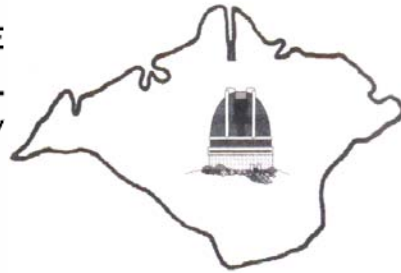


THE NEW ZENITH

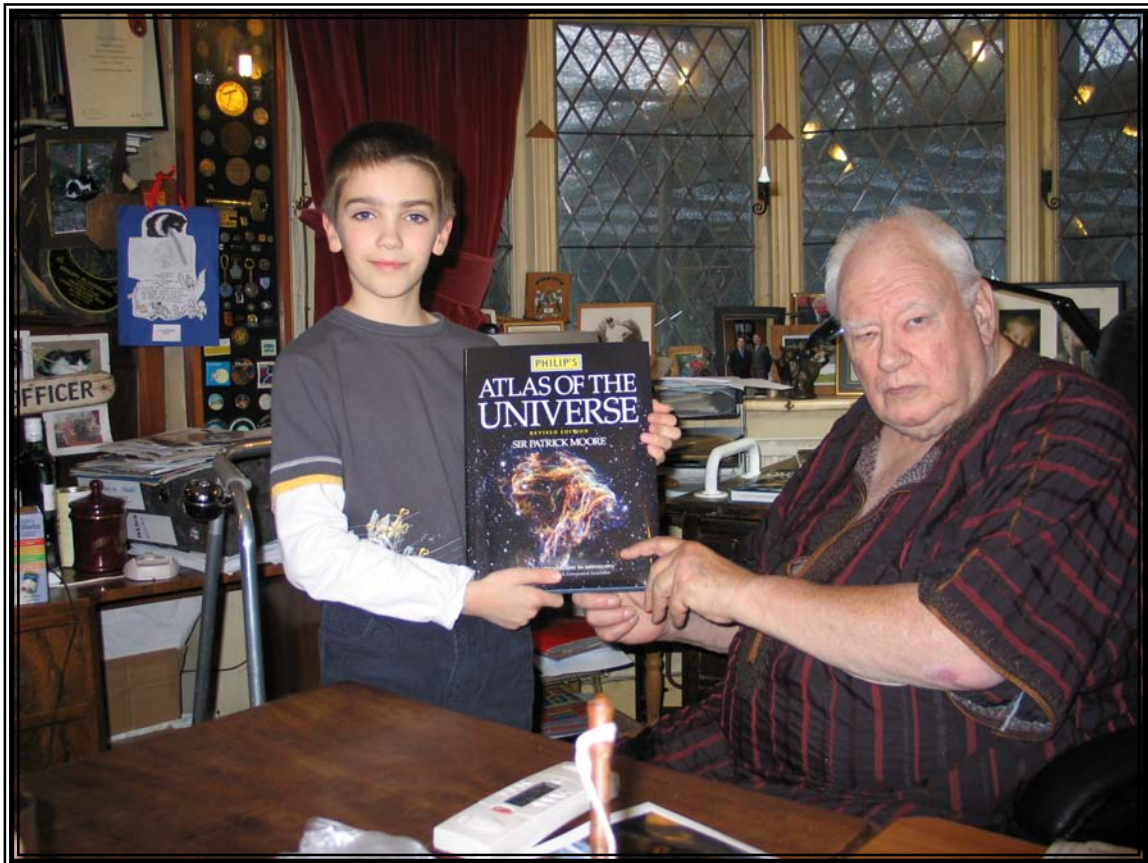
THE MONTHLY
MAGAZINE OF THE
VECTIS ASTRONOMICAL
SOCIETY



VOLUME 15 No 2

MARCH 2007

SO, JUST WHAT WAS GOING ON HERE?



In last month's New Zenith we showed James (Deep-Fried) Dymock playing with two kittenish felines. There were lots of clues in the background of that photograph but no-one seemed to want to suggest the reason. Anyway, all will be revealed if you turn to Page 6 where young James will tell you about his special visit.

Many thanks are due to Sir Patrick for his generosity in hosting this trip together with a visit to the local South Downs Planetarium. Dr John Mason was giving a schools talk there but the projector lamps blew up during his lecture and had to be replaced. John remarked that the stars then shone much brighter as a result...

FROM THE EDITOR

Dear Readers

Such a lot happens just when one is not keeping a careful watch over things in general. I took Mrs Editor up to London for a concert in Wembley Arena but had to sacrifice going to Bob Mizon's talk last month that same evening (see Page 3 for a report of Bob's chat). We much enjoyed the show but got back home a bit worn out - spelled with a 'K', you cry? Quite!

'Any road up', as they say Oop North, I discovered that a special meeting of the Executive Committee had been convened after the Newport Lecture to discuss the VAS Secretary vacancy. John Smith was chosen to fill the slot, and his previous task as Membership Secretary was handed over to Tony Plucknett, who has come in with a bang with his reminders to 'Pay Up Or Else', below.

Southampton lasers continued to fill the County Press columns and ITV Meridian News had me pinned against the Observatory wall asking for the VAS views about the affair. Just after returning home from this, the phone rang. The reporter had not had his camera mike switched on at the time, and could I redo it all? This was the day I was attending to Council meeting over in Southampton and time was getting short. I called in at IW Radio where the ITV person had a studio and redid the piece outside the building. Three retakes later (recordings ruined by passing traffic, especially a nearby Biffa refuse lorry, emptying bins) it was deemed that he had enough to cobble up a reasonable item for that evening's news broadcast. The bit with both the interviewer and myself collapsing in laughter at the non-stop interruptions was thankfully left on the cutting-room floor. Such is life in the Media these days... **All the best.**



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334	Mr D. Brewin	£13
335	Mr C. Withers	£17
359	Mr M. Cahill	£13
365	Mr A. Stewart	£17
367	Mr T. Tuckwell	£13
368	Mr M. Stewart	£7
369	Mrs D. Stewart	£17
381	Ms A. Mottram	£17
396	Mrs A. Cahill	£17
420	Mrs C. Souter	£17



NEXT MONTH'S LECTURE

Introduction to the Night Sky

**Peter Burgess
(VAS)**

**March 23rd
7:30pm
In the Parish Centre
Town Lane
Newport**

**March 2007
Subscriptions**

Will the following members please note that their subscriptions are now due. As usual, all cheques should be made payable to the Vectis Astronomical Society and sent to my Newport address. **As the costs of postage continue to rise it would be appreciated if Members paid their annual fees due as soon as listed here and so reduce the need for reminder letters.**

**Thank you
Tony Plucknett
12 Greenways, Newport
PO30 2BG**

288	Mr J. Underwood	£13
329	Mr F. Hetherington	£17
70	Mr D. McPherson	£13
126	Mr D. Shepherd	£13
243	Mrs P. Ash	£17

← Continued in LH column →

Is There Anybody Out There?

Bob Mizon

The Campaign For Dark Skies

The question as to whether there are other planets with intelligent life elsewhere in the Universe has been the subject of discussion since at least the time of ancient Greece. The Greek philosophers applied the principle of mediocrity to the problem. Thales, in 600BC, theorised that there is nothing special about the Earth and our Sun with respect to the millions of stars in the night sky. Therefore the likelihood of life existing on planets orbiting at least some of those stars is quite high. Following this line of reasoning, Democritus, in 500BC, suggested that the idea of the Earth as unique would be an anomaly.

However, it was not until the 16th century that the subject was approached in a scientific rather than a philosophical manner. Many texts, both serious and fictional such as Gulliver's Travels, by Jonathon Swift, explored the possibility of life on other planets especially our Moon.

From the 1950s there have been coordinated searches to try and find evidence for extra-terrestrial civilisations prompted by Enrico Fermi's question – 'Where are they then?' This was proposed from the consideration that if there is advanced life on other planets then some of them should have made contact with us. Our galaxy contains over 100,000 million stars. Within our near neighbourhood we know of more than 200 stars that have planetary systems. Since planets seem to be common then it would seem likely that some of these would harbour life.

If a civilisation is to develop beyond the bounds of its own planet then it would have to have an advanced technology. Kardashev produced a classification of three levels of civilisation. The first level, our current capability, would be able to harness the available power of a planet. Type II civilisations would be able to harness the power of a sun, while Type III would be able to harness the power of a galaxy. Whether Type II or Type III civilisations are practical is a matter of conjecture.

In 1961 Frank Drake developed the Drake equation to try and quantify the number of civilisations that are in existence at any one time.

$$N = R \times (f_p \times n_e \times f_l \times f_i \times f_c) \times L$$

Where: N = Number of civilisations

R = Rate of star formation

f_p = Fraction of stars that have planets

n_e = number of planets per star capable of sustaining life

f_l = fraction of planets where life evolves

f_i = fraction where intelligent life evolves

f_c = fraction that communicate

L = lifetime of communicating civilisations

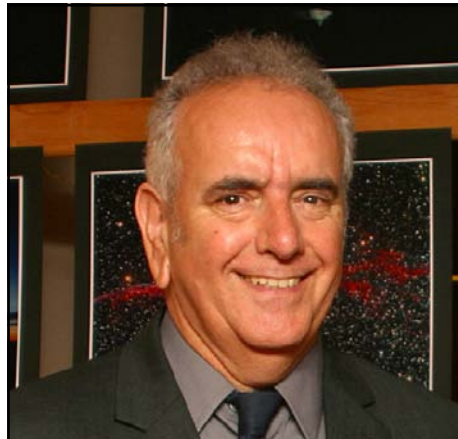
Typical values assigned to these factors are: -

R = 10-20 per year

f_p = 0.5; n_e = 2; f_l = 0.1; f_i = 1; f_c = 1, and

L = 100years – 1 million years.

With such a wide range assigned to the lifetime of a communicating civilisation the number of civilisations according to this analysis could be anywhere in the range 100 to 2 million. All the numbers, other than the rate of star formation, are assumptions so the equation does not provide much progress other than to try and enumerate the various factors relevant to advanced life.



**"Could intelligent life exist on Earth?",
Bob wonders...**

Since the 1960s, large radio dishes such as the Arecibo antenna have been used to monitor particular radio frequencies for signals that might be construed as having originated from an intelligent source. The output is provided as a series of figures on a print-out. If nothing is recorded a 0 is printed while small blips produce a 1 or a 2. The data is regularly scanned to look for patterns in the stream of 1s and 2s. To date, nothing has been found except for one short burst in 1977 when a recorder in Ohio produced the string 6EQUJ5.

This is now known as the WOW message since that is the reaction it created.

Despite the reservations of some people who feel that we shouldn't advertise our existence to potentially hostile aliens, we have sent a number of messages into space. The Pioneer spacecraft have plaques on their sides contain coded messages indicating from where the spacecraft originated and what we look like. A radio message has been transmitted using the Arecibo radio telescope with various mathematical and scientific data encoded to indicate that the Earth houses an advanced civilisation. Also, of course, a stream of radio and television programmes has been transmitted for over 50 years.

Although none of these signals have travelled very far with respect to interstellar distances it is possible that one day an intelligent being on a distant planet will learn that we once existed. From an altruistic point of view we will then have shared information with another civilisation and just the knowledge that other life exists (or existed) in the Universe could have profound consequences.

Reported by Roger Young

March Skies

John W Smith

The Planets

Mercury Although this planet reaches maximum western elongation on the 23rd its morning apparition will not be seen to observers in the northern hemisphere.

Venus now presents a good image and will be found in the south west. It is gaining in altitude so will be an excellent object for viewing over the coming weeks. Being so bright it can be seen before sunset. It has an apparent diameter of 13 arc seconds.

Mars still lingers near the Sun but may be seen in the constellation of Capricornus.

Jupiter is in the constellation of Scorpius and may be located in the early hours.

Saturn will be occulted by the Moon on two occasions this month, firstly on the 2nd and later on the 29th but the degree of occultation will depend on your location in the UK.

Uranus and Neptune are not favourably placed for viewing.

Moon There will be an eclipse of the Moon around midnight on the 3rd/4th of the month and this occurs in the constellation of Leo. See below for more details.

Meteor Showers

There are no major showers this month.

Moon Phases

New	1st Quarter	Full	Last Quarter
19 th	25 th	3 rd	12 th

Deep Sky Objects for small telescopes and binoculars

M81 NGC3031 This spiral galaxy in Ursa Major lies about 6 million light years away. It is seen by us at an angle of 45degrees. A large telescope will reveal its spiral arms but these are not seen with a small instrument.

M82 NGC3034 This irregular galaxy appears to have suffered a gigantic explosion over a million years ago and therefore is a strong radio source. If a wide-field viewing instrument is used it can be seen in the same field as M81.

M108 NGC3556 This galaxy also lies in the constellation of Ursa Major, and can be located close to the 'bowl' of the Big Dipper. It is about 25 million light years away and the dark patches in its arms can be resolved with a medium telescope.

M106 NGC4258 A spiral galaxy in Canes Venatici about 14 million light years away, and is an easy object for small instruments.

Coordinates

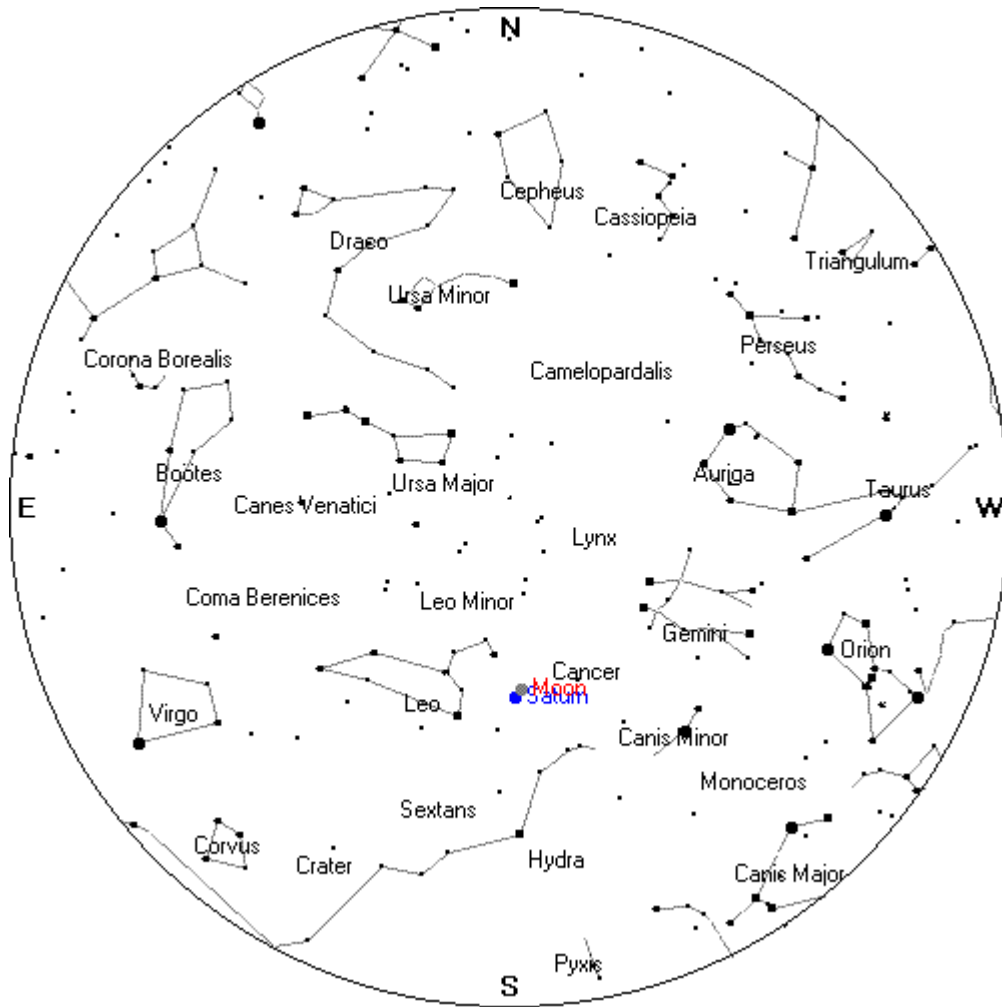
OBJECT	RA	DEC	MAG	SIZE Arc mins
M81	09h 54m	+69deg 09m	7	21 x 9.8
M82	09h 54m	+69deg 47m	9	9 x 4
M106	12h 17m	+47deg 35m	10	8 x 3
M108	11h 09m	+55deg 57m	11	7.7 x 1.3

Two occultations of Saturn will occur this month, as seen below. Much depends on the observer's location as to the extent presented.

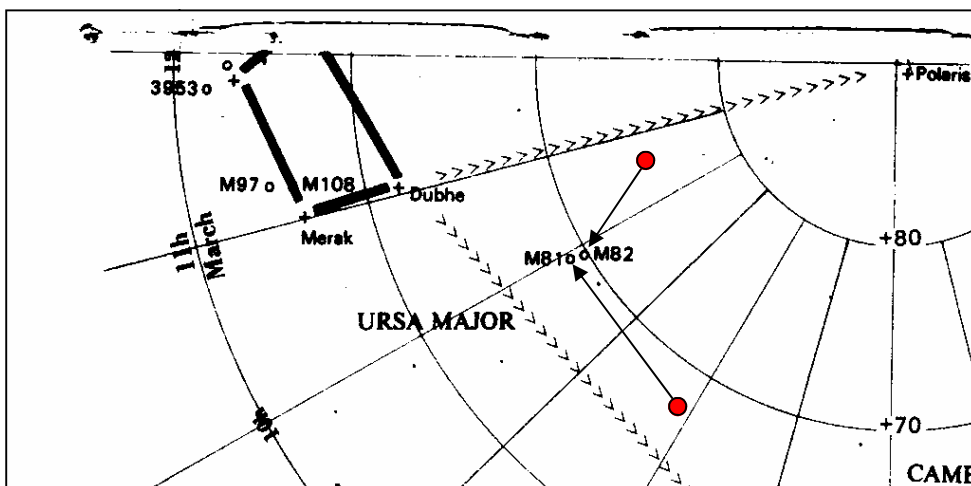
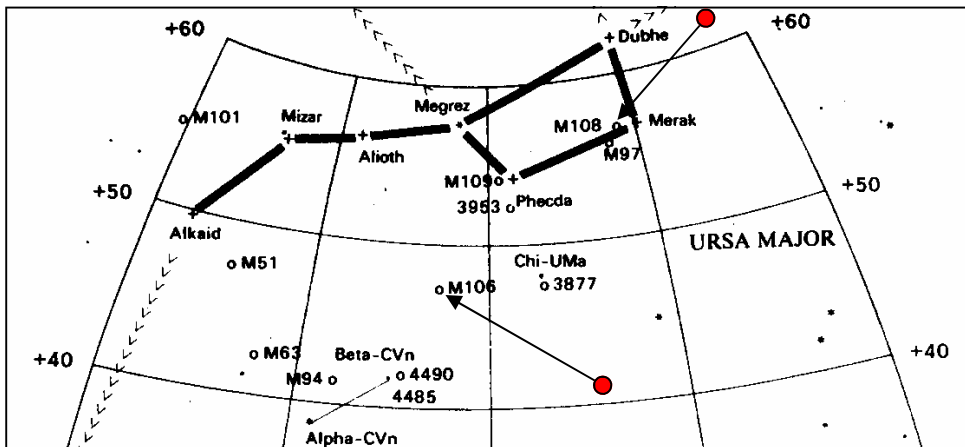


ECLIPSE PARTY AT OBSERVATORY, 3RD - 4TH MARCH

If the weather is kind to us, there will be an Eclipse Party at Watery Lane to celebrate the only eclipse of 2007 in the UK. First contact with Earth's Umbra will happen on March 3rd at about 9:30 pm, totality between 10:45pm and Midnight, last contact with the Umbra being around 01:12 am on the 4th. The Moon's surface will appear as a deep coppery red, due to sunlight being filtered and refracted by our own atmosphere. Come and join the spectacle, dress warmly. Please remember - party is off if weather is cloudy...



Mar 01	at	23:00
Mar 15	at	22:00
Mar 31	at	21:00



How to calculate the date of Easter Sunday

Take one **Vernal Equinox** (March 21st)

Blend in the next **Full Moon** after this date.

Shake vigorously, then wait until the **Sunday** after the Full Moon.

Voila! You have a freshly-created **Easter Sunday**, Enjoy!

A Special Visit

By James Dymock, VAS Junior Member

On Tuesday 16th January 2007, a very special visit took place. I travelled to Sir Patrick Moore's traditional thatched country cottage in Selsey – FARTHINGS, built in 1720. Upon arrival, I walked up to the front door. Dad was trying to find the right button to press while I read a notice that talked about the airlock procedures – Sir Patrick has cats that, according to the notice, are masters of escape. Step number one was to open the front door, go in and shut it. Step number two was to open the next door once the other door is closed. As I went through the porch, I had a quick look at two refractor telescopes. Once inside, I was lead to Sir Patrick's study with Dad by his carer, Dawn. As I proceeded through to the study, I noted the pictures of his cats, Ptolemy and Jeannie. There were also astronaut signings and paintings of his house. I then entered the study, which was full of books, mostly written by him, and, sitting at his desk, was Sir Patrick Moore.

I greeted the famous astronomer by the shake of a hand, and presented him with a couple of gifts, one was some Gourmet cat food for Ptolemy and Jeannie, and a thank you gift for Sir Patrick himself. In return, Sir Patrick presented me with his ATLAS OF THE UNIVERSE and signed it for me to treasure in the future. In the study, on a mat, (this mat is high on the top of a photocopier) and upon

that mat, was Jeannie - the black and white cat lying happily across it. The four of us (John Langley drove us there and stayed for a little while as well) became locked in a conversation about what I'd do in the future. The conversation continued until Ptolemy came in. Ptolemy is the black cat who is more playful than Jeannie, who is quieter. John had a Felix light pointer with him which shone a paw print image on to the floor for the cats to chase. Jeannie was quite funny when she was stamping on the floor, trying to pull her claws out as she was trying to get the paw print on the floor.

I also saw Sir Patrick's certificates for different things; I was also taking into account the amount of objects on the shelves like globes and a small model of the Giotto probe. Chris, who is a friend of Sir Patrick's, took us outside into the garden and showed



us the 15-inch reflector, in the green observatory. Next to it, in a shed-type building was a large 5-inch refractor. The roof of the second observatory slides off. When we went indoors,

we went back to the study, and started exchanging subjects including star magnitudes, the star Betelgeuse and its coverage in the Solar System. As Sir Patrick is very interested in the Moon, I started about this subject and we started questioning each other about it. He also told us about the Moon map he had and I explained about the two Moon maps at the VAS Observatory.

(Continued on page 7)

NEW ZENITH BY EMAIL

There are now large numbers of VAS Members receiving their *New Zeniths* electronically. The number is still growing, so much so it has been decided that, in the interests of economy, fewer copies of the magazine will be available in paper version. The resulting savings on postage each month are considerable. The more members signing up for a monthly *eZenith*, the less is the drain on valuable financial resources. However, it has been noticed that having printed fewer paper copies, there is often a shortfall in the remainder to be posted to Members who were not able to attend monthly meetings.

So, please, if you do get an *eZenith*, do not take a paper copy as well at the monthly meeting. Thanks

WHY NOT SAY IT IN ENGLISH?

It has been said that everything predicted to happen in the future by so-called experts depends largely on what took place previously.

Taken to its limits, this hypothesis can become somewhat bizarre. For example, in the good old US of A, the fired Defence Secretary, Donald Rumsfeld, had this gem of brilliance to offer:

“There are things we don’t know that we don’t know.”

But looking at it another way, we can arrive at:

“What we don’t know that we don’t know is a great Universe of mystery alongside our microscopic planet of knowledge...”

WIN A TRIP INTO SPACE

(See Page 10)

Looking around at patented inventions since the year dot, perhaps we should consider the everyday can opener as one of the best.

Even if it seems slightly mundane, think of the congestion problems we would be troubled with, having all those mountains of unopened canned food gradually rotting away around the globe...

A Special Visit (Continued from Page6)

I had a go on the Woodstock typewriter that Sir Patrick had mastered. He commented about my typing skills and told me that they were really good. The mechanical typewriter was made in 1908. Ptolemy came in a number of times and I couldn’t resist playing with him. So I took one of his pink mice and slid it across the floor. Ptolemy went after it like a thing possessed! It was so funny as he ran after the mice and overshot them.

We then had dinner and for pudding a Christmas Pudding, but not for me, I just had a Viennetta. More discussions followed dinner. Lots of facts were conveyed such as the Moon librates causing us to see 58% of the its surface, and the brightness of the Sun is -27.6 on the magnitude scale. After these discussions, we went to bed.

The following day, Sir Patrick kindly arranged for us to visit the Chichester Planetarium for which, in 1994, West Sussex County Council made available a barn that could undergo the necessary alterations plus the installation of a Minolta Viewlex Series IIB Optical Star Projector which cost £10,000, that came from the Armagh Planetarium in Ulster. The planetarium has 100 Club Class reclining seats, which were reclaimed from a Boeing 747. The commissioning of the star projector took until June 2001 which 500 people attended over a six-hour period. The building main structure incorporates an extension, foyer, small shop and ticket office and is named “The Sir Patrick Moore Building”. The planetarium was officially opened on Friday 5th April 2002, by the Astronomer Royal, Sir Martin Rees.

I’d like to thank Sir Patrick very much for taking time out for him to see me with my Dad.

EMAIL TO THE EDITOR

John,
Greetings from St Lawrence.

You may have noticed that I do not attend many meetings. This is nobody's fault but my own. However, it creates a situation where 'New Zenith' is my only contact with VAS.

Unfortunately for one who uses the observational information contained, it is becoming of limited use these days. This month it arrived on the 8th; last month (January) it did not arrive at all (Christmas?); one came on the 18th; another the 12th and so on and so on.

May I make a suggestion? Why not print the Obs. stuff in the previous month's issue then it will be perfect. Sorry to be a moaner but it does show that it is read and used.

From memory I believe my subs call is printed in January. If correct then I was missed. Perhaps you could mention it to John Smith please. After my gripes about info, I am still blocked in by awful street lighting. How sympathetic are the IOW council. Any tips? Regards
Dennis Shepherd

Good points made, Dennis.

We do have problems in getting the copies out to Members to be useable with astro data. This is one reason that we have started to send out the New Zenith in PDF as an email version. If you are on Broadband I suggest that you opt for the electronic NZ. It will reach you by the monthly meeting when others pick up a paper copy, leaving the non-attendees to await the postman! An additional bonus is that you will have the photographs in colour. The file size varies but approximately between 2 and 4 megabytes will usually be the order of the day. Let me know if this would suit you and I will put you on the email listing.

Subs: John Smith has got a new hat on – he is now the VAS Secretary. There have been some possible discrepancies with the monthly reminders, especially January's, for which apologies are due. Since no NZ is issued in January it appears that this particular month's subs reminders fell by the wayside.

Our new Membership Secretary is Tony Plucknett, at 12 Greenways, Newport, PO30 2BG
tony.plucknett1@virgin.net

He should be able to sort you out.

Street Lighting – Make a complaint to the Environmental Health Dept of the Council, mention the Clean Neighbourhoods and Environment Act 2005 and state that obtrusive lighting is spoiling the proper enjoyment of your property. This is now a Statutory Nuisance under the Act and may be acted upon appropriately.

PHOTO QUALITY IN THIS ISSUE
With the exception of Page 10's, all pix are good quality



WIVES ARE THE SNEAKIEST CREATURES!
Pictured above are John Warren and his wife Deirdre at the Observatory on 13th February, on a foul rainy night. It was John's birthday (no mention of his age but it is divisible by 50) and Deirdre had arranged for a surprise visit to our premises as a special celebration present. The surprise had been blown since John had been informed by accident from a near relative beforehand, but what he did not know was that Deirdre had bought him a year's subscription to VAS. Happy birthday, John, and welcome

From The New Society Secretary

You will see from the March reminder list that Tony Plucknett has taken over the Membership Secretary's position and I hope all members will give him their full support. He has been very keen to take on this task.

I was the Society Secretary for about 19 years and gave up that post when I became the Founder Director of the New Observatory and Rosemary Pears took on the job of Secretary which she carried out with considerable enthusiasm. Due to ill health over a number of years I then had to give up the post of Observatory Director that was taken over by John Langley and when John became Director of Astronomy Services the Observatory Director became Roger Hayward and this task is now very well done by him and his team.

Through the skills of the NHS surgeons, doctors and nurses at St Mary's Hospital and Southampton General Hospital I have now been fully restored to health and feel better than I have for many years.

When Faith Jordon had to relinquish the position of Secretary due to her very heavy work commitment I decided to apply for the post as I always enjoyed that position those long years ago. The Committee fully endorsed this and I hope to meet the present day requirements that this post now offers. I hope the Committee will find I do a satisfactory job, otherwise they can always give me the sack!

Best regards
John W Smith

SOUTHAMPTON LASER GATEWAY PROJECT

At the meeting held in Southampton's Civic Centre on 5th February, attended by the VAS Director of Astronomy Services, the above project once more came in for acrimonious public debate.

The Council was accused of totally ignoring correspondence sent in by a local astronomer who had been a Government scientist at Rutherford High Energy Laboratory and who had specialised with the development of powerful lasers. His letters and emails, in which he had made serious criticisms of the statements about laser properties in the documentation published by Southampton City Council in reference to the project, had had not a single reply.

In particular, inaccuracies about the laser beams non-divergence were utter nonsense. He believed that not one of the councillors associated with the project had any idea of the subject they were dealing with, having been badly briefed beforehand.

This brought an angry response from one of the councillors who said that she didn't believe that they had been subjected to "bad science", and anyway, all

scientists tended to disagree with one another on any matter!

Bob Mizon then reminded the Cabinet members that, as we were all descendant of distant exploded stars somewhere out in the Universe, we should have a greater respect for the night skies over our heads. He also said that the night sky was the biggest Area of Outstanding Natural Beauty (AONB) but unlike those AONBs in the UK, this one had no protection rights whatsoever.

The meeting decided that a trial would be held in the Autumn alongside an Environmental Impact Assessment in order to gain sufficient knowledge to be able to go ahead with the project itself. The Government source of funding (SEEDA) had relaxed their rules and had informed the Council that the £250,000 would be held over until the Financial Year 2007/08. A further £5000 grant would allow for the trials and assessment to take place.

So, not the winning of the war as far as I was concerned, but quite a small victory in this latest Battle for the Night Skies (BaNS).

John Langley, VAS DAS

INTERESTING FACTS PART 28

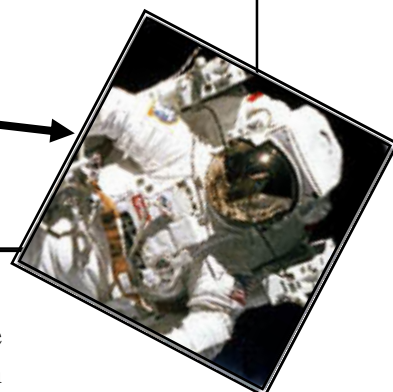
The average number of legs a human being has is less than two.
Think about it...

Website of the Month

www.winatripintospace.co.uk

This could be you!

(See below)



WIN A TRIP INTO SPACE

A new competition where the winner will win a trip into space has been launched by New Scientist magazine in association with car manufacturer Audi.

The contest has been designed to promote their new A6 car and give someone from the UK the chance to become an astronaut. To enter the competition, contestants must log onto the website www.winatripintospace.co.uk and answer the question: "What is the best patented invention of all time and why?" The winner will take off in a small rocket plane, the Xerus craft, 62 miles into the air above the Earth. Xerus has been designed exclusively for joyrides in space but is currently under development and has not been flown yet. It is scheduled for launch by 2009. The most original and imaginative entry will be named winner, and that contestant must be fit enough to undergo the training for the flight and cope with the launch's physical demands.

Editor's Note: Even if you do not care for a trip aloft in this untried craft, what would you nominate as the best patented invention, and why? Send in your thoughts for publication in the April *New Zenith*. Contact address is at end of this page.

Last Words

Our revered VAS Member, Sir Patrick Moore, has rightly complained that the BBC has relegated his programme *The Sky at Night* to the 1:55 am slot, and it was the 650th edition, to boot. A disgruntled viewer has written to the Radio Times magazine suggesting the following: "The show should be renamed *The Sky in the Morning*. If producers want an earlier slot, they should alter the format. Replace Patrick with six "stars" from *East Enders* and give each a telescope to search the sky for interesting objects. At the end of each episode, viewers would vote off the one liked the least. The winning contestant could then be the Astronomer Royal for a whole year."

Submissions to the NEW ZENITH are very welcome and should be sent to the the following address
The Editor NEW ZENITH
'Keepers Lock', Youngwoods Way
Alverstone Garden Village
Sandown PO36 0HF
Tele: 01983 407098
E Mail: johnvl@tiscali.co.uk (any attached files in Word Document format, preferably)

FIND VAS ON THE INTERNET*

Members should note the Vectis Astronomical Society Website address:

<http://www.vectis-astro.org.uk/>

MATERIAL FOR THE NEXT ISSUE TO BE RECEIVED BY THE 6TH OF THE MONTH

The Vectis Astronomical Society and the Editor of the New Zenith accept no responsibility for advice, information or opinion expressed by contributors