Janus

Ewell Astronomical Society Newsletter – Autumn 2007
Serving skywatchers in SW London and north Surrey 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] direct to your Internet Browser and save typing errors!

REGISTRAR & LIBRARIAN: Anita King [Registrar] and Clive Cook [Librarian] will relinquish their respective posts soon and we require two members to fill-their-shoes at the Society meetings. Both posts only take a few minutes of time at the beginning of the meeting or during the coffee break so your enjoyment of the meeting is not disturbed.

PUBLICITY OFFICER & GUEST SPEAKER RECORDER: The Society would like to create two new posts e.g. a Publicity Officer to raise the profile of the Society to a wider local audience via short articles to the local press, posters and mail-shots. We also need a regular attending member to occasionally take notes on speaker's talks to the society for publication in *Janus* - that member should preferably have access to email to send the notes direct to the Editor. If you feel you could help in any of the above roles please contact Chairman David Cooper or any Committee Member.

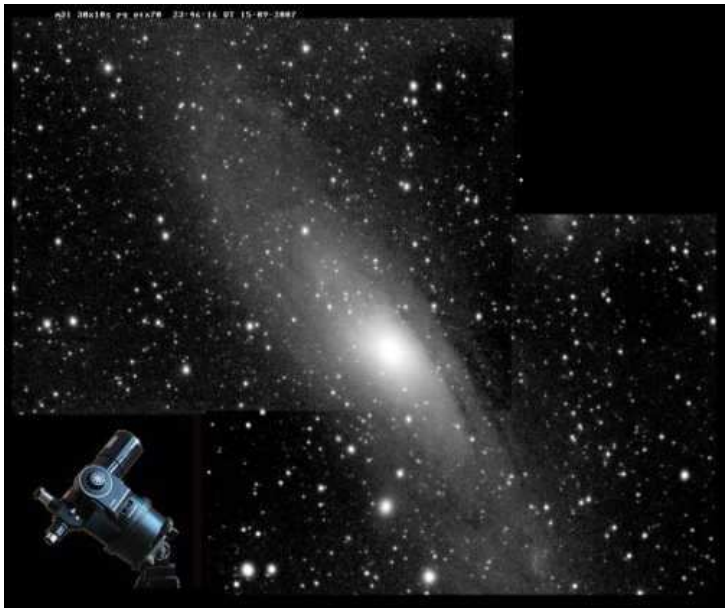
<<Pinwheel Galaxy M33 by James Gordon -Kelling Heath on Sept 16 – 254mm Newtonian+ Canon 400D DSLR;; 167s exp @ 1600 ISO.

EWELL AS MEETINGS
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. Door subs – arriving at meetings with small change in your pocket and not tendering £10 and £20 notes is greatly appreciated **Meeting fee per visitor is £3 per evening.**
*Headley Heath meetings phone 01252 382940 from 7pm on evening to check observing is 'on'.

DAY VISIT TO MULLARD SPACE SCIENCE LABS- Holmbury House - Dorking is arranged for Nov 5th 2-4pm. Holmbury House is midway between Abinger Hammer and Ockley on the B2126 linking A25 Dorking -Guildford road and A29 near to Beare Green - Dorking. Please let Chairman David Cooper know if you would like to attend.

EAS MEETINGS FOR YOUR 2007 DIARY see www.ewell-as.co.uk
Fri Oct 12 - Dr Michael Merrifield – Nottingham Uni –
Our Galactic Centre, Black Holes, Rare Stars+Cosmic Mayhem.
Wed Oct 17 – Users Group Meeting – NSHS Observatory Deck
Mon Nov 5 at 2pm - visit to Mullard Space Science Labs [MSSL]
– Holmbury House - Holmbury St Mary – Dorking
Fri Nov 9 – Dr Stewart Moore – BAA – *The Deep Sky*
Mon-Thu Nov 12-15 Observing Session Headley Heath*
Mon-Thu Dec 10-13 Observing Session Headley Heath*
Fri Dec 14 – *AGM+astro-quiz and free prizes*
Wed Dec 19 – Users Group Meeting – NSHS Observatory Deck

Globular Cluster M13 in Hercules>> Woodmansterne on June 21 – Skywatcher 80ED refrt+Canon 400D 30s exp @ 800 ISO <<NGC 891 in Andromeda -Kelling Heath on Sept 16 – 254mm Newtonian+Canon 400D DSLR;; 167s exp @ 1600 ISO by James Gordon.
See James Gordon's report herein.



M31 -M.Gavin - WPO- Meade ETX-70+Starlight MX9 CCD; 5m exp

GRESHAM COLLEGE LECTURES

Jeff Haywood write: Professor Ian Morison, who gave our 40th Anniversary talk, lecturers at Gresham College - Staple Inn Hall lunchtime at 1pm on the following dates:

26 Oct 2007 - *Watchers of the skies*
15 Nov 2007 - *Colour of the cosmos*
5 Dec 2007 - *50 years of the Lovell Telescope*
7 Feb 2008 - *Beauty of the Heavens*
21 Feb 2008 - *Proving Einstein right!*
7-9 Mar 2008 - *Gresham Astronomy Weekend* at Farncombe Estate
3 Apr 2008 - *The search for ETI in the New Millennium*

Lectures are free but to register contact: Gresham College, Barnard's Inn Hall, Holborn, London EC1N 2HH
Tel: +44 (0)20 7831 0575 Fax: +44 (0)20 7831 5208 Email : **enquiries@gresham.ac.uk**

OBSERVING SESSIONS ON HEADLEY HEATH will be held monthly [Sept to May] on dates noted on the EAS Diary at NT carpark adjacent the cricket pitch. Phone 01252 382940 from 7pm to check meeting is on.

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.

EWELL AS SUBSCRIPTIONS: The Society annual subscriptions are due on January 1st. Please forward your sub [member £15; family £18; junior £5 made payable to **Ewell Astro Soc**] to our Treasurer - Valerie May, 41 The Green, Burgh Heath, Tadworth, Surrey KT205NP; phone: 01737361486

JANUS CONTRIBUTIONS – CAN YOU HELP? If you have any astro observations, pictures, articles or notes please email it to mgavin@ntlworld.com or hand it to Maurice Gavin on a floppy disk or CD. Thanks.

Some members observations and comments over the summer months…

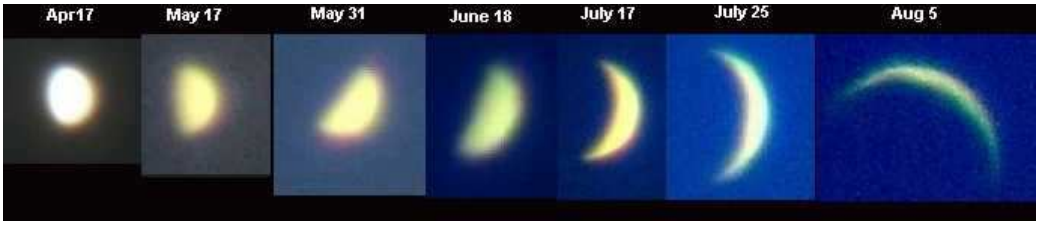
PERSEID METEOR SHOWER - AUGUST 12TH-13TH 2007

Gary Walker emails: I watched for this shower from my home at Banstead, from c.1am-4.30am. The sky was mainly clear, but I found the "shower" rather disappointing! I saw a number of meteors and attempted to record them on film, but there were long periods with nothing happening! I saw most of the meteors in the N.E, E, and S.E skies (I was facing E, anyway). I saw the most meteors between 2 and 3am. Some of them were quite bright (1st magnitude?) but none left any lingering ionisation trails. Whilst watching this "event" I saw what I assume was an Iridium Flare, In the East, just before 4am. I was surprised at how much media coverage the meteor shower event got on August 12th, being featured on the BBC News!

Jack Yee emails: I was sat in my garden from half past midnight till about three in the morning gazing expectantly into the heavens for signs of the Perseids. From the very moment I settled myself down I was fortunate enough to sight three meteor streaks within a ten minute time frame. However, after the initial flurry of activity there was very little to be had. Despite the lack of meteors I decided to stay up a little later than usual partly because of the pristine sky conditions - in which Capella displayed itself brilliantly to me through my binoculars- but I also waited for the Pleiades and Mars to ascend the rooftops. I was richly rewarded for my patience!

OBSERVING VENUS: *Gary Walker emails:* I have been observing Venus in the daytime sky, on and off, from at least June 18th, until it was lost in the sun's glare. I could see it easily with binoculars, and was clearly seen as a crescent with such, in July and August. After July 29th, I had some trouble, seeing it at all, with binoculars, until August 3rd, but this may have been due to the fact that the blue sky was a bit hazy and pale. However, when the sky was a deep blue, Venus was very obvious in any optical instrument. I last observed it on August 6th 2007. Since then, I failed to find it.
When hunting for Venus, what I did see were umpteen dandelion seeds flying in the air, through my binoculars, and some of these momentarily fooled me into thinking I'd found Venus, as they were the same colour, and often of the same apparent size, too. This became really annoying!

Venus in daylight *April – Aug by Maurice Gavin @ WPO* – goto *Meade ETX-70* + afocal Fuji E550



A summary of three recent talks to the Society recorded by *Richard Gledhill*

"TRACKING NEAR EARTH ASTEROIDS" by Peter Birtwhistle on 11 May 2007

The speaker outlined the content of his lecture which included details on his Great Shefford observatory; what and why observe NEO's; the role of amateurs and measuring faint and fast objects.

He uses both a 12" and 16" LX200 for his work and explained the classification of near earth objects, giving details of the threat potential of Potentially Hazardous Asteroids; defined as those with an intersection of 20 times the Moon distance, and bigger than 500 feet in diameter; a Virtual Impactor has one or more orbits fitting existing observations that intersect with the Earth at some time in the future. He explained the Torino Scale which matched kinetic energy against collision probability and the effect of an impact ranging from no consequence to global effect. He set out the observational lifecycle of a typical NEO from discovery to recovery at 2nd or subsequent apparitions from 1 year after. and showed where amateurs can provide significant help.

These included NEO confirmation page and follow up, watching for uncertainties to arise and recovery at 2nd or subsequent apparitions. Those wishing to pursue this should *Google* NEOCP. In measuring positions it is necessary to take many relatively short exposure images, to digitally combine on the PC using the known speed and direction of the moving object to build up the image, and if the motion turns out to be wrong then restack.

He discussed very fast moving objects where very short exposures were needed and to take as many as possible - at Great Shefford he uses *Dimension 4* freeware to synchronise time across the internet and software to wait for the second of the PC clock to change before starting each exposure. They are normally very small and only bright enough to be discover when close to Earth; there is often very little lead time before the closest approach.

"ASTEROIDS" by Roger Dymock on 13 July 2007

Roger explained how to observe and image asteroids and the work of the BAA Asteroid & Remote Planets section. Roger is the section director and Peter Birtwhistle the assistant director. The section began in 1981 and its objectives are to foster an interest in all aspects of the study of asteroids and the remote planets the IAU at its general assembly in Prague in August 2006 had given definitions of a planet, dwarf planet and small solar system bodies. Asteroids fell into the categories of near Earth objects, main belt asteroids, the Trojans, the Centaurs, the Kuiper belt or trans Neptunian objects and the Oort cloud.

He discussed occultations which needed practice, an alarm clock with 2 settings, a stopwatch with lap options, the need to find the target an hour before the event, warmth and comfort, the recording of both positive and negative results, reporting of results for which Andrew Elliott can provide assistance.

Astrometry enables an orbit to be defined or enhanced was essential and to assist in radar observations which will help determine the size and shape of an asteroid. To satisfy the observatory code of the IAU's minor planet centre is necessary to image a selection of asteroids, to measure their position and submit the results to the minor planet centre. For follow up observations it was necessary to select a target, get the orbital elements and ephemeris from the MPC, load into the PC, image, analyse, verify results, submit to MPC and check for results.

He explained photometry- differential is the measurement of difference in magnitude between the asteroid and several comparison stars, and all sky or absolute which is measuring the actual magnitude of the asteroid on a standard system. He assured that it was not difficult all theta is needed is to be very methodical and professional astronomers will welcome the results. The light curve will tell you the shape, the rotation period, the relationship of rotation and size, orientation of the axis and the composition, whether solid or a pile of rubble.

"THE NEW ARMCHAIR ASTRONOMER" by Nick James on 7 September 2007

This presentation was largely image based and text content was small so this report highlights the main themes. This was a revelation in how far astronomy has come since I began in the 1960's when state of the art was a 3" refractor or a 6" reflector and you spent hours trying to find things with the finder!

This was cutting edge astronomy thanks to PC's, CCD's, Goto telescopes and the internet. Nick talked of two main ways into this field; one via 2m telescopes, bookable well in advance at £50 per half hour slot or through state-of-the-art top end equipment such as Takahashi refractors or 16" Meades on Paramount mounts which to buy would be in the realm of £25000 upwards. To access these, you buy a series of credits which give time on one of a battery of scopes in first rate seeing areas outside the UK, prices for which can be as low as £15 per hour. He showed a wealth of examples both of the equipment available, the organisers of these facilities, how to ensure your chosen site was *clear* before spending your credits and typical work he had undertaken with them, including very accurate details of near earth asteroids. A fascinating insight into what is now possible- all from the comfort of your study!

NEWS FROM THE HOME FRONT *by David Fishwick*

Over the last thirty months (for so it is) Nonsuch has been the home to the Society, and I have had the honour of being the link between the school and the Committee. And an honour it has been. The school has benefited from the connection: it has been accorded Special Science Status, with the funds for a set of new labs and a lift. We might indeed have had this all without Ewell Astronomical Society, but paths have been smoothed; the Society and the School have both gained with the installation of the Observatory, and as we hope, comfortable venues for meetings too. Of course all is never ideal: we have light-polluted skies, and sometimes the David Lloyd lights are especially intrusive, but we remember that they, too, were part of the deal that enabled us to do so much. How much? Well, I thought I would like to list some of the achievements of the last two and a half years; and maybe, in view of symbiosis between us, to extend the reminiscence back a little further.

When I came to the school nearly nine years ago, there was clearly an interest in astronomy: the houses had been named after the planets, by the girls' own choice, you know. Curious that they missed out Uranus (I wonder why?). And Venus. Female deities were obviously not to be in contention (Mother Earth is not one of the Houses). So instead we had Pluto, since demoted in status. And when the school expanded, we got Saturn, not one of the original houses, although you might expect that it would have been a prime choice. In those days, John Bance, our Head of Physics, thought that there should be an astronomy society and invited me to help. We quickly built our first telescope – an 8.75" Newtonian with a bought in mirror (Dark Skies) and buckets from B&Q for the tube. Wonderful what you can do with those buckets, and a Quattro, you know. The buckets are superbly made, regular, boltable together, and cheap (99p). The telescope was great. We built a wooden A-frame and had it up and running in six weeks. Trying to line it up was a nightmare, however.

Then we got a grant from a group called *Education Extra* and bought a laptop and a webcam. There were pictures of the Moon and craters and pictures in the paper. The craters were difficult: by the time you had the webcam adjusted to record an unsaturated focused image, the Moon was halfway across the sky. Then you got it back and the webcam had to be reset. But we didn't care. For us, those first images were like gold dust. The view we had in the telescope itself, I must add, were superb. It's optics were very good. And we learned as we went. Trying first to focus on a plug in the lab, when we had just built the telescope, left us in despair: would it never work? The first image we saw was spring blossom outside the lab window, and then only after we realised just how far out you have to draw the tube for nearby focus – oh, that blossom was absolutely beautiful!

After this, we bought the Celestron that sits in the Observatory now. We would drag it out onto the school field at night and get decent pictures of the Moon, and look at Saturn and Jupiter, but never enough else, because when you have twenty people queuing up to look through the eyepiece, that's what you do: there simply isn't time for the fainter nebulae – you go for the things that make the viewers say 'Wow!' Believe me, twenty little brownies on a visit going 'Wow!' really sends you home with a feel-good factor at the end of the evening, something that almost compensates for the multiple ruptures you get from manhandling the telescope, with all its avoir dupois, in and out of the front seat of your car. (The avoir dupois comes to a total of about 70 pounds, by the way.)

With the help of the Society's members, we have gradually grown more sophisticated. And we have acquired more and more telescopes; not only those that we house for the Society, but our own. People give them to us. At the last count I reckoned that there were more than a dozen serious telescopes upstairs, of almost every type. When my girls stated the GCSE astronomy course, and had to do observational coursework, I was able to lend out three telescopes (ours) for extended home use. They have done superb coursework and the first group to take their exams acquitted themselves pretty well, with mostly A's and A*s. We have probably made as much use of the Society's library as the members themselves – although hopefully that will change. Neville Grabaskey's excellent work with local schools is something that we continue by inviting them to come and use the observatory. We have had hundreds of viewers at the school and shown them the skies from their own schools, as well as adult groups such as the Old Girls and the National Trust at Morden. And we have had those special occasions such as the recent lunar eclipse, and the transit of Venus, which bring astronomy to the forefront of the nation's consciousness. And the astronomy society that the school began nine years ago, what of that? Well the numbers have been up as high as 50 and seldom less than a hard core of a dozen. On average over the nine years its active membership has been about two dozen. One chair of the society went on to take a first in Astrophysics at Leicester, another a first in Astronomy with Physics at Durham. Another works at Jodrell Bank. Right now, we are down at a quiet spot, but it will change, and the senior girls who came to use the CCD camera will still come back even though their formal tuition is over. Without the specialist help from people like Maurice Gavin, we might well have abandoned it. The connection with the Society will continue to help us, of that I am sure. And even if Friday meetings are not a magnet for hard-driven girls, I think that the coming years will see members from the schools gradually helping to build our ranks. For which reason, four cheers for the marvellous recruiting posters that Maurice has just produced. Here's to the future!

HERSTMONSEUX ASTRO FESTIVAL

byJames Gordon

I went to the astronomy festival at Herstmonseux Castle - Sussex on the weekend of 7-9 Sept with my wife. We arrived about 4.30pm on Friday and were quite surprised how few campers there were – just 20 or so groups of 1-6 people. A lot of these were families with children. We went to a pub for a meal and when we got back the sky was clear! Astonishing! I had my 10" Newtonian set-up and aligned it for some visual observing. The sky above was excellent, down to about 50-60 degrees from the horizon. To the south/southeast, Eastbourne had put on a horrendous glow in the sky - no doubt a nail-in-the-coffin for when the observatory was coming to the end of its working days there, in the early eighties I think. Various other observers had set-ups including the 'Telescope House' crew with 4 scopes nearby including a massive 14" Meade RCX400.

Alarmingly, the toilet block at the top of the field was lit up like 'Nonsuch High'! Some other campers had bright lights also although the conditions asked for red lights only after 9.30pm. At around 11pm most lights were off and yes you guessed it, those clouds were everywhere! However we'd had some good views of the M13, M27, M57, the Veil Nebula in Cygnus and NGC 7331 (spiral galaxy in Pegasus). A neighbouring camper later told me that they had viewed M13, M92 and M15 through one of the giant Herstmonseux 'scopes and described the view as incredible.

The science centre was in full op on Saturday with trade stands and lectures. However we went off to view a local castle so I can't comment on these. After dinner we went into the centre and viewed all the telescopes. They were all 'monsters' and a credit to the engineering talents of the constructors over a century ago for some of them. Sadly the biggy - the Isaac Newton 100" reflector had long been relocated to La Palma. Its empty dome was a few hundred metres away and just protruded from the nearby pine trees. There were also some very good displays, on the history of the Royal Greenwich Observatory, optics, cosmology, spectroscopy to name a few. There were also plenty of educational and recreational activities for youngsters.

On the Sunday there were more activities and *storm-troopers - had 'the Empire' claimed Herstmonceux!* Overall it was a good weekend and I would very much like to return and see more at the centre. There is plenty to keep the astronomy enthusiast interested and some reasonable skies except to the south. However for the hardcore observer or imager this isn't a star party on a par with the likes of Kelling Heath – Norfolk.

BARLOWS ARE GOOD FOR YOU! *by Maurice Gavin*

A Barlow lens is a very useful accessory for any telescope user:

1] It typically doubles or triples the magnifying power of each eyepiece.

2] It improves the *eye relief* e.g. distance the eyeball has to be behind the eyepiece and avoids squinting.

3] Barlows are usually modestly priced compared to an eyepiece itself.

The Barlow [right centre] is usually in a short tube containing a negative doublet lens and is placed in the telescope's eyepiece holder. The eyepiece is then offered into the Barlow tube and locked in place and the image is then refocused.

Calculating precise Barlow power: The magnifying power with ALL Barlows will VARY depending on the distance of the Barlow lens from the telescope's prime focus and the separation of the eyepiece from the Barlow lens itself. Manufacturer's data and physical measurement is liable to error but you can measure indirectly the Barlow power thus:-

1] Camera image: Measure a camera image taken both with and without the Barlow- the difference in image scale **is** the power of the Barlow. A larger 'camera Barlow' [above left] minimises vignetting in a picture's corners.

2] Time transit of a star: Visually time the transit of a star centrally across the field from edge to edge with the scope drive off and compare similar test on the same star using the Barlow. The Barlow magnification is directly proportional to the star transit time e.g. if exactly twice as 'quick' with Barlow - the Barlow equals x2 precisely and so on.

3] Exit pupil diameter: This test can be done in daylight. Measure the *exit pupil* diameter e.g. the bright disk seen behind the eyepiece [scope focused on infinity/ distant scene] and divide this into the *measured* telescope aperture gives the magnification of the eyepiece in that telescope. For example a 70mm aperture telescope and 2mm *exit pupil* = x35. Repeat with the Barlow in the optical train - the difference in powers is the magnification factor of the Barlow. You'll need a very fine scale and magnifying lupe to measure the precise diameter of the *exit pupil.*

PICTURE THIS *by Alan Lane*

I must admit to a sneaking preference for the sort of science books that have all those nice coloured illustrations and diagrams. A book which is solid print may be interesting but is somehow tedious to get through. I think my mind works in pictures. I like those talks where the speaker has plenty of slides- sorry, out of date again- computer images to illustrate what is being said. Such maths as I have in my head is all in cubes, spheres, pie charts and the like. As somebody said - must have been my grandmother - seeing is believing. If I can't see it, I don't get it.

In the formation of brains imagination in pictures must go back a long way. Does the cat imagine the mouse she hopes to catch? Do sheep dream of grassy fields? Certainly human pictures came before writing, indeed much early writing was in pictures. The cave painters of Lascaux may have had motives that are unknown, but even if they were only illustrating what they hoped to have for dinner they obviously had a great desire to picture their thoughts. To them seeing WAS believing.

Anyway, that's the problem, getting the picture. I remember, many decades ago, (six of them actually), when I first took an interest in astronomy, wondering why Newton said that the force of gravity acted in inverse proportion to the square of distance from the mass. Why not in direct inverse? It took a number of years before it hit me. Not an apple, but the realisation that if you imagine gravity as a radiating sphere from a mass, at any time the 'surface' of that sphere will have an area proportional to the square its radius. That being so, the 'force' carried on that sphere, being fixed in total will, at any point, be reduced in proportion to the square of the increasing radius. I got the picture.

The energy transmitted by electromagnetic waves when freely radiated by a body such as the sun also diminish by the square of the increasing distance and this can be pictured even more easily. If you are an astronaut who has missed Mars and are now twice as far away from the sun as Earth that sun will appear only half the diameter in the sky as it does on Earth. This means its apparent surface will be only one quarter of that seen on Earth. As you would expect you are only getting a quarter of the light and heat, Brrr! The square of the distance ratio holds good.

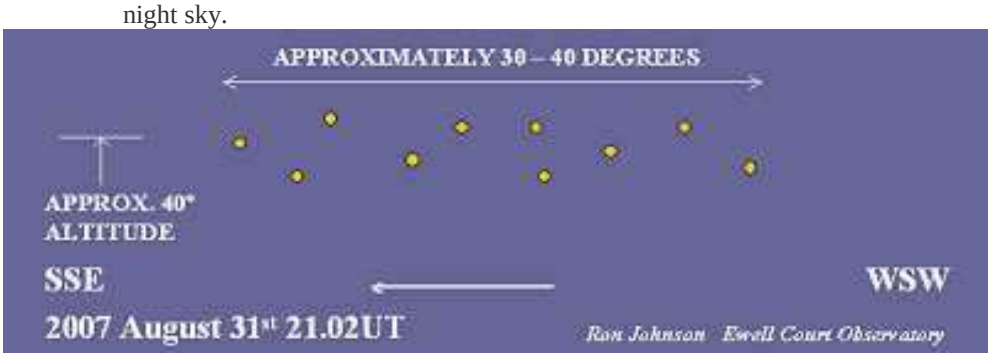
A few weeks ago I watched a series on, I think, BBC4, which was about the history of the research into the structure of the atom. The professor taking the viewer though Heisenberg, Bohr,et al was the modern sort, jeans, top, no posh accent, just like us really. But no, not really. In front of blackboards full of mathematical symbols which were far beyond me he explained that the latest model of the atom was entirely mathematical.

It could not be pictured either on paper or in the mind. Gone were the little balls of protons and neutrons nestling in the centre with even littler electron balls whizzing around. Not in planet like orbits, nor even in comet like ones. No electrons in wave like energy packets wobbling around a tangled mass of energy that is the nucleus. That was not it either. Nothing was it. It was beyond human imagination, stranger than we could understand. I might choose to see little balls jumping from orbit to orbit and releasing or absorbing little packets of energy. That's not how it is really, but it will have to do. My picture is not just out of date, there is no picture.

UFO'S OVER EWELL: Alien fever overwhelmed the local press during the first week of September following a flood of reports from the public of strange and silent lights gliding over the borough. A few of the Society's committee seems to have got calls from reporters seeking an explanation – preferring to dismiss the plausible in favour of the fantastic!

At the September meeting Ron Johnson gave his cogent report - "On Friday night August 31st at 22.02 BST, I went into the garden to check the temperature and saw ten amber or gold spherical lights in the sky. They came from the WSW and headed to SSE. There was no sound and it looked to me as though they were drifting on the wind. They all appeared to be about the same brightness, (approximately mag 0 to -1). They were distributed randomly over about 30 - 40 degrees of sky and at about 40 degrees altitude. It was cloudy at the time so they could not have been particularly high. As they approached the SSE they either faded or drifted into the cloud. I had made a mental note of all the parameters there was not time to get the camera to take any images. Hope this paints a picture". Then Alan Lane and Arthur Wyatt offered their observations. Ron's sketch of the 'lights' is below.

The following week's papers reported a plausible explanation complete with a picture – a wedding celebration at Horton Park Golf Club where a number of metre square paper Chinese lanterns illuminated with candles where released into the night sky.



Perhaps the strangest aspect [or not] of this story is the willingness of many people to accept the supernatural over the ordinary but then we all love a mystery! *MG*

LOVE TRIANGLE OF REDHILL STARGAZER fear not - it's just the murmurings of the *Surrey Mirror – Yesteryear* articles [Aug 30 and "*More tales of our eccentric stargazer*" Sept 6] serving Reigate, Redhill & Banstead about wealthy Victorian amateur astronomer Richard Carrington and his abode *Dome House* at Redhill. The articles, as here, were illustrated by the late Ewell AS member David K. Northrop in 1982 and in part are based on the book *Dome House* by Norman Keer, a current member.

Carrington is renowned – astronomically – for the discovery of *differential rotation of the sun* [the 'surface' rotates progressively slower away form the solar equator] and the first recorded observation of a brilliant solar flare in white light on September 1st 1861 and precursor to the Great Solar Storm impacting earth hours later with aurora and electrical discharges from new-fangled electrical equipment. The *Carrington Effect* [as called at the time] is believed to far exceed the energy of the 1989 solar storm that caused extensive damage to satellites and power-grids.

In true tabloid fashion the newspaper devotes most column inches the Carrington's wife and her lover Rodway – read all about in your local library – the well thumbed copy! Member Eric Blackmore tendered the *Surrey Mirror* for perusal.

IN MEMORY OF ERIC NORTHROP - MEMBER FROM 1966/7-2007

The Committee has asked me to write a short note on Eric who, with his late brother, David, was a very long-standing member of the Society. His death at 90 after a short illness occurred on 6 April this year and was well known to many of the older members. I got to know both brothers very soon after I joined in 1986 and in his latter years we became very good friends. Eric as he was known was a true renaissance man whose range of interests and friends was remarkable.

He had run his own business in plastics after the WWII before joining the Science Museum where he was in charge of mechanical engineering exhibits for many years. His interest in astronomy went back to his boyhood in Nottingham and continued with that of his brother all his life. In the early days of EAS they both ran classes in mirror making and had a major role in the construction of the Society's 10" Newtonian and observatory. They constructed a fine 10.25" Newtonian and observatory with rotating steel dome at their home in South Cheam but this was just one of many telescopes and related equipment that were to be found there. My first visit to use it was on the coldest February night I can ever recall and when we began the evening I wondered why they put on deep freeze workers' suits; by 2 am, I realised very well why and it took me days to thaw out!

However astronomy was just one of his interests; a skilled bassoon player and gifted artist were two of his other loves; he was cabinetmaker and remarkable model maker, including a model of Scott's *Endeavour* of which even the anchor chain was hand made, link by link and which was used at an exhibition in Dundee some years ago. His love of the sea led him to be very involved with ships and in particular paddle steamers and we had many trips on the *Kingswear Castle* from Rochester and one on the Waverley along the Dorset Coast, the first time I had seen Swanage from the sea, despite having been brought up in the county. He had been working on a magnificent model of a Clyde tug for Geoff Masters at Tadworth, which is half finished and it would be very nice if any competent member could complete it for display at his shop with a plaque saying it was begun by Eric and completed by whoever did it.

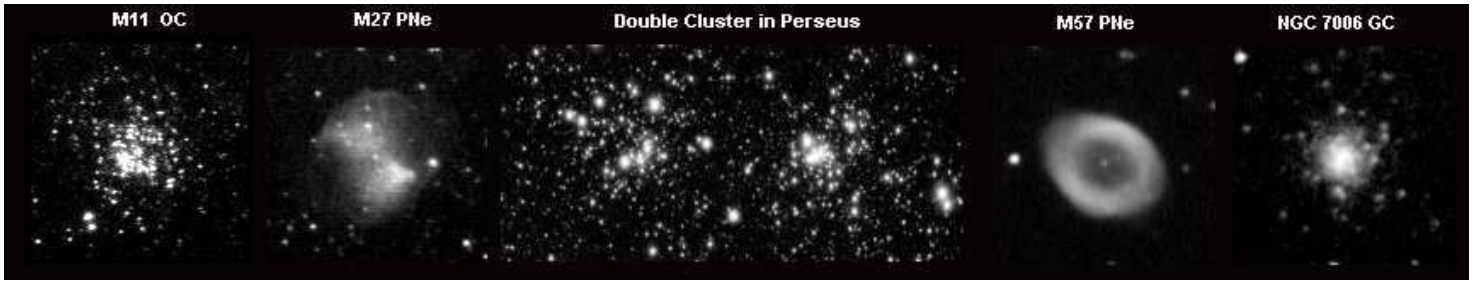
He became a very good friend of my mother and regularly joined me on trips to Dorset where he gained many friends and was popular with all he met. I feel privileged to have counted him as a very good friend and his passing will be missed by all who knew him - truly a remarkable man. *Richard Gledhill*

<<<Eric's 90th birthday celebration with friends 20th Nov 2006

SOCIETY STAR-BQ ON HEADLEY HEATH - SEPTEMBER 1st

It was a mild evening for our annual event and 20 or so members, family and friends gathered in a circle consuming brought food. Unfortunately the skies were uncooperative and remained resolutely overcast but we had a good natter whilst gnats bit away. The party evaporated by 9PM.

Perhaps better luck next year – and fewer gnats please! *MG*



SMALL IS BEAUTIFUL – over the summer months I've continued to 'push' my diminutive goto Meade ETX-70 refractor with 70mm aperture OG – see http://www.astroman.fsnet.co.uk/etx70mg.htm RH pair via Meade 30cm LX200.

FREE MAGAZINES FOR DISPOSAL

Astronomy Now [Aug '94-Jan'07] + **Sky & Telescope** [Jan'99-Jan'07] - Mike Fantham at Fantham@compuserve.com
Sky & Telescope [1973-2005] some copies retained; some copies bound - Maurice Gavin at mgavin@ntlworld.com

SAFETY-LIGHTS AROUND YOUR SCOPE : worried you or someone will accidentally kick your precious telescope tripod in the dark? Surelight [www.surelight.com] market a series on AA battery powered coloured LEDs in one metre ribbons to drape around kid's bikes but they could be equally effective protecting any static equipment at night. Also available from larger Tesco Stores. To avoid spoiling your night-vision you may need to select the least gaudy red variety. *MG*

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EWELL ASTRONOMICAL SOCIETY Membership Application/Renewal [del] Date / / 2008

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_____

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