

April 2009

Issue 12 - One Year Old

# Look Up!

ISSN 1758-2210

## MoonFest 2009

HantsAstro gets out there

### IOWSTARPARTY

Report + Pictures

Reviews:

Skywatcher 200P Reflector

Software and  
Book reviews

**Butser Ancient Farm  
'Ancient' Astronomy  
25/26 April 2009**

More Sites across  
Hampshire

Info on astronomy across  
Hampshire every month

news | reviews | views | AstroSouth | out there

HantsAstro™



# Butser Ancient Farm under a darker sky...

Butser Ancient Farm is naturally shielded from the worst of the light pollution from three sides. It is ideal for deep sky observing, imaging and getting the best out of your telescope. Skies have been recorded here down (so far!) to Magnitude 20.7 per ArcSecond, and are as good as the West Country or the Norfolk Coast.

For only £4 per session you can experience dark skies in a tranquil and safe setting. If it's cold, a warm and welcoming fire awaits you in the ancient roundhouse. A Multi-Session Pass is available from only £25.

Just off the A3, south of Butser Hill, and 10 miles north of Portsmouth it has easy access from all points of the compass, is an hour and a half from London, and twenty minutes from the South Coast.

For further info and to book yourself a Pass,  
please contact **HantsAstro™** on **023 9261 7092**  
or by e-mail: **subscribe@hantsastro.org**

# Look Up!

## contents

### Look Up! April 2009 issue 12

News + More News HantsAstro™ - April 2009. More observing sites and the Passes overhauled	Page 4-6
Review MoonFest 2009 What to do with 160+ People in a park	Page 8-9
Picture Richie Jarvis - Witches Broom is a clean sweep	Page 10-11
View IOWSTARPARTY - They should call it a Star Fest! One year on - one year better.	Page 12-13
View John Tarling with Saturn & a web-cam and an ETX...	Page 14
Review A decent Decent Double Star Atlas	Page 17
Review Sky-Watcher 200P HEQ5 Reflector Gigantic Review by Melanie Jones ...if you want to get out and do something	Page 20-24
Out There - <b>AstroSouth</b> The new astro directory for the South	Page 29-31
Look Up! in April What's in the Sky for this month...	Page 32

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Look Up! Electronic Magazine is published 1st of the month ISSN 1758-2210  
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Contributors/behind the scenes: Graham Green, Sharon Rose, Martin Saban-Smith, David Scanlan, Richie Jarvis, Astronomia, volunteers and the HantsAstro CoreTeam. Thanks for a great e-Zine!



## First Type

**It seems a little surreal that I'm writing this intro twelve months after we launched our first edition of Look Up! eZine. From the very first issue you can see a monthly milestone of development and growth of both HantsAstro as a group and its members. It's been a real rollercoaster too. The IOW Star Party in 2008 was the birth of it all. We wanted a group that was like a Star Party every night! Looking back, I think we succeeded, but it has had to become more sophisticated as our capabilities and aspirations grew. We have made some mistakes along the way, and suffered the growing pains that come with any rapidly expanding group, but like this magazine it's a process of continuous improvement and learning. I guess that's what hobbies like astronomy are all about. Learning and pushing yourself to do that bit better. Go on. Have a read - improve yourself.**  
David Woods: Founder  
HantsAstro.org



# NEWS



www.hantsastro.org/latestnews.html

## HantsAstro Still a Baby

HantsAstro One Year On... Who'd have thought it?

Graham and I had quite a long conversation about what we were going to do with Look Up! and HantsAstro regarding this Birthday edition. Break out the Bubbly! Blow up the balloons! Out with the ticker tape and streamers! Nope. We both fell strangely silent. I guess we were both thinking at that point, about what we had started and what it had 'become'. We never envisaged the kind of success HantsAstro has become, or the sheer speed of the progress we have made as a group, in the past twelve months. I'll let you into a little secret. There was no master plan, no blue print and no idea how this was going to turn out.

### What is the nature of our success?

For me, I attribute it to the simple ethos that Graham always refers me to, we're an observing group, and in essence he's right. Although we have become more sophisticated in the way we run and fund the Group and I guess that's what has made us a little 'haute couture'. It's an edgier way of thinking. We are funded and run differently. Yet our outlook is a simple one. Many astronomy groups are run by committee, so from the outset we decided that we wanted to do things in a different way. Our answer was

to create Core Team members. It's not an elite crew, but a cross section of people we take counsel from. We picked these people and sometimes they approached us because of their willingness to participate in the growth of the Group. Not just in terms of volunteering, but also from how they wished the Group to be run.

As founder of the Group (and I guess with my business head on) I have provided a platform that other people can utilise creatively.

The Core Team members act as a guidance system. Pretty much we go with the flow, so you could call it a committee, but without all the red tape and none of the delay. For example, our latest project which was bounced around within a day and then sorted out within 7 days, came from Martin Saban-Smith. His idea has now become what is the only Lunar Road Show taking place in the UK. Four shows in four towns across Hampshire and Dorset during April and May. Martin has really come up trumps and has skilfully organised Alton, David Scanlan has superbly taken care of Romsey and yours truly has arranged an exciting event at Highcliffe College on the Hampshire/Dorset border. The fourth venue is about to be confirmed as I write.

## HantsAstro offers a uniquely fun way of doing astronomy.

I don't know of any other group that would be able to achieve this effort in such a short space of time. Not only that but we have also arranged an Astronomy Event at Butser Ancient Farm on the 25th of April, which includes the Great Roundhouse 'swallowing' a Planetarium that can seat up to 50 people! As part of our 1st Birthday

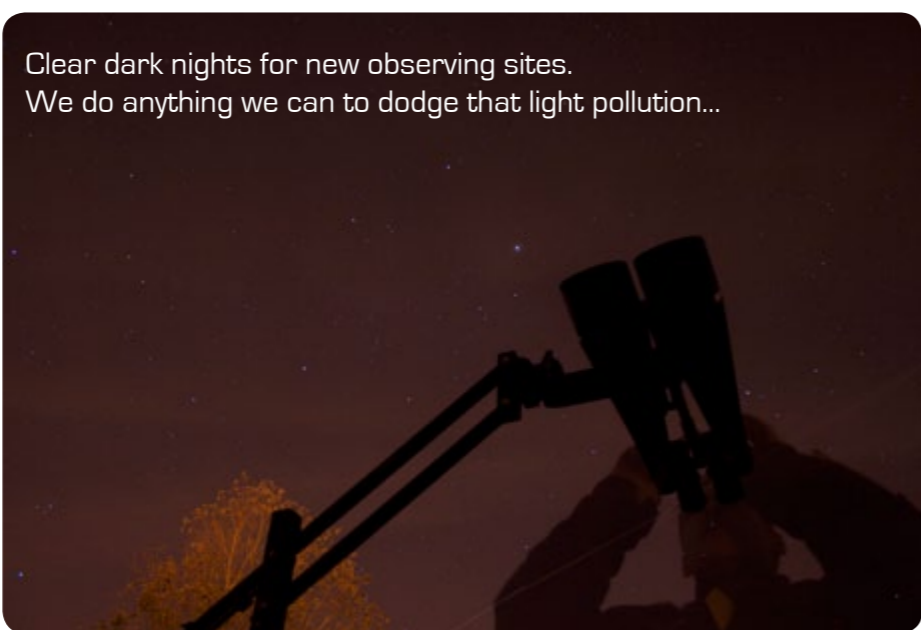
celebrations we invite all registered members of HantsAstro to attend for the princely sum of £1.00. We will be

there on display as usual, giving an open air talk on ancient astronomy and there will be lots of children's activities on the farm (some astronomy related) throughout the day. Full details on the event and their special price will be emailed to our members shortly.

Graham and I have also been busy working with Highcliffe College and some other potentially exciting sites in and around Hampshire to be used for observing on an 'ad hoc' basis.

### Core Team members...

Graham and I were the first CoreTeam members I guess, and even though we founded the Group and created the magazine we like to keep hierarchy and politics out as much as possible. We are just interested in doing



Clear dark nights for new observing sites. We do anything we can to dodge that light pollution...

Picture: Graham Green

astronomy. As time went on new Core Team members were sought and found, and due to the growth of the Group over the past twelve months, we could really do with some more help.

### Your Astronomy Group Needs YOU!

Seriously, we are looking for like-minded souls who can help out and add to the rich tapestry which is HantsAstro. The CoreTeam members meet every second Tuesday in the month and our meetings are light

hearted and informal. We take and write minutes but it's more like a task list, which is why I guess we have done so much in such a short time. There are other benefits to being a CoreTeam member which we will be happy to discuss. Like any hobby that requires some commitment we try not to make what we do an obligation. We run a group because we want to, but we do astronomy because we HAVE to. Please get in touch with me – david.woods@hantsastro.org if you feel you can help us out.

### Don't look back in anger....

Like anything that's cutting edge, sometimes there's controversy. When we started the Group it was an experiment in how to run things a different way. All hobbies cost. (again I have my business head on).

Get over it! I'll tell you for why. HantsAstro is funded through sponsorship and advertising, as well as personal donations and site passes. This way we can remove the barriers and take away the entry cost of learning something new.

Initially, this was met with some suspicion and understandably so. Over the past year attitudes towards our style of management have attracted much interest and some groups – astronomical or otherwise - have adopted some of the elements

themselves. We are not in competition with anyone because we offer a unique brand of astronomy. It's 'Pay as you Go', and in these belt-tightening times it allows you to dip in and out as and when you have time and, of course,

## CoreTeam members are essential to the growth and well-being of the group. Their support at MoonFest proves we can do more...

when the weather allows; without committing to an annual membership fee.

### AstroSouth...

A few voices claimed we were out to undermine astronomy groups in the area - how wrong they were. We actively seek to promote all groups not only in Hampshire but throughout the South of England. Simply, we love astronomy and everyone should, if possible, work together to do

more. Over 70% of the people we emailed AstroSouth to, gave it a big thumbs up! Several of them have put links to us on their website and have given us permission to add their committee members to our mailing list. A few groups have come to us with some ideas for joint projects. It'll be very exciting to see how these may develop. In the back of this magazine you will see a monthly updated guide to the talks and seminars that are going on in and around Hampshire.

For as little as £2.00 you can pop along and learn something fascinating about astronomy.

Astronomy is for everyone., and has many facets to it which is one more reason why it is so interesting.

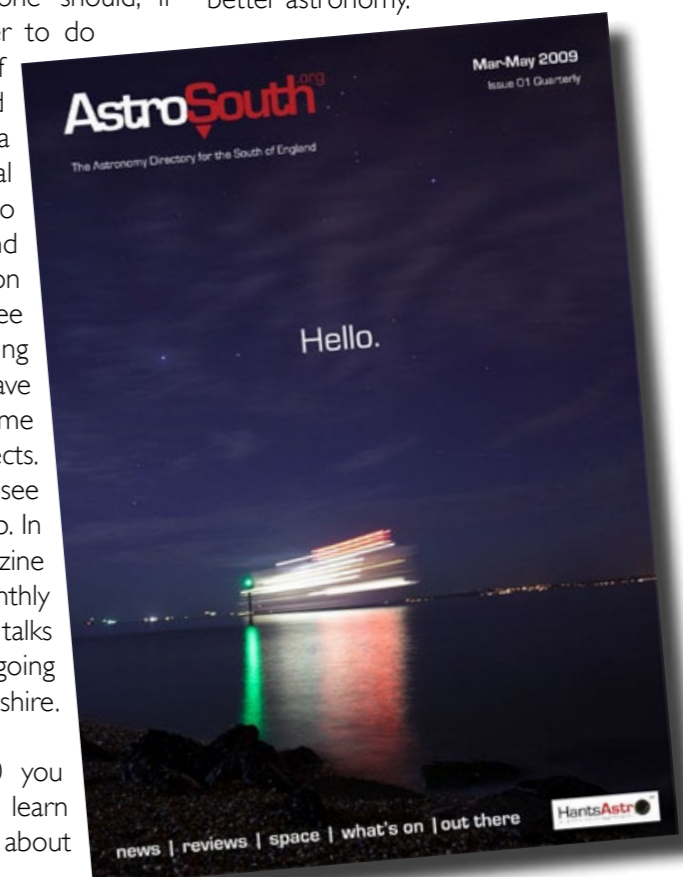
AstroSouth comes out quarterly and we are continuously gathering information on all things astronomical across the South of England, almost like a 'Black Hole'. If we've missed you

this time round in our first issue, then I'm very sorry. Please get in touch, we would love to hear from you.

### Back to the Future...

Someone far more clever than me said 'in order to look forward, you have to look back through history'. Well – all I can say is a big thank you to Graham and the rest of the CoreTeam members and to all the unnamed people that have supported us over the past twelve months. I have been the recipient of some very good advice over the past year, which has helped us become established very quickly.

A few things haven't quite come good yet – but trust me they haven't been dropped – they've just moved down the 'to do' list. With some new CoreTeam members (we are looking for about a dozen in total) we can achieve even better astronomy.



It's all in the doing! Please get in touch.

Thank you for the first twelve months

**David Woods**  
**Founder**  
**HantsAstro.org**



www.hantsastro.org/latestnews.html

## HantsAstro

### Growing a Group Infrastructure...

There have been a number of developments within the Group's administration to reflect our increasing membership and our activities. Placed on the website shortly will be two new contacts, Sharon Rose our Membership Secretary and Martin Saban-Smith our new Media Support Officer.

#### Membership Secretary...

Sharon will be responsible for the administration of members and subscribers as well as issuing the new **Welcome Packs**. If you have any membership queries please drop her a line at [membership@hantsastro.org](mailto:membership@hantsastro.org)

Sharon will also be responsible for issuing site passes, these start with:

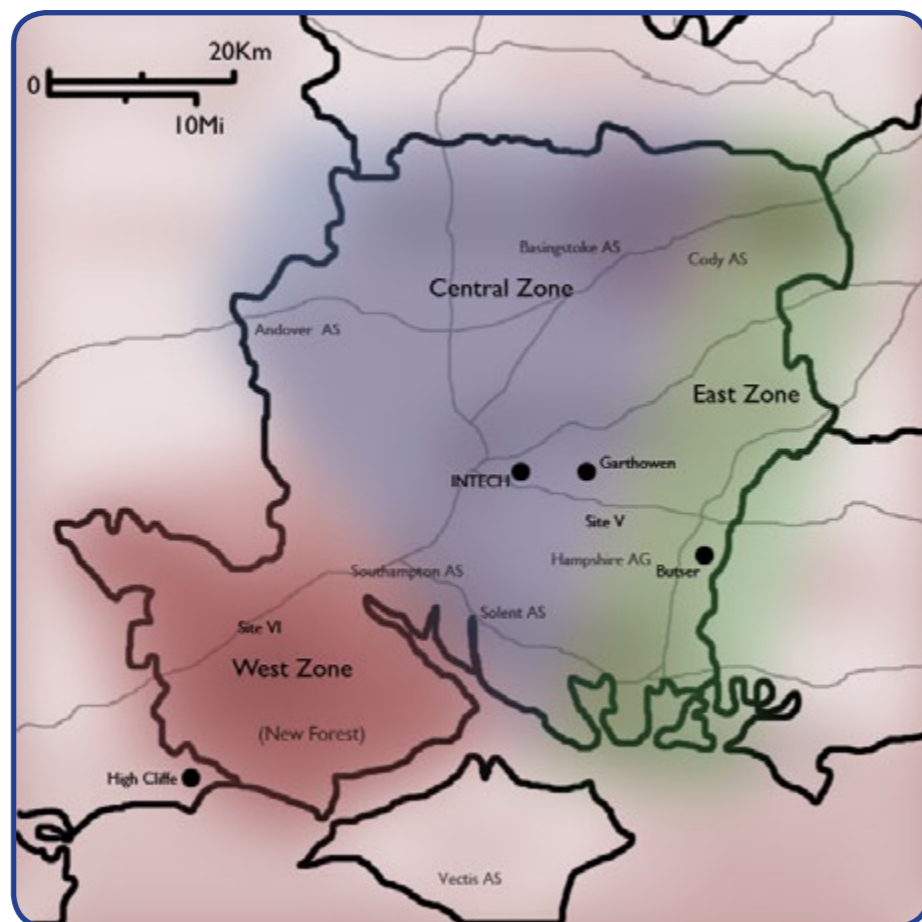
**£25.00** for a **'Solo'** pass. This is valid for a designated site. At present this is Butser Ancient Farm and Garthowen. 50% of the Fee from Garthowen goes to Hampshire & IOW Air ambulance, their chosen charity.

A **'Multi-Site'** pass gives you access to all sites and is **£35.00** and a **'Family Pass'** for 2 adults and 2 children (aged over 11 years) is available for **£45.00**.

**All passes are for ten sessions over 24 months.**

Alternatively you can pay a small charge of **£4.00** on the night. If it's your first time, it's free, just register first using our application form.

The revenue from these passes are put back into the Group to provide comprehensive insurance cover and funding for new equipment. CoreTeam members have passes that cover all sites, they are free of charge and are renewable every 12 months. This system allows free membership whilst



The plan is for two observing sites in each 'Zone' one of which is free.

the more committed astronomer can fix their costs. To purchase your passes please contact Sharon. [membership@hantsastro.org](mailto:membership@hantsastro.org)

We now have 4 sites – 2 of which are free entry and 2 require passes. These are **INTECH** (free), **Highcliffe** (free), **Garthowen** (pass) and **Butser** (pass). The county is split vertically into 3 zones, and the plan is to have **2 sites available for use in each zone**.

Two other sites are currently being negotiated and should be on line before September 2009. Garthowen and INTECH cover the central zone and Highcliffe and Butser cover the West and East respectively. More sites provide more opportunities for observing at a site closer to you. Each zone will have its own team of CoreTeam members. Details will be provided in the magazine and on the website when these are in place.

#### Media Support Officer...

Martin Saban-Smith is now our Media Support Officer and will handle all

Public Relations. We felt this role was necessary and it kind of created itself, due to the promotional activities and events we hold as a Group.

Now that we run two magazines a large proportion of the internal activities are media based, and this requires some co-ordination. This is discussed with all Core Team members as a matter of course. For any questions relating to Press Releases or promotion please contact Martin. [media@hantsastro.org](mailto:media@hantsastro.org)

#### Core Team Members...

Along with the founders David Woods and Graham Green, there are several other CoreTeam members whose roles are currently being developed.

Those roles will be announced in the magazine and on the website once agreed and resources are in place.

We are always on the lookout for new CoreTeam members. Please contact [david.woods@hantsastro.org](mailto:david.woods@hantsastro.org) for more information.

# Butser Ancient Farm Events April-June 2009

Butser Ancient Farm offers a unique day out with events throughout the year.

## 11th-13th April

## Spring Festival

Sally Grainger will be demonstrating Roman Cooking.  
Caroline Mortimer will be demonstrating Celtic Cooking.  
Childrens Chick hunt.

## 25th and 26th April

## An Ancient & Modern Look at the Universe

HantsAstro astronomy Group will be demonstrating use of telescopes, stars and planets with exciting Planetarium Shows in the Great Roundhouse!  
Tickets £6.00 Adult - £3.00 Children - Planetarium £3.00

## Sat 2nd May

## Beltain - the First Day of Summer

A great festival for the whole family, not to be missed!  
Tickets £8.00 Adult - £4.00 Children No Concession  
Tickets available in advance.

## 23rd, 24th & 25th May

## What did the Romans do for us?

Meet the Roman Soldiers.

Try some of Sally Grainger's Roman cooking in the Roman Villa.  
Have a go at some Roman activities.

## 27th – 28th June

## How to Fight and Hunt

David Sinfield and Mark Hill will be demonstrating different types of bows and arrows.  
Dave Freeman will be demonstrating the use of a sling shot.  
Callum will show how to polish, sharpen and haft a knife.

**For bookings & more info 023 9259 8833**

**[www.butserancientfarm.co.uk](http://www.butserancientfarm.co.uk)**

**Open 10am to 5pm Easter to September**  
**Butser Ancient Farm, Chalton Lane, Chalton, Waterlooville Hampshire PO8 0BG**



# MoonFest 2009 - Alton

The evening of Sunday 5th April was almost cloudless as Hampshire based astronomy group HantsAstro launched its MoonFest roadshow on The Butts Green and French Horn Pub.

The Moon, was clear and bright in the sky from early on in the evening when people started arriving to have a look through 10 of the club's telescopes from as early as 7 o'clock.

Each of the telescopes was manned by one of HantsAstro's members and specially prepared moon maps were available for people to use to see where they were looking through the telescopes. Several members of the public, including our own town Mayor brought along their own telescopes to do some observing of their own!

'Across the course of the evening, we had about 160 people, young and old come along to have a look through our 'scopes and I think they were all impressed with what they saw.' Said Martin Saban-Smith, HantsAstro's media officer. 'The best features of the moon to look at were the Apollo 11 landing site in the Sea of Tranquillity from 40 years ago this year, the Bay of Rainbows, the Sea of Rains along with the craters of Plato, Copernicus, Magnus and Clavius. We were also showing many other interesting surface features as well as explaining about the relationship between the earth and the moon. Not to mention showing visitors how the 'scopes work and the different types available. There was a really good, fun vibe and a great air of expectation, I thoroughly enjoyed it!'

The event was also supported by astronomy shop, Astronomia in



Martin gets some people new to astronomy to 'Look Up!'

Dorking. Managing Director, Neil Phillipson commented on what a success the evening had been and showed an interest in holding a similar event around the Dorking area.

An astrophotography talk by Martin Saban-Smith in the skittle alley at the French Horn drew its own crowd of 30 or so people and saw Martin talking about how to capture images from objects in the sky invisible to the naked eye with and without a telescope. There were also many of his recent images to see.

As the sun sank below the horizon, the views of the moon just got better and better. When it was completely dark, some of the telescopes turned their attention to Saturn and wowed visitors with views of the ringed planet and the moons Enceladus, Titan, Dione plus others. Interested people braved the chilly evening and kept coming out of the dark from all directions after folk already there made phone calls to friends to come and see. One of the telescopes was connected to

a webcam and laptop computer to allow for group observing, such was the popularity of the event.

'Saturn just looks like a star normally, but through the telescopes, I could clearly see the rings and some of its moons, which was really interesting. Our moon looked magnificent too. There were lots of people there and everyone seemed to be enjoying themselves.' said Alton resident, Mike Abbott.

The curious nature of the event carried on at the French Horn during the evening with chilly first-time astronomers warming themselves by the fire with a pint and discussing what they had seen with their friends and learning more by talking to members of the HantsAstro team.

**Next MoonFests are:**  
April 29th at the Memorial Park, Romsey  
May 2nd at Highcliffe School & College



As our first in the field Public Outreach event, it went quite smoothly and everyone enjoyed themselves with a relaxed atmosphere. Several families arrived with their telescopes and left with armed with a little more knowledge.

HantsAstro Member Richard Parker explaining the various seas of the Moon and the Lunar landing sites. The clouds gave way to some clear and crisp views

Even on the Butts, there were many stars and crowds kept coming.



Small Scope, big sky which was clear until tear-down at 10pm



Astronomia who supported the event came along with their new eye catching liveried Freelander and were quite busy. It had nothing to do with the Carbon-fibre tubed Orion Optics OMC140 that Neil was using that attracted a small queue... It was the Landie! The OMC showed Saturn as a real treat through this compound telescope, that delighted many observers for the first time.



# Members' Images

## Witches Broom - Richie Jarvis

Location: IOWSTARPARTY, Brighstone IOW UK. Date: 2009-03-27  
Object: NGC6960 - Witches Broom (Part of the Veil Nebula)  
Scope: Williams Optics ZS66 @ F/4.6 Camera: SXV-H9  
Guide Scope: AstroProfessional 102ED  
Guide Camera: SX Guidehead Exposure (Ha): 7 x 600 seconds  
Exposure (OIII): 7 x 600 seconds

[www.deepsky.org.uk](http://www.deepsky.org.uk)

# NGC6960 - Witches Broom

Kind of apt this picture. Richie was so pleased with the darkness of the sky from the Isle of Wight that he captured this amazing picture of the Witches Broom which is part of the Veil Nebula. No other picture can convey the saturated view of the skies from this very dark sky site.

All imaged with a small William Optics 66mm Apo-Refractor.

It's the stars between the stars that also impress. Richie again has cleverly managed to pull out the finer filaments of this thin gas cloud to great effect.

**We're always looking for more great images to include in Look Up! - Get imaging and get e-mailing!**



# REVIEW

Pictures: Graham Green  
Words: David Woods

# IOWSTARPARTY 2009

The IOW Star Party at Brighstone took place again but this time under much darker skies.

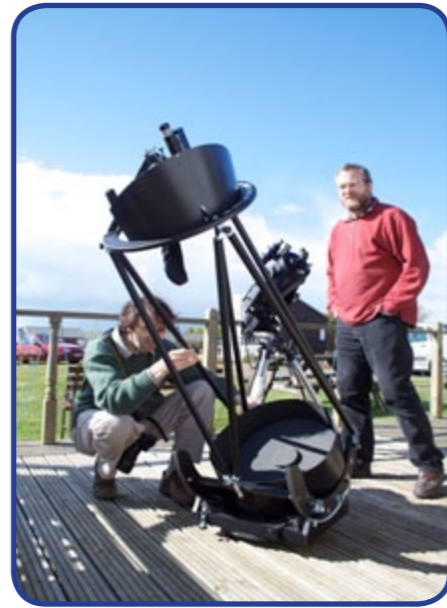
Stephen Griffith and Lucy Rogers pulled off yet another spectacular series of observing nights. Under skies that were measured by us at mag 21.3 per arc sec

Richie Jarvis's Witches Broom on the previous pages perfectly illustrates the immeasurable vastness of the Cosmos. Transparency was quite good over the channel facing south and many observers were up until the wee hours of the morning making the most of the stunning vistas that opened up above them.

Now in its second year this event is maturing quite nicely and over 50 people attended, and were rewarded with great skies, good food and camaraderie. There were a number of informative talks and discussions during the day, with full on observing and imaging after dinner.

The cloud fronts tried to do their best to dampen spirits on Saturday, but everyone just wanted the night to begin.

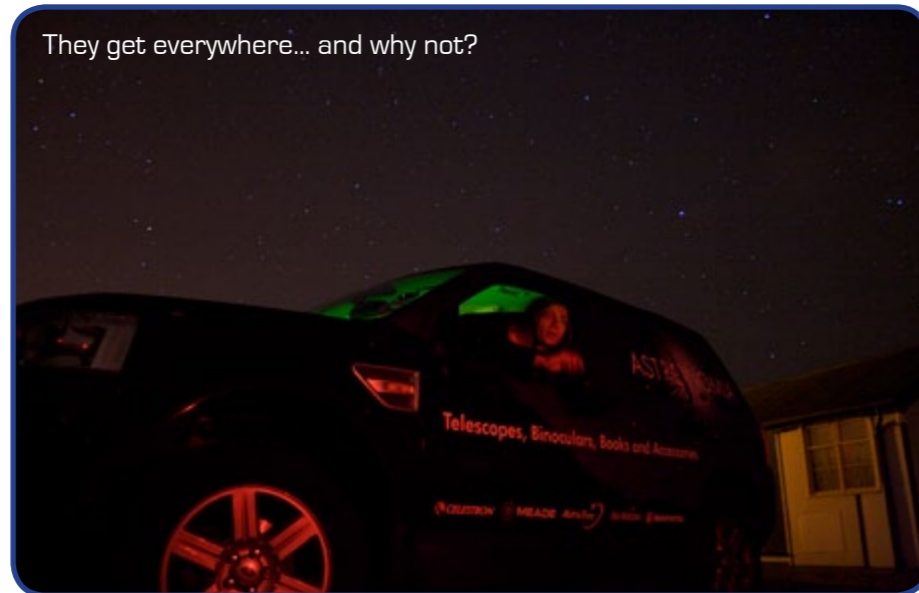
Our thanks go out to both Lucy and Stephen and the other volunteers in providing what is becoming a real jewel in the south.



Organiser Stephen Griffith with an 'Obsession 15' - Very rare.



They get everywhere... and why not?



Away from the mainland and you get some of the South Coast darkest skies with a best of Mag 21.5 - SQL meters reportedly stop at 22.2...



Big guns were out in force as well as some smaller ones below -



Wandering Star?



Life's a beach...





Saturn - 659 stacked frames later from a web-cam and a small Maksutov. Excellent!

Monday 16th March

2009 was an exceptional evening for planetary observing and imaging. Not only did we have clear skies but the higher atmosphere was exceptionally calm; this presented an opportunity not to be missed!

This image of Saturn was taken from my back garden in suburban Havant, using my Meade ETX105 with a Meade field tripod and Autostar controller.

I aligned my ETX in 'Polar' mode, tilting the tripod plate to suit my latitude in Havant; this meant that only the azimuth drive was needed to track celestial objects. Generally, the limiting magnitude for my back garden location is around magnitude 3, maybe magnitude 4 on a good night, due to all the street lighting in the area.

The image originally started as AVI video files, taken with a Philips SPC900NC webcam with a 1" adaptor and a Revelation IR filter to reduce noisy pixels from infra-red. Since visibility was very good, I fitted the webcam to a Televue 2x Barlow (I resisted the temptation to use my 3x Barlow which 'overcooks' magnification for imaging).

I took three video files, each recorded at 10 frames per second, which gave me a total of 3,567 frames, using AmCAP v.9.20.

All three video files were imported into RegistaxV5 (the latest Beta version still on trial). I set the quality filter to 95% (quite high, but I could afford to since visibility was so good). Registax selected and stacked a total of 659 frames from the original 3,567 frames, which I processed and sharpened

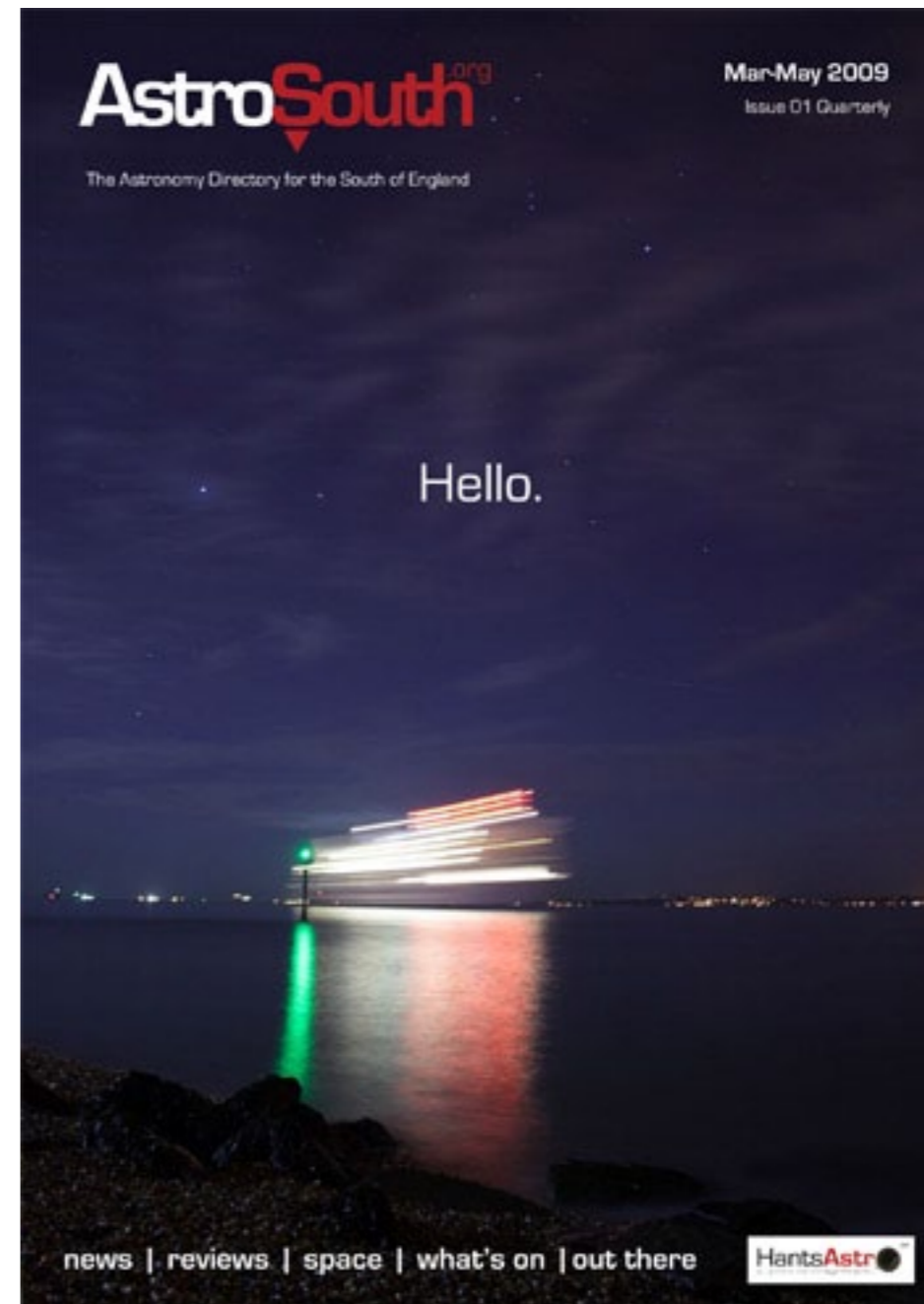
in the 'Wavelets' tab. (I also created a reference frame from the 50 best frames).

A slight increase in contrast and a reduction in brightness gave me the finished result. Not bad for a 4" Maksutov Cassegrain in a light polluted urban location!

Now ... we wait for Jupiter to reach opposition!

**John Tarling**

# Astronomy. 51 degrees above Zero.



## ...it's Hot Stuff.

Get yourself a free copy today of the AstroSouth Directory. Published quarterly, it covers all the astronomy groups, Planetariums and other sites south of the M4 - it's about to be reloaded with even more info on the 18th April 2009. With over 70% of astronomy groups telling us they want more.

We're delivering it.  
[www.AstroSouth.org](http://www.AstroSouth.org)



# Butser Ancient Farm Astronomy Event

25th & 26th April 2009  
from 10am - 5pm

A unique look at ancient and modern Astronomy through the ages...

Large Planetarium in the Great Roundhouse £3  
(Only £1 for registered HantsAstro members, Saturday only)

Astronomy Talks - Workshops - Bring your own  
Telescope - Childrens Activities - Raffle.

A Hog Roast and Refreshments are available.

## Admission

**£6 Adults £3 Children**

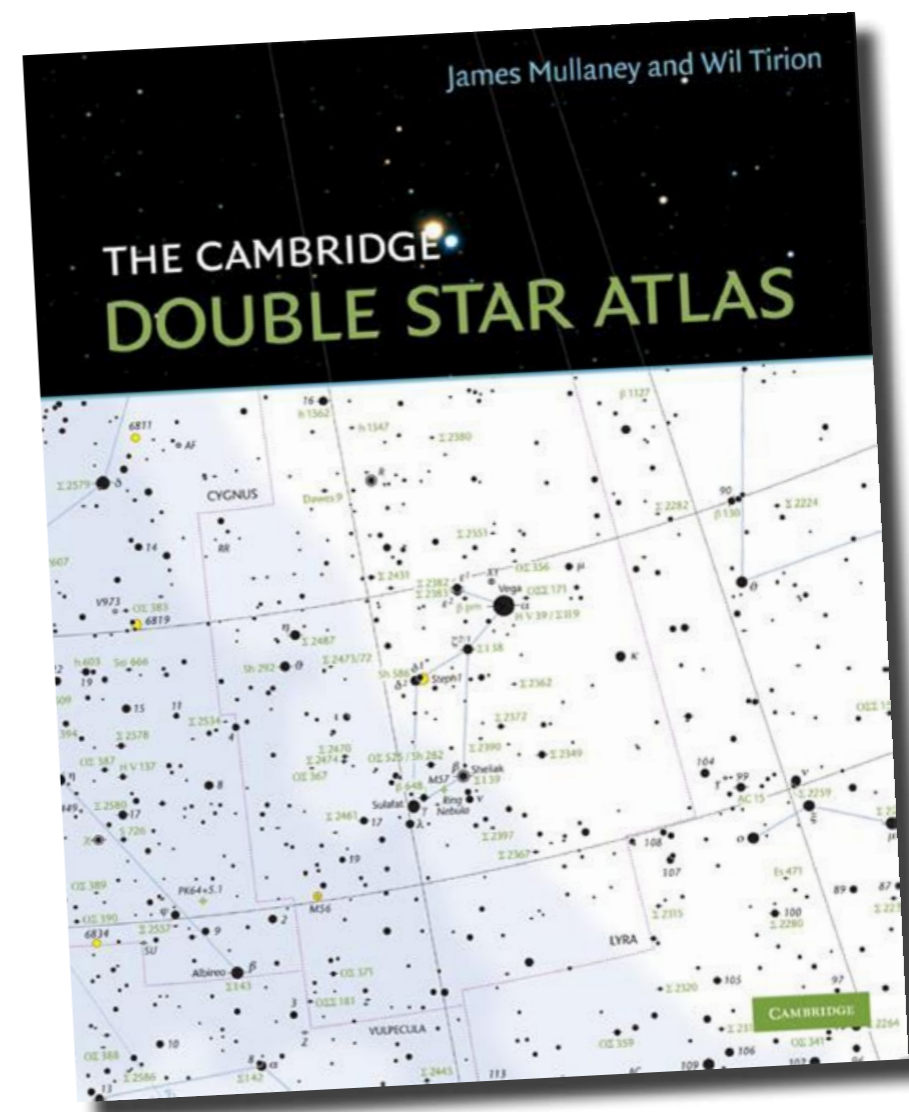
(£4/2 Concession for registered HantsAstro members, Saturday only children 8+ for admission to planetarium)

Just off the A3, south of Butser Hill, and 10 miles north of Portsmouth it has easy access from all points of the compass, is an hour and a half from London, and twenty minutes from the South Coast.

For further info please contact HantsAstro™ on  
023 9261 7092 or Butser Ancient Farm 023 9259 8838  
[www.butserancientfarm.co.uk](http://www.butserancientfarm.co.uk)



## REVIEW Words: David Scanlan



Cambridge Double  
Star Atlas  
ISBN – 9780521493437  
Paperback  
£27.50



It's here. It's finally  
landed..!

An indispensable guide to observing  
double and multiple stars!

It's been long awaited and at last James  
Mullaney and Will Tirion have compiled  
what will become, if it isn't already, a  
milestone in astronomical literature.

LookUp!

This is no armchair astronomer's book.  
This is a practical field workbook that  
is intended to spend many long hours  
under the night sky with its observer.

The book at first deals with some  
introductory notes and then moves on  
to what we have all been waiting for for  
so long, a high quality double star atlas!  
There's a plethora of other material  
listed on the charts such as nebulae,  
galaxies, variable stars and so on which  
makes this book useful right across the  
amateur astronomy community.

One thing in particular that I really liked  
about this book is that the maps are  
visible under the dim red light of the  
astronomer's torch; very useful indeed.  
The book is also spiral bound which

makes using the book in the field very  
easy, it also resists the damp night air  
well!

As I said at the beginning of this review,  
this is a field book and it simply does  
not fail to please. If you're interested in  
double stars and want the only guide  
you will ever need then this is the book  
for you.

The Cambridge Double Star Atlas is  
available from [www.cambridge.org](http://www.cambridge.org)

David Scanlan, FRAS  
Director  
SPA VSS  
[www.popastro.com](http://www.popastro.com)



The UK's Fastest Growing Astronomy Group Invite You To



# MoonFest

**FREE** Public Moon Observing

**Wednesday 29th April**

7 till 10pm

**The Memorial Park  
Romsey**

7 Telescopes to look through  
Astro Photography & Moon Landings Talks  
FREE Advice  
Ages 8 and upwards

sponsored by  
**ASTRONOMIA**  
www.astronomia.co.uk

**HantsAstr** 

For further information and weather updates, visit  
**www.hantsastro.org/moonfest**

sat nav - SO51 8EN or call 07866 558616 for information

 **ORION** optics UK

 **MEADE**

 **CELESTRON**

**Sky-Watcher**

**Vixen**

# ASTRONOMIA



The High Street Astronomy Shop with a difference...  
a huge range of telescopes, binoculars, books  
and accessories.



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# REVIEW

Words & Pictures  
Melanie Jones

## Sky-Watcher 200P (HEQ5) £918



### Having re-started in astronomy with the Sky-Watcher 130PM

I quickly found myself wishing for a larger telescope and decided to upgrade to a bigger aperture Newtonian. The 130PM had confirmed to me that my primary interest was going to be deep sky observing and a Newtonian made sense to me. Sky-Watcher equipment seemed to attract good reviews and even a recommendation from Sir Patrick Moore!!!

I had bought the little 130PM as a kind of test purchase to see if my interest would be sustained and also if a Newtonian scope from Sky-Watcher would be of good quality. Having been out of astronomy for such a long time my previous knowledge was rusty and I needed to assure myself of the quality of the equipment and also decide whether a Newtonian scope was indeed the best choice.

Over the intervening years equipment has changed considerably. There was also a profusion of unfamiliar

manufacturers and telescope types and I found myself in the same position as any other beginner of being very unsure about what I wanted to do.

Many years ago when I started astronomy the choice of almost every serious amateur was a Newtonian. Back then SCTs were priced outside of the reach of most amateur astronomers and I can't ever recall even seeing one back in the 1970s other than in glossy adverts and scientific journals - usually at a university or professional observatory.

The little Sky-Watcher 130PM had turned out to be a great scope and I can't speak highly enough of its overall quality for what is, after all, an entry level scope for beginners. On the strength of a few months' use of the 130PM I resolved to upgrade and found myself ordering a Sky-Watcher 200P on an HEQ5 mount. The scope seemed to be very popular with other amateurs and in part my decision was based on the fact that 20 plus years ago the 8" Newtonian was a scope to be reckoned with - king of the hill. Back then I could never have afforded such a large telescope or such an advanced mount but now, with prices having fallen hugely and me being in late middle age, I decided to own the sort of scope I always wanted way back then. I didn't buy the GoTo version as I prefer to find objects myself although the HEQ5 can be upgraded later on if required.

Now, I must admit a certain prejudice here. I do like Newtonians. That's partly based on my experiences many years ago but also based on the 'purity' of the design. It's simple, ingenious and very clever. It looks less so now that we have had a few hundred years of Newtonian scopes but it's still a marvellous design.

#### The Sky-Watcher 200P / HEQ5

The Sky-Watcher 200 was ordered and I settled back to wait for a delivery. When it came I was somewhat amazed at its physical size. Three huge cardboard packing crates that had a hefty amount of weight.

On opening the carton containing the tube I was aghast at its physical size. A long time out of astronomy and only the 130PM to gauge sizes against had led me to think the tube would be quite a bit smaller. On first sight it was a monster! The packing crates containing the mount's head, tripod and weights all reinforced this view and I was torn between a lot of joy at owning the sort of set-up I could only have dreamed about years ago and the fear that it was so large perhaps it would be beyond me.

The focuser was seriously defective with glue and sticky paper stuck in the mechanism, the optics were badly misaligned and the primary mirror was loose in its cell. Along with the problems with the OTA, the mount also showed some serious defects. These included a damaged polar scope and a non-functioning DEC drive.

I was very disappointed as the 130PM had been excellent. The dealer was lack lustre in responding to my enquiries for a replacement so I called Optical Vision - the distributor for the Sky-Watcher brand in the UK - who were on the case very quickly and arranged a replacement scope. Their customer service was first class. I always believe the real test of a company is how well they respond to a customer problem because, let's face it, the company that has NEVER had a problem with its goods hasn't arrived yet and probably never will.

Note: In fact the issues with the scope were quite long and drawn out thanks to poor service from the dealer but rather than create a review which lists a blow by blow account and very aggravating time I have cut this episode down in this review to its bare bones. It's sufficient to say that when Optical Vision got involved all of my problems were resolved very quickly and I would have no hesitation in recommending Sky-Watcher equipment based on their superb customer service. Talking to other owners it would appear that I was merely unlucky and surprisingly few other problems seem to ever



have been reported with Sky-Watcher equipment.

The replacement scope arrived and was found to have a few minor issues I wasn't happy with - these included a loose finder scope mounting which was easily resolved with a screwdriver and a pair of pliers. The mounting bracket was also loose on my 130PM when it arrived and this seems quite common from other reviews of all kinds of telescopes.

The primary mirror clips were loose and I tightened these up. Collimation was way out of alignment, most likely due to the loose primary mirror retaining clips. All of these issues are relatively normal with larger Newtonians and any owner of one of these should be able to collimate and deal with this kind of minor maintenance.

The 200P telescope when assembled and in full working order was impressive indeed. It's physically very large as already stated but the overall mechanical fit and finish was superb. The tube is rolled aluminium which is strong and light with neat seams. The factory fitted Crayford style focuser was smooth and sure and very nice for a budget focuser. The 9x 50 finder scope was stable, well mounted and very bright.

The real star of the show though was the HEQ5 mount. It is indeed a very solid piece of engineering that fits the bill nicely as a large and stable yet portable mount. The tripod with 1.75" stainless steel legs coupled to the HEQ5 mount head held the scope very firmly. The mount when slewing was almost silent - so much so that at first I wondered if it was working at all.



The supplied Sky-Watcher tube rings and dovetail were more than adequate for the task. The rings are cast while the dovetail is a piece of extruded aluminium. The 200P was supplied with two cheapish Plossl eyepieces in 10mm and 25mm and a De Luxe Barlow that's a slightly upmarket version of the one supplied with the 130PM. The eyepieces look budget but in fact they work very well, especially the 25mm. Surprisingly no manual was included. For me that wasn't a real problem as I had a certain familiarity and perhaps Sky-Watcher assume anyone buying a telescope in this class would know what they were about.

When assembled the overall system looked rather good and was very solid. Experience in the field with this item has shown that there are no real weak spots in its design and the basic set-up is extremely workable as supplied, but with plenty of room for upgrading later as and when the individual user may wish to improve any particular aspect of the set-up. I will discuss my own upgrades a bit later in the light of actual experience.

The Sky-Watcher 200/HEQ5 combination – it's large, solid and well made. Mine's modified a bit in this picture.

### Learning The Ropes

The telescope itself was very straightforward to set up and no more complex than any other telescope. The HEQ5 mount however posed a few additional complexities. Never having owned a mount of similar sophistication I found myself a little lost. A manual is available from OVL's website but the polar scope set up instructions from Sky-Watcher were quite hopeless and indeed there were many items not covered in the instruction manual including how to focus the finder scope and the polar scope. The polar scope setting circles, while essentially simple, seem to confuse many beginners including me. Indeed I had such a time of it I wrote an internet guide to hopefully help other tyros with the HEQ5.



The 200P has 77% more light gathering than last month's Explorer 150P telescope and a superior mount - above

The RA setting circle also has its own oddities with its lock screw which will only lock the circle at '0'. There is a good reason for this in polar scope calibration but to a beginner it was a bit confusing and added to a nasty feeling that I may be out of my depth.

After having learnt how to get the polar scope aligned and configured I felt a lot more confident. The telescope itself also required collimation from the start. This in itself presented challenges and over the course of a few weeks I was forced to learn how to collimate rather well. This was a good thing in the long run but at the time seemed rather frustrating.

Other Sky-Watcher owners have told me I probably got unlucky here and the second scope may well have suffered problems because of poor handling by

the courier. All in all, the learning slope was very steep but, looking back, I am grateful for it as it forced me to learn an awful lot very quickly and become pretty well expert at collimation. A more experienced telescope user may have been faster at setting the telescope up. I had some collimation experience but not nearly enough and fast Newtonians have their own peculiarities. The knowledge I gained helped me write my own guide to collimation.

### Fettled

After a few weeks of fiddling about with the telescope and learning how to align the polar scope fully while waiting for the clouds to clear, I finally had an opportunity to see some stars with it and used the time to test the collimation. Regrettably the weather very quickly closed in and

the opportunity to do any observing wasn't to present itself again for quite some time.

The time spent with no clear weather was put to good use learning the scope inside out and practising with it. I knew from past experience this would pay dividends when I finally got to use the telescope under an ink black sky.

### First Light

A Star Party at Salisbury finally gave me a chance to test the telescope out under near perfect conditions. First off I got time to do a serious bit of star testing to check that the optics and collimation were spot on. This proved to be the case even though the scope had been bumped over some bad roads on the way down. So collimation had held up even under stress.

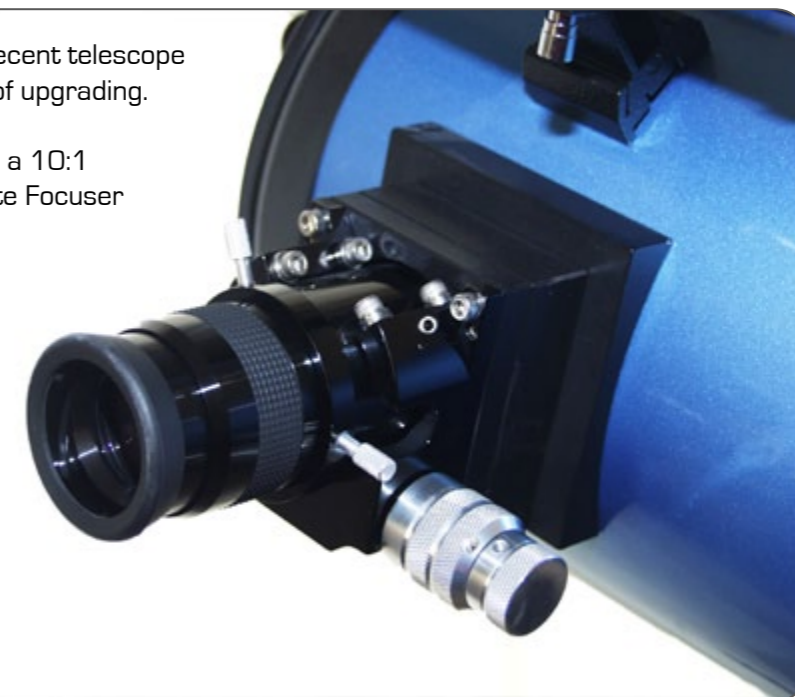
Secondly, I got the first real chance to check whether the polar alignment setting circles were correct and the reticule well aligned. Despite the fact that I forgot to do a final retest using Polarview so the circles were calibrated as per their original set up some months prior to the Star Party, the polar alignment worked perfectly with the scope tracking with almost no visible error for observational use. I periodically rechecked the alignment and found each time that Polaris was tracking around the polar scope's tracking circle perfectly over 3-4 hours. The tracking was a real boon with other people using the scope and at one point the scope was left unattended for about 40 minutes and when I returned the Ring Nebula was still perfectly centred from where I left it. That might seem no big thing to more experienced users of the HEQ5 but to me, whose previous mounts were somewhat less sophisticated, it was an amazing thing not to have to keep jiggling the mount.

Remember I was last doing this 20 plus years ago and mounts like the HEQ5 were unattainable for me then.

Collimation as already stated stayed true and spot on. The views of Jupiter early on the second night of the party were simply astounding - easily the best I have ever seen through my own equipment - and, as was commented

It's a decent telescope worth of upgrading.

Here is a 10:1 Moonlite Focuser



by someone, a sure sign that collimation was perfect or close to perfect due to the extremely fine amounts of detail that could be observed. EPs in use were a 15mm and 32mm Celestron from the Eye Opener kit coupled up with the 2x Barlow from the same kit. I did try more powerful EPs but found the low position of Jupiter made the contrast drop off very steeply. This was most likely due to Jupiter being so low on the horizon and the sky still showing traces of afterglow. By the time it was totally dark I was engaged looking at DSOs so I can't say what the view may have been like after the atmosphere was steadied and the afterglow had gone completely.

After observing Jupiter for a while I decided to put the scope to the test on DSOs which was my prime interest when I bought it. The scope was turned about and the hunt for DSOs began. With a little star hopping I located M13 in Hercules. The view was astounding and far beyond what I would have expected from an 8" telescope. I have to say it was only slightly improved through a nearby 12" scope. The 12" produced a bigger image but the overall clarity and contrast were very comparable. The milky colour and sparkly appearance were well defined and overall this was probably the best view of the evening.

The Sky-Watcher 200 in the field at Salisbury. It's big but just about portable

The scope was then cranked around to find in succession M57 (The Ring) and M27 (Dumbbell Nebula). The views, while good, were very faint which is typical of many DSOs. Experienced astronomers will doubtless know that these objects are very small targets and always look unimpressive compared to photographs of the same objects. Nonetheless the Ring was a real find as I had never observed it directly before and I was quite elated that the 8" would show it quite well. It may sound as if I was unhappy - far from it - these are very faint targets and getting to see them as well as I did was very impressive. A UHC filter may have improved the view but I didn't have one with me. I then moved the scope to the double cluster in Perseus. I had observed it the previous night through a 12" Dob with a Televue Ethos 13mm - very much the Rolls Royce of DSO viewing equipment for observing - and was curious to see how the 8" would fare with the new Sky-Watcher 38mm Panaview EP in place. In short, extremely good. The wide angle of the Panaview (70°) with its less powerful magnification gave a very good view. Both clusters would fit in the EP view (just about) along with the surrounding stars. The view almost



shaded the view of M13 earlier. Other observers were in fact more 'wowed' by the double cluster through the SWA 38mm.

The final target for the night was the Pleiades. An easy target but by this point I was getting tired and cold and lacked the energy to try and locate another hard target. The Pleiades, as I would have expected, showed up very well in an 8" scope and with the SWA 38mm Panaview in place looked very impressive indeed and even showed a little faint nebulosity.

Across the night I tried a range of EPs on various targets although seldom more powerful than 15m (which would be typical magnification for most DSOs in my experience) and found the scope performed brilliantly well - far beyond my expectations. The focuser that came with the scope was the Sky-Watcher Crayford style unit and I found very little to complain about as it did its job rather well. There is a small amount of slop in the mechanism and it's nowhere near as smooth as some of the after market upgrades such as the Moonlite or Baader Planetarium but it's still incomparably better than the rack and pinion focusers I have used in the past and a real boon. Across the night with a range of EPs it was easy to get focus with the minimum amount of wobble transmitted to the scope.

The HEQ5 was outstanding, unobtrusively tracking with no noise and no fuss. Just quietly getting on with its job of tracking perfectly and providing a stable mount that was easily able to keep the 200P in its grip. I was a bit concerned that with the heavy dew problems its electrics might suffer but it slogged on even when running with water by the end of the evening. The ideal running partner, I think, to the 200P.

My only real gripe (and this is hardly the fault of anyone but me) was that under a perfectly dark sky I found the 9x50 finder almost useless. My sky navigation isn't the best and I found the finder ended up with so many stars in it I could hardly tell where I was by using

it. This is really down to my poor stellar navigation and rusty star hopping skills.

The item which proved the most useful through the night (and is an absolute must for Newtonian owners) was the Orion dew shield for the scope. The scope only occasionally suffered dew on its finder scope and the cheap dew shield kept the main optics clear of wet stuff all night.

#### Verdict

Happy? You bet - convinced that for me the 200 on the HEQ5 was the right combination as I hoped it would be. A good mix of powerful optics and a stable and reliable mount which, when set up, will provide perfect tracking for an observer. Brilliant and smooth running mechanics coupled with great optics and, most important of all, views that made all the initial problems seem like the minor niggles they in fact were.

In fact as a postscript, the initial issues actually helped under dark skies. I was completely familiar with where everything was and quite able (had the need arisen) to collimate on the fly. I just can't wait for some dark winter skies to get out observing again and use the SW200 to its maximum potential which I am sure I have just scratched the surface of.

The 200 when mated to the HEQ5 provides a kind of astronomical 'sweet-spot' - much smaller and a telescope will struggle with faint objects, much larger and a reflector can become unmanageable for anything other than an observatory. Cost wise and functionally the 200/HEQ5 is right on the money. A very powerful and versatile scope that's easily within the budget of an amateur astronomer. Having used the scope I can easily see why it's such a popular system - it brings incredible views in a relatively compact and well thought out package that won't break the bank. In a nutshell - Power to the people!  
USW200 - Baader SkySurfer V Red Dot Finder  
As already mentioned in the review I found the 9x50 finder very hard to deal with and resolved to have an

accompanying red dot finder. The Sky-Surfer V is a well made piece of kit of all metal construction, comes with a dewshield attachment and clear see through lens protection caps. I opted to buy another Vixen accessory bracket so that the red dot finder and the 9x50 can be mounted side by side.

#### Big Spec:

EXPLORER-200P (HEQ5)  
200MM (8") F/5 Parabolic Newtonian Reflector Telescope

Magnifications (with eyepieces supplied): x40, x100  
Highest Practical Power (potential): x400  
Diameter of Primary Mirror: 200mm  
Telescope Focal Length: 1000mm (f/5)  
Tube assembly available separately  
Supplied complete with 10mm & 25mm eyepieces  
9x50 finderscope  
x2 Barlow lens 1.25" (with camera adaptor)  
Parabolic Primary Mirror  
0.5mm Ultra-Thin Secondary Mirror Supports  
Direct SLR Camera Connection  
EQ5 Deluxe Equatorial Mount  
Built in Polar Alignment Scope  
Aluminium Tripod with Accessory Tray

Tube rings and dovetail mounting bar



#### Next Issue of Look Up! -

Upgrading your telescope with a MoonLite Focuser and other useful things...



## SPACE LECTURES 2008-09

12th November

### Are We Star-dust or Nuclear Waste? The Story of the Birth and Death of Stars

Dr Robin Catchpole  
(Cambridge University)

10th December

### A (Potted) History of the Telescope

Ninian Boyle  
(BBC Sky at Night, Venturescope)

14th January

### The Search for Extraterrestrial Life in the Universe

Prof Malcolm Coe (University of Southampton)

11th February

### Tour of the Universe

Dr Maggie Aderin-Pocock (Astrium)

11th March

### What Can We Know About the Universe?

Prof Russell Stannard OBE  
(Open University)



8th April

### Black Holes, Black Magic and Interstellar Travel

Prof John Brown  
(Astronomer Royal for Scotland, Glasgow University)

13th May

### Impacts from Space and the Death of the Dinosaurs

Dr Paul Roche  
(Faulks Telescope Project)

10th June

### Toys in the Sky: The Challenges of Space to the Human Mind

Neville Poulton (Astrium)

8th July

### They Really Did Land: Apollo at Forty

Piers Bizony (AETV)

Tickets £6.00 and £5.00

All lectures start at 6.30pm. The lectures are for adults and older children (11+) and each one will be followed by a short planetarium show about that month's sky.

Booking line: 01962 863791 [www.intech-uk.com](http://www.intech-uk.com) for more information

INTECH Science Centre, Telegraph Way, Morn Hill, Winchester, Hampshire SO21 1HZ



# Free Membership?

HantsAstro offers Credit Crunch Astronomy: Free membership, Free eZine, and an open website with no 'members areas' that's second to none. On top of this we offer free observing sessions at INTECH Science Centre & Planetarium, Winchester. Butser Ancient Farm, Chalton offers darker skies from just £4 a session, and soon the New Forest and other sites across Hampshire will be onstream for a fantastic night under the stars! What's not to like!



Butser, Sept 2008

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Call David Woods now! on Tel: 023 9261 7092 email: [david.woods@iodesign.co.uk](mailto:david.woods@iodesign.co.uk)



# TimeShift Timetable

	INTECH		BAF		New Forest	
April 09	14/26	16/28	1-4	16-30	1-4	16-30
May 09	Solar	TBA	1-4	16-30	1-4	16-30
June 09	Solar	TBA	1-4	16-30	1-4	16-30
July 09	Solar	TBA	1-4	16-30	1-4	16-30
Aug 09	Solar	TBA	1-4	16-30	1-4	16-30

## The above table...

Our plan is to run up to six sites with fortnightly observing sessions, starting with INTECH and Butser Ancient Farm. Tuesdays/Thursdays are the planned days for INTECH, see the two sets of dates in the first column, which are the first and third weeks of the month. Simple, one night gets called off, then go on to the next slot. (i.e. 20th January is cancelled – we re-arrange for the 22nd).

Butser Ancient Farm observing sessions slide either side of the INTECH observing dates, see the two sets of dates in the second column (BAF). They are at the start/end of the month. The idea is only to meet and observe on clear nights. That's why we put the dash from 1-4 or 20-30, it could be any day between 1-4 or 20-30. The key dates with this site are to observe when there is little or no moon at Butser or whichever Tuesday/Thursday is best at INTECH. The third column dates are for other sites we have as reserve, including the New Forest and some planned 'away missions'.

HantsAstro might be able to claim we can avoid light pollution, but clouds and bad weather are something else. However, we do have one or two tricks up our sleeve. The timetable is flexible and hopefully you are too. Check our website for regular weather updates on our **ClearSkies** page: <http://www.hantsastro.org/clearskies.html>. It views 7 days ahead, is 95% accurate within three days and 100% on the night. Why? Because we'll be there! Join our group and you will be added to updated alerts regarding our observing sessions that are designed to inform you as accurately as possible that the sky is clear, or if staying at home is better...

It's new, it's working but there is still a margin for error. If you're game, so are we.

**HantsAstro**  
**ClearSkies**  
 click panel for forecast

**BUTSER**  
 Next Observing:  
**06/12 8pm**

**INTECH**  
 Next Observing:  
**02/12 8pm**  
 updated report 01/12/08

You can still observe if it's not too cloudy!

... soon to be upgraded more sites & more info at a glance.

# AstroSouth.org

## What's on in the South

### April 2009 Hampshire

Interesting local Astronomy talks take place in the County nearly every month, so please check the relevant web-site for any updates and contact details.

#### Vectis Astronomical Society

**March 07** - Observing the Night Sky

Speaker - TBA

Brading Roman Villa

Old Morton Road

Brading, IOW PO36 0EN - @ 19:30-10:30pm

Cost £2 Non-members (donation)

[www.wightastronomy.org](http://www.wightastronomy.org)

#### Hampshire Astronomical Group

**April 10** - Aurora storm Coming

Speaker - Neil Bone

All Saints Church Hall, Hambledon Road, Denmead

Waterlooville, Hampshire PO7 6NN - @ 19:45pm

Cost £2 Non-members

[www.hantsastro.org.uk](http://www.hantsastro.org.uk)

#### Solent Amateur Astronomers Society

**April 21** - Why Pluto had to go

Speaker - Robin Gorman

Oasis Academy, Lordhill Fairisle Road Southampton

SO16 8BY - @ 19:30pm

Cost £2 Non-members

[www.delscope.demon.co.uk/society/home.htm](http://www.delscope.demon.co.uk/society/home.htm)

#### Basingstoke Astronomical Society

**April 23** - The Messier Marathon

Speaker - Paul Money

Cliddesden Primary School,

Cliddesden, Basingstoke RG25 2QU - @ 19:00pm

Cost £2 Non-members

[www.basingstokeas.org.uk](http://www.basingstokeas.org.uk)

#### Southampton Astronomical Society

**April 09** - The Andromeda Galaxy

Speaker - Alan Drummond

Edmund Kell Unitarian Church Hall

Bellvue Road, Southampton SO15 2AY - @ 19:30pm

Cost £2 Non-members

[www.southampton-astronomical-society.org.uk](http://www.southampton-astronomical-society.org.uk)

# AstroSouth.org

April 2009

Right across Hampshire and the South, there is an active community of astronomical societies.

This is reflected every month in this directory in Look Up!

If you have an event that you would like to promote for free, then please contact:

[david.woods@hantsastro.org](mailto:david.woods@hantsastro.org)

#### INTECH Science Centre + Planetarium Winchester, Hants

Cost £2 per show in addition to exhibition entry

Cost - £6.95 Adults

£4.65 under 14

Check site for schedule

[www.intech-uk.com](http://www.intech-uk.com)

#### Events

#### Butser Astronomy Event Planetarium, Talks and Activities

Butser Ancient Farm,

Chalton Lane, Chalton,

Hampshire

PO8 0BG

Sat/Sun 25th/26th April 2009

[www.butserancient.org](http://www.butserancient.org)

If you have any talks or events you wish to be included in this listing then please get in touch.



## Astronomy Groups A to H

Interesting local Astronomy talks take place in the South every month, so please check the relevant web-site for any updates and contact details. Why not pay them a visit and support astronomy on your doorstep!

Abingdon - <http://www.abingdonastro.org.uk/>

Adur AS - <http://www.adur-astronomical.com/index.htm>

Andover - [www.andoverastronomy.org.uk](http://www.andoverastronomy.org.uk)

Ashford AS - <http://www.ashfordastro.org.uk/website/>

Aylesbury - <http://www.aylesbury-astronomy.org.uk/>

Basingstoke AS - <http://www.basingstokeas.org.uk/>

Bracknell - <http://www.herschel-astrosoc.co.uk/has/default.htm>

Brighton & Hove AS - [http://homepage.ntlworld.com/john\\_wade/bhas/](http://homepage.ntlworld.com/john_wade/bhas/)

Cody AS - <http://www.codyastrosoc.co.uk/>

Crawley AS - <http://uk.geocities.com/crawleyas/>

Croydon AS - <http://www.croydonastro.org.uk/>

Eastbourne AS - <http://www.eastbourneas.org.uk/>

East Sussex AS - <http://www.croydonastro.org.uk/>

Epsom

Ewell - <http://www.ewell-as.co.uk/>

Farnham AS - <http://www.farnham-as.co.uk/>

Guildford AS - <http://www.guildfordas.org/>

Hampshire AG - <http://www.hantsastro.org.uk/>

Horsham AG - <http://www.horshamastronomy.com/>

April 2009

Talks & Events across the South of England. Please check relevant web site for updates and contact details.

### Southdowns Planetarium Chichester, West Sussex

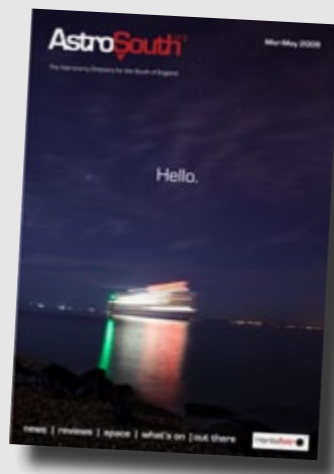
Various Monthly Shows  
Check site for details + times  
and booking  
Cost - £6 Adults  
£4 under 16s  
[www.southdowns.org.uk/sdpt](http://www.southdowns.org.uk/sdpt)

### Norman Lockyer Observatory & Planetarium Sidmouth, Devon

Various Monthly Visits Shows  
Check site for details + times  
and booking  
Cost - £5 Adults  
£2.50 under 16s  
[http://projects.exeter.ac.uk/nlo/](http://projects.exeter.ac.uk/nlo/Home~EN.php)  
Home~EN.php

### Events

If you have any talks or events you wish to be included in this listing then please get in touch.



## Astronomy Groups L to W

Interesting local Astronomy talks take place in the South every month, so please check the relevant web-site for any updates and contact details. Why not pay them a visit and support astronomy on your doorstep!

Lewes AG - <http://www.lewesastro.org.uk/>

Maidenhead - <http://www.maidenhead-astro.net/>

Newbury AG - <http://www.newburyas.org.uk/>

Orpington - <http://www.orpington-astronomy.org.uk/>

Reading - <http://www.readingastro.org.uk/index2.htm>

Richmond & Kew AS - <http://www.rkas.org.uk/>

Salisbury - no valid web address

Solent AS - <http://www.delscope.demon.co.uk/society/home.htm>

Southdowns AS - <http://www.southdownsas.org.uk/>

Vectis AS - <http://www.vectis-astro.org.uk/>

Wadhurst AS - <http://wadhurst.info/was/>

Wealden AS - <http://www.wealdenas.co.uk/>

Wessex AS - <http://www.wessex-astro.org.uk/>

West of London AS - <http://www.howard.beeg.btinternet.co.uk/index2.htm>

Weymouth AC - <http://www.weymouthastronomy.co.uk/>

Wiltshire AS - <http://wasnet.co.uk/>

Worthing AS - <http://www.worthing-astronomical-society.com/>

Worthing Astronomers - <http://www.worthingastronomers.org.uk/>

April 2009

Talks & Events across the South of England. Please check relevant web site for updates and contact details.

### Royal Observatory Greenwich, London Planetarium

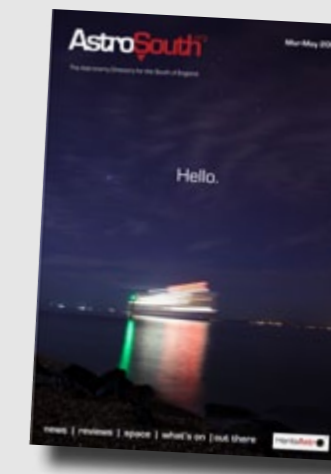
Cost £6/4 per show  
Check site for schedule  
Free Admission to the  
Observatory  
[www.nmm.ac.uk/](http://www.nmm.ac.uk/places/royal-observatory/)  
[places/royal-observatory/](http://www.nmm.ac.uk/places/royal-observatory/)

### The Observatory Science Centre Herstmonceux, Hailsham

Admission £7.70/£5.70  
Check site for schedule  
and opening dates  
[www.the-observatory.org/](http://www.the-observatory.org/)

### Events

If you have any talks or events you wish to be included in this listing then please get in touch.





# OUT THERE...

## Our Southern Sky - April 2009

**Mercury** becomes visible this month around the 10th, low in the western sky after sunset. At this time the planet will be at its best this year for observers in the Northern Hemisphere. The brightness of Mercury fades from mag. -1.2 to +1.0 as it reaches its greatest eastern elongation of 20° on 26th.

**Venus** can now be seen in the eastern morning sky before sunrise. It will brighten slowly during the month from mag. -4.1 to -4.5.

**Mars** is too close to the Sun in the early morning twilight sky and cannot be seen.

**Jupiter** can be seen in the early morning sky at mag. -2.1 in the constellation of Capricornus.

**Saturn** can be seen throughout the hours of darkness in Leo at mag.+0.5. The planet's rings can now just be seen with small telescopes.

### Comets

If you haven't yet seen Comet 2007 N3 Lulin now is your chance. Currently at mag. +9.6, the comet will continue to fade to 11.5 by the end of the month. Lulin can be found in Gemini just a few degrees south of Mebsuta or (♊) GEM. For best viewing use a pair of binoculars around the beginning of the month and then you will need a modest telescope as Lulin fades.

**Auriga** hosts Comet C/2008 T2 Cardinal. At mag. +9.3 on the 1st the comet will brighten to +8.6 by the 30th. To help find comet Cardinal, take a look just north of the open star cluster M38 on the night of the 14th and again on the night of the 17th when the next port of call will be the open cluster of M36.

This next comet, also in Gemini, will be quite tricky to find at a faint mag. +13 on the 1st and dimming further to mag +14.4 by the time we get to the end of the month. Comet 144P/Kushida will be just west of (♊) Gem and will head east on the 1st into the nearby constellation of Cancer come the beginning of May.

### Meteors

The oldest known meteor shower - the Lyrids peak on the early Moonless morning of the 22nd with a rate of between 10 to 15 meteors per hour. They will be travelling at a speed of 29.8 miles per second as they enter the upper atmosphere giving a slow and bright display - weather permitting! The source of the meteor shower is the periodic Comet C/1861 G1 Thatcher.

### Full Moon

The 9th a Seed Moon according to folklore, is the time to plant your seeds, whether it be in a garden, in a pot or by the window!

Objects	Sun	Mercury	Venus	Mars	Jupiter	Saturn	The Moon
RA	23h39m56s	22h50m30s	00h38m51s	22h02m35s	21h13m21s	11h19m01s	14h36m01s
Dec	-02°10'17"	-09°47'08"	+12°56'48"	-12°34'55"	-16°38'18"	+06°52'43"	-21°20'20"
Constell.	Pisces	Aquarius	Pisces	Aquarius	Capricorn	Leo	Libra
Elongation	-----	14.4°	-21.0°	24.7°	38.8°	-173.0°	131.0°
Distance	0.994 AU	1.315 AU	0.304 AU	2.232 AU	5.825 AU	8.401 AU	0.391 MKm
Magnitude	-26.01	-0.51	-4.27	1.22	-1.86	0.36	-11.34
Diameter	32'09"	05"	54"	04"	33"	19"	30'32"
Phase	-----	90%	06%	97%	99%	99%	82%

## Solar System Data for April 2009

**AstroSouth**.org

April 2009

Where the Planets are in our Solar System in April.

### Table Key

RA - Right Ascension

Dec - Declination

Constell. - Constellation

Elongation - Angle between Sun & Planet as seen from Earth

Distance - From Earth in Astronomical Units (AU)

= 149,598M Km

Magnitude - Brightness

Diameter - in ArcSeconds

Phase - % Visibility of object disc

All data is based on 15th of the month from central Hampshire.

## Next Month

More Reviews!

SkyWatcher FlexTube 250

Dobsonian

Moonlite Focuser &

Upgrading a Reflector

Telescope

32 pages every month!

If you have any suggestions for improving this star information then please e-mail: [david.woods@hantsastro.org](mailto:david.woods@hantsastro.org)