

SPACEWATCH

the newsletter of the Abingdon Astronomical Society

November 2002

“Mercury, the Enigmatic Planet”

by Dr Sarah Dunkin (Rutherford Appleton Lab.)

Now the clocks have gone back and the evenings get dark early, you have no excuse not to get out there and observe. None, that is, except for those dratted clouds...

The Night Sky this Month

The Planets:

Mercury is too close to the Sun this month.

Venus (magnitude -4.2) is slowly becoming the "Morning Star" again. It very low in the east-south-east just before dawn, below Mars. It climbs higher by the end of the week and so is easier to see.

Mars (magnitude $+1.8$) is low in the east-south-east before dawn, above Venus. Try sweeping the area with binoculars as the sky brightens, but avoid the Sun. The red star Spica is between Mars and Venus and a bit to the right. The red star Arcturus is due east.

Jupiter (magnitude -2.1) rises around 11pm and is near the backwards question mark of Leo. By dawn it is quite bright very high in the south.

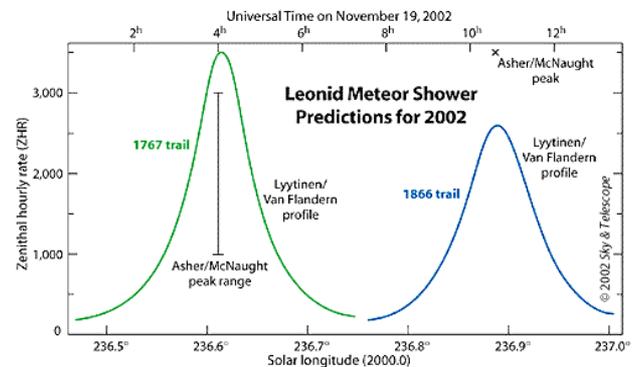
Saturn (magnitude -0.2) rises shortly after dark and is quite high in the east by 9pm. Sweep the area with binoculars to see the stars in the area (between Taurus and Gemini and above Orion. By dawn Saturn is in the west.

Uranus and **Neptune** (magnitudes 5.8 and 7.9, respectively) are in Capricornus (in the south to south-west right after dark). You will need good binoculars or a small telescope to see them.

Meteors:

Predictions for the Leonid Meteor Shower for this year are shown below. This is the last chance until at least 2032 to see a meteor storm. Note that these are predictions based on a computer model of what the remnants of Comet 55P / Temple Tuttle may

look like, and are thus no guarantee - though they have proved to be remarkably reliable in recent years. However, if you feel like getting up between 3 and 5am on the morning of the 19th November, you may get lucky, though with a full Moon around, you won't see anywhere near as many as without.



Moon Phases:

New: 4th Nov.; First Qtr: 11th Nov.; Full: 20th Nov.; Last Qtr: 27th Nov.; New: 4th Dec. (TSE).

This month's Deep Sky Object

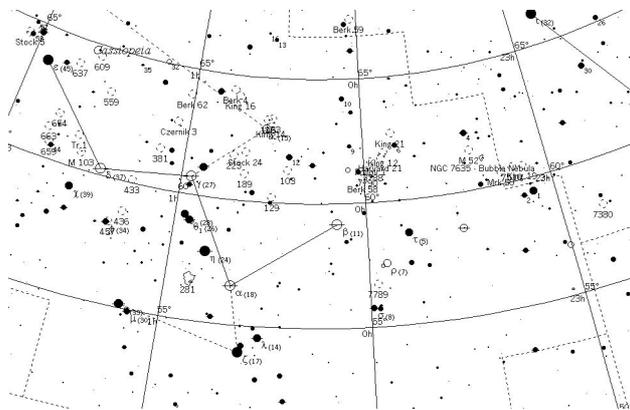
By Paul Warren

This month's DSO is one of the best examples of an open (or galactic) cluster, which looks appealing in a wide range of telescopes (small and large aperture). The cluster is known as M52 and lies just within the borders of Cassiopeia.

I wish I could say that there is an easy way to find this cluster. In theory it looks very straightforward, just follow a line from γ -Cas to δ -Cas and continue for just a little more than the same distance again. So why do I not think it's easy to find? Because the Milky Way runs more or less right alongside it, and this makes spotting it in a finderscope an awful lot more difficult than it should be. Don't worry if you end up star hopping to get there, as you'll be keeping me good company!

One of the problems with Cassiopeia is that it simply abounds in open clusters. I can spend an entire evening

observing the clusters in this constellation and still have some left over for the next session! But one of my maxims is “variety is the spice of life”, so I can get a little “not so enthusiastic” by spending a whole session on open clusters.



M52 contains around 200 stars and is believed to be about 4,500 light years away. It glows with a magnitude of about 7 and covers an area of sky roughly one third the size of the Moon’s disc. Small telescopes show M52 as a rich and bright mass of dozens of stars.

M52 is quite a rich and compressed cluster, approaching about 1½ stars per cubic light year at the centre of the cluster. It also appears to be quite a young cluster, probably comparable in age to the Pleiades.

Whilst preparing this article, I noticed that there is a faint emission nebula nearby. This is an emission nebula and is known as the Bubble Nebula. For some reason or other, I have never got around to observing this nebula. Be warned though – it has a reputation of being “not easy” (i.e. it requires dark skies). As it is an emission nebula, you may be able to improve your chances of seeing it using a nebula filter. I’ll report back on this later after I’ve tried for it.

Talking about dark skies, have you noticed how sometimes the sky appears to be a darker colour than on others? From my back garden, I usually describe the night time sky colour as being grey, but every now and then I do see a dark grey sky rather than the usual “light” grey one. On such nights is the best time to search out those elusive and faint treasures of the night sky. Do not infer from this that I have lousy observing conditions from my back garden – I think I enjoy quite good conditions, for this part of the world that is. But I long for an observing session where the sky really is black.

TOTAL SOLAR ECLIPSE

There will be a total solar eclipse on 4th December visible from parts of the South Atlantic, southern Africa,

southern Indian Ocean and a small part of Australia. None of the partial phase will be visible from Europe.

FURTHER DISCUSSION

The society’s e-mailing list is used by members to comment on all things astronomical, as well as other related and not-so-related subjects.

The list is also used to publicise “first-clear-night” observing evenings and for alerting members to hot observing news.

To subscribe: send an email to abiastro-subscribe@topica.com. You will then receive all e-mails sent to the list. To post e-mails on the list: send an email to abiastro@topica.com. To unsubscribe: send an email to abiastro-unsubscribe@topica.com

WEB SITES

Don’t forget our web site:- <http://www.abingdonastro.org.uk>

Our webmaster, Chris Holt, would welcome any material for the members' observation page – particularly photographs. Some pretty stunning pictures have been added recently.

ISS/Iridium data: <http://www.heavens-above.com/main.asp>.

Space weather & aurora forecasts:

<http://www.pfrr.alaska.edu/~pfrr/AURORA/INDEX.HTM> & <http://www.skypub.com/news/astroalert/astroalert.html>.

DATES FOR YOUR DIARY

25th Nov.: 8pm. Beginners’ Meeting in the Perry Room.

2nd to 4th Oct. (FCN): Observing Evening 8pm. Abbey Meadow Recreation Ground, Abingdon. Contact Bob on 01491 201620 to confirm. Ask Bob tonight for a map if you want directions.

9th Dec.: 8pm. “The Glory of Star Clusters” by Guy Hurst (The Astronomer & BAA).

16th Dec.: 8pm. Beginners’ Meeting in the Perry Room.

The editor of “SpaceWatch” is Andrew Ramsey, who would very much appreciate your help and contributions. Please send any news, observations, photos, etc. to:

SnailMail: A.T.Ramsey, 35 Cope Close, OXFORD, OX2 9AJ.

E-mail: AbiAstro@ATRamsey.com

Phone: 01865 245339