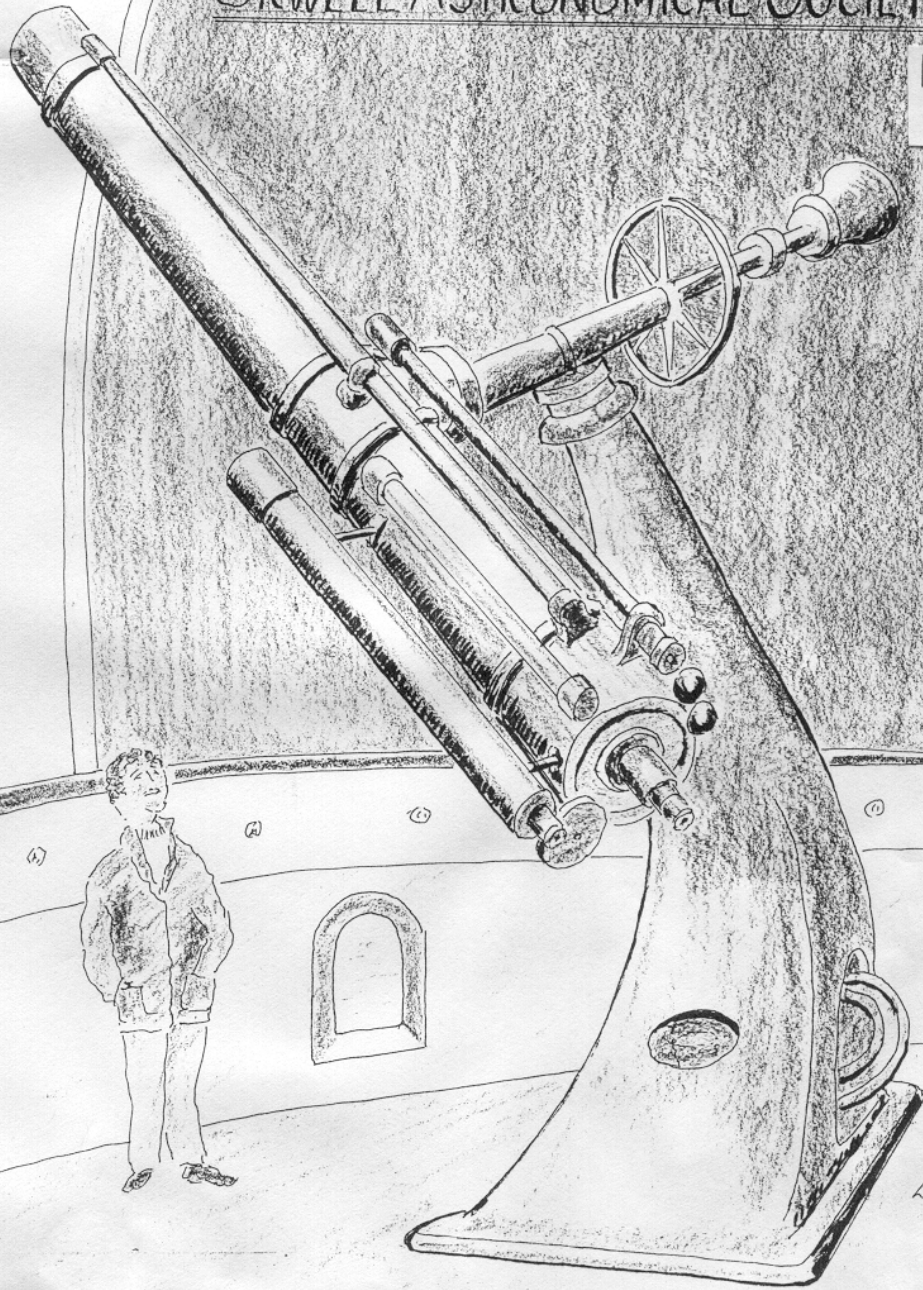


# ORWELL ASTRONOMICAL SOCIETY

MAY  
1995



ORWELL SCHOOL OBSERVATORY ~ 10" DIAMETER REFRACTOR

## SOCIETY NEWS

1

### NEW CAR PARKING FOR 1995

\*\*\*\*\*  
 \* The society has been asked by the school to change our \*  
 \* present car parking arrangements. Will all members \*  
 \* and visitors please now park around the grass island \*  
 \* in front of the school and not near the school kitchens \*  
 \* \*\*\*\*\*

### 2 List of events for 1995

WEB Society AGM Cambridge	20-5-95
BAA Exhibition London	24-6-95
School parents day	June?
Astro Camp	13-8-95
FAS Convention	30-9-95
Second open weekend	October ?
Christmas Meal	20-12-95?

### 3 Return of Unused Observatory Keys

If any member has a set of observatory keys and no longer needs to use them, could you please return them to Roy Gooding. The keys will be reissued to members who have expressed an interest in starting new evening meetings. A set of keys costs the society about £12.00, and there are over 15 sets of observatory keys.

## NIGHT SKY

All times GMT

### SUN

Rises approximately at	04.30 to 03.53
Sets approximately at	19.30 to 20.00

## MOON



7th



14th



21st



29th

MERCURY Mercury will be in the evening sky all this month. it will be at greatest eastern elongation on the 12th ( 22° ).

VENUS Venus will be rising about an hour before the sun this month. Mag. -3.9.

MARS Mars will be visible most of the night, setting at about 03.30 in mid month. Mag. 0.8.

JUPITER Jupiter will be rising about at 21.00 in mid month. Mag. -2.5.

SATURN Saturn will be rising at 02.00 in mid month. Mag.1.3.

URANUS Uranus will be rising at about 00.00 in mid month. Mag. 5.6

Neptune Neptune will be rising about 20 minutes after Uranus. Mag. 7.9

Venus will be occulted by the moon on 27th May. Disappearance at Greenwich 6.35 BST.

## SPICA OCCULTATION TIMINGS

by James Appleton

An occultation of the first magnitude star Spica (Alpha Virginis) occurred on 18th March, visible from East Anglia. This was the brightest occultation visible from East Anglia for some years, and several members of OASI attempted to observe and time the disappearance and reappearance events.

Unfortunately, weather conditions were less than ideal for observing. Winds were driving banks of thick cloud rapidly across the sky. Some cloud banks were very thick, and prevented observations by Alan Smith, James Appleton and Pete Richards. Tiredness was also a problem for one potential observer, with Martin Cook falling asleep in his armchair rather than manning his telescope!

Dave Payne, Mike Harlow and Ian Swann, however, had rather better luck, and through gaps in the cloud were able to observe and time the occultation events. The table summarises predicted and observed event times.

### OCCULTATIONS DURING MAY 1995

*R. Gooding*

The table lists disappearance times of stars of magnitude 7.5 or brighter which are occulted during the month. Only events taking place under favourable circumstances are listed. The data relates to Orwell Park Observatory, and timings, etc. will differ slightly for nearby locations.

Date	Time (UT)	Mag	Lunar Phase	Sun Alt (°)	Star Alt (°)	Star (D=double)
Thu 04 May	21:40:28	5.3	0.22+	-16	15	ZC1029, 26 Gem
Fri 05 May	22:32:35	5.3	0.31+	-20	13	ZC1147, 68 Gem
Wed 10 May	20:47:28	6.8	0.79+	-10	35	ZC1688 (D)
Fri 12 May	19:21:34	1.0	0.94+	1	18	Spica (D)
Sat 13 May	00:03:02	7.5	0.95+	-20	22	PPM227496 (D)
Sat 13 May	20:36:54	7.5	0.99+	-8	17	ZC2069
Sat 13 May	22:01:09	7.5	0.99+	-16	22	ZC2074

James Appleton

Observer	Phenomenon	Predicted Time (UT)	Observed Time (UT)
Dave Payne, Wickham Market	Reappearance	23:46:34	23:46:36
Mike Harlow, Felixstowe	Disappearance	23:05:50	23:05:49
Ian Swann, Ipswich	Disappearance	23:05:41	23:05:39

There will be a second occultation of Spica in 1995, on 12th May. Predicted disappearance and reappearance times are approximately 19:22 and 19:52 UT respectively. The sun will be above the horizon at disappearance time, and only just below at reappearance time, and this will hamper observations.

## LEO

How near how bright in the Dawns early light.  
by J. Walsh.

It was one of those mornings in mid December, crisp and cold, clear from horizon to horizon. The Sun struggling to get up in the eastern sky. The night was almost gone, the sky had already turned a mid blue and was orange in the east. High up and dazzlingly bright was the planet Venus. Low down deep in the orange glow you could just see Jupiter, now visible after conjunction.

How much more different can these two planets get! Jupiter large and gaseous, Venus small and rocky. Although brighter in the sky, Venus is the smaller of the two, but much closer, only 24,000,000 (30,616,000 KM). The brightness is also helped by Venuses atmosphere which is made up of mainly Carbon Dioxide (CO<sup>2</sup>) and the cloud layer comprises of Chlorine (Cl) which reflects sunlight so well that on a dark night Venus can cast a shadow and is the brightest object in the sky after the Sun and the Moon. If you were to look at Venus through a telescope now, you would see a crescent phase like a tiny moon, this is because Venus is an inferior planet (i.e. has an orbit around the Sun smaller than that of Earth.) as it gets closer to us we are seeing the illuminated side of the planet sideways on.

Jupiter on the other hand is a superior planet (i.e. has an orbit around the Sun greater than that of Earth.) Having just finished conjunction, Jupiter is greater than 600,000,000 miles (965,400,000 KM) from the Earth, but due to its massive size, 88,980 miles (146,200 KM) equatorial diameter. That gives Jupiter its place just after Venus and Mars (if well placed) as the 5th brightest object in the sky when in a few weeks time Jupiter will be free from the Suns glare.

The sky is a lot brighter now and you can't see Jupiter at all now as the sunlight fills the eastern sky but you can still see Venus. Sometimes its quite possible to see Venus in full daylight with the naked eye if you know where to look for it.

Leo is a large and important constellation composed of two easily found figures, the famous "sickle" or backwards question mark with the 1st magnitude Regulus at the bottom. The second is a triangle with the 2nd magnitude star Denebola (Beta ) at the eastern end, and extended to Regulus almost on the ecliptic.

This constellation has many galaxies which are outstanding examples of their various types. I will describe objects from west to east in ascending right ascension. N.G.C. 2903 is a large bright galaxy found just off the tip of the sickle making a pretty right-angled triangle with two 7th Mag stars. Telescopes up to 8 inches aperture will show an elliptical fuzzy blob which is brighter in the centre. Larger telescopes start to hint at more detail with a brighter nucleus and a faint mottling of dust lane between the spiral arms.

Two more galaxies which are easy to find are N.G.C. 3226 which is an elliptical galaxy and N.G.C. 3227 which is a spiral bar galaxy.

Messier objects M95 and M96 (N.G.C. 3351 and 3368 ) form a loose pair under the middle of the lions body. M95 is a barred spiral. M96 is a larger brighter object, a three quarter view spiral with a dust lane separating one of the arms from the nucleus. Nearby is M105 a fairly bright elliptical fuzz ball which is brighter towards the centre.

The galaxy show piece objects in Leo are M65 and M66 which are both spirals M65 having many dusty arms, and M66 has arms that are among the most easily seen of all galaxies. Just above is N.G.C. 3628 an edge on spiral with an almost central dust lane.

E Sims.

6 Gold, blue.

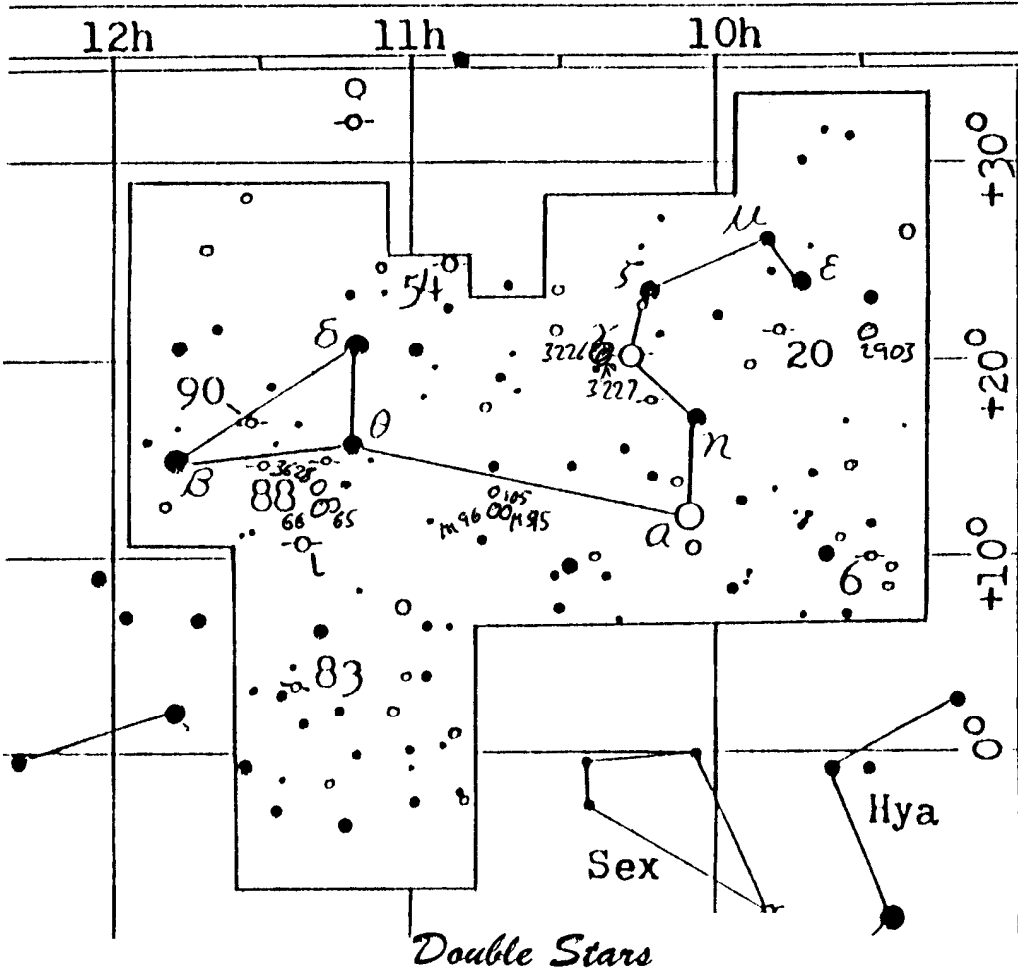
γ ALGIEBA is a popular yellow and greenish double, easy to locate.

54 Greenish-white and blue.

88 Yellow, blue.

90 White, blue.

# PROGRAMME FOR MAY



Pos.	l	m	2	D	d"	P	A	No.
092909	5.2-9.6	f	37.4	75	6			
4721	6.6-6.9	d	0.4	208	20			
101317	7.2-7.4	b	1.2	187	0E215			
1720	2.6-3.8	b	4.3	122	$\gamma_{1,2}$			
5225	4.5-6.3	b	6.4	109	54			
111614	7.0-8.1	d	2.9	20	E1527			
2110	4.1-7.0	b	1.0	219	l			
2403	6.1-7.2	b	28.9	150	83			
2914	8.6-6.1	b	15.4	326	88			
3217	6.0-7.1	b	3.4	208	90			

Mondays from 7.30pm GENERAL OBSERVATION SECTION

No Directors available for this night

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Tuesdays from 7.30pm GENERAL OBSERVATION SECTION

Mr D Barnard  daytime only

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Wednesdays from 7.45pm NEBULA & FAINT OBJECTS SECTION

Mr M Cook  Mr D Payne

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Thursdays from 7.30pm OBSERVATORY VISITS FROM OUTSIDE GROUPS

Mr P Richards

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Fridays from 7.30pm DOUBLE STARS

12th 26th

Mr J Hood  Mr M Barritt

All members are welcome to come but, on nights other than Wednesdays please check with the director of the night that the observatory will be open.

Lectures and other events:

1995 COMMITTEE		Home Phone	Work Phone
CHAIRMAN	D Payne		
SECRETARY	R Gooding		
TREASURER	M Nicholls		
MAINTENANCE CO-ORD	M Cook		
JOURNAL CO-ORDINATOR	E Sims		
PUBLICITY & VISIT CO-ORD	P Richards		
EQUIPMENT CURATOR	M Harlow		
SPECIAL EVENTS CO-ORD	M Andrews		
LIBRARIAN & COMP SOFTWARE	J Appleton		
JOURNAL ARTICLES TO	E Sims	Ipswich Suffolk IP1 4HA	
CORRESPONDENCE ADDRESS	R Gooding	OASI Secretary	
		Ipswich Suffolk IP1 6AE	