2002

Sir Patrick Moore 1923 - 2012

NEXT MEETING
THURSDAY, 17th January 2012

THE ASTRONOMICAL SOCIETY OF HARINGEY
VOLUME 41 : ISSUE 3 : January 2012
www.ashastro.co.uk

SOCIETY NEWS

MEETING VENUE :
Ashmole School, Southgate, London N14 5RJ.

The day for meetings is usually the third Thursday of each month. The exceptions are August, when currently we do not hold a meeting, and December, when the Christmas Meet has always traditionally been held during the second week.
However, in case of changes – and there have been a few over the last year or so – it is always advisable to double-check the dates below.

NOTE : the Meeting information is also on the new website: www.ashastro.co.uk
Latest update January 2013

Doors open - 7.30pm : Main speaker - 8.00pm : Finish - 10.00pm sharp!
New or updated information is in *italics*

2013

January 10th : "EXTRA MEETING – OBSERVING SESSION"

January 17th : "Stargazing Live – Revisited"

February 21st
March 21st
April 18th
May 16th
June 20th
July 18th
August : summer break
September 19th
October 17th : AGM
November 21st
December 12th : Christmas Do – *possibly…*

COVER :

Astronomy lost one its giants in December when Patrick Moore died at the age of 89 on 9th December. He was long-associated with the Society as he, in effect, suggested its foundation back in 1970.

A few days later, another giant a somewhat different field, though associated in many peoples' minds, died, Gerry Anderson, aged 83 on 26th December.

Short Obituaries for both are on page 4

PHOTO taken in one of Patrick's observatories in his back garden at Farthings, the home in which he lived for most of his life, in Selsey, West Sussex - Mat Irvine

SOCIETY NEWS

We meet in the Drama Room at Ashmole School, (previously the Curriculum Support Building - still noted as such in the map). This is the low building, (right), just past the Performing Arts Centre.

MEETING PREVIEWs : 10th and 17th January

To be in keeping with the BBC Stargazing Live events, there will be an observing evening on Thursday 10th (a week before the normal meeting) in the Ashmole School Playing field. Telescopes will be set up ready to start viewing from 7:30 pm onwards - the cloud gods permitting. If it is cloudy, we can retire to the Waggon Pub for a 'virtual observing' session - we might even convince the landlord to show the Stargazing program for that evening! The regular meeting will be on January 17th, as normal. This will be a 'Stargazing Live – Revisited' meeting where members will invited to come up and let us know what they got up to during the Stargazing Live events, or anything else of interest during the Christmas holidays.

MEETING REVIEW : December 13th : Jim Webb : "Observing Evening"

Members were very thin on the ground, mostly due to clouds being very heavy in the sky. As alternatively planned, we retired to the Waggon Pub and did some 'virtual observing'. Jupiter featured most prominently with many Voyager, Galileo and earthbound images and animations based on data sent back. Saturn featured as well with Cassini images. It was, actually, quite a pleasant way to do astronomy in the comfort of one's 'local' with a reasonable brew of ale and relaxing way to look at the heavens. The good thing about looking at the images on a laptop is that one can select which images to look at and even go back to previous ones (for whatever reason) and discuss what is being shown on the spot. Doesn't quite compare to 'real' astronomy, where you see the actual object for what it is at that moment - but when it's cloudy, you make the best of the available alternatives.

Jim Webb

SIR PATRICK MOORE

4th March 1923 – 9th December 2012

It cannot have escaped anyone's notice, whether they be interested in astronomy or not, that Britain's most famous – one could even say the world's most famous - amateur astronomer, died last month. Patrick Moore always maintained he was an amateur in true meaning of the word, although he was very much a professional broadcaster. He also stood at the helm of the world's longest–running original format television programme, as The Sky at Night started in April 1957, beating the Space Age by six months, and has run continuously ever since. Patrick presented every single episode, bar one, when he had been taken ill with food poisoning.

Patrick was also instrumental in the creation of the ASH. It was his suggestion to our Founder and President, Fred Clarke, way back in 1970 that was the starting point. Fred had invited Patrick to give a talk to school children during the first Space Age Exhibition, held at the Wood Green Arts Centre. However Patrick didn't give one talk – he gave four, and after turned to Fred to say "There's so much interest in astronomy here, you ought to form a society". So Fred did.

GERRY ANDERSON

14th April 1929 - 26th December 2012

There are likely many space scientists and engineers who first became interested in their careers by watching a television series in the 1960s starring puppets. The series was of course Thunderbirds and although its creator Gerry Anderson, made a number of other TV series, it is with Thunderbirds he will be most associated.

Ironically Gerry Anderson did not want anything to do with puppets. He had started his career in the 1940s with Government film units and the 'puppet' connection came about as a chance for work on The Adventures of Twizzle. But then, through his own creations of Four Feather Falls; Supercar; Stingray and Fireball XL-5, he culminated with Thunderbirds; five sons – all named after American astronauts – in charge of the five Thunderbird craft, overseen by their father. There were a number of series that followed, including Captain Scarlet and Joe-90 and move to live-action with UFO and Space 1999, along with the movie Dopplegänger. But for all his other not inconsiderable work, it is safe to say none totally recreated the magic of Thunderbirds.

Top – Patrick taken in his garden at Farthings, summer 2012. He is wearing one of his favourite Hawaiian shirts
Above - Gerry at the auction for some of his memorabilia in 2009. He's holding a gold-plated FAB-1

PHOTOS - Mat

CHAIRMAN'S QUARTERS

With the BBC Stargazing Live events, 8th – 10th January, we will, again, be peering into space. However, the farther we look, the more we realize that the nature of the Universe cannot be understood fully by merely inspecting spiral galaxies or watching distant supernovas. It involves us as observers. When we observe light, it is subject to quantum mechanics, currently the physicists' most accurate model for describing the world of the atom. But it also makes some of the most persuasive arguments that conscious perception is integral to the workings of the Universe. The theory tells us that photons exist in a blurry, unpredictable state, either particles or wave motions with no well-defined location or motion until the moment they are observed (Heisenberg's Uncertainty Principle). Physicists describe this phantom, not-yet-manifest condition as a wave function, a mathematical expression used to express the probability that a particle will appear in any given place. When photons are created as a pair, physicists call them entangled. If one of these is observed to be vertical polarized, the act of observing it causes the other to instantly go from being an indefinite probability wave to an actual photon with the opposite, horizontal polarization - even if the two photons have since moved far apart.

In 1997 the physicist Nicolas Gisin sent two entangled photons down an optical fibre until they were seven miles apart. One photon then hit a half silvered mirror where it had a choice: either bounce off or go through. Detectors recorded what it randomly did. But whatever action it took, its entangled twin always performed the complementary action. The communication between the two happened at least 10,000 times faster than the speed of light. It seems that quantum news travels instantaneously! Since then, other researchers have duplicated and refined Gisin's work. Today no one questions the immediate nature of this connectedness between bits of light or matter. Before these experiments most physicists believed in an objective, independent Universe with the assumption that physical states exist in some absolute sense before they are measured. What is more, many fundamental traits, forces, and physical constants make it appear as if everything about the physical state of the Universe were tailor-made for life.

Currently there are only four explanations for this mystery. The first two give us little to work with from a scientific perspective. One simply claims incredible coincidence; another is to say, "God did it," which explains nothing, even if it is true. The third invokes a concept called the anthropic principle, first articulated by Cambridge astrophysicist Brandon Carter in 1973. This principle holds that we must find the right conditions for life in our Universe, because if such life did not exist, we would not be here to find those conditions. Some cosmologists have tried to wed the anthropic principle with the recent theories that suggest our Universe is just one of a vast multitude of universes, each with its own physical laws. The final option is biocentrism, which holds that the Universe is created by life and not the other way around. This explanation is an extension of the anthropic principle described by the physicist John Wheeler, the disciple of Einstein's who coined the terms wormhole and black hole.

The biocentric view could unlock the cages in which Western science has unwittingly confined itself. By allowing the observer into the equation it should open new approaches to understanding cognition, from unravelling the nature of consciousness to providing stronger bases for solving problems associated with quantum physics and the current theories on universal principles.

See you observing and at the Meeting. *Jim*

Astronomical Society of Haringey

STATEMENT OF ACCOUNTS 2011 – 2012

Account period from mid-October each year.

INCOME		**2010 - 11**	**2011- 12**
	Subscriptions	£242.50	£225.00
	TOTAL INCOME	**£242.50**	**£225.00**

EXPENDITURE	Fees for lecturers	£85.00	£235.00
	Magazine distribution	£495.00	£429.00
	Food etc for Christmas Meet	£100.00	£42.00
	Sundries	£5.00	£0.00
	Website Registration	-	£60.00
	Video projector	-	£283.00
	TOTAL EXPENDITURE	**£685.00**	**£1049.00**
	BALANCE	**-£442.50**	**-£824.00**

ACCOUNTS	Barclay's Community Account	£4164.80	£3373.77
	Cash/cheques in hand	£77.89	£132.90
	Sub totals	**£4342.69**	**£3506.67**
	Less cheques drawn, but not presented	£398.00	£439.00
	Revised	**£3944.69**	**£3067.67**

YEAR ON YEAR CHANGE	-£367.20	-£877.02

Prepared by Treasurer, Gordon Harding, October 2012.

Darkness Before Breakfast – The 2012 Total Solar Eclipse

Mitchell Sandler

It was a tough choice to make - do I spend November 2012 in London enjoying the weather that comes with that time of year or do I take the opportunity to slope off to the other side of the world and stand on a tropical beach watching a solar eclipse? After seconds of deep contemplation and weighing up the pros and cons I signed up for the opportunity to travel thousands of miles for two minutes of darkness.

Leaving London on a Saturday night we finally arrived at our hotel on a Monday lunchtime. It didn't take long to get in to the swing of things and appreciate the laid back ambience of Northern Queensland. It was a peculiar feature of this eclipse path that virtually the only opportunity to see totality from land was across a narrow strip of Australia which meant that the entire eclipse chasing community was crammed in to one small area. Whenever you turned a corner in Palm Cove you ran in to someone from Canada or Japan or who knows where who'd come here for one reason only - the Queensland Tourist Board will probably celebrate the anniversary for decades.

With one free day pre-eclipse I took the opportunity to visit the local zoo. This isn't really the place to discuss the fauna of Australia so let's just say that wombats are intriguing creatures; crocodiles make a very loud noise when they close their jaws and cassowaries (*right*) look like some kind of remnant from the prehistoric era. It was at the briefing that evening that John Mason gave us the lowdown on the situation - basically neither he nor anybody else had a clue as to how the weather was going to pan out the following morning. Whichever way you looked at it there was a 50-50 chance that the sky over any particular point in the region was going to be cloudy. Accordingly plans to travel to a viewing point inland had been abandoned and we were advised to just take the five minute walk to the beach and hope for the best. This meant getting up at a mildly stupid time rather than a totally ludicrous one in order to get a decent position before the Sun rose at 6.30am.

Reaching the beach at 5.30am there were already a few people there along with the pre-dawn swimmers prepared to take their chances against the jellyfish and crocodiles, (there was a netted off area for safe swimming), and we sat and waited. The Sun duly rose above the Pacific Ocean - and shortly after disappeared in to a thick bank of cloud. By the time of first contact it was looking pessimistic.

Pessimism continued to prevail for most of the next hour but there was a clear patch of sky just above the cloud bank and, being a tropical latitude, the Sun was going to move quite quickly so maybe...

A few minutes before totality the Sun finally cleared the top of the cloud, now all we had to do was sit back and wait for the spectacle, shortly after 7.30 we entered that period where the light level suddenly starts to diminish. The local animals have long since retreated and all you can hear is the sound of the waves breaking on the beach (and the lone swimmer taking the once in a lifetime opportunity to

go night swimming during the day), finally the entire beach was plunged into darkness as the only illumination came from the Sun's corona.

And so we witnessed the 2012 Solar Eclipse. However many times you experience an eclipse there is something eerie about those last moments as darkness arrives even though you know that in a few minutes the Sun will emerge from behind the Moon heralding the return of normality. I think it's the stillness that seems to envelope you - almost as if time itself has stopped.

After chatting to a few people I decided what I really wanted to do was go for a swim in the Pacific so I went back to the hotel to change and encountered one of the more bizarre side effects of Australia's time zones.

Briefly speaking Australia splits into three parts - Western Australia is at GMT +8, South Australia and the Northern Territory on GMT +9.30 and the four eastern states are at GMT +10. However during the southern summer Queensland, the Northern Territory and Western Australia, all lying partly within the tropics, do not observe daylight saving time. So Brisbane, despite being 900 miles or so to the east and experiencing sunrise almost an hour earlier is actually half an hour behind Adelaide. (Imagine flying to Venice and being told to put your watch back by 30 minutes). Queensland is also an hour behind New South Wales which led to the surreal experience when I went into my room and switched on my television.

It transpired that, because of the time difference, Queensland was simply getting the programme broadcast in Sydney on a one hour delay. So at 8.30 the presenters in Sydney were very excitedly telling the audience they were going live to Palm Cove as the eclipse was about to happen and at 8.30 in Palm Cove I found myself in a hotel room with the sunlight streaming through the window watching live pictures of the town I was staying in plunged into darkness. Somehow nobody at the TV station had realised the absurdity of having LIVE FROM PALM COVE emblazoned across the screen.

Later on that morning I had the chance to pursue another of my obsessions. As luck would have it the Sun was due to be directly overhead at Noon which meant that there was the opportunity to take pictures with virtually no shadow. I was quite pleased with the results. (*Right, and see also 2002 Vol 40, No.2, December 2011, Ed*)

The tour continued with a whistle-stop visit to New Zealand. The region is geologically active and the North Island does give you the opportunity to see geysers and the like at close quarters. In addition we had a walk through a valley which is probably as close as you can get to seeing what the planet looked like at the dawn of history. A quite extraordinary landscape (*below*) complete with pools of highly acidic water.

More sobering was a visit to Christchurch, still suffering the effects of the 2011 earthquake. Walking round an empty business district on a Friday afternoon was a sobering experience.

So all in all an excellent trip. Sadly I can't see myself on another eclipse trip until March 2016 when it's Indonesia's turn. Another geologically active region, promising surprises.

Sky Views

Jupiter and the Moon on December (left) 25th 22.15 hrs, then, (right) 26th 02.00hrs

Different photographers, different cameras, different set-ups – left Mat, right Jim

THE NIGHT SKY : PLANETS

January – February 2013

MERCURY : Reaches superior conjunction on 18th , then faint in the evening skies just after Sunset. Conjunction with Mars on 8th February. Moon close on 11th February.

VENUS : Still brilliant in the morning skies, but rises at a similar time to the Sun, so take care with any observation. Moon close on 10th January, but it a very thin crescent as it is New the following day.

MARS : Faint in the west after sunset. Two-day old Moon close on 13th, as a very thin crescent, around 16.45 – 17.00hrs. Conjunction with Mercury 8th February.

JUPITER : Still very prominent in the evening skies, brilliant around magnitude -2.6. Moon very close on 22nd January

SATURN : In the morning skies, rising around 03.30. The rings are open at the moment, making a worthwhile visit from even the smallest telescope. Moon close by on 7th January and 3rd February.

URANUS : Moon close on 17th January and 13th February.

NEPTUNE : Moon close on 14th January,

COMETS

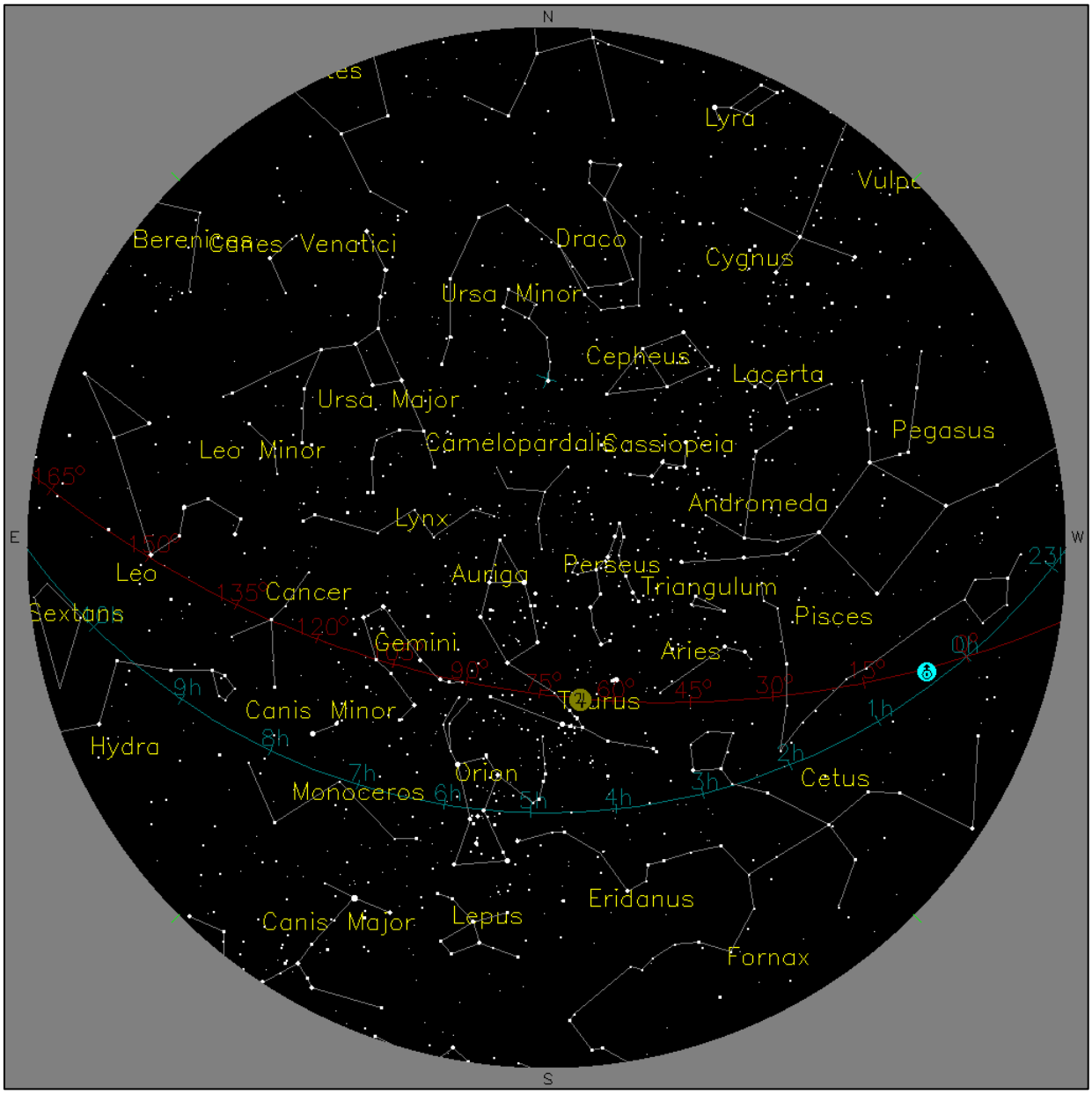
Although as said in the last issue, "…comets never really seem to fulfil the promise of being, the greatest comet ever…", Comet ISON is still be predicted as being, "…one of the brightest comets ever…" – well potentially! Due to encounter the Sun at the end of this year (November), current estimates are saying it could be magnitude -16, which is brighter than a full Moon! Meanwhile there is another comet due earlier, Comet Pan-STARRS (C/2011 L4) due to be visible in March. But again don't hold your breath– comets are notoriously unreliable

THE MOON

New 11th January First Quarter 19th Full 27th Last Quarter 3rd February New 10th

THE NIGHT SKY : MAP

1st February 2013 20:00:00 GMT/ UTC



KEY	
MERCURY	SATURN
VENUS	URANUS
MARS	NEPTUNE
JUPITER	PLUTO

Astronomical Society of Haringey

Patron: **Sir Arthur C. Clarke, C.B.E., B.Sc., F.R.A.S., F.B.I.S.**
President : **Frederick W. Clarke, F.Ph.S.(Eng), F.B.I.S.**
Vice President : **Walter T. Baker**

ASH COMMITTEE MEMBERS : 2012 – 2013

CHAIRMAN : Jim Webb
020.8441.7421 email <chairman@ashastro.co.uk> [www.glservices.org]

SECRETARY: Charles Towler
01707.322686 email <secretary@ashastro.co.uk>

TREASURER : Gordon Harding 020.8444.2229

MEMBERSHIP SECRETARY: Alister Innes 020.8803.2063 email <memsec@ashastro.co.uk>

EDITOR, P.R.O. and VICE-CHAIRMAN (and current WEBMASTER) : Mat Irvine
01908.510191 email <editor@ashastro.co.uk> [www.smallspace.demon.co.uk]

GENERAL MEMBER : Mitchell Sandler 020.8958.4185

GENERAL MEMBER : Liz Partridge

JUNIOR MEMBER : Nicholas Lucas

GENERAL MEMBER AT LARGE : Gary Marriott

Contact addresses :

Chairman and general enquiries : 136, Lancaster Road, East Barnet, Herts EN4 8AL

Secretary : 6 Parkway Close, Welwyn Garden City, Herts AL8 6HJ

Membership Secretary : 154 Wigston Close, Edmonton, London, N18 1XG.

Treasurer : 57 Tetherdown, London N10 1NH

Editor and PRO : The Forge Cottage, 20 Gold Street, Hanslope, Bucks MK19 7LU

NEXT MEETINGS
THURSDAY 10th *AND* 17th January 2013

THE NEW 'SITE - UNDER BETA TEST (though getting there…) :
www.ashastro.co.uk
general email enquiries to <info@ashastro.co.uk>