

# SCORPIUS

THE JOURNAL OF THE  
MORNINGTON PENINSULA ASTRONOMICAL SOCIETY INC.

Volume XXII, No 1 (January /February)

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.

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**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 © 2013, Mornington Peninsula Astronomical Society

## January / 2013

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 New Year's Day	2	3	4 Public Night 8pm Jupiter's moons on one side	5 Last Quarter
6 Spica & moon close	7	8	9	10	11 Public Night 8pm	12 New Moon ASV Meeting
13	14 Io shadow transit on Jupiter 9pm EST	15	16 Society Meeting 8pm	17	18 Public Night 8pm	19 TLD 1pm First Quarter Members Night
20	21 Io shadow transit on Jupiter & Ganymede disappears 10pm EST	22 Jupiter & Moon	23	24	25	26 Australia Day
27 Full Moon	28 Australia Day Holiday	29	30	31		

**Monthly Events & High Lights. Red Days** indicates School Holidays- **Watch out for Auroras**Public nights 4<sup>th</sup>, 11<sup>th</sup>, 18<sup>th</sup> 8pm start - **TLD - Telescope Learning Day** on 19<sup>th</sup> January @ the Briars 1:00 pmSociety Meeting at 8pm on 16<sup>th</sup> @ the Peninsula School - Members Night BBQ 6pm at the Briars 19<sup>th</sup>**Evening** - 14<sup>th</sup> Io shadow transit on Jupiter 9pm EST - 21st Io shadow transit on Jupiter & Ganymede disappears 10pm EST**Evening** - 4<sup>th</sup> Jupiter's moons all on the same side 11pm. **Morning** – 6<sup>th</sup> Spica & Moon are close.

## February / 2013

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Public Night 8pm	2 Spica & moon
3 Last Quarter Saturn & Moon	4	5	6	7	8	9 Astrophotography Work Shop 3pm Comet Panstarrs
10 New Moon Comet Panstarrs	11 Labour Day Comet Panstarrs	12 Mars & Mercury Comet Panstarrs	13 ASV Meeting	14	15	16
17	18 First Quarter Lunar Occultation of Jupiter @ 11:32 pm	19	20 Annual Meeting 8pm	21	22	23 Members Night BBQ 6pm
24	25	26 Full Moon	27 Planning meeting 8pm	28		

**Monthly Events & High Lights.**Public night 1<sup>st</sup> 8pm start - **Watch out for Auroras. Dawn** – 2<sup>nd</sup> Spica & MoonAnnual General Meeting at 8pm on 20<sup>th</sup> @ the Peninsula School - Members Night BBQ 6pm at the Briars 9<sup>th</sup>**Evening**- 9th Comet Panstarrs rises 30 minutes after sun set in the South West till 14th march (maybe a good one)**Midnight** - 18th Lunar Occultation of Jupiter at 11:32 pm Look North West only 8 degrees above Horizon**AWS** - On the 9 February Greg Walton will be running an astrophotography work shop @ the Briars 3pm**Note** that we still need helpers for weekly Friday public nights over the January Holidays.

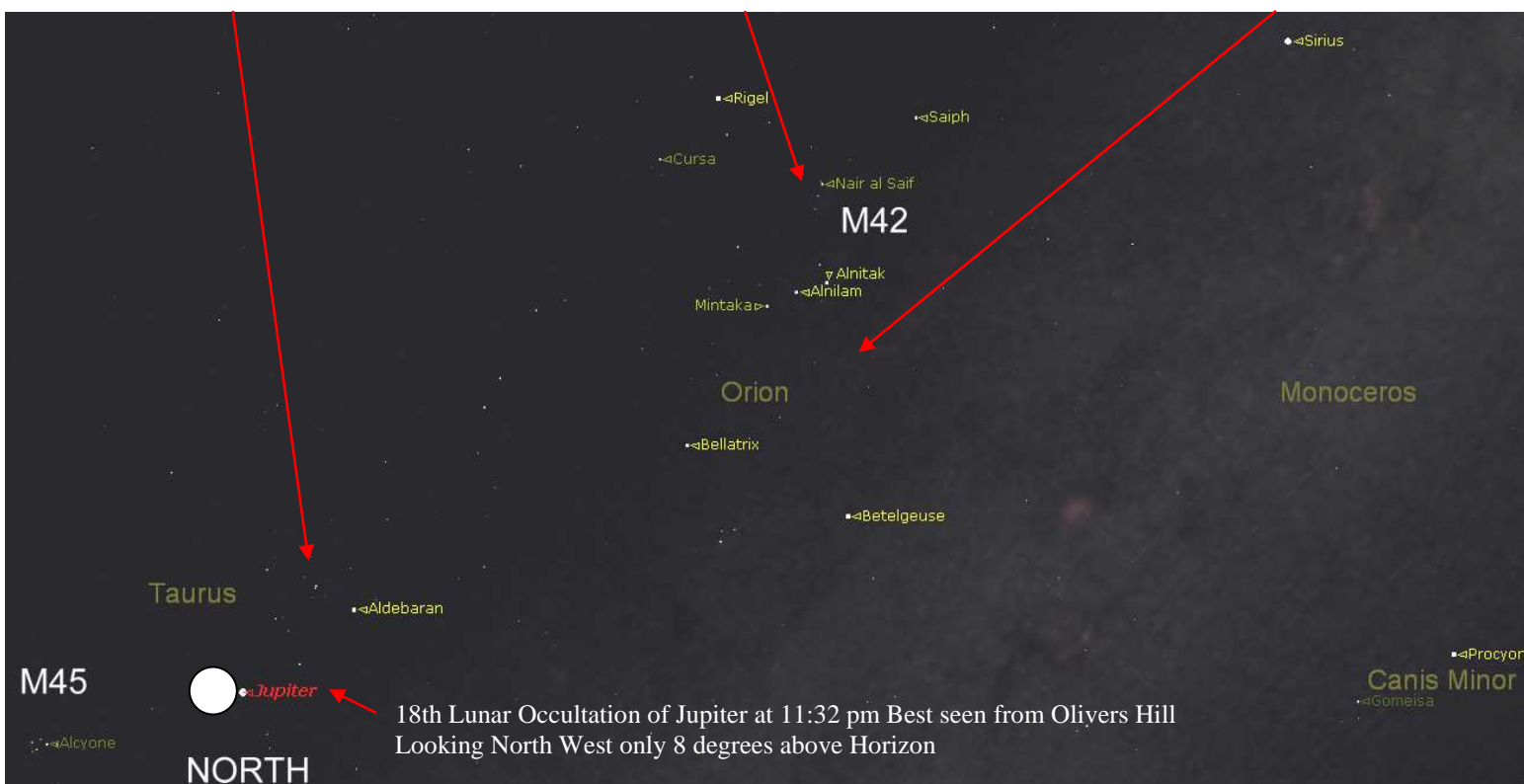
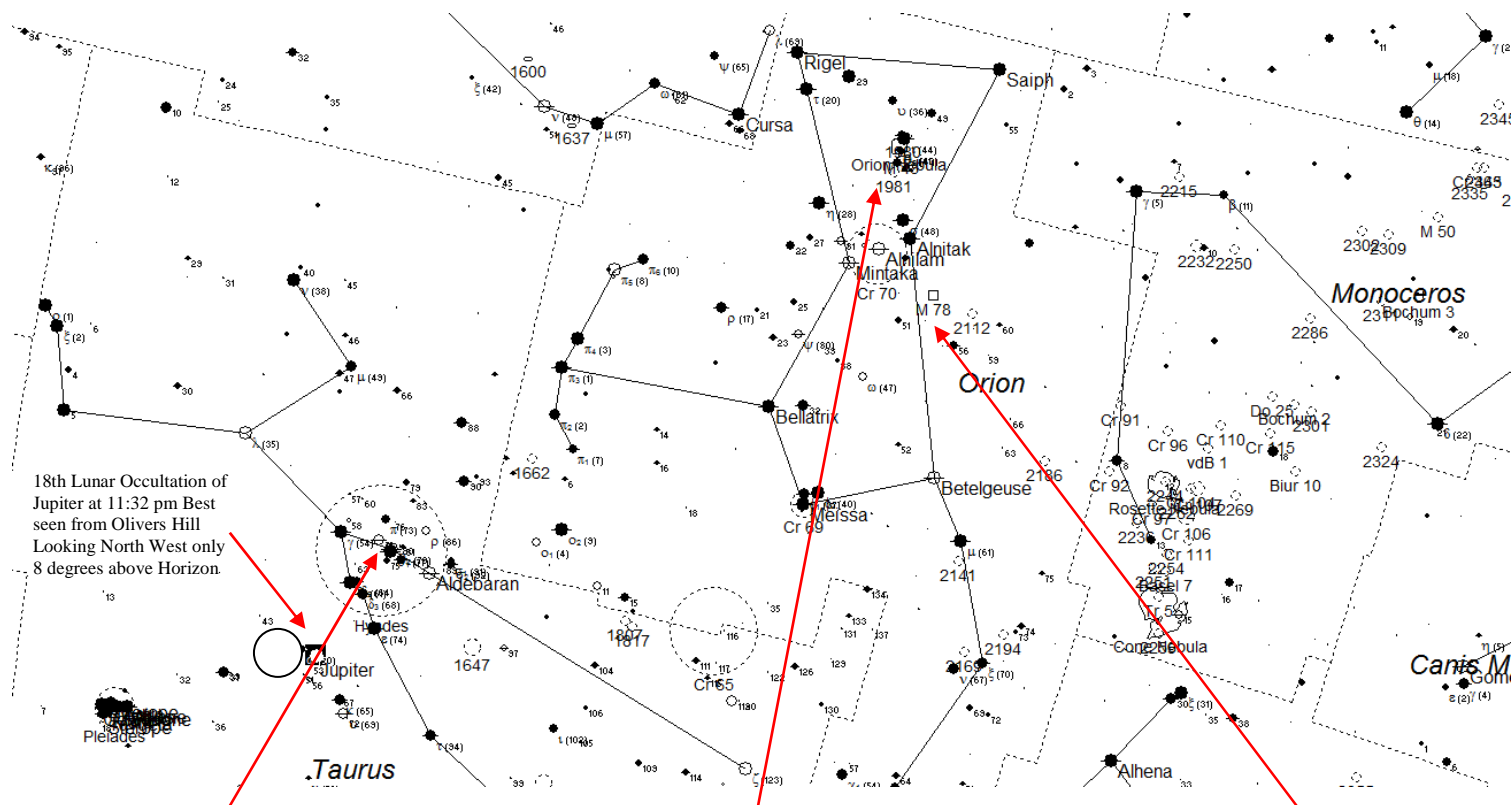


# Sky for the months January/ February we look north to Taurus & Orion

In Taurus just to the west of orange Aldebaran you will find the Open cluster called the Tilted House, best viewed with Binoculars.

In Orion you will find the brightest Nebula in the sky M42 also near by is more challenging and much fainter Nebula M78.

Now is the best time to view these objects. Produced on Sky Map & Starry Night by Greg Walton



# SOCIETY NEWS

By Greg Walton

Cover Image is a fish eye view of a Briars Moon lit sky and Big Dave's 8" refractor.

October meeting **Peter Norman** gave an excellent talk on his trip to the CERN collider and the Higgs Boson or God particle. Key comments were that the Higgs Boson is named after Mr. Hicks and has a very small charge compared to an electron. Greg Walton did sky for the month and play time lapse movie of VicSouth Star Party, Public Night at the Briars, Tony Coventry time lapse of the briars sky and Alex Cherney's time lapse of the square kilometre array in Western Australia.

November meeting **Peter Lowe** talked about changes to the Societies Constitution to take place in the next 12 months.

**Roland Knabe** talked about his trip to see the solar eclipse at Palm cove 15 north of Cains Queensland.

**Greg Walton** did sky for the month and also talked about his trip to see the solar eclipse at Port Douglas Queensland and play time lapse movies of the eclipse.

October Member night BBQ saw about 12 members turning up, very cloudy watch movie & played with computers.

November Member night BBQ saw about 12 members turning up, very cloudy watch movie & played with computers.

October Public night at the Briars, 60 visitor heard Trevor Hand's talk on meteors.

There was very Limited viewing due to clouds but most got a look at 47 Toucan and NGC2070 the Tarantula.

November Public night at the Briars, 60 visitor heard Trevor Hand's talk. While the viewing kicked off later due to date light savings. Sky was mostly clear till 11pm Dave Rolfe, Helmuth Schultes, John Cleverdon, Peter Skilton and myself kept 6 scope running.

School Night at Briars on 23 October see 80 students from Derinya primary, all got see the moon through the cloud.

Due to the eclipse the November working bee had a poor turn out. Thanks to those who turned up.

Please Note Briars working bee will be noted in the Scorpius magazine in stead of the calendar in future.

**Note** as yet nobody has nominated for the position as Treasurer, so we still need someone to take Marty Rudd's place as Treasurer, preferable someone who has myob experience and can attend most committee meetings.

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

The Annual General Meeting will be held on Wednesday, 20 of February 2013. In this edition of Scorpius there is a 'Committee Election Form' that can be used for the submission of nominations for the next committee. This can be posted to MPAS, PO Box 596, Frankston 3199. Alternatively nominations can also be submitted electronically to [welcome@mpas.asn.au](mailto:welcome@mpas.asn.au) by stating which position on the committee you would like to nominate for.



## Mornington Peninsula Astronomical Society Inc. ANNUAL GENERAL MEETING ELECTIONS

Nominee: \_\_\_\_\_  
Proposer: \_\_\_\_\_  
Second: \_\_\_\_\_

} Must be current financial members

**Position:** **Office Bearers:** ☐ President ☐ Vice President ☐ Treasurer ☐ Secretary  
(tick 1 or more) **Ordinaries:** ☐ Ordinary Committee Member (5 of these)

Acceptance Signature of Nominee: \_\_\_\_\_

Submit 1 day prior to the Annual General Meeting. Post to M.P.A.S., PO Box 596, Frankston, VIC. 3199.

\* Note: (1) That one person cannot nominate for multiple Office Bearer positions. (2) The committee is responsible for the development and operation of the society according to the MPAS Constitution. To support this, all committee members are expected to take responsibility for some aspect of society business

### New Members

## Welcome

Paul Dennis & Family  
David Booth  
Denies Orion-Marshall &  
Family  
Simon Hamm  
Brian & Noreen Folwell

### A word from the Scorpius editing team.

Members please write a story about your astronomy experiences and add some pictures.

Send them to:  
Brett Bajada  
Peter Lowe  
Greg Walton  
Committee member

## 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.

### 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**

# Mornington Peninsula Astronomical Society - 2013 Calendar

Day	January	February	March	April	May	June	July	August	September	October	November	December	Day
1	<b>T</b> New Years Day	<b>F</b> Public Night	<b>F</b> Public Night	<b>M</b> Easter Mon	W	S AC	<b>M</b>	Th	Su Fathers Day	T	<b>F</b> VicSouth Public Night	Su	1
2	<b>W</b>	S	S	<b>T</b>	Th	Su	<b>T</b>	<b>F</b> Public Night	M	W	S VicSouth	M	2
3	Th	Su	Su	<b>W</b>	<b>F</b> Public Night	M	<b>W</b>	S	T	Th	Su VicSouth	T	3
4	<b>F</b> Public Night	M	M	<b>Th</b>	S	T	<b>Th</b>	Su	W Border Stargaze	<b>F</b> Public Night	M VicSouth	W	4
5	<b>S</b>	T	T	<b>F</b> Public Night	Su	W	<b>F</b> Public Night	M	Th Border Stargaze	S ASV GCSP	<b>T</b> Cup Day VicSouth	Th	5
6	<b>Su</b>	W	W	<b>S</b> AC	M	Th	<b>S</b>	T	<b>F</b> BSG Public Night	Su Daylight Savings Starts	W	<b>F</b> Public Night	6
7	<b>M</b>	Th	Th	<b>Su</b> Daylight Savings Ends	T	<b>F</b> Public Night	<b>Su</b>	W	S Border Stargaze	M	Th	S ASV LMDSS Xmas	7
8	<b>T</b>	F	F	<b>M</b>	W ASV Meeting	S	<b>M</b>	Th	Su Border Stargaze	T	F	Su	8
9	<b>W</b>	S AC APW	S ASV Messier Party	<b>T</b>	Th SPSP 9th to 12th	Su	<b>T</b>	F	M	W ASV Meeting	S AC	M	9
10	Th	Su	Su	W ASV Meeting	F Annular Solar Eclipse	M Queens Birthday	W ASV Meeting	S AC Scenic Week	T	Th	Su	T	10
11	<b>F</b> Public Night	M	M Labour Day	<b>Th</b>	S SPSP	T	<b>Th</b>	Su Nation Scenic Week	W ASV Meeting	F	M Remembrance	W ASV Meeting	11
12	S ASV Meeting	T	T	<b>F</b>	Su SPSP Mothers Day	W ASV Meeting	<b>F</b>	M Nation Scenic Week	Th	S	T	Th	12
13	<b>Su</b>	W ASV Meeting	W ASV Meeting	<b>S</b>	M	Th	<b>S</b> AC	T Nation Scenic Week	F	Su	W ASV Meeting	F	13
14	<b>M</b>	Th Valentines Day	Th	<b>Su</b>	T	F	<b>Su</b>	W ASV Meeting	S	M	Th	S Members Xmas Party	14
15	<b>T</b>	F	F	M	W MPAS Meeting 8pm	S	M	Th Nation Scenic Week	Su	T	F	Su	15
16	W MPAS Meeting 8pm	S	S AC	T	Th	Su	T	<b>F</b> Public Night	M	W MPAS Meeting 8pm	S	M	16
17	Th	Su	Su St Patricks day	W MPAS Meeting 8pm	F	M	W MPAS Meeting 8pm	S Nation Scenic Week	T	Th	Su	T	17
18	<b>F</b> Public Night	M Jupiter & Moon	M	Th	S Members Night 6pm	T	Th	Su Nation Scenic Week	W MPAS Meeting 8pm	F	M	W	18
19	STLD 1pm Members Night	T	T	F	Su	W MPAS Meeting 8pm	F	M	Th	S Members Night 6pm	T	Th	19
20	<b>Su</b>	W Annual Meeting 8pm	W MPAS Meeting 8pm	S Members Night 6pm	M	Th	S Members Night 6pm	T	F	Su	W MPAS Meeting 8pm	F	20
21	<b>M</b>	Th	Th	Su	T	F	Su	W MPAS Meeting 8pm	S Members Night 6pm	M	Th	<b>S</b>	21
22	<b>T</b>	F	F	M	W Planning Committee	S Solstice Party 6pm	M	Th	<b>Su</b>	T	F	<b>Su</b>	22
23	<b>W</b>	S Members Night 6pm	S Members SD Night 6pm	T	Th	Su	T	F	<b>M</b>	W Committee	S Members Night 6pm	<b>M</b>	23
24	Th	Su	Su	W Committee	F	M	W Committee	S Members Night 6pm	<b>T</b>	Th	Su	<b>T</b>	24
25	<b>F</b>	M	M	Th ANZAC Day	S AC	T	Th	Su	W Planning Committee	F	M	W Xmas Day	25
26	<b>S</b> Australia Day	T	T	F	Su	W Committee	F	M	<b>Th</b>	S AC	T	Th Boxing Day	26
27	<b>Su</b>	W Planning Committee	W Committee	S	M	Th	S	T	<b>F</b>	Su	W Committee	<b>F</b>	27
28	M Australia Day Holiday	Th	Th	Su	T	F	Su	W Committee	<b>S</b> AC	M	Th	<b>S</b>	28
29	T		<b>F</b> Good Friday	M	W	<b>S</b> AC	M	Th	<b>Su</b>	T	F	<b>Su</b>	29
30	W		<b>S</b> Easter Sat	T	Th	<b>Su</b>	T	F	<b>M</b>	W	S AC	<b>M</b>	30
31	Th		<b>Su</b> Easter Sun		F		W	S		Th Halloween		<b>T</b> New Years Eve	31

## LEGEND

Orange Boxes indicates MPAS Meeting all @ the Peninsula School 8pm  
 Green Boxes indicates Public events all @ the Briars 8pm  
 Light Blue Boxes indicates Members Only events all @ the Briars 6pm  
 Yellow Boxes indicates Committee meetings @ the Briars 8pm  
 Red Type & Gray Boxes indicates Public Holidays  
 Red Days indicates School Holidays  
 Pink Boxes ASV General Meeting all @ the Herbarium Melbourne 8pm  
 Gray Boxes indicates Weekends & Public Holidays  
 Working Bees will be Noted in the calendar in Scorpius Magazine  
 SD indicates Solar Day on 23 March @ the Briars 12:00 pm  
 AC indicates Astronomy Classes will be Noted in the Scorpius Magazine

Autumn Equinox - March 20 @ 21:02  
 Winter Solstice - June 21 @ 15:04  
 Spring Equinox - September 23 @ 06:44  
 Summer Solstice - December 22 @ 03:11



Lunar Occultation of Jupiter on 18th  
 February DST 11:32 pm from  
 Melbourne

MPAS Calendar 2013 - by Greg Walton

## Event to See

**TLD - Telescope Learning Day** on 19 January @ the Briars 1:00 pm  
 Messier Star Party 9th March @ ASV LMDSS Heathcote  
 VASTROC will be hosted by the Astronomical Society of Victoria @ Easter  
**Annular Solar Eclipse** on 10th May 2013 Best seen from Tennant Creek NT  
 South Pacific Star Party on 9th to 12th May @ Ilford NSW [www.asnsw.com/spsp](http://www.asnsw.com/spsp)  
**Solstice Party** on 22 June @ the Briars 6 pm  
 Nation Scenic Week on 10th to 18th August  
 Border Stargaze Star Party 4th - 8th September @ Albury  
 Galactic Centre Star Party 5 October @ ASV LMDSS Heathcote  
 VicSouth Star Party 1st - 5th November @ Little Desert Lodge near Nhill  
 Snake Valley Star Party Check the [iceinspace.web.site](http://iceinspace.web.site)

# Mornington Peninsula Astronomical Society - 2013 Calendar

Day	January	February	March	April	May	June	July	August	September	October	November	December	Day
1	<b>T</b> New Years Day	F Public Night	F Public Night	<b>M</b> Easter Mon	W	S AC	<b>M</b>	Th	Su Fathers Day	<b>T</b>	F VicSouth Public Night	Su	1
2	<b>W</b>	S	S	<b>T</b>	Th	Su	<b>T</b>	F Public Night	M	<b>W</b>	S VicSouth	M	2
3	<b>Th</b>	Su	Su	<b>W</b>	F Public Night	M	<b>W</b>	S	T	<b>Th</b>	Su VicSouth	T	3
4	<b>F</b> Public Night	M	M	<b>Th</b>	S	T	<b>Th</b>	Su	W Border Stargaze	<b>F</b> Public Night	M VicSouth	W	4
5	<b>S</b>	T	T	<b>F</b> Public Night	Su	W	<b>F</b> Public Night	M	Th Bor Stargaze	<b>S</b>	T Cup Day VicSouth	Th	5
6	<b>Su</b>	W	W	<b>S AC</b>	M	Th	<b>S</b>	T	F BSG Public Night	<b>Su</b> Daylight Savings Starts	W	F Public Night	6
7	<b>M</b>	Th	Th	<b>Su</b> Daylight Savings Ends	T	F Public Night	<b>Su</b>	W	S Border Stargaze	M	Th	S ASV LMDSS Xmas	7
8	<b>T</b>	F	F	<b>M</b>	W ASV Meeting	S	<b>M</b>	Th	Su Border Stargaze	T	F	Su	8
9	<b>W</b>	S AC APW	S ASV Messier Party	<b>T</b>	Th SPSP 9th to 12th	Su	<b>T</b>	F	M	W ASV Meeting	S AC	M	9
10	<b>Th</b>	Su	Su	<b>W</b> ASV Meeting	F Annular Solar Eclipse	M Queens Birthday	<b>W</b> ASV Meeting	S AC Scenic Week	T	Th	Su	T	10
11	<b>F</b> Public Night	M	M Labour Day	<b>Th</b>	S SPSP	T	<b>Th</b>	Su Nation Scenic Week	W ASV Meeting	F	M Remembrance	W ASV Meeting	11
12	<b>S</b> ASV Meeting	T	T	<b>F</b>	Su SPSP Mothers Day	W ASV Meeting	<b>F</b>	M Nation Scenic Week	Th	S	T	Th	12
13	<b>Su</b>	W ASV Meeting	W ASV Meeting	<b>S</b>	M	Th	<b>S AC</b>	T Nation Scenic Week	F	Su	W ASV Meeting	F	13
14	<b>M</b>	Th Valentines Day	Th	<b>Su</b>	T	F	<b>Su</b>	W ASV Meeting	S	M	Th	S Members Xmas Party	14
15	<b>T</b>	F	F	M	W MPAS Meeting 8pm	S	M	Th Nation Scenic Week	Su	T	F	Su	15
16	<b>W</b> MPAS Meeting 8pm	S	S AC	T	Th	Su	T	F Public Night	M	W MPAS Meeting 8pm	S	M	16
17	<b>Th</b>	Su	Su St Patricks day	W MPAS Meeting 8pm	F	M	W MPAS Meeting 8pm	S Nation Scenic Week	T	Th	Su	T	17
18	<b>F</b> Public Night	M Jupiter & Moon	M	Th	S Members Night 6pm	T	Th	Su Nation Scenic Week	W MPAS Meeting 8pm	F	M	W	18
19	STLD 1pm MembersNight	T	T	F	Su	W MPAS Meeting 8pm	F	M	Th	S Members Night 6pm	T	Th	19
20	<b>Su</b>	W MPAS Meeting 8pm	W MPAS Meeting 8pm	S Members Night 6pm	M	Th	S Members Night 6pm	T	F	Su	W MPAS Meeting 8pm	F	20
21	<b>M</b>	Th	Th	Su	T	F	Su	W MPAS Meeting 8pm	S Members Night 6pm	M	Th	S	21
22	<b>T</b>	F	F	M	W Planning Committee	S Solstice Party 6pm	M	Th	<b>Su</b>	T	F	<b>Su</b>	22
23	<b>W</b>	S Members Night 6pm	S Members SD Night 6pm	T	Th	Su	T	F	<b>M</b>	W Committee	S Members Night 6pm	<b>M</b>	23
24	<b>Th</b>	Su	Su	W Committee	F	M	W Committee	S Members Night 6pm	<b>T</b>	Th	Su	<b>T</b>	24
25	<b>F</b>	M	M	Th ANZAC Day	S AC	T	Th	Su	W Planning Committee	F	M	W Xmas Day	25
26	<b>S</b> Australia Day	T	T	F	Su	W Committee	F	M	<b>Th</b>	S AC	T	Th Boxing Day	26
27	<b>Su</b>	W Planning Committee	W Committee	S	M	Th	S	T	<b>F</b>	Su	W Committee	<b>F</b>	27
28	M Australia Day Holiday	Th	Th	Su	T	F	Su	W Committee	<b>S AC</b>	M	Th	<b>S</b>	28
29	T		F Good Friday	M	W	<b>S AC</b>	M	Th	<b>Su</b>	T	F	<b>Su</b>	29
30	W		<b>S</b> Easter Sat	T	Th	<b>Su</b>	T	F	<b>M</b>	W	S AC	<b>M</b>	30
31	Th		<b>Su</b> Easter Sun		F		W	S		Th Halloween		<b>T</b> New Years Eve	31

## LEGEND

**Zig-Zag Boxes** indicates MPAS Meeting all @ the Peninsula School 8pm

**Triple Line Boxes** indicates Public nights all @ the Briars 8pm

**Striped Boxes** indicates Members Only nights all @ the Briars 6pm

**Dotted Boxes** indicates Committee meetings @ the Briars 8pm

**Bold Boxes** ASV General Meeting all @ the Herbarium Melbourne 8pm

**Gray Boxes** indicates Weekends & Public Holidays

**Bold Under lined Days** indicates School Holidays

**Working Bees** will be noted in the calendar in Scorpius Magazine

**SD** indicates **Solar Day** on 23 March @ the Briars 12:00 pm

**AC** indicates Astronomy Classes will be noted in the Scorpius Magazine

Autumn Equinox - March 20 @ 21:02  
Winter Solstice - June 21 @ 15:04  
Spring Equinox - September 23 @ 06:44  
Summer Solstice - December 22 @ 03:11

Full Moon New Moon

Lunar Occultation of Jupiter on  
18th February DST 11:32 pm from  
Melbourne

MPAS Calendar 2013 - by Greg Walton

**TLD - Telescope Learning Day** on 19 January @ the Briars 1:00 pm

Messier Star Party 9th March @ ASV LMDSS Heathcote

VASTROC will be hosted by the Astronomical Society of Victoria @ Easter

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South Pacific Star Party on 9th to 12th May @ Ilford NSW [www.asnsw.com/spsp](http://www.asnsw.com/spsp)

**Solstice Party** on 22 June @ the Briars 6 pm

Nation Scenic Week on 10th to 18th August

Border Stargaze Star Party 4th - 8th September @ Albury

Galactic Centre Star Party 5 October @ ASV LMDSS Heathcote

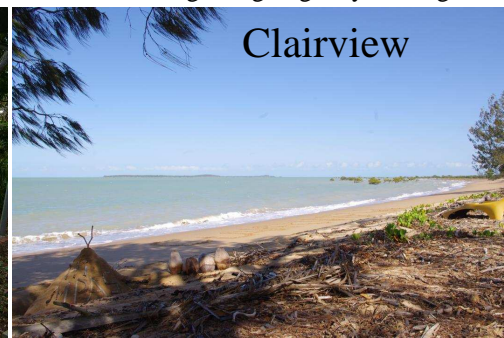
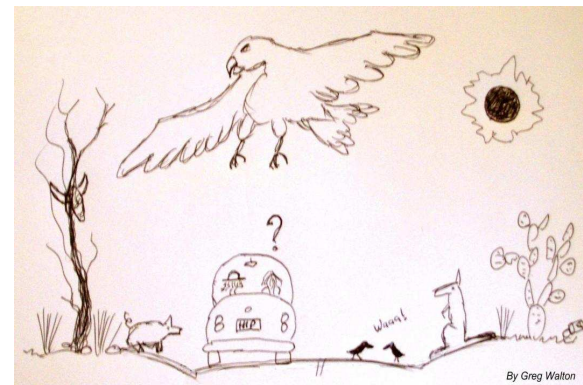
VicSouth Star Party 1st - 5th November @ Little Desert Lodge near Nhill

Snake Valley Star Party Check the [iceinspace.web.site](http://iceinspace.web.site)

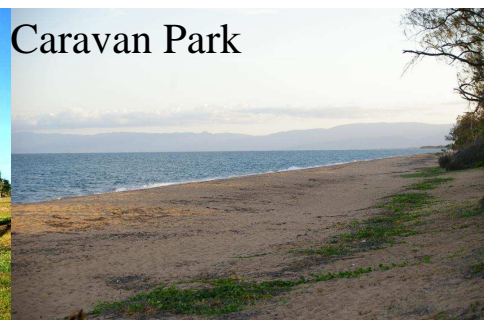
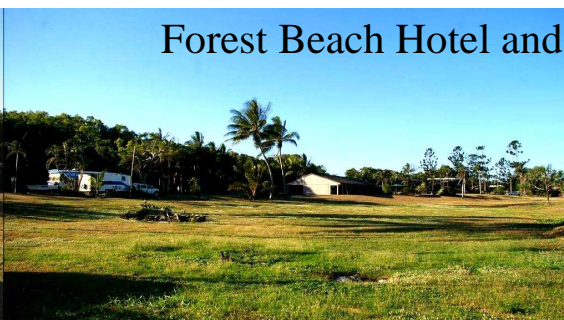
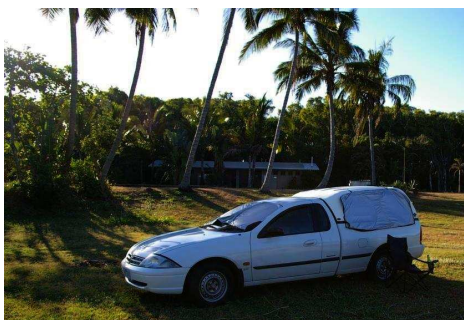


## On the road to Port Douglas to see the solar eclipse, By Greg Walton

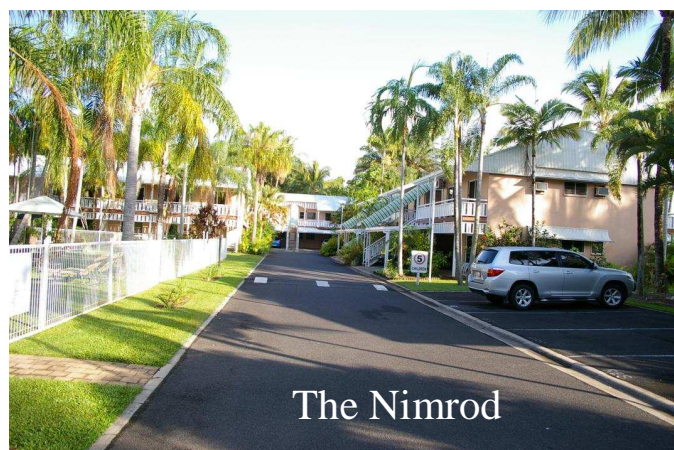
I set off a week before to travel the 3300 km doing about 600 km per day, the plan was to travel by day and do astrophotography by night. I tried to stop at caravan parks which were out of town to get dark skies. Travelling alone I would sleep in my Ford Falcon ute with canopy, I set up my bed on one side and neatly stacked my ED80, EQ6 and camera gear on the other. I travelled up the Newell Hwy through the centre of NSW to Goondiwindi, then take the Leichardt Hwy through the centre of Queensland to Rockhampton and then took the Bruce Hwy along the coast to Port Douglas. In Central NSW the paddock were full of wheat waiting to be harvest and centre Queensland is mostly dry cattle country. Luckily most of the day were cloudy making it cooler for the journey. First stop West Wyalong were I filled my car next to a semi trailer which was also filling up I looked at his pump and it showed \$645.00 and still going. Second day I went to the Anglo Australian Telescope at Siding Springs were I meet up with ASV members Stephen and Mat who were also driving north to see the eclipse, then on to Moree caravan park a truckies and grain town. Third day over the border and though centre Queensland, here I moved my clocks Back one hour so not to speed through the 40km school zones. Most of this land is very flat with few towns to investigate, surprised to see lots of eagles one large wedge tail hovered with talons down above a small car travelling in front of me, looked like it was going to snatch it and have it for lunch. Travelled through Moonie an oil town with a large oil pump on display and then on to a bent town called Banana. I stopped at Mt Morgan caravan park 38 km before Rockhampton, with dark and cool nights very good for stargazing. Forth day I planned to get to Mackay but I spotted a caravan park on the beach at Clairview, the sea was blue and inviting with a cool sea breeze, I thought this would be a good place to stay awhile. I found the park had a Bar and dinning area on the beach, what more could I want? The owners said they only have one thing on the menu each night and tonight it was sausage and mash with vegies. Sounds good to me since I had been living on Mc Donald's for the last few days. I set up my camera under a coconut tree on the beach to catch the tide coming and going, day and night.



The fifth day I got the travelling bug again and hit the road to Mackay, Bowen, Townsville and on to Allingham which sat on the coast south of Ingham. There I found another quiet \$20 a night caravan park on the beach with a Bar and bistro, were I again set up my cameras under a coconut tree. After retreating from the Bar I sat out under the stars and seen a lot of meteors coming from the north, night Herons roamed around the park looking for noisy house geckos, which were introduced from Asia and have colonized most towns in FNQ. I could hear them running around on the roof of the car looking for spiders which I had brought from Melbourne, they also run around in the shower with me. Day six I awake to the sound of birds calling which were all very different from the birds at home.



Only half a day from Port Douglas now, were I wound catch up with other MPAS/ASV members. Rockhampton, Mackay, Townsville and Cairns were more like very busy cities than towns, I was glad to get out of them and back to the open road, though 100's of truck were moving machinery, pipes and prefab houses north to new mining towns. All through NSW and Queensland there was flattened Kangaroos and wild pigs on the road every kilometre as a warning not to drive at night, I did have one near miss with a Kangaroo its tail almost hitting my wind screen as I slammed on the backs, every thing in the back slid forward. I rolled in to Port Douglas on Saturday at lunch time, 3 days before the eclipse giving us plenty of time to find a good site to view from. I crashed with Dave at the Nimrod, were we spent time flouting around in the pool. On Monday night we caught up with 50 ASV members at the Central Hotel where we were given eclipse T shirts donated by Adobe.





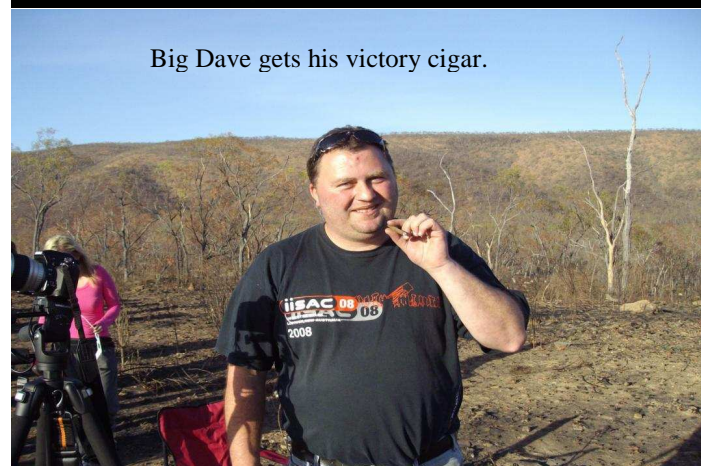
Tuesday James, myself, Dave, Leanne and Kids went to one of the croc farms which was very entertaining, we also meet up with Dominic and his Family and seen there son get close up with a 3 meter python. We were told on the Boat ride we were not given life jackets, as if the boat sank no one would make it to the bank anyway, the crocs encircled the boat to check us out. We were also told they do not feed the crocs as they are experts at catching fish, ducks, pelicans and children.



Once back at the Nimrod we grabbed a bit to eat, loaded the gear in to Dave's hire car and hit the road. Dave said we should go 100 km inland to get away from the cloud at the coast. Dave found a hill 50 km north of Mt Carbine Pub and thought it would be a good test for the 4 wheel drive hire car. There was no tree on this hill due to recent bush fires, just ash and rock. We set up the cameras in the evening twilight, I looked around the sky to find the southern cross and pointers but they was nowhere to be seen, we must have wandered far from home. James called out the Ra/Dec. Was that 16 degrees I heard? So I adjust the EQ6 mount down to 16 deg and found Octans, as it got darker we could see the LMC & SMC on the horizon, the southern cross did not rise till 1am. I set up a camera with 10mm lens facing north to run all night, as I have never been this far north before and wanted to see what I could get at this latitude. It was a long cool night with clear skies, I imaged the last of my messier 100 objects M76 a small Planetary nebula which only gets to 2 degrees above the horizon in central Victoria. I also imaged NGC1499 the California Nebula, then I thought I should get some sleep before dawn. The cars past all night on the road below, all heading inland to find a spot.

A burnt orange sun rise greeted us in the morning, we could see the clouds back along the coast and hoped friend and family there got to see to eclipse. We switch on all the cameras, my main objective was to see the eclipse with my own eyes and decided not to touch the cameras during totality. The sun quickly climbed out of the clouds and already it had a small piece out of it, I did a last minute check of the focus and hit the shot button. About 30 other people walk up the hill and sat around us, thinking that we knew what we were doing, most came with only the solar glasses they had picked up in town, even Coles super market was selling then. We could hear noise coming from the people on the hill behind us, it really felt like an eclipse now. All those around us got to look through my trusty solar binoculars, it would take one hour for the moon to cover the sun and that hour went very quickly. As we got closer to totality the landscape darkened and then all of a sudden the moon slipped in front of the sun. A cry from the surround people yes it's happening. A very thin vale of cloud gave it a eerie feel and it looked very large in the sky no need for binoculars. I could see the corona and Venus with a few stars, I stood between 2 camera with a finder a each pressing the shot buttons without taking my eyes off the eclipse, the 2 minutes of totality felt more like 2 seconds. Then the sun came bursting out from behind to moon, the diamond ring effect was stunning and other cry from the surrounding people. Quickly it was to bright to look at with the naked eye, most stood there with nothing to say, I said can we do this again. Excellent, Excellent, Excellent. We then politely waited for the moon to leave the sun, before packing up the cameras. Dave had his victory cigar then we heading back to the coast to catch up with friend and family. Luckily most did see totality between the clouds. I am very glad I went and seen, an image of the whole event will stay with me for the rest of my life.

Now it's time to retrace my foot steps and start the journey home.







Above & Left - Waiting for totality  
Right - sequence of imagers by G Walton  
Below - Some young ones in the moment



Dave, Leanne & the Kids





# ASTRO NEWS

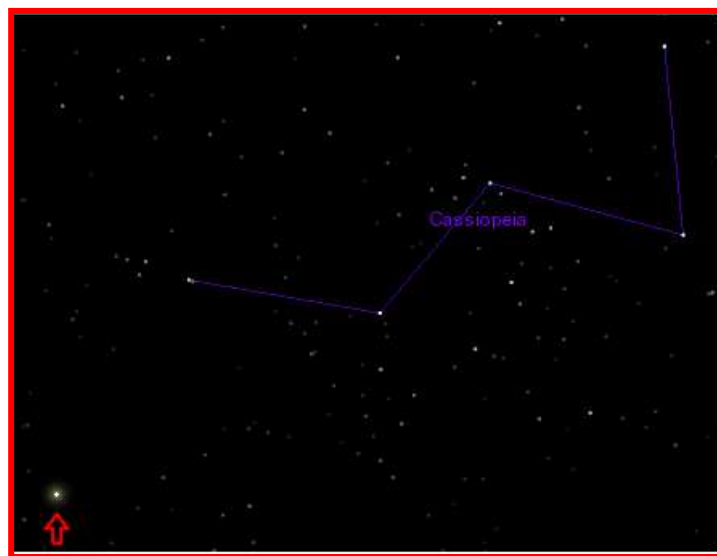
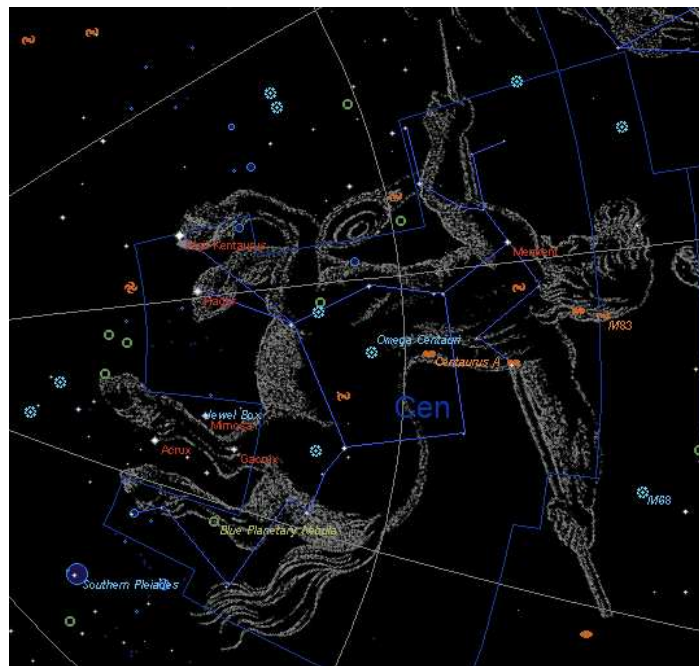
By Peter Lowe

## The Centaurus Star System.

So far mankind has sent four slightly used spacecraft to outer solar system. The Voyager and Pioneer probes have not yet quite reached interstellar space but they're close at just over 100 AU distance. When we finally do decide to go somewhere different our first and only choice will be the alpha Centaurus star system. At a distance of 4.2 light years (270,000AU) this star system would be our first port of call.

Greek legends included mythical creatures called Centaurs possessing the body of a horse and the trunk of a man. Most Centaurs were wild and lawless creatures but one, Chiron was wise and just. When Chiron died, Zeus, the rulers of the Gods, honoured him by placing him among the stars in the constellation we call Centaurus. The star denoting the left hoof of the Chiron centaur is recognised today as the current closest star system to our own solar system. From our viewpoint Alpha Centauri is the brightest star visible in that constellation hence the designation Alpha and it will be an absolutely fascinating place to visit.

Visible as a double star in a telescope the system is in fact a triple star system. The two inner stars A & B are close copies of our own star, the Sun; one being slightly brighter and the other slightly dimmer. The third member of the system known as Proxima and is a low mass red star, much dimmer than the Sun but the closest member of the system to us. The two inner stars A & B orbit a common centre of mass in a highly elliptical orbit, which means we see the star's separation vary considerable over their 80-year orbit. At closest approach they are separated by 11AU, about the distance between the Sun and Saturn and at greatest separation they reach 35AU, about the distance to Uranus. So when we view alpha Centauri through a telescope we are essentially looking at our own solar system from 4.2 light years away. If we were looking back at our own Sun from a planet in the Centaurus system it would be a first magnitude star in the constellation of Cassiopeia. (see left)



Planets most likely exist in the Centaurus system. There are four possible planetary orbits. Planets can orbit close to each of the stars A, B and Proxima plus of course planets can orbit in deep space far away from the A-B system perhaps in a common Kuiper Belt/Oort cloud. A planet has in fact only just been detected orbiting the binary pair in an extended orbit but the varying gravitational bonding from the A-B pair makes this orbit likely unstable. Even the orbital status of Proxima is tentative. Gas giant planets are unlikely unless they are really close in but none have been detected in planetary searches. The sky would be interesting to see. From a planet orbiting Star A we would see two suns, one bright yellow very similar to our Sun but slightly smaller in size; the other star tiny, dimmer and orange in colour. The two stars would vary in separation greatly during their 80-year cycle. Sometimes there would be two stars close together in the sky and at other times on opposite sides of the sky so there would be no night. Proxima would be a dim 8<sup>th</sup> magnitude star requiring a telescope to be seen. Interestingly from Proxima the Centaurus A-B binary would be easily visible with a maximum separation of about 12 arc mins and about as bright as Jupiter in the sky. From Proxima you could watch the stars orbit each other every 80 years. A fascinating sight to be sure. If the Voyage probes were heading toward the Centaurus system they would take some 80,000 years at present speed to get there. When we finally decide to go and if we find inhabitants on a planet orbiting Proxima I wonder what mythological stories will surround the twin Sun's of their skies. Think about it next time you view alpha Centauri through your telescope.



## Polarie tracker with home made accessories. By Greg Walton

In the last few years a lot of camera tracker has come on to the market. A new product from vixen is the Polarie tracker which looks like nothing else on the market. It is very well designed and has a very roughed feel for its small size 38x110x135mm and an amazing load capacity of 2Kg. This makes the Polarie tracker the logic choice, as all other tracker on the market are big and bulky including Vixen GP2 Photo Guider which looks like a standard equatorial mount and has a load capacity of only 2.5 Kg. I think we would be better of just buying a small go to mount in stead, like the sky watcher HEQ5 at around \$1,100 which is better value and more capable. One of the problems I found with the Polarie tracker, is when I tried to use a long lens with the centre mounting point the lens or camera hit the body of the Polarie tracker in some positions, meaning I could not image some parts of the sky. So I made a new camera mount bracket with small 1Kg counter weight to replace the ball head. Also with this new bracket I could use the polar scope with the camera and lens attached, which improved its accuracy because I have found if you did the alignment first and then attached a heavy camera and lens the alignment would be slightly out because the tripod would sage under the added weight.



Polarie takes a beating from an ED80 with finder scope and still keeps working, also out performs all flimsy department store mounts by a long way. With the extra long balance shaft with 1Kg and 0.5Kg counter weights to keeps the overall weight to a minimum.

2.7 Kg = ED80  
 0.5 Kg = 2" diagonal  
 0.5 Kg = finder scope  
 0.1 Kg = eyepiece  
 3.8 Kg = Total scope

1.5 Kg = Both weights  
 0.9 Kg = EQ bracket

6.2 Kg = All up Total - which is 3 time the recommend carrying capacity, but because the whole thing is balanced it puts minimal load on the internal gears. By loosening the Longitude locking screw and adjusting the position of the weight, perfect balance can be achieved. I also added an extra long mounting plate to the bottom of the ED80 so I could find a centre balance point for the scope.



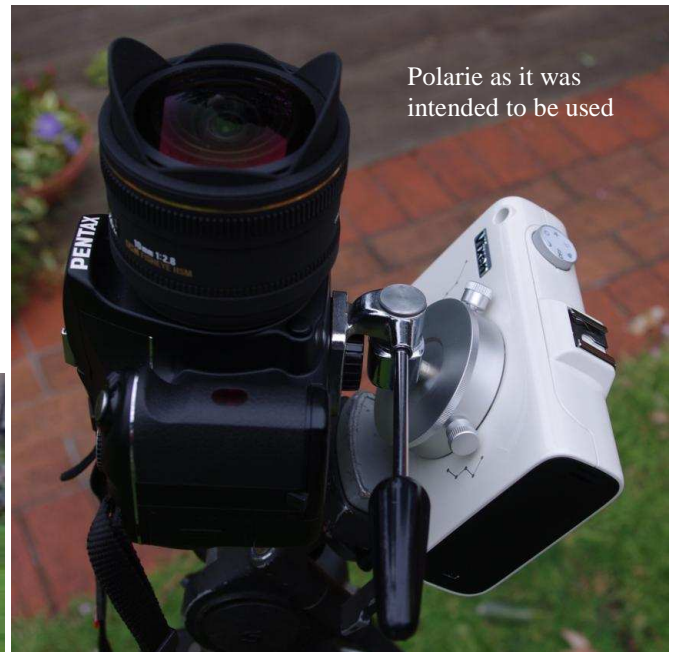
I am very happy with the way every thing performs and that it is all so portable. I can see end less possibilities and uses for this little wonder the Polarie tracker.

The only concern is the 1/4" mounting point on the base of the Polarie, so only use the highest quality tripod. No plastic



## Polarie Tracker Part 2

You have probably seen those time lapse video that pan side ways and wound how it was done. Well the Polarie can do this with the aid of a attachment which screws into the thread on the back of the Polarie as shown in the photos at lower right, it has 2 threaded holes in it 1/4" & 3/8" BSW to mount it on to a tripod. Then just mount the camera on the front and you have a panning head, changing the north south switch will change the direct. I also use the Dual purpose extra balance shaft 280mm long to mount 2 cameras, so I can image in 2 direction at the same time, also the 2 cameras balance each other reducing the load on the gears, see photo below.



Polarie as it was intended to be used



I have also made extra rotating camera mounting point which attaches to the base of the Polarie and is driven by a 1/8" O ring and 25mm pulley to double the speed the camera turns at this means I can image a full 360 degrees in 12 hours, see photo below.



Polarie rear mounting adaptor



Polarie with 2 times camera mount





## MPAS at the 10th Annual VicSouth Desert Spring Star Party, by Greg Walton 13Oct2012

The VicSouth Desert Spring Star Party is run jointly by Astronomical Society of Victoria & Astronomical Society of South Australia. From the 12th to the 15th October 2012 at the Little Desert Nature Lodge near Nhill.

Steve, Simone, Dave, Alex with family and I arrived on the Friday to find that most were already there setting up on the grassy viewing field. We thought it would be a good idea to have a glass of port because it was 100% cloud cover, knowing that we would not be doing any viewing. At 6pm we all staggered off to the meals area to have our chicken, roast vegies and wine, then at 8pm we went outside to find that the clouds were clearing. So we set up the scopes even though we were all a bit under the weather, by 9pm we were all up and running under a clear sky, but at 10pm the clouds moved back in for the rest of the night, with some light rain. That was the biggest sucker hole we have every seen. So we all had an early night which was good anyway after being on the road for 6 hours.

On Saturday we dried out the scopes then set up the solar scopes and did lunch ham and salad rolls, then Alex gave his talk on time lapse photography and his trip to the square kilometre array in western Australia. Then Darren Bellingham talked on the Queensland solar eclipse followed by Barry Clark on the Great Melbourne Telescope. Then inspired by Alex we set up some time lapse cameras and waited for the bar to open and dinner, Roast lamb and sticky cake with ice cream, Alex said there is an aurora alert and the skies are clear. Then it was out to the field to crank up the scopes, there was a very impressive array of more than 30 telescopes including 6 Dobsonian's 18" to 24" also many astrophotography setup's from Steve's 12" complain-wave to many high quality refractors. As it darkened we could see the aurora, it looked more like light polluted cloud on the southern horizon but we knew there is no towns to the south and this is one of the darkest site there is. I looked at the screen on my camera with 10mm fish eye lens and I could see the aurora, so I quickly setup my 20mm lens on a panning mount. It stayed clear all night with most of the astrophotography setups running till dawn, nobody wanted to go to bed and leave this perfected sky. I got some very impressive views with the big Dobsonian's, Rod from NSW run his 24" till dawn what a legion. We looked out for the Orionids meteor shower coming from the north, but we mostly seen slow moving meteors coming from the south which was the icing on the cake for a perfect night. The last of us went to bed at 5:30am.

Sunday 6:30am I awoke and went out to pack away my cameras and grab the memory cards from the cameras, then I went back to bed with my laptop and loaded up the nights images then started to making a time lapse movie of the nights events, which I finished about 9am. (I did sleep will the computer was crunching) Then had a shower and went out to show everybody my handy work. Know body could believe what they were seeing, the hole night with aurora compressed into 2 minutes. I ended up spending most of the day demonstrating how the make time lapse movies. Dinner was Burgers, sausages, salad and fruit salad then the trivia competition and a movie. Steve and I went to pack up most of our gear because clouds were moving in with a chance of rain. We then sat under the night sky with a glass of port trying to spot satellites and the bandicoots which liked licking the empty bottles and pinching our barbeque shapes.

Monday we packed up the last of our gear and headed for home. Want a great week end we all had.



We had a Great Aurora Display

PORT TESTERS  
Greg Walton



## Gravity is a fuel theory, explored by Greg Walton, Date 24 September 2012

1. Most people think of **Gravity** as an attracting force between any 2 or more objects like a pair of magnets that want to stick together. But if you reverse the magnets, they become a repelling force, so why can't we do the same with **Gravity** and make **Anti-Gravity**?
2. The Graviton is a hypothetical particle, which carries the force of **Gravity**, why have we not found it yet?
3. Does **Gravity** travel at the speed of light? A lot of work has been done; some think that **Gravity** can not catch up to objects travelling faster than the speed of light at the edge of the universe, so the universe will expand forever.
4. Can **Gravity** waves be detected & why have we not found them yet? Some of these detectors are now 20 years old. We are looking for changes in distances much smaller than an atom over 4 Kilometres length in 2 direction 90 degrees apart.
5. The Grand unification theory, why have we not done this yet? A theory of everything would link together all 4 fundamental forces, the Electro magnetic force, **Gravity**, Strong and weak atomic force with Quantum mechanics (The Digital theory) & General theory of Relativity.
6. **Were did everything come from? The Big-bang theory, were everything came out of a single point smaller than an atom. What triggered the Big-Bang? We cannot explain it, so we say everything came from nothing.**
7. What about the Big-crunch theory? Everything coming together at one place at one time should be possible, but were told that every thing is speeding up & the universe is expanding at a faster and faster rate. According to this the Big-Crunch could not happen at all, unless the universe got more **Gravity** and then it may be possible.
8. What is Dark matter? This is matter in the universe that we have not found yet or missing mass, but we are finding more all the time.
9. What is Dark energy? Could it be that **Gravity** is Dark energy? **Gravity is a pushing force not a pulling force, Gravity is rear wheel drive.**
10. Wormholes, alternative universes, String theory and 11 dimensions in time and space. Most think these are too far fetched to exist or are all dead ends.
11. Many times in the past, people have looked for the invisible and undetectable force that powers everything, sometimes called Ether, which flows through everything. **Albert Einstein** added **Ether** to his General theory of Relativity to help balance his equation and then took it out, stating that this was his biggest blunder. But some wish to put it back in and call it dark energy to account for the speeding up of the expansion of the universe. Dark energy is a very small repelling force or energy that can't be seen or detected on the small scale but on the large scale pushes everything apart increasingly faster. We have detected this speeding up or is **Gravity** getting weaker?
12. **We now need a Timeline of Fuel, Energy consumed, Force. The fuel comes first, the energy being consumed comes second and the force is a by-product. We will call this fuel Gravifuel from now on.**
13. A hydrogen atom is said to have a half-life of 2 hundred billion year. What makes an atom spin for such a long time and what is powering it? Some think **Gravity** is the fuel, which power everything. This **Gravifuel** flows in to all atoms to keep them spinning. **Gravifuel** could be the ether a force that is everywhere, like being in a tank of fuel and that fuel flows into atoms to power them and keep them spin. Everything is sitting in this **Gravifuel**, as the **Gravifuel** is consumed everything is dragged along by the **Gravifuel**. Meaning the movement of the **Gravifuel** is the force of gravity. This also helps to explain the stretching of space-time, as the **Gravifuels** speed would vary for place to place. The bigger objects like galaxies would need more **Gravifuel**, so the more **Gravifuel** will be flowing in. **The movement of the Gravifuel towards a galaxy will drag everything that sits in the Gravifuel towards the galaxy. This is why gravity can only attract. As to repel would need energy to be unconsumed by the atoms, which is impossible. This is also why Gravity is such a weak force but can act over massive distances.**
14. **Gravity** has NO fixed speed but could have a speed limit, though it would need to be faster than light, because if it was not then it could not drag light into a black hole & a black hole would not be black. I think we are all standing in a fast moving stream of **Gravifuel**, which pushes down on us, keeping us on the Earth. The speed that **Gravifuel** is flowing into the centre of the Earths at its surface would be the same speed a stone would fall at in a vacuum. Could it be that light couldn't go any faster because it cannot punch through the **Gravifuel** like the sound barrier? If we wanted to go faster than light we would strike this same problem.
15. The **Gravifuel** would slow down as it reaches the centre of the earth or the Sun. Maybe even starving atom of the **Gravifuel** which may weaken them making them fall apart or transmute into other elements.
16. You are probably asking how can the **Gravifuel** get into the centre of a star, it would need to past through too much matter, the neutrino is a practical which reacts weakly with matter and comes from the centre of the sun and passes right through the earth. So I think it should be possible that the **Gravifuel** could flow to the centre of the sun, for it too would only react with matter very weakly. Which we do observe as gravity is the weakest force.
17. **Albert Einstein's** General theory of Relativity and **Gravity** is a fuel theory, are very similar in the way they behave. **Albert Einstein's** fixed the speed of light and made time variable. Were told light has no mass, but behaves like it has mass because its path is bent by **Gravity** or light is following space-time which is bent. Light is an electro magnetic wave, like waves on an ocean they will follow the curvature of the earth. If **Gravity** were a fuel that flows into mass, light would be bent as it travelled through the **Gravifuel**. Like when light travels through glass it is also bent. Light would travel a very similar path through the **Gravifuel** as **Albert Einstein's** space-time theory.
18. **The Gravifuel must be able to move faster then the speed of light because as it flows into a black hole, it drags all light in with it, which we have observed.** If the **Gravifuel** were consumed faster than it can flow in to a black hole, an area of less pressure would be created, but probably on a very small scale. If the atoms in a black hole were starved of the **Gravifuel** then the atoms may fall apart more easily, so ending up with a small volume of smashed atoms with a large mass. Every thing that every fell into a black hole is still there, because the **Gravifuel** is still pouring in, to power all those atoms. **Can black-holes evaporate, if Gravifuel cannot flow into a black hole fast enough, then could it be that matter disintegrates or matter feeds on it's self?** I have never liked the drawings of black holes that look like a funnel or a bend in a sheet of rubber; I see a black hole as a single point with every thing moving towards it from every direction with a spinning whirl pool being generated around its core.
19. If **Gravity** were a fuel you would think that the **Gravifuel** could have waves in it. Though waves in the **Gravifuel** should be possible, I think they are probably too small and longer to be detected. As the **Gravifuel** would behave more like a liquid, it would tend to cancel out any waves much faster than if it was like a light wave.
20. How fast can the **Gravifuel** move? We are told that the edge of the universe is speeding away from us faster than the speed of light; but if the **Gravifuel** can travel too fast, it would drag the universe apart too quickly. We should be about to work out the speed of the **Gravifuel** from our observations.
21. **There probable is a speed limit at which the Gravifuel can flow; most likely it would be no more than 1% faster than the speed of light. If the Gravifuel moved too fast, it would spill away from us too quickly, leaving us with no Gravifuel.**
22. If the **Gravifuel** was at a lower pressure on the out side of the universe, it could expand out wards. But what if the **Gravifuel** is at a lower pressure on the inside of the universe, because it is being used up, then the universe would contract in wards, the Big-Crunch.
23. As the **Gravifuel** is depleted at the centre of our universe, the **Gravifuel** would flow inwards making the universe contract, the Big-Crunch. But this is not what we see; everything is speeding apart increasingly faster.
24. **But if our Universe is something small flouting around in something very large, and that very large was expanding out wards because it has no edge or boundary. Like when you spill a bucket of water on to a flat surface it spreads out or expands in all directions, could it be that the universe has been spilt? So then on a large scale we would have expansion and on a small scale we would have contraction, which is what we have observed.**
25. We can see that most galaxies look like water spiralling down a plughole. At the moment you pull the plug out of the bath, the water just sits there and it takes a few second before the vortex starts. The conclusion is that elliptical galaxies are at that moment before the vortex starts. Elliptical galaxies most likely have many **Black-holes** orbiting there core stirring them up, but once these black holes merge, the in flowing **Gravifuel** should start up the vortex once again and the galaxy can start rotating again.
26. As the **Gravifuel** flows into an atom, would it make the atom spin like water spinning down a plughole? Atoms spin, the planets spin, the solar system spins, galaxy spins and maybe the universe spins. **Could a spinning atom behave the same as a spinning solar system? No as the electron spins around its nuclease too quickly.**
27. Is it possible that atoms could be dragged towards the **Gravifuel** in some situations? NO
28. Do atoms behave like a sponge soaking up the **Gravifuel** and which part of the atom does this? Most likely all parts of the atom use the **Gravifuel** some how, as there is more than a 100 different particles found so far.
29. Is our whole universe spinning and are there other universes in the **Gravifuel**? I think so.
30. If there was no big bang, the expansion of the universe could be caused by other universes pulling our universe apart.
31. Some think we go through a cycle of Big Bang after Big Crunch after Big Bang and so on. **What caused the Big Bang after the Big Crunch? Maybe the Gravifuel run out & because there was no Gravifuel flowing into the universe, there's nothing too stop the universe from falling apart, or expanding outwards like the Big Bang.**
32. If there was a rebirth of the universe, when and were did the new source of **Gravifuel** come from?
33. **The problem with the Big Bang after Big Crunch theory, is that during the Big Bang matter & antimatter were created almost equally, so most were eliminated. Only a very small proportion would be left, maybe only 1 in a million particles. So as we go though each cycle the universe would get one millionth smaller.**
34. Who is making the **Gravifuel** and will it running out one day?
35. Maybe the universe is one of many experiments, or maybe the creator made a universe which is almost impossible to escape from like a prison and is testing us to see if we can figure out away to escape from this hope less situation.
36. Could we collect the **Gravifuel**? We already harness gravity to make hydro electricity & use energy from the sun made by gravity.

I hope this is used for peaceful purposes only

PS: At first this theory that gravity is a pushing force looks a little far fetched, but this simple theory may one day solve many of our Question about the universe.



# Astronomy Photography of the year 2012

*By Paula Ritchens*

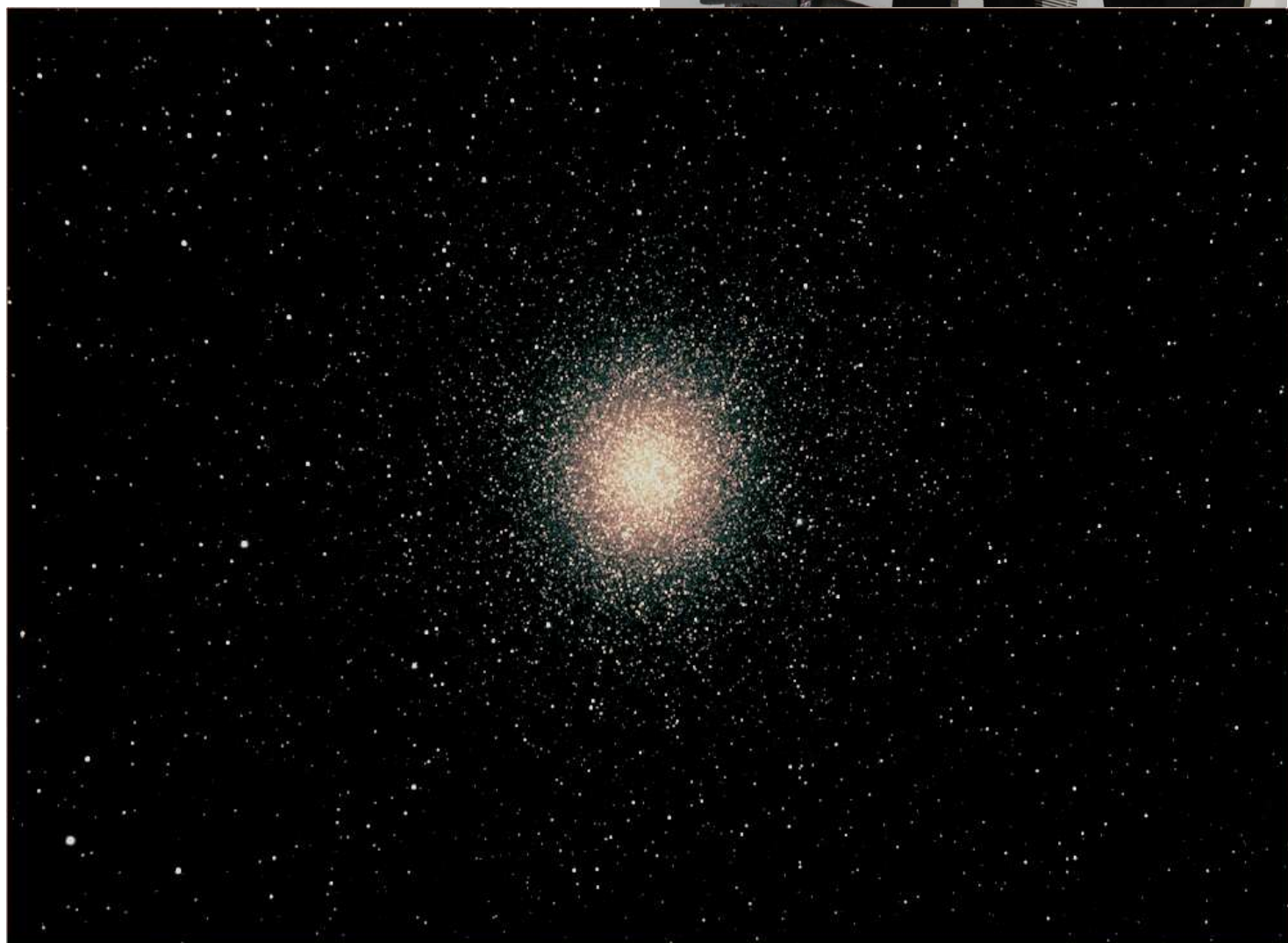
In September I was fortunate enough to attend the Astronomy Photography of the year 2012 Awards Ceremony at the Royal Observatory in Greenwich.

Having only been doing astrophotography for less than a year, I had an image shortlisted in the Best Newcomer category. So off I flew to London for the experience of lifetime. My Image didn't win but it did get published in the Astronomy Photographer of the Year Book.

I met up with fellow astrophotographer Wayne England from Adelaide at the awards night and we got to meet Chris Lintott who is co-host of BBC Sky at Night and Marek Kukula who are both judges of the competition. Being the only 2 Aussies among 200 people there we were quiet popular!

It was an amazing night and a wonderful experience.

NGC5139 Omega Centauri Globular Cluster





## *The Members Gallery*



*"Corona Australis" By Paul Albers*

Above Corona Australia taken with 8" Newton AG on EQ6 with coma corrector and Pentax-Kx By Paul Albers  
Below California Nebula taken on the night before the solar eclipse, as is was much higher in sky then Melbourne.

NGC1499 Mt Carbine ED80 FF EQ6 Pentax Kr 27x30sec iso12800 By Greg Walton MPAS/ASV 14nov12







These 2 imagers were taken with a standard 50mm F2 lens and Pentax DSLR settings iso3200 30sec, the above image captured 7 Messier objects while the below image captured M42, Flame nebula, the Horse Head and Barnards Loop. By Greg Walton





# SOCIETY INFORMATION



Peter Lowe



Brett Bajada



Peter Skilton



Marty Rudd



Trevor Hand



Ian Sullivan



Dave Rolfe



Greg Walton

## OFFICE BEARERS OF THE MORNINGTON PENINSULA ASTRONOMICAL SOCIETY

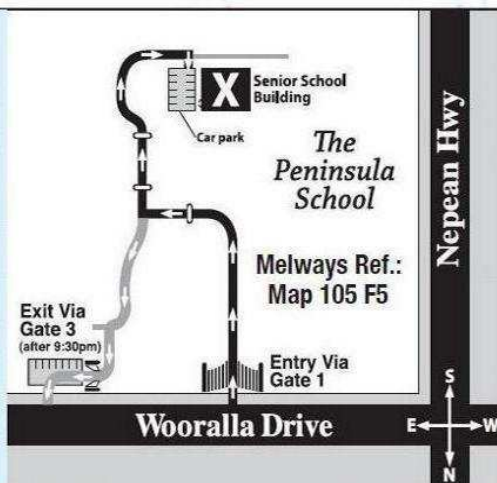
**President:** Peter Lowe  
**Vice President:** Brett Bajada  
**Committee:** Ian Sullivan, Trevor Hand, David Rolfe,  
 Tony Coventry, Fiona Murray, Greg Walton.  
**Phone Contact:** Peter Skilton - 0419 253 252

**Secretary:** Peter Skilton  
**Treasurer:** Marty Rudd  
**Public Officer:** Rhonda Sawosz  
**Web Master:** Steven Mohr  
**Scorpius Editor:** Brett Bajada

## GENERAL 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 gates or Gate 3, off Wooralla Drive.  
 Exit is via Gate 3 Only after 9:30pm (see map).

**For additional details:**  
**Internet:** <http://www.mpas.asn.au>  
**email:** [welcome@mpas.asn.au](mailto: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.yahoo.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](mailto: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 9773 0098 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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