

PUBLIC OPEN EVENINGS AT THE INSTITUTE OF ASTRONOMY

WEDNESDAY 22ND OCTOBER 2008

Institute of Astronomy

<http://www.ast.cam.ac.uk>

Cambridge Astronomical Association

<http://www.caa-cya.org/home/index.php>

All comments, enquiries or suggestions please to **Carolin Crawford** (csc@ast.cam.ac.uk)

Welcome to our winter season of public open evenings, which will now run for nearly every Wednesday until mid-March. Tonight's 30 minute talk starts at 7.15pm and is followed by an opportunity to observe with both modern and historical telescopes *if* the weather is clear. The talk schedule for the remainder of the term can be found at :

http://www.ast.cam.ac.uk/public/public_observing/0809/timetable.html

This week's talk : Mark Hurn is relating some of the *History of the Cambridge Observatory*

Next week's talk : Anna Quider will be considering the future of *Humans in Space*

Remember, there will be *no talk or observing* on **5th November**

MESSENGER AT MERCURY

Regular readers of this handout (are there any?) may remember that earlier in the year the NASA spaceprobe *Messenger* undertook its first fly-by of the smallest planet Mercury, sending back some beautiful close-ups of the surface. It's just whizzed past the planet again, at a height of about 200km, and is scheduled to perform one more fly-by next September before settling into orbit around the planet in March 2011. That's a long time to wait, so why not whet your appetite in the meanwhile with some of the spectacular new images of Mercury's craters at

<http://messenger.jhuapl.edu/gallery/sciencePhotos/>

IRIDIUM FLARES

Date	Local Time	Altitude	Direction
22 Oct	19:27:17	50°	SSE
23 Oct	19:21:17	49°	SSE
24 Oct	19:15:16	47°	SSE
28 Oct	18:00:18	46°	SSE
29 Oct	17:54:17	45°	SSE

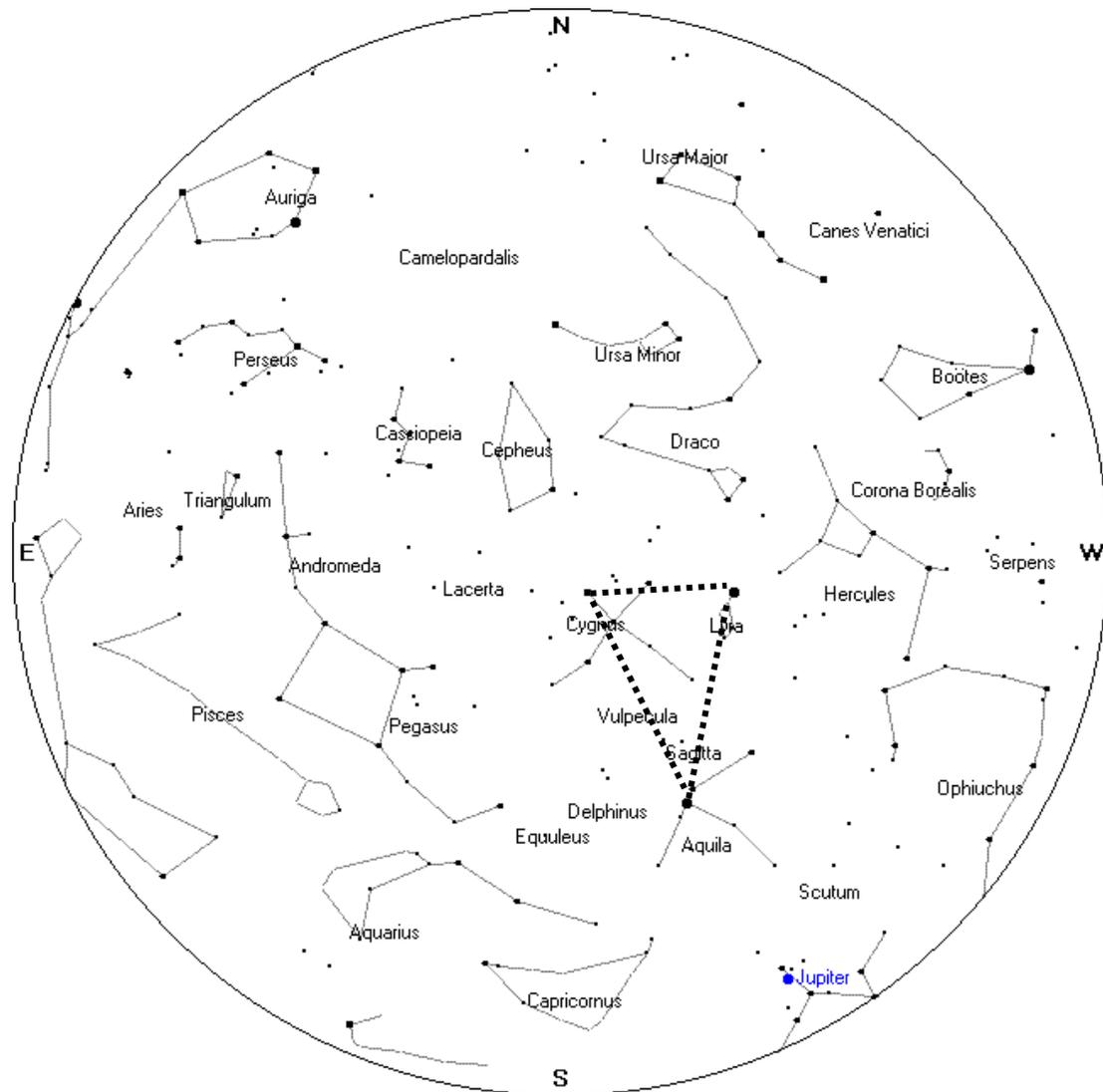
A few early evening **Iridium flares** will be visible during the next week. These are flashes of reflected sunlight off communication satellites in orbit above the Earth. Look in the general direction given at the time listed in the table to the right; watch out for a moving 'star' that quickly grows to a peak brightness and then fades away. The two in italics should be dazzlingly bright. Note that these times are specific to Cambridge: if you live more than a few km away, go to <http://www.heavens-above.com/> to get more appropriate timings for your viewing site. The **International Space Station** is back in our skies, but only in the very early morning at the moment; I'll let you know when you can see it in the evenings again.

A SUMMER TRIANGLE AND AN AUTUMN SQUARE

As your eyes adjust to the dark outside, why not start by looking for 3 of the brightest stars in the sky at the moment – *Deneb* in the constellation of Cygnus (the Swan) , *Altair* in the constellation of Aquila (the Eagle), and *Vega* in the constellation of Lyra (the Lyre). Together they link up to form a large right-angled triangle high in the Western sky known as the **Summer Triangle** (see the dotted lines on the sky-map overleaf); they are always the first stars to be obvious as the twilight darkens, and will dominate the early autumn skies for a few weeks yet.

Then as it gets darker, turn a little further to the South-east and see if you can detect the **Great Square of Pegasus** (hopefully obvious from the sky map). It's a rather more of a challenge to spot this, as the stars making up the corners are quite a bit fainter than those in the summer triangle, but there's not a lot else in this part of the sky to confuse you.

THE NIGHT SKY AT 8PM ON 22ND OCTOBER 2008



- There isn't any moon to bother us tonight.
- **Jupiter** is currently visible in the evening twilight sky, although it's very low down (an altitude of only about 15 degrees or so) to the Southwest
- **Mercury** is fairly bright and now visible for about an hour before dawn - but only very low down at the Eastern horizon.
- Similarly if you're an early riser, you may also spot **Saturn** low in the Eastern sky in the morning twilight.
- And keep an eye out for any **shooting stars**; the Orionid meteor shower has just passed its maximum. Whilst the prime time for viewing isn't very favourable for us, there may still be a few stray meteors at other time of the night.

Sky map courtesy of <http://www.heavens-above.com/>

SITE SAFETY

Please be aware that we have a major construction site in our midst over the winter, while the exciting new Kavli Institute of Cosmology is added to the IoA grounds. The building work is safely fenced off, but still please don't tempt fate by exploring too far in the dark unless you know where you're going! There are also a few random posts stuck into the observatory lawn as well which are best avoided. If you need orientation, the red rope light marks out a safe path between the observing and Madingley Rise, and please ask any of the staff for directions or assistance.

