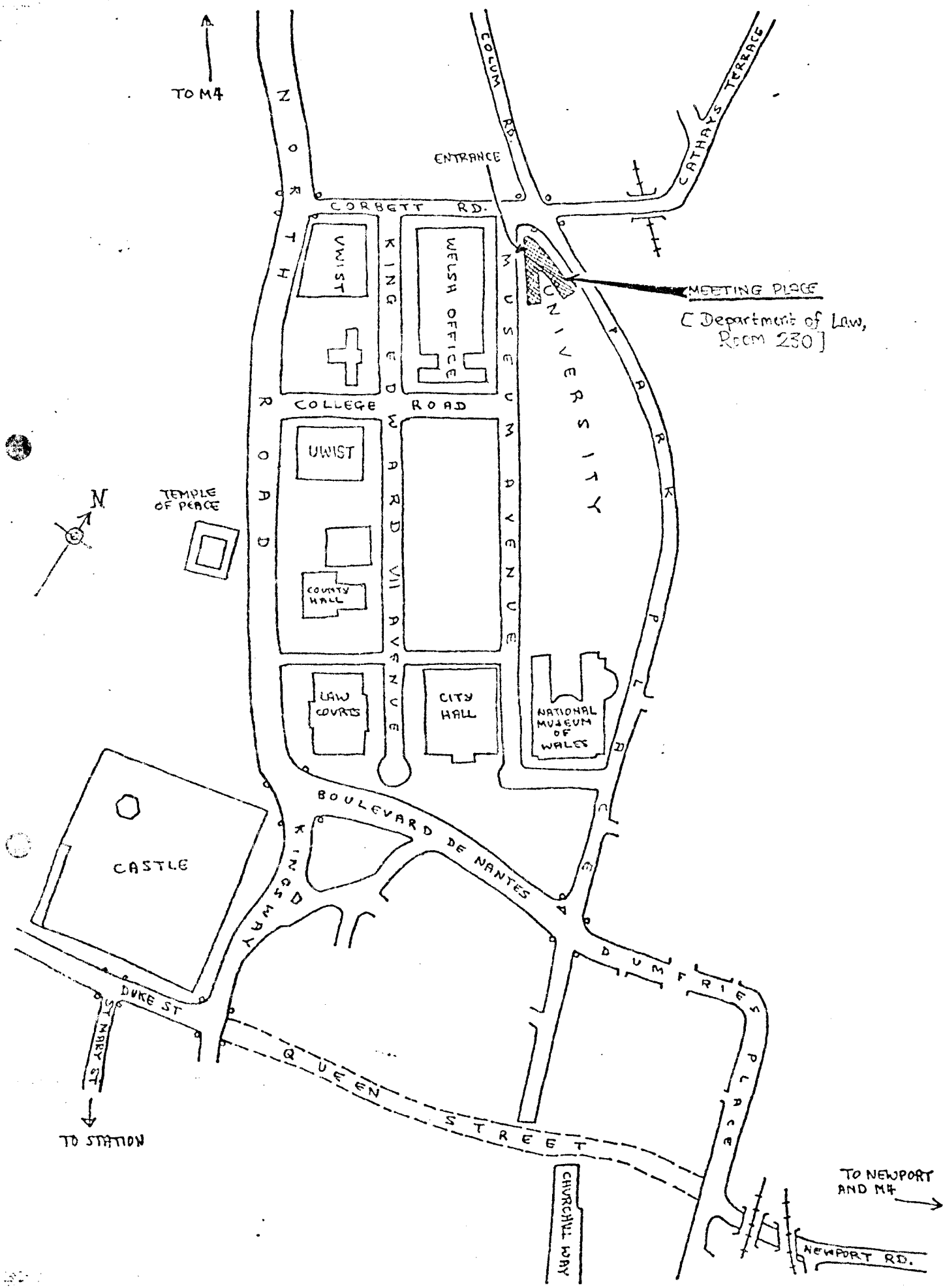


CARDIFF  
ASTRONOMICAL SOCIETY

HANDBOOK

1985/86



TO M4

ENTRANCE

CORBETT RD.

CATHAYS TERRACE

UWIST

WELSH OFFICE

UNIVERSITY

MEETING PLACE  
[Department of Law,  
Room 230]

COLLEGE ROAD

UWIST

COUNTY HALL

ROAD

LAW COURTS

CITY HALL

NATIONAL MUSEUM OF WALES

TEMPLE OF PEACE

CASTLE

BOULEVARD DE NANTES

DUKE ST

TO STATION

QUEEN STREET

CHURCHILL WAY

TO NEWPORT AND M4

NEWPORT RD.

## INTRODUCTION

Since it seems as if the U.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 edition, they will be warmly welcomed by the Committee.

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## MEETINGS

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, former 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 E.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" Newtownian 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 1985/86

- 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 - 2½" refractor.  
Interests - Cosmology; Deep Sky objects.
- CHAIRMAN: Ms. P. Chick (Pam), F.R.A.S.,  
Data Controller,  
25 Calderton Road,  
Gwaen Miskin,  
Mid Glamorgan.  
Tel. Cardiff 396131 Ext. 41 (Business).  
  
Instruments - 8½" Newtownian 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 - 12½" reflector.  
Interests - Deep Sky objects and Telescope/  
Instrument making.
- SECRETARY: Mr. D.W.S. Powell (Dave) F.R.A.S.,  
Medical Representative,  
1 Talybont Road,  
Ely,  
Cardiff.  
Tel. Cardiff 551704.  
  
Instruments - 6" Newtownian 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:

Miss M.J. Lewis (Mary),  
Clerical Assistant,  
Wales Tourist Board.  
Home address:-  
86 Highbury Road,  
Ely,  
Cardiff.  
Tel. Cardiff 499909 Ext. 217 (Work)  
596092 (Home).

Instrument - 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.  
Home address:-  
25 Calderton Road,  
Gwaen Miskin,  
Nr. Pontypridd,  
Mid Glamorgan.  
Tel. Cardiff 44111 Ext. 256 (Business)

Instruments - 8 $\frac{1}{2}$ " Newtonian reflector.  
7 x 50 binoculars.  
Interests - Planetary observation and photography.

LIBRARIAN:

Mr. G. Dolan (Gerry),  
9 Hendy Street,  
Roath,  
Cardiff.  
Tel. 496296.

Instruments - 3" refractor  
7 x 50 binoculars.

JUNIOR REPRESENTATIVES: Rhys Morris,  
14 Highfields,  
Llandaff,  
Cardiff.

AND

Julian Cason,  
30 Nant Fawr,  
Cyncoed,  
Cardiff.

COMMITTEE MEMBER: Mr. N.L. Jenkins (Norman),  
B.B.C. Engineer,  
34 St. Margaret's Road,  
Whitchurch,  
Cardiff. CF4 7AB.  
Tel. Cardiff 68335 (Home).

Instruments - 7 x 50 binoculars.  
Interests - Astronomical instruments and  
their construction; Deep Sky  
Objects and Planetary observation.

COMMITTEE MEMBER: Dr. W. Sutherland (Bill),  
Physicist,  
Velindre Hospital.  
Home address:  
13 St. John's Crescent,  
Whitchurch,  
Cardiff.  
Tel. Cardiff 66132 (Home).

Instruments - 6" and 4" Maksutovs.  
6" Cassegrain.  
Interests - Instrument making and Cosmology.

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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. &       | New Astronomy and Space Science Reader.   |
| MARAN, S.P.             |   |
| 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.           |   |
| COUPER, Heather &       | Practical Astronomy with your Calculator. |
| HENBEST, Nigel          | The Earth.                                |
| DAVIES, R.D. &          | Teach Yourself Astronomy.                 |
| PALMER, H.P.            | Franks Book of the Telescope.             |
| DUFFET-SMITH, Peter     | Bombarded Earth.                          |
| EVANS, I.O.             | Robot Explorers.                          |
| EVANS, David S.         | The Comet Kohoutek.                       |
| FRANK, Charles          | Storm on the Sun.                         |
| GALLANT R.              | The Living Universe.                      |
| GATLAND, Kenneth        | Reach for the Moon.                       |
| GOODAVAGE, Joseph F.    | Introducing the Universe.                 |
|                         | The Comet.                                |
| HEBWYRD, James D.       | Astronomy.                                |
| HENDRICKSON, Walter     | The Search for Life on Other Worlds.      |
| HICKLEY, James C.       | Radio Astronomy.                          |
| HILL, Douglas           | Flying Saucers from Outer Space.          |
| HINKS, A.R.             | The Modern Universe (2 copies).           |
| HOLMES, Cpt. D.C.       | Discovering the Universe.                 |
| HYDE, Frank W.          | The Messier Album.                        |
| KEYHOE, Mjr. D.E.       | The A - Z of Astronomy.                   |
| LYTTLETON, Raymond A.   | The Boys Book of Space.                   |
| LOVELL, Bernard & Joyce | Challenge of the Stars.                   |
| MALLAS & KREIMER        | Exploring other Planets.                  |
| MOORE, Patrick          | 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.
	The First Three Minutes.
	Earth, Moon and Planets.
	Our Mysterious Spaceship Moon
	Exploring Space (2 copies).
	The Stars and their Legends.
WEINBURG, S.	
WHIPPLE, F.	
WILSON, D.	
WORRILL, R.	

(B) YEARBOOKS AND ASTRONOMICAL CALENDARS

Yearbooks; see general list under Moors, 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 (newsletters)	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 your return any outstanding books you may have on loan.

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PROGRAMME FOR 1985/86 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 CAS. Newsletter or at meetings.

1985

- X 5th September 'The Search for Extra-Terrestrial Intelligence' by Dr. M. Leggett, University of Bristol.
- X 19th September 'Halley's Comet' by Dr. Patrick Moore, Sussex.
- X 3rd October 'In the Beginning' by Dr. Rodney Hillier, University of Bristol.
- 17th October 'Three Short Talks' by:- 'The Ecliptic' - R.M. Owens Ph.D., F.R.A.S.; 'A Constellation' - Gerry Dolan; 'O' Level Astronomy' - Rhys Morris.
- ✓ 31st October 'Britain's National Observatories' by Dr. M. Edmunds, University College, Cardiff.
- 14th November 'Observing Remotely' by Professor M.J. Disney, Hon. President, CAS; University College, Cardiff.
- X 28th November 'Chemistry of Jupiter & Saturn' by Dr. P. Blake, University College, Cardiff.
- 12th December 'Astronomical Quiz'.

1986

- 9th January 'Three Short Talks' by:- 'Second Generation Russian Satellites' - R. Osbourne; 'The Winter Sky' - Mr. M. Chick, CAS, F.R.A.S.; 'Orion' - Hugh Lang, CAS.
- 23rd January 'Early History of Astronomy' by Mr. M. Greene, CAS.
- 6th February 'How to be Weatherwise' by Dr. J.M. Walker, Department of Maritime Studies, U.W.I.S.T.
- 20th February 'Interacting Binary Stars' by S. Lubbock, CAS.
- 6th March 'The Infra-Red Universe' by Professor M.J. Disney, Hon. President, CAS; University College, Cardiff.
- 20th March 'Active Galaxies' by Dr. B. Sutherland, CAS.
- 3rd April 'ANNUAL GENERAL MEETING'
- 17th April 'Image Processing on a BBC Micro' by T. Cook, CAS.
- 1st May 'The Search for Life Beyond the Earth' by Dr. H. Opik, Dept. of Botany & Microbiology, University College, Swansea.
- 15th May 'The Moon and the Amateur Astronomer' by Mr. G. Amery, BAA, Lunar Section, Reading.
- 29th May 'Star Clusters' by Dave Powell, CAS, F.R.A.S.
- 12th June 'Astro Photography' by Mr. M. Chick, CAS, F.R.A.S.

Programme for 1985/86 Cont'd ...

26th June 'Some Aspect of Telescope Making' by Dr. B. Sutherland, CAS.

10th July 'Planet Earth' by Dr. R.M. Owens, Ph. D, F.R.A.S.

CARDIFF ASTRONOMICAL SOCIETY TENTH ANNIVERSARY BEGINS JULY 1985. SPECIAL PROGRAMME IN SEPTEMBER.

NATIONAL ASTRONOMY WEEK FROM NOVEMBER 9th - 16th. BUILDING SOCIETY DISPLAYS, LIBRARY DISPLAY, SPECIAL OBSERVING SESSIONS ETC, ETC.

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In addition to the fortnightly indoor meetings, there will be informal observing sessions. 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 1985/86 sessions will be:-

Adults - £6. 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 for our 85/'86 seasons and we need the money for expenses and to be able to carry out work in the society for the members' benefit.

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 your subscriptions as soon as possible.

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