



Recent News...

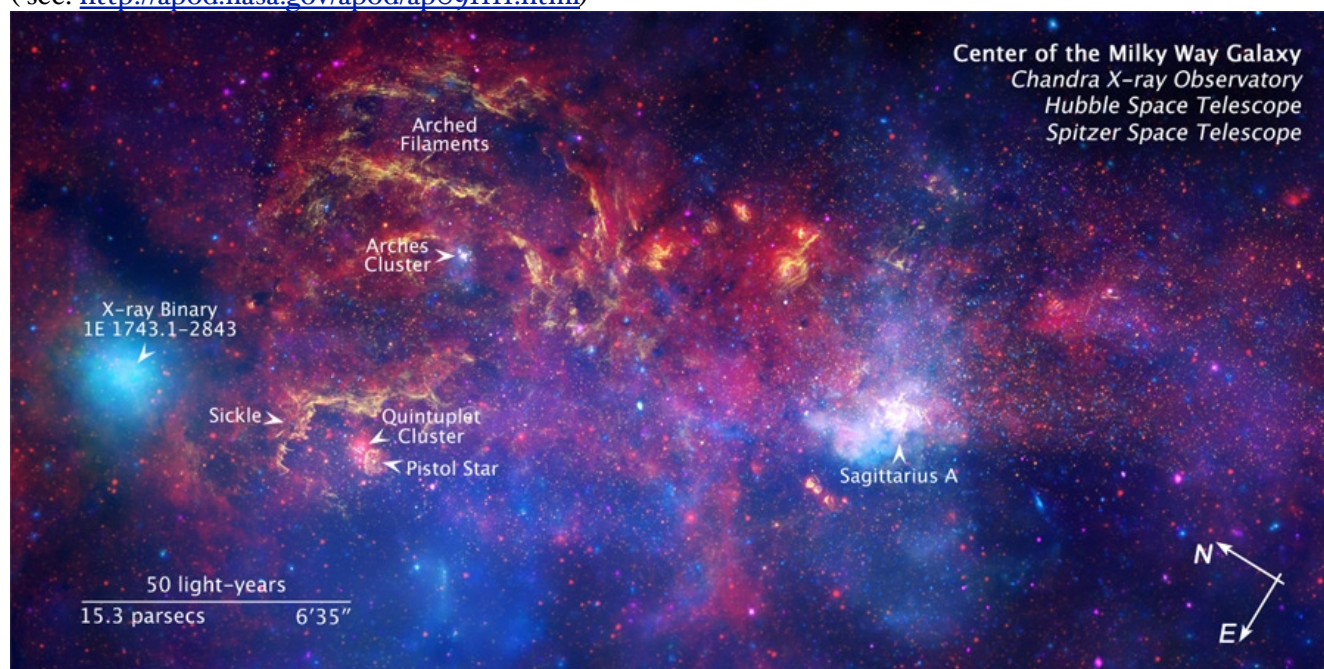
Revamped reading Astronomical Society Website!!

www.readingastro.org.uk

Thanks to John for all the effort. Please visit the site to see what's going on and also you can see the latest and previous issues of this bulletin!!

Below is a recent combined image using, Hubble, Chandra and Spitzer telescopes of the central region of our galaxy!:

(see: <http://apod.nasa.gov/apod/ap091111.html>)



This Month's Talk:

November 21st

ASTRONOMY FROM NEW ZEALAND – OR WHAT I DID ON MY HOLIDAYS

Bob Dryden (Abingdon AS)

Bob recounts his experiences of observing in New Zealand

LAST MONTHS TALK

Many thanks to Dr. Robert Smith of Sussex University for a very thought provoking talk about the ultimate fate of the Earth! It was especially interesting to learn that given the current rate of population growth the world would have an infinite population in under 30 years time!!

It was also a (pleasant?) surprise for Dr. Smith to see one of his old students in the audience! Even more surprising for the student in question was the fact that he still retained the students two project reports! One on galactic interactions and one on the supernova remnant Cassiopeia A.

Leonids this month:

Every year, on November 17th and 18th, the Earth passed close to the trails of cometary debris from Comet Temple-Tuttle which produce the annual Leonid Meteor shower. The really good thing this year is that this corresponds to New Moon, so there will be no moonlight to hide the fainter meteors! The dust particles that are swept up by the Earth are released as Comet Temple-Tuttle rounds the Sun every 33 years. As implied by the name, the radiant of the shower - from where the meteors appear to radiate from - lies within the head or Sickle of the constellation Leo the Lion. The peak activity is expected to be around 21:50 on the night of the 17th when the rate might easily exceed 100 meteors per hour. If clear this is really well worth looking out for!

M31 This month:

In the evening, the galaxy M31 in Andromeda is visible in the south. The chart provides two ways of finding it:

1) Find the square of Pegasus. Start at the top left star of the square - Alpha Andromedae - and move two stars to the left and up a bit. Then turn 90 degrees to the right, move up to one reasonably bright star and continue a similar distance in the same direction. You should easily spot M31 with binoculars and, if there is a dark sky, you can even see it with your unaided eye. The pho-

tons that are falling on your retina left Andromeda well over two million years ago!

2) You can also find M31 by following the "arrow" made by the three rightmost bright stars of Cassiopeia down to the lower right as shown on the chart.



How to find M31 Image: Stellarium/IM

More information on November nightsky can be found at:

www.jodrellbank.manchester.ac.uk/astronomy/nightsky/

From the Forum

<http://tech.groups.yahoo.com/group/readingastro/>

John sings the praises of a polar aligning programme!

Wow. Just wow.

<http://www.alignmaster.de/>

Don't know if anyone else has tried this. It has to be the best polar alignment software ever. So easy and so quick and so accurate.

Even takes the feed from a GPS unit to get accurate time and location. Two star alignment process is a piece of cake, don't need to take the camera off just use your capturing software to align on the chip.

I've never seen such a good graph on PHD, it's almost completely flat.

Just been doing some 5 and 10 minute subs and they are absolutely perfect. Here is a very quick M34 stacked from 12x5 minute subs. There was less than 2 pixels between each image (maximum difference was 1.3 pixels)...

http://www.jochta.com/images_random/M34_align_master.jpg

Brilliant and much much much quicker than WCS drift alignment I was doing. No need to calibrate the GOTO mount afterwards either as it's done that for me too!
John”

Gerry alerted members to a rare occultation of a bright star by an asteroid...

“...POSSIBLE RARE ASTEROID OCCULTATION OF NAKED EYE STAR TUESDAY EVENING

At around 2032 UT on Tuesday evening, November 03, the small (6km) main belt asteroid (31867) 2000 EG94 is predicted to occult the naked eye star alpha Aquarii (HIP 109074, magnitude 3.0). The event *may*



be seen from somewhere in southern England. From central southern England, the star will be at an elevation of 36°, in azimuth 203° (SSW).

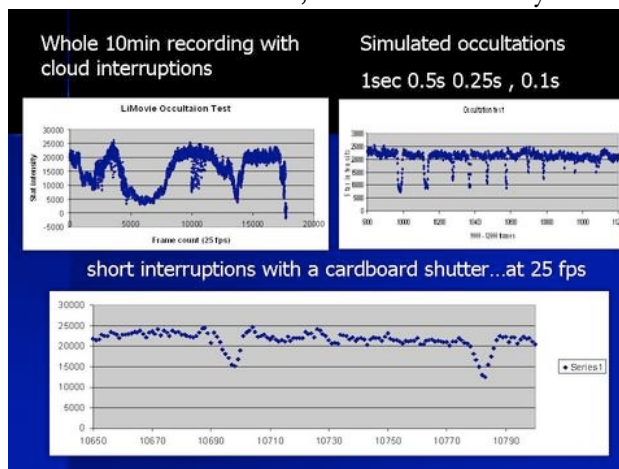
The maximum duration will be only 0.4 seconds, but the star will disappear completely, although with the relative angular sizes of the star and asteroid, diffraction effects may make the event gradual.....”

This caused a few members to try and observe the occultation; but they did not see any dimming of the target star by the asteroid! However, this is still a useful observation, since knowing where or where not the occultation was observed allows a better prediction of the asteroids path to be made.

To make useful observations of these events its essential to know your precise location and the exact timing of any occultation!

More information can be found from many websites, including <http://www.britastro.org/asteroids/>

Below is simulated data, thanks to Tim Haymes:



Astronomy Basics

This is a friendly informal meeting hosted and presented by Gerry Bond. Its a great way for beginners and more experienced astronomers to learn some of the history and fundamentals of astronomy!

All meetings start at 7.00pm in the [Loddon room](http://www.wokingham.gov.uk/leisure/parks/country-parks/dinton/) of Dinton Pastures during 2009/10. (Info on Dinton Pastures see: <http://www.wokingham.gov.uk/leisure/parks/country-parks/dinton/>)

Next Meeting:

28th November 2009 at 7.00pm

The Geminids


















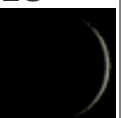


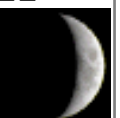

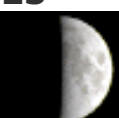
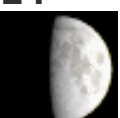

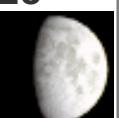


The Geminid meteor shower peaks on 14th December. What are meteors and how do we observe them?

see: <http://www.ryhill.net/basics.html>

Moon phase this month:

from www.stardate.org

Nov 2009

Sun	Mon	Tue	We d	Thu	Fri	Sat
1	2	3	4	5	6	7
						
8	9	10	11	12	13	14
						
15	16	17	18	19	20	21
						
22	23	24	25	26	27	28
						

Moon Phases:

New Moon - The Moon's unilluminated side is facing the Earth. The Moon is not visible (except during a solar eclipse).

Waxing Crescent - The Moon appears to be partly but less than one-half illuminated by direct sunlight. The fraction of the Moon's disk that is illuminated is increasing.

First Quarter - One-half of the Moon appears to be illuminated by direct sunlight. The fraction of the Moon's disk that is illuminated is increasing.

Waxing Gibbous - The Moon appears to be more than one-half but not fully illuminated by direct sunlight. The fraction of the Moon's disk that is illuminated is increasing.

Full Moon - The Moon's illuminated side is facing the Earth. The Moon appears to be completely illuminated by direct sunlight.

Waning Gibbous - The Moon appears to be more than one-half but not fully illuminated by direct sunlight. The fraction of the Moon's disk that is illuminated is decreasing.

Last Quarter - One-half of the Moon appears to be illuminated by direct sunlight. The fraction of the Moon's disk that is illuminated is decreasing.

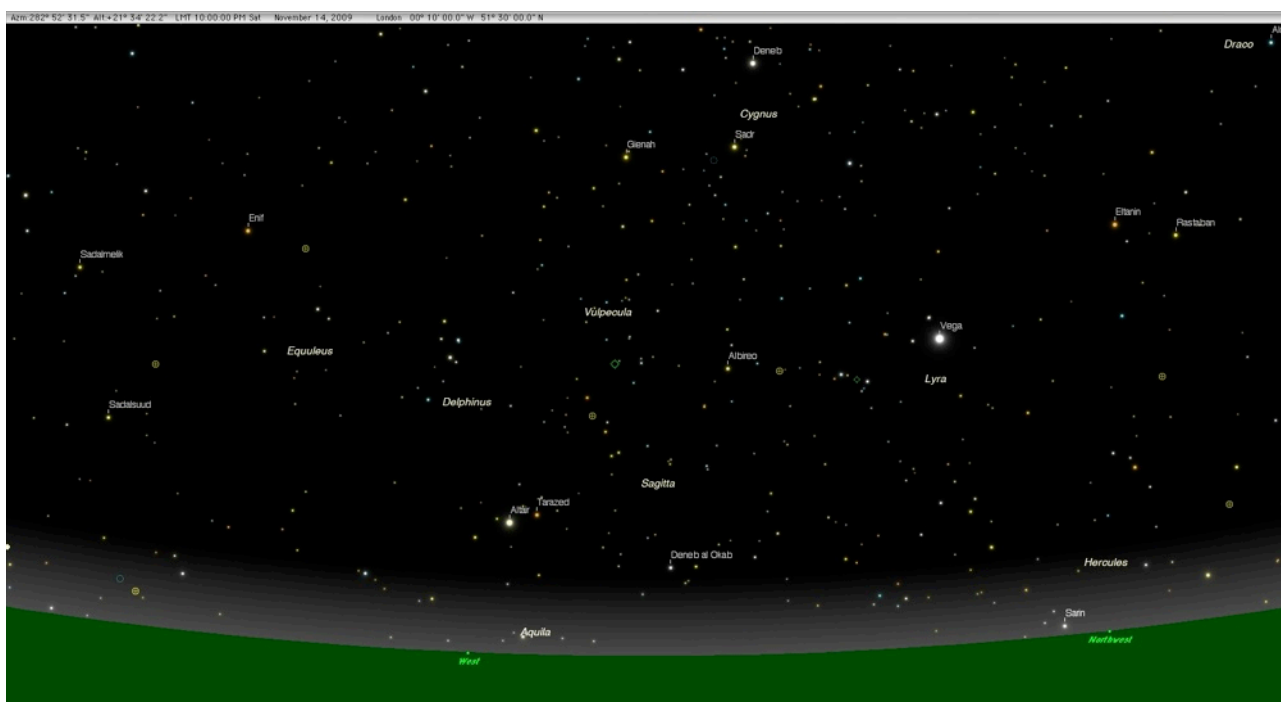
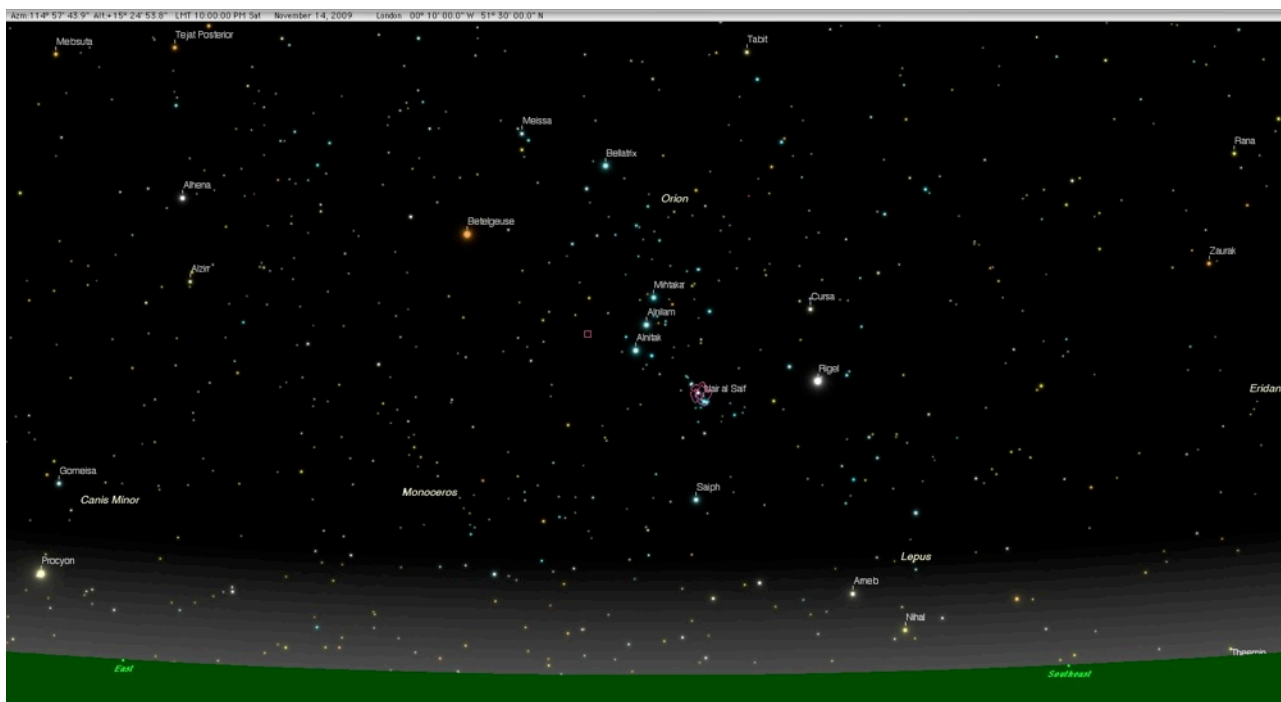
Waning Crescent - The Moon appears to be partly but less than one-half illuminated by direct sunlight. The fraction of the Moon's disk that is illuminated is decreasing.

THIS MONTH.....

November Sky:

Orion on the way up and summer triangle on the way down!

The chart below is for London at 22:00UT.



Images created with Voyager 4.5 by Carina Software

READING ASTRONOMICAL SOCIETY

President Dr Allan Chapman (Fellow of Wadham College, Oxford)

Chairperson John Talbot (01235) 848162 john.talbot@readingastro.org.uk

Vice-chairperson Anne Chadwick (0118) 9697539 anne.chadwick@readingastro.org.uk

Secretary

Chris Menmuir 68 Woodrow Drive Wokingham RG40 1RT

Committee first_name.last_name@readingastro.org.uk John Talbot, Anne Chadwick, Jillian Ullersperger, Chris Menmuir, Nick Cryer, Gerry Bond, Kenelm England, Malcolm Brown, Peter Tickner, Patrick Josephs-Franks

Main Meetings (Programme is given on next page)

2009 - 2010 Session

These are held on the third Saturday of each month between September and June. The venue is St Peter's Church Hall, Church Road, Earley, just off the A329 Wokingham Road. Parking is available in the hall car park and the adjacent school playground. Meetings start at 7pm with a few short announcements, followed by the main speaker and breaking for refreshments around 8:30. The second half runs from 9pm to approx 9:45pm and consists of members' contributions.

Society Website Webmaster – John Talbot john.talbot@readingastro.org.uk

Discussion Groups

<http://www.readingastro.org.uk>

<http://tech.groups.yahoo.com/group/readingastro/>

RAST AR

The Society's magazine. Please send in articles for publication to the editor at rastar@readingastro.org.uk

Library – Kenelm England Books, DVDs, videos and telescopes are available for loan to members at meetings.

Basic Astronomy Section

Meeting at Dinton Pastures Country Park on the fourth Saturday of each month between September and June (December is the third Saturday), from 7.00pm until 9.00pm. All ages are welcome. Talks are aimed at a level that non-astronomers will understand. Please contact us before attending any meeting for the first time as the programme dates are subject to change:

Organiser: Gerry Bond gerry.bond@readingastro.org.uk

Public Observing Weekends - Dinton Pastures Country Park

Public observing sessions will be held at Dinton Pastures Country Park from 7pm onwards on 23rd/24th October 2009 and 12th/13th March 2010. Details from Gerry Bond gerry.bond@readingastro.org.uk

Society Observing Sessions

Society observing sessions will be held on selected dates, which are announced at meetings and via the discussion groups. Contact the observing co-ordinator, Alun Halsey, for more details.

Advice on Observing and Telescopes

Alun Halsey

Honorary members

G.W.Amery, A Elliott, D.M.Ratcliffe, A.Thomas, J.Trott, J.Wrigley, M.Wrigley

Registered Charity no 1076390. Trustees: A.Chadwick, V.Coney, C.Menmuir, J.Talbot

2009/10 Meeting Calendar

September 19th**SOPHISTICATED SMALL SATELLITES FROM SURREY****Dr Stuart Eves** (Surrey Satellite Technology Ltd)

A light-hearted look at current and future missions using small satellites, activities at SSTL and space sciences.

October 17th**END IN FIRE – THE ULTIMATE FATE OF THE EARTH****Dr Robert Smith** (Sussex University)

Millions of years into the future, what will happen to the Solar System and our Earth?

October 23rd/24th**PUBLIC OBSERVING WEEKEND AT DINTON PASTURES****November 21st****ASTRONOMY FROM NEW ZEALAND – OR WHAT I DID ON MY HOLIDAYS****Bob Dryden** (Abingdon AS)

Bob recounts his experiences of observing in New Zealand

December 19th (NOTE 3rd Saturday)**SOLAR IMAGING****Nick Howes** (Wessex AS)

Three sides to the sun – Practical aspects of imaging our nearest Star.

Followed by the RAS “Christmas Special”

January 16th**THE LUNAR ‘100’****Dr Lilian Hobbs**(Southampton AS)

Discover how to observe Charles Wood’s 100 lunar objects using a small telescope. Lilian is author of the ETX & LX90-AF guides.

February 20th**POINTING A TELESCOPE****Pat Wallace** (Rutherford Appleton Laboratory)

What a telescope control computer is doing when it points the telescope accu-

rately at an astronomical

target

March 12th/13th**PUBLIC OBSERVING WEEKEND AT DINTON PASTURES****March 20th****CATAclysmic VARIABLES****Darren Baskill** (University of Sussex)

Understanding how, every few months, some stars dramatically increase in brightness within just a few hours.

April 17th**THE SUN KINGS****Stuart Clark** (University of Hertfordshire)

“The Unexpected Tragedy of Richard Carrington, and the Tale of How Modern Astronomy Began”.

May 15th**IMAGING THE MOON****Bruce Kingsley** (BAA Lunar Photographic Section)

An overview of imaging techniques, including many images and video, encouraging observation of our Moon.

June 19th

Kenelm England (reading AS) Continuing the theme celebrating important and interesting astronomical centenaries.

Followed by 39th Annual General Meeting