

Janus

Ewell Astronomical Society Newsletter – Winter 2008/9

Serving skywatchers in SW London and north Surrey

Ewell AS homepage www.ewell-as.co.uk



Ewell Astro Soc c/o David Fishwick, Nonsuch HS for Girls, Ewell Road, Cheam, Surrey SM3 8AB

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JANUS-ON-LINE-IN-COLOUR: For a full colour version of any recent Janus log-on to www.ewell-as.co.uk / Janus / Janus pdf file. Cut + paste web addresses [URLs] therein direct to your Internet Browser and save typing errors!

MEMBERS EMAIL LIST: email mgavin@ntlworld.com to receive rapid news of astro events or programme changes

EAS Meeting dates for your 2009 diary – see www.ewell-as.co.uk

All held at Nonsuch HS for Girls-Ewell Road - Cheam [unless noted] and start at 8pm.

Ordinary Monthly Meetings [in bold] in Common Room start at 7.40pm.

Headley Heath meetings *phone 01252 382940 from 7pm on evening to check observing is 'on'.

Moon's phase at Users' Group meeting shown [$>Q3$] = after 3rd quarter [$<Q1$] = earlier than 1st quarter = crescent moon.

Door subscriptions £1 and £3 for visitors - Arriving at meetings with small change in your pocket and not tendering £10 and £20 notes is greatly appreciated.

Fri Dec 12 [2008] – AGM + astro-quiz + talks + prizes

Mon-Thu Dec 15-18 [2008] @ 8pm Observing Session Headley Heath*

Wed Dec 17 [2008] @ 8pm – Users Group Meeting – NSHS Observatory Deck

2009 Fri Jan 9 – Norman Walker - Members Astro Question & Answer session

Mon-Thu Jan 19-22 @ 8pm Observing Session Headley Heath*

Fri Feb 13 - TBA

Mon-Thu Feb 16-19 @ 8pm Observing Session Headley Heath*

Wed Feb 18 @ 8pm – Users Group Meeting – NSHS Observatory Deck [$>Q3$]

Fri Mar 13 – TBA

Mon-Thu Mar 16-19 @ 8pm Observing Session Headley Heath*

Wed Apr 15 @ 8pm – Users Group Meeting – NSHS Observatory Deck [$>Q1$]

Fri Apr 17 – TBA

Mon-Thu Apr 20-23 @ 8pm Observing Session Headley Heath* **Mercury on view**

Fri May 8 – TBA

Mon-Thu May 18-21 @ 9pm Observing Session Headley Heath*

Fri Jun 12 - Bob Mizon - Fourteen Pioneers of Astronomy

Wed Jun 17 @ 8pm – Users Group Meeting – NSHS Observatory Deck [$>Q3$]

Fri Jul 10 – Dr Mike Leggett - Astronomy in the Medieval World

August – no main meeting

Wed Aug 19 @ 8pm–Users Group Meeting – NSHS Observatory Deck [new moon]

Fri Sept 11 – TBA

Sat Sep 12 – Ewell AS Headley Heath Picnic & Star-Party

Mon-Thu Sep 21-24 @ 8.30pm Observing Session Headley Heath*

Fri Oct 9 – Alan Drummond - Andromeda Galaxy

Mon-Thu Oct 19-22 @ 8pm Observing Session Headley Heath*

Wed Oct 21 @ 8pm – Users Group Meeting – NSHS Observatory Deck [$<Q1$]

Fri Nov 13 - Jack Martin - Astronomical/Stellar Spectroscopy

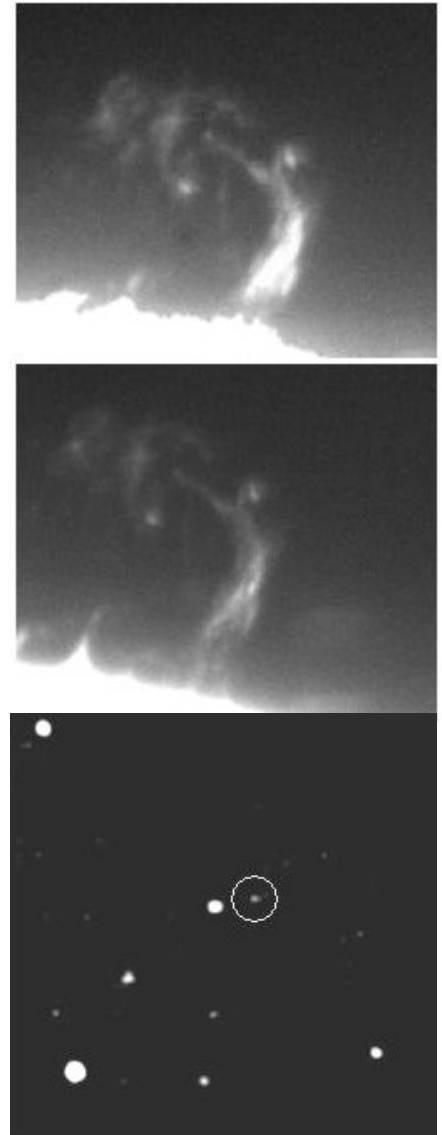
Mon-Thu Nov 16-19 @ 8pm Observing Session Headley Heath*

Fri Dec 11 – AGM + talks TBA

Mon-Thu Dec 14 -17 @ 8pm Observing Session Headley Heath*

Wed Dec 16 @ 8pm –Users Group Meeting– NSHS Observatory Deck [new moon]

*Prominences by Ron Johnson + dwarf planet Eris by Maurice Gavin
- see reports herein.*



GRESHAM COLLEGE LUNCHTIME LECTURES at Staple Inn Hall -London at 1pm by Prof. Ian Morison.

These lectures are free – just turn up. Info supplied by Jeff Heywood. See <http://www.gresham.ac.uk/event.asp?>

*Aging Stars - 2 Oct 2008 - *Our Island Universe - 30 Oct 2008 - *The Invisible Universe - 27 Nov 2008

*God and the Universe - 1 Dec 2008 @ St George's Hanover Square-London

*The Search for Other Worlds - 22 Jan 2009 - *Harbingers of Doom -19 Feb 2009 – *It's about time - 19 Mar 2009

Gresham Astronomy Weekend - 6 Mar 2009 @ Farncombe Estate - The Cotswolds – you need to book!

THE USERS GROUP MEETING is held on Wednesdays from 8pm sharp on alternate months on dates noted on the EAS Diary in the School's Geography Room via Main School Entrance facing playing field -map www.ewell-as.co.uk

OBSERVING SESSIONS ON HEADLEY HEATH will be held monthly [Sept to May] on dates noted on the EAS Diary at the 'dark of the moon' at NT carpark adj cricket pitch. Phone 01252 382940 from 7pm to check meeting is on. **Note** – if Headley Heath OS clash with the Users Gp meeting at NSHS [Feb/Oct/Dec] then observing held at NSHS.

EWELL AS SUBSCRIPTIONS NOW DUE! The Society annual subscriptions are due in January. Please forward your sub [member £15; family £18; junior £5 made payable to Ewell Astro Soc] to...
EAS Treasurer - Valerie May, 41 The Green, Burgh Heath, Tadworth, Surrey KT205NP; phone: 01737361486



MINI-BOOK REVIEWS by Maurice Gavin - the following books mostly purchased for the Society library via a donation given for a telescope allocated via the 2008 June Janus. *=RRP

Space – a pocket encyclopedia Ed: Virginia Carter for *The Brown Reference Group*
Sandcastle Books 2008: A5 paperback 445 pages full colour ISBN 978-1-906020-19-4 p/ Price £15.95*

This book has a great layout. After the historic, to include Copernicus to Halley, the journey begins outwards from the sun and planets and their satellites to the fringes of the known universe gleaned via modern groundbased and space telescopes – these themselves are well covered and explained. The book is bang up to date [even Pluto is demoted from planet status] and some 800 Kuiper belt objects have been discovered in <2 decades. The *Landers* to Venus, Mars and Titan and *Planetary Orbiters* and *Voyager Flybys* missions are there. Pluto awaits 2015 for its flyby mission launch. Hubble + Chandra deepfields are impressive. Whether to impress friends or check how your astro-photography is progressing this is a fine book.

Spacecam by Terry Hope/NASA : David & Charles Books 2005+ A4 254 pages full colour ISBN 0 7153 2164 1 hardback. Price £16.99*

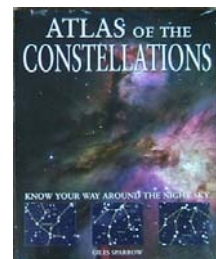
This is a handsome book with exquisite photos on a glossy black background. It broadly covers the Earth's weather and geography seen from space, the Apollo missions to the Moon and spacecraft missions to the planets and their satellites. It concludes with star systems and galaxies beyond our solar system seen through Hubble's eyes. Under Earth science are dramatic shots of the temporal effects of volcanic eruption and tsunamis. Perfect for every coffee-table or study.



Atlas of the Constellations by Giles Sparrow : Amber Books 2007 A4 112 pages full colour ISBN 13:978-1-904687-75-7 hardback Price £9.99*

Old star charts like *Norton's* or modern charts like Wil Tirion's *Sky-Atlas 2000* can be intimidating for a newcomer. But this is an excellent and colourful book to help find your way around the night sky with simple uncluttered charts - one for each season and polar charts covers both north and south polar regions.

Individual charts show all 88 constellations and include basic 'link lines' to etch them into memory. All stars to about magnitude 5, as visible from a dark site or through small binoculars, are shown. The supporting text gives the folklore and highlights deepsky objects and brighter stars within each constellation. A *Table of Constellations* lists each constellation whether ancient or modern - the latter are dated. Recommended.



Sun – An Observer's Guide by Pam Spence : Philips Books 2004 A5 159 pages colour ISBN 0-5 40-08393-3 paperback Price £9.99*

This pocketbook sets the observer on the safe road to solar observation and recording your results and is a perfect match for the Society talk by Peter Meadows at our June 2008 meeting



summarized in the last Janus. It covers white-light observation via projection onto a white card and safe mylar and glass filtering over main telescope objective. The increasingly popular hydrogen-alpha and calcium II observations via dedicated telescopes are there too. The book is profusely illustrated with tips on photography both locally and on exotic total eclipses in farflung places. A great read for the solarophile.



MEMBERS OBSERVATIONS

Brian Taylor emails: Clear night last night [Aug 24] – for some good views of **Jupiter, Uranus** and **Neptune**. Despite the light pollution the views from my back garden were not bad - M57 and M13 very good. I managed to get the Meade LPI camera working and picture of **Jupiter + Io** [left] reappearing about 10:30UT via 10" Meade LX90, Meade LPI, 30s video capture stacked with *Registax*.

Ron Johnson emails shots of a **solar prominence** [front cover] on 2008 Sept 28 showing its motion over a few minutes - 40mm f/10 Coronado PST + x2 Barlow + DMK21 webcam in exposures of 1/30s and 1/56s.

Maurice Gavin's image of remote dwarf planet **Eris** [front cover] at 97AU or double Pluto's distance from the sun on 2008 Nov 21 via 30cm Meade SCT+ Starlight Xpress CCD at a very faint magnitude 18.75.

REPORT ON KELLING HEATH STAR-PARTY- NORFOLK – Sept 25-27 2008 by **James Gordon**

I arrived at about 4pm on Thursday Sept 25 to find the red field 60% full. I hastily set up my equipment and said hello to some of the fellow astronomers. The weather was looking promising. I have to say that almost everyone was extremely friendly and helpful and it is a joy spending time here. However, you need to be an 'outdoor person' and not mind camping or the cold - a small sacrifice for the wonders visible in dark skies.

After a pleasant meal in the campsite pub, catching up with Clive and Andrew Robertson it was on to business! As the sky darkened, I could polar align my mount with the 10" Newtonian and Skywatcher 80ED. After much setting up and balancing it didn't work! That's life. Fortunately I also had set up my latest acquisition, the Skywatcher 12" Flextube Dobsonian. So it was a night of visual observing. There were clear patches in between clouds until about 11 or so, then it cleared with a little high haze.

The Veil Nebula in Cygnus looked good including NGCs 6960 and 6992 and for my first time, thanks to Ed (sorry don't know surname) *Pickering's triangle* was obvious and showed some detail (all with a UHC filter). Looking at NGC281 the *Pacman* Nebula in Cassiopeia, and comparing views in Clive's 16" dob was interesting. Nice to see a nebula showing contrast. Then galaxy NGC7331 in Pegasus and my best view ever! There were two smaller galaxies in the same field. The galaxy showed shape and definition. Later in Clive's 16" I spotted a third fainter galaxy in the field. Planetary nebula M27 in Vulpecula was amazingly bright at 115x with no filter. NGC7479 was obvious and NGC7814 was a clear edge-on galaxy, in Pegasus.

Back in the 12" Skywatcher, I had my best view of 5866 in Draco - the dark lane was there with direct vision. The faint haze grew by at least 50% with averted vision. My first view of galaxy M74 in Pisces was a bit disappointing. The core was bright with a faint haze around it but I could not make out the spiral arms. Onto NGC 772 in Aries, again just a smudge and no obvious structure of the publicised 'comma'.

Face-on galaxy M33 in Triangulum was majestic. The core was large and flowed into the low contrast haze of the spiral arms. A very bright (relative) smudge stood nearby a brighter star in the field. I knew this to be the H2 region NGC 604. Back in Clive's 16" Orion Dob - he had located edge-on galaxy NGC891 in Andromeda. It was a majestic view, like an old black and white photo but with the brightness notched right down. The dark lane which runs across its length stood out with direct vision. Looking for NGC147 but it was to elude us tonight but we found NGC278 to be a smaller and brighter smudge than NGC185 which has a brighter core than its outer parts.

At about 2AM and exhausted, and with a slight haze in the atmosphere I decided to get some sleep. More people were arriving on the Friday. Clive had to move off his pitch and came over to share my pitch (which is ample as they are 8x4metres). After talking over my mount problems with Andrew Robertson, he kindly tested the battery and cable. It was charged? Mike Cook was showing a (stunning) photo of the complete veil nebula which he had taken on the previous night. He kindly said he would take a look at my mount after a bit of persuasion from Andrew. Many thanks go to Mike and

<<**Sword of Orion** – M42 ED80 refr+Canon 400D DSLR; 224sec exp @ ISO1600- J.Gordon @ Kelling Heath



<<**Horsehead+Flame Nebula Orion** - data as M42 in 373s exposure - J.Gordon @ Kelling Heath – 2008 Sept 27

Brian Bond for fixing the problem. However, tonight's problem was dew. There were hair dryers going left, right and centre! Tonight I could do some imaging through the ED80, although not all were to turn out as hoped.

The conditions improved through the small hours and I finally turned in at 4.50AM! Would have been light soon anyway. NGC7331 was magnificent with 3 background galaxies visible in Clive's scope. Early on we viewed NGC253, the Sculptor Galaxy but it was low down the murk, as was NGC7293, the *Helix* planetary nebula, like a much fainter and larger version of the *Ring Nebula* M57 in Lyra.

Was having difficulty locating the *Crescent Nebula* in Cygnus. This seems a low contrast object and as we all know any telescope field in this region is crammed full of stars. Tonight I found NGC147 for the first time just a couple of degrees away from NGC185, but as described was quite faint and showed no detail.

Another highlight was sweeping through the spiral arms of the *Andromeda Galaxy* M31 at x115 which showed dark lanes contrasted against the faint glows. Another object I had not seen before was the planetary nebula NGC246 in Cetus. This was a bit larger than the average planetary appearing as a very faint circular haze with some much brighter stars in front. I would expect this to be invisible from Surrey. M77 was a very bright small galaxy with a brighter core.

Later the winter constellations were gaining altitude. The Orion Nebula was spectacular -the best I have ever seen it. Faint wisps were curling around all over the place! And M78 which I have only ever seen 'just detectable' was superb in the 16" and the 12"! Feeling brave I tried for the Rosette which is easy to locate to the left of Betelgeuse thanks to the bright open cluster NGC2244. With the UHC filter and 42mm widefield eyepiece in the 12", the Rosette appeared. The cluster NGC2244 was set against a jet black sky and then there was very thick, faint (browny?) lighter ring surrounding the cluster. I still had to move the scope around as the whole object would not fit into the 36' x 25' field-of-view [fov]. Wow, what a night of observing.

On the Saturday, the yellow field was bustling with trade stands. Many astronomers (including myself) had items for sale from their pitch. After a bright start some fog drifted in from the east. Fortunately the wind changed before dark and the fog lifted. Some people just turn up on the Saturday night, to wander around and hopefully get some views through the various scopes. Early on, one guy came over who was quite new to the hobby and I showed him several of the well known gems of the sky. This is a great way for beginners to learn about the sky and to try the different types of equipment available. As long as you are polite and ask, most people are happy to let you look.

A bit later Es Reid came over and was a great help. We were setting up the Ed80 only on the CG5 mount with the view to doing some imaging, with attention to focussing and alignment etc. However we didn't get any good images! It is easy to get distracted at events like this, but it's all good fun.

Later I went over to Dave Balcolme from Norwich AS who had a few people gathered around his 20" Obsession. This amazing Dob is fitted with a *goto* system. I had a look at NGCs 891, 7331 and M74 through it. Unfortunately the sky conditions were deteriorating and I would say I had better views through the smaller scopes earlier. So off to bed to catch up on some sleep.

On Sunday, many people were leaving as indeed I was. I thoroughly recommend this event. The facilities at the site are excellent in a beautiful part of England and the skies blow away any in Surrey. Most of all, the people here are fantastic, and I feel I am amongst friends.

STARGAZING WITH A NIGHT-VISION-DEVICE by Maurice Gavin

I recently treated myself to a night-vision-device [NVD] advertised in the national press on special offer at Aldi UK stores. It proves a lot of fun allowing me to 'see-in-the-dark' or stargaze. Viewing under moonlight alone makes the landscape seem as if illuminated by sunlight complete with strong shadows! NVD use an 'imaging tube' that converts light to electrons and back again but greatly boosted several thousand times. They work essentially in colourless near infrared light – the viewing screen is green to match the eye's night-time sensitivity. NVDs evolved in WWII for military use - the latest type-5 generation boost the signal x100,000 times but at vast expense.



The Aldi NVD is compact like a small camcorder weighing just a few ounces and two-tone 'rubberised' for protection from knocks. On/off buttons control power [2xAAA batteries] and IR lamp - a tiny red LED behind a small lens but penetrating 200ft and allowing me to watch the nightly patrol of urban foxes and their reflective eyes at double this distance. The main front lens and rear eyepiece rotate to sharply focus the image and give a low magnification about x2.5 so that the whole of the Square of Pegasus is contained in the view.

Stargazing: Aimed at a clear night sky stars pop into view where none were obvious before. Stars to about mag 7 are seen - some 3-4 mags fainter than by eye alone. Stars are sharp but not as crisp as through binoculars but then a NVD is a totally different experience. Planet Uranus in Aquarius and asteroid Vesta in Cetus were visible without eyestrain. A dozen or more stars counted in the Pleiades and larger globular and open clusters clearly evident. The Andromeda Galaxy 31 and Orion Nebula M42 are obvious fuzzy blobs and even the Whirlpool Galaxy M33 in Triangulum, immediately below M31, was just detectable under the best conditions. The near-IR view highlights red stars so that the appearance of constellations is changed and bring a new perspective to stargazing. Chi Cyg [currently approaching max] is seen 2.5 mag brighter than in binoculars. My www.astroman.fsnet.co.uk/nsd.htm has more pics and en.wikipedia.org/wiki/Night_vision_device for history.

X-RAY ASTRONOMY an overview by Dr Graziella Branduardi-Raymont - MSSL Dorking

Scientists in virtually all branches of astronomy make use of instruments in space to learn more about the Universe. My talk [Oct 10] will explain the basics of X-ray astronomy and how X-ray light is focussed to produce X-ray pictures of the sky; some of the recent results from the European Space Agency's (ESA) XMM-Newton observatory will be presented: this is the largest scientific spacecraft ever built by ESA, and carries the most sensitive X-ray telescope ever flown.

Cosmic X-ray sources are some of the most energetic, violent and exotic objects in the Universe: the densest stars, where energy production is more efficient than in nuclear reactors; the hot debris of the explosive death of stars; the mysterious power houses of supermassive black holes at the centres of active galaxies; the immense energies stored in the hot gases embedding galaxies in clusters; they all provide us with clues about the origin and fate of our Universe.

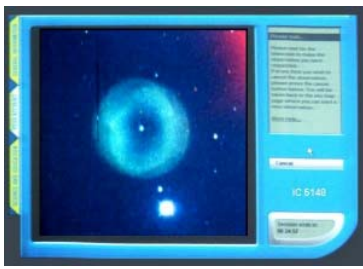
X-RAY ASTRONOMY Society talk by Dr. Graziella Branduardi-Raymont of MSSL October 10-summary Alan Lane
Dr. Branduardi-Raymont described the work of the laboratories as the design and testing of instruments to be part of satellite research in co-operation with ESA, NASA and others.

X-ray research was just one aspect of the work at MSSL. Instruments were built covering the whole range of the electromagnetic spectrum in different departments. Another department dealt with meteorology. X-rays are at the smaller end of the electromagnetic spectrum having wave lengths comparable to the size of atoms. They tend to be absorbed by the atmosphere and are better studied from instruments mounted on satellites. Unlike visual and radio X-ray telescopes cannot use a concave reception mirror but are constructed with a number of cylinders each within another. The cylinders slightly deflect the rays to focus onto a receptor. NASA's Chandara satellite has a small field of view for studying detail. ESA's Newton X-ray telescope has a large collecting area and can gather faint sources.

Dr Branduardi-Raymont showed X-ray images of the Sun. In contrast to the relative calm of a picture in visible light the X-ray view showed violent activity. Huge magnetic loops arched away from the surface in a tangle of ferocious energy. A study of the source Cassiopeia A showed X-rays emitting filaments around a neutron star 10,000 light years away. The origin of rays coming from objects known as X-ray binaries lies in accretion disk of material surrounding a neutron star which is tearing matter away a large main sequence companion. Where the pair are seen edge on the X-rays are regularly eclipsed by the main sequence star.

Another source of X-rays are galactic centres. These are thought to come from stars rapidly orbiting giant black holes. Many X-ray sources are found in areas of sky with few visible stars, indicating discoveries yet to be made. X-rays from planets reflect the spectrum of the sun as with visible light. Only those X-rays coming from visible aurora such as Jupiter's are self generated. Dr Branduardi-Raymont described the Newton X-ray telescope [XMM Newton] weighs 3.9 tonnes, it was launched from French Guyana in December 1999. It is 10 metres long and has a focal length of 7.5 metres. It has three X-ray telescopes each with 58 interleaved cylinders made of nickel coated with gold. In addition there are two X-ray spectrometers. It has an elliptical orbit around Earth, taking 48 hours, in order to maximise the time available for a clear view of any object being studied.

DNA IDENTIFIES NICOLAUS COPERNICUS' GRAVE after 565 years within Frombork Cathedral-Poland by skeletal DNA and hair from the astronomer's own books in Uppsala University library - quotes Swedish researcher and genetics expert Marie Allen. - for more logon to <http://search.breitbart.com/>



OZ LIVE TO NONSUCH by Maurice Gavin

Part of Nonsuch HS science projects includes astronomy from the rooftop observatory and live internet links to Faulkes 2m autonomous telescope at Siding Springs Australia. David Fishwick together with Richard Shirley of Old Palace Whitgift School Croydon organized a lunchtime session for Nonsuch. Four deepsky objects, only visible from the southern hemisphere, were recorded like the adjacent image of planetary nebula IC 5148 in RGB colour for compositing.

I was amazed at the precision pointing of the telescope input from the school computer eg dead center on the target and the detail visible in the brief exposures of <60s. To see the images downloaded instantly after the exposure from halfway around the world was more amazing -see <http://lcogt.net/>

THE MOON SO HIGH - talk to Society by David Fishwick on November 14 – summary by Alan Lane

How high the Moon, asks the song, among other things – it's an old question, surprisingly first solved by Greek mathematician Aristarcus around 300 BC. So heard members from David Fishwick who teaches maths at NSH School and is also Deputy Chairman of our Society. Aristarcus also asserted that the Earth orbited the Sun, nearly two millennia before Copernicus. Unfortunately Ptolemy, despite his great contribution to mathematics, thought otherwise and his view became the official doctrine of successive powers. Not only did the ancient Greeks calculate the distance of the Moon to a considerable degree of accuracy they excelled in mathematics and found many of its basic theories. Some years earlier Eratosthenes had determined the size of the Earth by measuring the angle of the suns rays at Alexander at the same time as they were vertical at Syrene (modern Aswan), 500 miles to the south. Syrene was just on the tropic of Cancer so the Sun would have been at the zenith there on just one day of the year. It was ascertained when the rays were vertical by observing the Sun from a deep well shaft. The angle at Alexandria was then 7%. A simple calculation, $(360 \text{ over } 7 \times 500 = 25714)$ gave him the circumference of Earth. He was within 3% of the modern figure. Of course Eratosthenes did not have miles as a measurement but this shows the method used in his experiment.

Holding up a small disk until it exactly covers the full moon gives the ratio of the distance of the Moon to its diameter as this is the same as the distance of the disk to the viewers eye, 108 to 1. The same ratio must also apply to the Sun as it appears the same size in the sky as the Moon. The Greeks knew that the Sun was much further away than the Moon because the lit hemisphere of the Moon was orientated in the same direction as the daylight half of the Earth. However, this time they did not manage to work out accurately how much farther. So they had long known that the light of the Moon was reflected sunlight and knowing that the cone of the Earth's shadow would have the same ratio as the distance and size of the Sun they could work out the size and length of the shadow from the size of the Earth. By carefully watching lunar eclipses and comparing the length of time the Moon took to pass through the Earth's shadow compared to its complete orbit in one month they were able to arrive at an Earth-Moon distance.

The meeting concluded with a lively discussion about why the lit part of the Moon sometimes seems not to correspond correctly with the position of the Sun. It was decided that this was something to do with the location of the observer and not an astronomical anomaly.

EWELL ASTRONOMICAL SOCIETY COMMITTEE POSTS AND TASKS FOR 2009

Dear Members and Honorary Members, I think you will agree the Society is generally well organised however we do strive to improve the good running of the Society and take on board suggestions whenever we can. To do this effectively we need to spread the work load amongst the membership. We could do with another 2 or 3 people on committee and some additional assistance from members as required.

Committee posts: There are vacancies which can be filled from January for a variety of tasks. For example we could do with a **visits organiser:** someone who can arrange visits of astronomical significance to places of interest. They can be historical for example The William Herschel Museum in Bath or they can be places of instrumentation such as public and private observatories. Organising these visits can be both rewarding and challenging. They would require good communication skills and people skills. Further you must be prepared to check frequently for any last minute changes of situation, to update people.

Mike Fantham has done a brilliant job in organising the **Headley Heath Observing Sessions** for years. It would be appreciated if someone could takeover during next year to give Mike a break. You know the form: it means monthly observing September to May inclusive, on the first clear night Monday to Thursday around the time of new Moon. If you would like to do this please see me or anyone on the committee or turn up at the December/January sessions. If necessary there is no reason why this task could not be split amongst several people.

Non-committee tasks: I am sure you all appreciate Edna's unstinting efforts in providing us with **refreshments** over the years. Sometimes it would be useful if someone could assist Edna at the meetings or takeover if she cannot get to a

meeting. David Fishwick is very busy on meeting nights and I am sure he would agree with me that we could do with more help. Provisions are supplied and funded by the Society when more need to be purchased.

Night Sky slots during the second half of the meeting are available during much of 2009. If you can give a 10 or 15 minute presentation , please contact myself or the committee. As you are probably aware we usually need plenty of notice for these presentations. Sometimes they can be booked up months in advance. You should be aware that your presentation should include visual aids of some form.

In December we hold our AGM. Part of which involves holding a **raffle** and selling tickets which later in the evening have to be counted before the drawer. I have two books of raffle tickets from last year. We could do with a couple of volunteers on the night to help sell tickets because as I am sure you will appreciate, the committee are very busy on this evening. If you are **willing to drive** a mini-bus for approximately 8 to 16 people we could cost it with a view to visiting places of interest. Please let us know. If you would like **to assist the Committee** with any tasks please come to the AGM night on December 12th and **volunteer**.

You are welcome to sit-in on any committee evening to see what is involved in organising the running of the Society. Meetings are held at the school commencing 730pm and should last approximately 1 hour , entrance is at the front of the school through the blue doors. Please refer to the October and tonight's issues of Janus concerning the AGM night arrangements including the AGM elections and nominations for the committee. We on committee look forward to hearing from you at anytime. David Cooper Chairman of The Ewell Astronomical Society - 12th December 2008.

CHAIRMAN'S SPEECH : EWELL ASTRONOMICAL SOCIETY AGM FRIDAY 12TH DECEMBER 2008

I would like to begin by thanking the committee and our members who have assisted and supported the Society during 2008. We have held successful viewing evenings at Headley Heath although the weather was frequently poor. Users meetings were sometimes followed by a period of observing including Saturn and on another occasion the Solar Eclipse , at the school observatory. Our thanks go to David Fishwick for organising these meetings with tea and to Mike Fantham for the Headley Heath Observing Sessions, in providing many fascinating viewings.

This year we have effectively been without a Secretary and I have had to step in. My thanks go to Richard Gledhill for his sterling work including the completion of the libraries video conversions to DVD. I am grateful to various members for assisting with our registrar duties , tea making and the Headley Heath observing sessions. Some of whom are not presently serving on our committee: namely :Edna Eckershall , Anita King, Jeff Haywood and James Gordon which I think is typical of their dedication to the Society.

David Fishwick our host, has supplied excellent meeting venues including the lecture room and associated equipment , and upstairs storage facilities for our Library and Instruments. Further David , has provided a good forum for the bi-monthly Users Meetings and use of the school's observatory. Alan Lane has tirelessly persevered sometimes with difficulty, in tempting the local press , to publicise advance details of our monthly speakers. It would appear they require more sensationalistic articles , like last year's misguided UFO sightings.

Valerie has made sure that we are financially sound by ensuring that we have a detailed record of the Society's expenditure and income throughout the year .We are grateful to her for this task which involves a lot of hard work in addition to frequently managing the monthly registrar duties. David Fishwick has continued to arrange an excellent array of quality speakers throughout the year. Subjects as diverse as : observing the Sun , Cataclysmic variables , the Earth's future and the cosmic spectrum generally including X-ray astronomy , have been covered.

Maurice Gavin continues to manage the Society Website and production of Janus's with excellent articles, pictures and observations. Our thanks should also go to all the contributors throughout the year. Our thanks to Ron Johnson for his continued assistance with the 'Night Sky' talks and for updating us annually on the clarity or cloudiness of the previous year's night skies. Thanks also to Michael Wright for the Registrar duties and Louis Barman for organising the library. Both busy tasks requiring considerable organisation in their own right.

I am pleased to mention that we have added a further two honorary members this year: Neville Grabasky former chairman and Mike Fantham the Headley Heath Observing Organiser. In summary it has been a successful and challenging year for the Society and if elected again as Chairman tonight , I am happy to continue in this role for 2009. However I will be standing down in favour of a new chairman at the next AGM. Myself and the Committee would welcome more assistance during the year to maintain the high quality of meetings as expected by our members and visitors. Finally I would like to wish you all a merry Christmas and a prosperous and happy New Year with continuing clear skies for observing , as 2009 is the International Year of Astronomy.
David Cooper Chairman of The Ewell Astronomical Society - 12th December 2008.

EAS AGM & QUIZ NIGHT FRIDAY 12TH DECEMBER 2008

- 1945hrs : Meeting commences with announcements
- 2000hrs: AGM and reports
- 2025hrs: Raffle ticket sales and coffee break
- 2040hrs: Members quiz and coffee break continues
- 2115hrs: Talk : Solar Observing by Ron Johnson : approx 20 minutes
- and 'How not to present the Night Sky' by David Cooper: 10 minutes
- 2145hrs: Raffle prizes, Quiz prizes and announcements

2200hrs: Close of meeting *Please note there maybe last minute changes to this guide.

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EWELL ASTRONOMICAL SOCIETY – AGM PROCEDURES FRIDAY 12TH DECEMBER 2008

AGENDA:-

- 1 Chairman’s opening remarks DC
- 2 Reference to the AGM of 14 Dec 2007 DC
- 3 Chairman’s report (see tonight’s Janus) DC
- 4 Vote of thanks to the Chairman and Secretary DF
- 5 Treasurer’s report and adoption of accounts VM
 - a) Adoption of accounts; proposed and seconded
 - b) Current Door fees and membership fees will remain unchanged during 2009
 - c) Vote of thanks to the Treasurer
 - d) Vote of thanks to Thalia Hessey for auditing the accounts

DC: DOES ALL THE MEETING APPROVE OF THE ABOVE ARTICLES?

- 6 Election of officers & committee: nominations to date DC
 - 1 Chairman: David Cooper
 - 2 Deputy Chairman: David Fishwick
 - 3 Treasurer: Valerie May
 - 4 Secretary: Anita King
 - 5 Louis Barman
 - 6 Michael Wright
 - 6a Other nominations
 - 7 Any other business DC
 - 8 Date of next annual general meeting 11th December 2009

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EWELL ASTRONOMICAL SOCIETY Membership Application/Renewal [del] Date / / 2009

Name _____

Renewals - my address etc. are the same as last year, please tick _____

Address _____

Postcode _____ phone _____ email _____

Herewith my annual subscription of £ _____

Adult £15: Junior [under 18] £5: Family [two adults + children under 16] £18 - cheques payable to **Ewell Astro Soc**-Valerie May [Treasurer], 41 The Green, Burgh Heath, Tadworth, Surrey KT205NP

Where did you heard about the Society _____