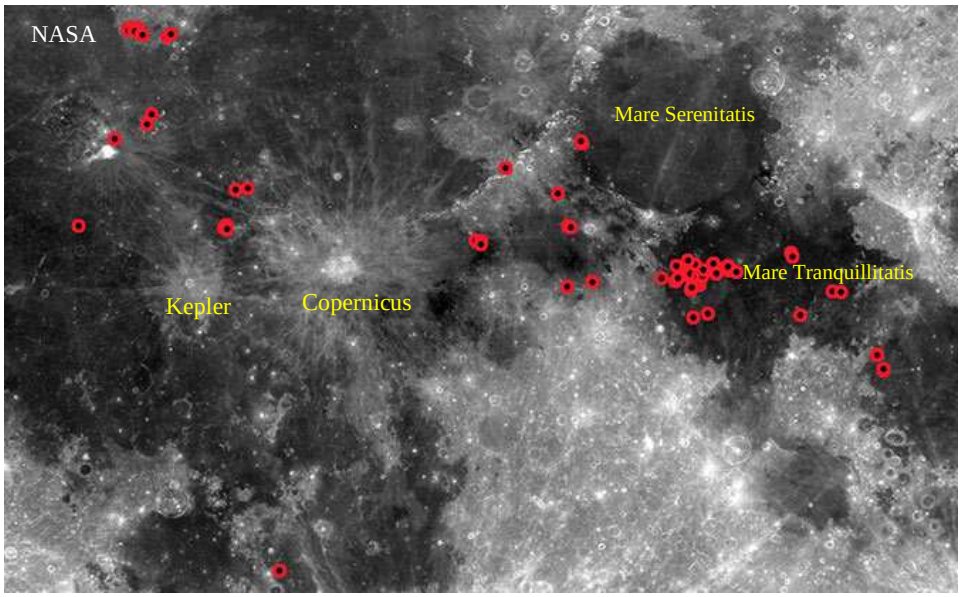


So the question of volcanoes on the Moon was thought to be dead.

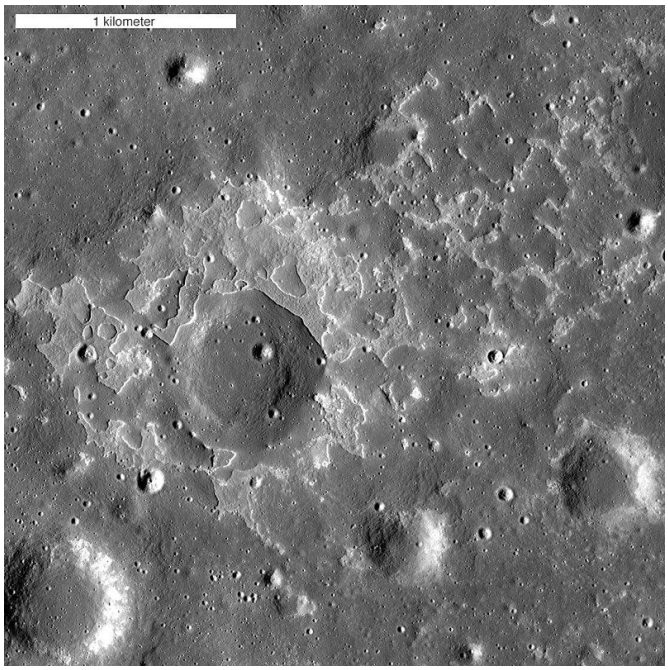
But images taken by the lunar recognises mission in 2009 started astronomy once again asking if there are volcanoes on the Moon. After a large impact of an asteroid or comet, molten rock could have flowed to the surface, especially if the material was radioactive, it would have melted the surround rocks and potentially creating a volcano. Most of these newly discovered extinct volcanoes have been found in the mares or lowlands. But still thought to be millions of years old and don't resemble a typical volcano and appear to be something more like warm mud rising to the surface.

See close up image at left and red circles mark the location of new discovered extinct volcanoes at right.

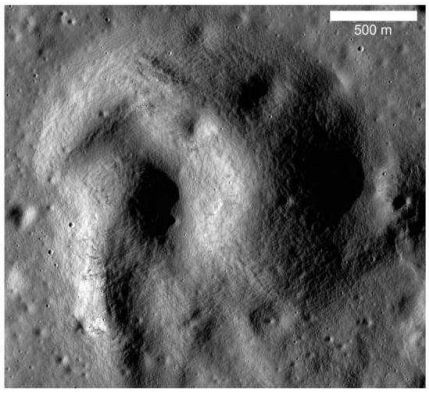


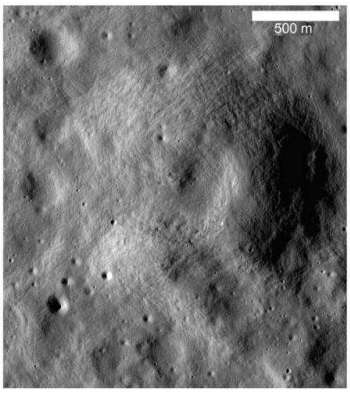


Over the last 10 years the Lunar Reconnaissance Obiter's main purpose was to photograph future and past landing sites, so accurate 3D maps could be made with a resolution of better than ½ metre. Astronomers have failed to find any giant volcanoes the same as the 4 found on Mars. The Moon should have had a history simular to Mars, without plate tectonics which occurs the earth. With these new maps astronomer have made a detail search for smaller volcanoes and have found a few likely candidates. Also instruments found magnetic anomalies which would pinpoint metal deposits which could be mined when man returns to the Moon. These deposits are most likely nickel iron meteors impact sites and because the moon has very little atmosphere, these meteors would have hit the lunar surface without being eroded by an atmosphere, which makes the impact area very localized.



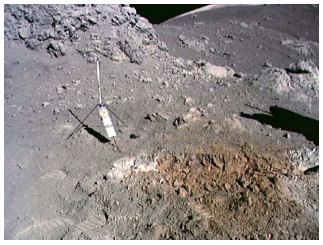
Below are 3 images of suspected volcanoes on the lunar surface. These volcanoes could be a billion years old, due to the number of small impact craters which cover their surface.





Lunar Reconnaissance Obiter has produced an enormous amount of information and scientific papers on Lunar volcanoes, *see links below.*

Young lunar volcanism - https://phys.org/news/2014-10-nasa-mission-widespread-evidence-young.html
Lunar Reconnaissance Obiter - https://science.nasa.gov/mission/lro/
Young lunar volcanism - https://www.nature.com/articles/s41467-023-39418-0
Domes - https://en.m.wikipedia.org/wiki/Lunar_dome



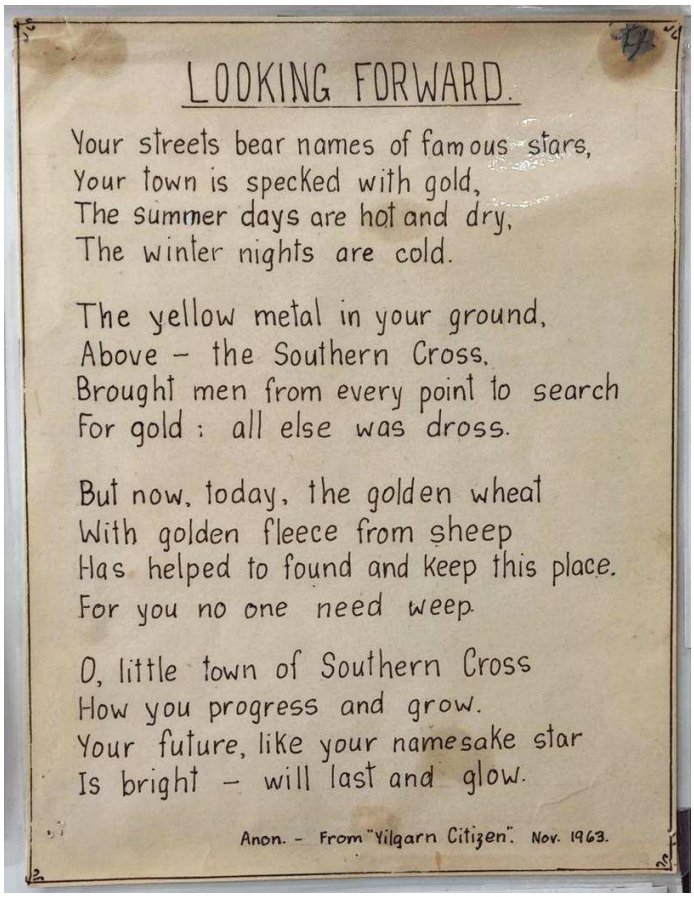
During the last Apollo mission, Harrison Schmitt unearthed some orange soil, which is thought to be evidence of volcanic activity. It will be interesting to see what other finds will be made when we return to the Moon.

Much of the information in this article came from a collection of books written by Sir Patrick Moore, who was in the volcano camp.

Town with an astronomical name, *by Greg Walton*

Travelling through Western Australia, we came cross the town of Southern Cross 370 km east of Perth. Driving around the town we saw that most of the street names had an astronomy theme. There's a small museum in the main street and there we asked how the town and streets got there names. We were told nobody seems to know, only that the town was named after a large gold nugget named Southern Cross. We checked out the museum and found some history of the town and a sweet little poem.

We read that early prospectors and surveyors would have used the stars to find their way across the interior of Australia. Also the local police told the early prospectors to return to Southern Cross over summer as the town had a well and it was conceded way to dangerous to travel to the northeast of Southern Cross with very little water to rely on. The prospectors used the stars to find their way back to the town of Southern Cross.



LOOKING FORWARD.

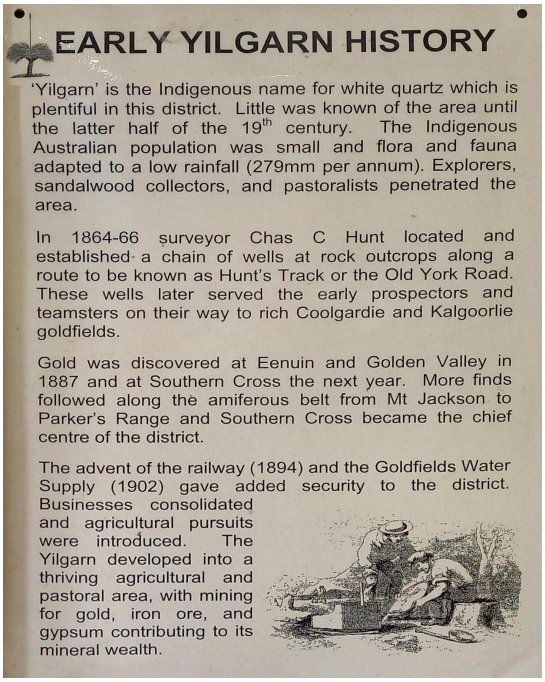
Your streets bear names of famous stars,
Your town is specked with gold,
The summer days are hot and dry,
The winter nights are cold.

The yellow metal in your ground,
Above – the Southern Cross,
Brought men from every point to search
For gold : all else was dross.

But now, today, the golden wheat
With golden fleece from sheep
Has helped to found and keep this place.
For you no one need weep.

O, little town of Southern Cross
How you progress and grow.
Your future, like your namesake star
Is bright – will last and glow.

Anon. – From "Yilgarn Citizen". Nov. 1963.



EARLY YILGARN HISTORY

'Yilgarn' is the Indigenous name for white quartz which is plentiful in this district. Little was known of the area until the latter half of the 19th century. The Indigenous Australian population was small and flora and fauna adapted to a low rainfall (279mm per annum). Explorers, sandalwood collectors, and pastoralists penetrated the area.

In 1864-66 surveyor Chas C Hunt located and established a chain of wells at rock outcrops along a route to be known as Hunt's Track or the Old York Road. These wells later served the early prospectors and teamsters on their way to rich Coolgardie and Kalgoorlie goldfields.

Gold was discovered at Eenuin and Golden Valley in 1887 and at Southern Cross the next year. More finds followed along the amiferous belt from Mt Jackson to Parker's Range and Southern Cross became the chief centre of the district.

The advent of the railway (1894) and the Goldfields Water Supply (1902) gave added security to the district. Businesses consolidated and agricultural pursuits were introduced. The Yilgarn developed into a thriving agricultural and pastoral area, with mining for gold, iron ore, and gypsum contributing to its mineral wealth.

Southern cross in the footpath and prospectors tools.

MEMBERS GALLERY

IC 2944 The Running Chicken Nebula.

While waiting for my real target to get above the trees I took 10 600-second shots of the Running Chicken.
Stacked and channel extracted the Ha and O3 in Astro Pixel processor along with the RGB
Combined it using the Foraxx script in PixInsight Decided to use the Foraxx version as it was more an HOO palette, Ha as a luminance and processed it before finalizing it in Photoshop
100 minutes in total
TS-Optics 130 APO reduced 0.75x with Riccardi reducer
Optolong L-Ultimate
ASIAIR
Skywatcher NEQ6 belt modified

By Nik Axaris

Wondering if anyone else sees this, in the Running Chicken Nebula, a Seated Buddha

By Nik Axaris

Sharpless 308 or RCW 11

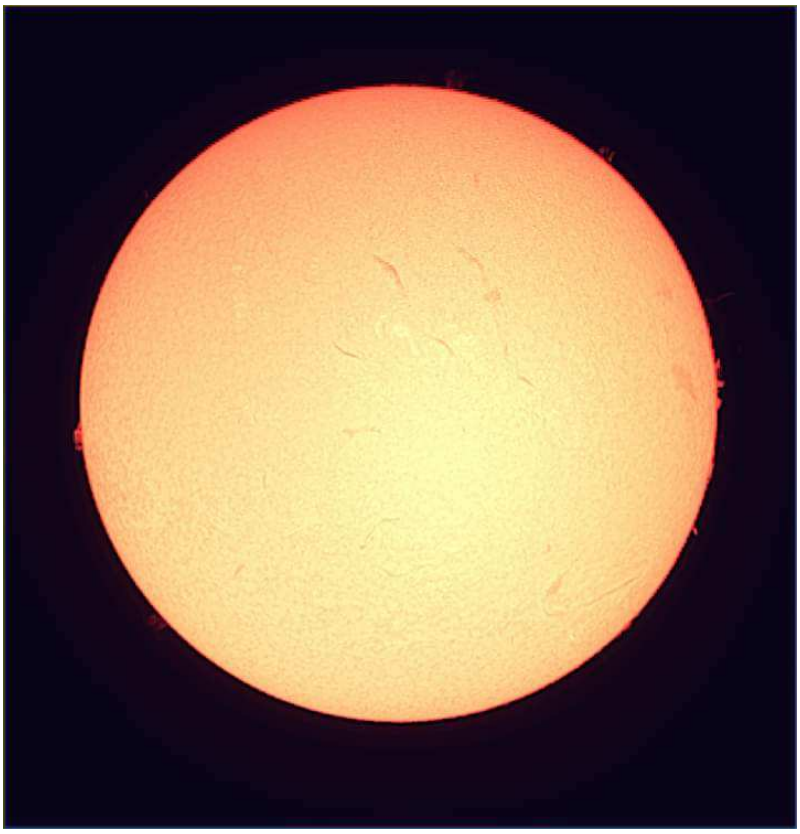
Dolphin Head Nebula in HOO
Taken earlier this year but didn't get around to processing till now.
8 hours of 600 seconds
TS-OPTICS 130 and the Riccardi 0.75 reducer
Optolong L-ultimate
Processed in PixInsight combined in PixInsight and Photoshop
ZWO 294MC Pro

By Nik Axaris

Right and below -

Sun imaged with the Society's Hydrogen alpha filter telescope at the Stockmans Camp, Buchan.

By Chris Kostokanellis



Right -

Vela SNR captured at the Gippsland Star Party.
250 min of exposure (5 min subs) through my 80mm refractor, 0.8 flattener/reducer, UVIR Cut filter, and ASI294MC Pro camera.

Stacked and processed in Siril with dark frames and light frames.

By Chris Kostokanellis

Right -

This is the Rosette Nebula which I imaged from Gippsland Star Party at Buchan.

It's in the constellation Monoceros (The Unicorn).

This is just 60 x 30 sec frames, so only 1/2 hour of exposure.

By Chris Kostokanellis

Right -

M8 & M20
Gippsland Star Party.
3 hours on 1st night – LRGB filters.
First image I have processed with PixInsight...

By Dave Rolfe

Right -

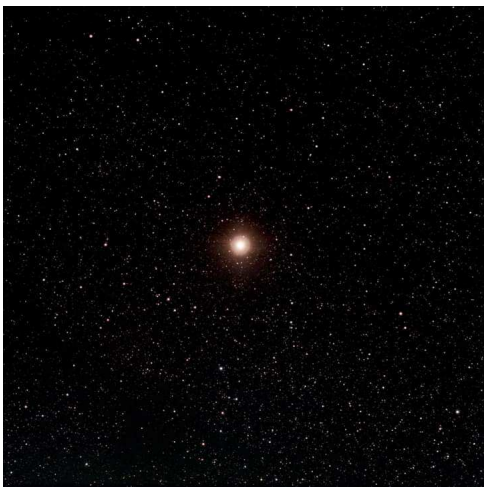
Running Chicken Nebula + nearby friends, IC2944
Gippsland Star Party.
2 hours on 1st night – LRGB filters.

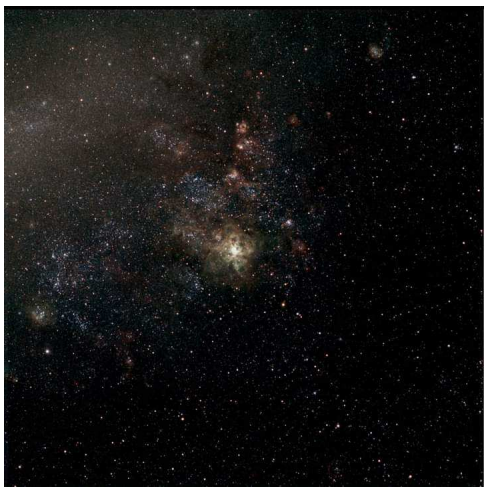
By Dave Rolfe

Below -

How good have the nights been! So I've been practising (not as fancy as the more experienced people here) but getting there slowly. It will be nice to see where I'll be 1 year from now.

1) Betelgeuse 2) LMC 3) Everyone's favourite The Sombrero Galaxy. After many hiccups, faulty lead, new ASIAIR software update and finally got the guiding working. It's not perfect, I don't know what I'm doing, but I'm doing it. *By Sylvie Grandi*

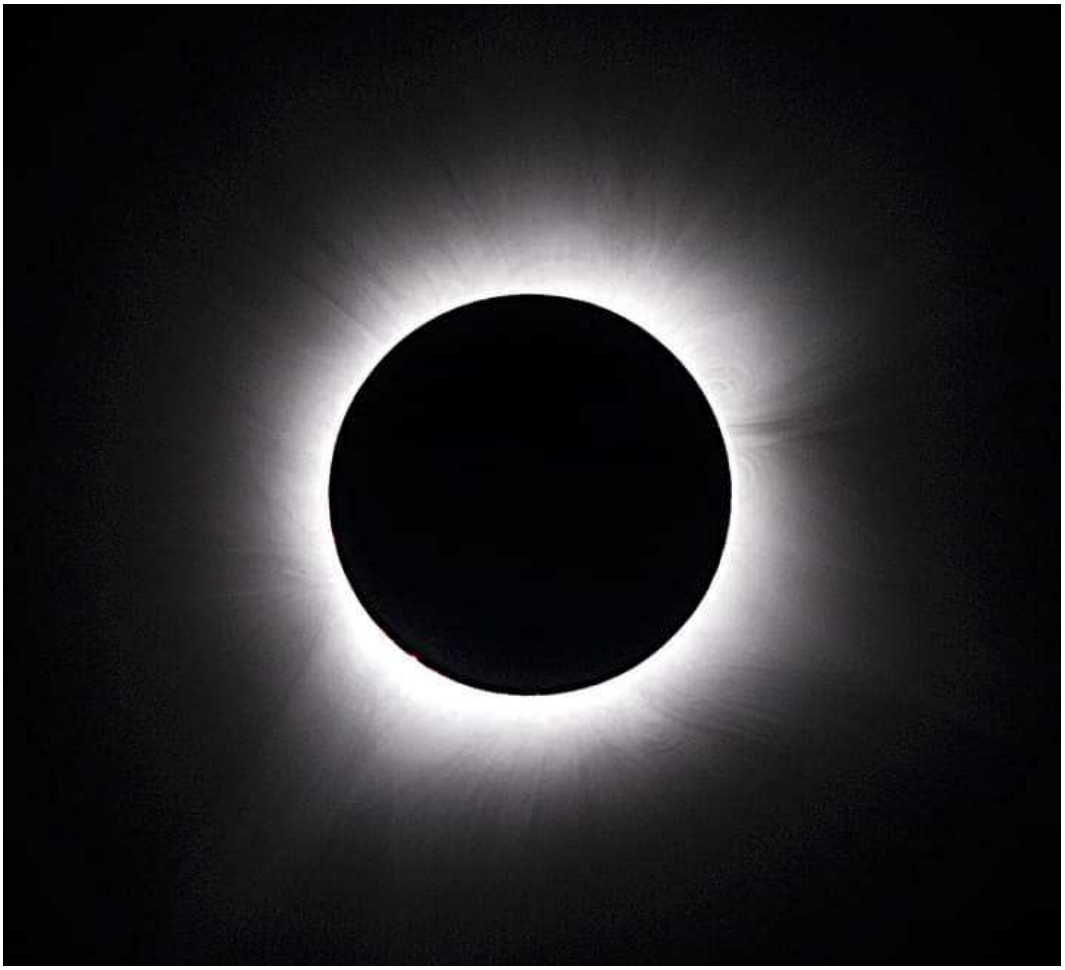




Total Solar Eclipse over Texas!

Having returned from our holiday in the USA, I've now had some time to process my photos of the total eclipse. All images were taken through a WO GT81 with a Canon 70D. The day started completely overcast, and we feared the worse. Most of the partial phases were behind cloud. As the time approached for totality we watched and barracked for a big blue patch of sky that appeared to be heading in the right direction! Totality lasted 4 min and 22 seconds, the longest I've seen. It was a "totally" awesome sight and experience and we were so very very lucky the clouds parted just at the right time!

Dominic Lucarelli



MO PHO CHALLENGE

Chris Kostokanellis

Astro Mo Pho challenge for March / April Artificial Satellites. *By Chris Kostokanellis*.

Above. Starlink train during the March PVN at the Briars. Samsung S23 Ultra.

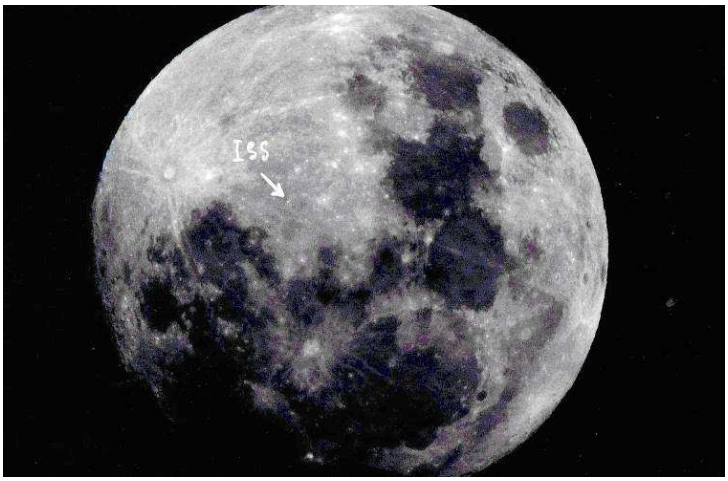
The Monthly Photo Challenge topic for March / April 2024 was Artificial Satellites. Normally bane of Astronomers and Astrophotographers, and usually discarded from our captures, members were tasked with tracking down and identifying these disruptive streakers.

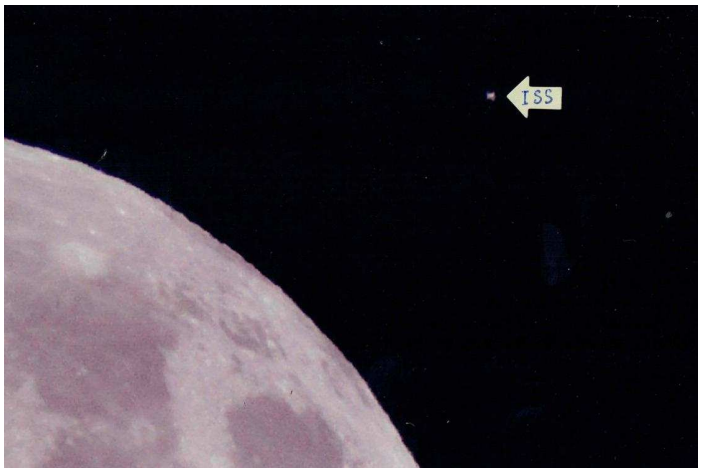
The March PVN on Friday 1st March, gave us all a terrific surprise with a very spectacular and bright pass of a freshly launched batch of Starlink satellites. Appearing from the South West, they traversed the southern sky of the Briars just above the tree line. Not having seen them before, it took me a second to realise what I was looking at, as I never expected them to appear so bright.

The same train of satellites made an appearance the following night, and this time we were prepared for them.

In addition to the digital captures of satellites members sent in for this challenge, John Goodall gave me some prints of ISS captures he made using a film camera, possibly from last century!

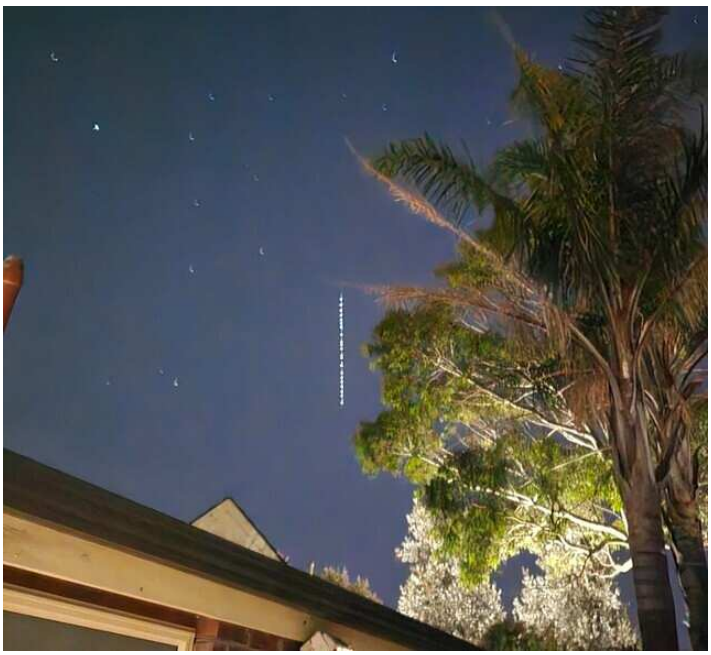
John Goodall, Chris Black, Chris Kostokanellis, Greg Walton and Nerida Langcake all managed to meet the Artificial Satellites Mo Pho Challenge.



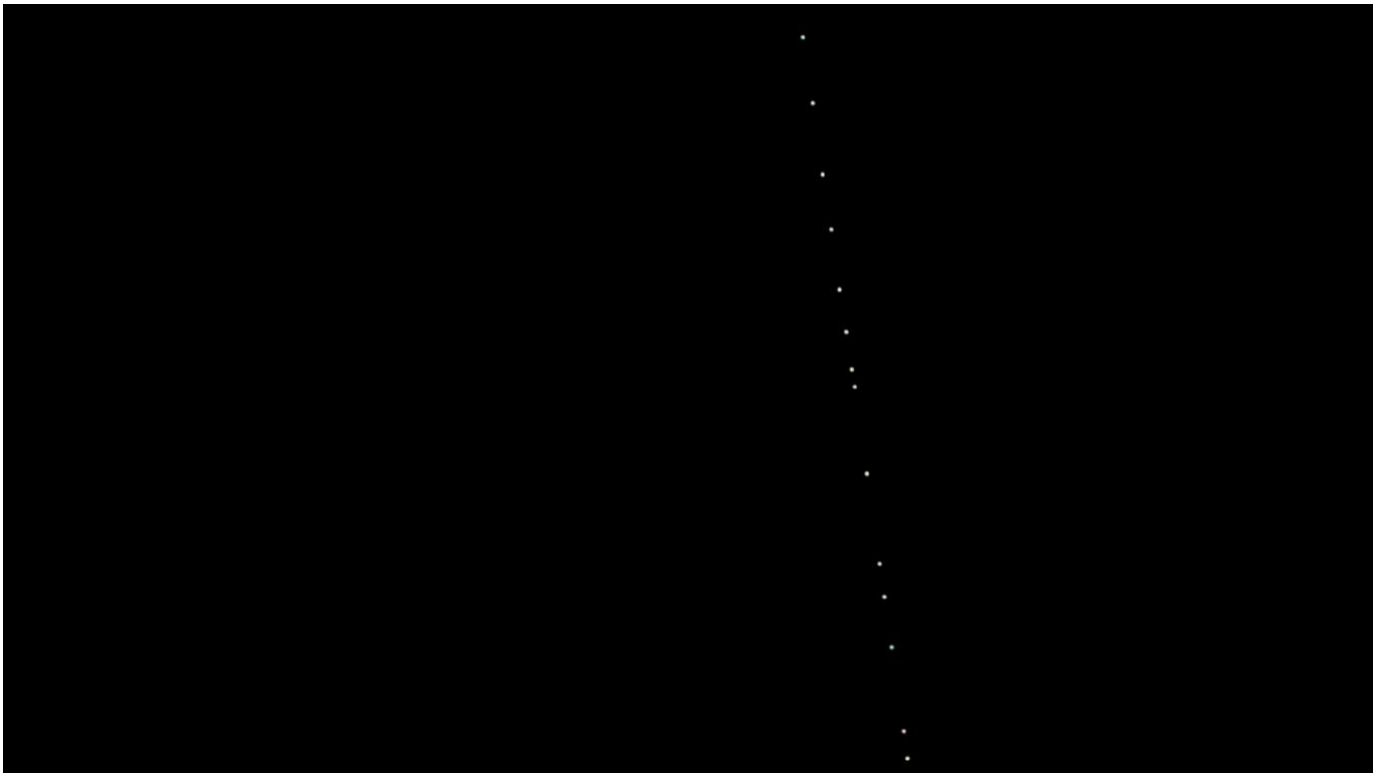


Above. Film Captures of ISS transit and near pass of the moon by John Goodall.

Below. A couple of shots of the Starlink Train that went over 2nd March. Chris Kostokanellis



Below - Starlink Train imaged with 135mm lens from Chelsea on 2nd March. *By Greg Walton*



Congratulations to everyone who captured Satellite photos for our last challenge, and a big thanks to John Goodall for handing me some film photos from his archive of an ISS Lunar transit he captured some years ago.

Summary video for our last challenge is here:
https://drive.google.com/file/d/1GsvsfZWsBjBUn4lVZh1Db9ScTyZWx8i6/view?usp=sharing

The subject of our next challenge is "Astro Bling". We're talking Jewels, Gems, Pearls, Chains, Rubies, Diamonds, Rings etc.

Chris Kostokanellis

Astro Mo Pho challenge for April / May

Astro Bling. *By Chris Kostokanellis.*
The April / May 2024 Mo Pho Challenge saw members tasked with capturing “Astro Bling”. That is the jewels and gems of our night sky. Many Astronomical objects bare the names of gem stones, such as the carbon stars, Ruby Crucis next to Mimosa in the Southern cross, or a Northern sky jewel, Mu Cephei - The Garnet Star, unfortunately not visible from our southern latitudes.
Another piece of Astro Bling, the Southern Crown - Corona Australis, is rising earlier each day in the south east as we approach winter. Although I intended to image this, clear skies were in short supply during the time of this challenge. We also have the Gem, Jewel Box and Pearl open clusters in our southern skies, all beautifully captured by Guido Tack in his 30 panel mosaic of the southern sky, which can be seen in the Astro Mo Pho summary on the Facebook Members Page, or the Members E-Scorpius forum.
Members who completed the April / May Mo Pho Challenge were Guido Tack, Chris Kostokanellis, and Peter Lavelle, who submitted one of his first images of NGC 4755, The Jewel Box Cluster using his 300mm non-tracking Dobsonian!

Left:
Kappa Crucis (NGC 4755, HD 111973, Jewel Box Cluster)
24/03/2024 22:00
Nikon D7200 on Saxon 300mm non-tracking Dobsonian
Shutter speed: 0.5s
ISO: 6400
Frames stacked in Deep Sky Stacker: 35
By Peter Lavelle

Below Right - Tonight's (24/3/2024) almost full (99.4%) moon, looking like a giant pearl. From the back yard.
By Chris Kostokanellis
Below Left -The 99.9% full moon from 25/3/2024, a few hours after the penumbral eclipse. Looking like a giant pearl in the sky, both to the naked eye and through a scope, makes it quite "Blingy".
Captured with my 200mm f5 Newtonian and ASI 294MC Pro camera. Stacked the best 75% of 500 frames, Pipp to combine and align the 5 video files, Autostakkert to stack them, Registax for sharpening and Photoshop for colour and Hue adjustments.
By Chris Kostokanellis

Right -

This is the Gem Cluster NGC 3293, in the constellation Carina.
I shot this last night (30/3/2024) before the moon came out.
This is a stack of 30 x 120 sec exposures.
By Chris Kostokanellis

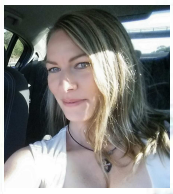
Our Current Astro Mo Pho Challenge, running until the next Member meeting on 15th May, is **ΔT, capturing change over time.** This means time lapses, blinks, or multiple images showing change in the sky. It can be wide field time lapse, or deep sky capturing the changing position of asteroids, moons, comets or planets.

Images or videos can be posted to our Members Facebook page or E-Scorpius Members or Astrophotography group forum for inclusion in the summary presented at the next members meeting. Please send download links to large videos to c.kostokanellis@mpas.asn.au.
Clear Skies

SOCIETY INFORMATION


Peter Skilton


Chris Kostokanellis


Nerida Langcake

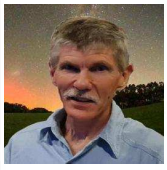

Jamie Pole


Anders Hamilton


Trevor Hand


Guido Tack


Simon Hamm


Phil Peters


Greg Walton

OFFICE BEARERS OF THE MORNINGTON PENINSULA ASTRONOMICAL SOCIETY

President: Peter Skilton
Vice President: Chris Kostokanellis
Committee: Anders Hamilton, Trevor Hand, Guido Tack, Simon Hamm and Phil Peters

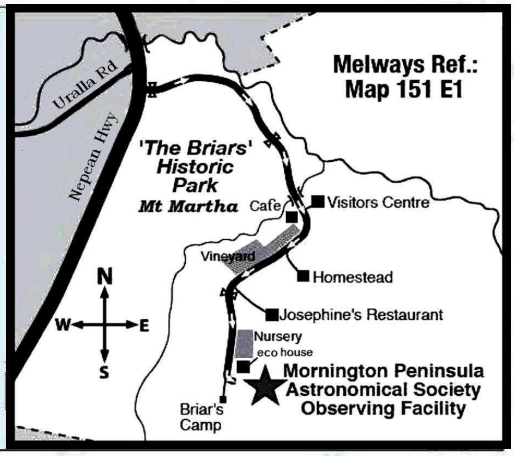
Secretary: Nerida Langcake
Treasurer: Jamie Pole
Web master: Guido Tack
Scorpius editor: Greg Walton
Librarian: Fred Crump & Lara Conway

SOCIETY MEETINGS

Meeting Venue: MPAS Astronomy Centre
The Briars, 450 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
email: welcome@mpas.asn.au

Phone: 0419 253 252
Mail: Mornington Peninsula Astronomical Society
450 Nepean Hwy, Mount Martha, Victoria, 3934



LIBRARY


Fred Crump

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 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 public - https://www.facebook.com/mpas0/

VIEWING NIGHTS - MEMBERS ONLY

Members only Viewing Nights - any night at The Briars, 450 Nepean Hwy, Mt Martha. 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
email: welcome@mpas.asn.au

Phone: 0419 253 252
Mail: Mornington Peninsula Astronomical Society
450 Nepean Hwy, Mount Martha, Victoria, 3934

Members please write a story about your astronomy experiences and add some pictures.
Send them to the editor: Greg Walton gwmpas@gmail.com
MPAS newsletters online - https://drive.google.com/folderview?id=0ByvkxzZGI9g_SUNmZVhkZTFGWTA

SCORPIUS **The journal of the Mornington Peninsula Astronomical Society**