

2002



NEXT MEETING
THURSDAY, 19th July 2012

THE ASTRONOMICAL SOCIETY OF HARINGEY
VOLUME 40 : ISSUE 9/10 : July & August 2012
www.ashastro.co.uk

SOCIETY NEWS

MEETING VENUE :

Ashmole School, Southgate, London N14 5RJ.

The day for all 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 - as below - the Meeting information is also on the NEW website:
www.ashastro.co.uk – updated from May**

Doors open - 7.30pm : Main speaker - 8.00pm : Finish - 10.00pm sharp!

New or updated information is in *italics*

2012

July 19th : Nik Szymanek : “Photographing the Night Sky”

August – Summer Break

September 20th : Bo Maxwell : “The Latest on Mars”

October 18th : AGM and Small Talk

November 15th - TBA

December 13th – Christmas Meet and Quiz VIII

As below - proposed 2013 dates are on the website

WEB SITE - UPDATES

Currently we still have TWO ASH websites running, in some form or another. The original is still under www.ashastro.org (*not* .org.uk), but this is now *not* being updated. The new version is under www.ashastro.co.uk. Note three of the links - to Meetings, Magazine and About - are now active. (The other links will click through, but will only bring up ‘under construction’ pages.) The Meetings link is now updated with the majority of 2012’s calendar, and dates for 2013, while the Magazine link has some back issues. These will be added to when time allows!

We may eventually decide to move back to the URL, <.org.uk>, (which is still available), or may stay with <.co.uk.> However whichever is decided, what you put into your web browser, will ‘point’ to whatever is correct.

Note that the original direct ASH emails are now working

Ed

COVER:

Virgin Galactic’s SpaceShipTwo on display at the 2012 Farnborough Air Show

Photo - Mat

SOCIETY NEWS



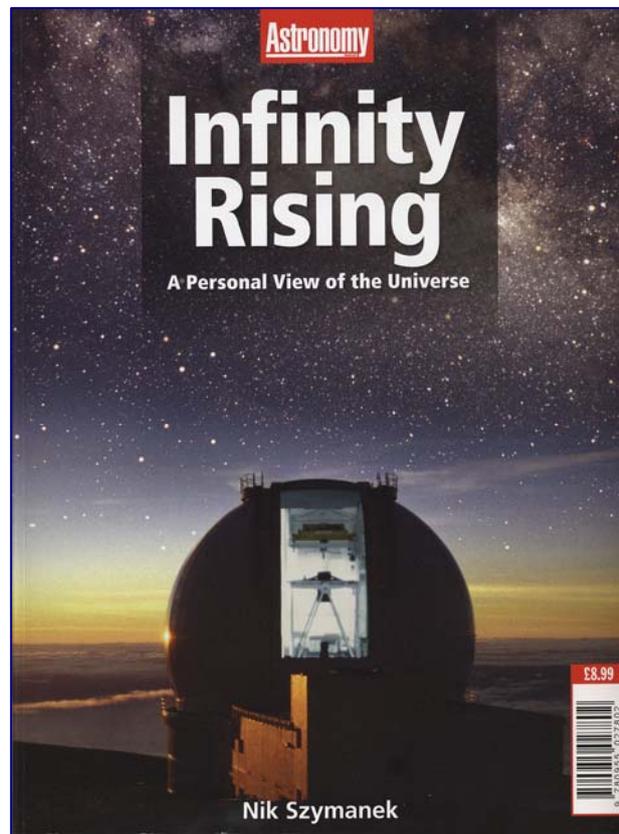
We meet in the Drama Room at Ashmole School, (previously the Curriculum Support Building - still noted as such in the map). This is the low building, (right), just past the Performing Arts Centre.



MEETING PREVIEW :

July 19th : Nik Szymanek : "Photographing the Night Sky"

London Transport's most famous tube-train driver will entertain us again for the July meet with more of his amazing photographs of the night sky. Nik has been taking such images for many years now and it regarded as one of the world's best. If you haven't got his book, *Infinity Rising* it is highly recommended. Hopefully he'll have copies with him, he usually also brings along a selection of prints of his images.



MEETING REVIEW :

June 21st :

Jerry Stone :

“The Day They Launched a Woodpecker – Part 2”



Jerry reckons he has enough space trivia to last for five hours, and it has been suggested that at some point in time he goes for the Guinness World Record. (There must one?) But for the June meet we got at least another fifth of it.

For Part 2 of The Day They Launched A Woodpecker we had another bunch of odd facts and for those who we perplexed by the title, ie hadn't heard Part 1, where the explanation of the title was explained again at the end of the evening. But before that we got the strange fact that Robert Goddard, who launched the world's first liquid-fuelled rocket in March 1926, only did a few flights at the first location in Auburn, Massachusetts, but then had to move elsewhere, due to complaints from the neighbours who were constantly having odd objects landing in their back garden. So where did he move – to a small town in New Mexico called Roswell. (The rest, as they say, is urban myth...)

The New York Times apologised to Professor Goddard after Apollo, as it had mocked him in an edition in the 1920s about his attempts to get rockets to work!

Then tests of one of the USA's early surface-to-air missiles, the Nike Zeus was constantly failing, until one of the high-up generals 'sent' the missile a telegram ordering it next time 'to fly'. It did.

Another early US missile, the Snark, (right) landed in the ocean so many times during tests that the area of sea got dubbed "Snark infested waters..."



Rocket pioneer, Wernher von Braun always maintained he had circled the Earth in 10 seconds, which no-one obviously believed until he pointed out

that he had been in Antarctica and he and colleagues walked round the pole in the snow that marked the South Pole, and it took about 10 seconds...

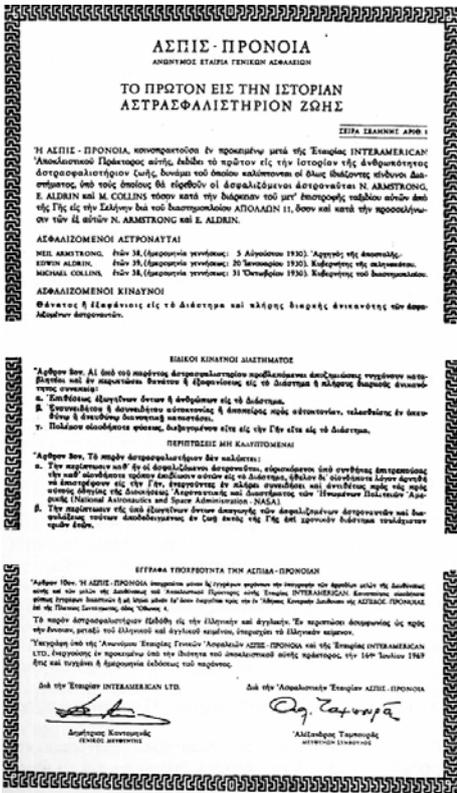
Edwin Aldrin, forever the 'second man on the moon' was nick-named 'Buzz', and eventually changed it legally by deed-pole. But it had come about as his sister could never produce 'brother' correctly – it came out 'buzzer' – hence 'Buzz'.

During the flight of Apollo 7 in October 1968, Wally Schirra held up message on a card that read, "Keep those cards and letters coming in folks". The 'folks' did - he got over 2000 of them.

Then during the Apollo 8 Mission in December 1968, a Japanese reporter in Florida phoned NASA asking for a transcript of what the crew were going to say during the first voyage to the Moon. The reply apparently went "Go to your hotel bedside cabinet; open the top drawer; in there you will find a transcript". Referring of course to the ever-present Gideon Bible, which contained at the beginning, Genesis, from which the crew quoted.

Perhaps the strangest fact that came up during Jerry's talk was an American panel show that was running during the early sixties, called "'I've Got A Secret'. [*below*] On it people would appear and the panel would have to guess what the 'secret' was. On one show, 17th September 1962, a 'Mr and Mrs Armstrong' appeared, and the panel eventually worked out they were the parents of one Neil Armstrong who had – at the time – just been announced as one of NASA's group of Apollo astronauts. The host Garry Moore, ended this section with the comment "How would you feel if your son ended up as the first man on the Moon...?"





Jerry also mentioned the first 'insurance policy' for space travel, issued by the Greek Aspīs – Pronoia company.

For those whose Greek may not be up to scratch, Chairman Jim, has provided a translation!

ASPIS - PRONOA
GENERAL INSURANCE COMPANY

THE FIRST LIFE SPACE-INSURANCE POLICY IN THE HISTORY OF MANKIND

MOON SERIES NO 1

Τρία αποσπάσματα από το πρώτο Αστροσφαλιστήριο ζωής στην ιστορία της NASA, της INTERAMERICAN και της ΑΣΠΙΣ-ΠΡΟΝΟΙΑ.

ASPIS - PRONOA, syndicated with and Exclusive Agent of the company INTERAMERICAN, issues the first life space-insurance policy in the history of mankind, empowered to cover the unique dangers of Space, into which will be subject the insured astronauts N. ARMSTRONG. E. ALDRIN and M. COLLINS, both for the return journey of these from the Earth to the Moon via the spaceship APOLLO 11 and the moonlanding of the said N. ARMSTRONG and E. ALDRIN.

INSURED ASTRONAUTS

NEIL ARMSTRONG, aged 38, (date of birth: 5 August 1930). Mission Commander.
EDWIN ALDRIN, aged 39, (date of birth: 20 January 1930). Lunar craft Pilot.
MICHAEL COLLINS, aged 38, (date of birth: 31 October 1930). Spacecraft Pilot.

INSURED DANGERS

Death or disappearance in space and total continuous disablement of the insured astronauts.

SPECIFIC DANGERS OF SPACE

Article 2. Under the current space-insurance policy foreseeable compensation is deemed disburseable in the event of death or disappearance in space and total continuous disablement or:

- a. Invasion by extraterrestrial beings or humans in Space.
- b. Conscious or unconscious suicide or attempt to suicide, acts committed under voluntary or involuntary mental breakdown.
- c. War of any nature waged either on Earth or in Space.

COVER EXCLUSIONS

Article 3. This space-insurance policy does not cover:

- a. Any circumstance such that the insured astronauts find themselves in conditions allowing by whatever means their survival in Space, their desire for whatever reason to not return to Earth, acting under full conscience but contrary to instructions issued to them by the Administration of Aeronautics and Space of the United States of America (National Aeronautics and Space Administration - NASA. [sic]
- b. The circumstance of abduction of the insured astronauts by alien beings and their subsequent imprisonment and being kept alive for a duration of no less than three years.

RESPONSIBILITIES OF ASPIS - PRONOIA

Article 10. ASPIS - PRONOIA is only obligated to such instruments issued by the Directors of this company and the Directors of the Exclusive Agency for the company INTERAMERICAN. Verification of documents of whatever nature legal or otherwise is accepted only through the Athens Central Directorship of ASPIS - PRONOIA at Syntagma Square, 4 Othon Street.

The current space-insurance policy has been issued in Greek and English. In the case of non-agreement as to the meaning, between the Greek and English text, the Greek text has precedence.

Underwritten by the general insurance company ASPIS - PRONOIA and the company INTERAMERICAN LTD, and acting as exclusive agent of said company, on the 16th of July 1969 being the date of this issuance.

For the company INTERAMERICAN LTD

For the Insurance Company ASPIS-PRONOIA

Signed

Signed

Demetrios Kontominas
GENERAL DIRECTOR

Alexandros Tambouras
RESPONSIBLE CONSULTANT



Three extracts from the first life astro-insurance policy in the history of NASA issued by INTERAMERICAN and ASPIS-PRONOIA.

Jim Webb

CHAIRMAN'S QUARTERS



Well it's finally been found – or has it? The **Higgs Boson** of course! It appears that the director general of CERN at the announcement seminar, when pressed by journalists afterwards on what exactly "it" was, told them "We have discovered a boson – now we have to find out what boson it is"! Well, that was a bit cryptic. They know it is some kind of boson! The Standard Model describes only two types of elementary particles: **fermions**, which include electrons, quarks and neutrinos; and **bosons**, which include photons and the W and Z bosons. The Higgs is a boson – and it is clear the new particle is also because one of the things it decays into is a pair of high-energy photons, (gamma rays). According to the rules of mathematical symmetry, only a boson could decay into exactly two other photons.

Apparently another thing that can be said about the new particle is that nothing yet suggests it isn't a Higgs! The Standard Model predicts the rate at which a Higgs of a given mass should decay into various particles. The rates of decay reported for the new particle were not exactly what would be predicted for its mass of about 125 gigaelectronvolts (GeV) – leaving the door open to more exotic stuff. If it is an exact 125 GeV Higgs, its predicted rate of decay is known. The observed decay rates are close enough for the differences to be statistical anomalies that should disappear once more data is taken. So... there are no serious inconsistencies so far.

So were the CERN scientists just being too cautious? What would be enough evidence to call it a Higgs boson? As there could actually be many different kinds of Higgs Boson, there is no straight answer. An easier question to answer is: what would make the new particle neatly fulfill the Higgs boson's place in the Standard Model? Number one is to give other particles mass via the Higgs Field – an omnipresent entity (the old 'ether'?) that 'slows' some particles down more than others, resulting in mass. Any particle that makes up this field must be 'scalar'. The opposite of a 'vector', this means that, unlike a magnetic field, or gravity, it doesn't have any directionality. So only a scalar boson can fix this problem.

When will we know whether it's a scalar boson? The current reckoning is that by the end of the year at least one outstanding property of the new particle – its spin – should be determined. Scalars' lack of directionality means they have spin 0. As the particle is a boson, we already know its spin is a whole number and as it decays into two photons, mathematical symmetry, again, dictates that the spin cannot be 1. LHC researchers should be able to determine whether it has a spin of 0 or 2 by examining whether the Higgs' decay particles shoot into the detectors in all directions or with a preferred direction – omni-directional would suggest spin 0. Currently most people think it is a scalar, but it still needs to be proven. The optimism for it being a scalar boson is because it is more difficult to make a boson with a spin of 2.

Right now, it's impossible to tell whether the reported boson is a lone actor, as specified by the Standard Model, or one of a "super-symmetric" army of particles – it could even be an "alien or stranger". If it turned out not to be the Standard Model Higgs boson, it would be a bit uncomfortable for the model. Whatever it actually turns out to be, in the probability scheme of things, it will be a popular vindication of the huge amount of money Europe has plowed into the LHC – and could give rise to yet more funding for an even larger collider - the ELHC?

See you at the next Meeting.

JIM

The Night Sky : July - September 2012

THE PLANETS

MERCURY : At inferior conjunction on 28th July. Moon close on 16th August, when Mercury is at the greatest western elongation. Although low down, viewing should be reasonably good.

VENUS : Those who receive 2002 electronically, the date of Sunday 15th July very early in the morning will still be relevant as Venus bright at magnitude -4.5, and will be in Taurus, near to the Hyades star cluster. The Moon and Jupiter (mag -2.1) will also be close by, as will Aldebaran (mag 0.8) that should also be identifiable by its red colour. Unfortunately all this will be relatively low down in the skies, around 14 degrees elevation. And **WARNINGS** should be given to be very well aware of the rising Sun and to avoid any possible viewing - especially with an optical instrument. Moon also close 13th August and 12th September. Venus at greatest western elongation 15th August. See also **JUPITER**

MARS : In Virgo around magnitude -1.2, Not that bright but the reddish colour is apparent low in the west after Sunset. Moon close on 24th July and 22nd August when the Moon will be 2° south of Mars and 5° south of Saturn.

JUPITER : In the morning skies. There will be an occultation by the old crescent Moon on 15th July, early in the morning – starting at 02.55 and emerging again at 03.06. The Galileans also are occulted, so anyone with even a small telescope should get some interesting views. This event however is only visible from the south and southeast of the UK - see map - which means the London area should be OK – assuming you want to get up (or stay up) that early (late) – and the skies are clear!

The morning of the 15th is busy with the conjunction with Venus, see also **VENUS**. Moon also close 11th August and 8th September

SATURN : In the western evening skies, with Mars, in Virgo, magnitude 0.4. The rings are still opened up. Moon close on 25th July and 22nd August when the Moon will be 5° south of Saturn, and 2° south of Mars

URANUS : Moon close on 6th August and 3rd September

NEPTUNE : Moon close on 3rd and 31st August



METEORS

Delta Aquarids peak on 28th July. Perseids peak 12th August

THE MOON



NEW 19th July
NEW 17th August

FIRST 2^{6th}
FIRST 8th September

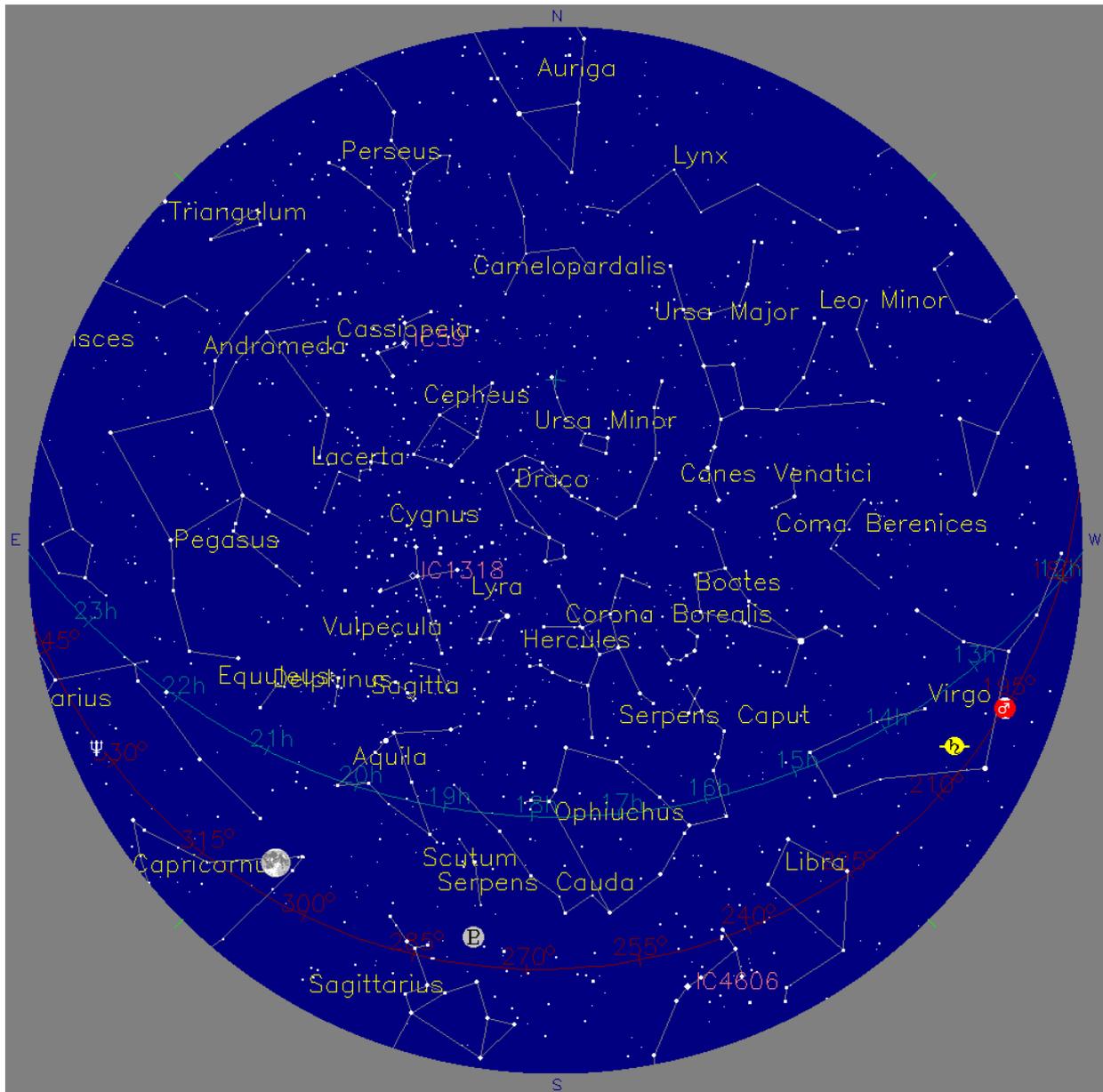
FULL 2nd August
FULL 16th

LAST 9th
LAST 22nd

NEW 17th
NEW 30th

THE NIGHT SKY : July - August 2012

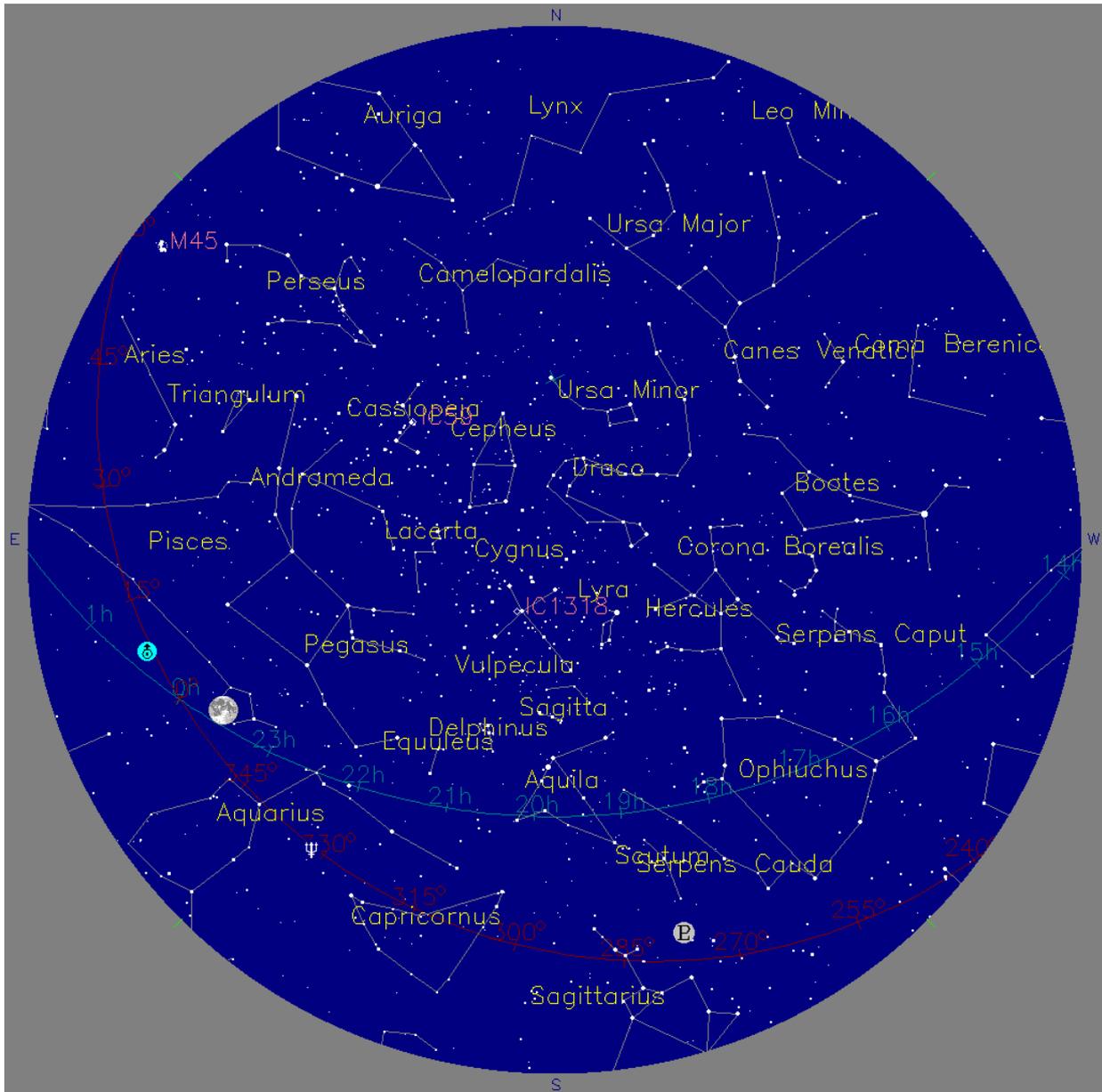
As of 1st August 2012, 21:00:00 UT



| KEY | |
|--|--|
|  MERCURY |  SATURN |
|  VENUS |  URANUS |
|  MARS |  NEPTUNE |
|  JUPITER |  PLUTO |

THE NIGHT SKY : August - September 2012

As of 1st September 2012, 21:00:00 UT



| KEY | |
|--|--|
|  MERCURY |  SATURN |
|  VENUS |  URANUS |
|  MARS |  NEPTUNE |
|  JUPITER |  PLUTO |



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NEXT MEETING
THURSDAY 19th July 2012
Meeting after - September 20th

THE NEW 'SITE - UNDER BETA TEST : www.ashastro.co.uk

Note there are now 'ASH' email addresses – as above

General queries to <info@ashastro.co.uk>

[**THE ORIGINAL WEB SITE** : www.ashastro.org]