



The Newsletter

of the
Orwell Astronomical Society (Ipswich)



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www.oasi.org.uk

2007 July

No 421

Noctilucent Clouds



Martin Cook captured this image from his Ipswich home 2006 14th July circa 20:15 UT using an Olympus C-765uz camera with wide angle lens set to automatic.

We are now in the main season for the above phenomena, the Latin term *noctilucent* means *luminous at night*. Noctilucent clouds occur at high altitude - approximately 80 miles - and usually appear as complex interwoven streaks or knots. They are normally pearly white, sometimes with a blue tinge, and may have a golden lower edge.

A note of caution, however, they look similar to cirrostratus and there is a risk of mistaking cirrostratus illuminated by streetlights or moonlight for a noctilucent cloud.

Society News (Roy Gooding)

1 Committee Meeting Saturday 21st July

This meeting will be held in Nacton Village Hall

Start time will be at 20:00. This is an open meeting and any member may attend if they wish

2 Events for 2007

This event list will be updated through out the year

Meeting	Venue	Date
A 40 th society anniversary party may be held later in the year Planning is at an early stage	No venue yet	No date yet
FAS Convention	Birmingham	October
Lecture meeting Exo Planets and their Aurora By Sam George	Methodist Church Hall	Friday 26 th October 20:00
2007 / 2008 Workshops	To be planned	To be planned
Lecture Meeting Dr. David Whitehouse	Orwell Park School	Friday 16 th November
Christmas Meal	To be planned	Wednesday 12 th

3 Welcome to New Members

Nicholas Sullivan

4 Access into the School Grounds and Observatory Tower

Please use the third gate into the school grounds, this is the gate behind the Gym. If the Black door entrance at the base of the observatory tower is locked, you will have to phone someone in the observatory to let you in. My mobile number is [REDACTED] (Roy Gooding) alternatively the Observatory mobile is [REDACTED] during meeting hours.

5 Lecture Meeting Venue

Our town lecture venue is now at the Methodist Church, in Blackhorse Lane. The church has a car park can accommodate about 30 cars, in Black Horse Lane Alternatively there is a Park & Display car park at the top of Black Horse Lane, next too the Town Council Offices. This is about 100 yards form the church. Black Horse Lane has only one entrance, which is from Elm Street. This is just past the Police Station, if you are arriving from Civic Drive. The church car park is on the right, just past the Black Horse pub.

Meeting starts at 20:00, doors open at 19:30

6 Balcony Door Opening Problem

Martin Cook has repaired the door opening / closing mechanism.

7 Tomline Telescope Drive Control

The RA drive controller has been giving problems recently. If any one would be interested in repairing or replacing this unit please contact Martin Cook.

8 40th Anniversary Party

An informal discussion was held on Wednesday 13th June about holding a 40th anniversary party, later in the year. The idea was met with approval from everyone present. The venue, dates and food arrangements have not yet been finalised.

Provisional ideas are to have the party on a Saturday in September at Nacton village hall, with members volunteering to bring along pre determined food items for a Buffet

Full details will be included in the next Newsletter

9 Observing Projects for 2007

Graze Occultation's

Date	Star	Track Time
Tuesday 2 nd October	ZC797	01:34:12
Thursday 1 st November	ZC1221	01:53:24
Sunday 30 th December	μ Leo	03:04:37

Other Occultations

Pleiades	
Date	Time
6 th August	23:30
27 th October	23:30
21 st December	21:00

Meteor Watches

Shower	Maximum Date	Moon Age	Observing Date
Perseids	August 13 th	27 days	Saturday 11 th
Geminids	December 14 th	5 days	Saturday 15 th

Night Sky (July)

(Times GMT)

The Moon

Last Quarter	New	First Quarter	Full
7 th	14 th	22 nd	30 th

Object	Date	Times		Mag.	Notes
		Rise	Set		
Sun	1	03:39	20:19		
	31	04:15	19:48		
Mercury	1	03:55	19:26	0.6	Mercury is in the early morning sky this month. Greatest western elongation is on the 20 th
	31	02:47	19:05		
Venus	1	07:36	22:19	-4.4	Venus remains prominent in the evening sky
	31	06:58	20:05		
Mars	1	00:26	14:37	0.6	Mars will be moving into Taurus by the end of the month
	31	23:11	14:37		
Jupiter	1	02:05	21:59	-2.4	Jupiter is in Ophiuchus
	31	15:50	23:56		
Saturn	1	07:34	22:24	0.6	Saturn is now too close to the sun for observation is month
	31	05:56	20:33		
Uranus	1	23:00	10:15	5.7	Uranus remains in the Aquarius
	31	21:01	08:15		
Neptune	1	22:07	07:42	7.8	Neptune is in Capricornus
	31	20:08	05:40		

Meteor Showers

Shower	Limits	Maximum	ZHR
α Cygnids	July to August	July 21 st to August 21 st	5
Capricornids	July to August	July 8 th July 15 th July 26 th	5
δ Aquarids	July 15 th to August 20 th	July 29 th to August 6 th	20 10

Meteor source is the BAA Handbook

OASI Observations Of Lunar Occultation Of Saturn, 22 May 2007

On 22 May 2007, the Moon occulted Saturn. Table 1 summarises predicted circumstances of the event for Orwell Park Observatory (times refer to the centre of the planetary disk).

Lunar phase	39%, waxing
Libration	-1.9° lat, 6.7° lon
PA of lunar axis	16.8°
Disappearance	19:10:13 UT, PA 141°, CA 57° from S cusp on dark limb
Reappearance	20:18:07 UT, PA 284°, CA 86° from S cusp on bright limb

Table 1. Predicted circumstances of occultation for Orwell Park Observatory.

Conditions were not ideal, as the disappearance event took place with the Sun above the horizon and the reappearance event took place during twilight.

The occultation of Saturn on 22 May was the second occultation of the planet in 2007, the earlier one having occurred on 02 March (observing reports for the 02 March event are in the April *OASI Newsletter*). The occurrence of two such events close together stimulated more than usual interest, and several members of OASI attempted observations of the May event as below.

Martin Cook Observing From East Ipswich

After receiving a phone call from Alan Smith at 7.15pm asking why he could not see Saturn I realised that I might have missed the occultation! However, quickly checking details on the ephemeris package *Starrynight* I found that the occultation did not start until 8.10pm BST (19:10 UT).

I set up my 10" Dobsonian F5.4 with an 18mm eyepiece and found Saturn. Then I phoned Alan to say that he needed to look in the right place and to buy a decent telescope! The sky was very bright and Saturn very washed out which made timing very difficult. There was slight high level cloud.

I recorded the following event times (in UT):

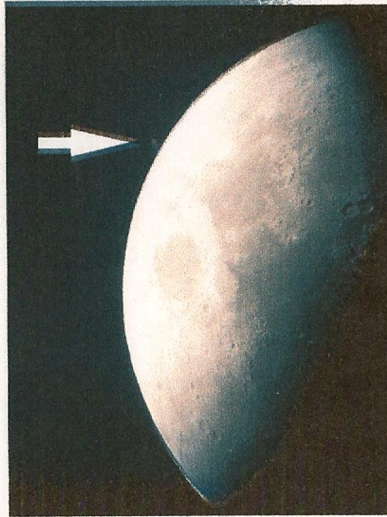
19:09:50 first noticed ring starting to disappear behind dark side of the Moon.

19:10:26 body of Saturn made first contact with lunar limb.

Could not time the full disappearance of ring as it was so small and lost in the bright sky. After disappearance the sky clouded and only started to clear again before re-appearance.

21:17:50 (maybe 21:18:50 – it became too dark to read my watch and I only just managed to get my telescope out in time) first noticed Saturn's re-appearance. I watched the event but did not time it.

I took the following photograph from the eyepiece with an Olympus C765 digital camera. It shows Saturn (indicated by an arrow) just after re-appearance.



Alan Smith Observing From Grundisburgh

It's been a while since I had the covers off the telescope and I'm a bit out of practice!

First contact of outer ring with lunar limb: 19:09:39 UT

Final disappearance of rings behind lunar limb: 19:10:25 UT

No timings for occultation of the planetary globe.....

Equipment: 10" Newtonian, approx. 1000mm focal length, 6mm Orthoscopic eyepiece. Seeing very poor, contrast very low. Saturn swimming in and out of focus, but Cassini Division (just) visible. Details visible on the globe of Saturn and on the lunar surface.

Gerry Pilling Observing From Martlesham

I observed the occultation, but did not time it accurately. However, it seemed to fit with the parameters that the *Newsletter* listed.

I could not see Saturn in binoculars shortly before the disappearance event or earlier in the day and so got the telescope out. This was the first time for daylight observing with my kit.

After some time I found Saturn, at about five minutes before disappearance, using a 40mm eyepiece. Mrs P found Saturn difficult to spot, but when she did she said that it was quite pretty against the light sky. After Saturn emerged from behind the bright limb of the Moon, just over an hour later, Mrs P said that it was quite a 'wow' picture against the lunar limb.

The Cassini Division in the rings and some planetary details were just visible. The seeing was reasonable at times, but the Moon seemed to be 'boiling'.

Then I observed Venus at half phase; both I and Mrs P noted the phase.

Then it clouded over. Phew just made it!

Equipment: 8" Fullerscope Newtonian, focal length 1225mm, using 40mm and then 12.5mm eyepiece (magnifications 30 and 98 approx).

Paul Whiting Observing From Goostrey, near Jodrell Bank, Cheshire

Equipment: 18x50 binoculars.

Conditions: sky very bright, mainly clear but with some cirrus and many vapour trails.

This particular occultation was favourable because of the crescent lunar phase - making it easier on the eyes in terms of brightness, and making it easier to spot Saturn.

Owing to the brightness of the sky (the Sun was still way above the horizon) ingress at 20:04 UT was very difficult, if not impossible to observe with the binoculars. Reports from others around with larger telescopes said that the disappearance of Saturn appeared to be much quicker than they anticipated, probably due to the ambient light making observation difficult.

Egress at 21:11 UT was much easier to observe as the sun had actually set by this time. The re-appearance of the rings is always a magical sight, and this occasion was no different. Easily observed in the binoculars (with stabilisation mechanism), but a magnificent site in a 10inch Dobsonian.

Venus (at half phase) and Mercury were also observed in the twilight, along with a nice display of Earth-shine on the dark side of the Moon.

James Appleton
15 June 2007

OCCULTATIONS DURING JULY

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

Date	UT	D R	Lunar Phase	Sun Alt (d)	Star Alt (d)	Mag	Star
01 Jul	02:10:04	D	1.00-	-10	7	3.3	Tau Sgr
20 Jul	21:24:19	D	0.37+	-10	5	7.3	Hip 61858
24 Jul	21:31:10	D	0.74+	-11	8	7.0	ZC 2256

James Appleton

Quiet Nights and Cover from the past.

Looking back through the old news letters, hoping for inspiration of something to fill in two pages, I came upon some old reports of the open days in 1985 and 1986 when we opened up the observatory to the public. The first opening was During National Astronomy Week on Wednesday 13th November. The observatory was supposed to open to the public at 8.0 pm but the people were so excited about seeing the comet through a proper telescope they started to arrive at 7.0 pm.

At first visitors only had to wait about half an hour, but as the evening went on the queue got longer and by 9.0pm the waiting time had reached one and a half hours. The last visitor didn't leave until after mid night.

The total number who visited the observatory was estimated at over 500 on this one night alone.

Unfortunately Halley's Comet was only visible for about 20 minutes on the remaining 3 nights (between 10.00 and 10.20 on Friday.) However this did not deter determined visitors; an estimated 150 appeared on Thursday with more on Friday and Saturday.

In December the observatory was opened to the public again on the 11th 12th 14th and 15th but the weather was not kind with only two slots of about an hour when the sky cleared enough to open up the telescope. The rest of the time the sky was filled with cloud and rain.

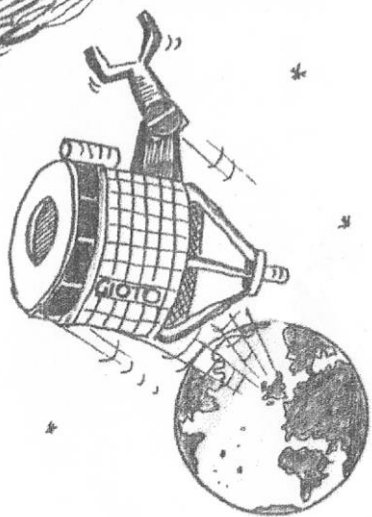
However the following Wednesday, 18th December, the skies did clear. The dome was once again busy with visitors for about an hour, as people took up our offer to turn up on any clear Wednesday.

On Friday and Saturday 25th and 26th April the observatory was opened to the public for a last chance to observe Halley's Comet. The Friday evening offered near perfect conditions for looking at the comet. The skies were completely clear with an air temperature of near heat wave proportions, when compared to the sub zero ones experienced during the previous open evenings held before last Christmas. At least 100 visitors arrived during the evening using the 10 inch and a pair of 10 x 80 binoculars to observe the comet.

The Saturday evening was a more typical astronomical evening, it rained almost without stop all evening, less than 30 visitors arrived during the two and a half hours we were open.

MARCH 1986 *

HUH! EVERY
76 YEARS I COME
TO SEE THEM. AND
THIS TIME THEY
THROW THINGS
AT ME!



OASI Committee Contacts & Responsibilities

Kenneth J. Goward FRAS	Chairman	☎		Press & Publicity with Secretary.
Roy Gooding	Secretary	☎		MAIN POINT OF SOCIETY CONTACT Press Publicity with Chairman. Observatory Decoration. Visits by potential new members.
Mike Harlow	Treasurer	☎		Finance. Supervision of Grant Applications.
James Appleton	Committee	☎		Committee Meeting Minutes. Web Site.
Martin Cook	Committee	☎		Membership. Tomline Refractor Maintenance.
Neil Morley	Committee	☎		Equipment Curator.
Peter Richards	Committee	☎		Lecture Meetings. School Lighting liaison. Email Distribution Lists.
Eric Sims	Committee	☎		Newsletter.
Mike Whybray	Committee	☎		Librarian & Workshops.
Paul Whiting FRAS	Committee	☎		Visits by outside groups.
Bill Barton FRAS	Committee	☎		Safety & Security.

Diary for July

<p>Wednesdays FROM 8PM 4th 11th 18th 25th</p>	<p><u>MAIN OBSERVATORY CLUB NIGHTS</u> Primary Observational targets: Nebulae and faint objects. ☎ Martin Cook [redacted] (mobile) [redacted] ☎ Roy Gooding [redacted] (mobile) [redacted]</p>
<p>Saturday 21st 8pm Nacton Village Hall</p>	<p><u>OASI COMMITTEE MEETING</u> <i>*Any member is welcome to attend*.</i> ☎ Ken Goward [redacted]</p>

Society Primary Contacts

Chairman: Kenneth J. Goward FRAS ☎ [redacted] (daytime & evenings)
Secretary: Roy Gooding ☎ [redacted] (daytime) [redacted] (evenings)
E-Mail queries: ipswich@ast.cam.ac.uk

Society Trustees

Mr Roy Adams Mr David Brown Mr David Payne

Society Honorary President

Professor Allan Chapman D.Phil MA FRAS

Observatory Telephone Number

Meeting nights only

[redacted]

