



PERTH OBSERVATORY

Vollie News



Stardate June 2007

Editors Log #01

Editorial

Hi and welcome to the *Vollie News* for June 2007. My name is Mary and as some of you know I have sort of volunteered to do the newsletter. The last night of public star viewing was on Saturday 26th May and marks the closure of yet another successful tour season - with many thanks due to the volunteer staff that have assisted in a wide range of the Observatory's activities throughout the year. The newsletter is all about supporting and recognizing the volunteer contribution to the effective running of the Observatory's programs, and thanks must be given to the permanent staff in return for the support they have freely provided us. I am sure that I speak for all the vollies (especially us new starters) when I say thankyou to the permanent staff, not only for the support they have given us, but also for the opportunities and help we have received. Thank you! I also must thank Bevan for his samples of newsletters to get me started, including the wording for half this Editorial! Please everybody help me out and send me some things to add each month. It can be technical, informative or it can be whimsical - Thanks in advance!!

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POVG Inc. Elections

NEW STAR VIEWING VOLLIES OFF PROBATION

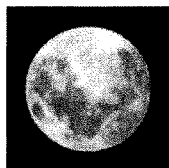
CONGRATULATIONS TO:

GLEN PRIDEAUX
ADRIAN TIONG
KIRSTEN RICHARDS

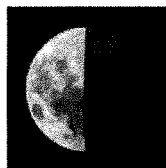
April's meeting was also the AGM of the Perth Observatory Volunteers Group Inc. Treasurer's report showed some money in the account. Elaine Walker stepped down from Chairperson so Lloyd Robinson will assume the role and John Morris will be Vice Chairperson. Congratulations to both. Jacque and Bevan both agreed to continue their good work in their respective positions. Please see the attached minutes of the AGM for more details of the elections. May's meeting was cancelled due to other commitments and holidays.

Highlights in the Sky in June

P · H · A · S
· E · S
OF THE
MOON



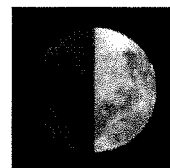
Fri 1st



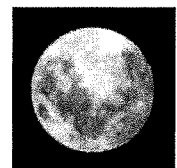
Fri 8th



Fri 15th



Fri 22nd



Sat 30th

Moon has 2 Full Moon phases.

Venus should need no introduction - it's clearly visible in the northwest sky in the early evenings.

Mercury is visible very low in the western evening twilight in the first half of the month.

Jupiter is a fabulous sight around the Scorpio Constellation.

Saturn as we all know is in Leo and is visible in the early evening in the North West sky.

And for the early birds look for **Mars** in the east before dawn - too cold for me!

Below is a repeat of some interesting information from the first volunteer newsletter. If you have a topic or question you would like to see covered, particularly if one you get asked on night tours a lot, drop the editor a line via the Observatory.

The Colour of Stars and Their Temperature

Alpha Centauri is a binary (double) star. The majority of stars in our galaxy are binary stars. It is easy to see that both components of this pair are yellow stars, like our own sun. The colour of a star is an indication of its temperature. White is very hot, yellow is warm and red is cool.

This is similar to heating and cooling an iron bar. When it is extremely hot it will glow white, changing colour as it cools down to a dull red and eventually black when it is cold. Sirius, also a binary star, is an example of a hot white star.

Antares, another binary, & Betelgeuse are cool red stars.

Magnification in a Telescope

There's always a visitor who asks, "What magnification is that?" Unless you have a calculator handy it can be hard to do the sums in your head:

The formula is simple though - it's the focal length of the telescope divided by the focal length of the eyepiece being used. If you have a 20mm eyepiece in the Calver telescope, which at f/10 has a focal length of 3125mm (10x12.5 inches) the magnification will be roughly 156 times.

ASTROFACT

Jupiter's Great Red Spot

Jupiter's Red Spot is about 20,000km long (About 1.5 times the diameter of Earth) and was named around 150 years ago when it was a distinct red colour. Since that time it has changed to a pale brown colour and is not very prominent. It is defined as a high-pressure cyclonic storm (unlike Earth's cyclones which are low pressure zones). The Red Spot rotates once counter clockwise every 6 days and winds in its outer regions reach 350km/h while those at its centre are much lower. Trace amounts of organic molecules composed of hydrogen and carbon atoms, and possibly sulphur and phosphorus atoms, give the Red Spot and other features of the Jovian Atmosphere their distinct colours.

Predicting the visibility times of the Red Spot is a little difficult because:

- Its position slowly varies with time owing to the variable drag it experiences in the Jovian atmosphere,
- Jupiter doesn't rotate as a solid object: clouds near the equator rotate a little faster than those closer to the poles.

Astronomy Almanac 2007 was used to reference this information.

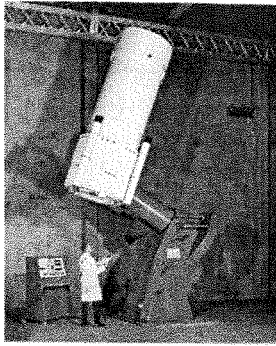
The Dog Star (Copied from Newsletter by Jacquie Milner 1998) Thanks Jacquie!

Sirius, the Dog Star, is well known for being the brightest star in the sky, at magnitude -1.46. This is brighter than most of the planets, except Venus, Jupiter and Mars at a close opposition. Sirius makes the shoulder of the constellation of Canis Major, the big dog, which can be seen in the western sky in the early evening. Sirius means "Scorching" as a few thousand years ago it was close to the Sun during the Northern hemisphere's summer. It was thought that the combined heat of the Sun and Sirius made the days so hot. It was also an important star to the ancient Egyptians, who looked for its heliacal rising to herald the start of the flooding of the Nile. A heliacal rising is the first time a star is seen in the morning sky after it has passed behind the Sun.

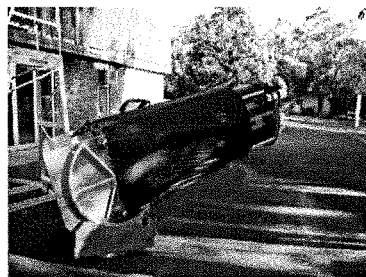
To modern day astronomers Sirius is a hot, white star, 9 light years away. It is interesting to compare Sirius with Alpha Centauri, which is only half that distance away but less bright, at magnitude -0.26. Sirius is also double star. Its companion, Sirius B, is a white dwarf near the end of its life and the matter inside this star has been compressed to a density 100 000 times that of water. It orbits Sirius every 50 years and is at present too close to the primary star to be observed visually.

DARE I SAY IT? BIG IS BETTER!

I think Rick would say yes yes yes! And yes the 1 metre Perth Lowell Boller & Chivens Research Telescope is big. Check out the pic what can I say! And the ground is being prepared. Exciting times are ahead.



AND THAT'S NOT ALL - LET ME INTRODUCE




It's the 30-inch Obsession Telescope and it's not a bad size either! Training on this little ripper will be advised sometime soon.

Aboriginal Star Viewing Night 10th May 2007

This viewing night had been in the making for some time thanks to Rick and after a few false starts re dates etc we finally got it together. And we were reasonably lucky with the weather however a few burn offs did obscure the sky later in the evening. Greg and Jamie greeted the public and of course there were a few stragglers (so what's new!). Rick had gone on ahead with our Aboriginal guides for the evening to set up the welcome fire and ceremony as is their tradition. When all the people had arrived we made our way up to the general viewing area to be greeted by a roaring fire set in a circle of stones around which we all had to form a circle. Koodah Cornwall from Aboriginal Heritage introduced himself and said his people are Nyoongar and that he was born in Wagin and his totem is the Emu. As I understood it, the families all have totems which helps in identifying people to stop cross breeding and that for marriages to occur the totems have to be compatible to make the marriage acceptable. He also explained how the fire has a large significance in Aboriginal story telling as all is told through the fire and everything is based in the earth. Therefore to add to the feel of the evening we all had paint made from earth put on to our faces by Koodah's son Mark. The ladies have a line over the forehead around the eyes and over the bridge of the nose and the men have the same except it extends to around the bottom of the chin. Fun for men with beards!! While all this was going on Koodah was explaining how things came to be. I confess that I can be distracted so the full impact of this story was lost a bit as the fire had a mesmerizing affect and I found myself watching Rick put wood on the fire but I think the general thing was that the spirits wandered through the skies and their offspring fell to Earth and formed the stones and the land around us and that we should respect the land and not move things away from their origin. And a shooting star means that one of the spirit children had fallen to earth! Followed of course by some traditional singing, stamping of feet, clapping and six very brave souls who got out there around fire and danced for us. Great fun! Koodah then introduced Violet, who said she was from Central Law and she had a cloth painting to show us, which was very old and was a significant part of their culture. The colours of the painting were superb, and showed the central part as the earth with the stones like the fire around it and then spread out to show people, water and land. Unfortunately, Violet is very softly spoken so more than a few of us missed a lot of what she had to tell us. That was a shame. Then a general star viewing session took place and we finished up with a reminder from our Aboriginal friends about looking after our Earth. The Aboriginal word for the Sun is Nark and the word for the Moon is Meeka (Spelling may be inaccurate but you get the idea). When we got back to the main building Rick showed us the pictures of the bonfire that he had taken (see below) and the amazing thing was that we could see a shape in the flames of the fire... the spirits are watching...cue spooky music...



I think the event was a success as the public got into the spirit of things and didn't ask for their money back! Jamie Biggs received some emails after the event by participants and all were very positive. Given this and the fact one there are about 20 people on the waiting list another night will be conducted sometime March to April in 2008. Worth being a part of as I found it very interesting. I would volunteer again and hope other volunteers will also.



New Email Address

Bevan has asked me to advise all of his new email address and here it is - take note please

bevan@bevanharris.com

Staff Changes

Di John's is retiring in July. Apparently she wants to set an example to her husband Keith! Di has worked tirelessly in the front office for 8 years now and she will be sorely missed. We wish Di and Keith good health and much happiness in the next phase of their lives.

Rick Tonello requested to be transferred to the Technical Group working under Technical Manager Arie Verveer. Here he will dedicate his skills learnt in the engineering and construction industry to ensure the successful building of the enclosure for the 40" telescope. We wish him well in his new position and no doubt see him attending to his new duties.

With Rick's move to another job frees up his current position. All the approvals have been obtained and the position will be advertised soon.

Who's Who at the Perth Observatory

Dr Jamie Biggs	Director, Government Astronomer, Volunteer Co-ordinator.
David Frew	Astronomer
Ralph Martin	Astronomer
Dr Andrew Williams	Astronomer
Greg Lowe	Astronomical Officer
Janet Bell	Administration Officer
Di Johns	Clerical Officer
Arie Verveer	Technical Manager
Rick Tonello	Technical Officer
POVG Volunteers	
Lloyd Robinson	Chairperson
John Morris	Vice Chairperson
Jacque Milner	Secretary
Bevan Harris	Treasurer & Newsgroup Moderator

(Contact bevan@bevanharris.com)

Mary Hughes (P) Newsletter Editor (Contact mary@happycatz.com)

Current Active Volunteers:

Dick Alderson, Trevor Beardsmore, Tony Beston, Ric Boelen, Geoff Chandler (P), Terry Edmett (P), Keith Ford, Noel Leerson (P), Len Martin, John McRobbie (P), Glen Prideaux, Kirsten Richards, Adrian Tiong, Elaine Walker.

Current Dormant Volunteers:

Jeff Alcroft, Irek Baran, Jeanne Bell, Frank Bilki, Geppe Coletti, Dave Emrich, Mark Haslam, Ben Nelson, Zoe O'Donnell, Tim Roberts, Noreen Townsend.

NOTE: The *Vollie News* is available in electronic form via email (requires Acrobat Reader a free download from the Internet). If you do not have access to email and need to receive your *Vollie News* by snail mail, please contact either Jamie Biggs, Greg Lowe or myself with your request.

Contributions to the *Vollie News* are gladly welcomed. Submissions can be made to the editor via e-mail at mary@happycatz.com. Alternatively, they may be pinned to the volunteer notice board for collection. Mary

Perth Observatory Vollies Newsgroup Yahoo!

This is a free group email service. Send one email to the newsgroup, and everyone who is subscribed will see the message. It is a closed group ie. Only vollies and staff will see messages not the world at large!

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