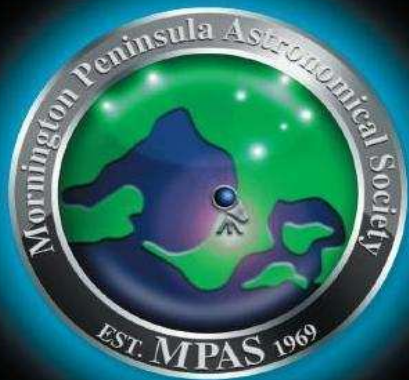


Cover Image, An aerial view of the MPAS site, supplied by John Cleverdon



SCORPIUS

THE JOURNAL OF THE
MORNINGTON PENINSULA ASTRONOMICAL SOCIETY INC.

Volume XXIII, No 4 (July/August)

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 services of its members for educational presentations and observing nights for schools and community groups. Reg No: A268 ABN: 34569548751 ISSN: 1445-7032



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 © 2014, Mornington Peninsula Astronomical Society

SOCIETY NEWS

By Greg Walton

May public night - Considering the sky had 100% cloud cover as the sun went down, a good number of members turned up and 40 member of the public were in attendees. Trevor Hand did the talk inside the big shed while the clouds cleared enough to get a look at the planets and some deep sky objects. Greg

Working Bee Job list - for the 10th May 2014 1 pm start. Shorten trees on the east side, cut trees back from path to car park, remove dry tree near caravan, wiper sniping, Mowing, cut back black berries on the north side, wash plastic chairs, reorganize kitchen and check supplies, remove cobwebs, clean fan in projector, freshen up magazine racks. Greg

Just a word of thanks to all those who helped out at the working bee. It was a very productive day. We now have a clean, tidy and organized building plus a lot of cleared vegetation from the block. I think we added a few tonnes of timber to the Briars compost hill. The horizon to the east is visible again. Thanks again Cheers Peter Lowe (President)



PUBLIC NIGHT THANK-YOU

Recent public viewing nights and school viewing nights have continue to be very well received by the attendees. It is no coincidence that this is due to the efforts put in by the members that help out at these events. To everyone that has helped out over the past months, a very big thank-you goes to you all. Your efforts are very much appreciated, and are being very well received.

May Society Meeting - Peter Lowe (President) talked on the recent partial solar eclipse and what causes the rare green flash phenomena. General chat afterwards over coffee and biscuits.

May members BBQ - seen about 15 member under a 100% cloudy sky. Thankyou Peter Lowe (President) for buying in all the food. Thanks Guys for help with the cooking and thanks Girls for setting up the food and the cleaning up after wards. General chat afterwards.

June public night - seen 45 member of the public, Trevor Hand did the talk in the big shed, while member maned the telescope under a mostly 100% cloudy sky. Half way through the talk the sky cleared, so we sent the public out to look at the sky, were they got to see Saturn, Mars and the Moon. I attached a video camera to the 8inch Newtonian and sent the Moon to a TV in the lower shed. Greg

June Society Meeting - Dr Greg Gibbons, MPAS member, talked on the 'THE GREAT TSUNAMI OF 2004'. Greg was in Indonesia working for UN at the time and has first hand knowledge of its immediate aftermath and helped with the rebuilding of schools, roads, house and business. Lots of before and after photos were shown along with Computer Generated videos of the Tsunami. Greg Walton did sky for the month and a around up of the road trip to the South Pacific Star Party & played video of the occultation of Saturn by the Moon.

School Night - at the Overport Primary School science night on Thursday 19th June seen a small turn out due to the cloudy sky.

June members BBQ - seen about 25 member in attendance under a perfectly clear sky. Paul Albers, John Cleverdon & myself set up telescopes & looked at Saturn & Mars with high magnification, Greg Walton also demonstrated photo editing software in the big shed. Thankyou Peter Lowe (President) for buying in all the food. Thanks Guys for help with the cooking and thanks Girls for setting up the food and the cleaning up after wards.

2013 SUBSCRIPTIONS DUE

The ticking over of the New Year also means that society fees are now due to be paid. The society has worked hard to ensure that 2013 fees are still the same as last years prices. So to assist the society in maintaining the facilities and service we provide, we appreciate your prompt payment for the 2013-year ahead.

As a reminder, the following structure of the fees are:

SOCIETY FEES

Subscriptions can be paid in a number of ways:

- Direct Cash payments to a committee member
- Send a cheque or mail order to the society mail box MPAS. P O Box 596, Frankston 3199
- Make a direct electronic payment into the society working bank account.

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.

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

Under the new government regulations, a list of financial member is required for insurance purposes, so please make certain your membership renewals are on time.

CALENDAR		July / 2014				
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Occultation of Mars by the Moon visible from Hawaii on the 6th	Occultation of Saturn by the Moon visible from south America on the 8th	1 Mars & ngc4958 0.5 degrees apart	2 Vesta & Ceres next to Galaxy ngc5184	3 Mars & ngc4995 0.5 degrees apart	4 Public Night 8pm	5 First Quarter
6 Mars, Spica & Moon	7	8 Saturn left of the Moon	9 ASV Meeting	10 Vesta & Ceres close	11	12 Full Moon
13 Mars & Spica 1.3 degrees apart	14 Venus 0.5 degrees right of a dawn M1crab nebula	15	16 Society Meeting 8pm	17	18 Uranus 1.5 degrees above the moon	19 Last Quarter Members Night BBQ
20	21	22 Saturn stationary	23 Committee Meeting 8pm	24	25 Venus left of the Dawn Moon	26
27 New Moon Comet C/2013 A1 Next to ngc1326	28	29 Comet C/2013 A1 Next to ngc1316	30	31		

Monthly Events & High Lights. Watch out for Auroras - Red Days indicates School Holidays

Public nights 4th, 8pm start - **Society Meeting** at 8pm on 16th @ the Peninsula School

Members Night BBQ 6pm at the Briars 19th

Evening - Mars, Spica & Moon on the 6th - Mars & Spica 1.3 degrees apart on the 13th

Evening - Uranus 1.5 degrees above the moon - Vesta & Ceres next to Galaxy group ngc5184 2nd

CALENDAR		August / 2014				
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
31					1 Public Night 8pm	2
3 Mars left on the Moon	4 First Quarter Occultation of Saturn by the Moon	5	6	7	8	9
10	11 Full Moon	12	13 ASV Meeting	14	15 Uranus 1.2 degrees from the Moon	16 Members Night BBQ 6pm
17 Last Quarter	18 Venus 0.4 degrees left of Jupiter	19 Mars 0.2 degrees from ngc5728	20 Society Meeting 8pm	21	22	23
24	25	26 New Moon	27 Committee Meeting 8pm Mercury right of the Moon	28	29 Comet C/2013 A1 Next to ngc362 at 2am near SMC	30 Comet C/2013 A1 Next to ngc104 at 11pm near SMC

Monthly Events & High Lights. - Watch out for Auroras

Public nights 1st 8pm start - **Society Meeting** at 8pm on 13th @ the Peninsula School

Members Night BBQ 6pm at the Briars 16th

Evening - **Occultation of Saturn by the Moon on 4th 9:18pm**- Mercury right of the Moon on the 27th

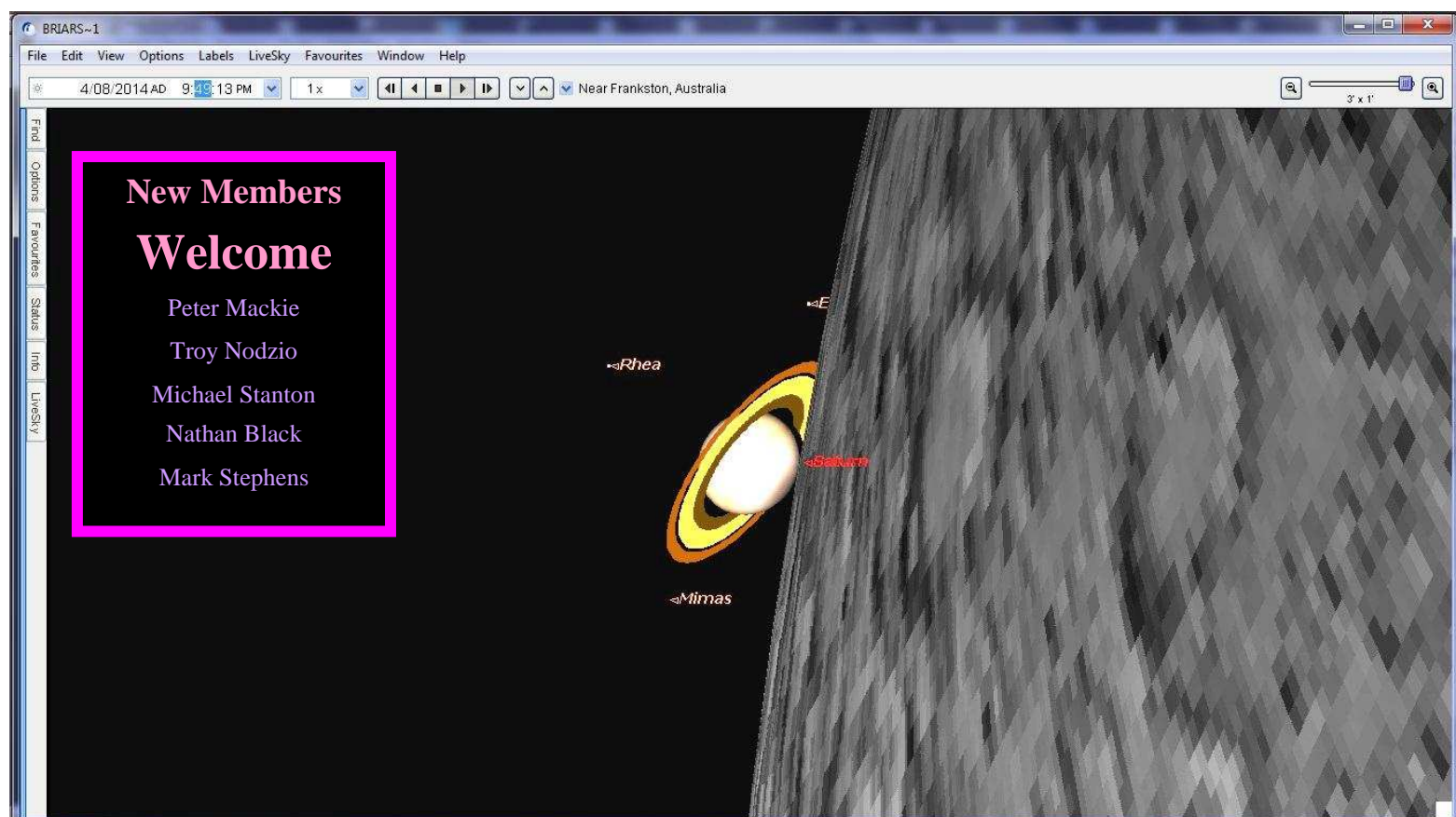
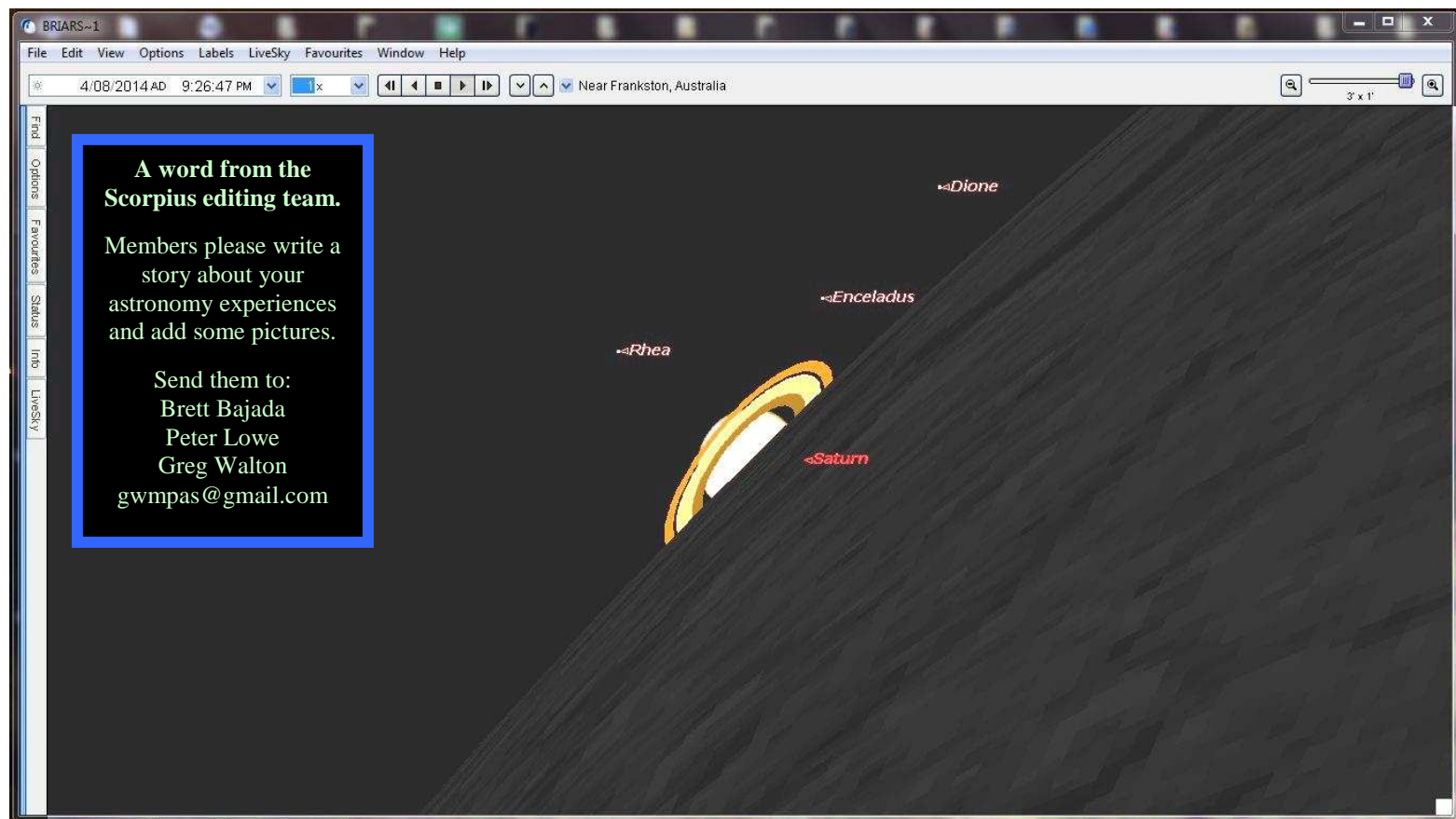
Dawn - Venus 0.4 degrees left of Jupiter on the 18th

29th Comet C/2013 A1 Next to ngc362 at 2am near SMC - 30th Comet C/2013 A1 Next to ngc104 at 11pm near SMC

Note this years the Members night BBQ's will be the first Saturday after the Society Meeting. Also General Meetings will be called Society Meetings under the new regulations.

Sky for August we look at the Occultation of Saturn by the Moon on the 4th high in the western sky, here is a great photo opportunity to catch this rare event with Saturn next to the Moon. From the MPAS Briars site, Starting at 9:18pm with Saturn's moon Titan disappearing first, then Saturn's rings sliding behind the dark shadowed side of the Moon at 9:26pm. Then you will only need to wait till 9:44pm when Saturn's moon Rhea will be first to reappear from behind the sun lit side of the Moon with Saturn's rings starting to reappear just before 9:47pm.

Images below produced on Starry Night *by Greg Walton*





Astronomy is a great hobby. Everyone I've ever met has an astronomical interest of some sort, ranging from just enjoying a good coffee (I prefer Irish) under a beautifully dark, star-studded sky or scanning the skies with binoculars enjoying the star clusters, progressing to the more advanced aspects of telescopic observing or astrophotography. Some enthusiasts want to explore more deeply and understand the things they see. Occasionally one may even decide to take up astronomy studies with the aim of progressing to more advanced astronomical pursuits. Despite the myths, astronomy does not require high levels of academic achievement, all it requires is curiosity and a desire to learn by doing.

Amateur astronomy embraces an entire spectrum of interests and skills. Above all and I can't emphasize this point enough, astronomy is about having fun while learning new things. If it's not fun then why are you doing it?

In taking up astronomy as a hobby generally everyone goes through a series of skill stages as they get into the hobby proper. Stage One is the "I know nothing" phase. This is the easiest and quickest phase to go through. Just reading a book or watching some of the excellent documentaries available these days gets you a basic understanding of our place in space. Beyond this however you do need to get actively involved. Go to the society events, participate, get involved, ask questions and try things. To really get the most out of the hobby however you need to get organised. I've found the best method is to set yourself small projects. Each project achieves a small success and the payoff is you learn something new while having some fun in the process. These projects do not have to be Nobel Prize winning research exercises, just simple observational or reading tasks. For instance how many types of variable stars are there? Get a book out of the society library and check it out. Have you ever seen a star change colour? Lots of stars change colour. All you have to do is look. Some do it reasonably quickly in a matter of weeks while other take much longer. The star Betelgeuse is a red supergiant in the constellation of Orion. It is classified as an irregular variable which is just another way of saying we have no idea what it's doing. It is distinctly red but apart from changing brightness it also changes colour from deep red to a light pink. All you have to do is look and note.

This brings me to my first "must have". Get an exercise book and label it observing diary or logbook. This will be your astronomy memory. You need to record what you see so you can compare it with what you see next time. Take Betelgeuse for instance, I always compare it with the blue star Rigel in the same constellation. Is Betelgeuse brighter, the same or dimmer than Rigel? This summer it has been dimmer although last year it was much brighter. This immediately tells us something interesting about the conditions on Betelgeuse. (or at least the conditions 1800 years ago because that's how long the light you're seeing has taken to get to your eye) If it's dimmer it suggests the star core has changed and the overall size of the star has diminished leading to the reduction in brightness and coincidentally the star has got less red. So a simple visual observation backed up by a log in your observing diary reveals changes on a star 1,800 light years away. Simple.

This is a pretty trivial example but it illustrates the point that astronomy is not just the "here and now" observing. You need to organise yourself to record what you're doing and what you're learning. I find pre-prepared project books useful. They allow you to plan and organise the projects and progressively you will find you move on to more and more complex and involved programs. Remember astronomical projects don't need to include observing at all. You can run projects indoors using books, Internet or chat lines with other amateurs. How many PhD speakers have we had at MPAS who wouldn't know which end of a telescope to look through!!

To help I have laid out a simple step by step way to design an astronomical project plus a few examples. If you want to discuss this more and discuss a project you have in mind please come and see me.

Designing an Amateur Astronomical Project.

Our objective is to get more out of the hobby by expanding how we study objects and phenomena.

- Get an exercise book as an observing diary or logbook.
- Ask the questions "What interests me?" and "What things can I observe or explore?" Write them down in your observing logbook.
- Ask the question "What can I learn about this phenomena?" Add these to your notes in the logbook.
- Do a bit of exploring in the literature to find out what is already known or thought to be known. Add these to your notes in the logbook. Remember Wikipedia is mostly wrong or at least incomplete so be prepared to dig deeper.
- From this "new" understanding, ask the question "How can I observe this phenomena with the instruments at my disposal to gain a better insight into things?" This may involve talking to other MPAS members to canvass ideas or even designing a cooperative observing programme. Team observing is definitely more fun. Don't get trapped in the I

need bigger, better equipment tar pit. Work with the equipment you've got and try to push it to its limits. If you find you really do need better equipment try using society equipment first.

- Write down your observing ideas including objectives, methods and issues. By now your observing ideas should be starting to crystallize and you can put your observing plans down in your logbook.
- Preparing your work programme, equipment or whatever else you need. Write it into your logbook. Remember failing to plan is just planning to fail.
- Start your programme. Put all your observations and experiences into your logbook. This is your record of what you expect to observe and what you actually observe. Don't rely on memory. I can't remember what I had for breakfast these days so writing it down in the logbook is important.
- Are your observations what you expected? If not, why not? Can the observations be extended to cover more generalised phenomena? Can new observations be devised? Is this leading to another even better project?
- Enjoy, enjoy, enjoy. You might wish to write up your work as a paper for the publication in the Scorpius. People love to hear success stories.
- Remember observing programs cover all sorts of timescales so have several going at once over different time periods. (Days, weeks, years, decades??)
- Go back to step (2) and do it all over again.

POSSIBLE PROJECTS.

Variable Stars

Do you know what a variable star is? Have you observed a variable star? Have you plotted the light curve of a variable star? Is the light curve consistent from cycle to cycle or does it vary? Why does it vary? Are all variable stars the same? Are variable stars of the "same" type actually all the same? The published data on variable stars is mostly wrong because there is a lack of observations. Pick a few variables and adopt them as pets for frequent observational checks. You'll be surprised at how variable, variable stars can be.

Planets.

Have you ever seen a planet rotate? Try observing Jupiter or Mars over a few hours (with a sketch book) and watch the planets rotate. No it's not just the whisky in the coffee they really do move!!

The Earth rotates once every 24 hours. The atmosphere broadly circulates via three Bradley cells. One over the equator, one over the mid-range latitudes and one over the poles. How do these cells affect our weather? Do they change with the solar cycle? How will they change if the planet keeps warming?

Mars also rotates once every 24 hours, has a surface gravity only 0.4 times that of Earth and the energy from the Sun is only one quarter that falling upon the Earth. Is the atmospheric circulation the same? How could you check this? What about Venus?

The Moon.

The Earth is hit by meteor showers many times every year. So is the Moon. Is it possible to observe meteor impacts on the Moon? How could you do this? Has anyone ever seen visually an impact or changes on the lunar surface. What is the impact rate on the Moon?

Star Clusters.

It is believed that all stars form in clusters from common gas clouds yet we see individual stars not associated with clusters. How do these stars "escape" their cluster? How could you explore the stability of star clusters?

You can simulate clusters on your computer. Can you show why some clusters are loose associations of stars whilst others are tightly bound structures? Why? How could you determine a cluster's three-dimensional shape?

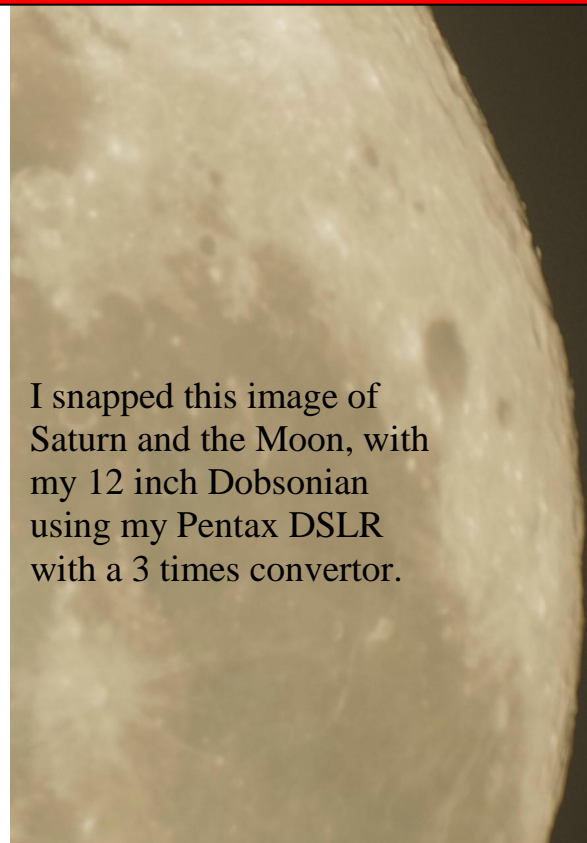
Asteroids.

Many asteroids have only ever been observed a few times, some only once. Many have been lost. If we could observe the orbit of an asteroid, could we calculate its position in the future? How far into the future can you calculate? What determines an asteroid's orbital path? How can amateurs find asteroids or track known ones? You don't have to wait for near misses to find them.

Do Things Change in the Sky.

We now have over one hundred years of astrophotographic records. A lot are available on the Internet. Can you spot the changes? How has the Orion nebula changed over time? Was Sirius a red star 2,000 years ago?

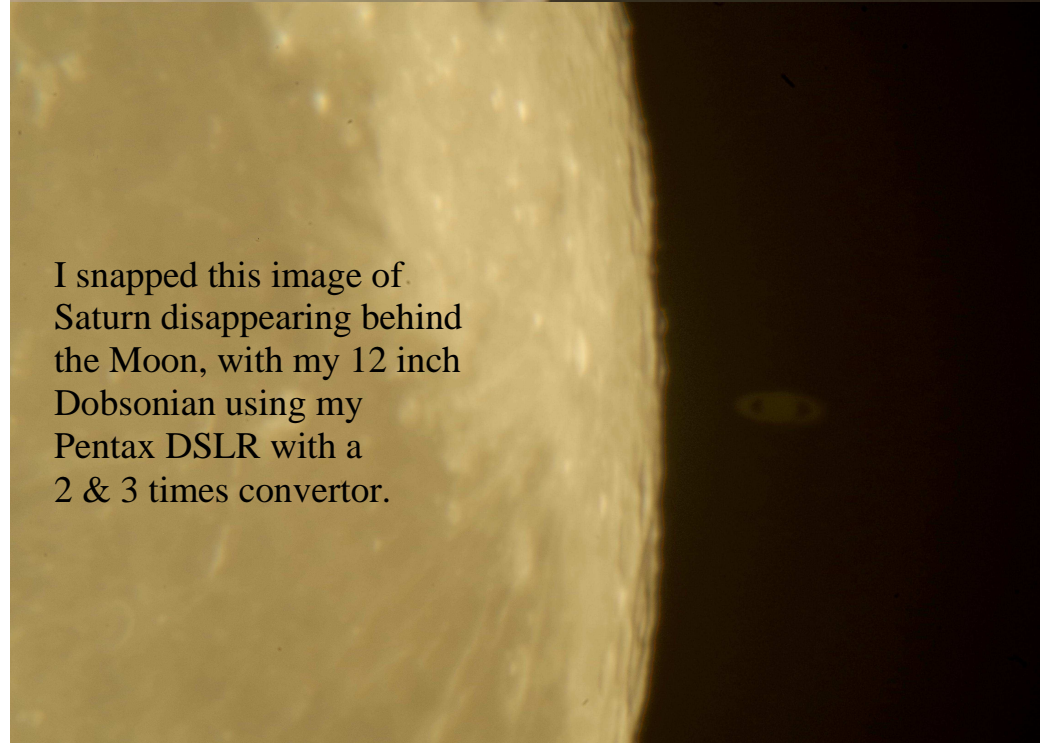
And the list goes on. I hope that you can see there is much more to astronomy than look-see viewing and with a bit of forethought and planning you can turn your hobby into a lot more fun and really learn something in the process.



I snapped this image of Saturn and the Moon, with my 12 inch Dobsonian using my Pentax DSLR with a 3 times convertor.

On the 14 may 2014 the Moon passed in front of Saturn.
 I set up my ED80 refractor on the EQ6 mount and imaged the whole event, but from the earth Saturn is tiny compared to the Moon. Also the Moon is much brighter, making it difficult to capture Saturn without over exposing the Moon. Luckily the sky was clear for the disappearance, though high level clouds moved in for the reappearance and a large ring appeared around the Moon, see below. By Greg Walton @ Chelsea
 See the Time Lapse @ Greg Walton on Vimeo / Saturn & the Moon time lapse

Alex Cherney also produced a nice time lapse of the event, which can be viewed on the web @ Alex Cherney on Vimeo



I snapped this image of Saturn disappearing behind the Moon, with my 12 inch Dobsonian using my Pentax DSLR with a 2 & 3 times convertor.



Saturn

By Bruce Renowden

..... Meteor Poem

The brightest moment at its demise
 A streak of light in cold night skies
 Seen by few, heard by none
 For the tiny meteor, all is done.

Who will know its journey past?
 By all the planets, through solar blast
 Make a wish, o' night time reveller
 Toast the return, of the great space traveller.

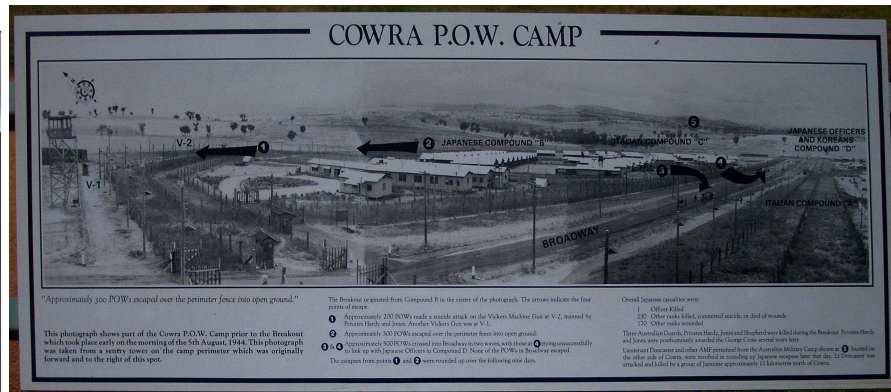
Bruce Renowden
 Honeysuckles
 June 2006



Saturn reappearances

MPAS road trip to the 2014 South Pacific Star Party, by Greg Walton

Dave Rofle, Kevin Rossitter, Jamie Pole, Pia and myself did the road trip north, to the 2014 south pacific star party, held at Ilford in NSW about 1 hour north of Bathurst. It's a bit too far to drive all the way in one go, so Dave, Kev & Jamie stopped at Young. Pia & I set off 3 days earlier giving us time to do some sight seeing. **Tuesday** we visited the **Cowra Japanese gardens** developed in remembrance of Japanese prisoners of the second world war. Many Japanese living in Australia at that time were sent to the Cowra P.O.W camp, as the government thought they could cause trouble and they did in a way, when they attempted a mass brake out. Most were shot and died of there injuries, many others committed suicide. The P.O.W. camp site is 1.7 km from the gardens and has been revamped in the last year. We also went to the Japanese cemetery and scene that they did not all die on the same day of the brake out, on 5th August 1944. Many died weeks later of there injures, the day before the brake out was a full moon & partial lunar eclipse, maybe it was a sign.



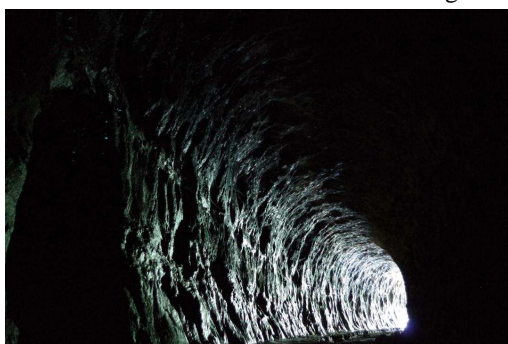
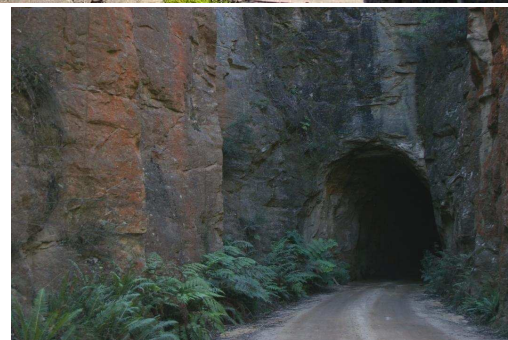
Wednesday we stopped at Oberon and went to the Jenolan caves, where we saw a platypus swimming in the Blue lake, before we did a cave tour. Descending into the caves is like travelling into another world, where stalactites hold on tight & stalagmites might reach the ceiling one day.



Thursday we went to Lithgow which is 30 minutes east of Bathurst. We noticed a sign saying Lithgow Blast furnace & decided we should investigate, we found Lithgow was an industrial centre, mining coal, cutting timber and making steel. When the Lithgow Blast furnace was built it was the largest in Australia and made steel for the first world war. The site is very large with lots of partly demolished structures and under ground tunnels. It all looked a very dangerous place especial for children, but an interesting place to do time lapse photography.

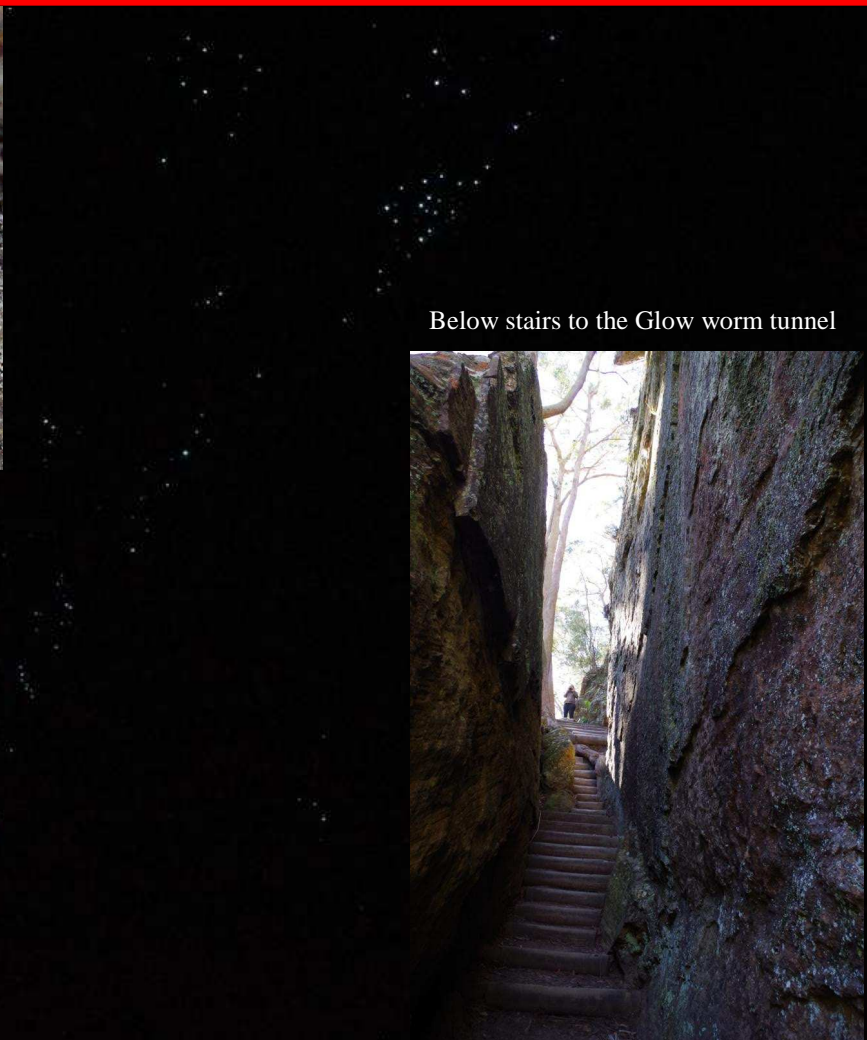


As we left the blast furnace we noticed a sign saying **Glow worm tunnel** and decided we need to take a look, we followed the signs till we reached a forest track and a sign saying 30km to Glow worm tunnel. We through this should only take an hour lets go, but the track was very ruff and we could only drive at 30km per hour, at one stage the road disappeared in to a small black looking tunnel, were we questioned should we go on. Pia switched the lights on and said we are doing this, the tunnel was surprising long and we were glade we came out the other end, without meeting a car coming the other way. We eventually came to a car park after more than an hour and found we needed to then walk 1/2 a hours to the **Glow worm tunnel**, crossing a bridge and climbing stairs, roughly following the path of a disused rail line. When we found the **Glow worm tunnel**, we walked down a fern lined muddy stream to the entrance, looked a bit spooky like entering the *Marlocks* lair in the movie *the time machine* or *journey to the centre of the earth*. We switched on our torch and started walking over wet and slippery flat rocks, it soon become totally dark, then we could start to see the glow worms, they are tiny and were in long bands along the ceiling of the tunnel, almost like the milky-way but I did not recognize any constellations. I set up the camera on a tripod and used the same settings that I would for imaging the stars. We spent a hour in the tunnel, it does go right through the mountain to the other side, a group of girls passed us in the tunnel and disappeared in to the darkness, we never seen of them again. Our 1 hour trip turned in to 4 hours, but well worth it. We will return to the Lithgow area next year to do the Zig-Zag railway.

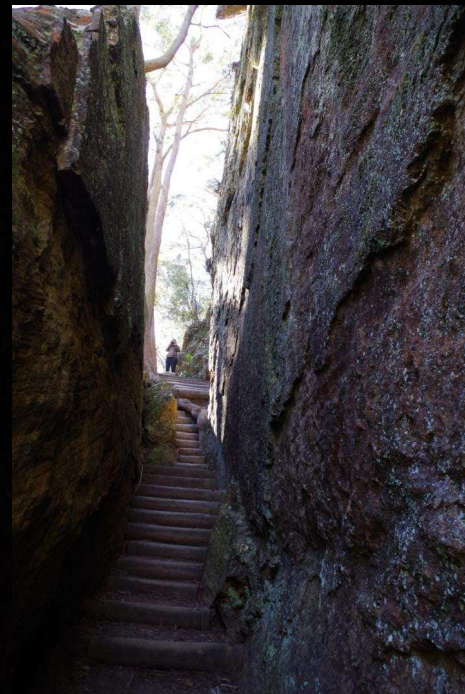




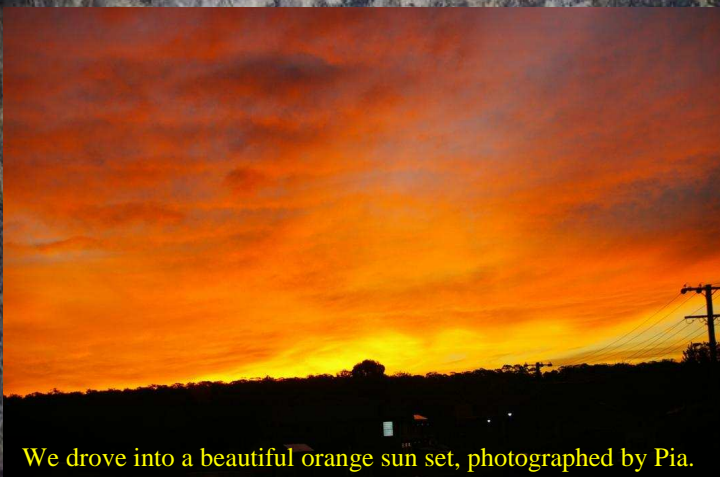
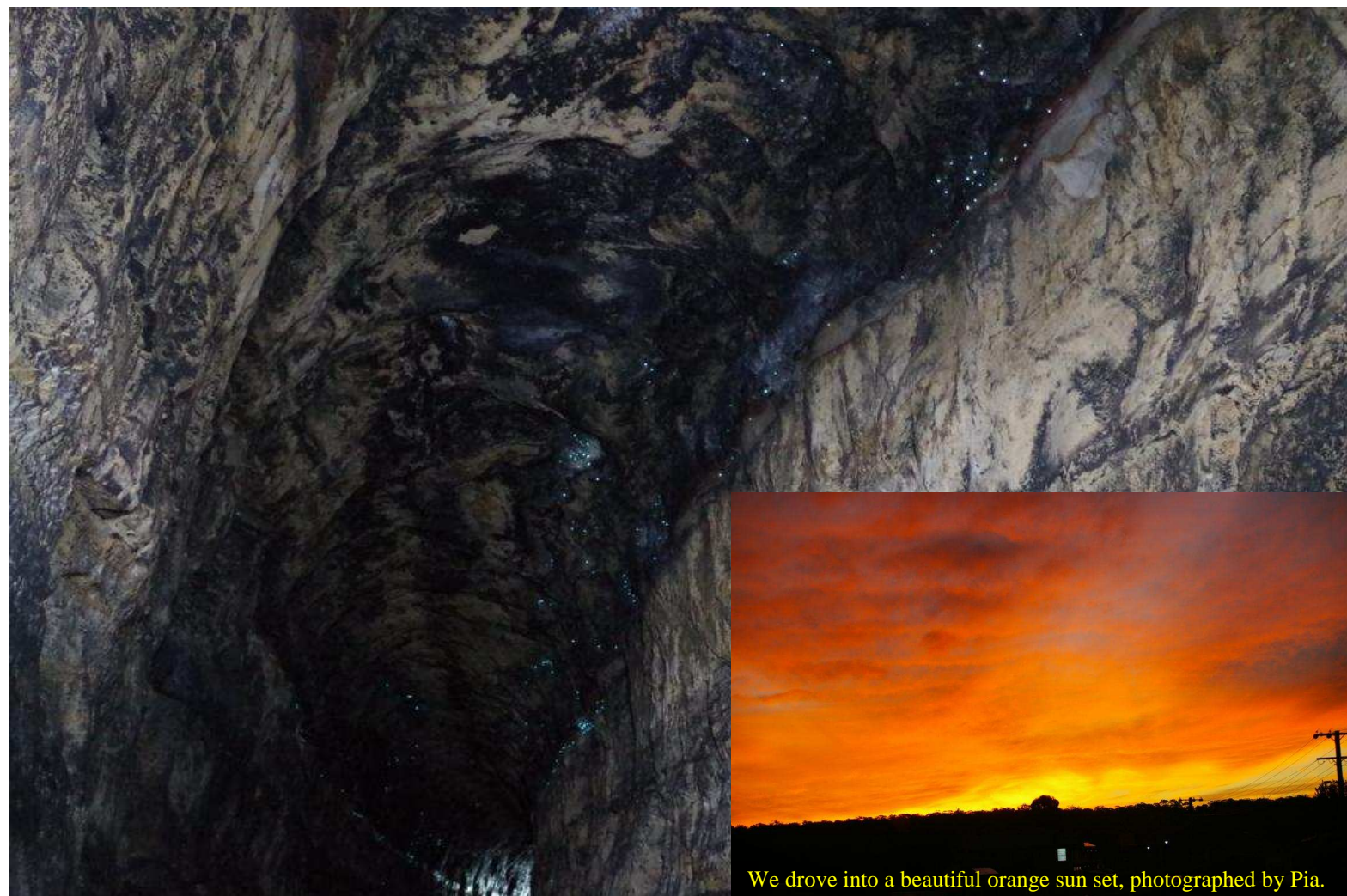
Above - The Glow worm in its lair, note the sticky web in front which is used to catch its prey. Glow worms are tiny and the part that glows is only about the size of a pin's head.



Below stairs to the Glow worm tunnel



The 2 photos above & below were taken with the same settings, but the lower image I used the torch to light up the tunnel.



We drove into a beautiful orange sunset, photographed by Pia.

The Astrophotography field at SPSP



KEVIN

JAMIE

DAVE

After the Glow worm tunnel we returned back at Lithgow, to do some shopping before we headed to the 2014 south pacific star party at Illford. Which is about 50 minutes north on the Castlereagh Highway, we drove into a beautiful orange sun set and arrived on dusk. Dave, Kev & Jamie were all set up and ready for a long night under the stars. But the sky was cloudy so we cook dinner and had a wine, then slowly set up the telescope and time lapse camera, by then the sky was all clear. Once all cameras are work well, Pia & I sat back and looked at the sky watching for meteors. At 12:40am I was sitting in my chair looking west and noticed a bright fussy blob between Mars & Spica, I thought is that M44, no that's gone down already. I went and found my binos, it looks like a comet, it had a cone shaped point, attached to a square, must be a comet, but its moving up higher closer to Spica. I pointed it out to other on the field, then I pulled out a camera and tripod, by then it was starting to fade, I do get a few images. I also had my 10mm lens on a time lapse pointing south west and hoped I had it in the frame. Moon rise was at 2am and we all went to bed, leaving cameras running.

Friday morning I looked that the time lapse and yes it was there, was ever it was. Someone said, there was a NASA launch 2 hours before hand, also others on the viewing field had also seen it. I cropped the images and spotted something flashing at the end of the cone shape, some sort of space craft I guess. We all spent the day resting and resetting the cameras for the coming night, which came very quickly. We all had another successful night, with most of us up till 3am.

Saturday I set up my 12 inch brief case telescope on the viewing field, ready for the telescope making award. They was only 4 telescopes and 1 eyepiece case on show, judges awarded all with a glass trophy. Then the Astrophotography competition was announced, Dave got a mention for his image of the Moon. The first prize went to a well earned image of Saturn next to the Moon. Then we all waited in line for our roast dinner, under building black clouds. After dinner Kevin, Pia & I were thinking the telescopes were going to get wet, so we packed them up. At 9pm the clouds did clear for a hour, then there came back and not long after it started raining, so we all had an early night, ready for the drive to Canberra.



Pia & Gregs camp

Spacecraft:	NROL-33 (USA 252)	From the Space craft Launch web site
Chronologies:	2014 payload #77 ; 2014-78A ; 7,549th spacecraft.	
Type:	Communications? (Data relay)	
Sponsor:	U.S. National REcognition Office (NRO)	
Launch:	22 May 2014 at 13H09 UT, from Cape Canaveral Air Force Station's SLC-40, by an Atlas V 401 .	
Orbit:	Geosynchronous?	
Mission:	NRO's L-33 mission reportedly placed a data relay satellite into geosynchronous orbit.	
Notes:	This Atlas-Centaur marks the 628th launch for Atlas program since 1957 and the 217th mission for the Centaur upper stage. It is also the 46th launch of an Atlas 5 since 2002 and the 72nd Evolved Expendable Launch Vehicle (EELV) flight. This is the 83rd United Launch Alliance flight overall and the 38th Atlas 5 under ULA.	
Source:	Jonathan Space Report No. ; NSSDC 2014-0 ; Spaceflight Now's ; Gunter's Quasar 19 (SDS-3.8, NROL 33) ;	



That's me with the brief case scope



Astrophotography competition



Above an interesting sign post at the SPSP.



Below some for the telescopes on the viewing field.



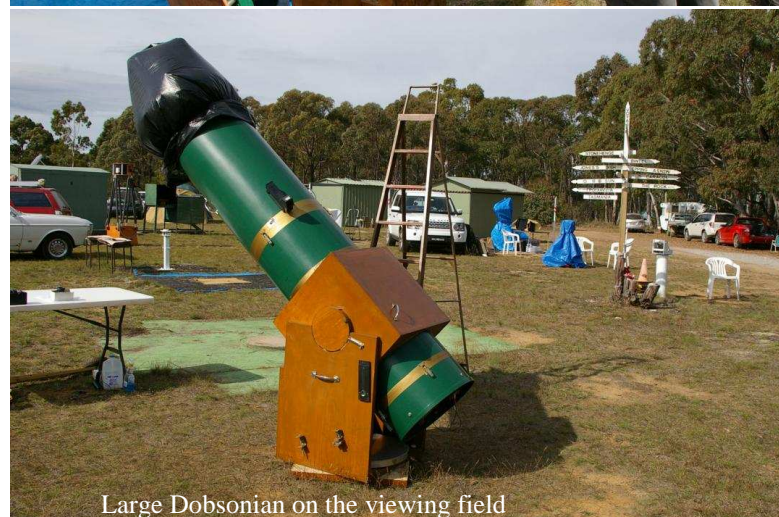
Alexander Massey 12.5 inch Dobsonian



6 inch Dobsonian made from Recycled materials

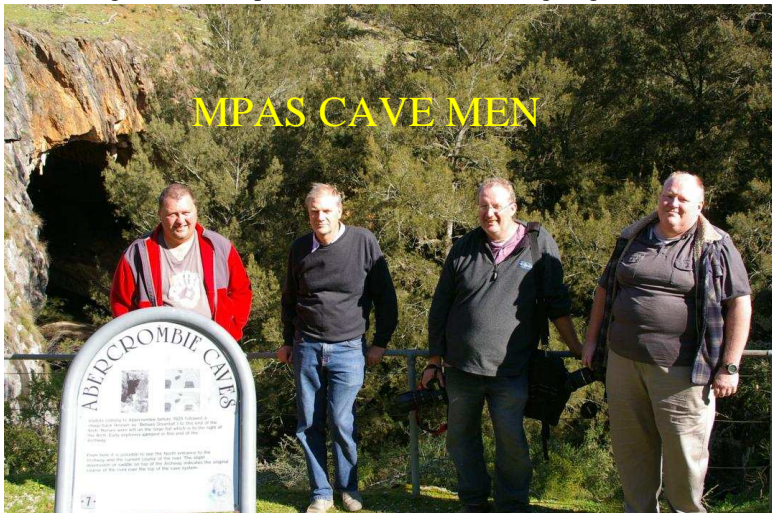


Alexander Massey 17.5 inch Dobsonian

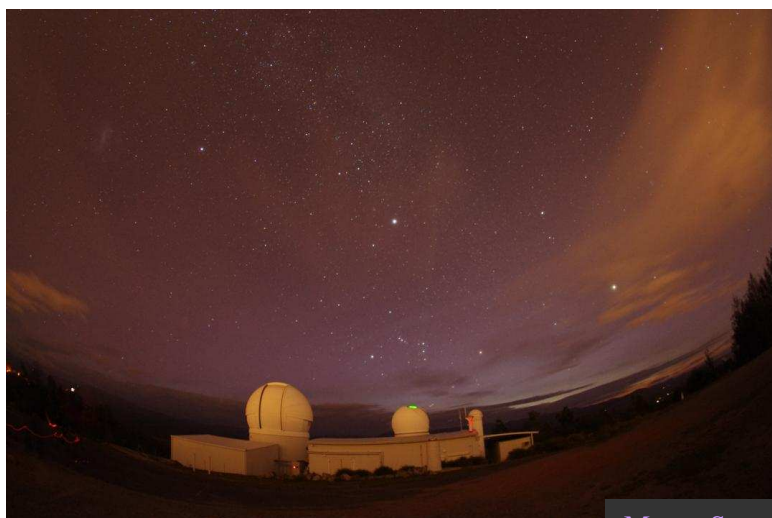
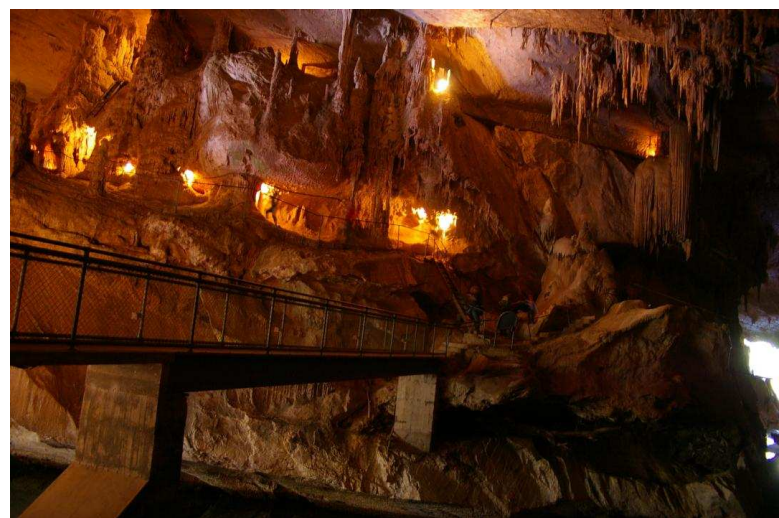


Large Dobsonian on the viewing field

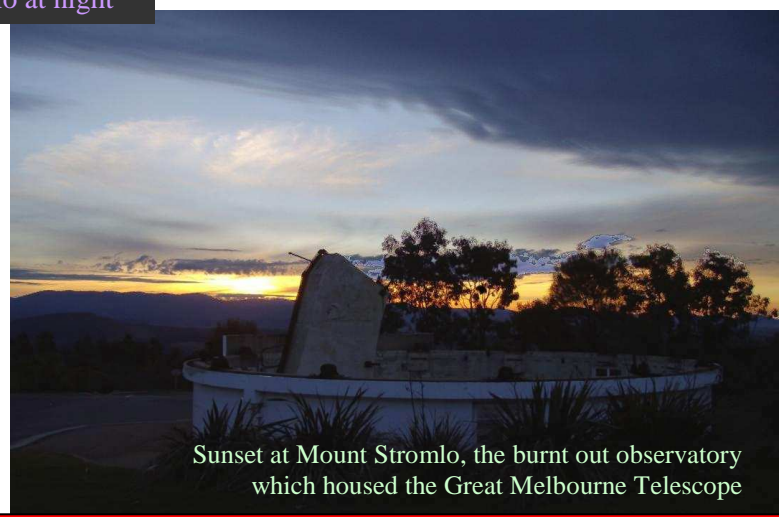
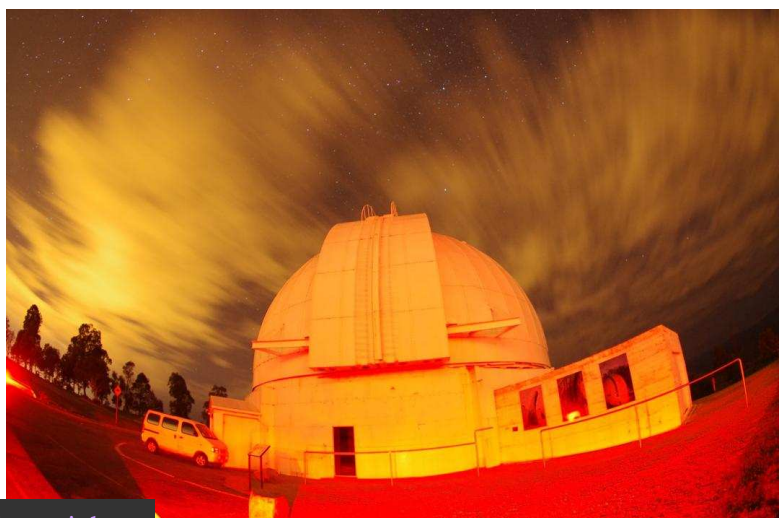
Sunday we all drove to the amazing Abercrombie caves and then on to Canberra. Getting there at dusk, we headed up to Mt Stromlo to image the telescopes under the stars, before going to our Motel where we were looking forward to a hot shower.



MPAS CAVE MEN



Mount Stromlo at night



Sunset at Mount Stromlo, the burnt out observatory which housed the Great Melbourne Telescope

Monday we did a tour of parliament house to see where our taxes are going, on arrival we had to empty our pockets and walk through a metal detector, maybe we looked a bit suss, all very exciting. This is a very impressive building with about 4,000 rooms and 2,500 clocks (which all ticked very loud) all linked to a centre master clock. We went up to the grass covered roof, to check out the view over Canberra, we could see the domes at Mount Stromlo observatory.



A large tapestry hangs in the grand hall which was copied from a painting in the entrance of parliament house by Arthur Boyd. The tapestry was made in 1986, the year Halley's comet visited the earth, so the weavers asked if they could add in the comet. I remember dragging my mother out of bed at 2am to look at Halley's comet, don't think she was impressed. Then it was time for Dave, Kev & Jamie to headed home, while Pia & I went to Black Mount Tower for lunch.



Comet Halley – the most famous comet of all. Photographed the morning of 21 March 1986 by Martin George, Launceston Planetarium, Tasmania.



I pointed out Mt Stromlo from Black Mount Tower, then we went to the Australia Mint & found a coin made, for the International Year of Astronomy in 2009 We all had a great time & are already planning next years road trip. See the Time Lapse @ Greg Walton on Vimeo SPSP 2014

The Big Blue Story, *By Dave Rolfe*

I purchased Big blue from a gent in Sydney via the Ice-in-Space classifieds in 2009. When purchased it was Cosmetically in poor condition and was white in colour. The tripod also was linked by cross wood pieces and was unstable. We had to remedy all this.



Original Owners Picture



Re-assembly at Home

When it arrived I found the optics to be generally dirty, but not marked or scratched. I took it back to Barry Adcock (the optics creator) one afternoon and we separated the glass (Oil spaced), gave it a clean, re-assembled and it tested fine. Barry also showed me how to align the telescope with the aid of a led globe in modified eyepiece, kindly reproduced for me by Greg. After working out everything was ok, the renovations begin.

The Optical Tube

But first I found the length of the scope did not allow for a diagonal; with the focuser all fully racked in with a diagonal I was just missing focus. I then took to the tube with a grinder to shave 10mm of the length, re-assembled, aligned and it tested nicely. I could now use it with or without a diagonal as well as with a SLR without any extension tubes. The focuser was a hand made rack and pinion system, which I cleaned and lubricated.



Removal and testing of optics

White was rather bland so I stripped everything down, filled in holes that were there from previous mountings and stripped the old paint off. I then in my back yard sprayed it with some metallic blue, then followed by a clear lacquer coating. Now It was better. I Went over all the joints and some of the inner baffling with a flat black. After It was dry, I re-attached the optics, finder bracket and focuser. That was the tube done.

The Tripod

Next I welded cross sections on the legs to stiffen the base up. The Centre post stayed as wood to absorb vibrations. Using the left over black paint, I sprayed that up as well. I added some safety reflective tape to the ends of the legs to help avoid tripping hazards. Also Had to fix the wheels.

The Mount

The Mount is a Meade DS16, Super heavy duty. It is a push/ pull equatorial with a fixed tracking motor in the RA axis. This Tracking motor needed some attention, as the last owner never apparently used it. I re-attached the electrical lead, re-conditioned the drive cog, lubricated everything and it all went nicely. It took a while to get the counter balance, latitude angle and the clutch tightness just nice. We Also reversed the setting circles so it could be used in the southern hemisphere. Tube Holder The Original tube holder, to put it nicely, was rubbish. I had some friends of mine in a CNC Shop make up an anodised aluminium carrier. This was extremely light and strong. I now felt confident the tube would not fall off the mount.

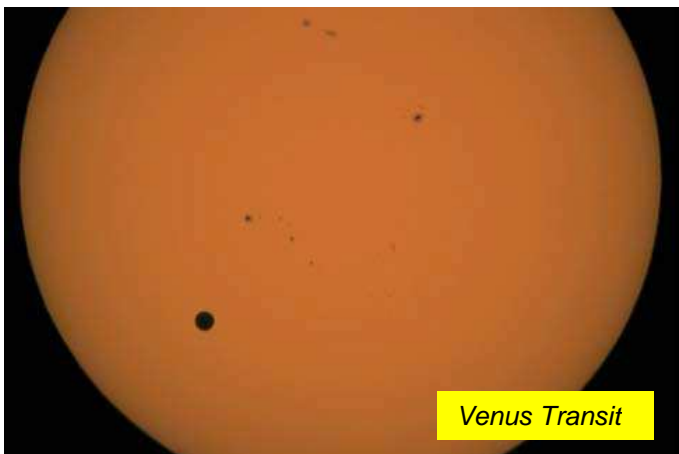
Briars Life

When the re-build when finished, I based the setup at the Briars for transportability convenience. It was virtually used every public viewing night and in between by the members of MPAS. The telescope was also used at VASTROC for some demonstration work. I recall many time-lapses by Greg with big blue in the background as it is generally what the public perceived as the stereo-type telescope design.

Many nights I used the scope, but there was one big event I remember using it was for was the transit of Venus, Where I got an 8" Full solar filter for the front and it did perform really well.



Final Test After Painting



Venus Transit



Jewel Box Cluster



At The Briars

While at the Briars I added a power control box for the motor and for a new dew shield.

The original purpose of the scope was for planetary viewing, but it exceeded my expectations on many other deep sky objects. Due to being an un-coated achromat there was a lot of violet tinging around bright objects, which was fine visually but did not suit imaging. It really did excel at globular clusters in particular.



'Big and little' Blue at the Briars

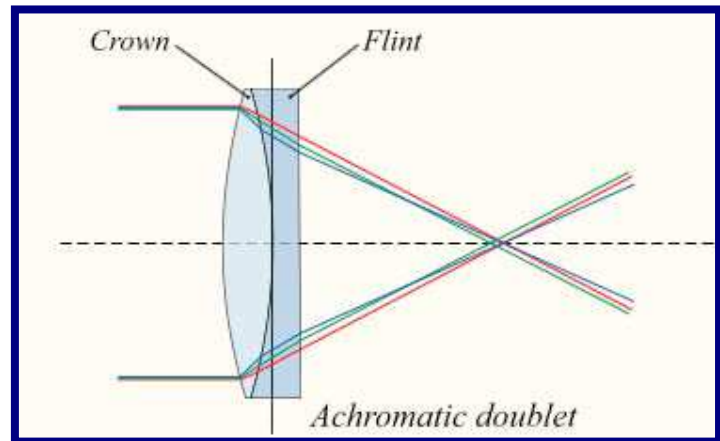
Unfortunately I did not do a lot of imaging with it, so there are not many pictures here.

Where is it now?

It has been sold back to the original owner, who has a lot of medical problems and not a long life expectancy. Originally he needed to sell it to pay for urgent medical treatments and now all that is behind him, has realised that was his biggest mistake. After He tracked me down, it is agreed that when he is finished with it, I have first option to re-acquire it.



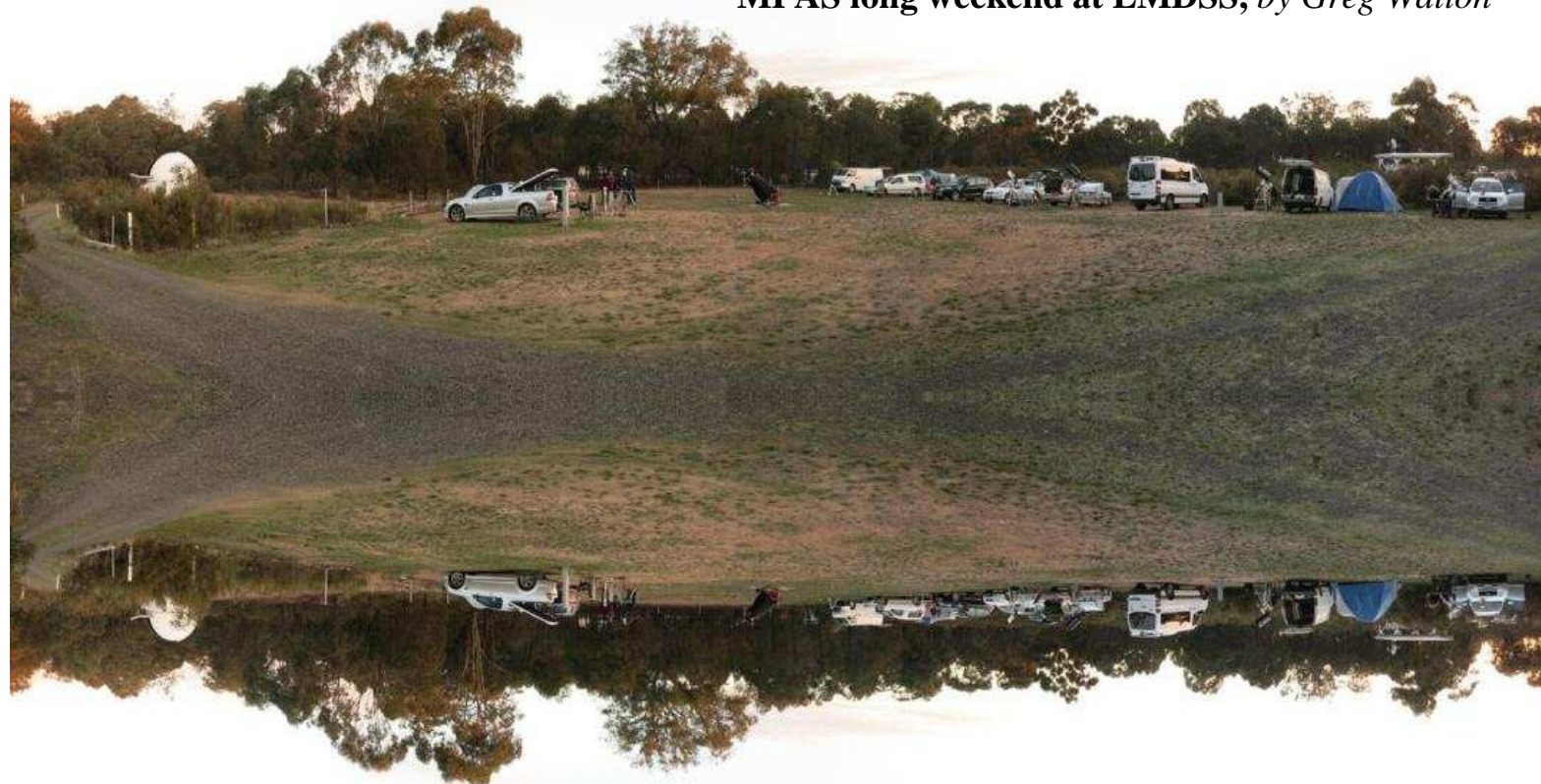
Not an easy job transporting it.



Last time I saw it.

Stats Big Blue is a 8" Hand Crafted Optical Tube, Grounded by Barry Adcock. The Optics is made with New-Port Glass and consists of 2 Oil spaced elements (Crown And Flint). The Scope Has a focal length of 2.4m

MPAS long weekend at LMDSS, by Greg Walton



We travelled to the dark skies of Heathcote for an astrophotography long weekend. We saw lots of meteors and were amazed by a strong air glow which changed the colour of the sky over a 2 hours period. Steve, Paul, Alias, Alex, Alex, Pia & I all had a great time & got loads of great images.

See the Time Lapse @ Greg Walton on Vimeo / Air glow at LMDSS

Photos here By Steve Mohr



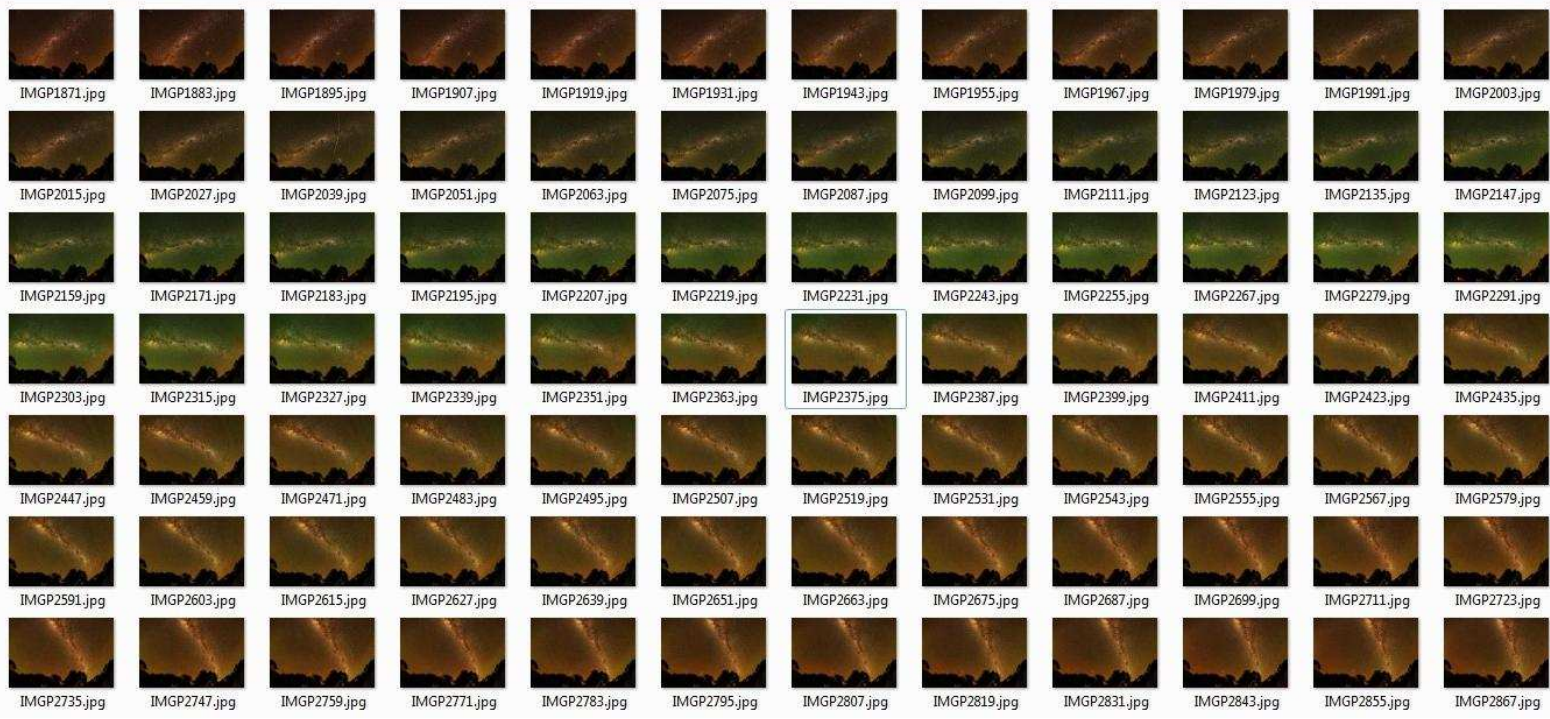
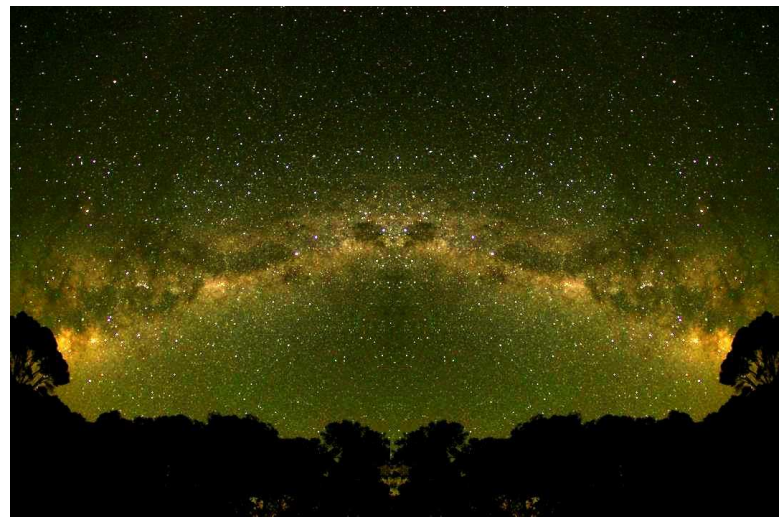
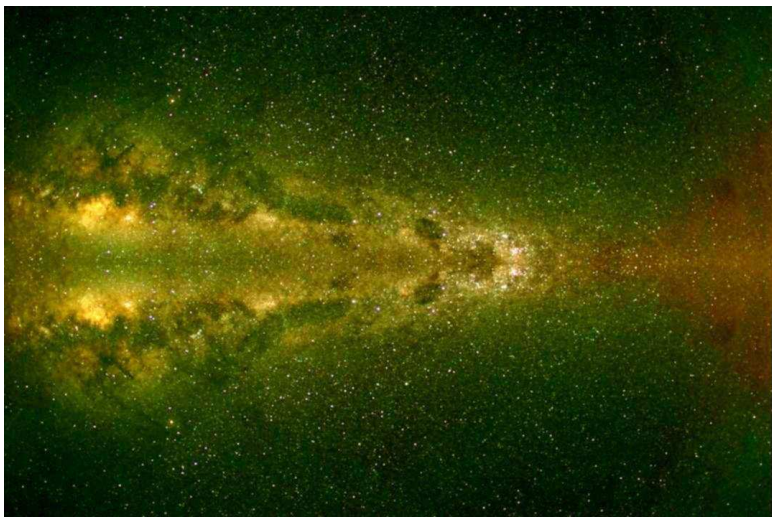


Photo above shows how the colour of the sky changes over the night, *by Greg Walton*



Below deep sky objects imaged recently with a 22inch Dobsonian, *by Alex Cherney*



SOCIETY INFORMATION



Peter Lowe



Dave Rolfe



Peter Skilton



Jamie Pole



Trevor Hand



Paula Ritchens



Clemens Unger



Greg Walton - Please send your articles & photos to gwpmpas@gmail.com

OFFICE BEARERS OF THE MORNINGTON PENINSULA ASTRONOMICAL SOCIETY

President: Peter Lowe
Vice President: David Rolfe,
Committee: Trevor Hand, Fiona Murray, Greg Walton,
 Paula Ritchens, Clemens Unger.
Phone Contact: Peter Skilton - 0419 253 252

Secretary: Peter Skilton
Treasurer: Jamie Pole
Web Master: Steven Mohr
Scorpius Editor: Greg Walton
Library: Fiona Murray

SOCIETY MEETINGS

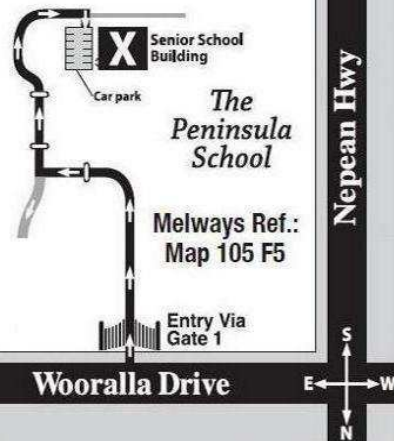
Meeting Venue: The Peninsula School,
 Wooralla Drive, Mt. Eliza, (Melways ref. 105/F5)
 in the Senior School at 8pm,
 on the 3rd Wednesday of each month
 (except December).
 Entry is via the main gate, off Wooralla Drive.
 (see map).

For additional details:

Internet: <http://www.mpas.asn.au>
email: welcome@mpas.asn.au

Phone: 0419 253 252

Mail: P.O. Box 596, Frankston 3199, Victoria, Australia.



LIBRARY

The Society also has books and videos for loan from it's library, made available on most members nights at The Briars site, contact Fiona Murray.

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 and event information as well as being able to join in discussions and ask questions with other members.

To join, go to: <http://groups.com/group/e-scorpius> and sign up to Yahoo groups - You require to sign up to Yahoo groups to join E-Scorpius. Once you have signed up at Yahoo groups, email welcome@mpas.asn.au saying that you want to join E-Scorpius and you will be added to the E-Scorpius list.

VIEWING NIGHTS - 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 either **9776 2074** or **0415 172 503** if they need help in getting to the site. Upon arrival at the site, remember to sign the attendance book in the observatory building.

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