

PRESIDENT

SECRETARY EDITOR Pam Spence, 1 Waters Edge, Brighton Road, LANCING, West Sussex, BN15 8LN Tel No. 01903 752834 E-mail pam@astronow.demon.co.uk

Ray Ravenscroft, Glenville, Salters Lane, Lower Moor, PERSHORE, Wores WR10 2PQ
Tel. No. 01386 860015
E-mail ray.a0027790@intortade.co.uk
Christine Sheldon, Whitehaven, Maytree Rd, Lower Moor, PERSHORE, Wores. WR10 2NY

Tel./Fax No. 01386 860202 E-mail cake@kesheld.demon.co.uk Ken Sheldon, Whitehaven, Maytree Rd, Lower Moor, PERSHORE, Wores, WR10 2NY

Tel/Fax No. 01386 860202 E-mail cake@kcsheld.demon.co.uk

Issue 47

# FEDERATION OF ASTRONOMICAL SOCIETIES

## WANTED

# NEWSLETTER EDITOR for 1997 onwards.

Due to ill-health the above post will be vacant from April next year (1997). The job entails producing four

Newsletters a year and assorted flyers. You need to have the time to read Society Newsletters which participating Societies send to you. It is necessary to produce high quality masters for the printers and it would be an advantage to have e-mail facilities for the reception of e-mail reports and for interconnection to other Council members - most are on email. The Newsletter Editor is also responsible for the distribution of the Newsletter. This involves the packaging and posting of the 3600 or so items. The job is interesting and very fulfilling. Contact Ken if you want to know more. Contact Chris or Pam if you are interested.

## HONORARY TREASURER As you may know our present Treasurer

Ray Ravenscroft stepped in to help the Federation out of a jam. He feels that his age and health means that a replacement has to be found.

The job involves the usual Treasurer functions - looking after the money being the most being after the most important. The periods of greatest activity are membership renewal time and the booking periods for the FAS's two meetings. At the moment the Membership Secretary contacts Societies with "reminders". If you want to know more contact Ray. If you are interested contact Chris or Pan.

Both these posts are Executive Council Officers and holders should attend the three Council meetings held each year at the London Planetarium and the two main meetings (AGM and Autumn Convention)

#### EDITORIAL

Well - winter again and clear skies! I think that is how most of up perceive the onset of winter. It certainly gets dark a lot earlier and the idea of getting out at 7 coleck and back in by 11 is very attractive. I will just wish you a Happy Christmas and a Prosperson New Year and devote my editorial space to a letter from Bill Eures who has I think got a point or two. Ken Sheldon

# THE CAMBRIDGE MEETING OCTOBER 1996

It was good wasn't it? The weather was kind and lots of amateur astronomers and traders came along to make it a day to remember. The speakers were as usual all leading authorities in their fields and all spoke with great authority and enthusiasm about their particular topic.

## First a report from Aylesbury AS The Federation of Astronomical Societies'

convention took place at the Cavendish Laboratories, Cambridge on Saturday 5th October. Once again we were treated to some excellent talks by the professionals as well as having plenty of time to visit the trade stands and collect books, information on astronomical products or just chat to members of other societies.

The first talk was light-hearted but with a scrious point by Dr Francisco Diego of U.C.L. about the links between amateur and professional astronomy. He pointed out the most important link; that the interest which drives both comes from a nitrist for knowledge for it's own sake. The long term benefits of astronomy cannot be calculated or used to determine whether it is worth doing. We must continues to attract funding and interest.

Dr. Gerry Gilmore of the UK H.S.T.

Facility Cambridge showed some fascinating results, some only hours old, from the ISO mission to man the inner regions of our own Milky Way at infra-red wavelengths. The resolution of the images was unprecedented and each one contained new discoveries. One such discovery is that close to the galactic center where the stellar radiation levels are very high, there are still many dark clouds of material which have not formed stars and there are many star-forming regions, even larger than the Orion complex. Dr. Allan Chapman told the tale of the discovery of Neptune which members will recall he gave to the Society in July, though he included additional details this time. Dr. Bob Thomson of the University of Hertfordshire talked about when galaxies collide; the dynamics of the collisions and the behaviour of the patterns of stars within them. Galaxies which collide produce almost no collisions of stars because of the relatively wide spacing of the stars. Recent research also indicates that the spiral form of many galaxies is caused by the close approach or collision of another galaxy, and he gave the Whirlpool Galaxy M51 as an example. It's famous satellite galaxy is moving so fast that it will not remain close for long. Computer simulations indicate that the spiral arms are caused by the gravitational disturbance of the main galaxy by the intruder. Finally, Sir Martin Rees of Cambridge University spoke about the famous Dark Matter and what it could or could not be. Studies of the way in which galaxies move and rotate indicate that the visible matter represents only 1 % of the mass required to explain the behaviour. Large

## ASTROFEST 1997

If you (or members of your Society) can help with manning the stand Alan Dowdell would be delighted to hear from you. He would also be happy to display Newsletters and Society matters on the stand. (A small donation would be appreciated for doing sol) If you are interested in either aspect contact Alan on

## FAS A.G.M. and CONVENTION Saturday 1997 April 19th at BESTWOOD LODGE HOTEL, ARNOLD. NOTTINGHAM

See the next Newsletter (March) for full details of programme.

The hotel are offering a special price on B&B to give people a chance to look at Nottingham

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numbers of hitherto undetected objects in the galaxies like faint stars, or strange atomic narticles may be the cause. Some recent observations of gravity microlensing (light from far objects being bent by the gravity of a nearer object and the far object's intensity varies with time in a unique way) mean that many things in the Universe just have not been observed yet. Look forward to the AGM and Convention next Next a report from Jerry Workman.

#### This is one of the highlights of the

"ASTRONOMICAL YEAR" for many people including myself. The Cavendish laboratory just outside the centre of Cambridge, was the venue for an excellent range of speakers.

Dr. Gerry Gilmour gave a brilliantly & light-hearted presentation on "Iso Images of the Inner Milky Way'.

The Infra-Red Space Observatory I.S.O was

launched recently. Its intention was to supersede I.R.A.S or the Infra-Red Astronomical Satellite. the only other true infra-red orbiting satellite, which was in operation in the 1980's. This mission was chiefly looking for "heat-sources". Many of the H.S.T images gave pointers to the I.S.O scientists about where they should look for such sources. An infra-red picture gives completely different information to the usual visible image, which we are accustomed to. Looking at such images of stars about to explode, we see huge quantities of carbon in the form of soot, Carbon monoxide, Carbon dioxide & water. This proves it is just as polluted in outer space, as it is on the Earth. Previous so called bland areas, under the intimate eyes of LS.O displayed much stellar activity. The spiral arms are just as active as the galactic nucleus. Stars are so densely populated that they appear to be colliding & ripping each other apart. I.S.O was not allowed to look at bright areas, because this light would simply ruin the delicate instruments on board the spacecraft. Dr. Allan Chapman gave one of the best

lectures that I have ever heard, when he spoke about "The Discovery of Neptune". This is a story which has been told incorrectly many

Newton's law of gravity had already been known over 150 years, but could this law be applied to undiscovered bodies. As it turned out it could. After the discovery of Uranus in 1781, it became apparent that this body did not stick to its predicted orbit. Some unknown body then was pulling Uranus out of position, also this body had to be more remote. John Couch Adams a brilliant young Cambridge mathematician was the first to under take this task theoretically, soon he was to produce some results. Adams showed them to James Challis, who recommended that he should show them to George Biddel Airy, the of the time. Adams arrived unannounced at Airy's house, it was believed to be early afternoon. Airy could not see Adams at that particular time, so eventually Adams left some calculations with the butler. At this particular time Adams was not very well known & being of a rather retiring nature did not put himself forward. It is

also possible that Adams was somewhat

disorganised & could have made an official appointment with Airy. Despite this however, Airy did write to Adams asking him to confirm his mathematics, rather foolishly Adams did not renly to this letter. These events took place in the Autumn of 1845. In France Urbain J. J. Le Verrier, another

brilliant mathematician became interested in this problem. Le Verrier was quite well known & had a much more forthright personality, this was an opportunity not to be missed. Le Verrier started on this project in the early summer of 1846, more than 6 months after Adams had tackled the same problem. The predicted position of the planet was very similar for both men. Le Verrier was quick to

communicate his work to the various prominent

observatories of the times. George Challis actually saw Neptune on several occasions, using Le Verrier's calculations, but failed to notice it for what it was. Finally Johann Galle & Heinrich D'arrest located the planet on the night of 23/9/1846, at the Berlin Observatory. The discovery was no surprise & was expected anytime, it helped that Galle & D'arrest were using a new star-chart, Professor Sir Martin Rees gave an account about "Dark Matter". It is obvious that this stuff exists. Astronomers have not decided exactly how much "Dark Matter" is present in the Universe. but for the "BIG CRUNCH" to occur it is estimated that there should be ~Ox as much "Dark Matter" to ordinary matter. Precisely what this stuff is also remains a mystery, suggestions have been:- Brown Dwarfs, That Neutrinos have a slight mass, Dark Dusty Material material which is "Non-Baryonic" so could be quite different to "ordinary" matter.

### A LETTER TO THE EDITOR

I just received the FAS Summer and Autumn Newsletters with my ScottishAstronomers Group magazine. I entirely agrre with your comments in both newsletters that more people should write the Millennium Commission. The more that write the better. The M. Commission seem to have no regard at all for our concerns at the moment. I have had a lot of correspondence with them, none of which was very satisfactory. Anyone writing to the Commission ought to be aware that they will get fobbed off and not give up easily!

Do you get the aforementioned Commission's Newsletter? They send me one. If you have not seen this you should see the architect's plans for the proposed "Lowry Centre" in Manchester. This is shown as having a central brightly floodlit tower on top of which are mounted two laser displays directed skywards. Another proposal was for "The International Centre for Life" (Newcastle upon Tyne) which is also shown as being very lit up - and this is "meant" to be a science project.

It is ironic that their newsletter hypocritically states:"Three themes stand out in round two: environment, learning and science and technology. These themes perhaps reflect a wide based desire to improve the non-material quality of life through preserving the natural environment...."

I wrote (faxed actually its easier) expressing my disappointment at the church floodlighting being given a grant and to point out the lack of concern for lighting in the projects I mentioned above. As an afterthought I mentioned that H.Couper was supposed to be advising them. Their "answer" was "three lines" which mentioned none of the points raised but "corrected" me about Heather. Couper's title something so trivial as to be ridiculous. I wrote again asking for some answers to my points and this time they sent a card with copies of my faxes with scrawls (including phrases as "Can't be bothered") written upon them. Their attitude is a total disgrace. Even if they do not agree with our genuine concerns about light-pollution they should at least have the common decency to answer questions and try to justify their actions which many believe to be wrong Eventually I got a letter as "explanation" as to why the Church Floodlighting Trust was given a grant, including copies of their proposal and application documents. According to their own rules, it would seem that the Church Floodlighting should never have been given the go ahead. The excerpts below should interest you and the FAS. Under the heading of "Public Good" "It is essential that all Millennium projects are for the

"public good". Well lighting up a building does not increase public visibility or safety and is of no real benefit to anybody. It is directly a case of "public harm" to astronomers and people living in rural areas, i.e. those who have an opinion rather than those who are just apathetic to illumination. Under the heading of "Architectural Quality"

"demonstrate high standards of design" and "works are environmentally sound, energy efficient... Under the heading of Frivolous and Contentious

Projects"The Millennium Commission reserves the right to declare ineligible a project of a frivolous and contentious nature... What is more frivolous than wasting energy

illuminating buildings that hardly anyone will notice after the first couple of days. The whole issue of light-pollution is a

contentious subject and if the Commission lived up to its rules should have realised this by now. Why do they think people like us have been writing to them about it? Of course under the heading "Right to Vary

These Requirements""The commission reserves the right to vary these requirements in the LIGHT of its experience". In other words if they do not agree they will do what they like regardless of their claims about environmental concern etc. It is a pity when lottery money could help so many "worthwhile" causes that an organisation like the Millennium Commission receives so much of it.

Finally on a different subject. You mention writing to BBC Watchdog about the Sell A star scam. Do you have an address for them? Regards, Bill. (Eaves)

MERRY CHRISTMAS, PROSPEROUS NEW YEAR AND CLEAR SKIES From the FAS COUNCIL

# SOCIETY NEWS ROUNDUP

I am quite happy to receive Society news as an E-mail message - it saves me re-typing and the associated typos. Upto 3 column inches, about

100-150 words is fine! No more please! AYLESBURY AS For information on AAS's activities contact Peter Biswell on 01296 85125

for programme.

BEDFORD AS BAS's 10th anniversary, so congratulations. Contact Peter Cox on 01234 354552 for Society info and an up-to-date programme of events or look on internet for http://www.powernet.co.uk/html/bas/basevent.

BOSTON ASTRONOMERS made a good start to their new season which began with their September meeting with a talk by Peter Rea called 'A New Age of Discovery' However despite local advertising and displays (in a local library and bookstore) N.A.W. was considered a flop with only a small number of the public attending the public lecture and observing nights organised! Observationally, members managed to see some or all of the lunar eclipse and a public solar eclipse event did attract a few people who caught brief glimpses through the inevitable cloud. The October meeting was also well attended with member and vice chairman Phil Moxon giving a talk on 'Absolute Zero'! Upcoming meetings include Phil Norton on 'The Local Cluster' (November), Christmas Social and Ouiz Night (December), The Chairmans Lecture on 'Comet Hale-Bopp' in January and a Members night in February. Meanwhile members continue to observe the sky whenever possible and during early November four members will have visited COAA to sayour the skies from there. More details are obtainable from the Secretary Lorraine Kendall at 18 College Park, Horncastle, Lincolnshire, LN9 6RE Tel:

BRADFORD AS BAS have a very full programme at their formal fortnightly meetings. 16 Dec is a Christmas Social, 6 Jan is the AGM (very short) followed by a lecture. 20 Jan, Nick Hewitt, 3 Feb Practical session, 17 Feb Nick Steggall, 3 Mar, 17 Mar, 31 Mar all have lectures arranged. Observing sessions are held at 8.30pm at Thackley Football Club every Wednesday. For more info contact Hilary on 01274 672570 or Rod on 01274 583210. E-mail is at bas@akili.demon.co.uk and the BAS URL is http://users.aol.com/brad4dastr/

01507-524037." Lorraine

BRIDGEND AS Meetings are held on alternate Fridays in Bridgend Bowls Centre. Contact Clive Down on 01656 740754 for details of meetings.

BRISTOL AS held their biennial meeting on the day of the Solar Eclipse and a large proportion of those present caught a glimpse of Sun without the need for filters! The meeting was reasonably well attended. The Society's normal meetings are in the Physics Dept. Lecture Room G44, Tyndall Ave. 7.15pm Phone Ron Sparrow 0117 9620820

## CAMBRIDGE AA and CAMBRIDGE

YOUNG ASTRONOMERS

The CAA has become one of the many societies who now have a web page- it can be found at http://www.mrc-dunn.cam.ac.uk/caa/caahome.html For membership details, contact Membership Secretary, David Herbert, 67 Howard Close, Cambridge, CB5 8QU

CORNWALL AS have their AGM on the 23rd of January. NAW has been followed up by a series of Meteor watches. Tony James hopefully got some good pictures of the Solar Eclipse through the cloud! Contact Mick Harvey on 01326 377294 for more details.

CRAYFORD MANOR HOUSE AS Society member Mark Armstrong from Rolvenden in Kent is the first astronomer amateur or professional from the UK to discover a Supernova. Using his 10-inch Meade and CCD camera on the 23rd Oct at 2.17ut Mark spotted an object at Mag 15. 6 arcmins east of NGC 673 in Aries. He studied the object for an hour then contacted Guy Hurst who in turn contacted Gordon Garrard in Australia. Gordon sent an immage back to Guy who then informed Dan Green of the professional register.

The find was confirmed by the UK Southern Observatory in Australia and is designated on the IAU register as 6497. The Supernova was estimated to be within a week of maximum. The find was reported in the national press (Times) on 26th Oct. Mark shares the credit for the find with a Japanese team. Arthur Cockburn EASTBOURNE AS The Society has had an active year and on October 12 approximately 100 members of the public attended an public session for the Solar Eclipse. Regular observing sessions are held at Pevensey Castle and a full programme of speakers has been arranged for the coming session. On November 9 we had Neil Bone talking on meteors and the Leonids and this was be followed a week later with a public observing session. In December we have our Christmas meeting December 14 Dr Bob Lambourne will be speaking on Black Holes. A members meeting on January 11 and on February 8 John Mason will be talking about Further details of the meeting programme are

available from Bob Cripps, the membership Secretary on Eastbourne (01323) 732067 EXETER AS This is an exciting time for

Exeter AS, which has recently acquired a 12-inch Newtonian Telescope, members are busy raising money to build an observatory at the Royal College for the Deaf, in Exeter. Students and Society members will be involved in the construction, with the facility being shared by the two organisations.

Apart from a Perseid Meteor watch and NAW activities including a public star party, members have been monitoring Comet Hale-Bopp, and solar observations have been made. Sadly, one of our long serving members, Larry Beck, died this summer. A pillar of the Society and a great motivator to new members, Larry wi.ll be greatly missed by all.

Exeter Astronomical Society have a regular programme of meetings, with speakers on the first Thursday of the month - September to May, and also star parties. New members are always welcome. More details can be obtained from Tim Sedgwick on 01392 851223.

Tim Sedgwick GUERNESIAISE SOCIÉTÉ ASTRONOMY SECTION Contact Geoff Falla the Hon. Secretary on Guernsey 724101 for

HAMPSHIRE AG The person to contact for details of the programme is Roy Dodd on 01705 646875

more details of the programme.

AS of HARINGEY HAS have a full programme of events (Lectures and exhibitions planned for the coming year including another majoe show next Summer. Contact Jerry Workman on 0171 609 2650 for more details of the programme. Please note that this is a new

number for Jerry! HUDDERSFIELD & DISTRICT P&AS The society meets at 4A Railway street on Friday nights 7.30pm - 9.30pm, talk to Philip Heppenstal on 01484 661497

IRISH AS Stephen Ryan at PO Box 2547, Dublin 11, and Stephen's telephone number from the UK is 00 3531 864 1382 for information on meetings and publications

LEEDS AS Meet on the 2nd Wednesday of the month at Centenary House, North St starting at 7.00pm. Contact Ray Emery on 0113 282 7350

LEICESTER AS Another busy few months for Leicester AS, what with NAW and the partial solar eclipse. NAW saw a lot of enquiries about the society and a few new faces at meetings. However, some of the enquiries were from mothers on behalf of their children. Since our Tuesday evening meetings are a little late for some younger people, we are looking into the possibility of holding special Saturday morning gatherings for youngsters. Whether these take off will of course depend on demand.

Despite the clouds, the public solar eclipse watch attracted a far amount of attention. Socially, we have had excellent visits to University's SoLAGS and Leicester observatories. Trips planned to Bletchley Park and Derby AS observatory. Our brains will be razor sharp for the Inter-Society Quiz at Hinckley on December 13! Meetings are held 2nd and 4th Tuesdays at Judgemeadow College, Evington, Leicester. Contact: Ann Bonell, 53 Wardens Walk, Leicester Forest East, Leics. LE3 3GG Tel, 0116 2394481.

PS: A new group has recently started in Loughborough. Meets 3rd Monday of month at John Storer House, Bedford Square, Loughborough. The contact is Sue Snowdon on 01509 416712 LETCHWORTH & District AS Eric Hutton

on 01462 626032 for further details of meetings LIVERPOOL AS Contact Ken Clark at 31 Sandymount Drive, Wallasev, L45 0LJ with an SAE or on 0151 638 3270 for more details of the LAS programme. Alternatively try the Web on

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

MANCHESTER AS The commencement of September saw an eager contingent from the MAS depart en route to France for a venture, organised by members Mrs I. Meyer and Mrs E. Roughley, whose objective was focused on a sequence of night sky viewings from a site specially selected by our Director. R Brierley, B.Sc. Returning armed with a panorama of astrophotographic captures, Society members

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declared it a most memorable and eye stimulating experience, Professor Sir Arnold Wolfenden, the fourteenth

Astronomer Royal, who spoke on, "The Search for Extraterrestrial Life - and the Future of Life on Earth", for our September General Meeting proved a great attraction for the north west amateurs and academics. His presence provided a launch for the subsequent MAS National Astronomy Week initiatives which generated much interest within the conurbation in our activities and, of course, the total lunar eclipse recorded by our members... Alerted to the window of opportunity

created by the partial solar eclipse on the 12th of October, our cybermaster and web site consultant member, Mike Oates, spent most of a twelve day count down to the designing, installing, validating and ultimately maintaining of a specific web site which followed the sequences of the partial solar eclipse captured by his instruments with, following the expertise offered by our member Colin Harrison, the Society's telephoto lens and adaptor. On the vital Saturday afternoon itself high quality sequences from Mike Oates were later augmented and merged with those eventually generated by a group of selected participants as their seeing conditions elsewhere in the UK allowed. This unique site of ftp images was accessed so frequently that our creative Mike Oates soon felt obliged to provide file access from another site he maintains. A preliminary audit reveals that over 84,000 files were accessed during the three day period of use by over 7,000 individuals, 4,700 of whom accessed during the two half hours of virtually real time use. For details of our programme later this

#### year refer to our Home Page at http://www.u-net.com/ph/mas. MANSFIELD AND SUTTON AS

#### Contact Graham Shepherd on 01623 552276 for more details. Report by Graham Shepherd MID KENT AS MKAS meets on the second and last Fridays of each month in Hut 92, Horsted College, Chatham at 7.45 pm. Contact Amanda Peters, 133 Carnation Road, Strood, Rochester, Kent ME22 7F or ring her on 01634

724875 Amanda Peters NORTH EAST LONDON AS Meetings held on the third Sunday of each month at Wanstead House, Programme Secretary Andrew Lawrence

on 01376 510329 NORWICH AS NAW and recent open evenings saw many hundred people through the

Observatory, with quite a few joining the Society. This has brought the membership from a low of about 30 just after our move to the new Observatory - following a blight at the old one of 5 years - to over 80 at present. As the advert says the future is bright, but not yet orange! The programme includes Evenings on Friday & Saturday 29th & 30th November 1996 Saturn - The Sainted Planet . Fri & Sat 24th & 25th January Winter Sky

- Orion & Co. - Fri & Sat 21st & 22nd February Big Stars, - Little Stars Variable & Double Stars, Fri & Sat 28th &

29th March Hale Bopp - The Dance of the

Winter 1996

Contact Malcolm Jones on 01508 578392 for NOTTINGHAM AS Contact Carl Brennan on: 0115 938 4521 for details of programme.

ORWELL AS Contact Peter Richards on

Comet.- Talks include A New Age of

Discovery by Peter Rea on 6th December

01473 644828 for details of society activities.

The Web page is:

http://www.ast.cam.ac.uk:80/~ipswich/ SOUTH EAST KENT AS For more information you must contact Andrew

McCarthy at 25 St Pauls Way, Folkestone, Kent CT20 3NT or on 01303 241933 STRATFORD upon AVON AS The Society continue to have their excellent spackers ranging in topics from the Great Paris

Telescope by Dr James Bennett to Professor Peter Wilmore on galaxies entitled Little and Large. Next years programme looks to have more goodies with Gillian Pearce, Konrad Malin-Smith, Mike Lancaster and Ken Pounds as the first four speakers for 1997. Contact Ron Davy on 01386 830675 for more info. SALFORD AS During NAW, members welcomed over 200 visitors to the consecutive evening sessions at the observatory. Most nights the public were able to view Jupiter, Saturn, the Moon and Comet Hale-Bopp, through the 18" and also through members telescopes set out in Chaseley Field. Neptune and Uranus were observed on at least one occasion. Dr Allan Chapman's talk on "The Discovery of Neptune" in Pendleton College on Sept 28th also drew a good number of the public, along with own members and some from other societies, in spite of prolonged torrential rain being forecast and which arrived half way through the evening. The Partial Solar Eclipse on October 12th was observed from various locations in the area. After a mainly sunny morning and shortly before the eclipse was due to start, clouds thickened considerably. However, first contact was observed during a reasonable sunny interlude, after which there were numerous brief breaks enabling cloud filtered naked eye viewing. Welders glass number 13 and projection were used when the sun broke through properly. CCD, video and standard photography (using filters) were also employed. Members regularly following the progress of Comet Hale-Bopp still gradually brightening reported late October seeing a fan shaped tail.

early evening apparition, was chased across the northern sky. On Saturday October 26th, a party was held at the Observatory to celebrate the 25th Anniversary of the official opening of the building. Dr Chapman's Christmas Lecture to the society, "Sun-Spots and Sun-Men; Solar Studies from Galileo to Lockyer" takes place at Hope High School, Eccles Old Road, Salford on Wednesday December 18th 7.00pm free of charge. Other society members welcome to all events. Kath Redford 0161 7943179

Comet Tabur's fast passage, first an early

morning, then towards the end of October, an

SAWTRY & DISTRICT AS Had a bit of fun and games getting their NAW exhibition admitted to the local Library despite a booking well in advance. The Society seem to have enjoyed it but Mike seems to have reservations about the kids! For meetings details contact Brooke Norton on 01487 831683 WEST CORNWALL AS I had a letter from

WCAS with a Press Release Announcing their Millenium Bid To Build A Space Centre in Cornwall. They have been offered five sites and are in the final stages of deciding which one. Pendennis Point, Falmouth with wonderful views and a good southern horizon is most likely. They have featured on both local TV stations and in the local press a number of times. The project had gained enormous momentum. We had a productive and worthwhile NAW offering three talks, one for absolute beginners. Members despite some cloud were able to observe the partial solar eclipse. Members and many members of the public were able to obtain solar viewers provided by our Treasurer. Of course much time has been spent on our millenium bid. The level of support from the district and county council and local businesses has been incredible. We are looking forward to some excellent sessions in the new year. Contact Robin Waddling on 01326 316981 for more.

Robin Waddling WEST YORKS AS Contact Pete Lunn on 01924 360064 for programme of meetings and to ask about the Rosse Observatory or look on the Internet at http://staff.ndl.co.uk/terry/wyas VECTIS AS The VAS Newsletter The New Zenith reported the NAW exhibition at Winford. It consisted of a telescope display, CCD images from John Smith and an 80-yard long "Walk The Solar System" setup by Kevin West. Other items were an Art and Design competition for years 4 to 6 in the island's schools. For more news of events contact John Smith on 01983 865451 or write to him at 27 Forest Road, Winford, Sandown, I.O.W. PO36 0JY WOLVERHAMPTON AS New Sectretary

Mike Bryce can be found on e-mail at mike.bryce@saturn.ndirect.co.uk. Malcolm Astley is still the contact for the programme. Try 01902 783212 WORTHING AS Contact Nick Quinn on or at

nick@nquinn.demon.co.uk for full details of the programme.

#### DATES FOR YOUR DIARY April 19th FAS AGM Watch for the programme in the next Newsletter.

June 7th WORCESTER AS Summer Convention. Ian Gray on 01386 47352 Sept HARINGEY AS Jerry Workman for info on 0171 609 2650

Oct 11th South Wales Astronomers Nov SE Kent AS Andrew McCarthy on

01303 241933

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