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FEDERATION OF ASTRONOMICAL SOCIETIES

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The state of astronomy in the UK – a very personal view

By Pam Spence

There's been a bit of a panic in the editorial office at the *FAS Newsletter*. As these things are wont to happen, the article for the front of the *Newsletter* has been delayed and we needed one... pronto! I thought I could do one, so stepped in and asked the illustrious Editor on what subject he would like an article. "The state of astronomy in the UK" was the suggested answer.

I therefore finished work, finished supper, almost finished the bottle of rather nice claret and sat down to write an article on the state of astronomy in the UK. But I have found I am not in the mood to write such an article tonight. At least, not one full of statistics and moans about funding or about the demise of the RGO and the lack of UK telescopes for the UK professionals to use. Nor even to hold forth about light pollution and the problems running a local astronomical society with such a lack of volunteers to do the jobs. Not tonight. I might mention them in passing, I might even moan a little, but tonight I would like to feel optimistic.

Astronomy in the UK is alive and kicking – both in the professional world and for the amateurs.

Astronomy for me has been a life-long passion, and for many years it has also paid my bills and mortgage. I don't feel I am a professional as I am no longer in research, but then I am not an amateur either as I my qualifications are in astronomy and I still earn my living from it. Perhaps it would be more positive to say I am both an amateur and a professional and can therefore give a rather unique view of the astronomical world. However, as the title of this article suggests, it is a very personal view.

There is a lot of dichotomy in astronomy, and by that I don't mean half phases of the Moon, Mercury and Venus (as defined in the *Collins Dictionary of Astronomy*). I mean the division into two strongly contrasted groups, classes, opinions etc. (as defined in the *Chambers Dictionary*).

Let's start by looking at the professional/amateur world. I feel it is less sharply divided than it used to be. The advance of technology now enables amateurs to use equipment that allows them to contribute data to the professionals. Many professionals see this as an advantage and use the fact that a keen amateur will be observing every clear night despite it being the mother-in-law's birthday or Christmas Eve, to collect data that otherwise would not be recorded. But there are still the people (from both sides) who view members of the other camp with distrust.

There is even dichotomy amongst the amateurs. Some people think if you don't go out every clear night and spend all your money on the best telescope you can afford, then you aren't a 'real' astronomer. Other people, who enjoy listening to others give talks about astronomy and who read a myriad books and articles on astronomical topics cannot conceive why anyone would want to spend four cold hours looking at a faint smudge through a rapidly icing-over eyepiece.

My comment is that anyone who reads anything, who builds anything astronomical, who just looks up at the stars or sketches the Moon, who studies the subject or just enjoys watching or listening to programmes on the television or radio, are members of a very special group of people – and they are all astronomers.

In the UK there is a definite increase in people interested in astronomy. Off the top of my head I can immediately think of three indicators that proves this one statistic I am prepared to introduce into this article. 1 is the increasing number of astronomical societies and the growing numbers in each society. 2 is the large number of astronomy-related programmes and articles around in the media, and 3 is the huge increase in astronomy courses at all different levels on offer.

I see the increasing membership of societies when I travel round to give talks. Whereas a few years ago it would not be unusual for the audience to be around the 10 mark, today most audiences seem to be at least around 30. Of course there is dichotomy in the society

world too, and within each society. This can be a good thing, enriching the society with all types of interest, but it can become too polarised. In this instance, some unpleasantness normally arises, the society splits or fails, but there is usually another society that rises from the ashes. You can't kill off people's interest in astronomy, it gains too strong a hold.

Anyone who gives talks will tell you of the huge range of societies: in the way they are run, in what their aims are and how they treat their speaker. I am on my soap box again, but really – think about it. If you were to do a day's work, or half a day's work then take off a half day holiday. Spend that time on a motorway driving over a hundred miles to be met without even an offer of a cup of tea, spend the evening giving a talk which you have prepared in your own free time, then drive all the way back again to arrive home in the early hours of the morning without even your expenses reimbursed – I do sometimes wonder why I do it. On the other side of the line though, there's the lovely welcoming society that is a pleasure to drive the hundred of miles to talk to. One secretary even made me some sandwiches to eat in the car going home because I didn't have time to stay for a meal. Luckily I meet far more of the latter types of society, though I do see an unwelcome trend in the former. Be warned, your speakers talk amongst themselves and if a society gets a bad reputation for treating their speakers badly, people will be 'unavailable' every time you want them to give a talk.

As I am sure occurs in all walks of life, there are some lovely people in astronomy, and there are some horrible people too. Some people will help anyone as much as they can, giving all they have, and some seem to think that by even answering questions they are giving too much. Here the dichotomy lies straight across the whole community. In my work as Managing Editor of the Encyclopedia of Astronomy and Astrophysics, I have to communicate with some of the very top names in astronomy. This is one aspect of the job I have found so pleasurable. Most of them, even my top, top heroes and heroines, have found time to answer politely. Many have a lovely sense of humour which comes out even over email. Take last Sunday, I was working away emailing a whole list of people I had to chase up about articles, when suddenly an email flashes back from someone right at the top of their field. "Hey, are you guys made to work Sundays too?" was the question. A sense of humour is not, of course, restricted to professional astronomers!

Mr Editor, am I allowed a quick advertising break? The Encyclopedia of Astronomy and Astrophysics is mostly aimed at professionals and is a work that has been put up on the web. You have to pay to see all the articles, but each week I select an article of the week which, together with the news pages etc, non-subscribers can access. See <http://www.ency-astro.com>.

Back to the second indicator of why I think interest in astronomy in the UK is on the rise. I won't say too much about the dichotomy of astronomy programmes on the television. Basically they seem to be rubbish (the majority) or excellent. For many, if you take away the repetitions of facts, and the razzamataz of computer generated graphics, the amount of information in the programme could be conveyed in the same length of time as a coffee advert – but there is definitely an increase in the number of programmes. Even the weather men seem to be astronomers. Hopefully everyone will get a publicity boost during National Astronomy Week in 2003 when Mars makes its closest approach since telescopes were invented. Use the free publicity for the benefit of your society! (I'm back on my soap box again.)

As to the third indicator, I feel that the more astronomy is taught, at whatever level, the more understanding and interest is generated in astronomy, which can only be good for the whole community. The universities have suddenly realised the merit of offering courses in astronomy to people without a grounding in science and I only hope this does not impinge on local society efforts in offering similar courses as a means of fund raising and increasing membership.

I am sure another dichotomy will arise in the readership of this article. Some will have enjoyed my ramblings (yes I know they are), and some will throw the *Newsletter* away in disgust and say what a load of rubbish (my article, not the *Newsletter*). My comment here is that if you belong to the latter group, stop complaining, please put pen to paper or finger to keyboard, write your own article and send it in to our most esteemed Editor. You shouldn't complain if you're not prepared to do anything about it!

But that is enough about astronomy, I'm off to prepare for a dive tomorrow – diving is the closest I'll ever get to going into space: it is an alien environment, you have to take your own air supply and you are (if you get your buoyancy right) weightless. I'm not sure astronauts meet lobsters out there though...

Pam Spence
March 28, 2002.

The Transit of Venus, By David Sellers

A Review By Callum Potter



Although entitled "The Transit of Venus", the subtitle of this book "The Quest to Find the True Distance of the Sun" is a more accurate encapsulation of what this book is about. In the first part of this book an account of the various means by which the distance of the Sun was determined from Aristarchus and Eratosthenes, through Ptolemy and Copernicus, Tycho and Kepler. The second part of this book deals with many of the attempts at observing transits of Venus, which provide means to determine the distance from the Earth to the Sun. In 1607 Kepler himself made an observation which he thought was a transit of Mercury, but later proved to be false, but Kepler did make further predictions and although after his death his prediction of a transit of Mercury in 1631 came true, and was witnessed by Gassendi in Paris. With the theory proved (that transits could be predicted and observed) others took up predicting occurrences, including Jeremiah Horrocks who predicted a transit of Venus in 1639. Horrocks made his confirmatory observations from near Liverpool. By the late 17th cen-

ture predictions had become quite accurate, but sadly there was no further transit until 1761. The 1761 transit elicited much interest and astronomers were despatched around the world to observe it. There are many interesting tales in this book of the trials and tribulations, however the final result of the distance of the Sun varied greatly from 77 to 97 million miles. The next transit in 1769 was hoped to provide better results, and resulted in the distance of 93,726,900 english miles. However reworking of the results provided little consistency. In later years more accurate methods came to the fore though interestingly the most accurate results still use the distance of Venus to Earth (measured using Radar), and give us today's accepted figure of 92,958,329 miles. And finally prospects for the future. There will be transits of Venus visible in 2004 and 2012. The 5th/6th June 2012 transit will be visible in North America, the Pacific and Australasia. But the 8th June 2004 is perfectly timed for the UK and Europe. So I know what we will all be doing that day!

In summary, this is an excellent book, providing an interesting perspective on one aspect of astronomical endeavour through the centuries. I would heartily recommend it.

Published by Maga Velda Press in paperback, £12.95
ISBN 0-954 1013-0-8

GRAZE BETWEEN SHOWERS

By John Harper, President Scarborough and District Astronomical Society, Director, Occultation Section, SPA

On the early evening of Saturday 26th. January, the weather didn't help much to give members of the Scarborough and District Astronomical Society ideal conditions to view the spectacular close approach and grazing occultation by the Moon of the planet Jupiter.



However, those who went to the S&DAS Astronomy Centre at Thornton Dale, opened by Sir Patrick Moore last September, were rewarded with some very good photographic shots of the event between rain showers.

The photographs were taken through the smaller of the two observatory telescopes, a Newtonian Reflector with an 11 inch mirror (f 5.5) using a 25 and 18mm eyepiece and a Canon IXUS 300 digital camera, hand held and using a variable zoom factor.

This photograph shows Jupiter partially hidden by the southern edge or limb of the moon in the region of the lunar south pole. The large crater partially illuminated is Bailly, largest crater on the visible hemisphere at 288km. In diameter (183 mls.)

If you missed the current series of occultations of the Giant Planet you'll have to wait until 15th July, 2012 for the next, when people in East Anglia get to see a grazing occultation on that occasion'

After that there is a very long wait until the whole of the UK is able to see the Moon engulf Jupiter in the night sky ----- It takes place at 22h 33m on 21st November, 2034 !

ing was quite good but gusts of wind and the arrival of my wife Margaret caused some shaking of the image!

The (apparent) travel of Jupiter along the lunar features was followed and 1m 55s from first contact the planet was seen opposite the centre of the large crater Bailly

I estimated that the maximum occultation occurred at 5m45s after first contact when about 45% of the northern half of the planet was covered by the moon.

I saw Io and Ganymede only when viewing my video recording and I doubt whether one or the other were occulted.

After maximum, thin cloud prevailed and I could still see and record the further progression but I could only roughly estimate that Jupiter regained its full shape at its last contact 14 minutes after the beginning. Then cloud thickened and the show was over.

Allan Scott charged two students of the JMU to record the event with the 8"Meade and 'Astrovid' using a x2.8 Barlow. The recording is very good but the turbulence more pronounced.



Image taken from Eric's video recording showing Io and Ganymede.

GRAZING LUNAR OCCULTATION OF JUPITER 2002 JANUARY 26th

By Eric Strach, Liverpool Astronomical Society

I think that most of us were lucky to observe the Jupiter Occultation. [Not all of us were, Ed.]

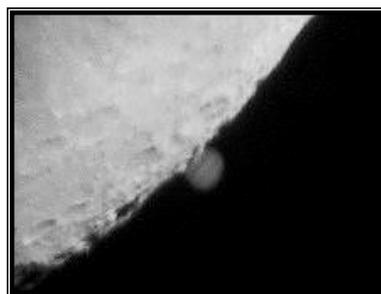
I observed it from my back garden situated at 2h 52m W and 53° 22' 51" N

I recorded it with my home-made (by Allan Scott) CCD Video camera which served me so well for the recording of the sun in H-a over the past 12 years. I removed the focal reducer to get a larger image of the planet. I started to get my equipment ready at 16h50. I intended to record the times of contacts using the telephone signal by Accurist from my mobile phone and the 1 second time pip generator. But I was overtaken by events and unable to use these aids. However I synchronised my stopwatch with the time signal and used it as second best method.

Throughout the afternoon of the 26th January the sky was perfectly clear and hopes run high. As I set up the equipment clouds were forming on the horizon and my heart sunk low as they spread over most of the sky. But there were holes in the cloud and a quick view through the binoculars showed Jupiter and its satellites approaching the moon (or vice versa).

Then the sky cleared over a large area and the monitor gave a good sized image of Jupiter. The distance between the planet and the moon was gradually narrowing and at 17h 54m 40s the northern outline of the planet was flattening indicating the first contact. See-

Other Images From Liverpool Astronomical Society



©Andrew and Val White, taken with a Digital Ixus camera held at the eyepiece of a Meade ETX90. Shutter speed 1/30th sec. Taken at 18:04 UTC

Image taken from video, but six images stacked, to produce single image & more lunar detail. © Robert & Mark Johnson, David Robinson, Gerard Gilligan, and Computer manipulation by David Galvin.



IDAS 21st Birthday Convention Saturday May 11th 2002 - Update

As mentioned in the last F.A.S. Newsletter, the Ilkeston & District Astronomical Society (IDAS) are holding a 21st Birthday Convention on Saturday May 11th 2002. The event will be held at the Heanor Welfare Centre, Wilmot Street, Heanor, Derbyshire.

We are delighted to inform readers the itinerary for the day:-

- 08-30 Doors open for Trade Stands
- 09-00 Doors open to the public
- 10-00 Welcome & Introduction
- 10-05 **Prof. Peter Coles (University of Nottingham):**
The Cosmic Microwave Background
- 11-00 Coffee Break
- 11-30 **Neil Haggath:**
What's in a Name
- 12-30 Lunch Break
- 14-00 **Nigel Bannister (University of Leicester):**
White Dwarfs & Rocket Shots
- 15-00 Coffee Break
- 15-30 **Prof. Mike Edmunds (University of Wales):**
Sir Isaac remembers...
- 16-30 Raffle Prizes & Final address
- 17-00 Close

Tickets for the Convention are now on sale and are available from our Treasurer, Harry Bingham. Tickets cost £5 each and can be purchased by post. Please send a SAE along with a cheque made out to *Ilkeston & District Astronomical Society*, to the following Address:- Mr Harry Bingham, 38 Broadway, Heanor, Derbyshire, DE75 7GW. You can also telephone him on 0177 353 3761 if you have any ticket queries.

Raffle tickets are also available, and the money raised will be in aid of Society funds. We've got some decent astronomical related prizes, including binoculars and books. Prices are £1 per strip, and are well worth a go. We also hope to have several trade stands in attendance.

There is plenty of free parking at the Welfare Centre, and street parking is also available on Wilmot Street. There is also pay & display parking next to the Centre.

If anyone wants further information, please telephone Mary McNulty on 01298 78234, or Mark Thomas on 0115 8490724.

Details can also be found on our website:
<http://members.aol.com/idasastro/index.htm>

Salford Astronomical Society

On Saturday February 9th, 8 members and a few friends made the annual pilgrimage to European AstroFest 2002 in Kensington Town Hall, London. As in previous years, they found plenty to occupy their interest on the three floors of the exhibition hall, with collective spending amounting to over £3000.00. They report that they were very impressed with the new Meade LX200GPS and the engineering model LXDS55 telescopes on display, as were a lot of the public. A good day was had by all.

Members have been tracking Comet C/2002 C1 (Ikeya-Zhang) from late February. By mid March the comet had brightened to naked eye and a 2 degree gas tail had become apparent, as seen through binoculars and small telescopes. Despite the low altitude and twilight conditions, monitoring of both brightness and structure has been carried out visually and photographically.

The society is now into the weekly summer session meetings, which take place at the Observatory in Chasely Field, Chasely Road, Salford, from 8.00pm. Members gather to arrange visits to

forthcoming events and discuss topics of astronomical interest, which are often accompanied by practical demonstrations. The public open nights continue on the first Wednesday of every month from 7.30 pm. and observing takes place whenever possible.

Contact Kath Redford, 2 Albemarle Road, Swinton, Manchester. M27 5ST. Tel: 0161 794 3179
E-mail: sas@asaquooow.demon.co.uk
Web site: www.salfordastro.org.uk

International Astronomical Youth Camp

Every year the International Astronomical Youth Camp (IAYC) takes place somewhere in Europe. About seventy people from many different countries live together for three weeks. They are between 16 and 24 years old and share the same interest: astronomy. The IAYC is different from most astronomical camps for two reasons: the international character and the fact that you carry out your own small research project, not just accepting facts but rather discovering them yourself. The IAYC is also not like a hotel where you follow a summer school or an astronomy course. Every participant with his or her own cultural background forms an important piece in the complex puzzle of camp life. As an IAYC participant, the success of the camp depends on your contribution.

The 38th IAYC will take place near the small village of Eichen-dorf in Bavaria, Germany. The camp will start on July 21st and lasts until August 10th 2002.

Full details available at:
<http://www.iayc.org/2002/>

Scottish Astronomers Group Meeting

The Astronomical Society of Edinburgh will host a Scottish Astronomers Group meeting on Saturday 11th May at the City Observatory, Calton Hill, Edinburgh. The official programme will begin at 1.30pm, but doors will open from 11am to allow members to meet, and hopefully to observe some solar prominences through the society's new solar telescope. For confirmation of speakers and further details, please see the ASE website at:

www.astronomyedinburgh.org

FAS News ...

FAS discussion group

In response to demand, Council has set up an email group for members of the FAS. While this 'egroup' is primarily aimed at society officers, membership is open to all. Recent discussions have centered around grant applications and practical astronomy workshops, but anyone may start a discussion about any (astronomical!) topic they want.

The group has been running for a couple of months, and has about 50 members including most of the Council.

The Fedastro group is hosted on Yahoo, but you don't need an account with them to take part. You can subscribe by sending a blank e-mail to fedastro-subscribe@yahoogroups.com. As this is a 'closed' group, you will have to be approved by one of the moderators before you can take part in the discussions. If you have any trouble subscribing, please let me know at:
webmaster@fedastro.org.uk.

Nick Quinn, Webmaster/Egroup Moderator.

Membership Subscriptions 2002/2003

I will be contacting member societies within the next few weeks to confirm society details and to remind members that renewal fees are due 31st August. Those societies with PLI insurance arranged through the Federation should note that payment by this date is a condition for continuing cover (just like your car insurance).

Our PLI insurance cover has increased dramatically, and for 2002/2003 the cost to individual societies will be £25. This will still be MUCH lower than arranging your own cover.

In response to several requests we can accept payments by standing order. This will be convenient for most societies and will protect your insurance from any unintended lapse. If you would like a Standing Order Form drop me an email at membership@fedastro.org.uk, or by post to my home address.

Jack Climpson, Membership Secretary

Eric Zucker Award

Each year the FAS Council present the Eric Zucker Award for outstanding contribution to Astronomy. This is normally kept within the FAS Society membership.

This year the Council decided that Pam Spence would be a worthy recipient. There was however a problem, it was a discussion matter at a Council Meeting - and Pam was Vice President! However we were lucky as Pam was unable to attend one meeting, and by subterfuge we managed to keep it a secret from her by not mentioning it and when she enquired who the recipient was to be we told a plausible 'white' lie.

We are sure you will all agree that Pam is a worthy Eric Zucker recipient. Her work in many aspects of astronomy, from many years as Editor of Astronomy Now, where she elevated it to the British equivalent of Sky and Telescope, her contributions to many reference books, OU work, Committees such as NAW, to the more mundane President of the FAS have given a varied and welcome input into the professional and amateur field of Astronomy.

FAS Handbook 2002

We regret that due to there being no Handbook Editor, due to the retirement of Dave Eagle last year and subsequent problems finding a replacement, we are unable to produce a 2002 edition. It takes many months to produce, print etc, so the Council has decided to produce a small (approx 16 page) A5 supplement to the 2001 edition, which will have the full updated Society and Council information along with any known updated material. This will appear May/June and if we can find a new Handbook Editor, we hope to get the 2002/3 edition out a little early.

We are sorry that this has happened, but we are reliant upon members of the FAS Affiliated Societies to provide Council members to fill the relevant rolls, if the FAS is to provide the service the Societies have come to expect. All positions are voluntary, but travelling expenses are paid to Council Meetings, 3 per year in London, and the AGM. Please contact myself or the Secretary if you are willing to take on this position. Further details will then be provided.

Malcolm Jones, President & Publications Secretary

New Council Members

Joining the FAS Council at and after last years AGM are Peter Cooke as Treasurer, Jack Climpson as Membership Secretary, and Rod Tippet as Education Secretary.

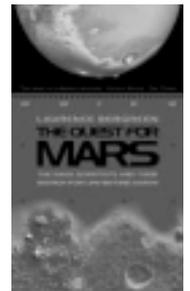
2002 AGM/Convention

Arrangements for the 2002 AGM and Convention this Autumn are being finalised. Full details will be published in the next Newsletter.

'The Quest for Mars' by Laurence Bergreen

A Review by Stan Waterman,

This book is distilled from a series of interactions over several years between the author and a variety of NASA people connected with a number of different Mars projects, in particular Pathfinder and the Mars Orbiter. The book is subtitled 'The Nasa scientists and their search for life beyond Earth'. There is not a great deal on that topic (very few hard facts to relate!) but it is a constant theme, as if it were the only topic of interest about Mars which, in my view, it certainly is not. I feel we could have been told a bit more about the fascinating actual discoveries that have been made about the planet. However, that was not the author's aim and he is not a scientist so the book comes over as mainly being about the people involved with the various NASA Mars projects rather than the science or engineering of them.



The book opens with a description of a visit to the Icelandic Isle of Surtsey by Nasa planetary geologist Jim Garvin, with the author in tow. Surtsey is apparently viewed as the best available model for the Martian landscape and to use this visit as a curtain raiser for the book was an ingenious idea though it would have worked better in a TV program.

Having got through the first chapter, I found this book extremely interesting a lot of the time but there were long stretches that I had to read through several times because I simply couldn't keep track of what they were about. It would have been a great improvement just to have a few diagrams illustrating the development and life history of the projects discussed and a few organisational diagrams showing where the people fitted into the projects and with each other. With no summary to refer to I found it easy to lose track of the dozens of people being mentioned and thus to lose the thread of the narrative.

However, although Mr Bergreen's book is a challenge to read and needs a lot of work from the reader, it is certainly worth it. There is a mine of information in it, snippets of information about people, about team meetings, about the progress of projects and about Nasa in general. One snippet for example: "Claire Parkinson rises at 4am every day of the year and walks or jogs to the Goddard Space Centre". The sheer dedication of many of the scientist involved is impressive and well brought out.

There are some interesting descriptions of events as they happened; the launch of Mars Climate Orbiter for example and it's tragic loss a few months later. There is a substantial discussion of ALH84001 and the in-fighting among the scientists involved, though I feel a more authoritative analysis of the topic could have been undertaken and would have been of interest, even to the general reader. There is a lot of fascinating information relating to the MOLA (Mars Orbiter Laser Altimeter) and Jim Garvin and his craters and the magnetometer measurements, much of it again is to do with the personalities involved. I personally would have liked to have read a bit more about the science and engineering but one can't have everything and the sheer amount of anecdotal people-related information is impressive.

In the last chapter Bergreen gets more into his stride and the book becomes, for the first time, hard to put down. The sheer scale, difficulty and danger of a manned Mars trip is well described and the competing options compared. He even gets into a discussion of the benefits of mixed crews and the (possible) difficulties of having sex in space!

This book is well worth getting for your bookshelf but to get the most from it I'd strongly advise any reader to take notes right from chapter 1!

Paperback, 384 pages, Voyager; ISBN: 0006531342

ASTROWEST 2002

Main event: Saturday, 17th August 2002
At Torquay Boys' Grammar School
 (hosted by the Torbay Astronomical Society on behalf
 of the South West Astronomical Association)

The 2nd summertime gathering of amateur astronomers from the
 south west of England and beyond.

Camping on the school grounds available from Thursday 15th to
 Saturday 17th August 2002 (or use local tourist accommodation –
 see “<http://www.english-riviera.co.uk/accommodation/index.htm>”)

- Use of 0.5m reflector + other telescopes (weather permitting)
- Plenty of space to set up own equipment on level surfaces
- Guest speakers (tba) on the Saturday
- Exhibitors to include SCS ASTRO (sponsors) + SPRINGER-
VERLAG
- Barbecue on the Saturday evening
- Rocket launching competition (bring your own or watch others)
- Starlab planetarium + bouncy castle
- Many other attractions in locality of South Devon (eg Dart-
moor)

e-mail for camping booking form (£3 pppn, under 16s free):
grahame@veale.freereserve.co.uk

Visit <http://torbayastro.org.uk/> and <http://www.halien.com/SWAA/>
 for reports of last year's event

Stratford upon Avon Astronomy Convention

At the Home Guard Club, Tiddington
 25 May 2002.

Provisional timetable:

09.30 Doors open

10.00 "The Ultimate Time Line", Dr Francisco Diego - President of the Association for Astronomy Education, and Sally Price - Anthropologist and polymath. The cosmos and life within - the origin of everything and its evolution to the present time.

11.45 "GAIA: Unravelling the Milky Way", Prof. Gerry Gilmore - Professor of Experimental Philosophy, Institute of Astronomy, Cambridge University. The future ESA space probe to reveal the secrets of the Milky way.

14.00 "Faster than light", Dr Bob Lambourne - Head of the Open University's Physics and Astronomy Department. From early studies of the subject to space-time wormholes, cosmic inflation, exploding galaxies and spooky action-at-a-distance effects.

15.45 "The Universe Next Door", Marcus Chown - Writer and Cosmology Consultant to the New Scientist. Some challenging and weird ideas from some of the brightest and most imaginative minds in science.

17.15 Close

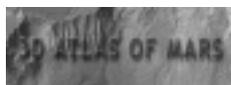
We will be supported by the following astronomy trade stands:

Astrobits - telescopes, binoculars and accessories

Aurora Books - second hand astronomy books

SkyMap Software - star charting software

Full details including location map from
www.astro.org.uk



3D Atlas of Mars responds to phenomenal public interest in all things Martian, delivering a comprehensive interactive guide to Earth's most exciting planetary neighbour. Featuring the largest-scale global map of Mars ever published, **3D Atlas of Mars** is an essential companion to the latest announcements, discoveries, and speculations about Mars. Were there really living organisms on Mars? Is there water locked beneath the surface? Is the 'Face' a sign of intelligent life, or just a jumble of rocks?

Brand New

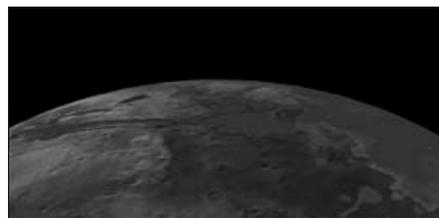
3D Atlas of Mars takes you on a voyage into the future, exploring ways to turn the freezing deserts of Mars into a landscape of lush vegetation and vast oceans. Using today's technology it would take less than a hundred years to create an environment that could support plant life - and eventually human habitation.

Want to explore Mars right now?

Take a virtual flight over some of the most fantastic landscape in the solar system.

Unique 3D Atlas of Mars features:

- High-resolution 3D maps of Mars and its moons, created from a mosaic of thousands of images acquired during NASA missions
- Use advanced 3D globe technology to navigate freely across the surface of the planet and zoom in to explore amazing surface detail
- Identify over a thousand named features, many with detailed descriptions and images
- Experience real-time flights over Mars' most dramatic surface features
- Use the 'Marsetarium' to help you pinpoint Mars in the night sky
- Learn about mankind's fascination with Mars and how we came to fear a Martian invasion
- Keep track of the latest Mars missions and discoveries, with a linked website and newsletter



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SOCIETY NEWS ROUND UP

ABINGDON AS

Meetings at 8.00 pm in the Methodist Church Hall, Dorchester Crescent, Abingdon. Further details from Bob Dryden, 01491 201620, or Sebastian Linfoot, 01865 725094. Website www.abingdonastro.org.uk
13th May, AGM

10th June, The Effects of Precession, Robin Gorman

BIRMINGHAM AS

Lectures to be held at Aston University, Room 146 at 7.30pm.

21st May, A Bolt from the Blue, Malcolm Astley

25th June, Meteors, Neil Bone

BRISTOL AS

Meetings held on Friday evenings at 7:15pm at Univ. of Bristol Physics Dept. Tyndall Avenue, Bristol. Contact A. Grasemann, 01275 545212.
10th May, The introduction of GMT-Time signals to Bristol and beyond. Julian Lea-Jones.

24th May, Problems of a Flat Universe, Prof. Mark Birkinshaw

7th June, Life Off Earth, Dr. Amanda Kear

21st June, Basic Solar Observing, John Chapman-Smith.

CARDIFF AS

Meetings alternate Thursdays, September to July, 7.30 pm. at Dept of Physics and Astronomy, Univ. of Wales, 5 The Parade, Newport Road, Cardiff. Contact David Powell (secretary), 029 2055 1704. Email CAS@ilddat.demon.co.uk.

Web site: http://carina.astro.cf.ac.uk/cas/cas_home.html

9th May, Thomas Cooke Telescope Maker, Martin Lunn

23rd May, Space Weather, Dr Mike Hapgood

6th June, Chemically Peculiar Stars, Dr Mike Dworetzky

20th June, Our Vital Moon, Robin Gorman

4th July, Three Short Talks, Members of Cardiff A.S.

CORNWALL AS

Meets 7.30 pm. 2nd and 4th Thursday of the month at the Godolphin Club in Helston. Contact David Batt, 54 Treze Road, Porthleven, Helston, Cornwall TR13 9UQ. Tel 01326 573968. Visitors to Cornwall welcome.

24th April, "Living in Four Different Universes

25th May, "Sir Norman Lockyer and the beginnings of Astrophysics"

27th June, Optics demonstration.

COTSWOLD AS

Meetings at Shurdington Church Hall, Shurdington, Cheltenham. Contact Duncan Willoughby 01452 416405. Website www.cotswoldas.org.uk.

11th May "Carl Sagan, Man of the Cosmos", Andy Lound

8th June X-Ray Astronomy, Dr. Mike Church

13th July, "Fourteen Pioneers of Astronomy (from Copernicus to Jansky)", Bob Mizon,

EASTBOURNE AS

Meetings begin at 19.30, at Willingdon Memorial Hall, Church Street, Willingdon. Further details may be obtained from Peter Gill tel. 01323-646853.

11 May. Astronomical Imaging from La Palma, Nik Szymanek & Ian King.

8 June. The Variable Rate of the Earth's Rotation, Dr. Leslie Morrison

6 July. The Magellanic Clouds, Dr. Peter Linde

AS of EDINBURGH

Meetings are held at 8pm in the City Dome of the City Observatory, Calton Hill, Edinburgh, usually on the first Friday of the month. The observatory is open to the public most other Friday evenings from 8 - 10pm. To confirm programme details, please see the ASE website at www.astronomyedinburgh.org

May 3rd, Dr Alastair Simmons, "Arctic Aurorae"

June 7th, Anastasia Pappa, Royal Observatory, Edinburgh, "A journey through the history of astronomy: from Aristotle to modern cosmology"

FURNESS & SOUTH LAKELAND AS

Meets once a month at the trinity church centre, Barrow-in-Furness, Cumbria. Meetings begin at 7.30pm. For more information visit the web site at <http://www.furness-astro-society.org.uk/>

April, Jerry Workman, "Minor bodies of the solar system".

HARROGATE AS

Secretary now Maryln Smith, Bridge House, 14 Bow Bridge View,

TADCASTER, North Yorks, LS24 8JU. Tel.. 01937 531171.

ILKESTON & DISTRICT AS

Meetings take place at 7:30pm in the function room, Erewash Museum, Anchor Row, Ilkeston, Derbyshire

Further details from Mary McNulty, 01298 78234

14th May, Meteors, Dennis Ashton

11th June, Brian Griffin, Nottingham AS

9th July, Andy Salmon, West Bromwich AS

LEEDS AS

Meetings held at Centenary House, North Street, Leeds, Doors open from 7pm. For Further Details please visit the Society's Website on www.astro.leeds.co.uk

8 May, Solar Ejection of Huge Plasmas, Prof.G Simnott

12 June, "The Formation of Asteroids and the Start of Life" by Dr R Coker

10 July, "The Search for Extra Terrestrial Intelligence" by Dr H Osborne

LOUGHTON AS

Now have about 60 members, meeting every Thursday at 8.00 pm. In the Scout Hall, Loughton Lane, Theydon Bois, Essex. Organisers of the Equinox Star Party which this year will be 6th to 15th September (7th being the main event day). Observatory in Loughton houses 16" reflector, open to public on alternate Sunday evenings. Web site las-astro.org.uk

2nd May, Exploring the Solar System, Dr. Andrew Coates

9th May, Jets in Space, Bob Forrest

16th May, What Triggers Solar Flares, Dr, Andrew Conway

23rd May, The Search for Extraterrestrial Life, Dr. Mike Leggett

30th May, Hubble Space Telescope, Jerry Workman

6th June, Tony Sizer

13th June, Strange Lights in the Northern Sky, Dr. Alan Aylward

20th June, Novae, Martin Moberly

27th June, Astronomy ABC's, Andrew, Bob & Charles

MEXBOROUGH & SWINTON AS

Website now: <http://www.msas.org.uk>

PAPWORTH ASTRONOMY CLUB

Meets on the first Wednesday of every month (no meetings in June or July) from 7:00 to 9:00 p.m. in Papworth Everard, near Huntingdon, either in the Bradbury Progression Centre or in Upper Pendrill Court. Our meetings are open to everyone. Further details can be obtained from Keith Tritton (tel 01767 677219, email kpt2@tutor.open.ac.uk).

1 May, "Charles Piazzi Smyth" by Linton Guise, Bedford AS

SOLENT Amateur Astronomers Society

Meetings in Room 8, Oaklands Centre, Fairisle Road, Lordshill, Southampton at 7.30 pm on the 3rd Tuesday of the month. Contact Ken Medway, 443 Burgess Road, Swaythling, Southampton. SO16 3BL Tel 02380 582204

e mail kenmedway@kenmedway.demon.co.uk

Website www.delscope.demon.co.uk

16 April Dr David Whitehouse Astronomy in the Media

21 May David Strange Observing with the JKT telescope on La Palma

18 June Derek Haselden Slide Presentation

16 July The Planet Mars Jerry Workman

SOUTH STAFFORDSHIRE AS

Meetings are on the third Tuesday of the month, 8pm - 10pm, at Bloxwich Church Hall, All Saints Church, Elmore Row, off High Street (A34), Bloxwich, West Midlands. Further details from Phil Burgess, Secretary, SSAS, 136 Coronation Road, Great Barr, Birmingham B43 7AX or from the Society's Web Site at: <http://www.ssas.f2s.com>

21 May, Solar Observing

18 June Annual General Meeting plus 'The Summer Sky' Phil Burgess

STRATFORD UPON AVON AS

Meetings at the Home Guard Club, Tiddington, Nr Stratford upon Avon.

www.astro.org.uk steve@astro.org.uk Steve Smith 0121-458-4197

8th May at 7.30pm. WebCam Imaging Workshop 2.

25th May, 2002 from 9.30am. Astronomy Convention.

12th June at 7.30pm. Spectroscopy Workshop.

25th June at 7.30pm. "Infrared Astronomy", by Dr. Helen Walker.

10th July at 7.30pm. Radio Astronomy Workshop.

Tuesday 23rd July at 7.30pm. "Discovering Supernovae - problems and solutions", by Tom Boles.

SUNDERLAND AS

Meetings held on the 1st, 2nd and 3rd Sunday's, monthly. The 3rd Sunday meeting being a lecture, slideshow etc..., with April being the third annual astrophotography competition. Meetings start at 19:30Hrs and are held at the Friends Meeting House, 30 Roker Park Road, Sunderland. Everyone is welcome as we are a down to earth group whose intentions are to make astronomy available to the general public. Solar observing sessions are held on the first and third Sunday's of the month (April - September) within the Washington Wildfowl Park. Start time is 14:00Hrs.

Contact: - Tom Crann (Secretary) Email: - tom@sunderlandastrosoc.com

WESSEX AS

Meetings held 1st Tuesday in month at the Allendale Centre, Hanham Road, Wimborne, Dorset at 19.30. Contact Sec: John Hooker 01929 551530. Visit Web Site www.wessex-astro-society.freereserve.co.uk

WEST OF LONDON AS

Observing at Piggotts on 3 and 4 May - contact Martin Lewis on 01727 839129. Public observing at Ruislip Lido 19 and 20 April in the field beyond Reservoir Road, 8.00 pm. Contact Maggie Daly tel. 01895 637400.

WOLVERHAMPTON AS

Meetings at 7.30 pm at Beckminster Methodist Church Hall, Birches Barn Road, Wolverhampton. Further details Michael Bryce, 01562 742850, secretary@wolvas.org.uk, website www.wolvas.org.uk.

13th May, Is there life on Mars ?

17th June, The Inner Planets, Mike Bryce

LIST OF OFFICERS 2001/2002

President: **Malcolm Jones,**
See front cover for details

Vice President: **Pam Spence**
Tel: 01903 752834.
E-mail fas@astroscience.fsnet.co.uk

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See front cover for details

Treasurer: **Peter Cooke,**
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See front cover for details

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HD8 OLT Tel: 01484 606832

Devon Group : **John Parratt**
See Publicity Officer above

East Anglia Group : **VACANT**

SAGAS Rep: **VACANT**

FAS Publications

The FAS 'Astrocalendar 2002' is now available, along with a new layout/printing of 'Observational Astronomy', the ideal beginners guide to observing the heavens. Quantity pricing is available at:
http://www.fedastro.freemove.co.uk/publications/members_prices.html

Astrocalendar 2002	£1.40 + C5 SAE with 33p stamps
Observational Astronomy	£2.00 + C5 SAE with 33p stamps
Using a Telescope	£1.80 + C5 SAE with 33p stamps
Step by Step Astrophotography	£1.30 + C5 SAE with 27p stamps
Choosing a Telescope or Binoculars	£0.60 + C5 SAE with 27p stamps
FAS Handbook 2001 (Current issue)	£2.00 + C5 SAE with 44p stamps

Queries are usually easier via e-mail to the Publications Secretary:
publications@fedastro.org.uk

Wanted

6" equatorial driven reflector for astrophotography, preferably around £300.
Telephone Vaughan on 07751 216027

WEBB SOCIETY ANNUAL MEETING

Saturday 18th May 2002
Rutherford Appleton Laboratory, Didcot nr Oxford
Doors open 10 am, 10.30 AGM, Lectures start 11.00, the day ends 6.00pm

The lecturers will include;
Dr Helen Walker -infra red astronomy,
David Ratledge-imaging
Nick Martin -visual stellar spectrography
Prof. James Binney-galaxies,
Plus Earth & Sky , Venturoscopes etc
Tickets on the door only £7.00

www.webbsociety.freemove.co.uk

Membership Changes

Remember to send society contact changes to the Membership Secretary, Jack Climpson (see above).

Deadline for submission for next newsletter, 30th June 2002

Please remember to send ALL articles to the Editor, Callum Potter.
Regrettably material can only be returned if supplied with a SAE.