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April 1989

issue number 18

# Federation of Astronomical Societies

## ANNUAL GENERAL MEETING AND CONVENTION

Member societies are invited to attend the FAS Annual General Meeting at the Herbert Lecture Theatre in the centre of Coventry at 11.30am on Saturday May 6. This is the usual venue and can be found as part of the city Museum and Art Gallery immediately to the south of Coventry Cathedral. By road, it is best approached from the ring road on its eastern section at the junction with the A46 Leicester to Coventry road.

Lunch can be taken at any of a number of "watering places" before the afternoon session at 2.00pm.

Instead of the usual competitions for artists and photographers, member societies are asked to bring along their entries to the SPACEPRINTS COMPETITION as already advertised. Please give FAS secretary Chris Sheldon advance warning of your entries. In addition to the judging and announcing of results, an afternoon of lectures is arranged, as follows:

John Fletcher : "Astrophotography"  
Bernard Abrams : "Supernovae"  
Norman Walker : "Collaboration  
between amateurs and  
professionals in  
astronomy"

The meeting closes at 6.00pm.

Please book your seats as soon as possible by writing to the treasurer, Ken Marcus with your money. Attendance costs £2.50 per person to include coffee etc.

## 1989 ANNUAL GENERAL MEETING

### AGENDA

- 1 To approve the Minutes of the 1988 AGM.
- 2 Matters arising.
- 3 To hear the Treasurer's report.
- 4 To fix the subscription rate for 1989-90.
- 5 To hear reports by and to put questions to other officers.
- 6 To elect officers for 1989-90.
- 7 Any other business.

## ELECTION OF OFFICERS TO SERVE 1989-90

The present Council have nominated the following to stand for election to the new Council. Voting takes place at the AGM.

President: Rosemary Naylor  
Vice President: Bob Owens  
Secretary: Chris Sheldon  
Assistant Secretary: Tony Ireland  
Treasurer: Ken Marcus  
Editor: Rosemary Naylor  
Education Secretary: Eric Zuckor  
Society News Editor: Martin Chick  
Assistant Society Editor: Pam Chick  
Publicity Officer: Dave Powell  
Editor of Handbook: Brian Jones  
Editor, Council Newsletter: Bill O'Shaughnessy  
Meetings Organizer:

Further nominations may be made before voting takes place. In particular, someone for the demanding position of Meetings Organizer is required. The current holder of the office wishes to stand down.

## FINAL NOTICE

### SPACEPRINTS COMPETITION

WOULD YOU LIKE YOUR SOCIETY TO WIN A HANDSOME CASH PRIZE?

|              |     |
|--------------|-----|
| FIRST PRIZE  | £75 |
| SECOND PRIZE | £50 |
| THIRD PRIZE  | £25 |

Societies are invited to submit a portfolio of work produced between October 1988 and May 1989. The following items are to be included.

### 1. PHOTOGRAPHY

4 slides + 4 prints of astronomical objects taken either with or without using a telescope. These can be black and white or colour.

### 2. SKETCHES

Sketches of 4 different astronomical objects to be made during observing sessions. They can be made using naked eye, using binoculars or using a telescope.

### 3. ARTISTIC IMPRESSIONS

2 items (model or picture) which must be based on fact.

In judging, the number of people in your society, and the number of members who have contributed towards the portfolio will be taken into consideration.

Assuming that there will be a high standard of entries, the best entries will be used by Spaceprints in their 1990 calendar and there will then be a payment to the contributor (not the society).

Portfolios must be received by the Federation either at, or before the 1989 AGM at Coventry.

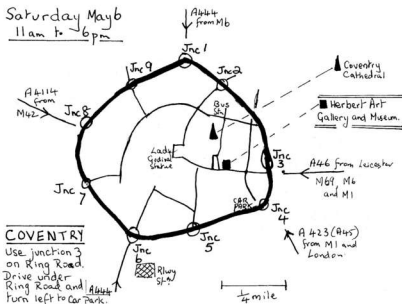
Mrs Christine Sheldon  
FAS Secretary

## FUTURE DATES FOR YOUR DIARY

FAS meeting at Sheffield University - Saturday July 8. Details to be announced.  
National Astronomy Week: 1990 November 17 to 24 inclusive.

This Newsletter Copyright Federation of Astronomical Societies 1989

Saturday May 6  
11am to 6pm



## COVENTRY

Use junction 3 on Ring Road.  
Drive under Ring Road and A4114  
turn left to Car Park.

# PRESIDENT'S REPORT 1988-89

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This year has seen the end of an era - the last Herstmonceux Convention. The event had become established as a firm favourite on the FAS calendar, but with the imminent move of the RGO to Cambridge there will, alas, be no more. The success and popularity of these conventions has been due in no small part to the organizing efforts of Ken Marcus, and I am sure that all will wish to join me in tendering grateful thanks to him for all the hard work that he has put in over the years.

Your Council is currently investigating alternative venues, and we hope soon to be in a position to be able to announce there and when this year's convention will be. Meanwhile plans are well in hand for a northern convention in Sheffield in the summer - watch the Newsletter for details.

Last, but not least my heartfelt thanks to all who have served on Council for all the work that they have, and continue to put in to the successful running of the various facets - finance, publications, secretarial, etc - of the Federation.

Bob Owens  
23.2.89

## SECRETARY'S REPORT

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When I joined the Council in May 1988 I was not sure how much work to expect, but rarely a day passes without the postman bringing something for the FAS. It is indeed a live organization.

Many thanks to those Secretaries who have been careful to advise us of changes of officers in their societies. This is important not only in ensuring that you get your Handbook and Newsletters but also in helping our Assistant Secretary, Tony Ireland, in directing people who enquire about their nearest local Astronomical Society. There have been many queries of this nature and we hope that our replies have brought some new members into your societies. I also send Secretaries' addresses to people who have a telescope and ask for information about Astronomy as well as suggesting that they try "Observational Astronomy" and the Astrocalendar. Sales of these have been very successful and reprints of both have been necessary.

We have had contact with several universities and are planning to hold conventions at Sheffield, Cardiff and Glasgow - I had an offer from Belfast but had to explain that this would pose travel problems - sorry Northern Ireland. Other universities have been contacted, but if any of you know of possible venues for future meetings, please let any of the Council know.

The Spaceprints Competition has been relaunched and the entries will be judged here today. We hope that this will have helped members of societies to work together in producing their portfolio.

How about buying an FAS sweatshirt or t-shirt? Not only is this a good article of clothing, but I hope that they will be noticed at meetings by members of societies which are not affiliated.

The FAS is known worldwide. There have been queries from Poland, India and Botswana as well as a request for details for an entry in an American directory of societies.

The Council have continued to meet reg-

ways in which we can be of help in forwarding the aims of the organization would be welcome.

Dave Powell has not left the Council, he is the Publicity Officer and has also been a great help to me in getting started as Secretary - a post which I find most stimulating.

Mrs Chris Sheldon

## EDUCATION SECRETARY'S REPORT

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Enquiries relating to education, mostly from schoolteachers but also from schoolchildren, continue to arrive. The close links between FAS and the Association for Astronomy Education allow many of these enquiries to be referred directly to the AAE for reply, as these are of interest to both bodies. It also appears that many individual FAS members (through their affiliated societies) are becoming members of the AAE - perhaps there ought to be some scheme for joint membership? (This is a personal view which has not been discussed by the Council of either organization, and members' views on this are welcomed.)

The FAS was represented at a one-day seminar organized by the AAE in London on 24 September 1988 by the President and the Education Secretary. The seminar had the following aims:

- (a) to consider ways of sharing ideas about astronomy education now that it was to become part of the national curriculum;
- (b) to explore ways of co-ordinating efforts of the various interested bodies in responding to the national curriculum.

Dr Anne Cohen, chairman of the AAE's Education Group, spoke about the efforts of the group to produce teaching materials for the 5-16 age group, particularly with regard to "Attainment target 16", the Earth in Space.

Representatives of other astronomical bodies, including FAS, outlined ways in which they were responding to astronomy in the curriculum.

General points emerging from the seminar included:

- (1) "attainment target 16" represented the minimum entitlement for all pupils;
- (2) there was a need to give in-service training to teachers to give them confidence and interest;
- (3) a trial of curriculum material (including audio-visual aids) was necessary and there was a need to co-ordinate this;
- (4) the achievement of "target 16" could be carried out through a number of curriculum models; for the 11-16 year

age group there should be integration of astronomical ideas with maths, history, science, art, environmental studies, etc.

Julian Ravest, also from the AAE, suggested that there was a need to share the workload arising from responding to national curriculum matters with other concerned organizations.

(The organizations participating in the seminar were: AAE and FAS, LEAG, ESTA, BAA and RAS.)

## National Astronomy Week 1990

The Education Secretary suggested the

are 17-24 November 1989 is notable for (Mars (27 November), 17 November; (2) the BAA: (3) the 2000 Armagh Observatory.

A campaign against li be an important featu

Astronomical Societies role in NAW, whose th amateur astronomy". centres (eg Jodrell E Planetarium) could ac co-ordinators, and Sc to consider how the with these centres.

Societies will be kept their details as these

(Organizations partic co-ordinating committ RAS, AAE, JAS, Armagh Planetarium, Jodrell Astronomical Group.)

Eric Zucker  
19 February 1989

## EDITOR'S REPORT

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Three issues of the M published and distrib out in August 1988, 1 1988 and Issue 18 in

These have featured t of societies' activiti and notices and adver observing column, bo articles of interest. More articles are al icularly if supported white photographs.

Societies are asked know how many copie general societies re according to their su. However, a number re on these numbers som spare while others ar they would like. The supply what is requir this requires a lot o print run is decide the number of paid up number of late paye: plus the number of ne join. A balance has having 200 copies to enough to go round. ures is too difficult your co-operation is Let me know how man your subscription wh Above all, keep me i current secretary, a Newsletters are disti members.

Finally, do remember informed of your own open days etc so that lized. At least si advised.

Rosemary Naylor

## ADVERTISEMENT

\*\*\*\*\*  
WANTED: A second-ha Birmingham AS. The for a 14-inch Dobson good optics and tube. Must be sturdy enou transportation by ca Andrew Huskinson on to Andrew at 328 G BIRMINGHAM B21 5SR



# Letters

Dear Madam

CUTO AND CHARON

This year marks the rare perihelion of Pluto, and by coincidence over the past few years a rare series of mutual eclipses of Pluto and Charon have been taking place yielding valuable information about both these distant worlds where no space probe is expected to go in the foreseeable future. Some facts about Pluto's relatively large satellite have prompted the question of its status in the Solar system. Latest figures give values of 220 and 1180 kilometers for the diameters of the pair. Compare this with the smallest classical major planet, Mercury (4878km) and the largest known minor planet, Ceres (1024km), and we see that both Pluto and Charon are intermediate in size. The question has to be raised now whether we should class Pluto, after all, as a major planet, or relegate it to a minor planet status? However, the barycentre of the Pluto-Charon dumbbell lies outside Pluto (unlike the Earth-Moon system) so can we also ask - is Charon a satellite? Or should we regard it as a planet - a double planet member? If we agree on the latter, and that Pluto should be a major planet, can we then refer to Charon as a tenth major planet? Charon seems unique with the possibility of three categories; planet, asteroid and satellite. Ceres is only marginally smaller than Charon and Pluto, yet it is about eight times more massive than the next biggest asteroid, Pallas, so if we draw the line between asteroid and planet at between Ceres and Pallas, then we could after all fill the gap between Mars and Jupiter with a major planet which includes Ceres and Charon to the club of major status and have a solar system of eleven planets instead of nine! Have any other members any comments?

Yours sincerely

William Young  
Scottish Astronomers Group  
% Mills Observatory, Dundee.

Dear Rosemary

I am trying to find out some more information on an observatory in the Norwich area in the latter part of the 19th century.

There were two domes, the largest being 2ft, which it is thought housed a 9" refractor. The owner Mr George James Newbegin lived at Town House, Thorpe St. Andrew, and died in 19 years after moving down to Sutton in Surrey. His son A M Newbegin lived in Wallington and was also a keen astronomer. After his father's death he moved into his house, Lyndale in Sutton, and later in 1927 moved to Worthing.

The telescopes were in existence in 1895 as we have found a photo from a local newspaper.

I have RAS copies of both Newbegin's obituaries from Dr Dewhurst, but if anyone has any further information on the matter I would be pleased to hear from them. Any photographs etc would also be welcome.

Yours faithfully

Colin Jones  
Secretary, Norwich AS,  
Labor House, Norwich Road, Mulbarton,  
Norwich NR14 8JT.

Dear Rosemary

You ask why Mercury does not fit the geometric progression which Bode's Law would be if the zero was replaced by 1.5. You might also ask why the "Law" does not give the correct distance for Neptune and gives neither the perihelion nor the aphelion distances for Pluto! But these are in fact the wrong questions. The right questions are why the "Law" works as well as it does and what does it tell us about the Solar System.

The "Law" works fairly well because the orbital distances of the planets do conform fairly closely to an exponential relationship. Although the "Law" is not good enough to hold for all planets it can be replaced by a more accurate exponential function of the form:

$$r_n = 10^{-1} \exp(0.7 + 0.55n)$$

where  $r_n$  is the mean orbital radius of the  $n$ th planet. This is a straight line on a log/normal graph and gives  $r_1 = 0.35$  (Mercury).

It is generally agreed that the near exponential relationship of the planetary orbits has been determined by forces which have acted on the planets since the time of formation. Hills concluded that dynamic relaxation causes all planetary systems to reach a stationary state having a number of common characteristics, notably a tendency for the periods of adjacent orbits to be small integer fractions of each other. There is a marked preference for commensurabilities in a narrow range between 9/4 and 8/3. Consequently Bode's Law (or its refinements) results from the fact that some commensurabilities are more favoured than others. It has been noted that the major satellite systems also demonstrate preferred commensurabilities and it is presumed that the cause is the same.

Departures from a strict commensurability are explained by tidal evolution. After formation at random but not closely adjacent mean radii, tidal forces may have sorted the secondaries (resonances permitting) into mass order, after which dynamic relaxation may have adjusted the orbits until stable resonances existed overall. Stability is achieved when conjunctions and tidal forces are at a minimum, and it must be assumed that the Solar System reached this state a long time ago. All that Bode's Law tells us is that the Solar System has achieved stability!

Yours sincerely

Stewart Campbell  
Edinburgh

(Rel: J G Hills: "Dynamic Relaxation of Planetary Systems and Bode's Law", Nature (1970) 225, 84-842.

## FEDERATION SWEATSHIRTS AND T-SHIRTS

These are now available in pale blue with a royal blue FAS logo. Prices are as follows:

|                        |       |
|------------------------|-------|
| Sweatshirts:           |       |
| 22" to 32"             | £5.50 |
| All adult sizes        |       |
| S M L                  | £8.00 |
| XL                     | £8.25 |
| XXL                    | £9.00 |
| T-Shirts:              |       |
| 22" to 32" (polyester) | £2.65 |
| All adult sizes        |       |
| S M L (polyester)      | £4.00 |
| 22" to 32" (cotton)    | £3.50 |
| All adult sizes        |       |
| S M L (cotton)         | £4.75 |

The prices for each size depend on a minimum order of 20 (for the whole of the Federation).

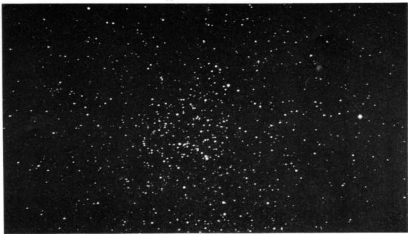
Please send cash with order to the Secretary, Mrs C Sheldon, Whitehaven, Maytree Road, Lower Moor, Farnshore, Worcs, WR10 2NY.

## ASTROPHOTOGRAPHY

Geoffrey Johnstone  
Coventry and Warwickshire AS

I have recently been trying out TMAX 3200 black and white film, and I must say I am most impressed. Due to reciprocity failure and sky fog two minutes is about the maximum possible exposure. Even at only this it easily reaches 14mag at the prime focus of my 0.25m f5 Newtonian. Remembering that 12mag is about 100 times fainter than the faintest star visible to the naked eye you can see how impressive it is. It makes producing deep sky photographs of quality within the capacity of many more amateurs. I have taken some recently without even looking through the guide scope or touching the drive corrector. The snag is that it does need some knowledge of home developing and printing, but this is not a difficult technique to learn with a bit of determination. The photograph of M35 below shows the fainter cluster NGC 2158 very well indeed, remarkable in fact, for just two minutes' exposure.

Photograph of Messier 35 and NGC 2158 by G Johnstone. Film TMAX 3200.



**AYLESBURY AS:** Peter Biswell gave an observing report; Friday night observing sessions have been flourishing. Up to a dozen members have been coming to the observatory to use the society telescope and their own instruments. On Monday 5th December 1988 at the observatory a discussion will take place "Everything you ever wanted to know about astronomy but were afraid to ask". Members are invited to submit anonymous written questions which will be put to the meeting as a whole. "Spot the Supernova!" - at a few meetings members are invited to play an exciting new space game designed by David Hinds. This will have a dual purpose of entertainment and fund raising.

**BRITISH AEROSPACE AS:** During 1988 the Astronind was a success with eight entrants. The Messier league is going well with members gaining points using telescopes and binoculars. The society hopes to produce a society sweater and is asking its members for a logo design. A Christmas Lecture was held, the title being "The Trials and Tribulations of Astrophotographers" by Denis Buczynski and Dave Greenwood of Condor Brow Observatory, Lancaster. The society has acquired for its members the three volumes of Burnhams Celestial Handbook.

**CARDIFF AS:** Members of the society attended an astronomy convention at Bristol during October. In the society's recent newsletter a member of staff of the University of Wales College of Cardiff, Bob Thomson, gave details of the various activities of the members of staff at the Astronomy Department. Members of the society recently visited the local weather centre at Cardiff and had a guided tour and video presentation. The society has had telescopes donated by members, an 8-inch reflector and a 20-inch telescope. An observatory project is now underway to house the 20-inch. It has been decided that the 8-inch should be sold to fund the construction of a suitable building for the 20-inch. The observatory will be situated a short distance from Cardiff away from the city lights.

**CLEVELAND AS:** Following the success of a joint conference of the society and the BAA in 1984, the society staged a convention entitled "Cosmos North East" on 15th October 1988 at Teeside Polytechnic. This eleven hour session included breaks for a buffet lunch and tea. The meeting consisted of six talks by distinguished guest speakers, illustrated with some superb projected colour slides. Peter Rea spoke on "The Golden Age of Planetary Exploration"; Dr David Gavine on "Mars Past, Present and Future"; Nigel Henbest on "Supernova Death of a Star"; Heather Couper on "How Big is Space?"; Neil Bone on "Astrobiology Origin of Life". The talks which were by no means elementary were delivered in a very entertaining manner and were followed by questions from an enthusiastic audience. The organization of the event was largely the work of Neil Haggath and John McCue, who were more than gratified by the results. 167 tickets were sold, and some people travelled from as far afield as the south coast of England. The society hopes to promote another such

**COTSWOLD AS:** Budding amateur radio astronomer, Rob Davies, is now about to open up a whole new interest in the society. He has an Astro Systems radio telescope with full interferometer system. John Fletcher had Heather Couper to inaugurate his observatory "Mount Tuffley". She described her part time colleague as "one of the best astronomers in the country, he is very dedicated and very professional in his attitude". Bernard Abrams and Tony Ireland were interviewed by BBC Radio Gloucestershire for 23 minute slots in a morning show spread over five days, this was just before Christmas, talking about astronomy. The society has booked space at the Cheltenham library for July during the week prior to the 20th anniversary of the first Apollo Moon landing. There will be an exhibition of photographs, drawing etc.

**DARLINGTON AS:** One of the best bits of news to come out of 1988 for the society is that the 16-inch Reflector is now operational and working excellently. Weather permitting, the May meeting will be held at the telescope. The newsletter contains a number of drawings and photographs of observations by various members. The programme of events up till July is as follows: March 3rd, Practical Observing by Chris Walker; April 7th, Antipodean Astronomical Extravaganza by Paul Tate; May 5th, Field Trip to the "Gilling Observatory"; June 2nd, On the Edge of Forever, by David Graham; and July 7th, The Apollo Years by David Graham.

**EASTBOURNE AS:** Since the AGM last year the society has retained a membership of about 60. In September a public observing day was held on Eastbourne seafont, where during the day displays of telescopes and the RGO William Herschel Telescope display stand could be viewed. During the afternoon visitors were able to observe the sun. In the evening there were clear skies and the Moon, Jupiter, Mars and Saturn were observed. Then in October an exhibition was held at the local shopping centre. In December a monthly meeting was held in the conference room of Herstonmouex Castle. A talk was given by Dr George Wilkins on "Space Geodesy".

**FURNESS AS:** The society has travelled twice to Jodrell Bank, once for the FAS convention and once for a behind-the-scenes tour of the laboratories. They have also travelled to Cleveland for the Cosmos NE convention. Two of the members also went further afield to Sumatra for the total solar eclipse. Displays have been presented at two festivals in Furness and individual members continue to present talks at the Society meetings. The range of observations has been very wide with observing sessions at the observatory proving to be very popular. The observatory is as yet unfinished but progress is being made. The yearly quiz was very popular, as usual as was the Christmas Dinner. The society says it had a very good year for a society of 25 members which meets once per month.

**HAMPSHIRE AS:** The front cover of the November society newsletter shows a photograph of visitors viewing Mars through the 5-inch refracting telescope during their open week. This was held during the 17th-24th September and was the most successful ever held by the group since National Astronomy Week in 1985. Almost 1500 people came to view Mars. On Sunday 6th November the Society held its 10th Anniversary of the opening of the Clanfield Observatory. A group of thirteen members went to the FAS convention at Herstonmouex. A group training session will be given by Robin Gorman on Friday 24th February. The training sessions are for the benefit of all members who are unfamiliar with the operation of the group's equipment.

**HUDDERSFIELD APS:** The society Christmas dinner at the Willa O'Nats public house was fairly well attended. Richard Cooper has an article in the society newsletter titled "Double Stars, How and What to Observe", saying that this is a fascinating and absorbing branch of study within the sphere of astronomy because of their endless variety and astounding beauty. The society has had two public lectures: the first during November by Paul Money on the subject of "Planetary Satellites", the second by Rosemary Naylor on "Stellar Evolution", this talk was with the help of many visual aids. Over the years the



... (one of the HUTOL  
... latterly, Gain Lee. On  
9th, Gain returned to inform us  
progress in the world of astro-  
is now well known in the field  
The society now has a fully  
dark-room for free use by all  
The society had a talk by  
Wilke, the subject was holography.  
his own helium neon laser to  
practical demonstration. He pre-  
stunning hologram with this  
right before the eyes of the

AS: During November the society  
had its first meeting to be  
a room provided by Haringey  
Council. Martin King from S E  
gave a talk titled "Computers in  
". The society had a Christmas  
iz. Don Taylor has written a  
Report for the newsletter. He  
that he is often chuffed and  
with pride at the range of people  
ent in the society; nearly every-  
owns a telescope which they made  
es. Bob Butler has an article  
society newsletter titled "Observ-  
techniques". He describes add-ons  
telescope which will improve the  
ion session.

; Observing Plan 1989: Society  
members are invited to take  
an observing plan which is  
outlined involving a dark site on  
Ilkley Moor, a date and time to  
aged and agreed over the telephone  
principal car drivers at times of  
y. Each member would be expected  
to bring along one binocular  
scope or camera. Their latest  
er contains various articles such  
Constant is the Sun", "An Observ-  
the Venus", and various observ-  
notes.

L AS: Details were given of an  
Astronomy Weekend at  
Hall which will take place over  
end of Friday 10th, Saturday  
Sunday 12th February 1989. On  
at of Saturday 12th November to  
13th November 1988 a mini expedi-  
members went to observe at  
servoir in North Wales. A group  
people met at the lakeside around  
two, 8-inch telescopes and one  
were used to observe the night sky.  
er was astonished to find how  
was to observe several objects  
naked eye from this very dark

ST LONDON AS: In a general  
discussion at one  
society's meetings it was  
that members were all becoming  
r" astronomers and that some  
observing activities should be  
l. Obvious difficulties are that  
live in such widespread locations,  
chances of a clear night in  
art of London, and the problem of  
a time convenient to members.  
ety had a talk from Michael  
titled "Astrophotography".  
Nicholson talked on the subject of  
and Professor Start Malin on

AS: On the 16th and 17th  
December the society organ-  
Jupiter night. The last one on  
led the club room to bursting  
nd beyond. These open evenings  
society's main source of income  
a contact with the general public,  
they can generate greater interest

... some observations of Mars  
during October. He says that the number  
of useful observing nights during October  
was dismayingly few, however there were one  
or two nights at the beginning and to-  
wards the end of the month when he did  
manage to see Mars for sufficiently long  
periods to make some drawings. J Walsh  
has an article describing "An Evening  
with Jupiter". The society has placed  
an order for sweaters and sweatshirts  
with an embroidered OASI logo. The  
society library has had some new addi-  
tions. A number of members will be  
going to the BAA Winchester Weekend.

PLYMOUTH AS: During November the  
Observations Secretary  
Darren won a competition organized by  
Fagins Bookshop. The idea was to design  
a dustjacket picture for a book of your  
choice. Darren chose 2001. It's been  
shown in the window of the shop. A  
number of members attended a BAA out  
of town meeting at Seal Hayne College near  
Newton Abbot. Members also attended  
the Bristol Astronomical Convention and  
the Herstmonceux FAS Convention.

SOUTH AS: The Society, formerly the  
Southern AS, will hold their  
Annual General meeting on Saturday March  
18th. The meeting is to be held from  
noon until 4pm at the home of the Chair-  
man at 1b Derwent Grove, East Dulwich,  
London. The guest speaker will be Norman  
Fisher who will give an illustrated talk  
on "Telescopes and Observing".

SAGAS: Reports were received from the  
various member societies.  
Brighton has a social set for March 23rd.  
The theme this year is Peasants and  
Aristos in the period 1789, commemorating  
the 200th anniversary of the French  
revolution. Crawley put on a display at  
Weald School at which Heather Couper  
gave a talk. Croydon have arranged view-  
ing sessions for the public. Exell are  
to have a large exhibition at Sutton  
Library to commemorate the 250th anniv-  
ersary of William Herschel, and Ports-  
mouth had John Mason talk on his fasci-  
nating method of observing meteors indoors  
by listening to fluctuations in the  
strength of the signal of Radio Poland.

SCOTTISH ASTRONOMERS GROUP: Details were  
given of the  
Scottish Astronomy Weekend held in  
Edinburgh on the 23rd-25th September  
1988. Speakers were Dr Jocelyn Bell,  
Neil Bone, Brian Kelley, and Iain Nichol-  
son. There was also a visit to the City  
Observatory. In addition to the above  
weekend details were shown of a conver-  
sation at Teeside Polytechnic, Cleveland,  
arranged by Cleveland AS, speakers in-  
cluded Heather Couper, Nigel Henbest,  
Peter Rea, Dr David Gavine, Neil Bone,  
and Paul Money. In the Group's news-  
letter Newcastle upon Tyne AS gave details  
of the history of the society which has  
a membership of about fifty. The next  
meeting of the Scottish Astronomers Group  
will be on Saturday April 15th, 2.30pm  
at the Coates Observatory, Paisley. The  
topic will be Observing the Sun.

STEVENAGE AND DISTRICT AS: Eric Hutton  
has been  
given the task of looking after the  
society stand at this year's Ideas Fair,  
to be held in Letchworth on March 18th.  
On January 11th about half a dozen mem-  
bers visited John Pearce's house to view  
the wonders of the night sky, on a com-  
puter. Kevin Pye has reported a large  
sunspot that he observed on 14th January.  
Malcolm Crabbe reported on a visit to the

... another episode in one of the  
programmes.  
S W HERTS AS: The meeting of  
in November was  
Boris Voidavich on The Control  
Motors, in which he discussed  
principles governing the opera-  
electric motors. The November  
was provided by a very enterta-  
informative account of the rec-  
opposition of Mars, given by C  
son. Other talks to the Socie  
Dr Peter Bernham's "Planet Ear  
Maurice Newman's "Deep Sky", t  
an audio-visual presentation

WEST OF LONDON AS: The societ  
always fea  
observing competition, which c  
in the award of the Geoff Smi  
Trophy. Observations made dur  
year all add points to the obs  
total, and the one with the gr  
number of points wins. This y  
Armstrong was the winner and h  
presented with the award by He  
Couper. To make up for the wo  
winter conditions the society  
pleasant tradition of having a  
some local feasting place.

WEST MIDLANDS AS: The Novembe  
issue of th  
newsletter showed many members  
ations of Mars. Also details  
Leonid meteors, and articles s  
"The Universe May be Larger Th  
Thought", "Spin Cast Mirrors:  
Ahead?", and "Nereid Found to  
able".

WEST YORKSHIRE AS: A society  
was held a  
Ridge on 9th-10th December wh  
unately was cloudy. A friend  
eague of Peter McKenna has giv  
Tandy TRS80 computer on the co  
that he finds a good home for  
been decided to have a prize d  
all the Juniors' names in a ha  
lucky person had an unexpected  
present. Trevor Sutton report  
1988 saw the biggest ever band  
members attend at the FAS conv  
Herstmonceux. The Christmas  
ential Lecture took place on 6  
the President being Les Woolis  
society is holding an astropho  
competition, all entries being  
by 14th February 1989. Also d  
February visits have been arra  
scouts and cubs to see the ob  
The society Journals have cont  
excellent articles which have  
illustrated.

WOLVERHAMPTON AS: Last June t  
paid a visi  
Cambridge observatory at Madin  
More than 40 members and frien  
the trip so the group had to b  
into two parties. Dr M F Ingh  
Dr Dewhurst each took a party  
site. It was fascinating to s  
goes on in modern astronomy, e  
with the starlink computer net  
the plate measuring equipment.  
section members were able to s  
copies of plates from the Paldo  
Sky Survey. The resolution of  
plates was amazing, what seeme  
patches of dirt on the frame r  
into thousands of stars under  
ing eyepiece. The society had  
Word" contest for which prizes  
Mars, Galaxy and Milky Way wer  
away. Chocolate bars of course

PAM AND MARTIN CHICK  
2 Magnolia Way, Chandler



## Book Review

IN THE SKY  
\*\*\*\*\*

Total Eclipse of Sun - 1988 March 18

The path of the above eclipse extended from the Indian Ocean across Sumatra and Borneo to the Philippine Islands. We were part of an organized party of over 60 people who observed the eclipse from Bangka Island, off Sumatra. Most of the party were British but it also included some Americans and Germans. Several were regular eclipse followers and one man claimed to have viewed 13 total eclipses and 49 minutes of totality in all.

At a briefing in our hotel at Djakarta on the evening before we set out for Bangka, we were, among other items, given advice as to camera settings. Unfortunately I did not appreciate, although I ought to have done, that during totality it would be too dark to see the camera settings, so when it came to it I was reduced to moving the controls, pressing the cable release and hoping for the best. When the film was developed it was also found that the image of the sun had, after the first four exposures, of the film advance lever had moved the camera and/or the tripod. We were also advised, during and around totality, to look out for Saturn and Mars, the Moon's shadow coming and going, shadow bands on the ground, and, if there were trees around, "pinhole camera" images of the partially eclipsed sun through gaps in the leaves. However, in the excitement of the moment, we forgot all about these matters.

The day before the eclipse we flew on to Bangka Island and, after a somewhat hairy landing where reverse thrust tested our seat belts to the full, were greeted by the local inhabitants who welcomed the special invasion, Bangka being well off the tourist track. They also sold us colourful commemorative t-shirts at about £2 each. Next day we rose at 4am and set off at about 5am for Pasir Padi Beach. A few of the party had already set out for another location which was very near to the centre line of totality to gain a few extra seconds of eclipse.

We arrived at the beach, which faced east, still in semi-darkness, to find the local population arriving steadily and were being kept back by the police from the front of the beach. Our party spread out in a long line and set up their various instruments which included telescopes and sophisticated cameras in some cases. We had only binoculars and an SLR

sandwiched between pieces of cardboard, and the fit the camera and binoculars, and the idea was to secure these with Blu-Tack so that they could be quickly removed at totality. This did not work very well as the Blu-Tack did not hold, possibly due to humidity, and obviously a better idea would have been to have close fitting cardboard tubes with Mylar secured over one end, which could be slipped on and off the instruments as necessary. We managed to borrow some Sellotape from our neighbour to fasten the Mylar to the binoculars, which enabled us to observe the partial phase, but it had to be he by hand over the camera.

First contact was at about 6.30, the first "bite" into the Sun being between 1 and 2 o'clock on the disc. It then proceeded across and downwards until second contact at about 7.31, preceded by Bailey's beads and the diamond ring. Several prominences came into view and the corona could be seen. Totality lasted about 2 minutes 7 seconds until finally diamond ring effect flashed out on the right hand side of the sun, followed by rapidly increasing light. The crowds began to disperse and there was a sense of anticlimax. There was some cloud haze about throughout the eclipse but it did not seriously affect viewing.

We found that we had two reasonably good photographs of the prominences from our hit and miss exposures, followed by two overexposed pictures after which the images had moved off frame. It was a very good experience and we shall be better prepared next time. If you are ever fortunate enough to go to view a total eclipse, here are a few tips based on our experience. Have a torch, check the viewfinder before each exposure, the best advice as to camera settings decide beforehand exactly what you are going to do during totality, barring unexpected incidents, and keep calm as there are so many things to think about in such a short time.

After our return we later found that, having been the first in the line of observers we featured prominently in a photograph in a report of the event in the BAA Journal courtesy of Henocour Enterprises - presumably associated with Heather Couper and Nigel Henbest, who were with the party and reported to the Association meeting.

Bill and Grace Forrester  
Furness Astronomical Society

STAR TALES; Ian Ridpath pp 162  
Lutterworth Press 1988; hb £12.95

Many readers, from armchair astronomers to planetarium presenters will welcome this book of tales of the constellations. I suppose we all know a few of the myths associated with the classical constellations; how Perseus rescued Andromeda from the sea-monster, and why Berenice's hair ended up in the sky. Here we have, as the title suggests, a collection of tales. The myths associated with the ancient constellations come from the Greek and Roman stories and poems which the author has studied in translation. His list of sources is quite impressive, but the greatest value of the book must lie in the illustrations. Almost every constellation - and they are all here - is accompanied by a photograph of either an engraving from Bode's Uranographia of 1801 or an engraving from Flamsteed's Atlas Coelestis of 1729. Goodness knows how practising astronomers used these maps to find the stars behind the kings and queens and birds and animals.

Inevitably this book will be compared with R H Allen's Star Names; Their Lore and Meaning. But that book looks at star names and traces them back to a wider range of possible origins. Ridpath's book relates principally to the constellations and the stories they evoke. The modern constellations of Keyser, Houtman, Hevelius, Lacaille and others are listed, including two dozen constellations which are now obsolete. It was a delight to see illustrated Ramiifer the Reindeer and Custos Messium the Harvest Keeper, introduced by French astronomers in the 18th Century, since this reviewer has an old French star map, late 19th Century, showing Le Renne and Le Messier, ie the same two constellations.

This is a book to enjoy. It is easily read in a way that Allen's book is not and does successfully what it sets out to do.

Ridpath has already earned a reputation as a presenter of the celestial constellations and the real curiosities they contain, in the handbooks he has written in collaboration with the cartographer, Wil Tirion. Now we must see him as an authority on their entertainment value too.

Rosemary Naylor

ADVERTISEMENT  
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Mail Order books, posters and sets of slides - lists in exchange for two first class stamps. Please write to: 256 Beacon Road,

The local hotel welcomes eclipse watchers in this off the track island of Bangka. In the foreground, though with their backs to the camera, are Heather Couper and Nigel Henbest, of Henocour Enterprises.

