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FEDERATION OF ASTRONOMICAL SOCIETIES

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Glare from unregulated, poorly aimed 'security' lights on a car sales area in Bristol. Could anyone see any thieves at work? (Photo Bristol A.S.)

The Campaign for Dark Skies (CfDS) An update

It is gratifying that, because of the efforts of CfDS and other groups which aim to win back the night sky from the tide of waste light which has veiled it for most of us during the last fifty years, the term 'light pollution' is now well known. From schoolchildren to politicians, from local councilors to ornithologists, the term is now widely understood, and its implications for individuals, interest groups and the general population are known. The phrase appears in dictionaries as a separate entry. In 2000, a lighting consultant, bemoaning the fashion for old, half-timbered and thatched pubs to over-floodlight their exteriors, acknowledged the astronomers' and environmentalists' contribution to the debate, calling it "a major factor in lighting change"; and a lighting industry marketing

manager, in the mid-1990s, stated that "the astronomers' campaign is probably the biggest single factor in the evolution of lighting right now".

So, if CfDS and other groups (e.g. the International Dark-Sky Association and the Council for the Protection of Rural England) are having some effect, why aren't the skies getting darker?

The answer is complex. First, skies *are* getting darker in many places. Hundreds of local councils are now incorporating lighting clauses in their local plans, mostly as a result of CfDS' lobbying though its 105 local officers, and many lighting engineers are now ordering and installing downward directed lighting to replace old, 'glary' stock which shone upwards. From my own garden, the Milky Way is now much better seen than it was three years ago, before Dorset County Council installed new, sky-friendlier streetlamps throughout Colehill (Dorset), and deep-sky objects are much easier to find through my 21-cm reflector. The Highways Agency's new policy (NATA - New Approach to Appraisal) specifies that the environmental impact of lamps is a priority when choosing which lamp to install in a given location; as a result, roundabouts and roads all over the UK are being relit or newly lit with 'cut-off' luminaires (lamp assemblies) which cannot shine upwards. Lighting companies vie with each other to showcase cut-off types at major exhibitions, using the stars as a backdrop to many of their advertisements, and the trend within the industry towards better-directed lamps is accelerating.

New skyglow is largely the result of two factors: firstly, the continuing proliferation of unregulated security lighting and floodlighting, and secondly, the attitude of the Government's Environment Department (rechristened DEFRA) towards its responsibility for the protection of the environment above the horizon. The worst offenders at present when new skyglow is seen are undoubtedly domestic security (insecurity?) lamps, church and sports floodlights, and advertising 'laser' displays. It is still, sadly, the case in the UK that one can direct an exterior light of any power in any direction at night without much fear of penalty, unless it causes a danger to road traffic or aircraft movements. What is happening on these fronts?

By the time you read this, CfDS committee members will have met with the Quality Assurance managers of certain DIY outlets, trying to persuade them that, in spite of their claim that all their lines are environmentally responsible, it is not a good idea to encourage people to antagonise neighbours and make the night hideous with lamps of wattages more than three times greater than those recommended by the Institution of Lighting Engineers (ILE), Britain's premier guiding body in lighting matters. New, downward-directed domestic exterior lights are on sale, and individual astronomers can play their part by publicising this



New lamps for old: Old conical lamps, which threw much of their light above the horizontal, are replaced by better directed designs in car parks in Wimborne, Dorset. This scheme won the BAA Good Lighting Award. (Photo Bob Mizon).

Continued on Page 2

fact and insisting, both as individuals and on behalf of groups and societies, to DIY outlets (write to the HQ, not the store managers) that the new lights are promoted and the old 'Rottweiler' types phased out.

What can you do if your local church has been floodlit, probably with Millennium money partly provided by the lighting industry and partly from the public purse? A badly floodlit church, with most of the light missing the building, can be a major assault on the night sky, especially in some rural areas; I remember speaking to a class of five-year-olds in a Dartmoor village primary school, and saying to them "I bet the stars are really beautiful here, aren't they?". The reply from a small boy was, and I quote exactly: "Well, they used to be good, but now, when the vicar switches his lights on, they all go away". To counter this threat, you might care to do what Frank Cave did in his Northamptonshire village: survey the local population. 83% of the inhabitants of his village were against the lighting, and the data were used to mitigate its impact, ensuring that it was switched on only on rare occasions.

Anyone installing sports floodlighting should be following ILE guidelines, which recommend minimising upward light. There are many brands of sports floodlight on the market which shine only downwards, and you can easily inform your local authority of this, reminding them of their obligation not only to provide the best leisure facilities but also to safeguard the local environment, both terrestrial and celestial, with both existing and future lighting schemes. If advertising lighting (in the form of skybeams and searchlights, often erroneously called 'lasers') is polluting your night sky, then it might be of value to know the details of the Guildford case (December 1999), which was covered in the February 2001 edition of **Astronomy Now**. Briefly, the two 7000W searchlights which invaded the heavens over Guildford for some years were switched off by order of Her Majesty's Planning Inspector Ava Wood, who ruled, after a public enquiry in which CfDS members, local astronomers and environmentalists gave evidence, that the beams were indeed advertisements, even though the owner had been careful not to associate them with overt advertising on handbills or in the media. As such, they come under advertising planning regulations, and are actionable. She described them as 'an alien presence' in the sky when seen from nearby countryside, and the case sets a powerful precedent for anyone troubled by similar pollution.

The biggest obstacle to progress towards responsible lighting practices, backed up by real legislation, is the attitude of DEFRA. The department whose brief it is to protect the environment does not consider light pollution to be part of that brief (!), and refers correspondents to the Department for Transport, Local Government and the Regions (DTLR), who consider that the solution lies in the planning process. Certainly, councils with sane lighting clauses in their planning guidance documents can do much to forestall poor lighting practice, but, until environmental health officers and council engineers are permitted by law to enforce good practice and order the switching-off of obtrusive lights, lives will continue to be blighted, neighbour turned against neighbour and the night-time environment degraded.

CfDS has done much to create the slow but certain change in lighting practice in the last ten years. It is, however, a fact that most amateur astronomers do little about light pollution, and many consider it a lost battle. I can do no better than quote Dr David Crawford, founder of the International dark-Sky Association and the world's foremost champion of the starry skies:

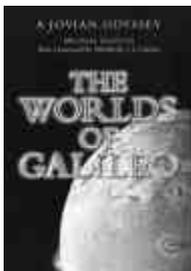
"We have barely begun to fight. Just because we have a very big problem on our hands and presently few resources to bring to bear, doesn't mean we can't ultimately win. It's way too early in the struggle to say it's impossible to do anything about light pollution. Only recently has a small fraction of the public and astronomical community awakened to the problem. Only recently have we realized there are solutions to most lighting difficulties. There are now excellent fixtures available for all lighting needs. This is one of those few problems whose solution is eminently sensible, available, and which saves money in both the short term and the long haul. If you expect to rid a city of its sky glow in the next year, then you will be very disappointed. If you want to get rid of local sources of light trespass, such as a dusk-to dawn light next door or an unshielded street light on the corner, then you have a very good chance of accomplishing your goals with persistent but not obnoxious effort. You also have a reasonable chance for changing laws and instituting proper lighting techniques in your community. Over a long period good lights will replace the bad and the ugly ones. There will be a gradual slowing of the loss of dark skies and then an actual darkening of the sky in some areas. This will not happen quickly but it is possible. It will take incredible amounts of work and determination but it can be done."

What can YOU do? Courses of action may suggest themselves. Keep it legal, and use a friendly but firm approach: broadsides don't impress, and accusing someone of being a polluter may not be as effective as suggesting what they can do, as positive agents, for the environment. Consult CfDS and IDA's websites, and let me know if you need ammunition.

Bob Mizon, coordinator of the BAA CfDS. Further information and advice may be found in his book 'Light Pollution: Responses and Remedies' (Springer, 2001, ISBN 1-85233-497-5) CfDS website www.dark-skies.freemove.co.uk. IDA site: www.darksky.org

THE WORLDS OF GALILEO, By Michael Hanlon

A Review by Andy Salmon



This appetising book is a dream to anyone who revels in planetary exploration. It is an easy read and I found it hard to put down. After a brief history of observations and exploration before 1995 it quickly comes to the star of the book: the NASA space probe Galileo. A fascinating chapter explains the innards of the craft. An un-remarked achievement was the Spin Bearing Assembly that has carried data and power between Galileo's 3-rpm spinning and non-spinning sections for 12 years with scarcely a glitch. The battery of scientific instruments and their jobs are explained in terms suitable for a layperson. There is a complete explanation of the jammed High Gain Antenna (it would take only a jab with a finger to free it!) and the highlights of its "solar cruise" route to Jupiter. Then on to lucid descriptions of Galileo's targets in the Jovian system. Ride through the alien skies of Jupiter on the atmospheric probe's one-way mission. Marvel at the frozen water-world of Europa. Be dazzled by the fire and brimstone of Io – did you know it has the highest mountains in the solar system (like 6 km high Tohil Mons)? Ganymede and Callisto, the rings and small moons get less complete descriptions – but how can they ever compete with Europa

and Io. The story ends with plans for safe disposal of Galileo – crashing it into Jupiter; plans for its successor, a Europa Orbiter; and a taster of hopes for the last "Rolls Royce" space probe, Cassini/Huygens at Saturn.

This is not an overly technical or scientific book, though it has a good appendix of suggested journal and book reading. It is very much a book about the scientists and engineers behind the mission, like Rosaly Lopes-Gautier, downloading the latest Io data in her cocktail dress in a sleepy Italian spa town at 3 AM before a meeting the next day. Most of all it is about a mission that's managed to overcome significant problems to reveal Jupiter and its family of worlds in stunning detail, as shown in the photos in this full colour book.

THE WORLDS OF GALILEO, by Michael Hanlon, is published by Constable. ISBN 1-84119-283-X. R.r.p. £20.Hardback.

SKY:Lab - A Review

By Callum Potter



I'm a bit of a luddite when it comes to software packages for astronomy, which you might think strange as I work in the software industry. But come an evening it is nice to sit down with a good star atlas and have a browse about. My mainstays are an old 1950 epoch Nor-ton, a first issue of Sky Atlas 2000 desk edition, and most recently a copy of the Millennium Star Atlas for my 40th. I have tried a few planetarium programmes and other star charting software but none really grabbed me enough to put away the books.

So it was of great interest when SKY:Lab arrived for review. It is made in Australia, and is billed to be "a full-featured computerised Star Atlas". The version supplied on CDROM was 2.3, but updates to version 2.4 and 2.5 were available from the companies web-site, though these were fairly hefty 4.4MB downloads. And to get to the 2.5 level I had to apply the 2.4 upgrade then the 2.5 upgrade. However the software installation went without any problems on both a Windows 98 desktop computer and an NT 4 laptop. The software and data files all install onto the hard-drive of the PC, and so you can run it without having the CD in the drive. However, this does mean that you need a fairly substantial 270 MB of free disk space. The only glitch discovered at this stage was with the Help system, whereby the Search facility would not operate (this is not an uncommon problem with Windows Help in general though). However I was informed shortly after reporting this problem that there would be an update to the Help system to cure this (which there duly was). It is worth noting now that there is a newer version of the software available with some add-in packages, and it has been renamed STAR Atlas:PRO. This review covers only the features available in SKY:Lab 2.5. The basic functions of STAR Atlas:PRO will be much the same, however.

On first running the software it appears with a chart presented. The display is red on black, intended for use at the scope but other colour schemes can be set up. At the top of the screen is a status line showing the current field of view, RA, Dec, local time and sidereal time. A floating button 'menu' bar is available that can be moved round the screen or you can 'dock' it at the top. The Prefs button leads to the Preferences window, which is much like an options page. Here you can specify your latitude, longitude, timezone, and chart colour settings. Also the amount of detail that will be presented on the chart, including constellation names, boundaries, patterns, and RA and Dec grids, star names and much more. An important use of this window is the facility to choose the catalogues which will be used on the chart. At wide fields do not choose a large number of catalogues or the screen will become swamped with detail which is unreadable. To help guard against this, you can choose for catalogues to come into use at a particular field of view.

There are a variety of Catalogues provided, covering both deep sky objects and stars. The deep sky catalogues are quite extensive including NGC 2000, LEDA, Arp and Hickson. The star catalogues provided include the Yale Bright Star, Hipparcos and Tycho. You might expect to get the Hubble Guide Star catalogue, but this is not provided, though it is available as an add-on to the new PRO version. I would have liked some more detail about the content of the catalogues explained in the documentation. With catalogues of this type and size it is impossible to check on their accuracy. There may be objects which are incorrectly located or categorised in the source databases which are no doubt propagated, but the same could be said of many books.

Also within the Catalogues are the Planets and Comets. These have their positions calculated from their elements. Two particularly nice features of the Comet catalogue is the ability to download comet elements from the Minor Planet Center though this is a little 'clunky' (you have to download the file and then load it manually into SKY:Lab – it would be better if it could be automatically loaded on request). Also, you can plot the track of a comet over a period of days or weeks with tick marks which takes much of the drudgery out of manually plotting these positions onto a chart (my old method). I was able to produce a nice track for Comet Petriew within a few minutes of hearing about it. An omission at this point to my mind is lack of support for asteroids and minor planets. As the facility seems to be in-built for calculating positions of objects within the solar system it would not be too hard to include this and it seems that the makers will provide it at some point in the future. I also wanted to add in the location of Nova Cygni 2001 No.2, but although I could center on the RA and Dec I could not find an easy way of marking its location.

There is a useful facility to link the charts to Digitised Sky Survey images. You can download a DSS image which is stored on your hard-drive, and the details are stored within SKY:Lab. Then you can just click on the map and display the image. Like the comet elements loading procedure, adding DSS images is also a little 'clunky', but once downloaded they are useful to have and easy to access.

An observation planning facility allows the user to create a custom list of objects. Then after setting a particular date and time you can find if these are observable. A click and the chart is drawn centered on the object. This was quite a nice facility, but I would like to have had the altitude and azimuth of the objects listed for use with Dobsonians.

As an experienced Windows user, I found some of the facilities a little uncomfortable, but soon got used to them. For example if you click with the left mouse button on an object displayed on the chart you can reach a dialogue which offers facilities such as center, zoom, and information. But normal Windows conventions would present this as menu on pressing the right mouse button. This is being changed in the PRO version, though I understand.

There are a number of other features which space does not allow me to go into detail about, such as a facility to display eyepiece fields (calculated from telescope and eyepiece specs.), and exposure planning. This is a useful piece of software, and becomes quite intuitive with use. The facilities all seem to work without any problems (I don't think the software 'crashed' on me once). There is good level of detail and I found the comet tracking facility really useful. The price for the PRO version is AUD 139 (139 Australian Dollars), and with the add-in packages totals AUD 225, about £47 and £76 respectively. This is certainly cheaper than many packages and makes it competitive if the facilities it offers are all you need.

Review copy of SKY:Lab supplied by SKY:Lab Astronomy Software, P.O. Box 243, Wallsend 2287, Australia. Website <http://www.skylab.hl.com.au>.

FAS Officers - Annual Reports

The following reports from officers of the Federation are presented at the Annual General Meeting on the 13th October.

President - Malcolm Jones

I approached my first year as President with some trepidation as filling Pam's shoes was not going to be an easy task. I needn't have worried as the members of the FAS Council 'held my hand' and avoided any major catastrophes. The FAS has again increased its membership with the majority of the Member Societies joining the Public Liability insurance scheme. There are always new Societies being formed and some disbanded, but at the moment there appears to be growth. In view of all the available astronomical information that is available at home from various sources, it is very encouraging that people are prepared to go out to Astronomical Societies rather than sit at home and watch it on a computer screen or TV.

I would like to thank all the members of the Council, without whom there would not be a Federation. Every job is necessary. We will have some vacancies this year, mainly due to personal reasons, including Treasurer, Membership Secretary, Handbook Editor Education Secretary and Publications Secretary - I have done it for 7+ years. It means 3 Council Meetings per year, held at the London Planetarium, plus the AGM. Council Member's travelling costs are covered. I would like also to thank the London Planetarium who provide the meeting room for these Council Meetings and finally to all the Member Societies, without whom there would be no reason for the FAS.

Secretary - Clive Down

Snail mail is now almost a thing of the past and this has resulted in almost all correspondence being conducted by E-mail. It certainly appears that amateur astronomers must be one of the most computer-literate groups who enjoy embracing on-line activities. We have received more than sixty requests from people enquiring where their nearest societies are, and five requests asking how to set up a new society.

In addition, we have answered nearly fifty further enquiries - many from the media - seeking assistance in observing astronomical events. Several societies have even had television film crews despatched to them by our recommendation.

This has been a busy year for the FAS and a number of long-serving Council Members are having to stand down due to other commitments. We rely on local society members to fill these posts, so if you are interested in helping your Federation to carry on the good work, please let me know!

Treasurer - Rebecca Gardiner

The audited FAS accounts for the year ended 31st August 2001 will be presented at the AGM on the 13th October 2001 at the Rutherford Appleton Laboratory. The unaudited accounts show a healthy position.

The subscriptions received from members almost exactly balanced the cost of printing and posting the quarterly newsletters, which we perceive as our main service and crucial to maintaining good communication levels and passing information on to our member astronomical societies. However an increase in postal charges during the year raises the issue that next year the income from subscriptions will not be enough to cover the cost of the newsletter service.

Thus at the AGM, the committee wishes to put a proposal to the members to raise the subscription fee from £7.50 to £10 for member societies with less than 45 members, and from £15 to £17.50 for member societies with over 45 members. Members will be invited to vote upon this proposal at this time, and we ask you to please bear in mind that the subscriptions have been at their current levels for many years, and that we think it is important to keep the current newsletter service as a quarterly service and not to have to cut down on the numbers sent out to each society.

Also I wish to give you notice of my intention to stand down at the AGM due to private commitments, and wish to encourage anyone from our member societies to consider taking on the position. I have found my time on the FAS committee interesting and reward-

ing, and would be happy to discuss the role with anyone interested.

Membership Secretary - Eric Hutton

Every year member societies send their re-subscription cheques into me. So I thought readers might be interested that 2/3rds of societies have a society bank account, and the favourite banks are as follows:

Lloyds/TSB 26%, Nat West 22%, Barclays 12%, HSBC 12%, Girobank 7%, Royal bank of Scotland 4%, Bank of Scotland 4%, Portman Building Society 4%, others 8%.

After 6 years I have decided to stand down and let someone else have a go, for those wondering what I do, here is a brief job description for the post. Starting in January I prepare lists of society contacts by area for handing out at the Astrofest show in London. From then until the end of June, it is sending out occasional membership forms in reply to enquiries to join the FAS. July sees the posting out of re-subscription forms to all FAS societies, about 170 letters. Over the next 3 months the majority of the forms are returned, there are then cheques to pay in, receipts to send out, and lists of society contacts to keep up to-date. From October until XMAS there are reminders to send out, and trying to contact societies that have not paid their subs. If anyone is interested in taking on this important job, please contact me, and I can talk it over and answer any questions.

Publications Secretary - Malcolm Jones

The FAS Publications have again been the mainstay of the FAS income. The Membership Fee does not even cover the cost of the Newsletters!

As in previous years the Astrocalendar will be available for collection at the AGM/Autumn Convention, thus saving on postal charges. The Observational Astronomy is also available again. We have kept the charges the same as previous years, although for those who need them posting, Parcel force has again increased their charges. Full details are on the web, the special entry address is http://www.fedastro.freemove.co.uk/publications/members_prices.htm. Supporting the sale of the Publications not only helps to keep down the cost of FAS membership, but also boosts the income for Member Societies.

Assistant Treasurer - Dave Sutton

Mainly offered help and advice with minor administration during this year, organising sales of RAL tickets for the AGM.

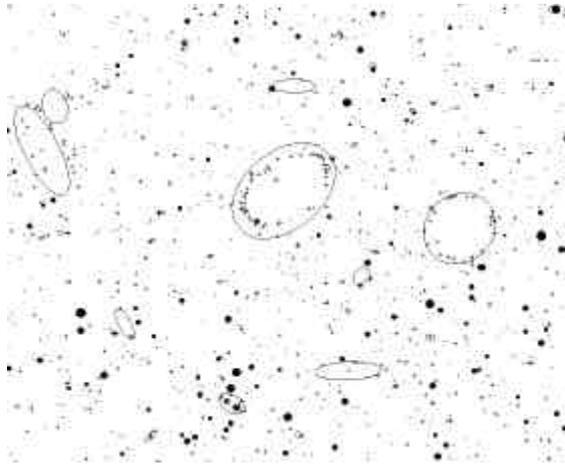
I have organised and co-ordinated the FAS/Public Liability Insurance Scheme now for nearly 6-years. The scheme has grown from the 66 societies when I took over to 133 societies to date. The cost has risen over years but is still recognised as extremely good value. I can report that to date we have not had a claim.

I have undertaken the Newsletter Printing & Distribution Role over the past five years. I have seen our newsletter increase from 4 pages to 6-pages and now 8-pages we have to date. On taking over, each edition consisted of nearly 3000 copies, to date the latest edition we had a print run of 4500 copies, distributed to 174 Societies, 14 Individual members, 5 complimentary and 17 council members, in all 328 packs posted.

I hope to be standing down this AGM after 6 years of committee work. I have enjoyed the time working with council and society members over the years. I would like to thank all those who advised and encouraged me during the past 6 years.

Newsletter Editor - Callum Potter

Taking on the editing of the quarterly Newsletter was quite daunting as I had never been involved in production at such a large scale. However with help from the out-going editor and Doc Sutton it has been quite painless. In the year we have actually produced 5 editions of the Newsletter (including this one), and the Newsletter is now synchronised with each quarter of the year. I would like to thank all who have supplied material for the Newsletter, Peter Freeland at Southern Repro Services for typesetting and David Addison and his staff at The Favil Press who consistently print the newsletter efficiently and at high quality. Special thanks goes to Doc Sutton who has distributed the Newsletter throughout the year.



Introducing **STAR Atlas:PRO** Version 3 for Windows

Boasting 100,000 Galaxies and more than 35,000 Deep Sky Objects, STAR Atlas:PRO allows you to pinpoint the position of astronomical objects and assists you in planning and recording observations. Down to earth features include the STScI Digitized Sky Survey on-line Interface that allows you to retrieve Deep Sky digitized images for any part of the Sky you care to point & click at, then integrate the Image into STAR Atlas:PRO for keeps!

Introducing two new add-ons that offer enhanced features. The GSC Add-On includes the revised GSC-ACT Version of The Guide Star Catalog that adds 15.3-Million Stars and 3.3-Million Non-Stellar Objects to your Sky! For power users the *INET Add-On* allows you to create charts to fainter than magnitude 21 by retrieving and integrating catalog data from on-line astronomical databases that include The Guide Star Catalog 2 and the USNO-A2.0 Catalog. That's access to over 768-Million Objects down to magnitude 21.

See All the features on-line at
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 info@skylab.hl.com.au
 Beta Technologies
 Tel: +61 02-4958-2116
 Fax: +61 02-4958-5393

Or contact
 The Binocular & Telescope Shop
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 info@bintel.com.au
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 Fax: +61 02-9262-1884

Astro Society Member Discount Offer. Use this coupon to claim 10% discount when you purchase STAR Atlas:PRO. Limit 1 coupon per customer, offer expires Dec-31, 2001. Coupon may be copied or quote "FAS-299792" with your order.

INTERNATIONAL LINKS TAKE ON ASTRONOMICAL PROPORTIONS.



Dr Pavel Kotrc, The Astronomical Institute of the Czech Academy of Sciences, Mr Gerard Gilligan, President of The Liverpool Astronomical Society, Mr Jan Urban, President of the Vlasim Astronomical Society (left to right),

President of Liverpool Astronomical Society, Gerard Gilligan, lead a group of eight members of the Liverpool Society on a visit to the Czech Republic in August 2001. They were the special guests of their twinned Society based in the town of Vlasim, situated 100km south-east of the Czech Capital Prague. This trip followed up visit by a delegation from Vlasim to Liverpool in September 2000. Both trips resulted from the initial contact made by the well-known Liverpool solar observer Eric Strach, together with his

wife Margaret in May 1991. The Czech Republic being Eric's home country.

During a very full itinerary, the Liverpool group took part in a joint meeting of lectures and displays, and carried out night-time observations at the observatory run and maintained by the Vlasim members. They were also guests of the Solar Research Department at the Astronomical Institute of the Czech Academy of Sciences in Ondrejov, and later the Stefanikova Observatory at Petrin, which overlooks the city of Prague.

They were also given a guided tour of Prague which reflected its rich astronomical history. Tycho Brahe lived in the city, with his assistant one Johannes Kepler. Brahe died in Prague, and is buried in the historic church of Our Lady before Tyn, on the Old Town square. The house Kepler lived in can still be seen. A marvellous statue to the two great astronomers, (seen in the letters section of the September issue of *Astronomy Now*), was also on the tour.

This reciprocal visit by the Liverpool A.S. has now forged even stronger links between the Liverpool and Vlasim Societies, and a program of joint astronomical observations, plus co-operative projects is planned for the near future. It is hoped that members of the Vlasim Society can travel to the UK for the May 2003 Annular Solar Eclipse, which will be observable from the north-western Scotland. At a special farewell dinner the Vlasim Society presented Liverpool with a copy of the *Atlas Coeli Novus*.

Membership and meeting details for the 2001-02 session are on the Liverpool Astronomical Society Web site:

www.liv.ac.uk/~ggastro/home.html

Meetings are every 3rd Friday between September – May at 7pm in the RC Cathedral's Crypt Concert Room, Mount Pleasant, Liverpool. Underground car park entrance only. For more information contact Secretary Ken Clarke, Tel: 0151-638 3270, Email: Clarklunar@aol.com.

AIRY REMEMBERED

The bi-centenary of the birth of Sir George Biddell Airy, 7th Astronomer Royal, has been celebrated by the Orwell Astronomical Society (Ipswich). In mid May Dr Allan Chapman and three of Airy's descendants, including his Gt Gt Granddaughter Nicole Airy-Swengley, were invited to a very special occasion at the Orwell Park Observatory. The history of the observatory and its link to the Airy family via G B Airy's son Wilfrid (the engineering designer) was recalled in the December edition of the BAA Newsletter.

Dr Chapman and the Airy family were first taken to the nearby village of Playford to visit the Airy family tomb, at which floral tributes were laid. Although he was born at Anwick in Northumberland and lived the greater part of his life at Greenwich, Sir G B Airy always regarded Playford as his home. They also had the opportunity to visit Airy's former country cottage and Hill Farm, the home of Arthur Biddell who largely brought up the future Astronomer Royal. Although Airy's cottage has been subject to much alteration over the years, Hill Farm is very much in 'original' condition and many features preserved there would have been familiar to Airy, something of a revelation to Dr Chapman who has been researching the 7th Astronomer Royal for some time with the eventual intention of publishing his biography.

Following their visit to Playford, the party were taken on to Orwell Park School where Dr Chapman delivered a fascinating lecture to a large audience, including Orwell AS members, guests from neighbouring societies, school staff and pupils on the life and times of Airy, with an emphasis on his local Suffolk connections. Following a most enjoyable cheese & wine reception, the party were then invited up to the observatory, where Dr Chapman dedicated and named the 1872 vintage 10"OG Troughton & Sims Refractor in honour of its original sponsor, Colonel George Tomline. A brass name plaque was unveiled and the instrument is now named 'The Tomline Refractor'. The Airy family also unveiled portraits of the observatory architect, John MacVicar Anderson and the engineer, Wilfrid Airy, which will be on permanent display there. The occasion was recorded on a special page in the observatory visitors book and Dr Chapman summed up over thirty years of restoration work by Orwell AS members when he endorsed the book with the words, 'A splendidly restored Victorian observatory'.

On Friday 27th July, Airy's birthday, floral tributes were placed inside Playford church by the Airy family and Ken Goward of Orwell AS laid flowers on Airy's grave. The local Ipswich evening newspaper also marked the occasion with a centre page spread.

Light Pollution: Responses and Remedies

by Bob Mizon FRAS, Coordinator of the British Astronomical Association's Campaign for Dark Skies.

This first single-author book on the subject of the worldwide erosion of the night sky by wasted artificial light, and what can be done to reverse it, will appear in Autumn 2001.

(Springer-Verlag London, ISBN1-85233-497-5)

AstroWest 2001

After months of planning by the Southwest Astronomical Association, it was the weekend of the "AstroWest 2001" camp at the Torquay Boys' Grammar School in Torbay, Devon. The event itself started at around mid-day on Friday 17th August with the arrival of the first family of campers, soon a steady flow of new arrivals from around the country were arriving. Although the poor weather forecast had led to some uncertainty over how many campers would actually turn up, all those expected on the day duly arrived. Kieron McGrath, owner of major southwest dealer SCS-Astro, arrived early in the evening with a van-full of telescopes and other exciting astronomical gadgets and goodies. Friday evening had been earmarked for observing with the various telescopes available, including the 19-inch at the school's observatory. However, the increasingly cloudy weather decided otherwise! Instead, an astronomical quiz was held in the lecture theatre, hosted by quizmaster John Stapleton.

The campers awoke Saturday morning to the sound of rain, but this did not dampen a good day. The mornings lecture programme started at 10am with a talk by John Parratt on 'The Planet Mars', followed by David Norman on 'The International Space Station'. The coffee break was followed by a talk by Graham Veale on 'Near Earth Objects'. Then Ian Walsh (TAS) presented his talk on 'The Lost World of 2001'.

After lunch special guest Hamish Lindsay, from Australia, presented the main talk of the day. Hamish talked about his new book, 'Tracking Apollo to the Moon' and his career as a mission tracker at Honeysuckle tracking station in Australia when the Mercury, Gemini and Apollo programmes were running. Chris Proctor gave a talk on 'Digital Astro-Photography', and Roland Tarver talked about 'Making a Telescope'.

While the talks were going on, displays by Tiverton AS and Torbay AS showed off the societies and activities. SCS Astro were also displaying a range of telescopes for visitors to buy and look at. Also on sale were books from Springer Publications.

At 6pm the barbeque got started and surprise, surprise, it had stopped raining. Then the excitement really began, when Ian Walsh launched several rockets. Everybody loved this - even Hamish and his wife joined in on the countdowns!

The observatory was opened and the 'net' was consulted for an up to date weather report and satellite image - which was not all that good. However, there were some gaps in the cloud and a eventually a few stars were seen. Still, a pleasant evening was spent gathered in groups talking about what we all had done throughout the year and having a good laugh.

Sunday morning was a mixture of sunshine and clouds, but it was warm. Campers packed up and said their goodbyes. Chris Proctor brought along his telescope, fitted with a Hydrogen-Alpha filter, to look at the sun's surface. There was a mad scramble to get in the queue, but in the end everybody got a view of the sun. It was spectacular, lots of sunspots and flares.

All in all, for our first event AstroWest 2001 went even better than we had expected - despite the weather. So much so that everybody who camped said how much they enjoyed the weekend and wanted to come back next year. Here's looking forward to AstroWest 2002!

Salford Astronomical Society

Following a lecture on the Liverpool Robotic Telescope, given to the Salford Society in February by Professor Mike Bode (from the JMU) a visit to Telescope Technologies Ltd (TTL) at Birkenhead was arranged for Sunday April 1st. A party of 20, including 5 from Manchester AS, duly gathered at the site.

Briefly, in the reception area, using a small scale model, Dr. Paul Rees explained the configuration and the functions of the 2 meter aperture, fully automated robotic telescopes. TTL's specification states a height of 8.5 meters and on entering the purpose-built workshop, it was definitely a case of the "WOW" factor. 3 'scopes towering up to their respective "skylights", through which they are star tested, dominated the scene. In an anteroom, Dr. Mark Bowman talked on the versatility of the cassegrain focus instrument package used on the telescopes and demonstrated how it operates. The telescopes are also capable of operating in a Nasmyth focus mode. Back in the workshop, with work still going on around us, we were given a demonstration of movement in altazimuth on the telescope nearest completion, due to be shipped out (in sections) shortly afterwards to India. Finally, at the controlling computer we were shown the automatic aspects of the system. The computers accompany the telescopes to their various destinations. The 'scopes can also be controlled from remote locations.

Our thanks an appreciation go to our hosts, Drs Rees and Bowman. We were very impressed with the visit, a lot of information was given and questions answered. An added bonus was that the weather obliged with a fine warm and sunny spring day.

Kath Redford, Salford AS.
www.salfordastro.org.uk

(item held over from Summer Newsletter—Ed.)

2002 Astro-Calendars Now Available

Single copy price is £1.60 + Postage.

Also, "Observational Astronomy" has been reprinted, price £2.00 + postage.

Quantity discounts available.

Contact the Publications Secretary for details.

NATIONAL SCIENCE WEEK 2002

Friday March 8th to Sunday 17th. Contact Lisa Jones at The BA if you are organising events in support of the week. The British Association, 23 Saville Row, London, W1S 2EZ. Website www.the-ba.net

NATIONAL ASTRONOMY WEEK 2003

A date for your diary ! The next National Astronomy Week will be held between August 23 - 30, 2003.

More details available on the website: www.astronomyweek.org.uk

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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

- 29th October Beginners meeting
- 12th November Meteors, George Spalding (RAL)
- 26th November Beginners meeting
- 10th December The Mars Beagle Project, Dr. Simon Peskett
- 14th January Understanding Meteorites, Dr. Monica Grady

BIRMINGHAM AS

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

- Oct.30th. The Solar Eclipse in Zimbabwe, Alan Ledbury
- Nov.27th. Keeping the Dream Alive, David Shayler
- Oct.19th. at 7.30pm Skywatch at Lickey Hills Enviroment Center.

BRADFORD AS

Lectures held at Eccleshill Library, Bradford at 7.30 pm. For details call 01274 573210 or 01274 672570, or see website at www.bradford-astro.freemove.co.uk/index.htm

- 5th November, Dark Matter, Dr. Susan Cartwright
- 19th November, Making Planets, Prof. Mike Woofson
- 3rd December, Sun, Stars and Planets, Prof. George Cole
- 17th December, Christmas Festive Fun.
- 7th January 2002, AGM & Slide Show "Wonders of Deep Space"
- 12th January, **OPEN DAY** - starts 10.30 a.m.

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

- 1st November, We Are Not Alone, Neil Haggath
- 15th November, Astro Alphabet, Bob Mizon
- 29th November, Rainbows, Haloes and Glories, Prof John Inglesfield
- 13th December, The Sun In Hydrogen Alpha, Rob Turner
- 3rd January 2002, The Kuiper Belt Objects, Dr R. M. Owens
- 17th January, Suburban Astronomical Imaging, Nick Hart

CODY AS

Was formerly the DERA Astronomical Society. Secretary now David Harden, Room 2008/A7 Building, QinetiQ, Cody Technology Park, Ively Road, Farnborough, Hants GU14 0LX

COTSWOLD AS

Meetings 2nd Saturday of the month. Shurdington Church Hall, Shurdington, Cheltenham. Contact Duncan Willoughby 01452 416405.

Website now www.cotswoldas.org.uk.

- 10th November, **OPEN DAY**, starts 11.00 a.m.
- 10th November, The Moon; A Biography, Dr. David Whitehouse
- 8th December, Christmas Capers
- 12th January 2002, Andy Salmon.

EASTBOURNE AS

1 December Dr Michael Perryman, Hipparcos Project Scientist at the European Space Agency in Noordwijk, The Netherlands, will be giving a special public lecture to the Eastbourne Astronomical Society on 'Our Galaxy in Three Dimensions'. An elaborate projection system is used to show 'three-dimensional films'. The meeting, which begins at 19.30, is at Willingdon Memorial Hall, Church Street, Willingdon. Further details may be obtained from Peter Gill, 18 Selwyn House, Selwyn Road, Eastbourne, East Sussex BN21 2LF (tel. 01323-646853).

HUDERSFIELD ASTRONOMICAL & PHILOSOPHICAL SOCIETY

Weekly meetings and lecture programme. Contact Lisa Jeffries, tel. 660773, email l.b.jeffries@hudd.ac.uk, or Robert Williams (Observatory events) 348754, email robert.williams19@ntlworld.com, or Paul Harper, 606832. 2nd November, Collisions Between Galaxies, Dr. Richard James
7th December, Michael Faraday - the Philosopher, Prof. Geoffrey Cantor
11th January 2002, Hunting for Alien Solar Systems, Dr. Tim O'Brien.

HULL & EAST RIDING AS

Meetings held at Wyke College, Grammer School Road, Bricknell Avenue, Hull at 7.30 pm. Further details from Tony Scaife (President) 01482 668665 or Helen Marshall (Secretary) 01482 443397.

- 5th November Observing Stars – A Discussion, Tony Scaife
- 3rd December SETI and Public Participation, Dr. Martin-Smith
- 7th January TBA.

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

- 13th November Observing Orion, Paul Money
- 11th December AGM & Christmas Party

LEEDS AS ASTROMEET 2001,

10 November, Centenary House, North Street, Leeds. Details in last FAS Newsletter and society website www.astro.leeds.co.uk.

MANCHESTER AS

Lectures in Room RE7 of the Renold Building, UMIST, Sackville Street, Manchester, commencing at 7.30pm

Contact Kevin Kilburn, 01625 572453, kkilburn@globalnet.co.uk

18th October. Dr Allan Chapman. Wadham College, Oxford.

15th November. Peter Drew, Amateur Astronomy Centre, Bacup.

'An update on the AAC'

20th December. Guy D Duckworth, Manchester Astronomical Society.

Presidential address (In the Godlee Observatory, Main Building, UMIST)

17th January 2002. Dr Andy Hollis. Director of Outer Planets Section,

BAA. 'The Outer Planets'.

MID KENT AS

Meetings are held at Riverside Country Park, Lower Rainham Road, Gillingham, Kent and start at 8.00pm Contact Amanda Peters on 01634 308035.

9th November. Neil Bone, Meteors.

30th November. Pete Parish, constellation of the month.

14th December. Christmas meeting.

11th January. Pete Parish, constellation of the month.

NORTH WEST ASTRONOMICAL SOCIETIES MEETING

October 20th, starting at 10am. *Galileo Galilei 1565-1642 - The Martyr who*

Brought his own Firewood!. Dr Allan Chapman, Wadham College, Oxford

University. Also, Mr John Moffatt - Chester Astronomical Society:

"*Dorothea Klumpke*", Mr Rob Tippett - White Peak Observing Group:

"*Earth/Moon Impacts*". Mr Micheal Oates - Manchester Astronomical

Society: "*SOHO Comets*". Mr Peter Drew - The Astronomy Centre. + trade

stands. Details Tony Williams, EMail: twastro@mail.cybase.co.uk, Tel: +44

0151-480 5265 and Gerard Gilligan 0151-794 5356.

PAPWORTH ASTRONOMY CLUB

Meets on the first Wednesday of every month from 7:00 to 9:00 p.m. in

Papworth Everard, near Huntingdon, either in the Bradbury Progression

Centre or in Upper Pendrill Court. Further details can be obtained from

Keith Tritton (tel 01767-677219), email kpt2@tutor.open.ac.uk).

7 November, Conference Room 1, Upper Pendrill Court, Longitude, Derek

Jones, Institute of Astronomy, Cambridge

SALFORD AS

Contact Kath Redford, 2 Albemarle Road, Swinton, Manchester, M27 5ST.

Tel 0161 794 3179, E-mail: salfordac@ast.man.ac.uk

Web site: <http://www.salfordastro.org.uk>

31st October, Watchers of the Sky, Martin Lunn MBE.

14th November, Telescope Optics, Phil Horrocks

28th November, The Chemically Controlled Cosmos, Dr. Tom Hartquist.

12th December, Annual Christmas Lecture, Dr. Allan Chapman.

SHEFFIELD AS

The Sheffield AS have been busy during the summer. We now have a secure

polar-aligned mount to which one of our 10 inch Meade LX200 telescopes

can be attached. This will allow practical use of our recently acquired CCD

camera. We are also planning a series of beginner's evenings to bring basic

astronomy to the local public. A large variety of topics will be covered in 6

separate monthly events during the coming winter and we will include

practical observing as well as talks. This will give the society the

opportunity to use its new LCD projector and laptop which have also been

purchased during the summer. A busy but exciting winter season is in

prospect at Sheffield AS. Contact Darren on 0114-269-2291 or email

sheffieldastro@hotmail.com, website www.sheffieldastro.org.uk

STRATFORD Upon AVON AS

Meetings 7.30 pm at the Home Guard Club, Tiddington, Nr Stratford upon

Avon. Further details: www.astro.org.uk or Steve Smith 0121-458-4197

23rd October, "The National Schools' Observatory", Dr. Andy Newsam.

14th November, "The Winter Sky", Steve Smith.

27th November, "The Solar System", by Prof. John Cullyer.

SOUTHAMPTON AS

Meetings at the Seminar Room, Floor 5, Physics and Astronomy Building

46, University of Southampton, at 7-30 pm, on the 2nd Thurs of the month.

Contact: John Thompson, 4 Heathfield, Hythe, Southampton, SO45 5BJ. Tel

023 8084 2531, e-mail: John.G.Thompson@tesco.net, Website:- [http://](http://home.clara.net/lmhobbs/sas.html)

8 November, "Four Comets and a Funeral" by Joe Kaplonek

13 December, Annual Video and Christmas Show

10 January, "Space, Astronomy and Hollywood" by Lilian Hobbs

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.

29th October, A Bolt from the Blue, Malcolm Astley

12th November, The Sun, Neill Morris-Hobley

26th November, Aurora Watch, Dr. Ian Mann

10th December, Members Forum

7th January 2002, Quiz night

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Membership Changes

Remember to send society contact changes to the Membership Secretary, Eric Hutton (see above).

Deadline for submission for next newsletter, 31st December 2001

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