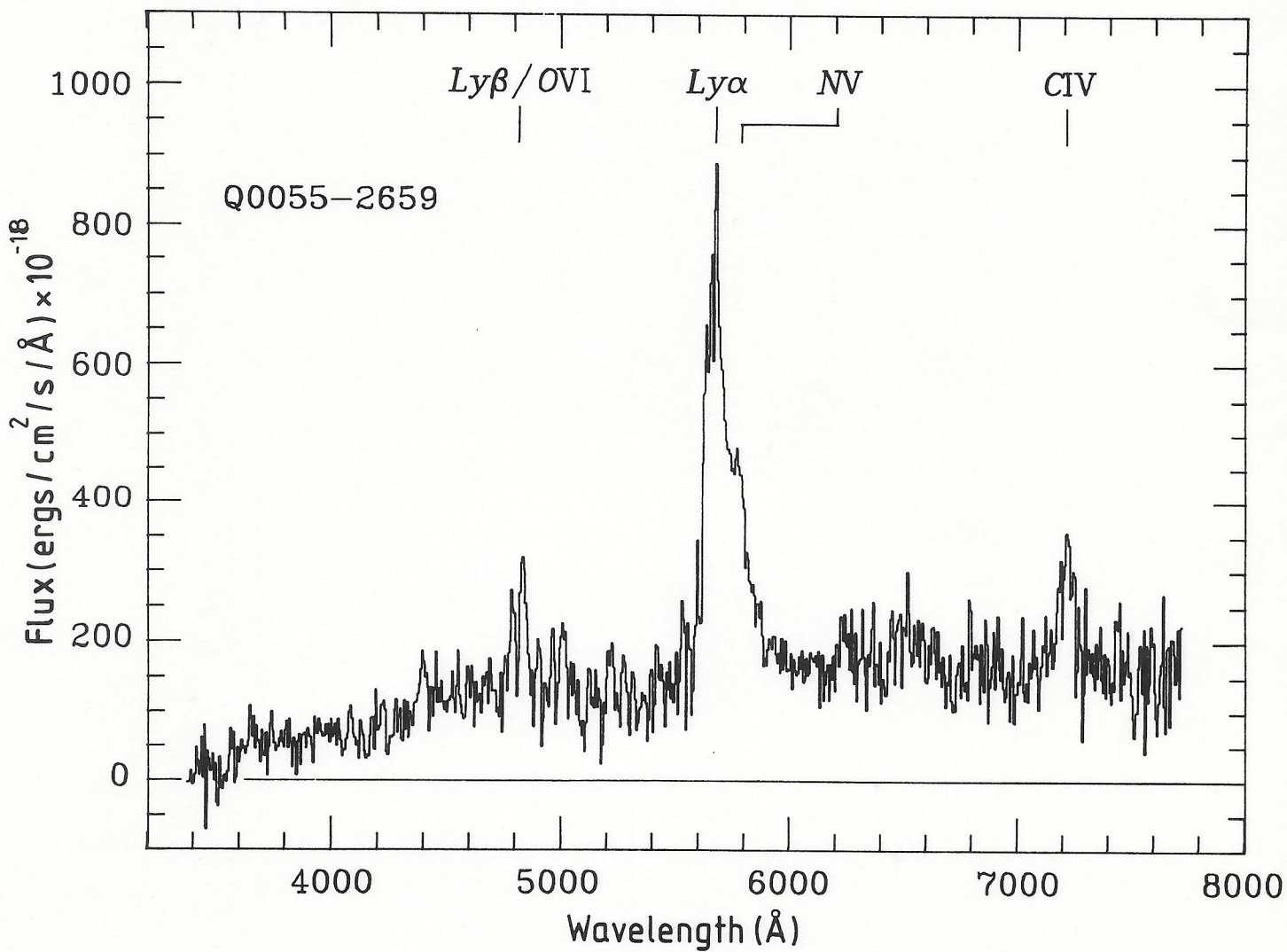


Spectrum of the second most distant quasar known, Q0055-2659, at a redshift of 1.8. This spectrum was taken by Professor A. Sandage, Director of W.O. on the 2.0m Infrared Telescope at the Observatoire de Haute-Provence in France.

PATT NEWSLETTER

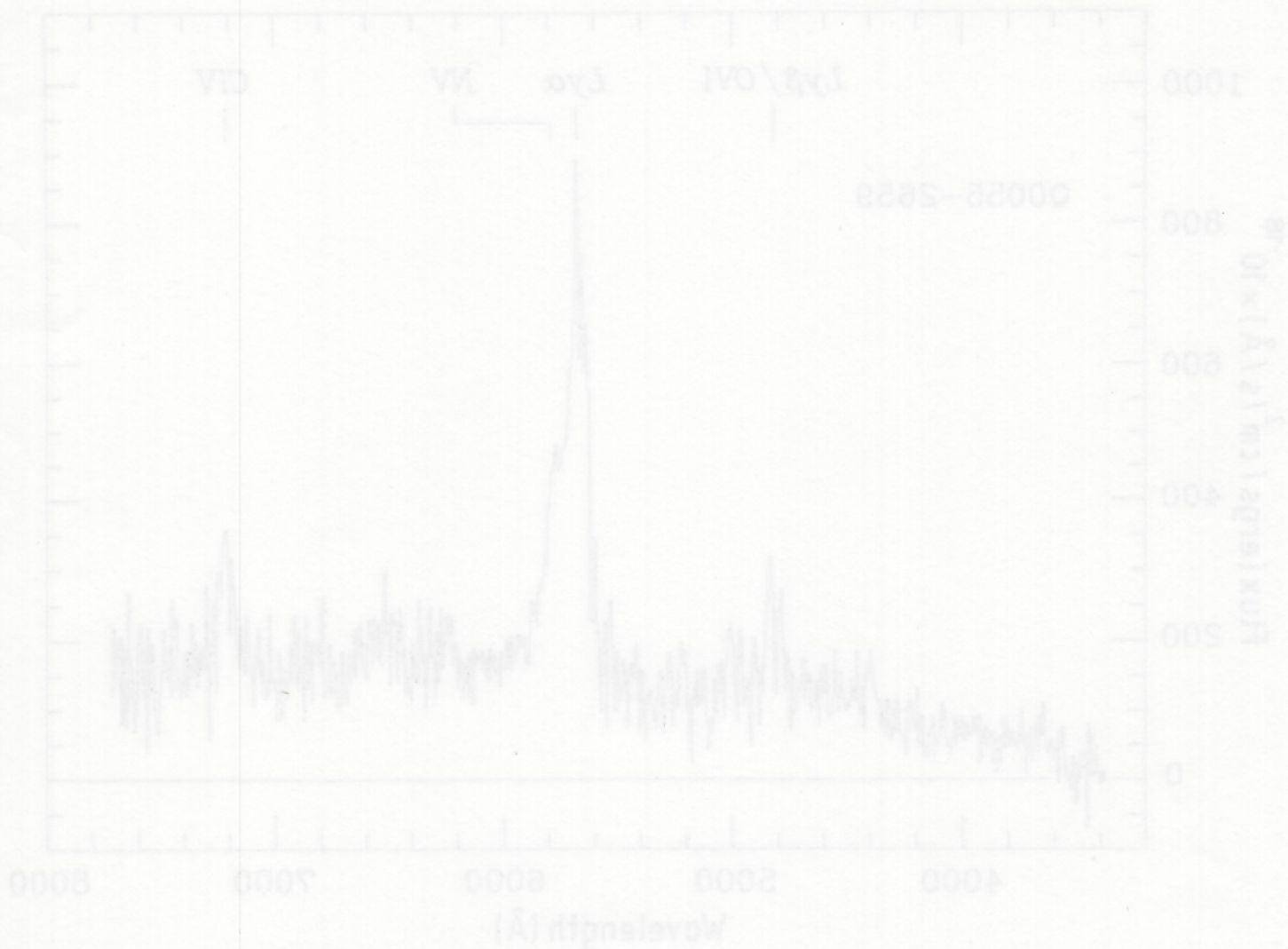
MARCH 1985



Spectrum of the second most distant quasar known, Q0055-2659, with a redshift of 3.68. This spectrum was taken by Professor A Boksenberg, Director of RGO, on the 2.5m Isaac Newton Telescope at the Roque de los Muchachos Observatory on La Palma.

PATT NEWSLETTER

MARCH 1985



PATT NEWS : MARCH 1985

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Circulated with this Newsletter:

MMAG Newsletter

1. PATT

a. MEMBERSHIP OF PATT

Membership of PATT for the 1984/85 session is as follows :

Chairman

Professor F Graham Smith (NRAL)

Members

Dr D J Axon (NRAL)

Dr J E Baldwin (MRAO, Cambridge)

Dr P W J L Brand (Edinburgh)

Dr A G de Bruyn (Dwingeloo)

Dr P A Charles (Oxford)

Professor M J Disney (Cardiff)

Dr P L Dufton (Queens, Belfast)

Dr G Gilmore (IOA, Cambridge)

Dr R D Joseph (ICST)

Professor H J G Lamers (Utrecht)

Dr M V Penston (RGO)

Dr T Shanks (Durham)

Dr G J White (QMC)

Dr D C B Whittet (Preston Polytechnic)

b. Observing time awarded January 1985

A list of all the proposals awarded time by PATT in January 1985 is included at the back of this issue of PATT News.

c. Travel and subsistence associated with observing runs.

PATT has reviewed the current arrangements on requests for travel support to take up observing time, and agreed that the following guidelines might be used by the office in deciding the levels of support awarded.

- i) two experienced observers would normally be regarded as the maximum for any observing run. Where observers above this number was requested, a special case would need to be made. Students would not

be classed as experienced observers until they had used a facility on two separate occasions. Thereafter the term 'experienced observers' could be used to describe one university observer and the student;

- ii) the number of working days allowed for data reduction, setting up, etc associated with an observing run should be kept to a minimum, but that 4-5 additional days might be regarded as 'reasonable'. Requests for additional working days above this number, eg: for instrument preparation, would need to be fully justified;
- iii) if, in order to obtain cheaper air fares, further additional days were required, this should normally be allowed if there was a total net saving to the Council;
- iv) observers should submit requests for travel support at the same time as they sought time on non-SERC facilities. Applications which sought travel funding after time had been awarded on non-SERC facilities, would not normally be considered for support;
- v) reaffirmed that PATT travel grants could only be used for the purposes of the observing run for which it was awarded. Any balances remaining on the grant after the observing run could not be used for other purposes even if these were associated with the observing run: eg instrument development.

d. Length of Scientific Cases.

Observers are reminded that the length of scientific cases associated with applications for telescope time must not exceed four sides of typescript (including diagram and references). If cases above this limit are received, only the first four sides will be copied to PATT.

e. Longer term proposals.

Applicants who intend their applications to be considered as longer term proposals are asked to clearly signify this fact by completing, in section 5(iii) of the application form, the number of useful nights/weeks (as appropriate) to complete the programme, to endorse these with an asterisk, and to specify in the space beneath question 5(v) that this is a longer term application.

f. Closing date for applications, Semester I.

You are reminded that the closing date for the receipt of applications for semester I (September 1985 - February 1986) is 7 May 1985.

Applications received at Central Office after this date will not normally be considered.

POST EARLY (by 30 April at the latest). To ensure that your application can be considered.

2. LA PALMA

a. Handling Charges at La Palma

Certain handling charges are payable to the airport authorities at La Palma based on the value shown on the airway bill to the following formula (3 elements make up the total)

0 - 200,000 ptas fixed charge nil + 3.33% of value (minm. 662 ptas) + 4% local tax.

200,001 - 500,000 ptas fixed charge 1560 ptas + 2.55% of value + 4% local tax.

500,001 - 1,000,000 ptas fixed charge 3810 ptas + 2.1% of value + 4% local tax.

1,000,001 - 2,000,000 ptas fixed charge of 13,050 ptas + 1.26% of value + 4% local tax.

2,000,001 - 5,300,000 ptas fixed charge of 24,050 ptas + 0.71% of value + 4% local tax.

5,300,001 ptas and above fixed charge of 46,840 ptas + 0.28% of value + 4% local tax.

The current exchange rate (Jan.1985) is approximately 210 ptas/£1.

La Palma Agents fees are of the order of the equivalent of a few pounds sterling.

PATT observers should therefore request the appropriate provision for handling charges and local tax, where applicable, when completing their eight-point questionnaires.

If you have any queries regarding the application of these handling charges on La Palma please contact Miss P Lewis at RGO.

b. La Palma Users Committee

Observers are reminded that Dr Mike Edmunds of Cardiff is Chairman of the La Palma Users Committee. Observers with any complaints, criticisms and praise about the facilities on Roque or other aspects of their observing run should write to Mike and he will ensure that these are brought to the

attention of the LPUC or RGO staff as appropriate. Observers from the Dutch, Irish, Spanish or UK Communities with suggestions and proposals for future instrumentation or other developments at the Observatory are asked to send details to Mike for discussion at LPUC.

3. Daytime Observing on UKIRT

Some daytime observers have reported difficulties in aligning their sources with the pointing of the telescope. The UKIRT Users Committee have drawn this to the attention of the Astronomer-in-Charge, UKIRT suggesting that he might schedule some of his discretionary time to immediately precede daytime observing runs in such a way that the last few hours of the discretionary night might be used to make alignments prior to undertaking daytime observing.

Applicants for daytime observing on UKIRT are therefore asked to state clearly in their applications their pointing sources in order to assist the AIC in arranging his observing schedule.

4. UK Schmidt Telescope Unit (UKSTU) Sub-Committee

The UKSTU has now been reconstituted and now contains the following members :

Dr D J Axon (NRAL) Chairman

Dr R D Cannon (ROE)

Dr T Shanks (Durham)

Dr David Morgan at ROE will continue to act as technical secretary to the Sub-Committee.

Applications for programmes on the Schmidt should be sent to Dr Morgan, from whom application forms can be obtained. Applications can be made at anytime throughout the year.

5. AAT

a. Service Observing

Readers are reminded that service observing at the AAT is now in operation

POSTDOCTORAL FELLOWSHIPS

a. SERC Postdoctoral Fellowships Applications 1985

Applicants for telescope time who have also submitted an application under the SERC Postdoctoral Fellowship Scheme are asked to note that the Astronomy, Space and Radio Board's Studentships and Fellowships Panel will be meeting on 6/7 March to consider the 1985 Postdoctoral Fellowship applications. Postdoctoral Fellowships candidates, who are normally resident in the UK, are therefore advised to keep these dates free from observing runs etc so that they are available to attend for interview if invited to do so by the Studentships and Fellowships Panel.

b. SERC Postdoctoral Fellowship at the AAO

Following interviews. Dr M Cropper at present with the University of Cape Town, has been appointed as the SERC Fellow at the AAO. Dr Cropper will take up his appointment on 1 October 1985.

ANGLO-AUSTRALIAN OBSERVATORY
P.O. Box 296, Epping, N.S.W. 2121, Australia

29 JAN 1985

Epping Laboratory
Phone (02)868 1666
Telex: 23999 AAOSYD AA

Dear AAT User,

I enclose a copy of the AAT observing schedule for 1985 Q2, i.e. March- May 1985.

Accommodation on Siding Spring Mountain is available at the ANU Lodge. Bookings must be made directly (telex AA63945). Accommodation at the Lodge is limited, so please make your bookings as soon as possible. It is essential that, emergencies excepted, all bookings are confirmed as final at least one week before the date of arrival at the Lodge; if you change your Lodge booking without giving one week's notification you will be liable for any expenses incurred. Observers are strongly advised to arrive some time before their observing commences, in order to prepare for their run and familiarise themselves with the telescope and equipment, and any recent modifications to either. Payment of Lodge expenses is the responsibility of the observer. The present tariff is \$48.00 per day; traveller's cheques in foreign currencies are not acceptable.

The AAO will arrange transport between Siding Spring and Coonabarabran Airport on the basis of your Lodge bookings, if your flight plans are clear. However, ANY changes in your travel arrangements MUST be notified to Carol Emmott at the AAT, so taxis may be altered, as well as to the ANU. Upon arrival, contact Carol in the Reception Office, on the first floor; departure details can be arranged and she will direct you to your desk where you'll find a front door key and torch. BEFORE DEPARTING, PLEASE ENSURE THAT THEY ARE RETURNED. Don't forget to contact the site supervising engineer or the chief night assistant so that they can advise you on the state of the equipment.

We hope you will find time to visit AAO Epping, and would appreciate knowing in advance when you expect to come. We always welcome colloquia from visitors.

At the end of your observing run, please complete the brief form available from the night assistant; we would like to know in a few words what you accomplished, and any comments or criticisms you have of our operation. Also, please verify and sign the observing records which the night assistant prepares at the end of each night.

AAO would appreciate three preprints and, eventually, three reprints of any papers you publish which are based on AAT observations. Please send these to the Librarian, Mrs. Robyn Shobbrook at AAO Epping.

Yours sincerely

JOHN HILLIER.

ANGLO-AUSTRALIAN TELESCOPE SCHEDULE - 1985 QUARTER 2

Issued 29 January 1985

Fri	Mar	1	Morton,Robertson,Blades,York,Meyer	f/8 GEC(82),IPCS(25)
Sat		2	"	"
Sun		3	"	"
Mon		4	Robinson	f/8 GEC (82)
Tue		5	Director	f/15 IRPS
Wed		6	PATT Service/Meikle,Graham,Allen, Andrews,Longmore,Williams	"
Thu		7	F Wainscoat, Hyland, Freeman	"
Fri		8	"	"
Sat		9	Straw, Hyland, McGregor	"
Sun		10	Vaile, Taylor	"
Mon		11	Jeffery, Hill, Morrison	f/8 IPCS (82)
Tue		12	"	"
Wed		13	3 "	"
Thu		14	Reay,Atherton,Pottasch,Gathier	Prime, RCA CCD
Fri		15	"	"
Sat		16	"	"
Sun		17	Green/ATAC Service - Robertson	"
Mon		18	PATT Service - Robertson	"
Tue		19	Robertson, Shaver, Clowes	f/8 IPCS (25)
Wed		20	N "	"
Thu		21	Carter, Teague, Gray	f/8 IPCS(25),40' fibres
Fri		22	"	"
Sat		23	Sharples	"
Sun		24	"	"
Mon		25	Peterson, Shanks	f/8 IPCS(25), FORS 40' fibres
Tue		26	Evans, Dopita	f/8 IPCS (25), FORS
Wed		27	Ellis, Couch, Malin	f/8 GEC (25), FORS
Thu		28	"	"
Fri		29	1 "	"
Sat		30	Evans, Dopita	"
Sun		31	"	"
Mon	Apr	1	McGregor, Persson	"
Tue		2	Wolstencroft, Walker	f/8 IPCS(25),Pockels cell
Wed		3	"	"
Thu		4	Dickens, Bell	f/8 IPCS(25),40' fibres
Fri		5	F "	"
Sat		6	"	"
Sun		7	"	"
Mon		8	"	"
Tue		9	Walsh, Meaburn	f/8 Manchester Echelle+IPCS
Wed		10	Lopez	"
Thu		11	Meaburn, M. Bailey, Morgan	"
Fri		12	3 Smith, Pettini, Hartquist, Dyson	"
Sat		13	"	"
Sun		14	"	"
Mon		15	Meaburn, M. Bailey, Morgan	"
Tue		16	Jauncey, Batty,Wright,Savage Peterson, White	f/8 IPCS (25),FORS
Wed		17	"	"
Thu		18	Peacock, Savage, Downes, Dunlop	Prime, RCA CCD f/8 IPCS(25), FORS
Fri		19	"	"
Sat		20	N "	"
Sun		21	Carter, Lucey	Prime,RCA CCD,f/8 IPCS(25)

Mon	22	"	"
Tue	23	Gilmore, Shaw	Prime, RCA CCD
Wed	24	"	"
Thu	25	"	"
Fri	26	Director- Malin	Prime, photog
Sat	27	Berriman, Wood, J. Bailey	Chop f/36 Hatfield Pol.
Sun	28	1	"
Mon	29	"	"
Tue	30	Roche, Allen, J. Bailey	Chop f/36 IRPS
Wed	May 1	Payne, Storey, Turtle, Dopita/ Ashley, Hyland, McGregor	f/15 IRPS
Thu	2	"	"
Fri	3	PATT Service/ Meikle, Graham, Allen, Andrews, Longmore, Williams	"
Sat	4	F Straw, Hyland, McGregor	"
Sun	5	"	"
Mon	6	Hyland, McGregor	"
Tue	7	Bessell, Brett, Wood	"
Wed	8	Director	"
Thu	9	"	"
Fri	10	Greenhill, Sharma, Watson, J. Bailey, Watts	f/8 IPCS (25)
Sat	11	3 Tuohy, Visvanathan, Wickramasinghe	f/8 IPCS(25), Pockels cell
Sun	12	"	"
Mon	13	ATAC Service - Malin	Prime, photog
Tue	14	Director - Malin	Prime, photog
Wed	15	Lynga, Gustafsson	f/8 IPCS(25), 12' fibres
Thu	16	"	"
Fri	17	Hazard, Morton / PATT service	f/8 IPCS (25)
Sat	18	"	"
Sun	19	N Norris, Allen, Roche	f/8 IPCS(25), FORS
Mon	20	Shara, Moffat	Prime, RCA CCD
Tue	21	"	"
Wed	22	Penny, Dickens	"
Thu	23	"	"
Fri	24	"	"
Sat	25	Lewis, Freeman	f/8 IPCS(25), 40' fibres
Sun	26	Bessell	"
Mon	27	1	"
Tue	28	PATT Service	f/8 IPCS (25)
Wed	29	Director	"
Thu	30	Poltoglou, Norris	f/8 IPCS (82)
Fri	31	"	"

Notes

- (1) Straw, Hyland and McGregor (Mar 9) and PATT IRPS service have been moved from Q1 by arrangement with the director.
- (2) Mar 6 and May 3 are PATT nights to be shared between PATT IRPS service and Meikle et al. On Mar 6 Meikle et al is to have the last half of the night. The split on May 3 will depend on the RA distribution of the PATT IR service requests.
- (3) Mar 17 is an ATAC night with Green having the first 1/3, and the remainder to be used for ATAC CCD service. This is to include up to 2hrs of CCD observations for McGregor and Persson.
- (4) Allen has the right to override ATAC and PATT proposals scheduled from Fri 26 April to Mon 6 May to make daylight IR observations of Venus.

(5) May 1/2 are ATAC nights to be shared equally between Payne, Storey, Turtle and Dopita (Folio AT73) and Ashley, Hyland and McGregor (Folio AT136)

(6) Charles and Bath have the right to override UK spectroscopic (non-fibre) allocations to observe superoutbursts in OY Car.

Start	End	Observer	Instrument
18-01	19-01	Payne	ATAC
20-01	21-01	Storey	ATAC
22-01	23-01	Turtle	ATAC
24-01	25-01	Dopita	ATAC
26-01	27-01	Ashley	ATAC
28-01	29-01	Hyland	ATAC
30-01	31-01	McGregor	ATAC

RECORD OF UK ATAC SPECTROSCOPIC NIGHTS

RECORD OF UK ATAC SPECTROSCOPIC NIGHTS (NON-FIBRE)

Time of the night spectroscopy is allocated to users of ATAC nights. Users must log in to ATAC.

Date	Observer
18-01	Payne
19-01	Storey
20-01	Turtle
21-01	Dopita
22-01	Ashley
23-01	Hyland
24-01	McGregor
25-01	Payne
26-01	Storey
27-01	Turtle
28-01	Dopita
29-01	Ashley
30-01	Hyland
31-01	McGregor

BREAKDOWN OF NIGHTS FOR INT DURING SEMESTER

1985 SEPTEMBER TO 1986 FEBRUARY

		DARK	GREY	BRIGHT
1985	September	10-19	7-9 20-22	1-6 23-30
	October	10-18	6-9	1-5
			19-21	22-31
	November	8-16	4-7	1-3
	December	7-15	17-19	20-30
1986	January	5-14	4-6	1-3
			16-19	20-31
			2-4	1
			15-18	19-30
	February	3-12	31	
		1-2	17-28	
		13-16		

BREAKDOWN OF WEEKS FOR KAPTEYN

TELESCOPE DURING SEMESTER 1985 SEPTEMBER TO 1986 FEBRUARY

Time on the Kapteyn Telescope is allocated in units of whole weeks. These weeks begin on Tuesdays.

<u>Week Beginning</u>	<u>Class</u>
1985 September 3	Bright
September 10	Dark
September 17	Grey
September 24	Bright
October 1	Bright
October 8	Dark
October 15	Dark
October 22	Bright
October 29	Bright
November 5	Dark

	November 12	Dark
	November 19	Bright
	November 26	Bright
	December 3	Grey
	December 10	Dark
	December 17	Bright
	December 24	Bright
1985	December 31	Grey
1986	January 7	Dark
	January 14	Grey
	January 21	Bright
	January 28	Grey
	February 4	Dark
	February 11	Grey
	February 18	Bright
1986	February 25	Bright

BREAKDOWN OF WEEKS FOR SAAO TELESCOPES

DURING SEMESTER 1985 SEPTEMBER TO 1986 FEBRUARY

Time on the SAAO telescopes is allocated in units of whole weeks beginning on Tuesdays.

<u>Week Beginning</u>	<u>Class</u>	
1985	September 3	Grey
	September 10	Dark
	September 17	Grey
	September 24	Bright
	October 1	Grey
	October 8	Dark
	October 15	Grey
	October 22	Bright
	October 29	Bright
	November 5	Dark
	November 12	Grey
	November 19	Bright
	November 26	Bright
	December 3	Grey

	December 10	Dark
	December 17	Bright
	December 24	Bright
1985	December 31	Grey
1986	January 7	Dark
	January 14	Grey
	January 21	Bright
	January 28	Bright
	February 4	Dark
	February 11	Dark
	February 18	Bright
1986	February 25	Bright

PATT Allocates

Bright = 11 weeks; Grey = 8 weeks; Dark = 7 weeks.

PATT allocates time according to the scheme dark, grey or bright. The Panel does not allocate specific weeks. This is the responsibility of the Director SAAO. Because conflicting requirements frequently arise, it is not possible to guarantee that all requests for particular weeks can always be met. It is essential that requests for specific weeks be accompanied by a strong scientific justification.

BREAKDOWN OF NIGHTS FOR AAT DURING SEMESTER 1985 SEPTEMBER TO 1986 FEBRUARY INCLUSIVE

	Dark	Grey	Bright
September	9-18	5-8 19-21	1-4 22-30
October	8-17	5-7 18-19	1-4 20-31
November	6-15	3-5 16-18	1-2 19-30
December	7-15	3-6 16-19	1-2 20-31
January	7-14	3-6 15-19	1-2 20-31
February	5-15	2-4 16-19	1 20-28

Totals:

September + October + November : 30 Dark : 18 Grey : 43 Bright
 December + January + February : 28 Dark : 24 Grey : 38 Bright
 SEMESTER : 58 Dark : 42 Grey : 81 Bright

RESULTS

PROGRAMME ALLOCATED OBSERVING TIME IN SEMESTER H (MARCH - AUGUST 1985)

PRINCIPAL APPLICANT AND TITLE

ANGLO AUSTRALIAN TELESCOPE

Ellis, Durham	The AAO Deep Cluster Survey
Walsh, AAO	The Velocity Field of the Extreme Planetary Nebula He 2-111
Allen, AAO	The Meteorology of Venus
Reay, ICST	Magnitudes of hot central stars of planetary nebulae
Berriman, IOA	The Structure and Stability of Accretion Discs in Ultra-Short Period Dwarf Novae
Peacock, ROE	The Parkes selected regions: investigating the radio luminosity function at high redshifts.
Carswell, IOA	High Resolution Spectroscopy of Lyman Absorption Lines in QSO's
Jameson, Leicester	Measurement of the galactic centre distance using IR observations of RR Lyraes
Couch, Durham	Multi-Object Spectroscopy of Butcher-Oemler Galaxy Clusters
Wyse, Berkeley	Kinematics of the Galactic Spheroid
Whittet, Lancs Poly	The law of interstellar polarisation
Jeffrey, St Andrews	Analysis of the atmospheres and environments of extreme helium stars

Meaburn, Manchester	The flowing lobes and compact core of MZ-3
Roche, AAO	Infrared speckle observations of circumstellar dust shells
Roche, AAO	Element Abundances in planetary nebulae near the galactic centre
Sharples, AAO	The Dynamical Structure of Abell 2670
Sharples, AAO	The NGC 5128 Globular Cluster System
Gilmore, IOA	CCD photometry of thick discs in edge-on galaxies
Cooke, Leicester	A High Spatial Resolution search in the Infra-red for counterparts of Bright Galactic X-ray Sources
Lopez, Manchester	GGD Objects and Wind Driven flows from Early-Type Stars
Wolstencroft, ROE	The distribution and velocity of dust and gas surrounding Eta Carinae
Penny, RGO	The Faint Main-Sequence of M4
Wall, RGO	The nature of PAVO XD-10: QSO galaxy interaction or gravitational lens?
Meikle, ICST	IR Spectroscopic Study of Iron in Supernovae 1983n
Dickens, RAL	RR Lyrae variables in Omega Centauri
Charles, Oxford	Spectroscopic Study of Superhumps and the origin of the superoutburst phenomenon (Override)
Smith, UCL	Aspect observations of mass loaded flows in the WR Ring Nebula RCW 58

Hough, Hatfield To establish the nature of the continuum radiation from the nuclei of radio ellipticals and spiral galaxies having compact radio cores

Ponman, Birmingham Photoionisation of SCO-X1

Hazard, Pittsburgh High redshift QSO's evolution and impact in intergalactic medium

Fabian, IOA The Dynamics of Rich Clusters of Galaxies.

UNITED KINGDOM INFRA-RED TELESCOPE

McDonald, Kent High excitation molecular line observations of regions of star formation having complex morphology.

Joseph, ICST Infrared Activity in the Nuclei of Bright Spiral Galaxies.

Morgan, ROE Infrared spectroscopy of hot stars in the Of-WR transition.

Stobie, ROE JHK Photometry of Faint Red Stars

Lilly, Princeton Infrared Studies of Butcher-Oemler Cluster Galaxies.

Genzel, California Molecular Clouds Near Nuclei of Galaxies and Strong UV Sources : 370 μm Spectroscopy.

Lilly, Princeton Infrared Studies of Parkes 0.1 Jansky radio sources.

McLean, ROE Morphology and Excitation Mechanisms for Molecular Hydrogen in Bipolar-outflow sources.

Mountain, ROE Observations of Molecular Hydrogen in Interstellar OH Masers.

Wade, ROE	Shocked Gas and Star Formation in the Galactic Centre Radio Arc.
Berriman, IOA	The effective temperatures of M Dwarfs.
White, QMC	COJ =2-1 and 3-2 spectra of young, low mass stars (IRAS) in dark clouds.
Leggett, Edinburgh	Investigation of the 10 μ m flux from Vega.
Watt, Dwingeloo	Observations of high excitation SO emission from dense molecular cloud cores.
Coe, Southampton	Studies of Periodic Phenomena in X-ray Emitting Binaries.
Straw, ANU	Velocity Resolved Mapping of Molecular Hydrogen in NGC 6334.
Garden, Edinburgh	Hydrogen Line Observations of Star Forming Regions in Galactic Nuclei.
Zealey, ROE	H ₂ emission in SNR Shocked Cloudlets.
Garden, Edinburgh	Infrared Recombination Lines in young Stellar Winds.
Geballe, UKIRT	Infrared CO Spectroscopy as a Probe of Stellar Winds Pre-Main Sequence Stars.
Geballe, UKIRT	Further Observations of the Helium, Br γ and Broad Br α Lines in the Galactic Center.
Williams, ROE	Ratio of the 3.4 to 3.3 micron dust features in S-106.
Longmore, ROE	A detailed study of New Galactic 20 μ m sources.
Longmore, ROE	The Period-infrared luminosity relation of RR Lyrae stars in Globular clusters.

Wolstencroft, ROE	Multi-aperture JHKL' Photometry of the Nuclear Regions of Normal Spiral Galaxies
Webster, ROE	Recombination - Line Study of a bipolar compact HII region G75 - 84 + 0.4
Smith, ROE	Millimetre-Wave Studies of Galactic Nuclei
Hough, Hatfield	Spectropolarimetry of the three micron ice feature in infrared sources with bipolar flows
Hough, Hatfield	Polarimetry of infrared sources deeply embedded in the core of Rho Oph
van der Kruit, Kapteyn	The Vertical Structure of disks in spiral galaxies
Scott, Cambridge	A study of new star-forming regions
Hills, Cambridge	HCO+ J = 3-2 Observations of Bipolar outflow sources
Joseph, ICST	IR Spectroscopy of Edge - On Spiral Galaxies
Joseph, ICST	Discovery of a Primeval Galaxy
Joseph, ICST	Infrared spectroscopy of merging galaxies
White, QMC	Submillimetre Wavelength Spectral Scan of Sgr B2, TMC - 1 and DR21
Jenkin, RGO	Counts of galaxies in the infrared to red-shifts of 1
Roche, AAO	Spectroscopy of Bright Sources in the 20um Atmospheric Window
Roche, AAO	The 8-13um Spectral Properties of Iras-Selected Galaxy Nuclei
Gatley, UKIRT	Shocked Molecular Hydrogen Emission from the Centre of the Galaxy

Meadows, Leicester	Infrared Photometry of the Dust in Comet Giacobini-Zinner
Zarnecki, Kent	Infrared Photometry of Comet P/Halley
<hr/>	
UKOT	
2.5m	
Penston, RGO	Variability in Quasar Emission Lines
Axon, Manchester	The Kinematics and excitation of the ENLR in Seyfert type galaxies
de Waard, Leiden	Monitoring of features in the emission line spectra of Active Galactic Nuclei
Keenan, Queen's Univ	Spectroscopic Studies of Early - Type Halo Stars at High Galactic Latitudes
van der Kruit	Stellar Kinematics in Galactic Disks
Fabian, IOA	The Stellar population and line strengths in the central galaxy of A1795
Pickles, Kapteyn	M Star population of Ellipticals
Wyse, Berkeley	Kinematics of the Galactic Spheroid
Sharples, AAO	The Dynamics of coma ellipticals
Lawrence, QMC	Four resolution spectroscopy of a complete sample of IRAS galaxies
Charles, Oxford	Red Component spectroscopy of 2 A Her Type Systems
Smith, Sussex	Filaments in the Large-Scale structure of the Universe
Pettini, RGO	The contribution of dwarf galaxies to QSO absorption line systems

Murdin, RGO	Dynamics of radio and optical jets of SS433 (Override)
Boksenberg, RGO	Clustering of CIV absorption lines in QSO spectra
Davies, Manchester	Spectroscopy of the Jodrell Bank sample of normal Sbc galaxies
de Grijp, Leiden	Spectroscopy of candidate active galaxies detected by IRAS
Hill, St Andrews	The eclipsing cataclysmic variable V Sge
Hilditch, St Andrews	Spectroscopy of OB Binary System
French, Cambridge	Uranian Ring Dynamics
Carswell, IOA	High Resolution Spectroscopy of Lyman Absorption Lines in QSO's.
(Ward, IOA	High Resolution CCD Spectroscopy of the CA triplet and [SIII] emission in AGN
(van Groningen ROE	Line Profiles of OI λ 8446 in Seyfert 1 galaxies
(de Bruyn, Dwingeloo	Luminosity dependence of broad emission line profiles in Seyferts and quasars.
Katgert, Leiden	Space distribution of radio quasars over large ranges of log P rad and redshift
Zwaan, Utrecht	Orbit and spectral characteristics of the Central binary in planetary nebule L0Tr-5
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1.0m	
McLean, Roe	Multicolour Broad-band Optical Polarimetry of field stars near Bipolar outflow sources
Bates, QUB	High dispersion spectroscopy of interstellar gas using an echelle spectrograph/ CCD camera

Reid, RGO The Kinematics and abundance of the Inner Halo

Elliott, Dunsink Photometry of pulsating Ap(Cp2) Stars

(Tinbergen, Leiden Detection of ice crystals in high atmosphere of
Venus by Optical polarimetry

(Zwaan, Utrecht Polarimetry and line photometry as diagnostics of
magnetic structure on cool stars.

(Hilditch, St Andrews UV by Photometry of OB Binary systems.

(Robson, Lancs Poly Multifrequency observations of Blazars.

(Rees, UCL Imaging and Doppler imaging studies of Comet
Giacobini - Zinner

(Meadows, Leicester Narrow-band photometry of Comet Giacobini - Zinner

Aspin, Edinburgh Optical polarimetry of Symbiotic Stars.

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Hilditch, St Andrews UVby Photometry of CB Binary Systems

Hill, St Andrews Variability of extreme hydrogen-deficient stars

SAAO 0.5M

Bode, Manchester Dust Formation in RV Tauri Stars

Hilditch, St Andrews UVby Photometry of OB Binary Systems

Butler, Armagh Determination of the Radiative and Mechanical Energy
Budget of Stellar Flares

SAAO 0.75m

Lynas-Gray, UCL Infrared Photometry of X Arietis and BD + 13^o3224

Bode, Manchester	Dust Formation in RV Tauri Stars
SAAO 1.0m	
Whittet, Lancs Poly	A Photometric Study of Highly reddened Southern Luminous Stars
Lynden-Bell, Cambridge	Calibration of Proper Motion Schmidt Fields - Completion of E Galaxy Survey
Penny, RGO	The Turn-off to Giant Stars of M4
Efstathiou , IOA	Absolute Photometric Calibration of the APM Galaxy Survey
King, Durham	A Search for Eclipsing Binaries in Open Clusters
Charles, Oxford	Co-ordinated Optical and X-ray Observations of the Low-Mass Galactic X-ray Binaries
SAAO 1.9m	
Whitmore, London	A Search for high velocity flows in Southern Star forming regions
Whittet, Lancs Poly	A Photometric study of highly reddened Southern Luminous stars
Bode, Manchester	Dust Formation in RV Tauri Stars
Scarrott, Durham	Surface polarimetry of Southern Herbig-Haro Objects
Wall, RGO	Redshifts for companions to radio galaxies
Hilditch, St Andrews	Spectroscopic and photometric studies of Late-type Binary Systems
Stobie, ROE	JHK Photometry and Spectroscopy of Field RR Lyrae Stars

Walker, UCL	Observations in connection with commissioning CCD camera on 1.9m telescope
Butler, Armagh	Determination of the Radiative and Mechanical Energy Budget of Stellar Flare
NON-SERC TELESCOPES	
Griffin, IOA	Coude observations overseas
Charles, Oxford	Spectroscopic and Photometric studies of low-mass X-ray sources
Carswell, IOA	Echelle Spectrophotometry of Seyfert Galaxies
White, QMC	Support for Molecular Line Observations with the Nobeyama 45m telescope
Bode, Manchester	High Sensitivity observations of the Radio Shell of GK Per
Ade, QMC	Millimetre-wave photometry of Bllacs, radio-loud and radio-quiet quasars
Meikle, ICST	IR Spectroscopic Study of Iron in Supernova 1983n
Cooke, Leicester	A Search for Radio Emission from GX 349 + 2 and long term Radio Monitoring of OVVS
Millar, UMIST	Observations with the Onsala 20m telescope
Scott, Cambridge	Co observations with the Onsala radio telescope
Lasenby, MRAO	Observations of SO ₂ and CH ₃ CN in SGR B2

