SCORPIUS

THE JOURNAL OF THE
MORNINGTON PENINSULA ASTRONOMICAL SOCIETY INC.

Volume XXIII, 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. Reg No: A268 ABN: 34569548751 ISSN: 1445-7032

Merry Christmas and a Happy safe new year!

The MPAS 2013 Christmas party when very well, thank you to all who helped with the cooking and the clean up after wards, also thanks to Paul Albers for bring along a large snapper which he had caught. Peter Lowe (President) talked on the past, present and future hopes of MPAS. No telescopes were set up due to the almost full moon. *Photo by Pia*

SCORPIUS The journal of the Mornington Peninsula Astronomical Society

Newsletter Disclaimer

Society News

By Greg Walton

October Meeting seen 24 members in attendance Peter Lowe (president) chaired the meeting. **Dr Daniel Priest** talk on the life of star in spirals galaxies, it was interesting that blue giants that lived for 100 million year would only travelled 10% of the way around the galaxy in there life time. Greg Walton did sky for the month and played some short space disasters video. Then Member chatted over coffee.

October members BBQ seen about 20 member under a full Moon. 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.

School night 24th October Moorooduc primary, about 400 students, teachers & parents seen a large group of Sun spots on the Sun & Venus once the clouds broke. On the telescopes Peter Skilton, Peter Lowe, Phil Holt & Greg Walton. While Trevor Hand did the talk.

November public night seen a good turn out of about 20 members of the public. Trevor did the talk skies. The public saw a crescent Venus, the usual bright deep sky objects and the double star alpha centuries. Thanks to those members who braved the elements Peter Lowe, Peter Skilton, John Cleverdon, Fiona Murray, David Stock and Simon Hamm.

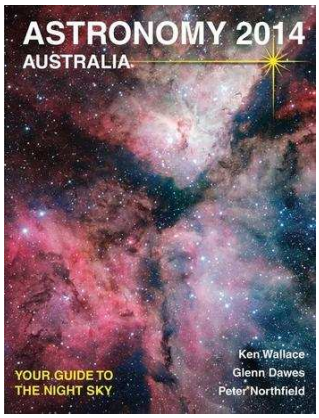
School night 6th November Toorak collage primary, about 70 students, teachers & parents seen Venus. On the telescopes were, Peter Skilton, Simon Hamm, David Stock & Ian Sullivan though a flat battery on his finder slowed him up. While Peter Lowe did the talk.

November Annual Meeting seen 30 members in attendance Peter Lowe (president) chaired the meeting. First was the business of a treasures report and voting in a new committee. Then ASV astrophotography section director Phil Hart, did at excellent presentation on his trip to the Yukon to photograph aurora. Everybody was in aura of the beautiful images which Phil had captured. He also talked about his trials and tribulations, work in down to -40 degrees temperatures and what need to be done to keep the cameras running. Greg Walton did sky for the month and played time lapse video of the Vic South Star Party with some meteors burning up on entering earths atmosphere and producing shock waves and smoke trails. Then Member chatted over coffee.

Friday evening at St. Joachims Primary School in Carrum-Downs saw 92 middle schoolers and teachers have a visit by MPAS on what was a school sleepover. Peter Lowe gave the talk inside, while outside with the mozzies, telescopes and pyjama'd pupils were Simon Birch, Paula Ritchens, Alex Cherney, Heinz Rummell, David Stock, Greg Walton and Peter Skilton, all supervised by the eagle eye of card-carrying Simon Hamm. There was a large range of telescopes present, ranging from humble to GMT size. While there was some cloud interference, particularly later in the evening, the pupils were batched through in groups, alternating between viewing outside and listening inside, and all were able to see Venus and double stars, and some saw a pass over of the ISS and the rising Orion Nebula mostly lost in twilight remnants. Scurrilous rumours were that the talk inside might have got as far as Mars by the end of the evening, with that being due to the table collapsing on which the laptop and meteorite resided, and that a wandering Mr. Hamm had been mistaken inside the auditorium for an unruly student by one of the teachers and directed to sit down and behave. It was a good evening, with the school providing hot dogs and drinks all round for those visitors who wished to partake. Regards, Peter

November members BBQ seen about 20 member under a 100% cloudy. 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.

December public - Hi All, Just to say thanks to those members who came to the December public viewing night (or should I say non-viewing) with about 18 members of the public. Trevor's talk went down very well and I received some glowing reports about his presentation. The site was look particularly smart after Dave Rolfe & Greg had cut the grass and slashed the brush. The skies were clouded over so we never got to see the Nova Centaurus but no doubt we'll get a look soon. Some stayed on & seen M42 & NGC104. Cheers Peter



Astronomy 2014-year books now can be ordered.@ $23 for members.

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

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

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.

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.

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
gwmpas@gmail.com

January / 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 **New Moon**	2	3 **Public Night 8pm**	4
5 Jupiter's Moons all on the right	6 Jupiter at opposition 6th	7	**First Quarter** 8 ASV Meeting	9	10 **Public Night 8pm**	11 Venus is in inferior conjunction
12	13	14	15 Society Meeting 8pm	16 **Full Moon**	17 **Public Night 8pm**	**TLD** 18 Members Night BBQ 6pm
19	20	21 Jupiter's 2am shadow transits Callisto	22 Committee Meeting 8pm	23	24 **Last Quarter**	25
26 **Australia Day**	27 **Australia Day Holiday**	28	29	30	**New Moon** 31 Jupiter's Moons all on the left 2am interesting pattern	**2 New Moons this month???**

Monthly Events & High Lights. **Watch out for Auroras - Red Days** indicates School Holidays
Public nights 3rd, 10th, 17th, 8pm start - **Society Meeting** at 8pm on 20th @ the Peninsula School
TLD Telescope learning day 1pm at the Briars 18th - Members Night BBQ 6pm at the Briars 18th
Evening - Jupiter 7 deg under the Moon 15th - Jupiter moons make interesting pattern 31st at 2am
Dawn - Mars 5deg under the Moon 23rd - Saturn 2deg left of the Moon 26th - Venus under a crescent Moon 29th

February / 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Note this event rarely happens - Jupiter 10pm 2 shadow transits Europa & Callisto						1
2	3	4	5	6 Jupiter's Moons all on the left 1:30am	**First Quarter** 7 **Public Night 8pm**	8
9	10	11 Jupiter under the evening Moon	12 ASV Meeting	13 Jupiter 11:30 pm shadow transit Europa	14	15 **Full Moon**
16	17	18	19 Society Meeting 8pm Mars under Moon	20	21 Saturn under the evening Moon	**APW** 22 Members Night BBQ 6pm
23 **Last Quarter**	24	25	26 Committee Meeting 8pm Venus under Moon	27	28 Mercury right of the dawn Moon	

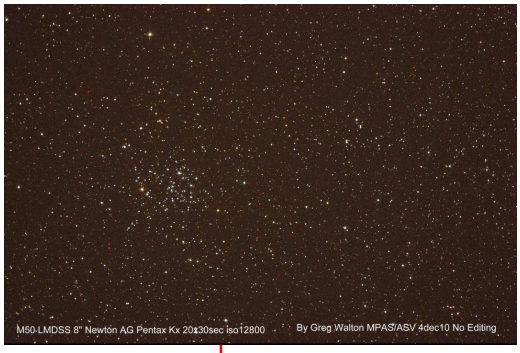
Monthly Events & High Lights. - **Watch out for Auroras - NO new Moon this month**
Public night 7th 8pm start
Members Night BBQ 6pm at the Briars 22nd, also **APW astrophotography work shop at 1pm on the 22nd**
Evening - Jupiter 10pm 2 shadow transits Europa & Callisto 6th - Jupiter 11:30 pm shadow transits Europa 13th
Evening - Jupiter 5 deg under the Moon 11th - Mars 5deg under the Moon 19th
Dawn - Venus 5 deg under the Moon 26th - Mercury 1.5 deg right of the Moon 28th

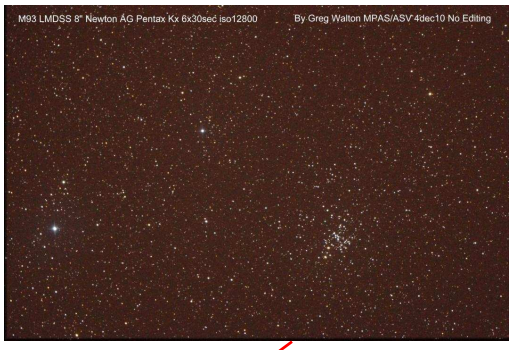
Note this years the Members night BBQ's will be the first Saturday after the Society Meeting.
Also General Meetings will be called Society Meetings under the new regulations.

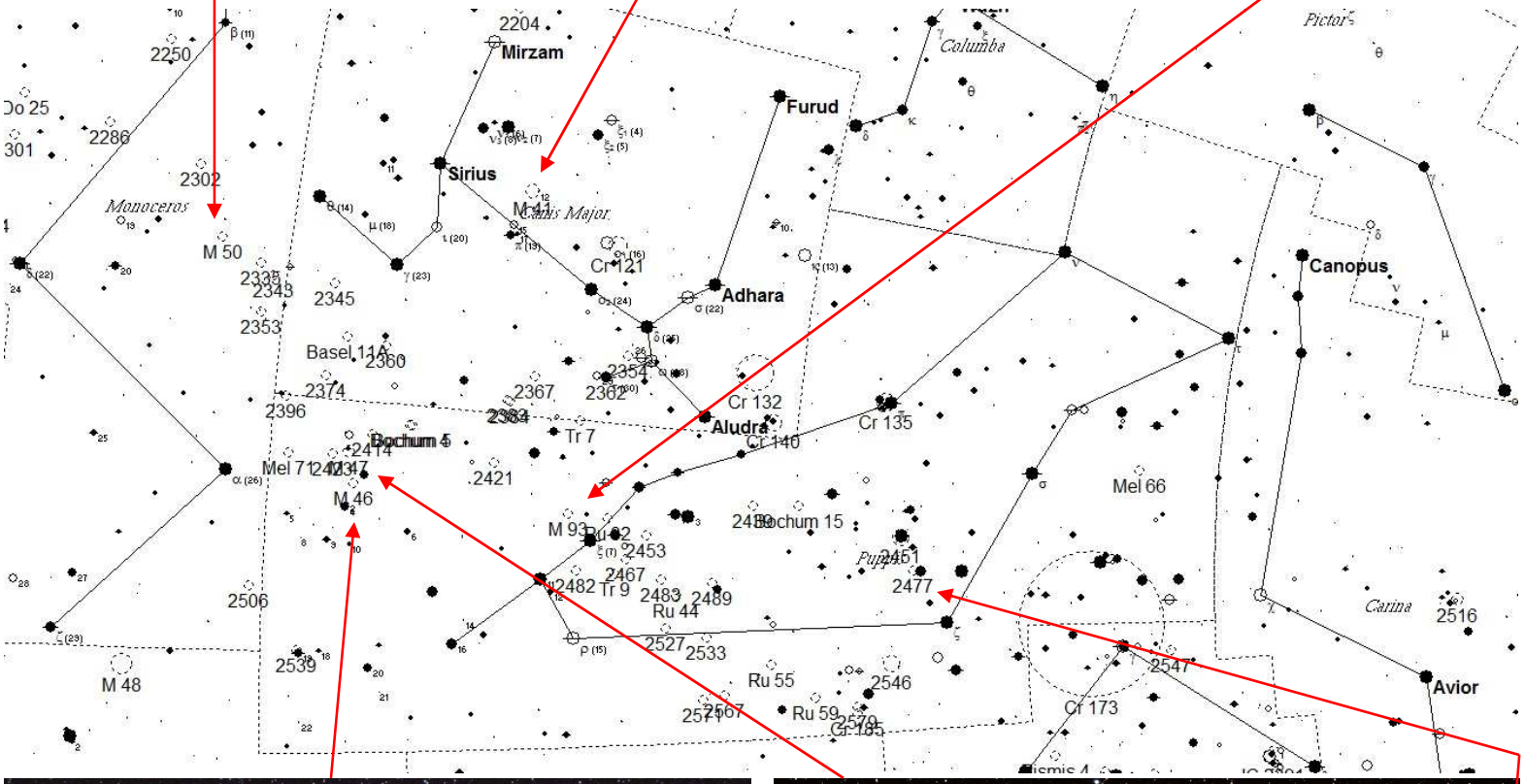
Sky for January / February we look East to Canis Major & Puppis

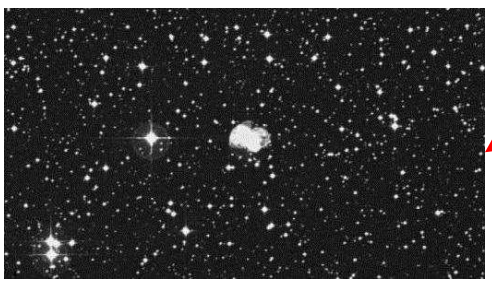
Produced on Sky Map *by Greg Walton*

Canis Major the Great Dog contains the brightest star in the sky Sirius (magnitude -1.4) with many Open star cluster like M41 at its centre. Puppis is part of the ship Argo Navis contains many Open star cluster M47, M93 & M46 which also contains a planetary Nebula NGC2438 also planetary Nebula NGC2440 worth a look. Now is the best time to view and photograph.

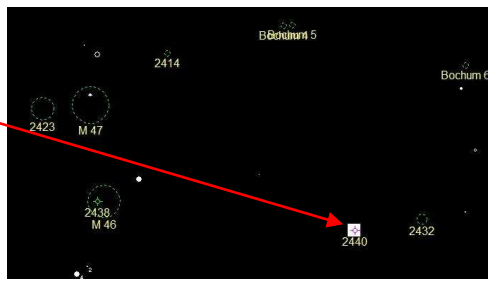








Ngc2440



ASTRO NEWS

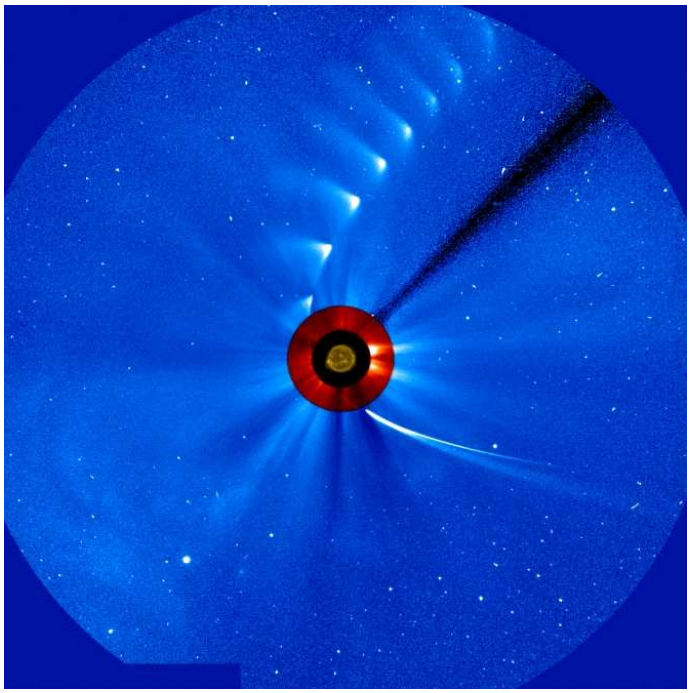
By Peter Lowe

Comet ISON bites the dust – Comet McNaught still reigns supreme.

Comets are very fickle creatures. Comet ISON C2012 S1 was touted as possibly one of the great comets of the century but started to show signs of fracturing as it entered the inner solar system. We managed to get a glimpse of the comet from the southern hemisphere before it's passage past around the Sun on Nov. 28, 2013. Several solar observatories watched the comet throughout this closest approach to the sun, known as perihelion. While the fate of the comet is not yet established, it is likely that it did not survive the trip. NASA's Solar and Heliospheric Observatory (SOHO) observed the passage during which it was seen to fragment and fade. After the passage the comet was not visible at all in NASA's Solar Dynamics Observatory.

The composite image shows the passage. All traces of the comet have now been lost and it appears certain the comet fully disintegrated no doubt leaving a trail of meteors for future generations to enjoy in some hypothetical future meteor shower.

Comet McNaught still reigns as the 21st century's greatest comet.



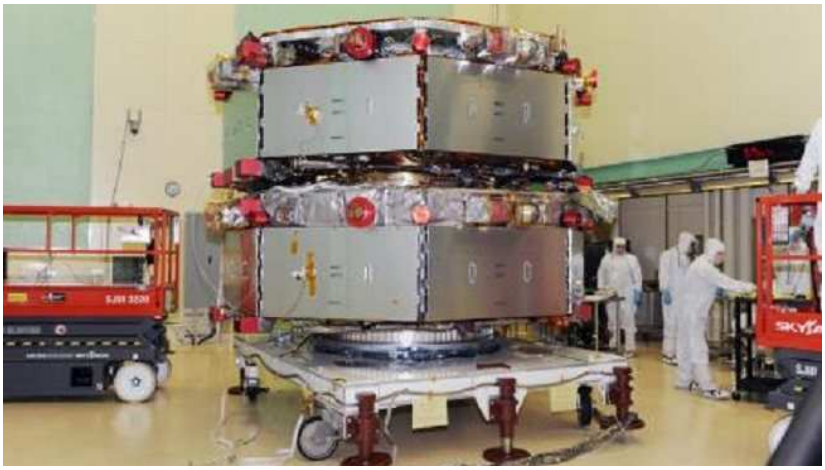
Comet ISON, shot Saturday morning, near Bucharest. Photo taken with a Canon EOS 5D and a Pentax 75 SDHF telescope on a Fornax 10 mount. 5 x 30 s + 32 x 60 s + 10 x 120 s at ISO 1000. The comet was a pretty difficult naked eye object, but very easy in binoculars.

ISON 15 NOV 2013 Damian Peach

ISON Before it went behind the sun

FIREFIGHTERS have saved a $US450 million NASA satellite and US taxpayers more than $US1 billion which would have been spent to replace the satellite. Washington volunteer fire-fighters were called out to the Naval Research Laboratory at 1pm yesterday to extinguish an outside fire. It is reported that the fire-fighters found fire and smoke coming from a tractor-trailer truck which was transporting the $US450 million ($490 million) NASA Magnetospheric Multi-scale Satellite from NASA's Goddard Space Flight Centre in Maryland. Luckily the satellite was saved from damage and then promptly boxed, double wrapped and sent to Maryland ahead of its launch into space late next year.

A **NASA** spokesman said the spacecraft would go through a series of tests before take off. He said so far the satellite appears to be fine. The satellite, one of four set to launch, will investigate how the sun and Earth's magnetic fields connect and disconnect, transferring energy from one to the other – a fundamental physical process that is known as magnetic reconnection.



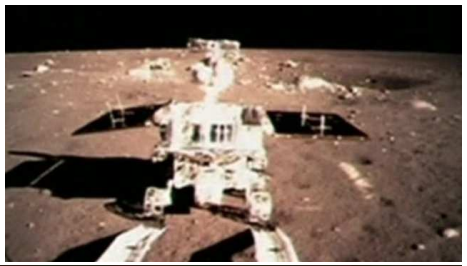
Fire-fighters article sent in by Dave Rolfe

China lands a rover on the Moon.

China's Jade Rabbit rover vehicle has sent back photos from the moon after the first lunar soft landing in nearly four decades marked a huge advance in the country's ambitious space program. The Yutu, or Jade Rabbit, was deployed at 4.35am (7.35am Saturday AEDT), several hours after the Chang'e-3 probe landed on the moon, said the official news agency Xinhua. The rover and Lander began taking photos of each other late Sunday, including one that showed the bright red and yellow stars of the Chinese flag on the Jade Rabbit as it stands on the moon's surface. *(from a Sydney news paper)*

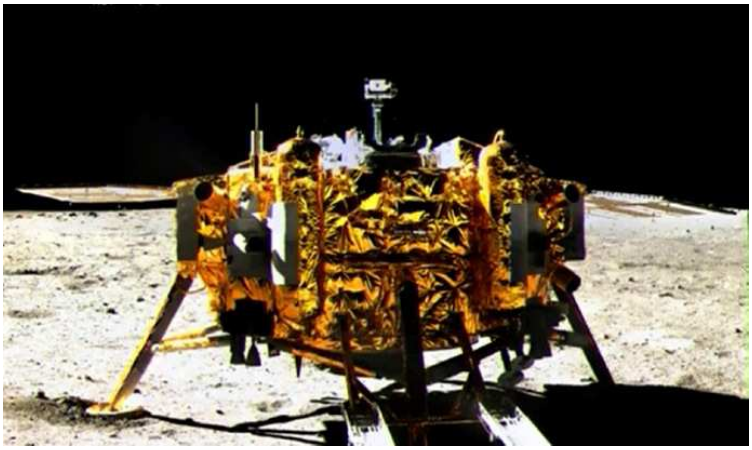
Who would have thought China would be on the Moon?

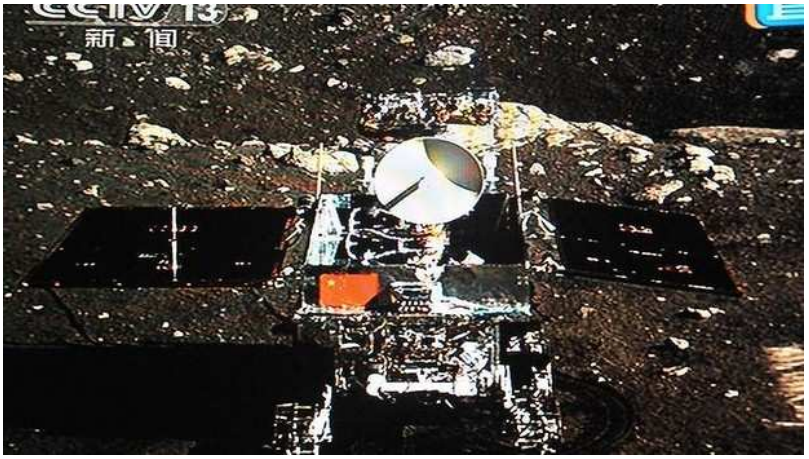
I wonder how reliable this rover will be, as we all know Chinese produces do not seem to last.



China have said they hope to bring back soil from the Moon in a future mission in 2017 and build there own space station by 2020. Putting a Chinese man on the Moon would be a massive achievement if they could pull it off.

CNTV, released a video of Chang'e -3's soft landing on the moon on YouTube.

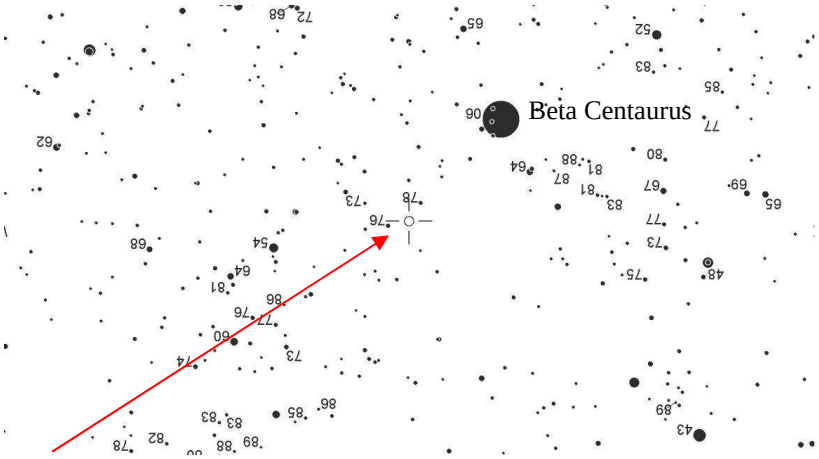




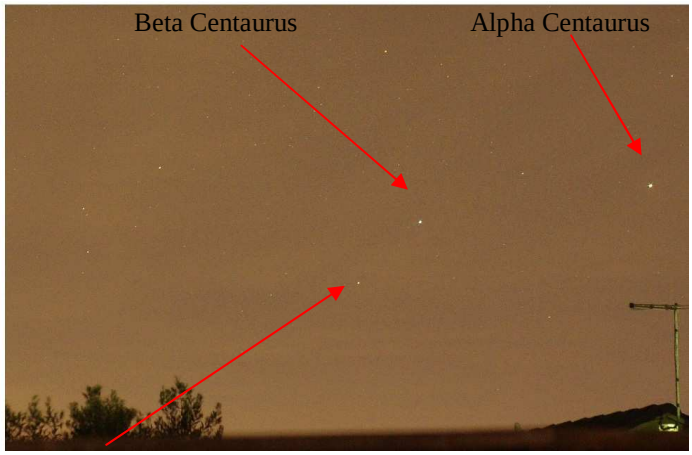
New star in the southern sky.

Photo of Nova Centauri 2013 taken by Paula Ritchens

From S&T News Flash. It's out of sight from the Northern Hemisphere, but a nova has erupted to 5th magnitude just west of Alpha and Beta Centauri. Nova hunter John Seach in Australia caught it on December 2nd with a DSLR patrol camera at about magnitude 5.5. Nothing there was as bright as 11th magnitude in his previous images taken on November 26th. The next night, December 3rd, Ernesto Guido, Nick Howes, and Martino Nicolini used a remotely-operated 20-inch scope to take the close-up image at right. By then variable-star observers were calling it magnitude 4.7 or 4.6, and spectra were showing a nova's strong hydrogen emission lines. Is it still brightening? If you're in the south temperate latitudes, see for yourself! The nova is moderately high in the south-southeast before your local start of morning twilight <http://www.skyandtelescope.com/observing/objects/javascript/3305541.html> . It's at right ascension 13h 54m 45s, declination —59° 09.1′, almost perfectly centered on the location of a previously 15th-magnitude star. Its preliminary designation is PNV J13544700-5909080. Here's a 10°-wide comparison-star chart <http://media.skyandtelescope.com/images/Nova-Cen-2013-chart.gif> from the AAVSO <http://www.aavso.org/> . The nova is centered on the chart, and the bright star is Beta Cen.



Nova 2 degrees below left Beta Centaurus
Note - Finder chart on the web is upside down for southern hemisphere



Nova. Taken evening 9pm 7nov13 at Chelsea with 50mm lens iso 3200 20 sec image cropped by 50% by Greg Walton

ASTRO CLASS By Peter Lowe

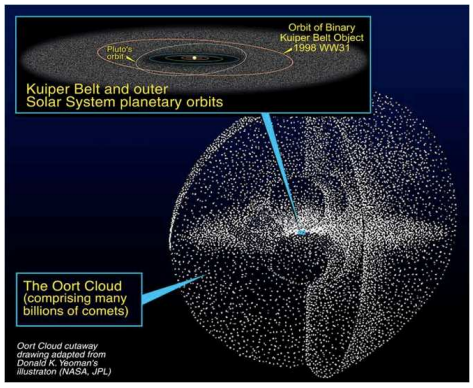
THE STORY OF COMETS.

Recently we witnessed the comet ISON break-up, as it passed through its orbital perihelion close to the Sun. Comets passing through the inner solar system can be spectacular, inspiring sights but what are comets? And what is their role in the scheme of things? Superficially textbooks tell us comets come from the Oort Cloud; a region at the extreme limits of the solar system where we believe trillions of cometary objects reside slowly orbiting the Sun. This is a little like saying water comes from taps. There is a giant reservoir of water in the city dams and a miniscule amount comes out of your tap but where did the reservoir originate? Similarly the Oort Cloud is a giant reservoir of comets and at present a miniscule number travel into the inner solar system where we can see them. So where did this Oort Cloud reservoir originate? Straying a little off-topic question let me ask a question. How many hailstones fall in a typical hailstorm? After a bit of thinking you can deduce that typically about 5 billion hailstones fall to the ground during a small thunderstorm which is the equivalent of a single hailstone about 30m in diameter. Comets are often called dirty snowballs but a far better analogy would be a dirty hailstone 10-20 kilometres in diameter containing around 5 trillion tonnes of water plus other organic ices mixed with interstellar dust. We believe the comets formed by a process of electrostatic accretion slowly growing within the proto-stellar gas cloud much the same as hailstones. But which came first the chicken or the egg? Did the comets form within the gas cloud before the Sun started forming and were thus part of the initial star formation process or did the comets form in the outer solar system at the same time as the Sun? This is a scientific question that has yet to be fully answered but current thinking suggests the comets formed in the outer part of the proto-stellar cloud at the same time as the Sun's formation. Recent measurements to determine the formation temperature of cometary ices indicate a temperature of 28±2°K or about the same distance as Neptune in the proto-stellar cloud. No doubt many others formed farther out but addition measurements are required.

Clockwise from Top Left – Comet Lovejoy returned to deep space, Comet West 1976 Broke up, Comet McNaught returned to deep space, Comet ISON broke up, Comet LoneOSF1 short period orbit
Centre - Comet Hartley2 short period orbit

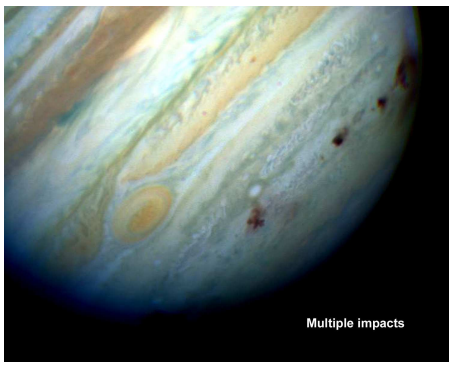
In either case it suggests that comets form where the gas cloud is dense enough and cold enough for electrostatic accretion to occur. If the cloud is not dense enough then the average separation between the cloud's ice-coated dust particles will be too large and particles will rarely come close enough to interact. If the cloud is too hot the average particle speeds are too high to allow particles to coalesce.

Oort Cloud – Our Reserve of Comets.



Studies of contemporary comet orbits indicate comets come in basically two classes, long period and short period (~200 years), which is indicative of the sorting process that occurred during the solar system formation phase. The long period comets mostly have very large orbits of the order of 10,000 – 100,000 AU (almost 30% to the nearest stars) and very long orbital periods of several million years. This raised a problem. The solar system is 4.5 billion years old. If they had been orbiting since that time they should have "burned out" billions of years ago. So where have they been? First proposed by Ernst Opik in 1932 and worked out in detail by Jan Oort in 1950, the Oort Cloud theory provides a solution. Oort noted that the larger the orbits of the comets, the more of them there are, so that in very large orbits, there might be a vast "reservoir" lying on the outer fringes of the solar system suggesting hundreds of billions of comets. Each comet orbiting in its own particular orbital path, just as the planets do in the inner solar system. However, while the planets have regularly spaced, nearly circular orbits, all in nearly the same orbital plane, the orbits of the comets are quite different. We observe long-period comets coming towards us from all directions in space. To explain this, Oort proposed that all possible inclinations, orbital directions, and orbital eccentricities must occur, probably at random. Some comets would have nearly circular orbits, but many would have medium or higher orbital eccentricities and have very elongated orbits. With such large orbits, if a comet had an eccentricity of 0.99 or less, its perihelion distance would be well outside the orbit of Pluto, and it would never have a chance to gravitationally interact with the planets, or to be seen by us. But if it had an eccentricity above 0.999, it would "fall" into the planetary region and we would see a long-period comet. If the orbital eccentricities are "random", then the chance of having an orbital eccentricity of 0.999 is only one in a thousand, so that for us to observe the few long period comets we do see there would have to be billions of other comets, forever unobservable to us, out in the Oort Cloud itself.

Kuiper Belt – An Intermediate Reserve of Giant Comets.



Comet Shoemaker-Levy Jupiter Impact 1

When a comet passes through the inner solar system it runs a gauntlet of gravitational tugs from the planets distorting the comets orbital path. If it passes too close to a planet the orbital change can be significant trapping the comet inside the planetary region or throwing the comet back out into the outer region or even out of the solar system altogether. Short period comets are destined to die either by falling into the Sun, being disrupted by the Sun, (aka Comet ISON) or colliding with a planet. Even if it survives these dangers it is still domed. Each time a comet passes close to the Sun at perihelion is losses some of its gases and dust. The solar system is 4.5 billion years old and with orbital periods of only a few hundred years short period comets cannot last this long. Historic records indicate Comet Halley has been observed for some 2,000 years (26 orbits) but records suggest it has dimmed over that time.

The creation of the short period comets is explained by looking at their orbits. Although there are many different orbits involved, there are two very large "families" of orbits associated with Jupiter and Saturn. It is believed these comets were somehow "captured" into their present orbits when, at some time in the past, they happened to pass very close to one of these more massive planets. When an object, such as a comet, passes close to a large planet, the comets orbit changes somewhat. If the comet passes on one side of the planet, it may be sped up by its encounter, but if it passes on the other side, it would probably be slowed down. In the first case, the comet might well be given so much extra speed it leaves the solar system. If the comet is slowed down it can become trapped in a smaller orbit and becomes a short period comet. The Kuiper Belt is partly explained by cometary (& planetoid) bodies being scattered by the larger planets into a band beyond Pluto. While the Oort Cloud is spherical, the Kuiper Belt is a flattened disc in the ecliptic plane indicating it is planetary in nature and appears to contain planetary sized objects. (a.k.a Pluto) So next time you're in a hailstorm watching small pellets of ice falling from the sky give a thought to that giant comet hailstorm which occurred during the formation of the Sun and planets 4.6 billion years ago and those last remanets we see today as the next great comet comes into view.

Snake Valley Astronomy Camp, *by Dave Rolfe*

The Snake Valley Astronomical Association held its Recent star Party over the Melbourne Cup weekend. This party as normal is well represented by MPAS members. This year Paula Ritchens and Jamie Pole made their first trip and were accompanied by Alios and myself.

Snake Valley is a four night camp that has good facilities for camping, adequate power on the field and cooking / shower amenities. There are also about 10 basic school camp style cabins there that are still standing from the POW camp it use to be! The observing field is located above the lake (Crystal lake) and that normally provides amusement by itself during the days with all sorts of remote controlled devices flying, hovering and skipping over the edges.

Saturday was a cracker of a day, so much so the Girls managed to get sunburned but the skies clouded over that night with just a few holes here and there. The plus side of that we could all save our torch batteries as Paula and Jen glowing red all night. Saturday night at Snake valley is always Feast night with a roast dinner and this year was a let-down. Sunday was promising that night for a clear sky on the forecasts but the clouds just wouldn't part. Monday night was the best with perfect skies all night.

This Year I only managed a few images but spent a lot of time tracking down the two comets – Lovejoy and ISON. Ison was very tricky as it was only up 30mins before twilight. Both comets were moving so fast that longer images just were not working. I didn't have time to switch to my one shot colour but my final pictures are below. I found it interesting how fast Lovejoy was moving in the sky with these shots taken 6 minutes apart. Jamie was imaging for real for the first time using guiding and longer exposures and the results looked great for the first night out.

The next Snake Valley star Party camp is in March, I will post some details closer to the event. Dave Rolfe

Night Sky (by Jamie Pole)

Jamie and Myself on the Field

Dawn at Snake Valley

ISON

Lovejoy image

Comet Lovejoy 6 minute exposure *by Dave Rolfe*

MPAS at LMDSS, *by Greg Walton*

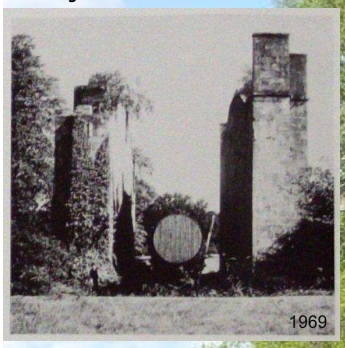
On the 2nd of December Alex Cherney, Dave Rolfe, Steve Mohr & I. Did a spirit of the moment trip to the ASV's LMDSS for an astrophotography weekend, before the Xmas rush. The sky was mostly clear and we all got some very good images. Once the cameras were running we all sat back and admired the Milk way and chatted with other ASV members, about 12 of us in all.
Fire balls regularly raced across the sky lighting up the Ground, often with a large shout of WOW!!!
Strangely about 2am the whole field suddenly darkened, as though some body had turned the brightness of all the stars down, nobody could explain this. The next day we looked at our images and noticed light clouds had moved in at 2am, this must have been the cause. Still a very successful week end with Steve giving it the thumbs up.
Some of Dave Rolfe's images right and below.

M45 Great Onion Nebula from LMDSS on 2nov13 *by Dave Rolfe*

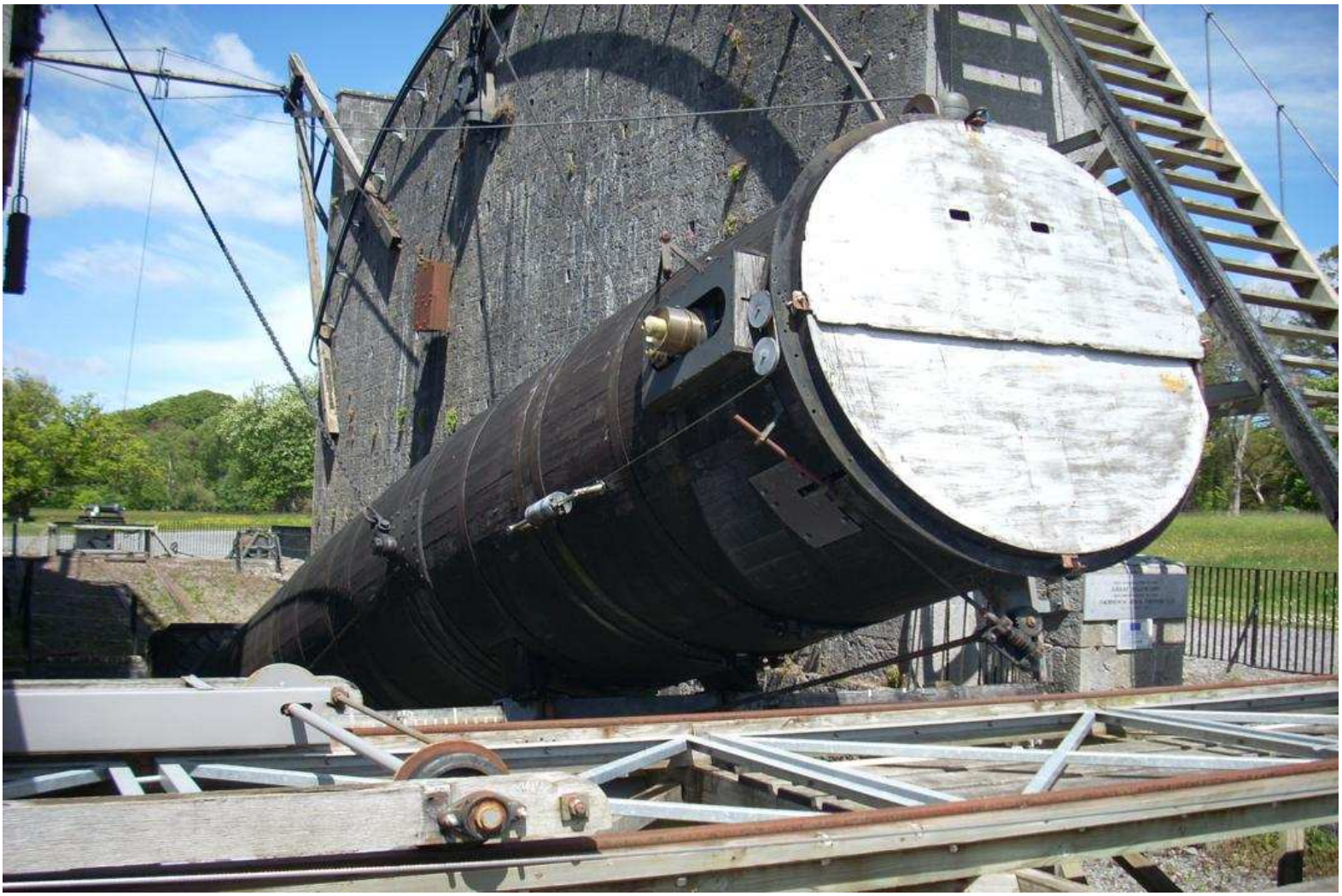
NGC2244 Rosette Nebula from LMDSS on 2nov13 *by Dave Rolfe*

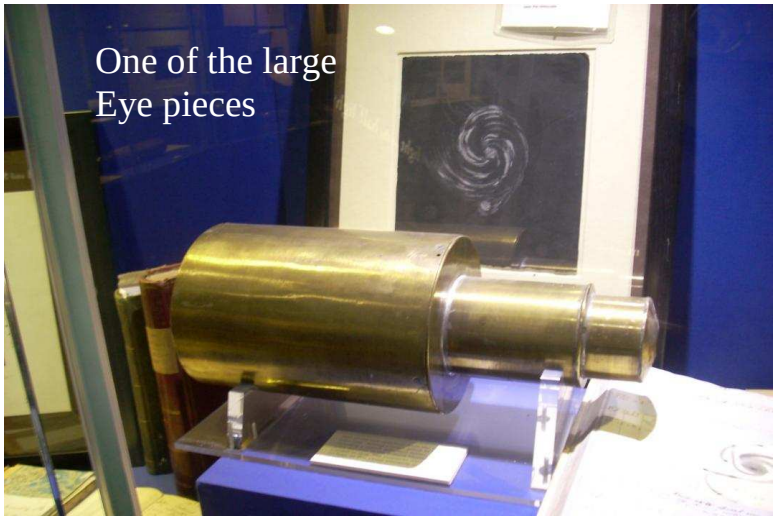
B33 the Horse Head & M42 Great Onion Nebula from LMDSS on 2nov13 *by Dave Rolfe*

Alex Dickson, visits Birr Castle in Ireland, were William Parsons, the third Earl of Rosse, built his giant Telescope in 1845 "The Leviathan of Parsonstown". The telescope fell into disrepair in 1908 and was partly dismantled in 1914, see insert at left. Recently the telescope has been restored as you can see in the photos taken by Alex, below.

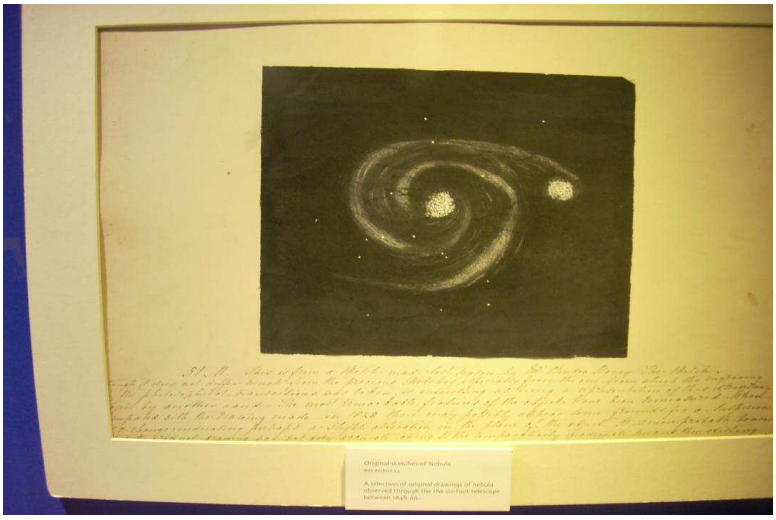


It was the largest telescope in the world for 62 year, having a mirror 6 feet (1.8metres) in diameter and a focal length of about 56 feet (17metres). Being in Ireland the cloudy sky limited its use, it also need a team of people to operate the telescope using a system of pulleys and cables.
Once an object was found a messenger would collect William Parsons from his bed.





One of the large
Eye pieces

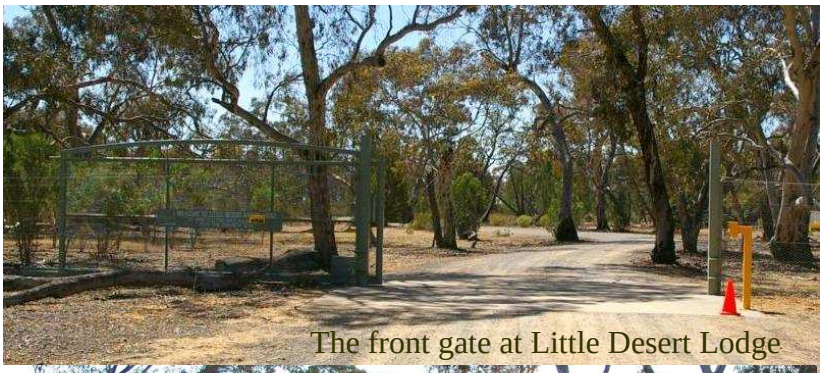


William Parsons drawing of M51 in 1848

Birr Castle in Ireland

MPAS at 2013 Vic-South Star Party in the Little Desert Nation Park, *by Greg Walton*

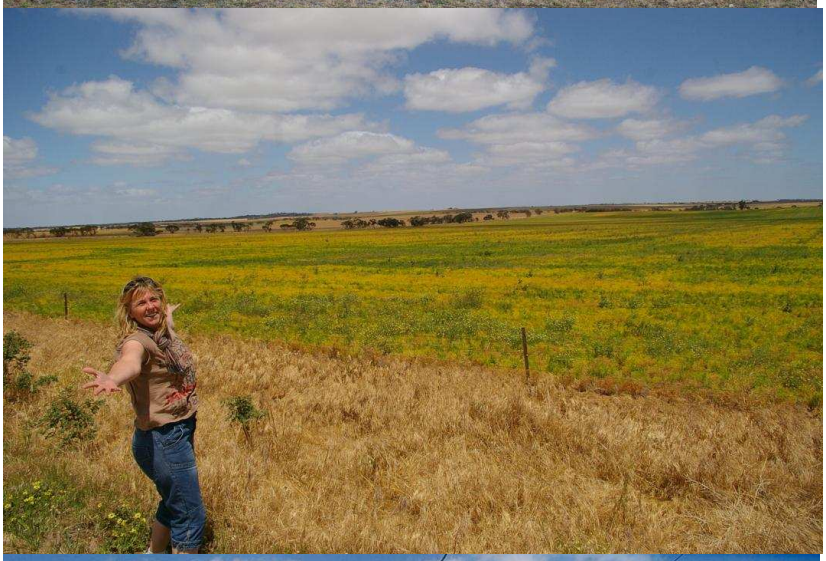
This event is run jointly by the astronomical society of Victoria and the astronomical society of South Australia. Normally it take about 5 hours to drive to the Little desert, but Pia and I like wandering around junk shops, so it took us 9 hours, leaving us with little time to set up the tent before dark. On arrived Pia said the front gates look like were going to Jurassic park. Roland and Anna, Alex and Helen were already setup. I set up my telescope and cameras with them in the camping area, as the viewing field was already crowded, with no room to unload the car. The first night was mostly clear with only a few light clouds on the southern horizon.


The front gate at Little Desert Lodge

I wanted to test out my new Pentax K30 in a dark sky site and setting it up for a all night time lapse, but was sightly disappointed when in continues shot mode the camera waited 30 seconds between each shots. I tried changing the setting but nothing helped and ended up going back to my trusty Pentax Kx for the rest of the trip. I was still able to use the K30 on the telescope successfully using the built in interval timer to image a batch of 30 shots.

The second night started clear and very windy but by 10pm the clouds were rolling in and by mid night it was raining, when I grabbed the cameras and brought them in the tent.

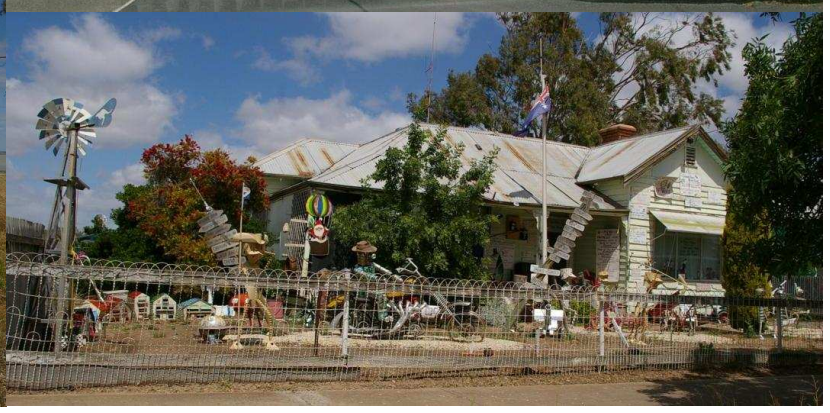
In the day time there were the usual astronomy talks and displays. But as we had got some sleep, due to the cloudy sky we decided to explore the area, we headed north to the big Desert to see lake Hindmarsh, but took a wrong turn and ended up in a small town named Rainbow, were we found another junk shop. Pia was over the moon when she picked up some old Danish plates and candle stick holders. We also looked in a estate agents window and found you can buy a house for $45,000. We thought there can't be much to do in town, when we came across this house. (see bottom right) The country side is open and colourful, not like a desert at all. We did eventually find lake Hindmarsh, said to be 8km wide and 15 km long one of the bigger lakes in Victoria.



The third night was clear and the wild had slackened off. I got all the time lapse camera running and my 8inch astrograph which I used to image a selection of galaxies.

The forth night was clear, Roland, Alex and myself moved the telescopes to the viewing field, to view and image M31&M33 The field had a very subdued feel with everybody keeping to them self or maybe just wanting to soak up as any photons as they can, before returning to the big smoke.

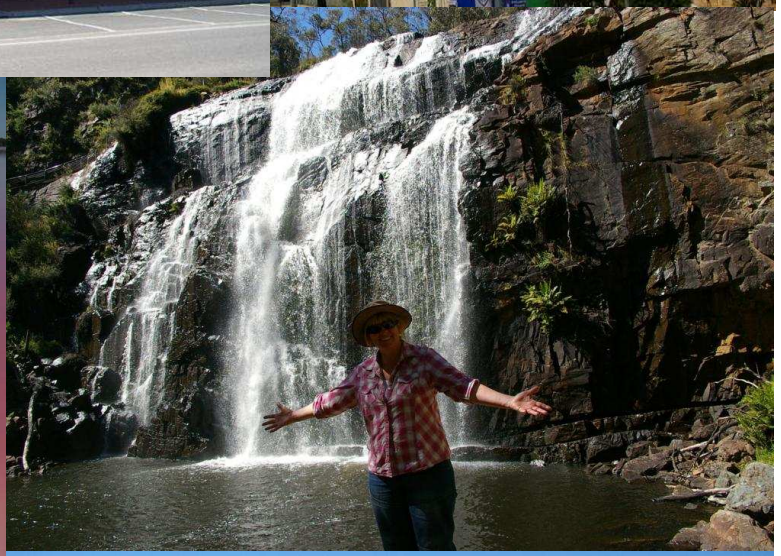

Boat ramp at Lake Hindmarsh

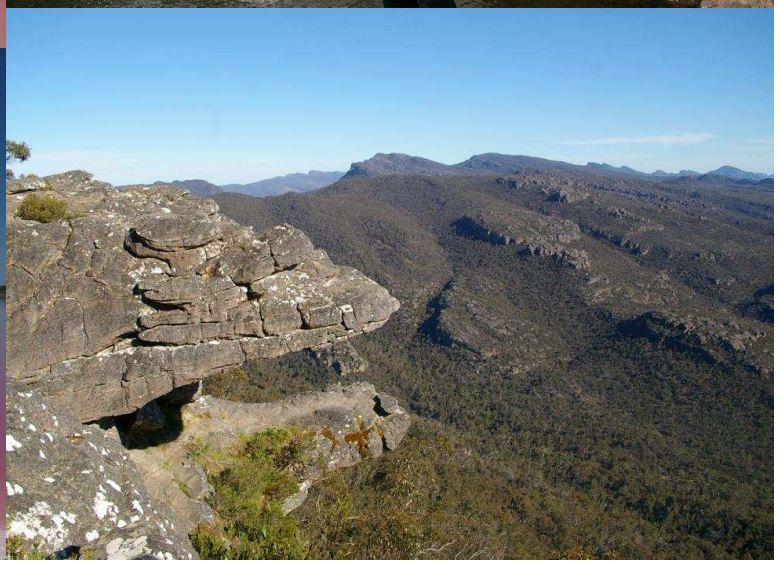


The viewing field at Little Desert Lodge

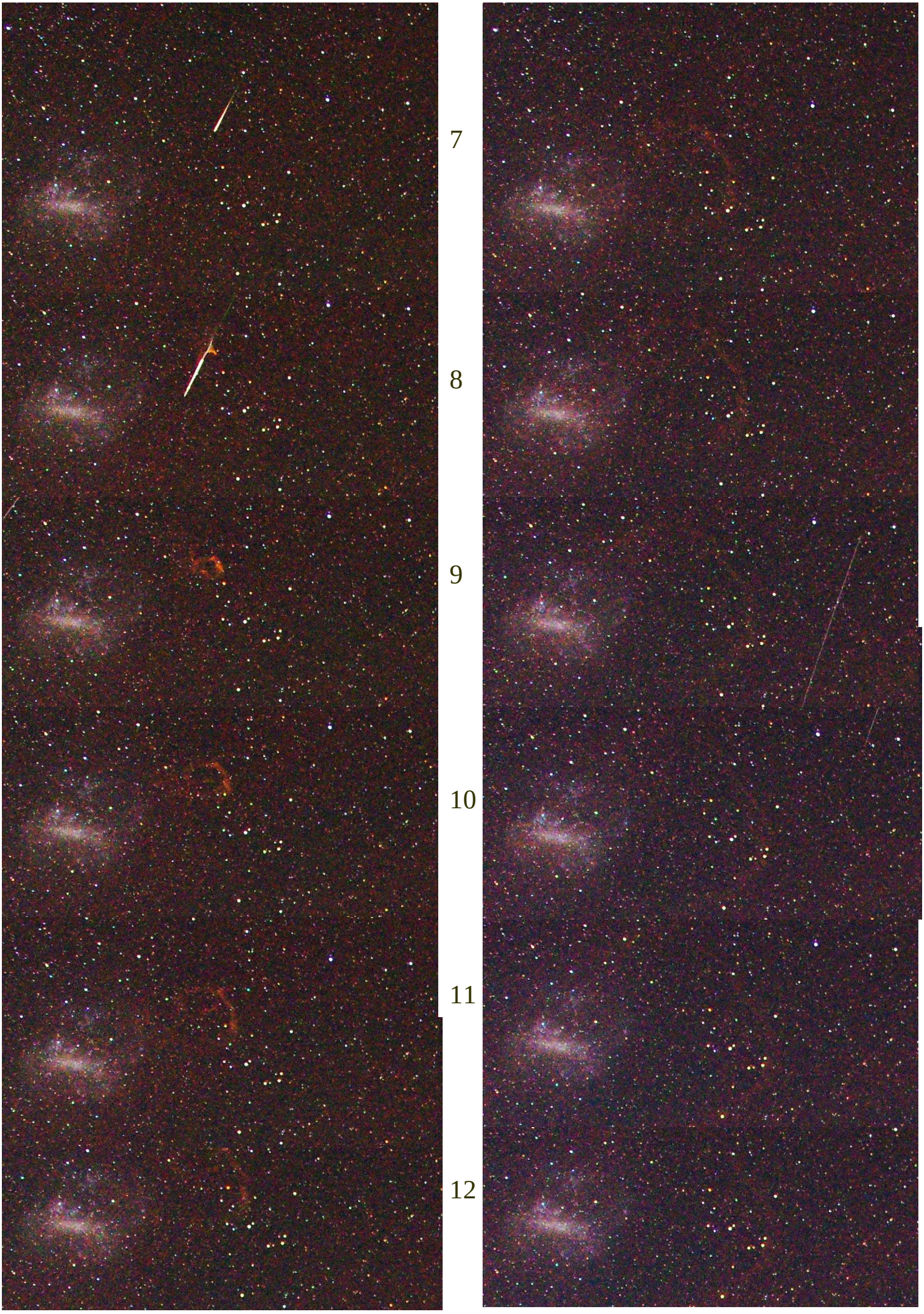
The Little Desert Lodge has lots of walks to explore with wild flower meadow and the odd snarling lizard, kangaroos, colourful birds and one pet emu.
The kangaroos wonder around the telescopes in the night (see below) Bandicoots also visited me in the night looking for tasty tit bits, I found they liked arrowroot biscuits, they started to seek me out no matter were I was and some got grumpy if some newcomers turned up.

On the way home we stopped at the Pink lake 24km east of Nhill on the south side of the Western hwy, the lake is very salty and gets it colour from pink algae, looks like a good spot for a time lapse. We then explored Dimboola as its only 2km of the western hwy, were we found some interesting sign posts and a burnt out pub, which is no good if you need a drink.
Then it was on to the Grampians were we stayed at Halls gap for the night. We explored the Mackenzie's falls and silver back falls, we also walked to many of the lookouts, were the views were spectacular.
A very interesting and memorable trip, cant wait to do it all again.





The Earths force field at work, *by Greg Walton*



1

2

3

4

5

6

Above Page 1 to 12

Meteor hits the earths atmosphere next to the LMC and burns up leaves a spiralling trail of material which expands in the upper atmosphere. Those 30 second imagers were captured with a sigma 10mm f2.8lens and Pentax Kx locked in continues shot mode on a tripod, with no tracking. iso 3200 Cropped to 25% of the size of the original image. 2nov13@4am

Left 1 to 6 images

Meteor hits the atmosphere and a jet of material blasts out the side. Those 30 second imagers were captured with a sigma 20mm f1.7lens and Pentax Kx locked in continues shot mode on a tripod, no tracking. iso 3200 Cropped to 12% of the size of the original image. 3nov13@1am

Right 1 to 5 images

Meteor hits the atmosphere and leaves a trail of material, it is pushed out of shape by wild in the upper atmosphere. Those 30 second imagers were captured with a sigma 20mm f1.7lens and Pentax Kx locked in continues shot mode on a tripod, no tracking. iso 3200 Cropped to 25% of the size of the original image. 3nov13@2am also
Both left & right images come from the same spot in the sky, could it be the same meteor?

1

2

3

4

5

You can watch the time lapse video at the Vimeo web site.
vimeo.com/81358189

Images from Vic-South

SOCIETY INFORMATION

Peter Lowe

Dave Rolfe

Peter Skilton

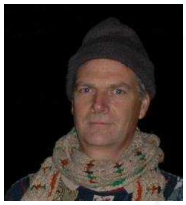
Jamie Pole

Trevor Hand

Fiona Murray

Paula Ritchens

Clemems Unger



Greg Walton

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

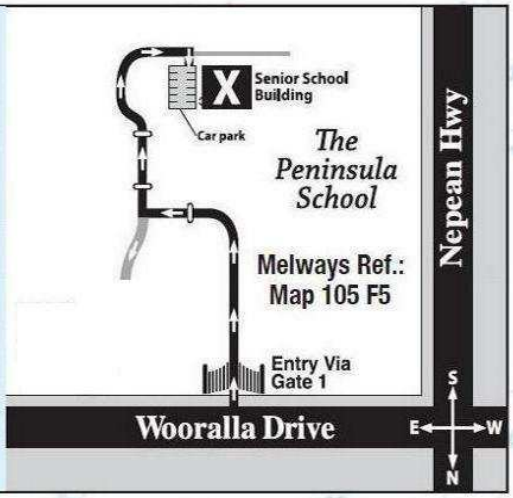
SOCIETY MEETINGS

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.

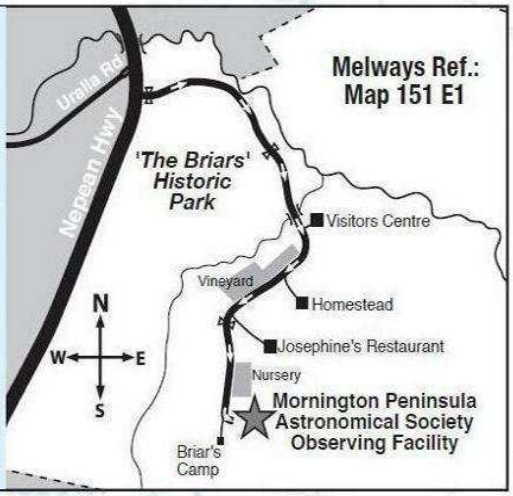
VIEWING NIGHTS - MEMBERS ONLY

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 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.

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.



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