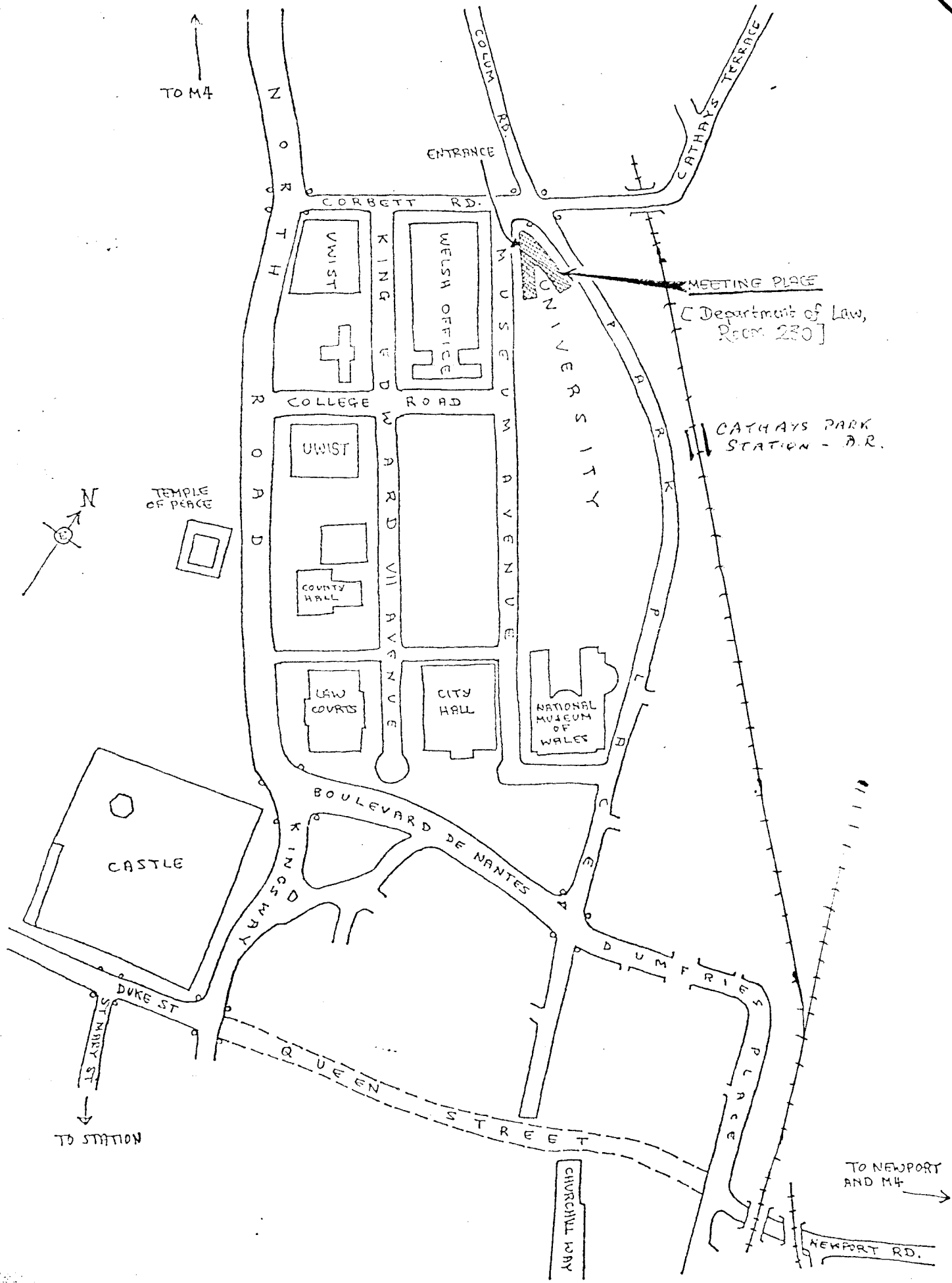


CARDIFF

ASTRONOMICAL SOCIETY

HANDBOOK

1984 / 85



TO M4

ENTRANCE

CORBETT RD.

UWIST

WELSH OFFICE

COLLEGE ROAD

UWIST

COUNTY HALL

LAW COURTS

CITY HALL

NATIONAL MUSEUM OF WALES

MEETING PLACE

[Department of Law, Room 230]

CATHAYS PARK STATION - B.R.



TEMPLE OF PEACE



CASTLE

BOULEVARD DE NANTES

DUKE ST

TO STATION

QUEEN STREET

CHURCHILL WAY

TO NEWPORT AND M4

NEWPORT RD.

## I N T R O D U C T I O N

Since it seems as if the C.A.S. handbook has been a success, it has been decided by the Committee to make it an annual publication. The pattern of this edition closely follows that of its predecessors, but if members have suggestions for improvements to future editions, they will be warmly welcomed by the Committee.

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## M E E T I N G S

Indoor meetings are held on alternate Thursdays from September to July in Room 230, Department of Law, University College, Cardiff, at the north end of Museum Avenue. (See map opposite). They commence at 7.30pm and finish by 9.30pm. (Lectures normally end shortly after 9.00pm). Occasional meetings are held on days other than Thursdays, and you should check the programme at the end of this handbook for details.

Apart from indoor meetings, outdoor observing sessions, where members bring their own portable instruments, are held from time to time. Details are announced at the indoor meetings or in the Newsletter.

## CARDIFF ASTRONOMICAL SOCIETY

Cardiff has seen a succession of astronomical societies since the end of the war. The predecessors of the current society disbanded for various reasons, and its immediate predecessor, The Cambrian Astronomical Society, finally became moribund by 1970.

At an Extra-Mural course held at Duffryn House in June 1975, the present Treasurer (Bob Owens) and Secretary (Dave Powell) were encouraged by the organiser Dr. G.P. Thomas (formally of the Extra-Mural Dept. of the University College of Swansea, now at the Dept. for External Studies, University of Oxford), to revive the Cardiff Society, particularly in view of the existence of large and vigorous societies in our neighbouring cities of Swansea and Bristol. Consequently, they got together with Ron Lane, Custodian of Penylan Observatory, and two of his group at the observatory - Colin Lang and Martin Chick - and arranged an exploratory meeting in July 1975. It immediately became apparent that there would be support for a new society, and so an interim committee, with Ron Lane in the chair, was set up. It set about arranging a programme for the Autumn, and by the end of 1975 the membership had reached 50, and a keen, enthusiastic nucleus had been established. Despite pessimism from members of earlier societies, who had seen several rise only to fall again, the present society quickly became well established, and the membership has consistently topped the 100 mark for the past three years.

We are still a fledgling society compared with our long-established neighbours, who have given us a good deal of help and encouragement, but we are gradually becoming more sophisticated, with members obtaining larger telescopes and gaining observational experience. Several members now contribute to the observing sections of such national organisations as the B.A.A. and the British Meteor Society, and we have become involved in joint meteor watches with Swansea and Bristol. We are also attempting - so far without much success - to encourage members to make their own instruments, particularly since we have members very experienced in this field. Towards this end there is a co-operative society effort under way to construct a six inch Newtonian reflector hopefully (!) ready for use during the coming winter.

We try to offer a wide and interesting variety of lectures at our fortnightly meetings so as to cater not only for the practical observer, but also for the 'armchair' astronomer. Also, informal 'observing sessions' are held from time to time in a dark out-of-town location to allow members - especially those who are beginners without their own instruments - to have use of portable telescopes and to get to know their way about the sky. The society is normally represented at the courses arranged by the Extra Mural Department, University College of Swansea, held alternately at Duffryn House, St. Nicholas in South Glamorgan and at Gregynog Hall, near Newtown in Powys, as well as at the annual B.A.A. course on observational astronomy held at Winchester. Social events are also held, sometime in conjunction with our neighbouring societies.

Until the end of 1978 our society had its headquarters at Penylan Observatory, owned by Cardiff City Council and equipped with a 12½" Newtonian reflector. This telescope is a rare example of a Browning reflector, made in the nineteenth century, and modified by Calver, who added the drive. It is thus an instrument of high quality as well as of historical importance. Sadly, the observatory compound has been so badly vandalised that it became necessary to dismantle and remove the telescope entirely in April 1980 so that it could be moved to the safety of a council store. Members of the committee, in concert with members of the South Glamorgan Education Committee, are currently seeking a new site on which to re-erect the observatory.

Through the good offices of our President, Professor M. Disney, we will be able to have use of the sixteen inch reflector belonging to the University College of Cardiff, and it will be available after the end of some of the fortnightly meetings. It is used essentially as a training telescope by the Department of Mathematics and Astronomy to prepare students for working with bigger instruments abroad.

The Society owns a few small portable telescopes for use by members, and these can be obtained on loan from the Director of Observations. There is also a small but growing library, and books are available for loan at each meeting.

It is the intention of the committee to build up a library of 35mm transparencies for the use of members and although there is not yet a society slide library as such, some members do privately possess some interesting astronomical slides. If members are interested in these, personal contacts can be arranged by any committee member.

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COMMITTEE 1984-85

PRESIDENT:

Professor M. Disney,  
Professor of Observational Astronomy,  
Department of Mathematics and Astronomy,  
University College,  
Cardiff.

VICE PRESIDENT:

R.C. Lane (Ron),  
Custodian of Penylan Observatory,  
53 Romilly Road,  
Canton,  
Cardiff.

Instrument -  $2\frac{1}{2}$ " refractor.  
Interests - Cosmology; Deep sky objects.

CHAIRMAN:

Ms. P. Chick (Pam), F.R.A.S.,  
~~Data Controller,~~ STUDENT  
25 Calderton Road,  
Gwaen Miskin,  
Mid Glamorgan.  
Tel. ~~Cardiff 396131 Ext. 41 (business)~~

$0443\ 206594$   
Instruments -  $8\frac{1}{2}$ " Newtonian reflector.  
Interests - Planetary and solar observation;  
Spectroscopy.

VICE CHAIRMAN:

Mr. P.L. Bennett,  
Engineer,  
6 Church Close,  
Llantwit Fadre,  
Mid Glamorgan.  
Tel. Newtown Llantwit 203247.

Instruments -  $12\frac{1}{2}$ " reflector.

Interests - Deep Sky objects and Telescope/  
Instrument making.

SECRETARY:

Mr. D.W.S. Powell (Dave) F.R.A.S.,  
Hospital Supervisor,  
1 Talybont Road,  
Ely,  
Cardiff.

Tel. Cardiff 551704 (home)  
564822 (business)

Instruments - 6" Newtonian reflector.  
20 x 70 and 7 x 50 binoculars.  
Interests - Variable stars; Nova patrols;  
Meteors; Deep Sky objects and  
Stellar Evolution.

TREASURER:

Dr. R.M. Owens (Bob) B.Sc., Ph.D., F.R.A.S.,  
Assistant Keeper of Geology,  
National Museum of Wales,  
Home address:  
3 Duxford Close,  
Llandaff,  
Cardiff. CF5 2PR.  
Tel. Cardiff 397951 Ext. 213 (Museum)  
554154 (Home)

Instruments - 8" Schmidt-Cassegrain  
6 x 30 binoculars.  
Interests - Solar system and photography.

EDITOR & LIBRARIAN:

Miss M.J. Lewis (Mary),  
Clerical Assistant,  
Wales Tourist Board,  
Home address:  
86 Highbury Road,  
Ely, Cardiff.  
Tel. Cardiff 499909 Ext. 215 (Work).  
Instruments - 10 x 50 binoculars.  
Interests - Solar System and Space Exploration.

DIRECTOR OF OBSERVATIONS:

Mr. M.E.J. Chick (Martin), F.R.A.S.,  
Police Photographer,  
South Wales Police,  
25 Calderton Road,  
Gwaen Miskin,  
Nr. Pontypridd,  
Mid Glamorgan.  
Tel. Cardiff 441111 Ext. 266 (Business).  
Instruments - 8 $\frac{3}{4}$ " Newtonian reflector.  
7 x 50 binoculars.  
Interests - Planetary observation and photography.

JUNIOR REPRESENTATIVE/  
LIBRARIAN

V A C A N T

COMMITTEE MEMBER:

Mr. N.L. Jenkins (Norman),  
B.B.C. Engineer,  
34 St. Margaret's Road,  
Whitchurch,  
Cardiff. CF4 7AB.  
Tel. Cardiff ~~60335~~ (home).  
618335  
Instruments - 7 x 50 binoculars.  
Interests - Astronomical ~~interests~~ <sup>instruments</sup> and  
their construction; Deep Sky  
Objects and Planetary observation.

COMMITTEE MEMBER:

Dr. W. Sutherland (Bill),  
Physicist, Velindre Hospital,  
13 St. John's Crescent,  
Whitchurch,  
Cardiff. 626132  
Tel. Cardiff ~~6672~~ (home).

Instruments - 6" and 4" Maksutovs.  
6" Cassegrain.

Interests - Instrument making and Cosmology.

COMMITTEE MEMBER:

Mr. C. Hales,  
26 Tyla Teg,  
Pantmawr,  
Whitchurch,  
Cardiff CF4 6XL.  
Tel. ~~6679~~  
626909

Instruments - 7 x 50 binoculars.

Interests - Deep sky objects.

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LIBRARY

A comprehensive list of books currently available  
for loan to members:-

(A) GENERAL

ABELL, George O	Astronomy for Everybody
ASIMOV, Isaac	The Universe
AVENEL, Anthony	The View from Orbit II
BALL, R.	The Story of the Heavens
BRANDT, John C. & MARAN, S.P.	New Astronomy and Space Science Reader
BROWN, Peter Lancaster	Astronomy in Colour
	Comets, Meteorites and Men
	Stars and Planet Spotting
	The Restless Earth
	The Violent Universe
	Into Space
	Space Frontiers
CALDER, Nigel	
	Radio Studies of the Universe
CLEATOR, P.E.	
COOPER, Heather & HENBEST, Nigel	Practical Astronomy with your Calculator
DAVIES, R.D. & PALMER, H.P.	The Earth
DUFFET-SMITH, Peter	Teach Yourself Astronomy
EVANS, I.O.	Franks Book of the Telescope
EVANS, David S	Bombarded Earth
FRANK, Charles	Robot Explorers
GALLANT, R.	The Comet Kohoutek
GATLAND, Kenneth	Storm on the Sun
GOODAVAGE, Joseph F	The Living Universe
	Reach for the Moon
HEBYRD, James D	Introducing the Universe
HENDRICKSON, Walter	The Comet
HICKLEY, James C	Astronomy
HILL, Douglas	The Search for Life on Other Worlds
HINKS, A.R.	Radio Astronomy
HOLMES, Cpt. D.C.	Flying Saucers from Outer Space
HYDE, Frank W	The Modern Universe (2 copies)
KEYHOE, Mjr. D.E.	Discovering the Universe
LYTTLETON, Raymond A	The Messier Album
LOVELL, Bernard & Joyce	The A - Z of Astronomy
MALLAS & KREIMER	The Boys Book of Space
MOORE, Patrick	Challenge of the Stars
	Exploring other Planets
	Exploring the Galaxies
	Guide to the Moon
	Guide to the Planets
	Guide to the Stars
	Practical Amateur Astronomy
	The Stars Above
	Yearbook of Astronomy 1975
	Yearbook of Astronomy 1977
	Yearbook of Astronomy 1978
	Yearbook of Astronomy 1979
	Deep Sky Objects
	Sky Shooting
	Exploring the Planets
NEWTON, Jack	The Constellations and How to Find Them
	Exploring the Solar System
NICHOLSON, J	
PECK, W	
POOCEY, S	

LIBRARY (Continued)

RICHARDSON R.S.	Man and the Planets
RIDPATH Ian	Signs of Life
RONAN, Colin A	Man Probes the Universe
	The Practical Amateur Astronomer
ROTH, Gundter D.	The Amateur Astronomer and his Telescope
	Handbook for Planet Observers
RYAN, Peter	Invasion of the Moon, 1969.
SAWYER, W.W.	Mathematicians Delight
SIDGWICK, J.B.	Introducing Astronomy
SMART, W.M.	The Riddle of the Universe
SMITH, A.	A Key to Worlds Beyond (TASCO)
SPRY, Reg	Make Your Own Telescope
STONELEY, J.	Is Anyone Out There?
TAYLOR, J.	Black Holes
THACKERAY, A.D.	Astronomical Spectroscopy
VALLEE, J & J.	The UFO Enigma
WASHBURN, M.	Mars at Last!
WATERFIELD, Reginald L.	The Revolving Heavens
WEBB, Rev. T.W.	Celestial Objects for Common Telescopes:-
	Vol. 1: The Solar System
WEINBURG, S.	The First Three Minutes
WHIPPLE, F.	Earth, Moon and Planets
WILSON, D.	Our Mysterious Spaceship Moon
WORRILL, R.	Exploring Space (2 copies)
	The Stars and their Legends

(B) YEARBOOKS AND ASTRONOMICAL CALENDARS

Yearbooks; see general list under Moore, Patrick.

The Night Sky:	1961
The Night Sky:	1963
The Night Sky:	1976
CAS Calendar	1977
CAS Calendar (3 copies)	1978
CAS Calendar	1979
CAS Calendar	1980
CAS Calendar	1981

(C) PERIODICALS

Federation of Astronomical Societies (newletters)	1981
Stars and Space '77	1977
BAA, New South Wales Branch, Bulletins	Nos. 579 - 585
	590 - 592
	595 - 599
The Astronomer	Oct 1977
	Jan-Mar 1978
	Feb-Aug 1981
Spectrum No.5	Nov 1976
Sky and Telescope	1965 issues

LIBRARY (Continued)

(D) OBSERVATIONAL GUIDES AND STAR ATLASES

See general list (A) and other categories.

Signpost to the Stars  
Stars at-a-glance  
Popular Star Atlas 1950  
Nortons Star Atlas  
Skalnate Pleso Atlas of the Heavens  
Epoch 1950.0 P. Becvar  
Whitakers Almanac 1967  
TASCO Telescope Manual for Beginners  
An Easy Guide to the Constellations J. Gall Inglis

(E) VARIOUS EQUIPMENT CATALOGUES

(F) GUIDES TO VARIOUS PLACES OF ASTRONOMICAL INTEREST

(G) MISCELLANEOUS BOOKS

About Telescopes Project Book 118  
The Young Space Traveller Project Book 168  
Astronauts Book  
Moon, Mars and Meteorites (Geological Museum)  
The Moon - A Brief Four-Language Survey  
Flying Saucers Bulletin Apr. 1977

(H) ASTRONOMICAL SOCIETY PUBLICATIONS

CAS Calendars; see Yearbooks and Calendars (B)  
BAA publications; see Periodicals (C)

Swansea A.S. Circular 27 Dec 1979  
York A.S. Newsletter 13 Jan 1978  
Shropshire A.S. Newsletters 4 & 5.

Minutes of CAS Committee Meetings  
Newsletters of the CAS  
CAS Handbooks; 1979-80; 1980-81; 1981-82.

Suggestions for additions to the library are invited from any member who has a particular title in mind.

Please could you return any outstanding books you may have on loan.

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PROGRAMME FOR 1984/85 SEASON

The following is a list of speakers arranged for the coming months. Apart from unavoidable short-notice changes all alterations will be announced in the C.A.S. Newsletter or at meetings.

1984

- 6th September 'Planetary Nebulae' by Mr. D. Powell, F.R.A.S., Cardiff Astronomical Society.
- 20th September 'Is There Anyone out There' by Professor M.J. Disney, Hon. President C.A.S., Applied Maths and Astronomy Dept., University College.
- 4th October 'Some Recent Planetary Observations' by C.J.R. Lord, F.R.A.S., Brayebrook Observatory, East Sussex.
- 18th October 'Large Scale Structure of the Universe' by Dr. A. Phillips, Dept. Applied Maths and Astronomy, University College.
- 1st November 'Telescope Making for the Beginner' by Mr. Peter Bennett, C.A.S.
- 15th November 'The Formation of Galaxies' by Dr. M. Edmunds, Dept. Applied Maths and Astronomy, University College.
- 29th November 'Some Unsolved Problems in Astronomy' (Part 2) Dr. B. Sutherland, C.A.S.
- 13th December 'Astro Photo-Patrolling' by Mr. D. McAdam, Wolverhampton Astronomical Society.

1985

- 10th January Astronomical Quiz.
- 24th January Three Short Talks - 'The Outer Planets' by Mr. F. Morris; 'Taurus' by Mr. G. Dolan; 'New Astronomy Simplified' by Mrs. C. Sheldon.
- 7th February 'The Messier Objects' by Dr. R.M. Owens, Ph.D; F.R.A.S., C.A.S.
- 21st February 'Radio Astronomy' by Dr. A.H. Nelson, Dept. Applied Maths & Astronomy, University College.
- 7th March 'Micro Computers, their application in Astronomy' by Mr. M. Chick, F.R.A.S., C.A.S.
- 21st March 'Observing Double Stars' by Mr. M. Painter, C.A.S.
- 4th April ANNUAL GENERAL MEETING
- 18th April Three Short Talks - 'Space Probe Giotto' by Mr. F. Morris; 'S.I. Units - What Do They Mean' by Mr. Ken Sheldon; 'Eye Pieces' by Mr. M. Chick.
- 2nd May 'Simple Celestial Navigation, Including Astronomical Time' by Commander H. Hatfield, Sevenoaks, Kent.
- 16th May 'Programme for the Space Telescope' by Professor M.J. Disney, Hon. President C.A.S., Dept. Applied Maths & Astronomy, University College.

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Programme for 1985 Cont'd ...

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|-----------|---|
| 30th May  | 'Sir William Herschel' by Mr. M. Tabb, Bath Astronomical Society. |
| 13th June | 'Halley's Comet' by Dr. R.M. Owens, Ph.D., F.R.A.S., C.A.S.       |
| 27th June | 'Results from I.R.A.S.' by Dr. W. Sutherland, C.A.S.              |
| 11th July | 'Practical Astronomy' by Mr. G. Dolan, C.A.S.                     |

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In addition to the fortnightly indoor meetings, there will be informal observing sessions, joint meteor watches with the Swansea and Bristol Societies, and an outing to a place of astronomical interest in the summer. Jumble sales will be arranged from time to time in order to raise funds for the society and details of all these events will be announced at the meetings and in the newsletter.

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Our subscription rates for the 1984/85 sessions remains at:-

Adults - £5; Juniors - £2.

This becomes due at the first meeting of our September session.

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This handbook is being sent out early as we would appreciate your subscriptions as early as possible. As you will notice we have quite a few good speakers coming 84/85 seasons and we need the money for expenses and to be able to carry out the things in the society we need to.

So please don't hesitate send your subs in NOW! Our treasurer will be collecting on the first meeting in September or you can send your cheques etc., to our Secretary: Mr. Dave Powell, 1 Talybont Road, Ely, Cardiff. Please let us have them as soon as possible.

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