

# SCORPIUS

THE JOURNAL OF THE MORNINGTON PENINSULA ASTRONOMICAL SOCIETY INC.

Volume XVI, No. 2 (July/August 2007)

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.

## VASTROC 2007





Charles Messier, Vivienne Lowe, Peter Lowe, Greg Walton, Peter Skilton.

### **FAMOUS FRENCH ASTRONOMER VISITS BENDIGO**

During the 2007 Victorian Astronomical Societies Convention (VASTROC) held at Bendigo during 22nd-24th March, the famous French astronomer Charles Messier in an amazing feat of time travel arrived to give a short paper on his 18th century comet searches. He explained he had been forced to compile his famous Messier catalogue to keep observers focused upon comet hunting and not on the other nebulous objects which he confidently predicted would be of no consequence to future astronomers. Charles (or Chuck to his friends) kindly agreed to pose for a group photograph (above) with the M.P.A.S. members who also attended the convention. Further VASTROC details on page 6

### Also in SCORPIUS for July & August...

- M.P.A.S Website Re-design
- 2007 Science Week Activities August's Total Lunar Eclipse
  - More on VASTROC 2007

Society News

## New M.P.A.S. website re-design and members contributions request

The M.P.A.S. website is receiving a total overhaul and will be relocated to a new web domain. The new web domain name is currently being reviewed, and will be advised to members once secured.

One of the main aims of developing the new website, and having our own domain, is to add the normal dynamics a fully fledged website provides. The current M.P.A.S. site has restrictions on the web design and restrictions on page limits. Richard Pollard has done a great job with this site considering the limitations imposed by the web host, *Websyte*.

The new site, apart from its general face lift, allows for flexibility in design and content. Valuable information from the old site has been transferred to the new site, and new sections have been introduced to increase the topic scope.

Increase the topic scope.

Here is where interested members could lend a hand to increase the value of our site to other M.P.A.S. members and the general astronomy community. Importantly, we are not trying to reinvent the same information that is already available on the net, but to introduce new information sourced from members' experiences.

Areas on the website, which members may be interested to contribute topics on will be: Upcoming Events, Astronomical Information, Astrophotography (*This section will be broken into two areas: Tips and Tricks and Members' Photos*), Meteor Viewing Tips, Equipment for Sale, School Activities, and Web & Astronomy Software Links.

Steven Mohr is heading up this overhaul of our website, and has detailed submission guidelines (for the website) available at the general meetings and also online. The final domain hosting the web pages will be confirmed shortly.

Also getting a make over (if you haven't already gathered) is the Scorpius newsletter. It was mentioned it was in need of a refresh, so what better way to refresh the newsletter than with a bit of colour. We hope you like the new look.

### **Volunteers Required**

As you can tell from the lateness of the Scorpius newsletter this year we are struggling to keep up with some of the society activities. Our viewing night activities seem to be fairly well covered however other activities such as Briars working-bees, newsletter contributions and general meeting speakers are generally short on the ground. Although members pay a membership fee, this fee is kept low through the contributions from our volunteers. If you have time to help out please approach one of the committee members.

### upcoming Society Events for July & August

6th - Public Viewing Night at The Briars (8pm)\*

14th - Members Viewing Night at The Briars

18<sup>th</sup> - General Meeting at *The Peninsula School* (8pm)

Session 1 - Speaker CHRIS BLAKE - 'Mapping The Universe' Session 2 - Video NONE Session 3 - Open Forum & 'Sky for the Month'

25th - Committee Meeting

#### August

3rd - Public Viewing Night at The Briars\*

11th - Members Viewing Night at The Briars

15<sup>th</sup> - General Meeting at *The Peninsula School* (8pm)

Session 1 - Speaker PETER LOWE - 'Lunar Eclipse & Moon Science' Session 2 - Video NONE Session 3 - Open Forum & 'Sky for the Month'

18th - Nat. Science Week Public Viewing Night at The Briars\* 'Capturing the Night Sky with your Digital Camera' (7pm)

22<sup>nd</sup> - Committee Meeting

\* Denotes assistance in the form of telescopes and general evening operating assistance (i.e. - parking, answering queries, organising supper, etc.) for the public/school nights would be appreciated.

(For the Digital Camera night, members are asked to bring their cameras also)

Journal of the Mornington Peninsula Astronomical Society Volume XVI, No. 2 (July/August 2007)



### 2007 Science Week Activities - August Sat 18th to Sun 26th

National Science Week is an annual celebration of Australian science that aims to increase public awareness of the role that science, engineering, innovation, technology and entrepreneurship play in our daily lives. National Science Week activities also assist in making connections between science studies and the opportunities that open to those who pursue them and celebrates the achievements of Australians working within these fields.

This year, National Science Week runs from Saturday 18th to Sunday 26th August inclusive and is being promoted widely in schools and in the media nationally. In Victoria, National Science Week is coordinated by a voluntary committee chaired by CSIRO Science Education Victoria.

Many events are planned both within Victoria and nationally, and M.P.A.S. has taken a leading role in Australia by conducting educational events associated with National Science Week for all of its existence over the last 10 years. In fact M.P.A.S. were the first astronomy related events registered in Australia for some years. A growing list of these events for 2007 can be seen on the website www.scienceweek.info.au, so check it out regularly for new arrivals in all topics of science.

Surveys conducted after National Science Week and its promotion in the media, indicate that nearly 60% of the wider public have awareness of the week which is very high indeed.

During National Science Week period, the society will be planning the following activities:

- Our normal public monthly viewing nights for July 6th, August 3rd, September 7th, entitled 'Twinkle, Twinkle Little Stars' as a part of our usual 'Astronomy on the Move' presentations.
  - 8pm to 10pm at The Briars Observing Site.
- The August General Meeting on August 15th, entitled 'The Shadowy, Hidden World of Eclipses' will be the Annual National Science Week lecture.
  - 8pm to 10:30pm at 'The Peninsula School' Senior Theatrette.
- Saturday August 18th M.P.A.S. display at Bayside Shopping Centre in Frankston (near Coles).
  - 9am to 5pm
- Saturday August 18th, a public viewing night entitled 'Capturing the Night Sky with your Digital Camera'.
  - 7pm to 10pm at The Briars Observing Site.

These events run by the society have proven to be incredibly popular with the public in previous years, and we are expecting a large turnout again this year also. Any help members could give with additional scopes would be very much appreciated.

### Death of A.S.V. Past President

It was sad to hear of the death of well know A.S.V. personality Jim Trainer. Jim was an avid amateur astronomer with an encyclopaedic knowledge of things astronomical.

Jim was an honorary Life Member of the A.S.V. and a past President. From my personal viewpoint I can remember Jim as one the principal organisers of the first Solar Eclipse chase by a commercial airline. Ansett Airlines took the charter to track along the eclipse path off Western Australia giving those aboard a superb and extended view of the total solar eclipse. It is a lifelong regret that as a cash-strapped student I couldn't afford the trip.

Jim was also famous for his astronomy trivia competitions which he presented with gusto and invariably brought out those little known facts that make trivia night events fun. While not a member of the M.P.A.S. Jim was a semi-regular attendee and gave some talks at M.P.A.S. general meetings.



The Victorian astronomical scene has seen the passing of a great amateur and Jim's legacy will no doubt carry on within the A.S.V.

Journal of the Mornington Peninsula Astronomical Society Volume XVI, No. 2 (July/August 2007)

### and AUGUST 2007 \* Skywatcher Events for .

### Now You See It... ... Now You Do

## \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### Events for JULY

- 1<sup>st</sup> to 2<sup>nd</sup> Saturn and Venus will be less than 1° apart in the early western evening.
  - 7th Earth is at aphelion (furthest point in its orbit from the Sun).
  - 8th Last Quarter Moon.
- 10<sup>th</sup> to 16<sup>th</sup> Phoenicids meteor shower is active with maximum activity on the 13<sup>th</sup>, after midnight.
  - 14th New Moon.
  - 17th Crescent Moon, Venus, Saturn & Regulus all appear close together.
  - 22nd First Quarter Moon.
  - 26<sup>th</sup> Occultation of Antares by the Moon.
    Disappearance around 3:04am, and
    Reappearance around 3:48am.
  - 30th Full Moon.

On Tuesday the 28th of August, observers on the East Coast of Australia and New Zealand will be able to watch in it's entirety, a lunar eclipse.

At just a little under six hours from start to finish, the lunar eclipse begins on sunset at 5:52 p.m. The Moon will be above the horizon when the Penumbral eclipse begins, therefore giving us the opportunity to witness this event completely.

While never appearing completely blacked-out, with the Moon going close to the centre of Earth's shadow, this should see the Moon appearing darker than previous eclipses. During totality, the Moon can turn a deep red colour. The table in the diagram shows the times of the Moon's entry into Earth's shadow, and the Moon's exit.

One major advantage of observing lunar eclipses is that they are completely safe to view to the unaided eye. They do not require any filters to observe. And being a full moon, there will be little detail on the moon to observe with a telescope, making this an excellent viewing with binoculars.

And while there will be other partial lunar eclipses in the next few years, our next total lunar eclipse will not be until the 10th of December, 2011.

For further information on this lunar eclipse, go to Mike Salway's article on Ice-in-Space website (under *Project & Articles -> Astronomy & Observing*).

## 

### Events for AUGUST

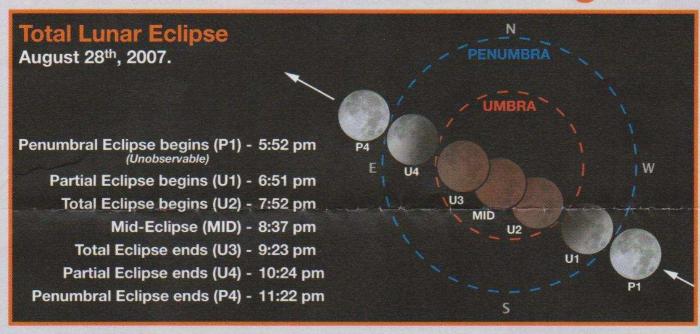
- 6th Last Quarter Moon.
- 14th New Moon.
- 14th Neptune is at opposition.
- 17<sup>th</sup> to 26<sup>th</sup> Perseids meteor shower is active, however radiant is below the horizon.
  - 21st First Quarter Moon.
  - 28th Full Moon and Total Lunar Eclipse. Begins around 5:52pm, and ends about 11:22pm EST.
  - 31st Jupiter and minor planet Vesta are within 0.4° around midnight.

### RISE and S

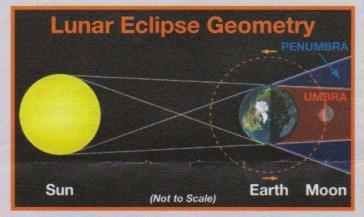
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|------|--|--------------------|-------|-------|------------------|-------|-------|-------------------------|---------|-------|-------|-------|-------|-------|----------|
|      |  |                    | Sı    | un    |                  | Moon  |       |                         | Mercury |       | Venus |       | Mars  |       |          |
|      |  | Twilight<br>Begins | Rise  | Set   | Twilight<br>Ends | Rise  | Set   | Phase                   | Rise    | Set   | Rise  | Set   | Rise  | Set   | R        |
| Jul  | 7  | 06:02              | 07:36 | 17:14 | 18:48            | DNR*  | 11:25 | Last Quarter Moon       | 06:32   | 16:34 | 09:52 | 20:36 | 02:27 | 13:18 | 14       |
|      | 14   | 06:00              | 07:33 | 17:18 | 18:52            | 07:28 | 16:46 | New Moon                | 06:09   | 16:06 | 09:29 | 20:29 | 02:24 | 12:57 | 14       |
|      | 21   | 05:57              | 07:30 | 17:23 | 18:56            | 10:48 | DNS*  | First Quarter Moon      | 06:05   | 15:54 | 09:03 | 20:15 | 02:21 | 12:43 | 13       |
|      | 28   | 05:53              | 07:24 | 17:29 | 19:00            | 15:21 | 06:08 | Near Full Moon          | 06:18   | 16:01 | 08:31 | 19:53 | 02:17 | 12:30 | 13       |
| Aug  | 4  | 05:48              | 07:18 | 17:35 | 19:05            | 23:35 | 09:55 | Near Last Quarter Moon  | 06:41   | 16:29 | 07:54 | 19:22 | 02:12 | 12:17 | 12       |
| 1000 | 11   | 05:41              | 07:11 | 17:41 | 19:10            | 06:09 | 15:41 | Near New Moon           | 07:03   | 17:11 | 07:13 | 18:43 | 02:07 | 12:05 | 12       |
|      | 18   | 05:34              | 07:02 | 17:46 | 19:15            | 09:13 | 23:00 | Near First Quarter Moon | 07:17   | 17:55 | 06:30 | 17:57 | 02:01 | 11:53 | 11       |
|      | 25   | 05:25              | 06:35 | 17:52 | 19:20            | 14:08 | 04:47 | Near Full Moon          | 07:23   | 18:35 | 05:50 | 17:11 | 01:55 | 11:40 | 11       |
|      | * DNR or DNS indicates the Moon does not Rise/Set on that day. |                    |       |       |                  |       |       |                         |         |       |       |       | day.  |       |          |

### JULY and AUGUST 2007 \* Skywatcher Events

### n't... ... And Now You Do Again!



The Umbral Magnitude is the fraction on the Moon's diameter immersed in the umbra at maximum eclipse. For values greater than 1.0, it is a total eclipse. For negative values, it is a penumbral eclipse. For this eclipse the Umbral Magnitude is 1.48



#### Types of Lunar Eclipses

Penumbral Lunar Eclipse - A Penumbral Lunar Eclipse is when the Moon passes into the Earth's penumbral shadow. Accounts for 35% of all Lunar Eclipses. The difference in visibility on the moon during this phase is very subtle and difficult to observe.

Partial Lunar Eclipse - A Partial Lunar Eclipse is when only a part of the Moon passes into the Earth's umbral shadow. This type of eclipse accounts for 30% of all Lunar Eclipses. During this phase, a "chunk" or portion of the moon goes into shadow.

Total Lunar Eclipse - A Total Lunar Eclipse is when the Moon passes completely into the Earth's umbral shadow, described as "Totality". Total Lunar Eclipses account for the other 35% of all lunar eclipse.

### HINE TIMES

|     |               |  |                              |                       |                             |  |  |         | 600000000000000000000000000000000000000 |
|-----|---------------|--|------------------------------|-----------------------|-----------------------------|--|--|---------|---|
|     | -             | tune   | Nep                          | nus                   | Ura                         | urn  | Sat  | lupiter |   |
|     |               | Set  | Rise                         | Set                   | Rise                        | Set  | Rise   | Set     | se                                      |
| Jul | 7             | 09:47  | 20:07                        | 11:00                 | 22:20                       | 20:18  | 09:50  | 05:17   | :46                                     |
|     | 14            | 09:19  | 19:38                        | 10:32                 | 21:52                       | 19:54  | 09:24  | 04:46   | :16                                     |
|     | 21            | 08:51  | 19:10                        | 10:04                 | 21:24                       | 19:31  | 08:59  | 04:17   | :47                                     |
|     | 28            | 08:23  | 18:42                        | 09:37                 | 20:55                       | 19:08  | 08:34  | 03:48   | :18                                     |
| Aug | 4             | 07:55  | 18:13                        | 09:09                 | 20:27                       | 18:44  | 08:09  | 03:20   | :50                                     |
|     | 11            | 07:27  | 17:45                        | 08:41                 | 19:58                       | 18:21  | 07:44  | 02:53   | :23                                     |
|     | 18            | 06:59  | 17:16                        | 08:12                 | 19:30                       | 17:58  | 07:18  | 02:26   | :56                                     |
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|     |               | 2)   |                              |                       |                             |  |  |         |   |

much times and more celestrial information can be found in the excellent publication. annual Australian ASTRONOMY 2007, available for purchase through the club. This is aimed at all levels of amateur astronomer, from newcomer to expert. See Page 6 for purchase



Now Only \$12 for Members

## Society News

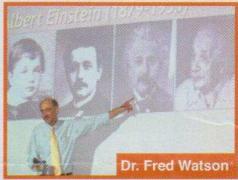


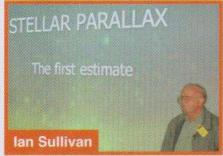
### **VASTROC A GREAT SUCCESS**

The 2007 convention was organised by the Bendigo and District Astronomical Society and was particularly successful. The B.D.A.S. are to be congratulated on a job well done. This year's convention aimed to explore how different societies structured their public outreach activities as well as some of the latest astro-photography and observing techniques.

Dr. Fred Watson gave the keynote address showing a refined version of his now famous "Astronomers Behaving Badly" presentation based on anecdotal stories from his first book "The History of the Telescope", a great read if you get the chance.

Other speakers included **Claire Williams** who described the work of the Canberra Space Centre, which also houses the planetarium. (*Editor: This is well worth visiting and is in my opinion one of the best I've seen*) The Canberra Space Centre is a perfect example of how the latest astronomical information can be explained to the public in a fun and exciting way.





Our own **Ian Sullivan** gave his presentation of the "History of Stellar Parallax Measurement". The determination of how far away the stars were took generations of observing before the crucial measurements could be done. It would be an interesting observation project for amateurs.

For those interested in astrophotography, **Mike Lyons** from B.D.A.S. engaged the audience on Saturday afternoon with images of what can be achieved with little finacial outlay, and tips for taking better photos of the night sky. He continued this theme with a workshop the following day using Iris image processing software.

As mentioned earlier, **Monsieur Charles Messier** paid a visit on Saturday afternoon to tell us about his comet hunting activities, and to encourage us to keep looking for these comets he was chasing. The Monsieur's talk closed out the afternoon at the college for us, so it was then off to the convention dinner at the Eaglehawk Golf Club. Keynote speaker for the evening was **Michael Tobin** and his talk about his involvement with the Australian contigent of the Apollo 11 mission, and other Apollo missions.

Sunday morning and we started our final day at the conference with an egg-n-bacon (and coffee) breakfast to get going. Speakers for this morning were A.S.V.'s own **Perry Vahlos** with his comparison of past great comets with the recent McNaught comet, and was followed by **Brett Biddington**'s talk on 'Influencing Australian Space Policy Development'. Brett's presentation led us into Sunday's discussion topics of 'Should there be a Representative body representing astronomical socities?' and 'Astronomical outreach Programs'

This brought to an end VASTROC for 2007. The Bendigo and District Astronomical Society put on a wonderful event, and we thank you for your hospitality.

We now look forward to NACAA 2008 in Sydney, and VASTROC 2009 in Ballerat.



It's half way through the year and there are still a few copies of the excellent annual Australian publication, ASTRONOMY 2007, available for purchase. The book shows what is in the night sky throughout 2007, and is aimed at all levels of amateur astronomer, from newcomer to expert.

Pricing is now \$14 to the public, though society members can get it at the discounted rate of \$12. Orders and payments can be made in person at any M.P.A.S. gathering or by cheque to P.O. Box 596, Frankston 3199. These sky almanacs will be available at any society gathering. There's a few left so get in quick before they're gone.



Journal of the Mornington Peninsula Astronomical Society
Volume XVI, No. 2 (July/August 2007)

## Society News

### Society Subscriptions for his year

A large number of members have failed to renew their subscriptions this year. Subscriptions are the life blood of the society and we cannot continue to operate if members don't renew their subscriptions. If you are not financial could you please direct your subscriptions to the Treasurer. Payments can be made in person at any M.P.A.S. gathering or by cheque to P.O. Box 596, Frankston 3199. Please note that due to another organisation having the same abbreviation as us, all cheques need to be made out to: **Mornington Peninsula Astronomical Society Inc.** 

The fees for this year are as follows:

\$50 - Full Member

\$45 - Pensioner Member

\$35 - Full-Time Student Member

\$65 - Family Membership

\$60 - Family Pensioner Membership

\$22 - Newsletter Subscritption Only

\$70 - School, Community Group or Overseas

Society Pictures





The Blue Moon viewing night on June 30th was a great night. Kevin has a photo of the blue Moon which surprisingly looks just like a full Moon. Amazing!!

We also got some great shots of Venus & Saturn in conjunction. After that the rain set in and all further astronomy was done on the computers.

Also restricitng all astronomy to computers was the Solstice night on June 23rd. What can you say, it's winter!

## RONOMER VISITS BENDICE

nical Societies Convention (VASTROC) held at Bendigo during 22<sup>nd</sup>.

barles Messier in an amazing feat of time travel arrived to observe the property of the p

Just how did the Bendigo Society get Monsieur Charles Messier as keynote speaker at the recent VASTROC conference? A quick check behind the scenes revealed their little secret. Now, the line starts here for next week's Tattslotto numbers! (Editor: Nice investigative journalism Brett!)



### **ASTRO NEWS**

Just a brief note to say that Astro News will be apart of the next newsletter as normal. It was unfortunate that being behind with this edition, and so much Society bits and pieces to report on, Astro News was unable to find a spot. But it will return for the next Scorpius.

Journal of the Mornington Peninsula Astronomical Society Volume XVI, No. 2 (July/August 2007)

### Office bearers of the Mornington Peninsula Astronomical Society

President: Peter Lowe - 0419 355 819

Vice President: Ian Sullivan
Editor: Peter Lowe

Committee: Peter Skilton, Kevin Rossiter,

Terry Ryan, Bob Heale

Librarian: Andrew Thorton
Phone Contact: Peter Skilton

Secretary: Don Leggett - 5985 4977 Treasurer: Marty Rudd - 5977 8863

Public Officer: Rhonda Sawosz

Web Master: Steven Mohr

#### GENERAL MEETINGS

Meeting Venue: Peninsula School, Wooralla Drive, Mt. Eliza, (Melways map 105/F5) in the Senior School at 8pm, on the 3rd Wednesday of each month, except December.

Phone: 0419 253 252

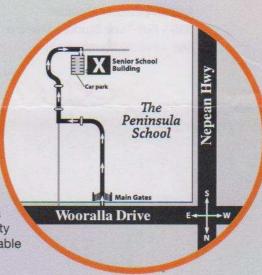
Mail: P.O. Box 596, Frankston 3199, Victoria, Australia.

Internet: http://www.mpas.websyte.com.au

email: skywatch@iprimus.com.au

#### LOAN EQUIPMENT

The Society has an 8-inch reflector, 80mm refractor and binoculars available for loan. Contact Kevin Rossiter or a committee member to arrange the loan of equipment. The Society also has books and videos for loan from it's library, made available during General Meetings.



#### **CONTRIBUTIONS TO SCORPIUS**

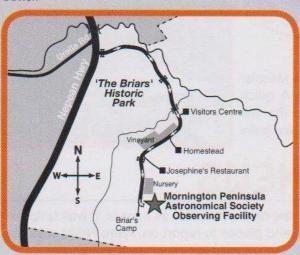
If you would like to submit an article or written contribution to Scorpius, then please send your submission to M.P.A.S., P.O. Box 596, Frankston 3199, or email to Peter.J.Lowe@pilkingtone.com.au (Peter Lowe).

Any astronomical events that you have witnessed or tales you would like to tell, things you have for sale (eg: telescopes, eyepieces, etc.) then please send them in. All contributions are welcome.

### E-Scorpius Newsgroup

The M.P.A.S. has an 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 <a href="http://groups.yahoo.com">http://groups.yahoo.com</a> 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 skywatch@iprimus.com.au saying that you want to join E-Scorpius and you will be added to the E-Scorpius list. Come on, join up. The more people in the group the better.



#### VIEWING NIGHTS — MEMBERS ONLY

Any night, at The Briars, Nepean Hwy, Mt. Martha, starting at dusk. If you would like to know if others are observing at the site, then call the society's site mobile on 0408 127 443.

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 to verify that the mobile is turned on.

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Good turn out for KBSD at the Briars March 2007 images by Greg Walton



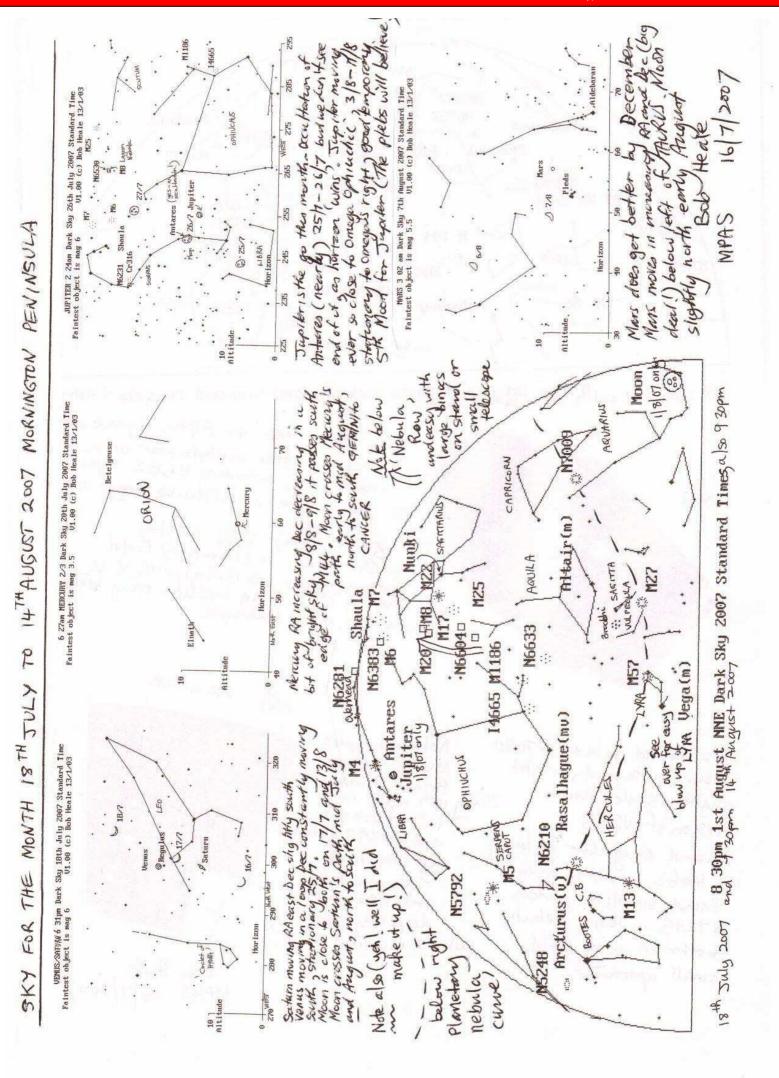


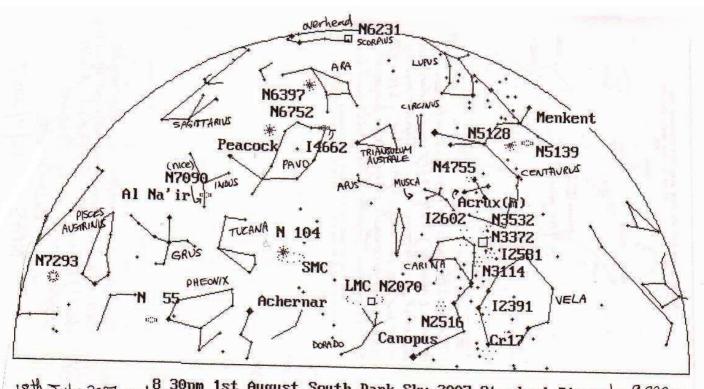




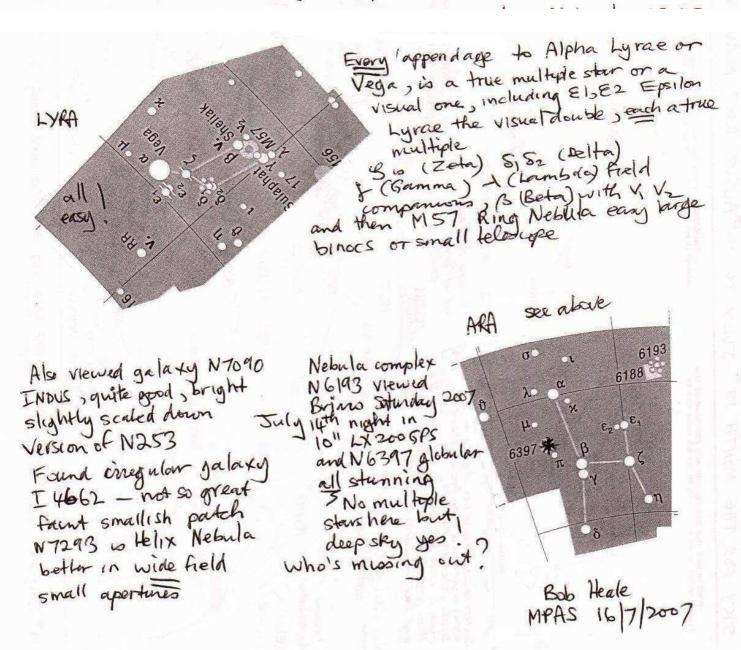


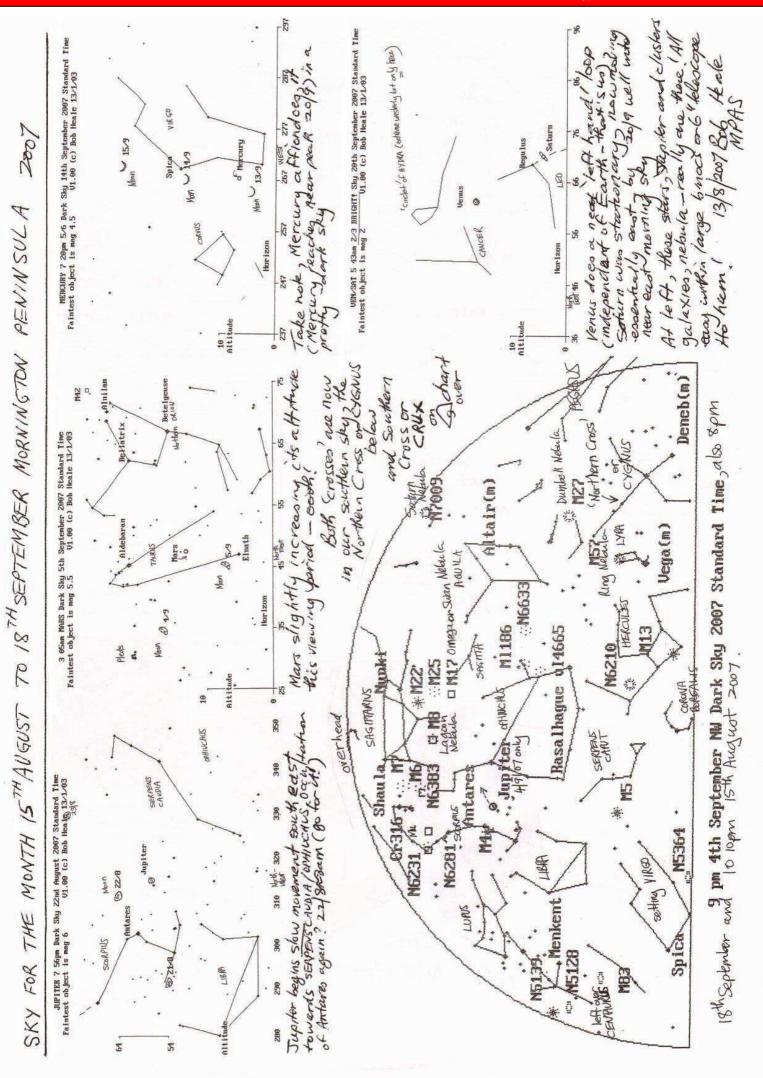


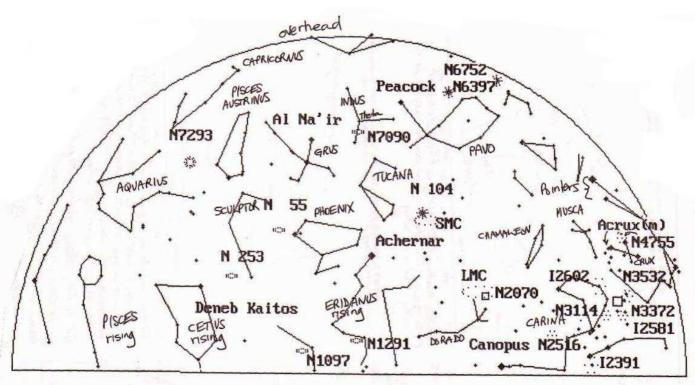




18th July 2007 and 8 30pm 1st August South Dark Sky 2007 Standard Times, also 9 30pm







also 8pm 18th September and 10 10 pm 15th August 2007 Standard Times

