New Zenith



The Monthly Magazine of the Vectis Astronomical Society

Vol 19 Issue 4 — May 2011

When Printed, this Newsletter costs VAS at least £1

Society News

We have had some good clear nights recently so it appears my dropping of the usual sign off of "Clear Skies" worked! Thursday evenings have seen telescopes outside and plenty of good observing sessions with the 10" Orion put to good use along with the ETX and binoculars. The computer and large screen in the small classroom have been important too, displaying Stellarium throughout the evening and allowing members to see what's been up and viewable.

I have particularly encouraged by members having done some light homework before arriving for observing sessions and having a "bit of a plan". We may not always have stuck to the schedule as the lure towards more distant objects is always an attraction, but it is a good idea to have at least a few things in mind when viewing is clear.

Of course, we are starting to suffer from the lack of darkness as Summer approaches but I hope this won't put you off from joining us on a Monday or a Thursday. There is plenty of equipment to use and you don't need to wrap up quite so well at this time of year.

Star Gazing Live..... Pt II

Following the great success of our first Star Gazing Live event earlier in the year, we have decided to hold another. (This time Brian Cox and the BBC won't be joining us but we're planning to go ahead with it anyway!)

Using pretty much the same format as before, we are aiming for the 21st September 2011 - there's still a lot of organising to be done and hopefully we can learn from the previous event:

- There will be more and better car-parking
- We've asked for better weather!
- I am requesting as many volunteers as we can get!

Please let me know if you can help on the 21st and let's make Part II bigger and better than Part I.

Sue tells me we need some rain for the garden so I'll end with:

"Clear Skies";)

Brian Curd Observatory Director

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.

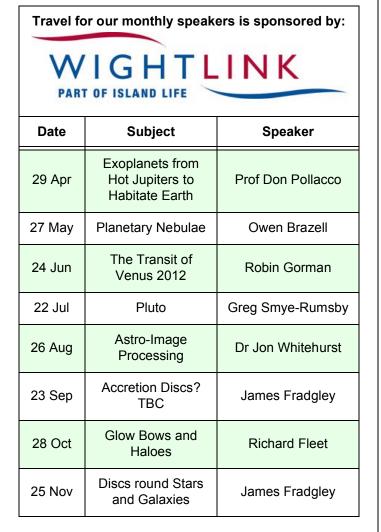
Registered Charity No 1046091

Monday, 19.30hrs Members Only. Telescope and night sky training. Thursday, 19.30hrs Members and Public. Informal meeting and observing.

Contents this Month Society News 1 Monthly Meeting Calendar 2011 2 This Month's Sky Map 3 This Month's Night Sky 4 Junior Members' Competition 5 Astronomy for Beginners 6 World's Biggest Radio Telescope 9 The Inspirational Dr Ron Maddison 10

Monthly Meeting Calendar 2011

Check the website for up to the minute information.



All details correct at time of publication.

Thanks

I would like to say a very big THANK YOU, to all my friends at VAS, for their kind support, cards and visits during my recent spell of ill health. It did make a great deal of difference to me. Thanks to you all. What a great bunch and what a great club we have.

Trevor Tuckwell

New Members

A very warm welcome to our latest new members:

- · Chris Mitchell
- · Paul Monk

Logo Design Competition Win a Planisphere!

At the recent committee meeting it was decided that VAS need a new logo/letterhead. We need to get this in place as soon as possible but would also like input from the membership - to enable that we are holding a competition and a prize for the best design.

A few things you should know:

- 1. Send entries to **editor@wightastronomy.org** before 31 May 2011.
- 2. Competition is open to all members BUT no prize will be awarded to Committee members should they submit the chosen design.
- 3. Logo must look good in colour and black and white and should be scaleable from letterhead to exhibition banner size.
- 4. The new logo/letterhead is intended to last for a few years so shouldn't include any date limitations.
- 5. Entries can be in any format although computer files are preferred (Mac or PC vector format is best).
- 6. The Committee will judge entries at the June meeting and will award the prize (a Planisphere) to the chosen designer.
- 7. Chosen logo will become the property of VAS.
- 8. The Committee decision is final.

Get your crayons out, as this is your chance to get your artwork on all of our paperwork!

Loan Equipment

If you have any VAS equipment on loan that you are no longer using could you please make sure it is returned to the observatory as soon as possible.

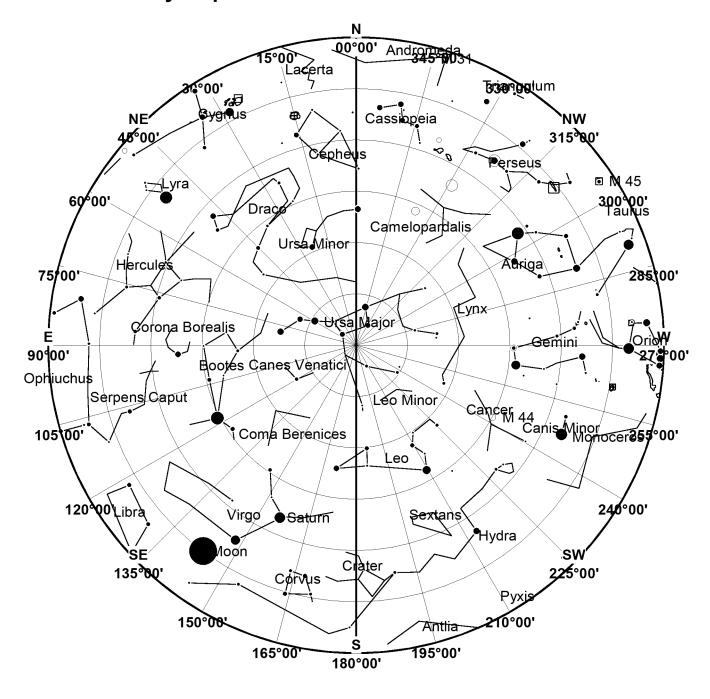
Letters Page

I've mentioned it before but I'd really like to see a letters/emails page here in New Zenith.

If you have questions to ask, suggestions or comments about astronomy, local or otherwise please get in touch.

editor@wightastronomy.org

This Month's Sky Map



View from Newchurch Isle of Wight UK - 2100hrs - 15 May 2011



The **Sunflower Galaxy** was discovered by Pierre Méchain on June 14, 1779. The galaxy was then listed by Charles Messier as object 63 in the Messier Catalogue. In the mid-19th century, Lord Rosse identified spiral structure within the galaxy, making this one of the first galaxies in which such structure was identified. In 1971, a supernova with a magnitude of 11.8 appeared in one of the arms of M63.

This article is licensed under the **GNU Free Documentation License**. It uses material from the Wikipedia article "Sunflower Galaxy"

This Month's Night Sky

Moon Phases

New	1 st Qtr	Full	Last Qtr
3rd	10th	17th	24th

Planets

Mercury

For observers taking early summer holidays to more southerly latitudes Mercury will be observable in the pre dawn sky during the first week of the month. However at our latitude the orbital geometry causes Mercury to be only 4 degrees above the horizon at sunrise and lost in the glare.

Venus

Like Mercury, Venus is only a few degrees above the horizon at sunrise. For the most of the month they are about a degree apart as the swing around the sun together.

Mars

Mars is still too close to the sun for observation at our latitude. Like the two inner planets it is only a few degrees above the horizon at sunrise.

Jupiter

Jupiter lies very close to Mars and suffers the same fate of being unobservable this month

Saturn

As far as the planets are concerned Saturn is 'the only show in town'. It is just past opposition in the constellation of Virgo and is ideally placed for observation.

Uranus & Neptune

Both the outer planets remain poorly placed for observation this month.

Meteors

On the 5th is a favourable peak of the eta aquarids; a meteor shower associated with comet Halley. Expect an hourly rate of up to 35.

Deep Sky objects

M5 Globular Cluster RA 15h 19m Dec 2° 3' mag 6

Easily visible as a fuzzy patch through binoculars M5, at 13,000,000,000 years old is one of the most ancient of these star clusters that surround our galaxy. The telescopic view is of a bright, slightly squashed core surrounded by numerous well resolved halo stars.

M64 Black Eye Galaxy RA 12 57m Dec 21° 38' mag

The black eye galaxy gets its name from the dark dust lane that crosses its centre. It will need a dark sky and high magnification to spot the 'eye'.

M63 Sunflower Galaxy RA 13 16m Dec 41° 58' mag 8.5

This is a barred spiral galaxy 37 million light years away. It was originally discovered by Pierre Mechain, a friend of Charles Messier and who went on to discover over 25 more objects that were subsequently added to Messier's catalogue. Through a small telescope it is visible as an elongated smudge, but with larger apertures and a dark sky some hint of detail in the spiral arms may be seen.

M53 Globular Cluster RA 13h 13m Dec 18° 7' mag 8.5

Lying some 60,000 light years away very few stars can be resolved in this cluster without the use of a large telescope. Through smaller instruments and binoculars it looks like a tailless comet.

Peter Burgess

ETA Aquarids

The Eta Aquariids are associated with Halley's Comet. The shower is visible from mid April to late May each year with peak activity around May 6.

They get their name because their radiant appears to lie in Aquarius, near one of the constellation's brightest stars, Eta Aquarii. The shower peaks at about a meteor/min, although such rates are rarely seen from northern latitudes due to the low altitude of the radiant before dawn.

The Eta Aquariids are best viewed in the pre-dawn hours away from city lights. The radiant of the shower is only above the horizon for the few hours before dawn.

Garlic Festival 2011

20th & 21st August

Our major annual fund-raising event needs volunteer marshals.

You will be:

Patrolling the site, Helping visitors
Controlling traffic etc

If you can help, please contact

Richard Flux 883062

Junior Members' Competition



Recently VAS was given a Tasco
Luminova 114mm Reflector
Telescope as shown in the picture; it
is boxed and in "new" condition, as it
has only been used once or twice.
This starter 'scope comes complete
with tripod, 3 eyepieces a barlow
lens, CD ROM and instructions.

For your chance to win, just send an article on any subject relating to astronomy to the Editor of NZ (contact details on the front page)

Competition Rules

- You must be a junior member of Vectis Astronomical Society.
- 2. The article you submit must be your own work and not published anywhere else.
- 3. All submitted entries will be published in NZ.
- 4. Your entry should fill at least half a page of A4 paper diagrams and photos are welcome.
- Both electronic and paper entries are welcomed.
- The closing date for entries is 31st May 2011 and the winner, as judged by the Committee, will be announced in the July New Zenith.

Bright Idea to Save Street Light Energy

Dr Lucy Rogers drew attention to the following report in the Beacon this month:

A NEW generation of modern streetlights are set to replace all existing lamps on the Isle of Wight in a move that will save both money and energy.

As part of the Highways PFI scheme, the IW Council is looking to replace all its 11,850 traditional sodium bulb streetlamps with state-of-the-art light emitting diode - or LED - models.

Not only do the new streetlights use less energy, but they offer light almost immediately meaning they can be switched on 15 minutes later than at present because they do not need 'warm-up- times to reach the required brightness. Under the new proposals, each light is controlled separately from a central control room meaning individual lights or sections of lamps can be intensified, dimmed or even switched off remotely to provide maximum flexibility and efficiency.

Lucy also added the comment that this change may well mean the old filters we use to block out street lamps (light pollution) won't work. If you have any further info on this please let me (Editor) know.

Thanks Lucy

Hot Jupiter Shocks Astronomers

A team of astronomers at the University of St Andrews believe that Jupiter-like worlds around other stars push shock waves ahead of them, it was heard last week at the National Astronomy Meeting in Llandudno, North Wales.

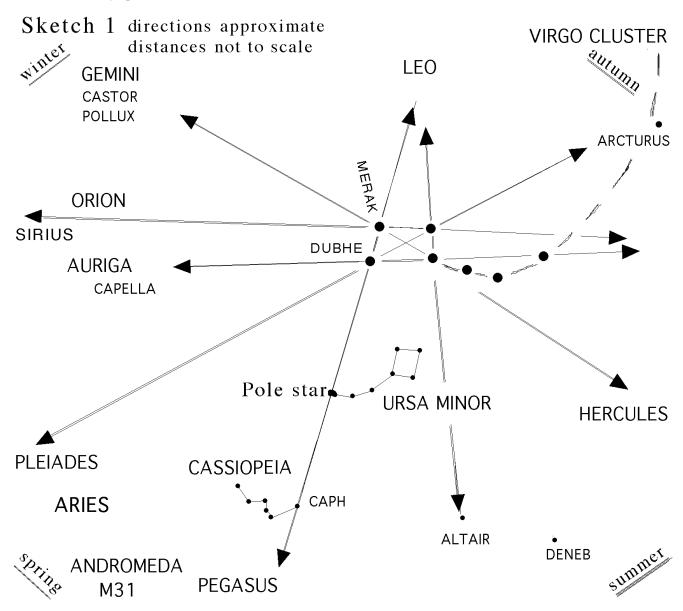
Dr Aline Vidotto, of the University of St Andrews, presented a new model based on observations made with the SuperWASP project and the Hubble Space Telescope, where she likened the magnetic 'bow-shock' of our home planet - a magnetic shock wave created in front of our planet as it and its magnetosphere move through the solar wind environment - to the shock waves preceding exoplanets. The bow shock acts as a barrier to the solar wind, causing it to drop in in strength and thus allows planets to protect themselves from their host star's damaging emissions. SuperWASP, which stands for Super Wide Angle Search for Planets, allows astronomers to obtain a wealth of information about exoplanetary systems, including their composition and size, by watching for planetary transits, where the star's light is periodically dimmed slightly by one of its planets moving in front of it.

Read more at http://bit.ly/hSe4q2

Astronomy for Beginners

Lecture Report 25 March 2011 - Presenter, Peter Burgess of the VAS

Astronomy is a very old science as evidenced by a piece of bone with a lunar calendar carved on it, 30,000 years old. Taurus the Bull, has been known as 'the Bull' for twenty thousand years. How should beginners make inroads into this vast territory? Like exploring another land - study its geography, wildlife, laws and customs, use a guidebook and a map. For astronomers the map is the Celestial Sphere with the stars marked on it. Our Earth is inside this sphere with the same centre. The Celestial Sphere has North and South Celestial Poles along the same axis as Earth's, and a Celestial equator in the same plane as our equator. When flattened into a plane, the Celestial Sphere makes the 'Planisphere', with the North Pole star at its centre, time and date marked around the edge. A good guide book is Collins Stars & Planets - best buy two, one for the pocket - the other stays pristine on the shelf.



The Moon moves anticlockwise around the Earth (left in the sky relative to the Sun) ninety degrees per week, giving phases, caused by reflected sunlight from half the lunar spherical surface, variable amounts being visible depending upon directions. Every planet is seen by reflected sunlight, including the failed star, Jupiter. Stars, fuelled by nuclear reactions, make their own light. Our Sun is small, 'a mere pea' compared to the 'football-sized' Arcturus, and this too, on a smaller scale, is 'a mere pea' compared to the 'football-sized' Betelgeuse. Sirius is 8 light-years away meaning light travelling at

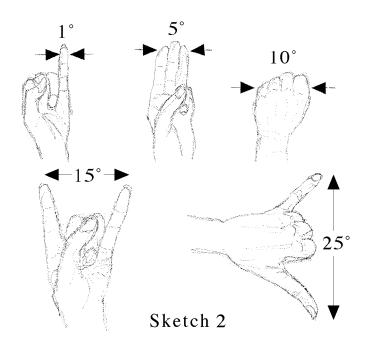
186,000 miles per second takes eight years to reach us. Antares is very big and will explode perhaps tomorrow, or not for a million years.

Asterisms are groups of easily recognizeable stars, such as the Plough, high in the sky in these latitudes, it never sets. Following various pairs of stars makes imaginary guidelines leading to other features, see Sketch 1. 'Constellations' are areas that tessellate the sky defined by the Astronomical Union. The Milky Way is a galaxy, one of thousands of millions, each galaxy contains thousands of millions of stars.

To find our way around the sky, half a dozen diagrams started with the Plough, giving a line of stars, Merak, Dubhe, the Pole Star and Caph - the top-right star in the "W" of Cassiopeia. Then directions followed: how to get to Leo, how to spot Capella in Auriga, the square of Pegasus in the Summer, Deneb and Altair; Castor and Pollux in Geminae in the winter, and following the handle of the Plough to Arcturus, you can travel further and reach the Virgo galaxy cluster to which the Milky Way belongs. Some stars are reddish, like the eye of the Bull near Pleiades, others can be yellow or blue. Cassiopeia is high in the summer. But "memories forget, maps do not." Sketch 1 is a mere approximate composite of what was seen, (assisted by 'The Flammarion Book of Astronomy' far too much to note down, especially for someone much more familiar with the daylight sky!)

Start astronomy gently. The zenith is unique to every person (hence the star maps in the NZ, are centred on the VAS Observatory). When talking about angles between stars, and so on, Sketch 2 gives angular distances across parts of your hand in degrees - 1, 5 and 10°, the hand is at arm's length, (calibrate 'your system' for 15° by facing a wall in a rectangular room, and adjust your arm so six fifteen-degree rotations turn you to face the adjacent wall, if to the right, this is six hours motion of the Sun or 90°).

Altitude is the angle of a star above the horizon, the azimuth, is the bearing. The stars appear to rotate around the Pole star, 15° per hour, because the Earth is turning the other way beneath the Pole star, 360° in 24 hours. A little extra needs adding for apparent stellar motion, close to 1° per 24 hours, because with 365 days per year, the Earth moves close to 1° around the Sun in one day. Looking directly away from the Sun at midnight (due south), the Earth has shifted 1° to the left. That means, every night, at the same time, when looking south, the stars have shifted 1° to the right or westerly. In a week that amounts to 7°, or half an hour's motion of the stars during one evening. Thus horizontal angles in degrees translate into time. The southerly stars travel west two hours per month, or 24 hours per year. That means, looking upwards, at the same time every night, the Plough makes one annual revolution around the Pole star. The imaginary guidelines from the Plough also help to find each of the twelve zodiacal



groups. A different group to the south in 'the ecliptic' at midnight is the feature of the month, the orientation of one of them telling farmers of ancient times the best time to sow seeds. But what the Moon, planets with all their moons, and what the comets and meteors are doing, are other exciting features to observe on the seasonal appearances of the sky.

Buying telescopes and binoculars:

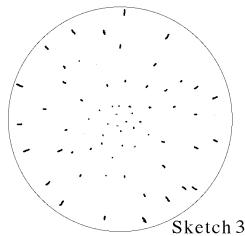
High magnification is not desirable, like 12 inch (aperture) x 400 magnification, or 3-inch x 100. Binoculars with zoom give weak images of the night sky. The naked eye can already see 3000 stars down to magnitude 6, and this number doubles to 6000 with half a star magnitude increase in sensitivity, so high magnification is not required. 50mm x 10 is far more suitable.

Optical quality is very important: 'third lambda optics' give slightly hazy pictures of the Moon's craters, 'tenth lambda optics', more expensive, give sharp images. Good optical equipment can be constructed yourself (there is plenty of expertise and advice available within the VAS.)

Telescopes are useful in inverse proportion to their size. 7x50 binoculars give good results, 10x50 are getting heavy. Mounting is very important and must be stable. Ray diagrams appeared (not shown here) of various types of telescope, compared as follows:

Refractor: low maintenance, no central obstruction, clear bright image, good contrast, but a good one is expensive; eliminating chromatic aberration needs special lenses and a long focal length objective.

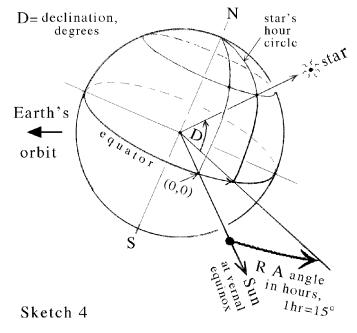
Newtonian reflector: low cost, no chromatic aberration, but require tweeking, regular collimation and maintenance. They have a central obstruction, giving crossed diffraction effects on bright stars. An off-axis effect gives coma distortion, where images become more radially fuzzed further from the centre - see Sketch 3.



Dobsonian: has an altazimuth mount - up and down, rotating around the local vertical axis - cheap, portable 'point and go'!

Catadioptric: very portable, but complicated so there's a lot to go wrong, they have a corrector plate and secondary hyperbolic mirror.

Equatorial mount telescopes: are used for star tracking. For visual work it is sufficient to line the axis of rotation on the North Pole star, but photography needs more accurate alignment.



Right Ascension (RA) and Declination (Dec): Plenty of astronomy can be done without understanding geometrical technicalities. This system has reference (0,0) on the celestial equator, at the position where the Sun crosses the equatorial plane, called 'the vernal equinox',

see Sketch 4, where the Earth is on the far side of the Sun orbiting towards the left. Declination is equivalent to the angular latitude on the celestial sphere in degrees. On the Celestial Sphere, 'lines of longitude' are called 'hour circles', and the 'prime hour circle' is like the Greenwich Meridian but running through the position of the vernal equinox, fixing the starting position for RA angular measure on this non-spinning sphere. The direction of a line from the Earth to the Sun at vernal equinox in former times pointed towards Aries, the first sign of the Zodiac, but shifted into Pisces – see the 'Note' later. The angle around the celestial equator to the hour circle of any particular star, is measured in hours, minutes and seconds of time, and is the RA of that star.

NEVER POINT YOUR INSTRUMENT TOWARDS THE SUN OR ALLOW CHILDREN ACCESS TO IT WHO MIGHT!

Learning to use your telescope: read the manual twice. Get to know your telescope well in normal light, assemble and balance it with the counterweight so the gears and drive motor have the least work to do and take less current from the battery. Focus the telescope on the tip of a flagpole and align the Findercope. An equatorial mount needs alignment, a level base, the RA axis tracks the stars, set the Dec axis to 90° and tilt the RA to your latitude. When familiar with everything, then, using a low magnification eyepiece, you are ready to go 'star hopping'. You might start with Sirius, and visit other stars according to their RA and Dec, and see the billions of stars in other galaxies, like M65. Peter Burgess's regular column in the NZ is the obvious guide to follow!

When it comes to purchasing equipment, a good place to visit is the Island Planetarium at Fort Victoria. During the discussion, Paul England said "you can save a lot of money if you buy second-hand - and that's from a supplier of telescopes!" (enquiry@islandastronomy.co.uk)

More information can be found at:

- www.astronomyforbeginners.com
- www.synapses.co.uk/astro/astro-html
- http://astro.whytespace.ca/index.html
- www.opencourse.info/astronomy/introduction/ index.html

After the interval, Peter continued the evening with his regular presentation, starting with 'On this day'. One item concerned Huygens' discovery of Titan on 25 March 1655. The other was about the discovery of the **21cm Hydrogen Line**, enabling the mapping of hydrogen clouds and their velocities within the Milky Way, as well as making velocity maps of other galaxies. Soon after the Second

World War, when radar made great strides, a student of Professor Oort at Leiden Observatory, H.van der Hulst, was asked to determine if a radio spectral line might exist, which could be observed, otherwise radio was "a blunt astronomical tool compared with the spectroscope". A very rare theoretical flipping of the spin of the unionized hydrogen atom (called 'HI', HII is singly ionized) with a low enough energy change to tally with radio frequencies, theoretically fitted the bill. Its rarity might be offset by galactic quantity. Then the line was found in the lab and the frequency 1420MHz was determined to many decimals experimentally in the USA, using a stimulated beam of hydrogen - exactly what was needed for precise Doppler measurements if this radiation could be found in the sky. Back in Leiden, when searching for this signal, their receiver caught fire. Credit for first detection, 25 March 1951, went to Harold Ewen plus his PhD supervisor Purcell, at Harvard, publication coming after disclosing the results to Leiden. Two Australian observers Christiansen & Hindman also gained credit (see 'Radio Astronomy' F.Graham-Smith, Penguin, 1974, pp113-116) - readers may like to compare this important piece of history with other astronomical discoveries made by radio, such as pulsars, binary pulsars and the CMB.

Note on the Vernal Equinox: According to 'The Flammarion Book of Astronomy', 1964, p414, 'the prime hour circle passes through the First Point of Aries' which is the intersection of the ecliptic with the Celestial Equator', but according to 'The Guinness Book of Astronomy', Patrick Moore, 1979, p180, Aries is the first sign of the Zodiac, but "since the vernal equinox has shifted into Pisces, Aries should logically be classed as second!". For more insights, 'Galactic Astronomy', J.Binney & M.Merrifield, Princeton University Press, 1998, Chapter Two, explains that RA and Dec relate to 'epochs' beginning at 1900, 1950 and 2000 respectively, when short term variations largely caused by nutation with period 18.6 years, are averaged to give reference values for each epoch; it is now becoming feasible to use distant objects to define an inertial reference frame - unless the Universe itself spins.

Night Sky Display at the VAS Observatory

I wasn't sure from my notes which constellation the star "Caph" (Sketch 1) is in. I couldn't find it in Patrick Moore's book above (where it is called "Chaph"). I visited the Observatory on a Thursday evening and Brian zoomed in on Caph on the star map on the monitor, using some excellent software (*Stellarium*) under mouse control. The large monitor was being used by observers to identify objects in the nightsky, and to see if they could be observed in the real sky outside - plenty of positive results! This is an excellent interactive star and galaxy display system to get to know the night sky!

Dr. Guy Moore

World's biggest radio telescope, Square Kilometre Array

Scientists from 20 countries are working on plans to create a vast network of radio telescopes, the size of a continent that could reveal the birth of planets and galaxies, the mysteries of dark energy as well as joining the search for signals from alien civilisations.

The Square Kilometre Array (SKA) takes its name from the size of its collecting area. But instead of a single radio dish 1km across, it will be made up of thousands of smaller ones.

"The dishes are going to be elliptical, about 15m (49ft) across," says Richard Schilizzi, Director of the International SKA project, "and very simple because they have to be cheap, especially if you want 3,000 of them." And that is indeed the number they are talking about.

The vast array is needed because the wavelength of radio waves is far greater than that of visible light.

An optical telescope can be 10 million wavelengths in diameter. Scale that up to the centimetre wavelengths of radio astronomy and you have a problem, says Simon Garrington, Director of the e-Merlin array at the Jodrell Bank Radio Observatory near Manchester.

The SKA should offer 50 times greater sensitivity and 100 times better resolution than any radio telescope array on Earth so far.

Read more at: http://bbc.in/gg7qhh

Island Planetarium @ Fort Victoria

The Island's Telescope Professionals

New Celestron & Meade Scopes and Accessories.
Other makes also available, just ask!

At least 10% discount on SRP for VAS Members

In stock demo and used scopes, Celestron GOTO Starters and up to 8" SCTs

Call 761555, leave number if not there, and we'll call you back.

enquiry@islandastronomy.co.uk



The Inspirational Dr Ron Maddison



Dr Ron Maddison was a well-known astronomer in the 1960s-70s often appearing alongside his good friend Sir Patrick Moore on The Sky at Night and in "Apollo" TV programmes during this period while BAA Director of Moon section.

I first met Ron in the late 1960s. It was in my first job ever as technician to Prof. DM MacKay at the University of Keele dept. of

Neuroscience and Communication research. Like many, I had been inspired by Patrick Moore's programmes and this led me to joining, for a brief time, Ron's University of Keele astronomy evening classes.

I have four lasting memories of the classes. First, solar photography was novel in those days and we were treated to some spectacular if coarse and grainy footage of solar flares at one class. Lasting for less than a minute, this was nevertheless an exciting demonstration of state of the art photography/technology in those days. Second, I recall visiting the Keele University observatory (which Ron founded in 1961) on a hill above the university campus. I think you can glimpse it still if driving north on the M6 near Keele services. The telescope at that time was the huge 12.25" Grubb refractor. An ancient and enormous instrument, we each had to take turns to climb the wooden viewing ladder to peer through a tiny eyepiece at the base of its immense metal tube to see a small but bright image of Saturn. Thirdly, I recall the whole group went on a bus trip to one of the early super-wide-screen cinemas in Birmingham to view "2001 a Space Odyssey". This made a deep impression on me and became a paradigm for the rest of my life. Fourthly and finally, I have an indellible recall ever since those classes more than forty years ago, of the Harvard spectral stellar types mnemonic Oh Be A Fine Girl Kiss Me Right Now Smack!!

I am sure that my brief inspiration from Ron and his Keele classes led in 1970 to me leaving my technician job to train as a teacher of physics and chemistry with the team of Nuffield Science tutors at Worcester College of Education.

Christmas can be a time of reflection and so it was for me last year. I wondered what had become of Ron after all these years. Web research revealed that Ron had continued to develop a successful career for 30 years at Keele, and then perhaps found a "star gate" of his own and had left to become Director of the Observatory at the Astronaut Memorial Planetarium and Observatory in Cocoa, Florida, USA - a position he held until his retirement after 11 years. I contacted the planetarium to see if I could trace Ron and was astounded when I got an almost immediate and enthusiastic reply. I am delighted to have renewed my acquaintance with Ron, albeit at some distance. We regularly exchange emails now with comments and discussions of matters astronomical, scientific and other topics. On behalf of all the many you inspired Ron, including myself, thank you.

Further reading:

- http://www.astro.keele.ac.uk/~obs/history/summary.html
- http://www.star.ucl.ac.uk/~pac/obafgkmrns.html
- http://astronomy.byu.edu/sdb/Mnemonic.html
- http://tinyurl.com/4cl7g2u Ron on Sky at Night 50th anniversary programme:

Chris Wood

Observatory

For your own safety, when visiting the VAS observatory, please bring a torch. Also, please make sure you close and lock the car park gate if you are the last to leave - if you need the combination to the lock, please contact a member of the committee.

Articles Needed

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

"Astronomers, like burglars and jazz musicians, operate best at night"

Miles Kington

Quotations

"Astronomy? Impossible to understand and madness to investigate."

Sophocles, c. 420 BC

"There is in the universe neither center nor circumference."

Giordana Bruno, On the Infinite Universe and Worlds, 1584

"The boundary condition of the universe is that is has no boundary"

Stephen W. Hawking