TELESCOPE MIRROR SUPPORT SYSTEMS
by Peter Montgomery (Worsley AS)

Methods of mirror support used in telescopes vary from the very simple (and sometimes inadequate) to the extremely complicated. Many amateurs who build their own mirrors either commercially produced or homemade find that they do not do a satisfactory and sometimes exhaust the apparatus as metal parts which may be attached to the mirror or affixed directly on the mirror itself, but lack access to the mirror cover. In some cases an additional practicable engineering tolerance to this fitting role to any extent, the washers which completely nullify all the careful work. However, it is not difficult to make your own support system inexpensively to incorporate many useful extra features.

The prime purpose of a mirror support is to locate the mirror so that it remains in position, but it should also allow easy collimation in the first place. It is additionally important that the mirror's support should be temperature-stable, to allow easy removal and replacement of the mirror cover. By using materials such as plywood, felt and adhesive it is simple to make your own supports and attach them to the mirror surface. The quality materials throughout and where metal parts are required these should be rustproof; brass or stainless steel being preferred.

The support system can be conveniently considered as made up of two sections, the first being the support of the second being the support plate for the cell, the plate being fitted to the telescope tube. Taking the cell first, we are to cut a two plywood disc 1/8" larger in diameter than the mirror, one being of 1/8" plywood and the other of 1/8". In the 1/8" disc drill three 1/4" diameter holes spaced 120 degrees apart at a distance from the center of about 1/8" the radius of the disc, then drill a 1/8" diameter hole in the center of both discs. Into each of the 1/8" holes place a bolt 1/4" (or 1/4" x 6mm) diameter. With the holes so that the bolt heads flush down with the surface of the plywood. (Counter-sunk heads are useful for this but any head of shape can be used.) The threaded ends of the bolts should be no more than one-tenth the width but when buying them also purchase a dozen plain washers and three nuts, or wing nuts, to fit. These bolts are the collimation supports and while wing nuts make for easier adjustment they are a great temptation to small boys.

The holes for these bolts are best left a firm fit as the bolts are now glued into them and the second (1/8") disc is glued on to the 1/8" disc to trap the bolts in place. This will give maximum stability and before it dries ensure that the projecting shanks of the bolts are parallel with one another and at right angles to the face of the mirror cover. The nuts are tightened and allow 24 hours to dry. Make sure the edges of both discs are accurately cut and that the mirror cover will fit over the 1/8" disc with about 1/16" clearance all the way around. The mirror cover will not be parallel with one another but if they do not, sandpaper down the 1/8" disc until they are. Now cut a strip of 1/16" plywood about 1" wider than the thickness of the mirror and long enough to go right around the circumference of the disc with about 1/2" overlap for joining. The purpose of the plywood is to have to make this strip of plywood in more than one piece use scarf joints. It is most important that the visible grain of the 1/16" plywood is parallel with the shanks of the bolts otherwise it will not easily bend round the disc. Glue and screw this rim in place using 1/2" screws every 3" or 4". The screws should be flush with the surface of the 1/16" plywood from which the 1/8" bolt projects.

Once the glue is dry go over the whole structure with sandpaper to remove all splinters and roughness, then line the rim with one or two layers of felt until the mirror is in place and does not move when the cell is gently shaken sideways. (This felt is sold for covering card tables or lining drawers and is about 1/4" thick.) Glue the felt in place with Bostik. Next cut a ring from a 1/8" plywood disc (1" in diameter) and place the 1/8" plywood disc on the ring. The ring should have a width of about 1/2" that of the mirror and an outer diameter of about 1" less than the mirror. Paint all unlined surfaces matt black.

To hold the mirror into the cell make up two stiff clips (preferably made of 3/8" x 1/8"). They should be long enough to cover the rim of the ring and have a right angle bend at the top long enough to project over the rim and across the mirror surface for about 1/8". Line these projections with felt and if necessary cut away the rim below the clips to allow the projections to make contact with the mirror surface. At the opposite end of the clips drill a 1/8" hole and enlarge it into a slot along the clip so positioned that a 2" screw can pass through it and the rim into the edge of the 1/8" plywood disc. The clip will enable you to position to clips to hold the mirror snugly as you tighten the two screws.

A mirror cover can now be made in a similar fashion. Take a 1/8" plywood disc about 5/8" larger than the mirror and fit it to a 1/16" plywood ring about 3" wider. Line the ring with 1/8" thick foam rubber (use Bostik) and fit a handle to the side. A spring hinge will absorb shocks and the telescope tube be dropped or knocked at any time.

Photo (above): Peter Montgomery's Dobsonian telescope showing the mirror support plate open.

FREE SMALL ADS

Any private individual belonging to a member society of the F.A.S can place a classified advertisement free of charge. Please keep the wording reasonably short and send the copy to me. I will do my best to include the ads in the next following issue but I cannot guarantee anything.

SMALL AD

WANTED Monocentric or Tolleys eye pieces. Please write with details and price to B. Mortimer, 70 Stanley Road, Earlston, Covert.
The year has been one of mixed fortunes for the FAS. There have been some personnel problems of communication: Council members are widely scattered and lead busy lives, and it is often difficult to get a proper discussion going so that the Federation can develop. At the same time we need to know what you, the members, think we should be doing. Throw bricks if you must, but wrap them in constructive suggestions!

The insurance scheme instituted in 1983 has died a quiet death even though the offer was extended to include individual members of FAS societies, simply because there were few enquirers and no takers. But if this was a failure, let's re-examine the balance with a few financial helpmates. The Astronomical Journal at Herstmonceux '84, the Astreadic produced in association with CARDS AS, and the Newsletter, which has been very well received. And we still count the majority of local societies in the UK among our members, although there are many societies, large and small, outside our ranks.

There is much to look forward to in the coming year if we can make the most of the Halley's comet tally. Ken Marcus and I have represented the FAS on the National Astronomy Week committee, and events are moving fast. I hope societies are making their plans for November and will take advantage of the opportunities offered by the Committee towards National Astronomy Week expenses.

Please continue to support your Federation; your Council are all involved in local societies themselves and know your problems. For our part, we will try to give you the best service we can.

Alan Drummond

SECRETARY'S REPORT 1984/85

My own business commitments at “Earth and Sky”, Heddon Bridge, require that I am in the shop on Saturdays to meet customers who have travelled specially for astronomical supplies. So I cannot attend Saturday meetings other than with difficulty. I am therefore asking the Council to find another secretary.

There have been two Council meetings, held in London, which have been poorly attended. Some members of Council are finding it difficult to pay travel expenses, with the result that those who do attend are still not able to have a proper discussion with all their colleagues on FAS policy, new projects, etc.

The regular work of the FAS has continued. The secretary has handled a large volume of mail from outside bodies and individuals in particular.

The Handbook continues to be widely distributed and is a most useful achievement. The Astrocalendric, though out late this time, is growing in popularity. One society bought a copy for each of their members, and financed Saturday subscriptions, to save printing monthly sky notes in the journal.

An information pack has been prepared by the publications editor to assist new societies who need advice on setting up a society. Geoff Pearce continues to produce members’ slides for sale by the FAS.

Members and friends have enjoyed two meetings during the year at Coventry, May 1984, and the convention at Herstmonceux, October 1984. Both are being repeated in 1985.

We member societies continue to be active, with varying degrees of success, as reported by the News Round-Up Editor in the new issue which has been so well received by members.

The FAS Council is always open to requests from member societies to participate in joint ventures, and perhaps in this direction that the future of the FAS lies. Unity is our strength.

Please attend the AGM and convention on May 11 with your ideas for the future of the Federation, and how it should best promote the activities of local astronomical societies in the season of Halley’s Comet. And anything else which may seem relevant. See you at the AGM.

Rosemary Naylor
8th March 1985

EDITOR'S REPORT 1984/85

I knew Chris Green was going to be a difficult act to follow. His pungent and amusingly insinuating style defied the laws of optics by casting false shadows in all directions at the same time. His writings deserved a massive reaction, but, as it happened, Chris’s most notorious editorial resulted in only two letters, one of which I still cannot quite understand. As a consequence, the old style FAS journal was obviously off target, and it was against this background that I took over as Editor.

My first act was to implement an idea previously suggested by Bob Moseley of Coventry. The result is the newsletter you are now reading.

From the letters and comments I have received it seems that the newsletter is well thought of by its readers and I look forward to the expansion of its circulation, contents and frequency of issue.

The format of the newsletter is well suited to the needs of the FAS but, as with any publication, its future depends upon your support. Please keep letters and articles flowing in to the editor.

G. Bolland

IMPORTANT NOTICE

In the last FAS newsletter (No 4) the wrong date was given for the Coventry Convention and AGM. The correct date is SATURDAY 11TH MAY 1985.

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3½” centred achro, 7½” f.1.6. Ideal for a starfinder. I’ll sell you a 1” ocular (3 element) to go with it for £4.

Just think – a 7×50 starfinder for £10

I can offer all sorts of short f.1. achros, mostly brand new, with prices unlikely to be more than £5 each.

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Altazimuth heads available. £15 each.

Adaptors, ‘scopes, components made to your special needs. ’Phone evenings after 6pm cheap rate.

STOP PRESS: Ask me for ex.Govt. oculars. I’ve got 1” and 1½” at £4. Super value.

TOTAL LUNAR ECLIPSE
by Alex Vincent (Worton AS)

A total eclipse of the moon will take place on May 4 1985 and the moon enters the umbra at 18.17 and rises at 19.20. Totality commences at 19.25 and ends at 20.30. The eclipse will be at 19.25. The moon leaves the umbra at 21.36. All times are UT.

The moon does not disappear completely during totality because it is dimly illuminated due to sunlight being refracted on to the moon’s surface by the earth’s atmosphere with interesting variations of colour ranging from a dull blood red to a bright orange-yellow. It has been known that the moon has disappeared completely during totality and the ones of 1884 and 1888 were very dark. This was due to the eruption of Krakatoa in August 1883 where volcanic ash and dust expelled into the atmosphere and was detectable for a few years afterwards. On May 18 1970 Per Wargent noticed that the eclipsed moon vanished and it was not even visible in a telescope. This was due to Jorullo which erupted violently in 1755.

I am compiling a book on eclipses and would like a photograph of a total solar eclipse, annular eclipse, total lunar eclipse, or the partial lunar eclipse which occurred on August 17 1970. If any readers have any such photographs I would be pleased to hear from them – Alex Vincent, 21 New Road, Worton, Sussex, BN13 3GJ.
Society News Round-Up

STUART LONSDALE

Items for the next "Round-Up" should be sent to: 16 Joan Lane, Hooton Levet, Nr Rotherham, South Yorkshire, S66 8PH.

AYLESBURY AS: The January meeting was almost cancelled due to the bad weather but those who braved the elements were treated to a talk by Peter Biswell on the history of astronomy.

Gerard Rawlings has given the society a number of MAS Quarterly Journals and "Observatory" booklets for the library.

David Hinds has donated two metal cupboards.

A local industrialist has offered to have his apprentices make a new shutter for the observatory as soon as the work is completed. Member Bill George has taken all the measurements and is busy producing the drawings.

BRISTOL AS: The average attendance for 1985 will finish that of 1984. The members being 29 and 31 respectively.

In order to attract new members to swell the falling numbers, monthly public meetings will be held. The first one attracted six non-members, four of whom had not been before. Hopes were high that they would join.

Tuesday meetings are now informal with members' slides and basic astronomy.

CHELMSLEY AS: Writes Frank Hill, "Although staunch supporters of the FAS over the years, correspondence from my society to the 'Round-Up' has been a little difficult. Chelmsley Wood is a self-help group originally built as an overspill town for Birmingham and is located to the east side of the city, about ten minutes' drive from the airport and the NEC. The society was founded in 1982.

We have regular weekly meetings at the observatory complex in the Coleshill area. They are held every Thursday from 6pm onwards.

The observatory complex consists of a meeting room and an observatory. The observatory, 12-feet in diameter, will house a 16-inch Dobsonian reflector and a 6-inch Dobsonian with a drive and setting circles. At present the telescope is about 60% constructed. We also have a 6-inch reflector mounted Dobsonian style and an 8-inch currently being refurbished.

The monthly meetings for guest speakers are held at the Chelmsley Wood Library/Theatre, Stevenson Drive, Chelmsley Wood on the last Thursday from September to May, 7.30 to 10pm.

HAMPSTEAD ASTRONOMICAL GROUP: "This group has ceased to exist," says Secretary Jim Hutson. "By the way, please note my correct name and address at the beginning of the 'Round-Up' - Stuart.

A 12-inch reflector has been replaced with a 16-inch Dobsonian reflector and a new 6-inch reflector mounted on a fork. The observatory is now complete. A rotator head is to be fitted to remove the annoyance of swinging from a ladder to observe overhead objects!"

Opening on Good Friday, April 5th, will be a new pre-launch event in the Queen Elizabeth Country Park, near Petersfield, Hampshire. The "Malcolm Comet Trail" will be opened by Heather Cooper at 7:30 hours. Further details - contact Miss June Nelson-Tomson on 0705 370097. Anyone interested in the Hampshire Group should contact June Hutson, Secretary, 35 Napier Avenue, Horndean, Hampshire, PO8 9AN.

HULLERFIELD AS: Sponsored walks last year raised some £186 for funds. It was put towards TV for the Spectrum computer.

The observatory on Crossland Moor is certainly worth a visit. It houses a 16-inch fork mounted reflector and has many other goodies including solar power. Interested? Contact Philip Beppenstell on Huddersfield (0484) 661697.

NEWCHAPEL OBSERVATORIES AND PLANETARIUM: An open weekend to coincide with the Stoke-on-Trent County Borough Centenary celebrations and the North Staffs Wildlife and Conservation Week, is to be held on Saturday April 27th and Sunday April 28th.

An exhibition of astronomy and spaceflight will open in mid-November in the local Newcastle Library.

The Observatory is now part of the International Halley Watch. A major exhibition will open on March 1st, entitled "The New Universe," it will run for three months in the City Museum.

NORTH EAST LONDON AS: The addition of two new members during December was a welcome sight to the society.

During December, Mike Mawder gave a talk on Astrophotography, Bernard Beeston said it was a welcome return for Mike after a gap of 15 years!

SHEFFIELD AS: The February Informal meeting saw a video of the 50th Anniversary celebration at W flourishing. Mike Taylor is to video some of the meetings for society records.

Derek Fellow brought along a computer program to the same meeting which showed views of the night sky, planets and the planet of Comet Halley.

Exhibitions have been arranged for NAW with the Nottingham Building Society at two of their branches.

Members commented on the excellent lectures we have had over the last few months. Nora Betts, the Hon Secretary, is already preparing for the 1986 session.

Our oldest member, Walter Holstenholme, who saw Comet Halley when he was a child, says he is looking forward to seeing it a second time there any members of other societies who have seen Halley before? I would be interested to know. Get in touch with me - Stuart Lonsdale.

OWRELL AS: More visits to the observatory, this time by the Cliff Quay Camera Club.

Owrell's observatory houses a 10-inch refractor and is at Nacton near Ipswich. (Editor's note: an article on the Owrell observatory will appear in the next issue of the Newsletter.)

A plea was issued to members for articles to include in the Journal.

Anyone in the Ipswich area interested in joining Owrell should contact the Membership Secretary, David Barnard, 41 Melbourne Road, Ipswich, IP4 5PF, tel: Ipswich 78953.

SOUTH WEST HERTS AS: The removal of a number of trees by a local farmer has meant better viewing at the Top High Observatory. The trees were obscuring the eastern and south-eastern horizon. The telescopes can now be used on the Moon and planets soon after they rise.

WELLINGBOROUGH AND DISTRICT AS: February 1977 saw the first anniversary of this group. The first meeting in 1984 was attended by a large number of people.

December 1984 saw a talk by John Hosty who spoke about his Nova discovery in 1977.

A trip was made to the 2nd Kent Anglian Astronomical Societies Convention in Essex.

It was hoped that the March meeting would include an observing session on Mercury.

WEST OF LONDON AS: A few years ago a visit was made to the Norm Lockheed Observatory at Slade. On May 17th this year a return visit is to be made.

During March, a visit is to be made to the University College London to see their STARLINK terminal, the professional astronomical computer network.

The AAS in April will continue the computer theme with a look at some of the astronomy programs now available for home computers.

Subscriptions are to remain at the 1984 level.

WEST YORKSHIRE AS: Chairman Derek Hutton asks if any member is willing to take over editor of "PHOBOS", their magazine. He has done the job for 11 years! Since the society was founded.

A visit was made to the AAC Xmas party and some are to return for the Spring Star Party at Metrocentre.

The President is to be Les Wooliscroft of the University of Sheffield. The previous President, Warwick Gibbons, had to retire due to a move to Dunston.

The Highways Department has fitted some hedges to street lighting near the observatory. Not for anyone else, it is something! Well done the Department.

With all the planets on view (except Pluto) on March 16th during one night's viewing, a "Planet Marathon" is to be arranged at the observatory.

Dampness and condensation on the inside of the dome is causing some concern as it is freezing the network and black mould is growing. It will need to be cleaned up and treated.

The Xmas raffle raised an astonishing £280.

Dear George,

28th February 1985

I wish to announce that Boston Astronomers present the first Boston Conference on Astronomy on July 27th 1985. Titled "Eye on the Universe", the speakers will be: Heather Cooper, Nigel Rembert, Peter Drew and David Baker. The doors will open at 9am, but lectures do not begin until 10:30, allowing people time to view the exhibition and visit the trade stands. The day ends around 5:30pm.

For further information please send an SAE to me at "Southview", Pen Road, Stickswood, Boston, PE22 8HD.

Yours sincerely,

Bryne Tongue
(Secretary, Boston Astronomers)
HALLEY'S COMET 1986 -
*HEATHER COUPER*
*NIGEL HENBEST* 
*TAIN NICOLSON*

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ANDREW GALWARD

JOIN US FOR A "UNIQUE LIFE TIME TRIP, TO OBSERVE HALLEY'S COMET, FROM PROBABLY THE BEST VANTAGE POINT IN THE WORLD".

The trip not only offers you the chance to spend time with Heather, Nigel and Tain, but the opportunity to see the wonderful attractions South Africa has.

We will be joining up with a South African group of astronomers, which will have its obvious advantages, when it comes to observing equipment. Not only this, we will of course have the chance to meet those, with a good knowledge of the Southern Hemisphere.

We are off for two weeks to this country, our departure date, from Heathrow Airport, being the 6th April 1986. We have chosen this date for 2 obvious reasons: 1, this is when the comet will be at its brightest, and almost overhead at 6pm, and 2, because we will not run into the problem of that large white globe called "the Moon", obscuring our view.

".....those who live in, or journey to, the Southern Hemisphere" writes American Comet expert John E Borlitt, "Halley will be in all its glory - a sight not to be forgotten".

One of Halley's Comet is the obvious attraction, but included in this extremely cheap price, are many other things we feel you should consider. During our stay, we will have the chance to see both South Africa's astronomical attractions, and non-astronomical attractions......our itinerary includes a visit to the Union Observatory, and the South African Astronomical Observatory, the Deep Space Tracking Station at Hartebeesthoek, and the Universe of Vitewater Stand Planetarium.

Some of our astronomical excursions include......a trip to the Valley of the Thousand Hills, the Cape Peninsula, the Table Mountain, and the Caves of Bushveld. We will also have the chance to see traditions both old and new......an age old Tribal Dancing in Johannesburg......to modern winemaking and tasting, in the Cape wine lands.

For the fifteen days, we will be staying in Johannesburg, Durban and Cape Town.

Accommodation will be in luxurious Holiday Inn Hotels. The price we are asking includes, travel, transfers, accommodation, excursions, and all your meals, everything we have mentioned is included in the price. South African Airways have gone over board in their efforts to help make this an economical, but full and interesting trip. When we made the first trips with this package, we included the price of adding food, but after further discussion, S.A.A. found they could offer us a full itinerary, with food etc included, for the low low price of £1,150.

For £1,150 you get what is on offer, and all you need is to pay to top this is your spending money, and South Africa is bound for its cheap prices. A chance to spend two weeks with three such well known astronomers, obtain the best views Halley's Comet will give you in one of our life time trips, the opportunity to observe with those who know the Southern Hemisphere like we know the Northern, and all these unforgettable trips to astronomical and non-astronomical attractions that this wonderful country has, with first class service all the way. From the time we get on the plane, until we get off again 15 days later. SURELY THIS IS AN OFFER YOU ARE NOT GOING TO TURN DOWN.

I'll probably never get another offer like this again. S.A.A. have helped arrange this trip for astronomers, so make sure you are on all you observers, come and join us. The offer is of course open to the general public too, so tell your friends, and if they would like to come, they are very welcome to come along too.

NOW FOR YOUR Full ITINERARY (please send a SAE to):

ANDREW GALWARD,
BRAINWASH HALSTEAD & DISTRICT A.J.
19 BELLE Vue TERRACE,
HALSTEAD,
ESSEX CO9 2DD. (TEL: HALSTEAD 476044).

Don't wait too long though, a deposit of 10% should be sent before the end of May, to secure your place, and the unbeatable price. We will of course accept bookings after this time, but can't guarantee that prices may not have risen. Book and deposit before May, and we can guarantee a price of £1,150.

Looking forward to hearing from you soon, Andrew Galward.

Contacts at:

African Airways,
Mr John Daniels or Mr Arthur East,
Tours and Special Projects Dept,
African Airways,
251-259 IZAR STREET,
LONDON W1R 7AD
(tel: 01 437 9621)

Premier Travel Agency,
53 HIGH STREET,
HALSTEAD,
ESSEX.
(tel: 0727 473452)

IF YOU ARE STILL NOT SURE.....READ THIS AGAIN...AND THEN YOU WILL BE...
Book Review

"THE GROWING OF MARS"
by Michael Allaby and James Lovelock
(Andre Deutsch 1984) £7.95 (hardback)

Ever since I read "The Domes of Mars", by
Patrick Moore, as a kid, the colonisation
of the red planet has fascinated me. For
me, it has been a vision of World War II in
space.

History instills a deep pessimism about
the future of our species - so it was a
surprise and a pleasure to pick up a
profoundly optimistic book on the subject.

This beguiling little treatise (once
started hard to put down) might appear to
be at first a projection of currently
fashionable "green" politics into space
colonisation. It is more than that. It is
closely reasoned, literate ... and strangely
realistic.

Despite its misleading cover this is no
science fiction. It is a marvellous example
of what might be termed "science specula-
tion". Produced by an SF writer (Allaby)
and a scientist (Lovelock), it never loses
its footing in ungrounded imagination or
literary style.

It takes the form of a sober narrative
(set in the year 2245 AD) given by a third
generation "Martian", recounting the history
of his planet to a group of immigrants
from Terra. The format works well - and
the skillfully wrought prose gives an air of
established fact to all that we learn.

The "greening of Mars" is the central
theme of the book. Mars, it turns out, will
not be approached in the way that the Moon
was. This is not merely an essay in the
possibilities for science and technology. It
covers ecological, political, economic,
social and possibly racial considerations too
- all in 164 pages! No governments. No
military establishments. This is the voyage
of the Mayflower. The triumph of the common
man.

The sterile stability of Mars (the sterility
is assumed as a fact) will be broken by the
injection of redundant stocks of "greens" or chloro-flouro-carbon
compounds, withdrawn from terrestrial use due to fears about their
harmful effects on the ozone layer (remember the aerosol scare?).
These will modify the Martian atmosphere to a sufficient extent to
induce a warming effect. Along with quantities of hardy algae spores
these injections will (so the authors argue) produce higher
atmospheric temperatures, liberate reserves of water locked up as
permafrost, reduce the planet's albedo, and start a process of soil
formation. These factors would commence a chain of positive feedback,
rapidly altering the Martian climate.

How are the injections to be delivered?
By utilizing the thousands of obsolete solid
fuel rockets built to deliver nuclear
warheads here on earth - after massive arms
limitation agreements in the mid-1980s
between the USA and USSR. (How I hope to
God that at least this much could pass into
reality!)

The real work of taming Mars begins with
the arrival of the first pioneers. The
planet is not yet an Eden - far from it!
But it is warmer. Plants can be grown ...
not to feed the settlers, but to continue
the process of altering the ecosystem.

The rest is there to read. A brief review
like this will probably make the ideas
seem facile or naive. Perhaps they are.
But the science is good and accessible, and
it's a persuasive and heartening view of

by Rob Moxey (Coventry & Warwickshire AS)

Letters

January 16 1985

Dear Mr Bolland

Thank you very much for your letter of
November 28th, and complimentary copy of the
Federation of Astronomical Societies news-
letter No 3.

We greatly appreciate your kind offer to add
us to your mailing list and will look for-
tward to future copies.

Many thanks again,

Sincerely yours,

Leif J Robinson
Editor - Sky and Telescope

December 3 1984

Dear Mr Bolland

It was interesting to see someone else review
the same secondary literature that I did concerning the origins of the zodiac.
Since we both used the same sources, the
conclusions are pretty similar. It might have
been appropriate for Mr Brierley to have cited
my article.

Sincerely yours,

Owen Gingerich
Professor of Astronomy and the History of
Science - Harvard

In reply, Harry Brierley writes:

32 Portland Place
Northampton
NN1 4HJ

1985 Jan 15

Sir

In reply to the comments of Prof Gingerich, may I assure him I intended no
discourtesy in failing to list his article. Space being limited, I included only those works which
I have consulted and which, I believe, would be to his advantage.

However, I should have mentioned it as a
recent and colourfull introduction to the Zodiak
I very much enjoyed. May I remedy that
omission now? "The Origin of the Zodiac" appeared in
Sky and Telescope, March 1984, and contains a host of literary references and
some interesting illustrations. And it is a
good read.

When I wrote - after a sixty-year love
affair with the Zodiac - I had a different
aim. In spite of my "moribund" title, I was trying to give to my fellow-astronomers and
organizers of local societies a painless
way of teaching their members about some of the
effects of precession. What hit the Bull (1) or not, readers of both articles
will judge. Do read both.

Yours Faithfully

26 February 1985

Dear Mr Bolland

The Wellesly Boroughs and District AS was
formed in February 1984 and we are now looking
for new members to join the society.

The annual subscription is £3.00. Interested
astronomers should contact Mr G. Brierly on 0538 77972.

Yours sincerely

S. M. Williams

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Carinae Nebula: Ptolemy Nebula and the region of Antares.
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DON'T FORGET OCT 5

SATURDAY

Herstmonceux '85

Herstmonceux '85

Herstmonceux '85

Herstmonceux '85

Herstmonceux '85
**Federation of Astronomical Societies**

**1985 CONVENTION**

**PROGRAMME**

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<td>Lunch</td>
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**DR ANNE COHEN** was a professional astronomer at Jodrell Bank before raising a family. She now is involved in the exhibition side of the visitor centre at Jodrell Bank on a part-time basis. Her lecture will be entitled:

"AN EXHIBITION OF RADIO ASTRONOMY AT JODRELL BANK"

(or "How do you explain radio astronomy to the general public?")

"From interferometers to pulsars, the concepts of radio astronomy are perhaps hard to grasp. New displays of working radio antennas and moving models at the Visitor-Centre may help to give an understanding of current research at Jodrell Bank."

**DR JOHN DAVIES** is an astronomer and aerospace engineer. After working for British Aerospace he joined the Department of Astronomy at Leicester University and using IRAS data discovered six new comets including comet IRAS-Araki-Alcock. He also discovered a dust tail on comet Temple-2 and several new asteroids, before becoming involved in the UK preparations for Halley's comet. John is now at Birmingham University involved in the development of a UV telescope to be launched in 1987. His lecture will be entitled:

"WHY IS HALLEY'S COMET IMPORTANT FOR SCIENCE?"

**MIKE PAGE** hardly needs any introduction. A long-standing FAS Council member, Mike has spent the past 21 years helping build the impressive complex at Newchapel. His lecture will be entitled:

"NEWCHAPEL OBSERVATORY COMES OF AGE"

and will describe the work done over the years and the prospects for the future as a "Natural Sciences Visitor Centre".

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**DON'T FORGET - SPACE ART AND ASTRO PHOTO COMPETITIONS**

Could society delegates please remember to bring their copy of the AGM agenda and minutes of the last AGM, as extra copies will not be available at the convention.

**REFRESHMENTS:** these will be available from 10.30am to 11.30am and from 4.00pm to 4.30pm. The council member in charge is George Bolland (Diploma in British Rail Coffee Making - failed) so don't say you haven't been warned!

**NOTE:** SOCIETIES WITH 6 OR MORE DELEGATES GET 1985/86 FAS SUBSCRIPTION FREE.

**TICKETS FROM:** Ken Marcus, 5 Cedars Gardens, Brighton, BN1 6YD.

Members £2.50. Non-members £3.50. (No increase from last year!) (Or the year before!)