



The Newsletter

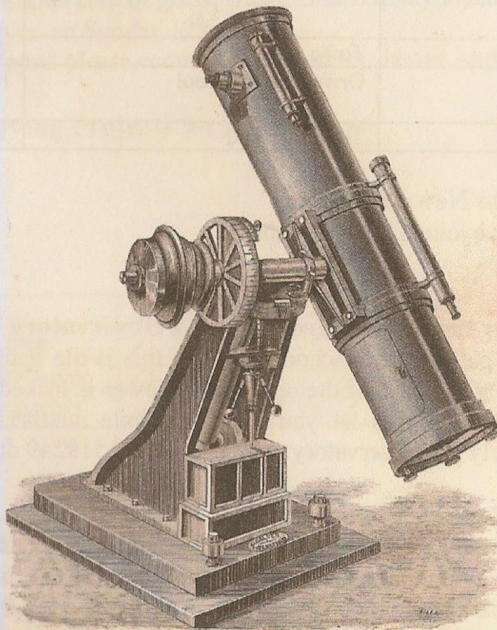
of the
Orwell Astronomical Society (Ipswich)



Registered charity No 271313
www.oasi.org.uk

2007 August & September

No 422



A SOLID PIECE OF SUFFOLK ENGINEERING

An 18" Reflector on a Berthon-style mounting by Suffolk Telescope maker
George Calver FRAS (1834 – 1927)

- *"An equatorial mounting, with two long and stiff shafts for the axes, has always the advantage of firmness; the holding portions of the instrument being in masses, are not liable to receive injury from blows, and thus be put radically out of order"...*
- *"An instrument cannot be made light and slim and at the same time firm and steady".*

How times have changed, what would Mr Calver have made of the flimsy mountings coupled with – *some* - of today's commercially available budget instruments? Presumably in his time more damage from 'frustrated blows' would have been visited upon the observer than the instrument!!

Image and quoted passages from 'Hints on Silvered-Glass Reflecting Telescopes'. Pamphlet & Catalogue by George Calver. 1877. Collection of Ken Goward

Society News (Roy Gooding)

1 Events for 2007

This event list will be updated through out the year

Meeting	Venue	Date
A 40 th society anniversary party	Nacton Village Hall For more information please see Pete Richards article	Saturday 22 nd September 15:00
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

2 Welcome to New Members

No new members have joined in the last month.

3 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.

4 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

5 Tomline Telescope Drive Control

The challenge of updating the RA drive controller has been accepted by several members. The first to answer was Neil Morley

6 40th Anniversary Party

Please see Pete Richards article.

7 Perseids Meteor Watch

The meeting will be on Saturday 11th August from 20:30

The venue will be the on cliff top, behind Brackenbury refreshment hut.

The maximum is on Monday 13th August.

Directions for those who do not know this part of Old Felixstowe

- From the Hamilton Road roundabout, take the turning into High Road East
- Once you are parallel with the cliff top, the car park is behind the trees, on the right, just past the open area of grass, where Brackenbury Fort was once located.
- New Moon is on Sunday 12th August

If you are interested please contact Roy Gooding, James Appleton or Martin Cook

8 Observing Projects for 2007

Occultation's

Graze

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

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 (August)

The Moon

Last Quarter	New	First Quarter	Full
5 th	12 th	21 st	28 th

Object	Date	2 Times		Mag.	Notes
		Rise	Set		
Sun	1	05:25	20:55		
	31	06:14	19:55		
Mercury	1	04:01	20:17	-1.0	Mercury is at superior conjunction on the 15 th
	31	07:33	20:22		
Venus	1	08:03	21:09	-4.1	Venus is now getting very low down in the evening sky. Inferior conjunction is on the 18 th
	31	04:56	18:23		
Mars	1	00:20	15:46	0.4	Mars is in Taurus this month. It will be below the Pleiades at the beginning of the month
	31	23:13	15:31		
Jupiter	1	16:55	01:05	-2.3	Jupiter is low down in the sky this month, requiring a clear southern horizon
	31	15:02	23:05		
Saturn	1	07:02	21:38	0.6	Saturn is in conjunction with the sun on the 21 st
	31	05:26	19:47		
Uranus	1	22:06	09:20	5.7	Uranus is in Aquarius
	31	20:06	07:16		
Neptune	1	21:13	06:46	7.8	Neptune is in Capricornus and will be at opposition on the 31 st
	31	19:14	04:43		

Meteor Showers

Shower	Limits	Maximum	ZHR
α Capricornids	July 15 th to August 20 th	August 2 nd	5
ι Aquarids	July to August	August 6 th	8
Perseids	July 23 to August 20 th	August 13 th 00:20	80
α Cygnids	July to August	August 21 st	5

Meteor source is the BAA Handbook

Night Sky (September)

The Moon

Last Quarter	New	First Quarter	Full
4 th	11 th	19 th	26 th

Object	Date	3 Times		Mag.	Notes
		Rise	Set		
Sun	1	06:15	19:53		
	30	07:03	18:45		
Mercury	1	07:39	20:20	-0.1	Mercury has moved back into the evening sky. Greatest elongation is on the 29 th
	30	09:44	19:09		
Venus	1	04:50	18:19	-4.5	Venus has now moved back into the morning sky
	30	03:15	17:08		
Mars	1	23:11	15:30	0.0	Mars is still in Taurus this month
	30	22:12	14:51		
Jupiter	1	14:59	23:02	-2.3	Jupiter remains low down in the southern sky this month. It is presently in Ophiuchus
	30	13:22	21:18		
Saturn	1	05:23	19:43	0.7	Saturn is in Leo, it will be close to Regulus at the start of the month
	30	03:49	17:56		
Uranus	1	20:02	07:12	5.7	Uranus is in Aquarius, it will be at opposition on the 9 th
	30	18:07	05:11		
Neptune	1	19:10	04:39	7.8	Neptune is in Capricornus
	30	17:14	02:41		

Meteor Showers

Shower	Limits	Maximum	ZHR
Piscids	September to October	Sept 8 th	10
		Sept 21 st	5
		Oct. 13 th	?

Meteor source is the BAA Handbook

OCCULTATIONS DURING AUGUST

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
07 Aug	00:04:16	D	0.37-	-21	14	5.4	Celaeno
	00:56:59	R		-20	22		
07 Aug	00:05:22	D	0.37-	-21	14	3.7	Electra
	00:47:14	R		-21	20		
07 Aug	00:22:30	D	0.37-	-21	16	4.3	Taygeta
	01:07:32	R		-20	23		
07 Aug	00:27:58	D	0.37-	-21	17	3.9	Maia
	01:22:03	R		-19	25		
07 Aug	00:42:11	D	0.37-	-21	19	5.8	Asterope
	01:23:52	R		-19	26		
09 Aug	01:44:35	D	0.16-	-18	14	4.6	136 Tau
	02:37:57	R		-14	21		
26 Aug	20:47:28	D	0.97+	-16	14	4.8	Eta Cap
28 Aug	21:42:12	D	1.00-	-22	21	3.7	Lambda Aqr
	22:46:37	R		-27	27		

James Appleton

OCCULTATIONS DURING SEPTEMBER

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
07 Sep	04:01:24	D	0.18-	-12	32	3.6	Kappa Gem
22 Sep	19:04:51	D	0.80+	-12	13	7.4	ZC 3009

James Appleton

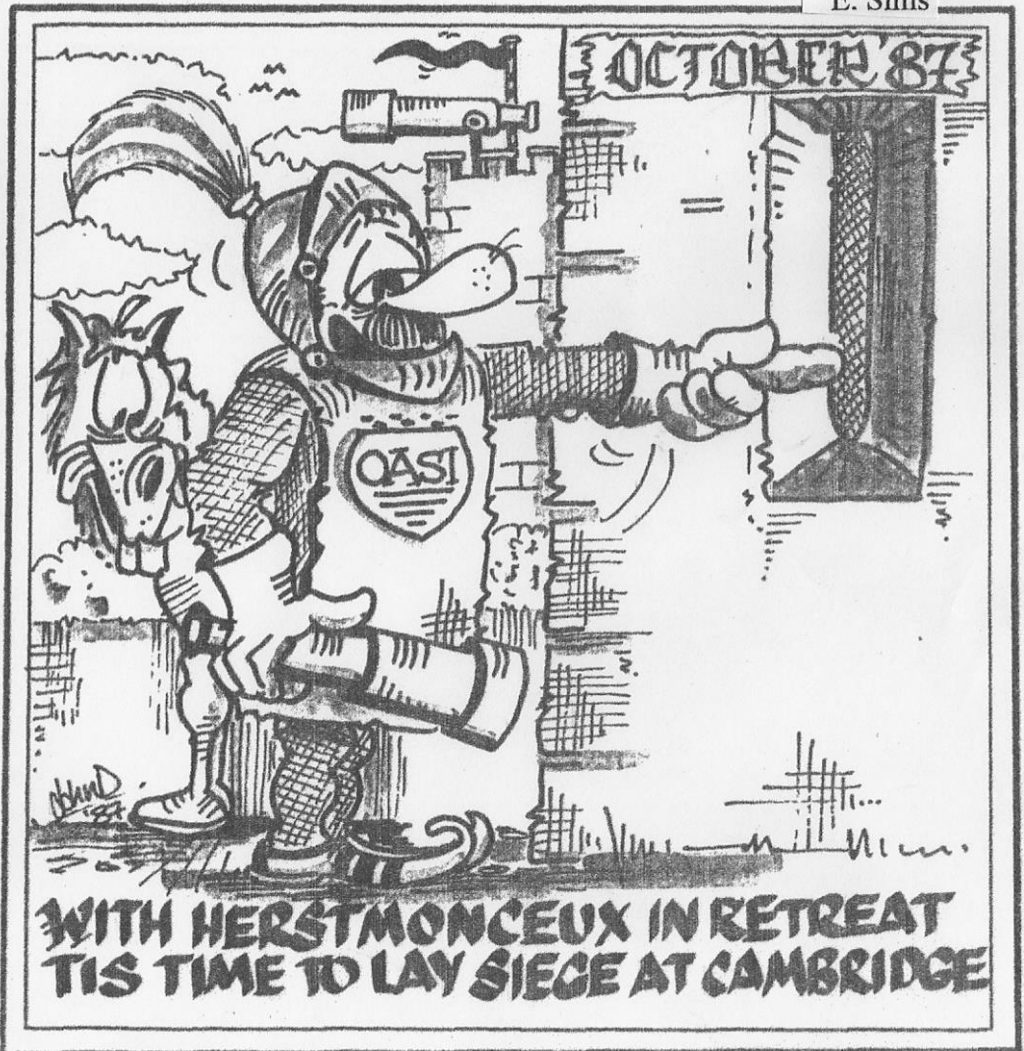
ANOTHER BLAST FROM THE PAST.

Looking through the old newsletters, I came across another interesting cover that brings back a lot of memories of yesteryear. When we used to make our annual pilgrimage to Herstmonceux. Every year we either hired a self drive mini bus, or used as many cars as were needed to transport all the members and there families to a wonderful day.

All day we wandered round the grounds looking at the telescopes, walked round the exhibitions in the castle and attended lectures.

On the way home we usually stopped at a fish and chip shop to finish of a wonderful day.

E. Sims



OASI 40th ANNIVERSARY SUMMER PARTY

22nd September 2007

Start-time 3pm

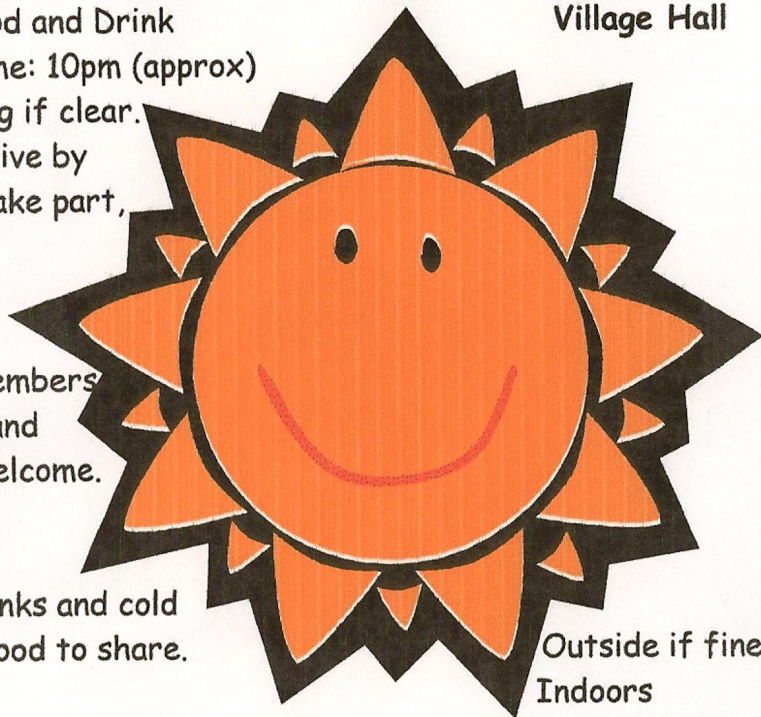
Bring Food and Drink

Finish time: 10pm (approx)

Observing if clear.

Quiz: arrive by 6pm to take part,

Venue: Nacton Village Hall



OASI members
Friends and
Family welcome.

Bring drinks and cold
buffet food to share.

Outside if fine
Indoors
Otherwise!

If you'd like to come please let us know: come to the observatory on a Wednesday and put your name on the list, or send an email to [redacted] or contact the club through the usual contact details.

Nearer the time a list of food items will be drawn up from which most people attending can choose an item to avoid too much duplication.

[Yes, it will still be summer: calendar autumn begins on 23rd September.]

Pete Richard

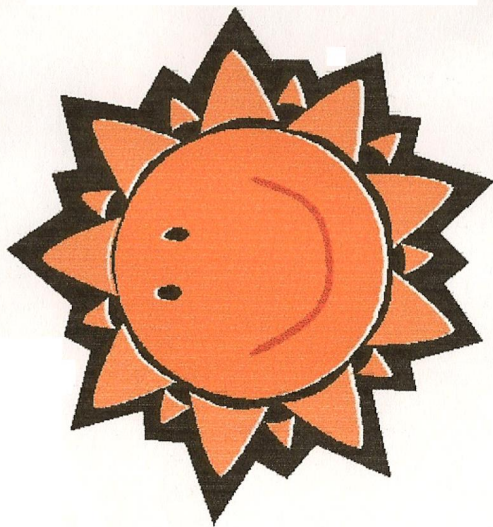
Venus and the Earth

A couple of weeks ago, along with several other OASI members, I took a look at Venus using a small refractor. Venus was a particularly pleasing sight in its crescent phase. In the past I've somehow always observed it when it was between half 'full' and gibbous. It was a reminder of how you can always be pleasantly surprised by what you'd expect to be just an 'everyday' observation. It was a reminder too of how a small refractor (70 to 80mm) - with good optics - can give you great views of celestial objects.

It also made me think of the greenhouse effect - Venus's atmospheric conditions being an extreme example of the phenomenon. On Earth, we are now seeing an increased greenhouse effect from CO₂ emissions related to human activity resulting in increased global temperatures. This can lead to cooler damper weather in some parts of the world at certain times unfortunately! It has been suggested that the Sun's cycles of output might be the cause of the current upward trend in global temperatures. It's a well established fact that variations in the Sun's output do have an effect on temperatures and weather patterns. Our own George Biddle-Airy did work on correlating the solar cycle and crop yields due affected by the variation in weather conditions. Recent research [1] published in the Royal Society's journal Proceedings show that the variations in the Sun's output is not the cause of the particular global warming event being seen now however. Nor is the interaction between the Sun and cosmic rays to blame, as has been suggested.

As astronomers we are aware of the need to control and reduce light pollution, but it has been increasingly recognised in recent years that reducing light pollution can have a significant benefit in reducing climate change. Better directing light means there is less waste (lighting engineers refer to "Upward Wasted Light") so less light is needed for a given level of illumination in the target area. A lot of outside lighting left on throughout the hours of darkness is unnecessary especially in cases where it's counter-productive in aesthetic, safety and security effects. Energy saving is the most effective way to reduce CO₂ emissions. One can't make the excuse that when "green" energy is used that wasting it doesn't matter. This ignores the fact that until all energy generation is renewable any reduction can be translated directly into reduced CO₂ emissions. The time when 100% of the world's energy comes from truly renewable sources and is emissions free is still a long way off. And, of course, manufacturing, delivering, installing, (etc.) of lighting equipment and renewable energy generation equipment also leads to the release of greenhouse gases. Reducing light pollution is an excellent way to reduce society's carbon footprint and it's worth doing anyway.

OASI 40th ANNIVERSARY SUMMER PARTY
22nd September 2007



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Bring Food and Drink
Finish time: 10pm (approx)
Observing if clear

Start-time 3pm
Village Hall

Venue: Nacton

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.

NB; We would like your ideas on how OASI can contribute to THE International Year of Astronomy, 2009 – 400th Anniversary of the Telescope.

- What kind of local event or commemoration would you wish to see?
- Your opinion counts!

<p>Wednesdays FROM 8PM</p>	<p><u>MAIN OBSERVATORY CLUB NIGHTS</u> Primary Observational targets: Nebulae and faint objects. ☎ Martin Cook [redacted] (mobile) ☎ Roy Gooding [redacted] (mobile)</p>
<p>Saturday 22nd September NACTON VILLAGE HALL</p>	<p><u>OASI 40th ANNIVERSARY SUMMER PARTY</u> <i>See details inside...</i> ☎ Peter Richards [redacted]</p>

Society Primary Contacts

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

Society Trustees

Mr Roy Adams Mr David Brown Mr David Payne

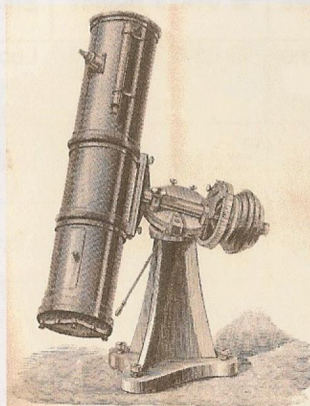
Society Honorary President

Professor Allan Chapman D.Phil MA FRAS

Observatory Telephone Number

Meeting nights only

[redacted]



'The Educational'

- "A mounting of the same principle, but with a shorter polar axis, and the column is in one casting. It is well suited for moderate sizes"...
- "The "Educational" is a plain of 6 1/2 inch, of 4 to 6 feet focus"...
- "It is made as portable as it can be, and is a steady, good-working instrument, and much approved of".

From Calver – Hints on Silvered-Glass Reflecting Telescopes' 1877