



Society News

From the Chairman

Hopefully the “astronomers curse” of cloudy weather due to new kit everyone got for Christmas should be over and it’s now time to get out and see some stars. Or planets. On February 17th the planet Venus will be a moon’s diameter below Jupiter, and with only a three day old moon this should be an impressive sight in the night sky.

In February, NASA will hopefully launch a new observatory to study our nearest star, the Sun. The Solar Dynamics Observatory (SDO) is designed to help us understand the Sun's influence on Earth and Near- Earth space. It will take measurements of the interior of the Sun, the Sun's magnetic field and the hot plasma of the solar corona to see how solar activity is created and how Space Weather comes from that activity. The observatory will be launched from Cape Canaveral onboard an Atlas V rocket.

The **Isle of Wight Star Party** will be held from **Thursday 11th to Monday 15th March** at Brighstone Holiday Centre. There’s a booking form at the back of NZ if you’d like to come along. If you’re able to help out at the event please let us know as we think up to 100 astronomers will be there. We have been asked if it would be possible to see some of the private observatories on the island. If you have one, and would be prepared to show it off, please let Stephen or myself know.

Your society needs you!

In August, a few members of Vectis Astronomical Society’s committee will be standing down from their roles. Please consider standing for a place on the committee. We need to fill the posts of:

- Chairman
- Treasurer
- Program Organiser and
- Observatory Outreach Co-ordinator

It would be great to see some new faces on the committee. We now hold the committee meetings on a Tuesday evening, so if you couldn’t make the previous Friday committee meetings, I hope you will consider these new arrangements.

Clear Skies
Dr Lucy Rogers - Chairman

VAS Website: www.wightastronomy.org

Submissions or letters to New Zenith are always welcome and should be sent to:

The Editor New Zenith
35 Forest Road
Winford
Sandown PO36 0JY

Tel: **01983 864303** or email: editor@wightastronomy.org
Material for the next issue by the 6th of the month please.

VAS Registered Office

Castle Haven Cottage, Castle Haven Lane, Niton Undercliff, Isle of Wight, PO38 2ND

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

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Observatory Diary

Monday, 19.30hrs	Members Only. Telescope and night sky training.
Tuesday, 19.30hrs	Members Only. Education evening - self-help for those on external courses, such as GCSE Astronomy, Open University etc, or for general astronomy questions.
Thursday, 19.30hrs	Members and Public. Informal meeting and observing.

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Monthly Meeting Calendar 2010

As you can see we have had some difficulty getting the lecture programme sorted. We are making headway and hope to have dates confirmed for the next issue. Please keep an eye on the website for up to the minute information.

Date	Subject	Speaker
Jan 22	CQ ETI	Dr Guy Moore
Feb 26	TBA	
Mar 26	TBA	
Apr 23	TBA	
May 28	TBA	
Jun 25	TBA	
Jul 23	TBA	
Aug 27	How Did We Measure the Solar System	Paul England
Sep 24	TBA	
Oct 22	TBA	

All details correct at time of publication.

New Members

A very warm welcome to our latest new member,

- Geoffrey Jenkins

Tony Plucknett - Membership Secretary

Do you have an observatory at home?

Are you around on the afternoon of Friday 12th March and would you like to show other observers around it?

With a lot of people coming across to the Third Isle of Wight Star Party, this year we are trying to get a together people who have observatories on the island and do an informal tour of them. We'd like to be able to pass your details on to visitors and then let them visit you between say midday and 4 o'clock in the afternoon for you to be able to show them around.

If interested, please let Stephen, Lucy or Bill know.

Telephone 731 759 or email stephen@iowstarparty.org

Member's Photographs

They were taken by Jon Whitehurst with a Meade Deep Sky Imager 3 and guided by PHD Guiding software.

Veil Nebula (East) NGC 6992



Horsehead Nebula



This Month's Night Sky

Moon Phases

New	1 st Quarter	Full	Last Quarter
14th	22nd	28th	5th

Planets

Mercury

At the start of the month Mercury makes its first apparition of the year, this will however be a rather poor showing. Although the planet at best rises about two hours before the sun it hugs the horizon and will be seen only with some difficulty against the bright morning sky. On the 12th the very thin crescent Moon will be about 2 degrees to the left and slightly above Mercury acting as a pointer to its position in the sky. For the last half of the month it will be too close to the Sun to be seen.

Venus

Venus spends the first part of this month at conjunction on the far side of the Sun. Towards the end of the month with almost 10 degrees separating it from the Sun it should start to become prominent in the western sky just after sunset. This is the start of an evening star apparition that will last most of the year.

Mars

Mars is at opposition on the second rising as the sun sets and passing due south at midnight. As the month progresses its size will diminish from a maximum of 14 arc seconds on the 1st to 12 arc seconds by the 28th. More noticeable will be the reduction in brightness from magnitude -1.3 to -0.9 as we leave it behind in its outer orbit.

Now is the time to observe the surface of the red planet, it will soon become too small for comfortable observation.

Jupiter

Jupiter is too close to the Sun for observation this month passing behind it on the 27th.

Saturn

Rising in the east at about 22:00 Saturn is well placed for observation in the early morning hours. The ring plane is still showing only a shallow angle after last years equinox and closing of the rings.

Uranus & Neptune

Both Uranus is too close to the sun to be visible this month as it heads towards next months conjunction.

Neptune

Neptune is in conjunction with the Sun this month and thus not visible.

Deep Sky

M41 Open Cluster R.A. 6h 46m Dec -20° 46' mag 4.5 - Under a clear dark sky this cluster can be seen with the naked eye as a bright spot towards the edge of the winter milky way about 4 degrees beneath Sirius. A small telescope will show it as a large if somewhat sparsely populated cluster.

M42 Orion Nebula RA 5h 35m Dec -5° 25' mag 4 - Visible to the naked eye as the sword of Orion the light we see is a glimpse into a large, relatively nearby star forming region. We are looking into a hollowed out shell of gas that is glowing from the intense radiation emitted by the newly formed stars. Four of these bright stars are closely grouped near the centre of the nebula forming an asterism known as the Trapezium. There is detail to be seen in all sizes of telescope and binoculars making this probably the most observed object in the night sky.

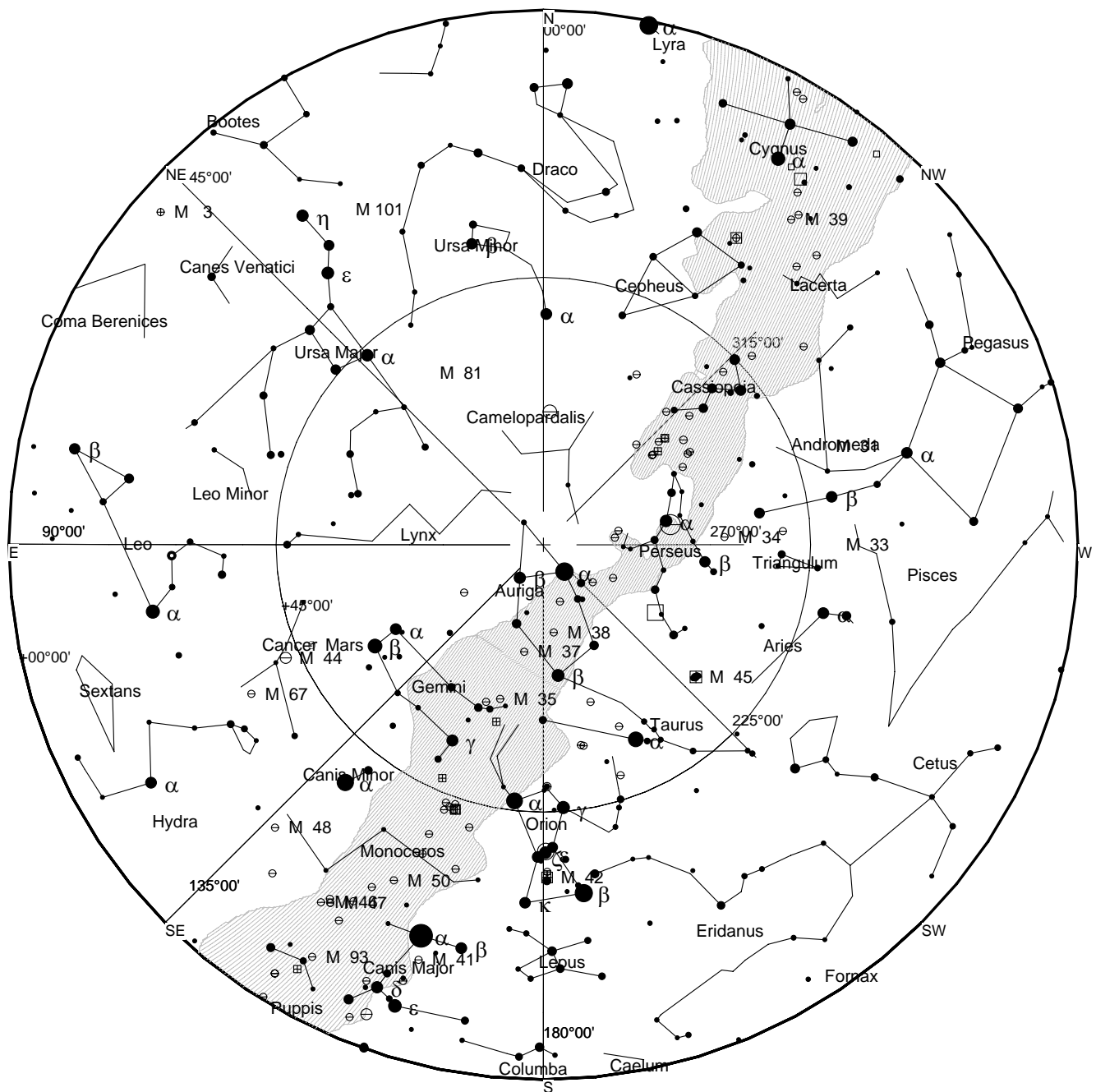


M46 Open Cluster RA 7h 42m Dec -14° 51' mag 6.5 - Visible through binoculars as a misty smudge against the winter Milky Way in the same field of view as M47, M46 is a cluster of some 500 stars spread over an area equivalent to the full Moon. For observers with larger telescopes there is an 11th magnitude planetary nebular located towards the northern edge of the cluster. This nebula is a foreground object and appears to be within the cluster boundary purely by chance.

M47 Open Cluster RA 7h 37m Dec -14° 31' mag 4.5 - In a clear sky M47 may be seen with the naked eye, but optical aid is required to show the full splendour of this cluster. The cluster stars have a wide range of brightness from about magnitude 6 and beyond. This together with a few bright foreground stars allows the imagination to run free with all the different star patterns.

Peter Burgess

This Month's Sky Map



View from Newchurch Isle of Wight UK - 2100hrs - 15 February 2010



Messier 46 (also known as M 46 or NGC 2437) is an open cluster in the constellation of Puppis. It was discovered by Charles Messier in 1771. Dreyer described it as “*very bright, very rich, very large.*” M46 is about 5,500 light-years away with an estimated age on the order of several 100 million years.

The planetary nebula NGC 2438 appears to lie within the cluster near its northern edge (the faint smudge at the top center of the image), but it is most likely unrelated since it does not share the cluster's radial velocity.

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Starting as a Stargazer Part 8

Now this is why I frequently don't bother to set up the SkyAlign goto, and why some of my observing sessions are more energetic than you might think.

The guide to the astronomical month said that Mars, Venus and the last slice of the waning moon should all be visible in the eastern sky, just before dawn. I levered my groaning self out of bed at three a.m.

Wrapped in a woollen bundle (Summer? Ha!) I set up the telescope. Jupiter was quite high, so I took a quick look. Then the moon was visible briefly in a lancet of sky between a gable and a large buddleia, and I dodged about the garden with the scope to find a sightline. I could now deduce where to look for Venus (behind a cumulus cloud) and Mars (behind another). Hopeless, so I picked up the telescope bodily and went back to Jupiter, temporarily in clear sky. Looking attentively, I began to notice a round mark, and after a few averted vision experiments I decided that it wasn't a floater in my eyeball: perhaps I could see a moon shadow on the planet's disc.

Jupiter vanished, so I lugged the telescope up the drive again and this time found Venus. I could see its gibbous phase. More cloud. I picked up the scope yet again, took it to its Jupiter sightline, (clear sky once more) and had another peer at the little shadow. It seemed to have moved towards the limb. I couldn't remember how long it took the moons to make a crossing, let alone how far behind or in front of their shadows they would be travelling; but I thought that it was supposed to be more difficult to see the satellites than the shadows against Jupiter's face.

Behind me, Venus reappeared. Sighing, I carried the telescope back. I looked for Mars with binoculars, and located a pink dot against the lightening sky. By the time I got the scope lined up, the next cloud had come over. We played hide and seek for some time (Mars won all the rounds); then I bore everything back to Jupiter, which was coming out again.

The moon shadow seemed to have gone. Perhaps it had been a floater after all? But - was it my imagination, or was there a tiny feature on the planet's disc? Right on the limit of vision, just fractionally brighter than the background brightness of Jupiter? And then - wasn't that an irregularity on the very limb? And at last, beyond doubt, a pimple of light which finally detached itself and became an independent dot.

The *Sky and Telescope* website told me that my Jovian moon was Io; and I never did get a proper look at Mars.

Rebecca Mitchelmore

Winter Project

Are you interested in a Messier object hunt? If so please make yourself known to any member of the Committee as it has been suggested we observe and possibly photograph as many of the Messier objects as possible this winter. If enough members would like to join in, this will become part of Thursday's regular get togethers.

Island Planetarium @ Fort Victoria

Star Gazing Evenings

Starting Friday - 13th Nov and 11th Dec

Programme

Fri evening - Finding your way around the night sky and stargazing with telescopes if clear.

Sat afternoon/ Sun morning - Visit to Island Observatory and Solar Observing if clear.

Sat evening - Observing the night sky with telescopes either live with telescopes or simulated observing using planetarium and telescope images from our library of small and large telescope pictures.

Cost £40 for VAS members

enquiry@islandastronomy.co.uk

Island Planetarium @ Fort Victoria

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CQ ETI CQ ETI

**Part 3. PORB and the Aurora Borealis**

Watch these people with PhD degrees! - we are trained to explore the boundary between known and unknown, so don't expect immediate answers to some of our questions. First some recent news, then an idea called "PORB", followed by various aspects of the Aurora Borealis.

Recent news: After helium and hydrogen, carbon and oxygen are the most abundant elements in the universe. What type of terrestrial planets are formed near to a star depends on the local ratio of carbon to oxygen¹. Where oxygen is more abundant, then terrestrial planets become made of silicates and water; carbon 'drops in' later. Where carbon dominates, such planets would consist of graphite, carbides, oceans of tar, with methane and carbon monoxide atmospheres - not such nice places. The good news is, in our region of the Milky Way, terrestrial planets like ours seem more likely, so if ETI exists, it could be just like us. So let us suppose that ETI has many similarities to ourselves. Now here's a curious idea, curious because sometimes it yields obviously correct answers, at other times, perhaps not...

The Principle of Reciprocal Behaviour (PORB)

This is only an idea - not an irrefutable principle - "if ETI behaves like we do, then don't expect ETI to do things any differently from us". If we make buildings out of bricks and cement, then ETI probably does the same. If we deliberately launch only a few signals towards ETI, because a reply might take hundreds of years, then don't expect ETI to launch many deliberate signals towards us either. If we steer clear of transmitting continuously exactly on the hydrogen line of 1420MHz because it would affect our radio astronomy, then don't expect ETI to transmit *continuously* there either. If our mobile phones, satellite navigation and TV compete with radio astronomy for frequencies, then ETI probably experiences similar difficulties. If we used three dots to communicate across the oceans in a pioneering experiment, like Marconi did in 1901, then ETI probably did the same in their history, for the same reasons - a dash takes too much power from struggling generators on a cold stormy night, and three dots are more recognizable against the background noise of lightning flashes, than just one dot or two. If we try receiving TV carrier waves from other planets, then ETI is probably doing the same. PORB poses the question - how do things look if you swap places with ETI?² Different considerations come into play if ETI is more advanced than ourselves.

The world's most powerful transmitter: We radio amateurs have been using up to 150 watts for transmitting for many years, but in the USA, the historical stronghold of amateur radio, hams were making homebrew one-kilowatt transmitters even in the 1920s. Broadcast transmitters can have powers of hundreds of kilowatts. With respect to SETI, the USA is again in a similar pioneering stronghold position - more later - while people like me are slow to catch on! Apart from pulse transmissions, perhaps the strongest man-made transmissions are like the one-megawatt transmitter of Radio Prague. But all this is dwarfed by our biggest natural transmitter, the Aurora Borealis, emitting a billion watts³ of kilometric waves into space, at a frequency of 150kHz or a wavelength of 2km. How far do these waves travel into space? I don't know - too many unknowns - about 30 times further than an unknown range if it's an American billion rather than an English billion!

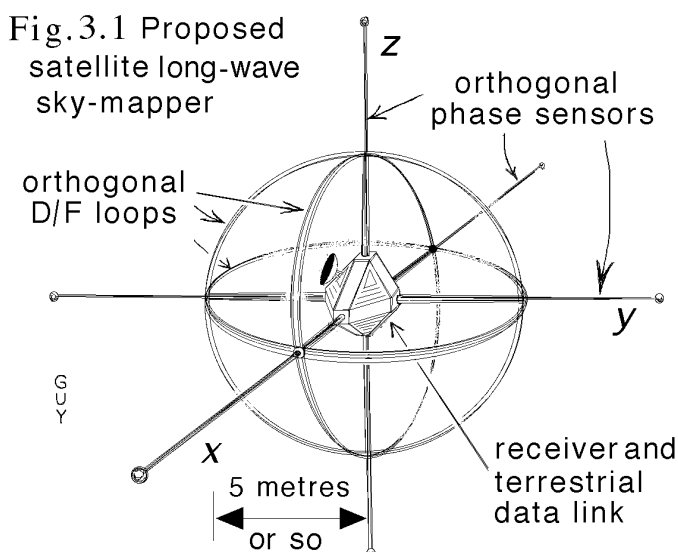
Google "Aurora Borealis" and you'll obtain fascinating pictures, including the "Aurora Australis", of glowing curtains which nobody has managed to model. Anything we don't understand raises questions and possibilities. Presumably we can't detect kilometric waves on the Earth's surface because we're screened by our own ionosphere, although in Alaska perhaps all you need is a wire loop and headphones, to get strange noises. But out in space, if we had an aerial and a receiver then, when our planet and the Sun are quiet, perhaps we could receive signature signals from terrestrial type planets, tens of light years away.

Jupiter was discovered *by accident* to be emitting a radio noise signature, far more powerful than thunderstorms, centred on 20MHz (15 metres in the *shortwaves*). Venus, Mars and various moons also exhibit aurorae, but the intriguing thing is, since the Aurora Borealis and its characteristic transmission from our habitable Earth have a lot to do with our magnetic field and our atmosphere, then 'auroral kilometric radiation' (AKR) might be a give-away signal, indicating to ETI, the existence of our lush green planet. Conversely, if *we* surveyed the directions in which AKR arrives, this might yield, over time, a map of iso-auroral contours, like a weather map, with greatest chance of finding ETI at the peaks of terrestrial type auroral noise. So what do we know about this subject? As far as I can tell, precious little! Now why is that?

When 'long' is 'short': A language problem, plus various physical effects have perhaps created this gap in the electromagnetic spectrum concerning our knowledge of space. Radio amateurs and radio astronomers have opposite meanings for the word 'long'. For radio amateurs, long waves cover 1000m to 2000m, medium waves 200m to 600m, and the short waves start at 200m extending down to 10m (then they become VHF and UHF). But in radio astronomy books⁴, you can often see what we call

'short waves' referred to as 'long waves'. Jocelyn Bell Burnell's discovery of pulsars (see Part.2 Dec. NZ) was done with 2000 dipoles at a wavelength of 3.7m - very long waves for radio astronomers, and too big for reflecting dishes. This appears to characterize 'long waves' for radio astronomers - if they're too big for dishes, then they're regarded as long. To focus waves of 2km, you'd need a dish several times bigger than the wavelength - not practical. Perhaps this pushes truly long waves outside the usual realms of radio astronomy, plus our ionosphere screens us from receiving such waves from space.

I'm intrigued by the paucity of information on waves with such interesting properties. For example, coming down to Earth, looking at an old book⁵ on boat navigation, I see that when long waves from a coastal beacon pass at glancing angles across coast lines, radio bearings can be several degrees in error because of the different velocities of radio waves across land and seawater. In space such waves could be intensified by chance lenticular refraction. Add to this some maser amplification in space plasma, plus the fact that when astronomers go looking for a predicted something, as a rule of thumb they very often find unpredicted things (see Part 1 Nov. NZ) - and I'm tempted to propose a satellite, Fig.3.1, to map long-wave signals from space. Radio dishes aren't needed - my system would use an extra coil to the Bellini-Tosi system for direction finding⁶, and with modern signal processing, make a 3D map, like a melon-shaped microwave background map. We could watch dynamical effects on Earth, the Sun, and other objects in the solar system, plus unpredicted phenomena like lightning strikes amongst the asteroids, strange effects in the Oort cloud, or further afield, detect flares on neutron stars - who knows? - as well as help to reveal lush green planets in other stellar systems. If two ETI civilisations only a light-year apart regularly chat on the long waves, we might spot their signals - then the translation problem begins. Eventually we might join the chat!



Now some illustrative technical fun: Imagine if we could gain control of the Aurora Borealis - this isn't complete science fiction - and use it to send messages. Once, when the powerful naval VLF (very low frequency) transmitter near Annapolis was sending pulses to submarines, rockets studied X-rays and electron densities in the upper atmosphere⁷. They found "the most direct evidence yet that human activity can influence the outermost regions of the Earth's environment". Perhaps under critical conditions, a transmitter sending Morse might cause our polar skies to light up, flashing in sympathy, sending a billion watts of kilometric radio signal, broken into dots and dashes, into space. Would we get planning permission to do this? - possibly not! - and PORB means that ETI might not get planning permission either! However, exciting research *is* being done, and if kilometric waves provide data rates suitable for submarines, they're certainly good enough for ETI!

References and Notes

1. "A Large Lump of Coal" G.Musser, *Scientific American*, January 2010, p14.
2. I can't say that PORB is exclusively my idea because PORB suggests that ETI has also thought of it. The spontaneous unfolding of similar thoughts in isolated patches across the Universe, a type of "instant communication faster than light", is grist to the philosopher's mill.
3. "Radio Waves from the Aurora" Dan Swift, 1988: <http://www.gi.alaska.edu/ScienceForum/ASF8/859.html>. Also see AKR data in: [http://en.wikipedia.org/wiki/Aurora_\(astronomy\)](http://en.wikipedia.org/wiki/Aurora_(astronomy)).
4. such as *Radio Astronomy* F.Graham Smith, Penguin, Harmondsworth, 1974, p200 "...the long-wavelength radiation from Jupiter..."; or *The Face of the Sun* H.W.Newton, Pelican, Harmondsworth, 1958, p27 "...the sun was emitting electromagnetic waves of very long wavelengths of a few metres..."
5. *Coastal Navigation Wrinkles* M.J.Rantzen, Adlard Coles, London, 1964, p55.
6. *Handbook of Wireless Telegraphy* Admiralty, HMSO, 1938, vol.2 section T.
7. "Mariners' magnetic effect on air" *The Times* 25 March 1983, source: *Science* vol.219 p1324 1983.

Dr. Guy Moore

November Lecture Report

Cosmic Casualty - Farce and Fortuity in the Exploration of Space

Doug Ellison - Leicester

<http://www.UnmannedSpaceFlight.com>

This was a riveting talk on space probes, well attended by about a hundred members. After a break, the lecturer continued (as arranged) with the probes to Mars, the most difficult place to land a craft where the thin atmosphere demands heat-shielding, parachutes, retro-rockets and airbags. With so much material packed into a rapid presentation, I commented to Roger Young, "What a difficult lecture to summarize!" - especially with so many pictures, exquisitely timed, including movies, to match the lecturer's fast-moving, amusing and informative commentary - impossible to capture all this on paper: a glimpse of Murphy's law, on the spot remarks from project leaders seen on screen, a puzzle for the audience to solve and much more - I hope some members will recall items for the NZ. This was an information torrent of a talk! Here are just few items recalled from me:

The Cassini probe is in good health and we saw a movie of radar images of the surface of Titan, revealing only the week before, yet more surprising eruptions. The Huygens probe had slanting fins to induce spin of the craft, yet the craft mysteriously spun the opposite way to its scheduled design. The probe contained two aerials (not dishes) a few inches tall, Aerial A transmitted data up to the orbiting Cassini probe. Aerial B was connected to an ultra-stable oscillator, giving Doppler shift and wind speed data. The command structure to activate the transmitters had the engineers fighting a communications battle which they won.

Slingshot trajectories: Several orbital plots were seen on screen, including unscheduled modifications. (This is of particular interest to Matthew Grattage and myself as we're doing computer simulations of slingshot trajectories in BBC BASIC. So far we've seen many strange orbits including the Moon suddenly flying away and crashing into the Sun - this can happen when you first get started using rather wild approximations - but it's fun! So exactly how do slingshots work? Perhaps later we will be able to show you on screen.)

The Galileo probe, built at the JPL in California in 1985, was driven to Cape Kennedy, but following the Challenger disaster in 1986, it came back to JPL by road, had to be re-engineered, and endured more lengthy road travels by truck (in the USA "lorry" is a person's name). The probe has spotted several binary asteroids (see Google for loads more on this probe.)

Communicating with satellites by laser - this looks like a 'watch this space' feature - high data rates, no dish aerials, and for optical amateurs, what fun to spot a man-made probe as far away as the Moon or Mars using a telescope. Any guesses when this will happen?

Despite the practical battles fought to get these projects to succeed - what a lively lecture topic! - a huge amount of probe work ended up excitingly spot on.

Dr Guy Moore

This was an extremely full and entertaining presentation. In fact, I am sure there was enough material for another two or three similar talks (*and I'll do my best to persuade Doug to return later in 2010*).

Doug's rapid fire style showed his great enthusiasm for the subject and the beautifully produced slides, pictures, graphs and movies were perfectly sequenced and added an extra sparkle.

I agree with Guy completely, a very difficult lecture to summarize. If you missed it, I suggest you make a real effort to catch one of Doug's presentation, I'm sure you won't regret it.

Brian Curd

THE VECTIS ASTRONOMICAL SOCIETY

A HISTORY 1976 – 2009

BY BRYN DAVIS

Available from the author
at the Observatory
or any Monthly Meeting

Price £6



VAS Needs Your Help!

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If you can help, please contact Dr Lucy Rogers at chairman@wightastronomy.org

THE BACK PAGE

LINKS, COMMENTS AND OBSERVATIONS

News and Events

Unprecedented details on the surface of the star Betelgeuse

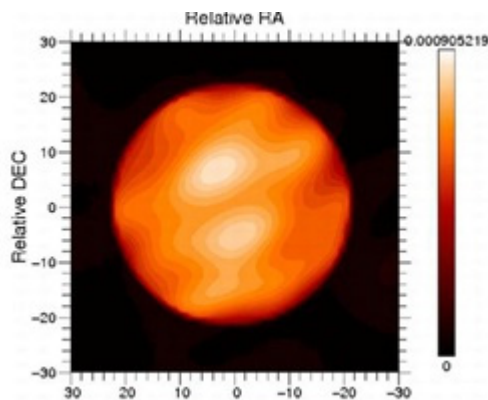


Image reveals the presence of two giant bright spots whose size is equivalent to the Earth-Sun distance. This result allows us to better understand the structure and evolution of supergiants.

Provided by l'Observatoire de Paris, France January 12, 2010

Using interferometry, an international team led by an astronomer of l'Observatoire de Paris obtained an unprecedented image of the surface of the red

supergiant Betelgeuse in the constellation Orion. The image reveals the presence of two giant bright spots whose size is equivalent to the Earth-Sun distance — they cover a large fraction of the surface. It is a first strong and direct indication of the presence of the convection phenomenon, transport of heat by moving matter, in a star other than the Sun. This result allows us to better understand the structure and evolution of supergiants.

Betelgeuse is a star quite different from our Sun — 600 times larger in dimension, it radiates approximately 100,000 times more energy. But following the Sun, this type of object also reveals a surface with bright and dark spots — hotter and colder spots. These structures would be mainly due to the phenomenon of convection — the transport of heat by matter currents. This phenomenon is observed every day in boiling water. On the surface of the Sun, these spots are rather well-known and visible. However, it is not at all the case for other stars and, in particular, supergiants. The size, physical characteristics, and lifetime of these dynamical structures remain unknown.

More details at <http://www.astronomy.com/asy/default.aspx?c=a&id=8970>

AstroFest 2010



Entry to the exhibition only is £5 on the door while conference tickets, which range between £15.00 and £40.00 depending on how many sessions are chosen, must be purchased in advance.

Details at <http://www.astronomynow.com/astrofest/>.

Yes it's that time of year again.

The Universe will come to the Kensington Conference and Events Centre, London on the 5th and 6th of February 2010!

With 16 lectures in the Conference Programme and some 27 stands in the exhibition area AstroFest is still the UK's biggest astronomy show.

What are we going to do now that the IYA is over?

Well, our outreach projects will continue throughout 2010 and we hope to have visits from schools and other groups.

While the IYA events were highlighted last year, Paul, Bert and Graham were the mainstay of Outreach in 2009 and would welcome additional help for 2010.

The work is very rewarding and vital to ensure a high profile for VAS and astronomy in general.

If you can spare some time in 2010, please contact any member of the committee.

Quotations

"The probability of them visiting is directly proportioned to how much you feel like being left alone..."

Einstein's Theory of Relatives

"The electron is not as simple as it looks"

(William) Lawrence Bragg, British Physicist(1890-1971)

Observatory

For your own safety, when visiting the VAS observatory, please remember to bring a torch. Also, please make sure you close the car park gate if you are the last to leave.

Articles Needed

New Zenith welcomes letters, articles or pictures related to all aspects of astronomy. Please send contributions to the Editor at the email or postal address on the front page.



Isle of Wight Star Party

11th – 15th March 2010

www.iowstarparty.org

Booking Form – Star Party

Name :
Email :
Address :

Phone Number :
Car Reg :

Approximate time of arrival :

Number in party :

Astronomy Society:
Astronomy Equipment:

Accommodation		Th 11 th	Fr 12 th	Sa 13 th	Su 14 th	Total
Day Rate	£4					
Whole Event Rate	£10					
Grand Total						

Are you likely to want/be interested in – (Please Do Not pay for these now – pay on the day):

Full English Breakfast (Veggie option available) at £5.50 each day?

Yes/No

An evening meal on site (Veggie option available)?

Fri/Sat/No

Dinosaur Hunt (Sun 14th pm) £3 per person?

Yes/No

Pub meal Sunday Evening (numbers required for reserving tables)?

Yes/No

Star Party Fee

Please send this booking form, with a cheque to:

IOW Star Party
Castle Haven Cottage
Castle Haven Lane
Niton Undercliff
Isle of Wight
PO38 2ND

(Cheque payable to Vectis Astronomical Society)

Phone: 01983 731 759

Email: info@iowstarparty.org

No Pets Please.

Please help us to help you - any questions, or suggestions, speak to Lucy, Stephen or Bill. – Many Thanks



Isle of Wight Star Party

11th – 15th March 2010

www.iowstarparty.org

Costs

Star Party Fee

Day Rate £4 per person per day or £10 per person for the whole event – Cheques payable to Vectis Astronomical Society.

Accommodation

Tent £5 per person per night.

Caravan with up to two people £12 per night. - For caravans, extra adults £3 per night.

Beach Huts £20 per night (up to 2 people sharing – please specify twin or double).

For all Beach Huts: Extra person £10.00 per night.

All linen and electricity included.

Chalet - Please specify twin or double beds as required – first come first served – not all twins

1 bedroom (up to 2 people) self catering £30 per night

2 bedroom (up to 4 people) self catering £40 per night

3 bedroom (up to 6 people) self catering £60 per night

All linen is provided although electricity is extra via a £1 coin meter.

Please let us know if you would like to share a chalet with someone else who is booking separately.

Electric Hookup (requires caravan electric type connector) - £3 extra per night - please make it clear at time of booking if you require this.

Please note:-

All accommodation must be booked for a minimum stay of both the Friday and Saturday nights. If this is not possible, please ring to confirm availability.

There are limited electric hookups and caravan pitches – depending on the weather caravans locations may be restricted.

Dinosaur Hunting trip

Visit to the Dinosaur Farm on Sunday 15th, and, all being well a fossil hunting expedition on the beach. (Price £3 per person – payable on the day). Final arrangements to be made on the weekend.

Ferry

Please book your ferry via the Wightlink Call Centre.

The number and booking code will be sent to you on confirmation of your Star Party booking.

We are currently unable to confirm this year's rates

Car and up to 6 people or Car and caravan (up to 13m) and up to 6 people

For travel during the period of the Isle of Wight Star Party 2010

Why not make a holiday of it?

Contact Brighstone Holiday Centre if you want to extend your stay on site.

No Pets Please.

Please help us to help you - any questions, or suggestions, speak to Lucy, Stephen or Bill. – Many Thanks



Isle of Wight Star Party

11th – 15th March 2010

www.iowstarparty.org

Booking Form – Accommodation

Name :
Email :
Address :

Phone Number :
Car Reg :

Approximate time of arrival :

Number in party :

Astronomy Society:
Astronomy Equipment:

Accommodation		Th 11 th	Fr 12 th	Sa 13 th	Su 14 th	Total
Tent	£5 per person per night					
Caravan (2 people)	£12 per night					
Beach Hut (2 people)	£20 per night					
1 Bed S/C Chalet (2 people)	£30 per Chalet per night					
2 Bed S/C Chalet (4 people)	£40 per Chalet per night					
3 Bed S/C Chalet (6 people)	£60 per Chalet per night					
Electricity Hookup	£3 per night					
Extra Person	See Cost Sheet					
Grand Total						

For Chalets/Huts, please specify number of singles/doubles required: Single..... Double.....

In addition to the above, upon arriving at reception, you will need to pay the Star Party Fee, Day Rate £4 per person or £10 per person for the whole event – see other form

Are you likely to want/be interested in – (Please **Do Not** pay for these now – pay on the day):

Full English Breakfast (Veggie option available) at £5.50 each day?	Yes/No
An evening meal on site (Veggie option available)?	Fri/Sat/No
Dinosaur Hunt (Sun 14 th pm) £3 per person?	Yes/No
Pub meal Sunday Evening (numbers required for reserving tables)?	Yes/No

Star Party Accommodation
If you are staying on site, please send this booking form, with a cheque to:
IOW Star Party Brighstone Holiday Centre Military Road, Brighstone Isle of Wight, PO30 4DB (Cheque payable to BHC Ltd.) Phone/Fax: 01983 740 244 Email: sue@brighstone-holidays.co.uk

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Isle of Wight Star Party

11th – 15th March 2010

www.iowstarparty.org

Costs

Star Party Fee

Day Rate £4 per person per day or £10 per person for the whole event – Cheques payable to Vectis Astronomical Society.

Accommodation

Tent £5 per person per night.

Caravan with up to two people £12 per night. - For caravans, extra adults £3 per night.

Beach Huts £20 per night (up to 2 people sharing – please specify twin or double).

For all Beach Huts: Extra person £10.00 per night.

All linen and electricity included.

Chalet - Please specify twin or double beds as required – first come first served – not all twins

1 bedroom (up to 2 people) self catering £30 per night

2 bedroom (up to 4 people) self catering £40 per night

3 bedroom (up to 6 people) self catering £60 per night

All linen is provided although electricity is extra via a £1 coin meter.

Please let us know if you would like to share a chalet with someone else who is booking separately.

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