

ORWELL ASTRONOMICAL SOCIETY IPSWICH

Charity No 271313.



APRIL
1996

REMEMBER THIS?

CAN YOU NAME THE DOG?

NIGHT SKY

All times GMT

SUN

Rises approximately at 05.27 to 04.44
Sets approximately at 18.41 to 19.14

MOON



4th



10th



17th



25th

MERCURY Mercury will be visible in the evening sky this month. Mag. -0.8 on the 15th.

VENUS Venus is still very prominent in the evening sky this month. Setting about 23.40 in mid month. Mag. -4.4

MARS Mars will not be observable this month.

JUPITER Jupiter is a prominent object in the morning sky. It will be rising at 01.40, in mid month. Mag. -2.3.

SATURN Saturn will not be visible this month.

URANUS Uranus will be rising at 02.40 in mid month. Mag. 5.8.

Neptune Neptune will be rising at 02.10 in mid month. Mag. 7.9

There will be a Total Luna Eclipse on the 3 / 4 of April.

Start	23.21 BST on the 3rd
Totality begins	00.26 BST on the 4th
Totality ends	01.53 BST
Ends	02.59 BST

SPUTNICK LAUNCHED 3RD NOV. 1957
TAKING 'LAIKA' INTO SPACE.

OCCULTATIONS DURING APRIL 1996

The table lists stellar occultation disappearance events which occur during the month under favourable circumstances. The data relates to Orwell Park Observatory, but will be similar at nearby locations.

Date	Time (UT)	Lunar Phase	Sun Alt (°)	Star Alt (°)	Min Dist (radii)	PA (°)	Star (D = double)	Mag
Mon 01 Apr	19:28:18	.95+	-10	29	.83S	169	65 Leo (D)	5.5
Wed 24 Apr	23:11:02	.41+	-24	14	.15N	95	SAO97192	7.5
Sun 28 Apr	20:54:52	.78+	-13	41	.85N	57	ZC1577	7.4
Tue 30 Apr	22:38:18	.92+	-21	32	.14N	106	ZC1798	6.4

James Appleton

SOCIETY NEWS

1 Committee Meeting

The next committee meeting will be held on Saturday 20th April at the observatory, from 19.30. This will be an open meeting and any member is welcome to attend.

2 Events for 1996

This list of events was first presented at the AGM.

Lecture Meeting OASI	26th April
Oxford Weekend	10th May?
WEB Society AGM Cambridge	1st June
BAA Comet Section Meeting Cambridge	8th June
BAA Exhibition Meeting	29th June
Astro Camp	11th Aug.
Horncastle Weekend	6th Sept.
National Astronomy Week	21 to 28 Sept
FAS Cambridge Convention	5th Oct.
Christmas Meal	11th Dec.

4 Lecture Meeting 26th April 20.00

A lecture meeting has been arranged for Friday 26th April at the Friends Meeting House in Fonnereau Road. The meeting will start at 20.00.

This will be an informal meeting. Mike Harlow and Pete Richards will be giving an account of their trip to India last year to observe the Total Solar Eclipse.

The Orwell Astronomical Society (Cyber-Space)

Pete Richards

Since early in 1995 the Orwell Astronomical Society (Ipswich) has been 'on line' on the Internet. Any one of the millions of people connected to the global computer network - whether they are in Ankara or Adelaide, Stockholm or Stowmarket - can call up the Orwell Astronomical Society (Ipswich) home page, read our history, find out what we do and see astrophotography produced by members. The main purpose of this article is to describe the OASI 'Pages' and I have included a number of boxed paragraphs that provide some basic explanations which I hope will be helpful to anyone who is not familiar with the Internet.

What is the Internet?

For many years now large companies, universities and government and other organisations have been using telecommunications links to connect together computers in widely separated locations (sometimes in different countries) to form networks. When networked together information can be quickly transferred from computer to computer. 'E-mail' facilities allow a user to send text messages (and electronic files) to other users where-ever they are on the network. The sender of e-mail can identify the intended recipients of a message by their unique e-mail address. Having seen the power of their own internal networks organisations wanted to be able to connect to other organisations networks to transfer data and e-mail between them. A set of standard methods to allow different types of network to be connected together was defined: this was called the Internetwork Protocol. More and more networks have been connected together so that now there are millions of networks across the globe which are interconnected and this mass of interconnected networks is what we call The Internet (or sometimes just The Net).

What is the World-Wide-Web?

The Internet enables people to have access to a vast amount of information at their fingertips. However, the early Internet was difficult to use. The World-Wide-Web (WWW) was designed to make it easier to access the information. With the WWW, information is presented like the pages of a book. Each page can comprise text and still pictures; moving picture and sound can also be included. Pages are stored on a computer known as a server. A page can include links to other pages which are usually underlined and highlighted in blue. These links may be to other pages stored on the same server or to pages on any other WWW server on the Internet.

How can you get on the WWW?

There are a large number of Internet Service Providers from whom you can buy access to the WWW. The home user can subscribe to a Service Provider (typically providers charge around £10 a month) and dial-in over a normal phone line using a modem to connect their computer to the phone line. Ideally the connection can be made as a local phone call (see footnote).

Footnote: eg. 1p a minute at BT weekend rate.

If you don't have a suitable computer or don't wish to subscribe to the Internet there are other ways to get on the WWW. 'Cyber-cafes' are appearing around the country (there is now one in Ipswich) where for a fixed charge you can have access to a computer connected to the WWW for a period of time - and usually coffee and doughnuts as well. Local libraries in Suffolk are intending to give WWW access to the public soon - the arrangements are still being sorted out.

How do you find your way around the WWW?

The WWW is basically unstructured - so finding your way around isn't easy and new pages are being added all the time. There are search tools which are programmes that allow users to search for words and terms which they supply. Searching with on 'Ipswich' should find our home page because it has 'Ipswich' in the title. Searching on 'Astronomical Society' may also find it, but it will also find many other pages. An important tool for finding your way around are pages which contain links to other pages relating to a particular subject. These are usually referred to as 'jump pages'. It's important to be on as many jump pages as possible if you want your page to be found by other people.

The OASI pages are located on the Astronomy server at the University of Cambridge. We are grateful to the University of Cambridge for donating the server space to the society. The work of setting up the pages was done by Andy Watkins. Mike Harlow is continuing the work and is now the page owner. As they belong to the society all members are welcome to comment or contribute to the pages.

The Orwell Astronomical Society (Ipswich) home page is shown on the next two pages. The page shows a photo of the observatory and gives some basic information about the society. A link labelled 'Contact the society by clicking here' activates a feature which generates an e-mail message to the society. Our e-mail enquiry address is 'oasienq@btbcs.bt.co.uk'.

I recently produced a page to publicise our lectures and mirror making section and this page is pointed to by the links labelled: 'lecture programme' and 'Telescope Making'.

The 'Forthcoming Astronomical Events' section begins with a link labelled '[Space Calendar](#)'. If you select this link you will be connected to a NASA server in the USA from which you will receive a list of list of space related events. There is an announcement: '[New Comet Discovered](#)' which links to a page from "The Astronomer" magazine which gives the latest information about this and other comets and asteroids including sky maps and ephemeris.

We have pages with predictions of lunar occultations which give data computed by James Appleton. These are referred to by the links 'Occultation review of the [year](#)' and 'Occultations for [January 1996](#)' and for '[February 1996](#)'.

In the 'Odds and Ends' section there are some thought provoking issues raised by the page author Mike Harlow.



Orwell Astronomical Society (Ipswich)

The Orwell Astronomical Society (Ipswich) is based at the Orwell Park Observatory, at Nacton (near Ipswich) Suffolk. We are a locally based astronomy club for people with an interest in things to do with outer space, astronomy, and telescopes. (Locally means the Ipswich and South Suffolk area of the UK.)

Our main telescope is the Observatory's 10inch (25cm) refractor built around 1872. There are a few other telescopes available for use at the observatory too.

We hold open evenings at the Observatory, where members of the general public are welcome. We also arrange excursions and field trips from time to time, for society members.

We also have a short [lecture program](#) arranged for the coming months and a practical [Telescope Making](#) section.

If you are interested in joining, are curious to find out more, or just want to get in touch, please [contact the society by clicking here](#)



The Observatory at Orwell Park, built around 1872

Forthcoming Astronomical Events

[Full Space Calendar](#) is available on the NASA home pages

National Astronomy Week 1996

To celebrate the 150th anniversary of the discovery of Neptune [National Astronomy Week](#) will be held on 21st-28th September this year.

[NEW COMET DISCOVERED !!](#) This comet could be spectacular at the end of March this year. Watch this [page](#) for more information and pictures in the coming months.

Occultations

A list of occultations of stars by the Moon can be found on the following pages:

Occultation review of the [year](#).
Occultations for [February 1996](#).
Occultations for [March 1996](#).

Details of occultations by other Solar System objects can be found [elsewhere](#)

Odds 'n Ends

First a puzzle.

Over lunch recently we were discussing holidays and a colleague was planning to go to Egypt. He asked if anyone had a Planisphere for 35 degrees north. Nobody had but he knew they existed. He was also planning a trip to the Maldives near the equator and asked the same question. Giving this a bit of thought however convinced some of us that a (flat) planisphere for latitude zero could not be made. Any suggestions???

And secondly...

Does anyone out there have, or know where to get hold of, a large telescope mirror blank. By large I mean 25 inches or larger. Some of our members have made mirrors up to 14 inches but we want something really challenging!!!

Please contact us if you can help. Thanks.

E-mail: [\[redacted\]](#)

More about us

[A History of Orwell Park Observatory](#)

[Society Activities and Details](#)

[Recent images by members](#)

Our 'Night Sky' page has been removed due to lack of interest (not in the sky itself, just the content of the page!!!) If you would like it back, please let us know.

This is a good place to find out about [UK Amateur Astronomy](#) and a comprehensive list of astronomy servers [worldwide](#) is also available.

Page Owner : Mike Harlow (e-mail: [\[redacted\]](#))

Please feel free to comment on any of these pages. [Here's how to contact us.](#)

Last Updated 7th February 1996

In the 'More About Us' section there are links to other OASI pages, which comprise:

'[A history of the Orwell Park Observatory](#)',

- this page has another picture of the observatory and a short précis of its history

'[Society Activities and Details](#)',

- this gives a summary of what we do

'Recent Images by members'

- this is where we display astrophotographs and CCD images taken by members. Photos by Ric Pecci and CCD images by Mike Harlow have been featured recently.

In the final section we point to some pages on another server which gives a lot of information about 'UK Amateur Astronomy'.

The Elnet astronomy page is a major astronomy jump page accessed world-wide and it has a direct link to the OASI page. The town of Ipswich has its own home page and it too has a direct link to the OASI page. In fact there are now links to our page from many UK and world-wide jump pages. Anyone looking for astronomy related pages and anyone looking for information about Ipswich should find us fairly quickly.

We have our own astronomy jump page which is found via the link shown as 'worldwide'. Our jump page is a gateway into the rest of the World Wide Web with links to:

- the latest information from the NASA space probes (eg. Galileo);
- the home pages of major professional observatories;
- other amateur astronomical societies;
- an electronic encyclopaedia of the solar system;
- the latest Hubble Space Telescope pictures;
- the International Dark Skies Associations newsletter;
- the latest weather satellite picture (to see if it's going to be clear tonight);
- a telescope in Bradford which you can operate by remote control;
- etc., etc.

[Don't forget - OASI members - these are your society's pages; so feel free to comment or ask questions of me or Mike Harlow.]

As well as being useful for members who access the Internet, our home pages provide an excellent means of publicising the society, to gain new members or visitors to our public events. We also hope that they play a part in promoting the subject of astronomy in general.

With a Victorian observatory and a presence on the Internet, we could say that the OASI has one foot while the other is stepping forward into the future.

CANES VENATICI

Canes Venatici is a northern constellation, at its most prominent in the spring skies. It is a medium-sized grouping located between Bootes, Ursa Major and Leo. It reaches culmination at 10pm on May 1st.

The 23 stars that form the flattened isosceles triangle of Canes Venatici were once part of the nearby Ursa Major, 20 of its stars are fainter than 4th magnitude, so are quite inconspicuous. A "triangle" points southwards with Alpha (α) at its apex. Alpha named Cor Caroli is the brightest of the group's stars at just over 3rd magnitude and one of the finest telescopic doubles. There are other doubles, most of them are faint, but worth trying to separate with your telescope.

Another telescopic highlight is the large globular cluster, M 3 (N.G.C. 5272) located on the border with Bootes, it can be found by pointing the telescope to a position almost halfway between Arcturus and Cor Caroli, but a little nearer the first one. It should show in the finder scope as a fuzzy out of focus star, but in a 6 inch or better telescope it will resolve into a ball of glittering points of light.

It is in extra-galactic systems that Canes Venatici is particularly well endowed scores of examples are easily visible with most amateur telescopes, and all are a similar distance away about 20 to 35 million light years. This is close enough for the brightest stars, nebulae and dust clouds within them to allow close scrutiny by astronomers.

M 51 is really two objects: a fine face-on spiral which is almost connected to the irregular N.G.C. 5195. In a 10 inch telescope with a medium power eyepiece we begin to see signs of the spiral arms looking like a revolving firework, with several small stars seen against the arms.

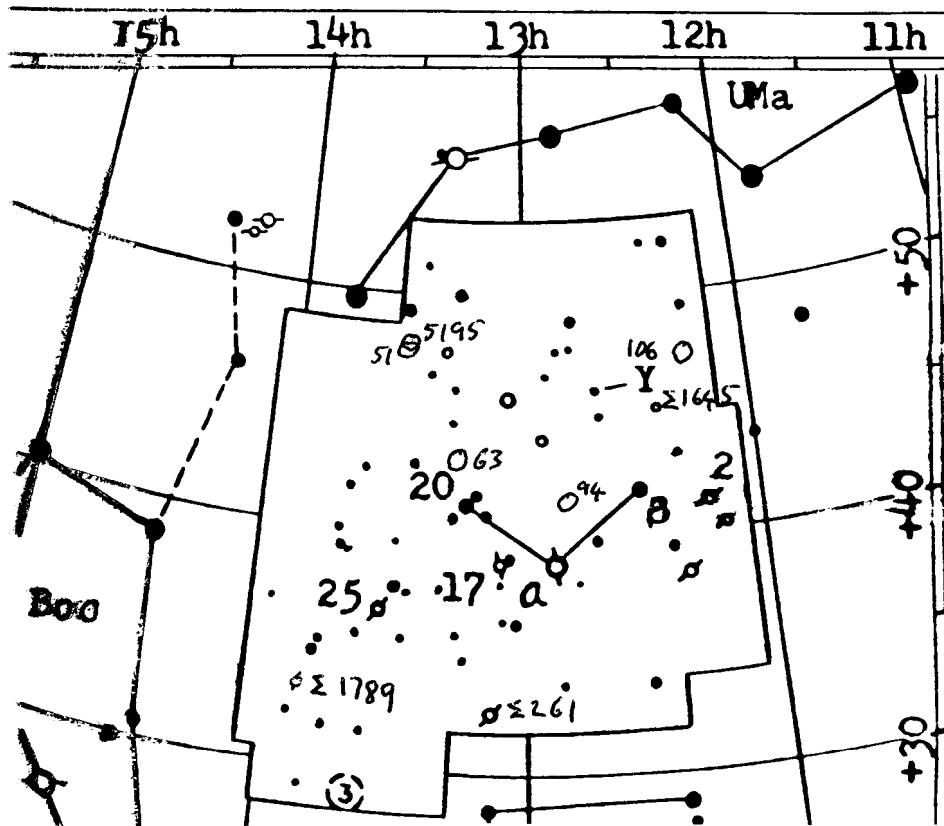
M 63 is another island universe in Canes Venatici, it is a large, bright oval surrounding a strong nucleus. The many spiral arms are only seen as a soft glow around the nucleus even in a 12 inch telescope.

M 94 is another fine spiral seen almost face on. It has tightly wound fairly smooth arms with only a few condensations but here again you need at least a 10 inch telescope.

M 106 is a large bright galaxy and can be found in a finder or binoculars. It has a fairly bright spiral arm which can be seen extending from the body of the galaxy in a 10 inch telescope.

These are just a few of the galaxies in this constellation but with a good telescope a lot of patience and a clear dark sky it will be well worth the effort.

PROGRAMME FOR APRIL



TELESCOPIC OBJECTS IN CANES VENATICI

Multiple Stars

Name	RA	Dec	Separation (arc seconds)	Mag
2	12h 16.1m	+40° 40'	11.4	5.8 8.1
Σ 1645	12h 28.1m	+44° 48'	9.9	7.4 8.0
α (Alpha)	12h 65.2m	+38° 19'	19.4	2.9 5.5
17	13h 10.1 m	+38° 30'	1.2	6.2 11.2
οΣ261	13h 12.0m	+32° 05'	2.2	7.2 7.7
25	13h 37.5m	+36° 18'	1.8	5.0 6.9
1789	13h 54.1m	+32° 50'	6.5	8 8

Deep Sky Objects

Name	RA	Dec	Type	Mag
NGC 4214	12h 15.5m	+36° 20'	Gal. irr.	9.7
M106 (NGC 4258)	12h 19.0m	+47° 18'	Gal. Sb	8.3
NGC 4449	12h 28.2m	+44° 05'	Gal. irr	9.4
NGC 4490	12h 30.7m	+41° 38'	Gal. Sc	9.8
NGC 4631	12h 42.1m	+32° 32'	Gal. Sc	9.3
M94 (NGC 4736)	12h 50.9m	+41° 05'	Gal. Sb-p	8.17
NGC 5005	13h 10.9m	+37° 03'	Gal. Sb	9.8
NGC 5033	13h 13.5m	+36° 36'	Gal. Sb	10
M63 (NGC 5055)	13h 15.8m	+42° 02'	Gal. Sb	8.6
M51 (NGC 5194)	13h 29.9m	+47° 12'	Gal. Sc	8.4
M51 (NGC 5195)	13h 30.0m	+47° 16'	Gal. irr	9.6
M3 (NGC 5272)	13h 42.2m	+28° 23'	Glob. Cl.	6.3

Mondays from 7.30pm No Directors available for this night	GENERAL OBSERVATION SECTION
Tuesdays from 7.30pm Mr D Barnard [redacted] daytime only	GENERAL OBSERVATION SECTION
Wednesdays from 7.45pm Mr M Cook [redacted]	NEBULA & FAINT OBJECTS SECTION Mr D Payne [redacted]
Thursdays from 7.30pm Mr P Richards [redacted]	OBSERVATORY VISITS FROM OUTSIDE GROUPS
Fridays from 7.30pm 12th - 26th Mr J Hood [redacted]	DOUBLE STARS Mr M Barritt [redacted]

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:

COMMITTEE MEETING ----- On Saturday 20th April at 7.30pm in the club room at the observatory. All members are welcome to attend.

LECTURE MEETING -----At Friends Meeting House Fonnereau Road Ipswich on April 26th at 7.30pm by O.A.S.I. Members.

VISITS -----

e-mail enquires to oasiengq@btcs.bt.co.uk
WWW url <http://www.ast.cam.ac.uk:80/~ipswich/>

1996 COMMITTEE

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