

Journal

of the

Nottingham Astronomical Society

September 1999

Welcome to the September 1999 meeting of the Nottingham Astronomical Society and the start of the autumn session.

This evenings speaker is **Dr Clive Ruggles**, from the Department of Archeology at Leicester University, on the subject of: "**Stonehenge and Beyond - Astronomy in Prehistoric Britain and Ireland**".

It is with great regret that the death of our Vice-President, and previous President, Robin Haynes must be reported.

Robin died suddenly on the 12th August, on the day following the total solar eclipse, whilst still in France on a trip to see the eclipse.

There is an obituary on page two.



Robin Haynes
1944 to 1999

In this months Journal I have included a selection of astronomical images and drawings from NAS members. I am also intending to feature more images next month, with particular reference to the August 11th solar eclipse, so please send me any images that you wish to include. I can use slides, negatives, prints and can also receive them as e-mail attachments in most formats, (send to david@coypu.freemove.co.uk).

Other contributions to the Journal are also needed so please put pen to paper.

El Presidente

Obituary

Robin Haynes

It is with sadness that I have to report that Robin Haynes died suddenly on the morning of 12 August 1999. Robin had taken a break, along with Robin Gray and Karl Wood, to travel to France (just North of Reims) to witness the total solar eclipse of 11 August 1999. He died the following morning.

Robin joined the Nottingham Astronomical Society in 1983, and was its President for four years. He was currently the Vice President, and took the Minutes of the Committee Meetings. You could always tell they were written by Robin by the little humorous asides that would accompany the usual dryness of the minutes themselves.

As well as being interested in Astronomy, he was also a keen chess player and had a fascination for Mathematics. I remember one occasion where there was an 'Horizon' programme on Fermat's Last Theorem - Robin wrote off for the transcript of the programme! We had quite a conversation about the programme after one of our meetings. Not only that, he had a huge knowledge of other matters scientific, including odd facts of scientists of years' past, and the derivation of words in the English language.

Robin would regularly attend the social activities organised by the Society, particularly any Astronomical conventions. Over the past 14 years he attended the FAS conventions at Coventry and Cambridge, recently The AstroFest at Leeds, to name but a few. He particularly enjoyed any talk given by Dr Allan Chapman. Although he had no means of transport himself he would always ensure that he was on time at any pick-up point, even if it meant walking miles. His articles in NAS Journal had a style of their own, with a phenomenal memory for detail, and his own touches of humour.

He was good company to be with - travelling many hundreds of miles as a passenger in my car over the years to the various functions, the conversation was never dull with Robin around. Robin would always find time to visit the library to find a suitable road map of the town or city we were travelling to. On one occasion I got hopelessly lost in the Leeds one-way system, but Robin produced the road map and we finally found our destination.

At Christmas time the NAS sends a card to our friends in Karlsruhe, Robin could be relied on to find a suitable card that reflected Nottingham and its heritage.

His presence will be missed at both the meetings of the Society, and at any social activities organised by the Society. He was with the company he liked, and just hours before his death was watching one of Nature's great spectacles - a total solar eclipse.

Brian Griffin

Treasurer - Nottingham Astronomical Society

SKY - NOTES FOR SEPTEMBER 1999

Brian Griffin
Director of Observing

SOLAR & PLANETARY DATA

Object	Date	R.A. h m	Dec o ' "	mag	dia "	Elong./Constellation/Visibility
Sun	Sept 4	10 50	+7 25			
	14	11 26	+3 40			
	24	12 02	-0 12			
Mercury	Sept 8					Superior Conjunction
	Sept					Very badly placed as an evening object
Venus	Sept 9	9 16	+8 20	-4.3	49.5	28°, morning twilight, E
	29	9 41	+9 43	-4.4	36.6	41°, morning twilight, E
Mars	Sept 9	16 06	-22 43	+0.4	7.6	evening sky, SW, Scorpius
	29	17 04	-24 38	+0.5	6.9	evening sky, SW, Ophiuchus
Jupiter	Sept 9	2 11	+11 41	-2.7	47 x 44	all night, S, Aries
	29	2 05	+11 06	-2.8	49 x 46	all night, S, Aries
Saturn	Sept 9	3 01	+14 32	+0.3	17	morning sky, SE, Aries
	29	2 59	+14 17	+0.2	18	morning sky, SE, Aries
Uranus	Sept 16	21 05	-17 30	+5.7	3.9	evening sky, SW, Capricornus
Neptune	Sept 16	20 17	-19 30	+7.8	2.5	evening sky, SW, Capricornus

LUNAR DATA

<u>Phases</u>	Last Qtr : 2d 22h	New : 9d 22h
	First Qtr : 17d 20h	Full : 25d 11h

<u>Apsides</u>	Perigee : 2d and 28d	Apogee : 16d
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Occultations

On the evening of 20 September there is an occultation of the planet Neptune by the Moon. Disappearance of Neptune on the dark limb of the Moon will be at 22h 28m UT. The phase of the Moon will be gibbous, 3-days after first quarter. The magnitude of Neptune will be +7.9, and will require a telescope to observe this event.

RISING AND SETTING TIMES (UT)

Aug 31 / Sept 1

Sun set	18h 50m
Jupiter rises	20 20
Saturn rises	20 50
Mars sets	21 00
Neptune sets	01 55
Uranus sets	03 00
Venus rises	03 50
Mercury rises	04 35
Sun rise	05 20

Sept 30 / Oct 1

Sun set	17h 40m
Mercury sets	18 00
Jupiter sets	18 20
Saturn sets	18 50
Mars sets	19 25
Neptune sets	23 45
Uranus sets	00 50
Venus rises	02 10
Sun rise	06 15

SOLAR ECLIPSE, 11 AUGUST 1999

I had intended, weather permitting, to travel down to South Devon (somewhere near Dartmouth, if possible), but the forecast of only a 15% chance of clear skies to view the total eclipse from the British Isles soon had me changing my mind. In the end I had to make do with viewing a large partial phase from Nottingham.

The morning of 11 August 1999 did not look very promising. At 7:00am there was 10/10 cloud, although there were some lighter areas. By about 9:00am some very small holes in the cloud did appear for the Sun to shine through, but there were no areas of blue sky. However the situation did improve by about 9:30am when some small patches of blue did appear. This gave me sufficient encouragement to get the telescope out from its run-off shed and possibly take some photographs.

Just in case I did go down to Devon I decided to make a solar filter out of mylar to fit over my 420mm lens (an old 60mm refractor). Although I had a filter to go over the open end of my 254mm reflector the image was known to be too bright to be used at full aperture, and there was no time to think about modifying what I had. Therefore, I decided to use the 420mm lens, with a 2x converter, and attach this set-up on the end of the Dec axis of the 254mm f/5 reflector. With this arrangement, and the telescope being driven, I could concentrate on taking photos, rather than use a tripod and have to keep changing the set-up.

I started to prepare to get the scope out at about 9:45am and was all set up by about 10:00am, just before first contact at 10.04am. By this time the Sun was visible through very thick cloud, which was too thick for me to use the filter but slightly too bright without it. I decided to take a chance and not use the filter. I had also decided to try and take a photo at 5min intervals, but the amount of cloud around was very variable. As the partial phase continued, the Sun occasionally came out into slightly brighter skies and I had to alternate between using the filter and not.

By about 10:45am the sky started to clear quite well, although there was still some very high cloud around. The eclipse was now approaching its maximum phase (about 92% of the Sun would be obscured at about 11:19am). Around this time the sky conditions were at there best with quite large areas of blue sky.

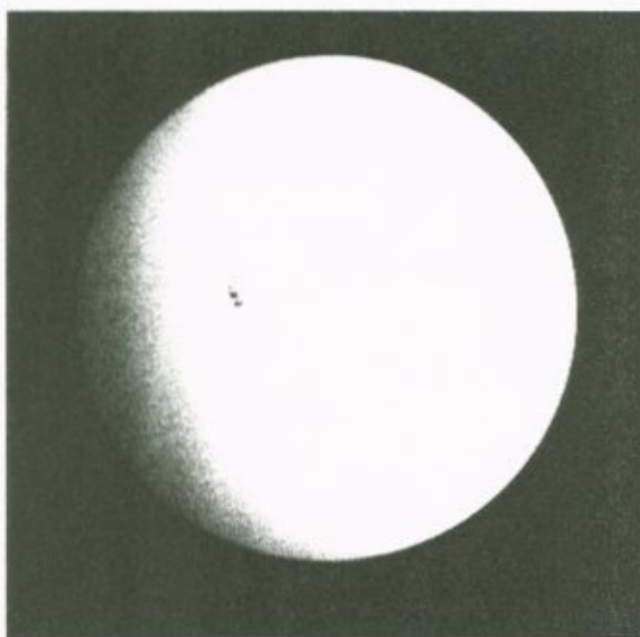
At around maximum phase the impression standing outside can only be described as eerie. To anyone who wasn't aware that an eclipse was taking place they would have thought that something was up, but probably would be unable to put a finger on it. The sky certainly went slightly darker than would be expected with the Sun out, and the shadows being cast looked somehow different (slightly fuzzy), I thought. Also, the large patches of blue sky seemed to go somewhat greyish in colour - it was hard to put a definite colour on it. Whether it was wishful thinking that it turned slightly colder, the leaves on the trees stopped fluttering and a dog near by started to bark, I don't know.

I continued to take photos through the maximum phase (I stopped at 11:07 to 11:14am to go indoors and watch the total eclipse proper from the Hercules flying over a wet Cornwall !). By about 11:45 am the cloud started to move in on the Sun again, and by 12:20pm it was back to thick cloud again. However, I did manage to take 32 photos and take the film in for processing that afternoon. Last contact was at about 12:38pm.

This was the second very large partial eclipse I have seen from Nottingham. I remember quite well the eclipse of 15 February 1961. On this occasion the Sun rose in the SE, almost at maximum phase, at around 7:45am. I distinctly remember seeing a thin crescent Sun, top portion only, rising in the morning before I set off for school (I was 12-year's old at the time). This was at the time when the Astronomy bug bit, and before I joined the NAS. My knowledge then was very patchy !

ASTRONOMICAL IMAGES FROM NAS MEMBERS

Here are a selection of images and drawings from NAS members. If suitable material is provided, a further selection, with eclipse images, will be printed in next months Journal.



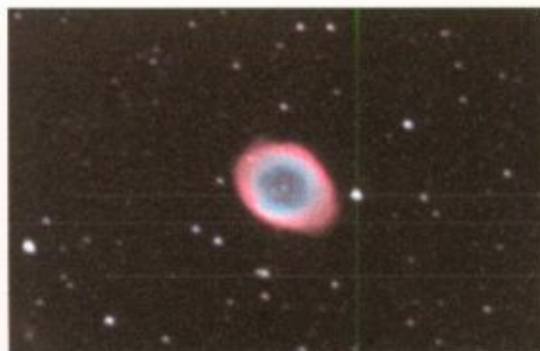
Sun with prominent Sunspot Group.
July 1999. Marcus Stone.
6 inch Newtonian

CCD Astro-Images by Greg Eisenhauer

Taken using an SBIG ST-8 CCD camera on a Meade LX200 10 inch SCT



M27 The Dumbbell Nebula in Vulpecula



M57 The Ring Nebula in Lyra



NGC 6888 The Crescent Nebula in Cygnus



M15 Globular Cluster in Pegasus



Barnard 33, The Horsehead Nebula in Orion
with bright emission nebula IC343 behind.



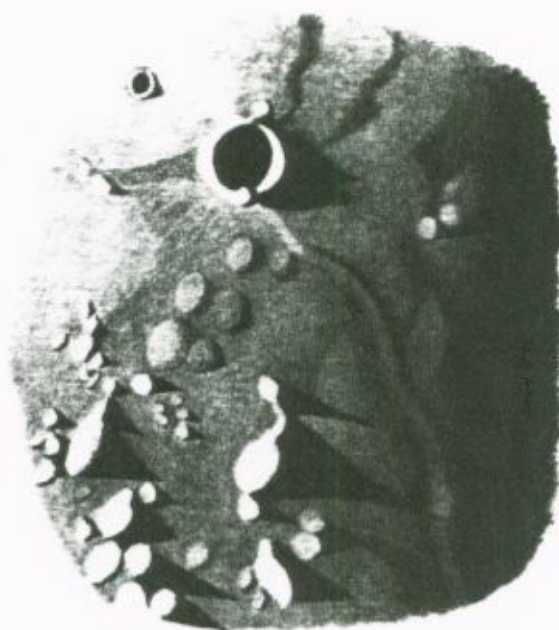
NGC 6905 The Blinking Blue Nebula
in Delphinus

Lunar Drawings by Graham Wheatley
 All made using 9½ inch f/9.8 Newtonian at x188, x235 or x313



Gassendi

24th June 1999, 21.00 - 22.15 UT, 11 day Moon
 Colong: 44°
 Seeing: Mainly v. clear, AIV - AII. Briefly AI at times.



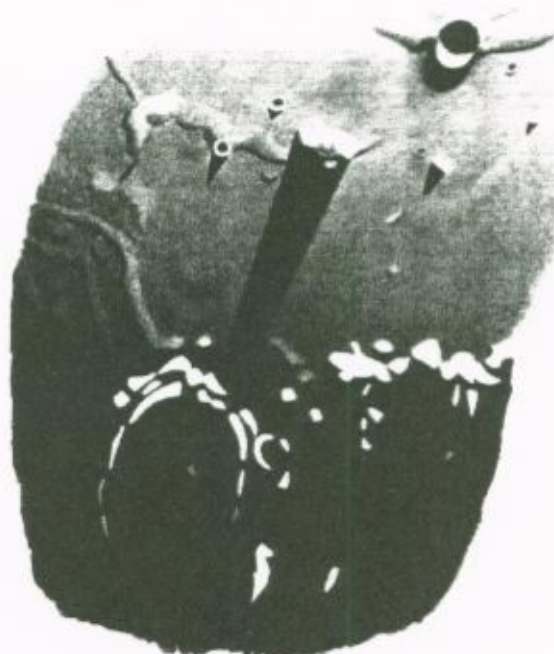
Hortensius & Domes

28th November 1998, 21.40 - 22.50 UT, 9 day Moon.
 Colong: 30°
 Seeing: clear, frosty - variable AIV to AII



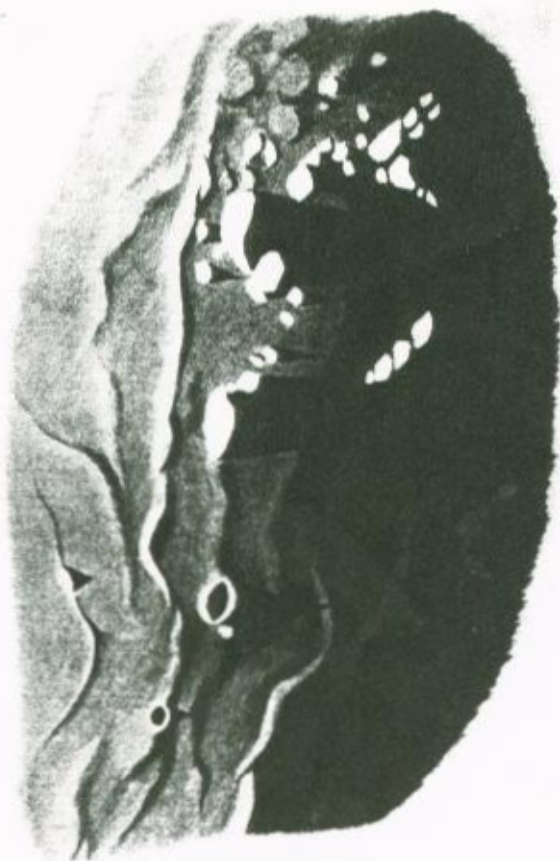
Mons La Hire & Dorsa

28th November 1998, 17.05 - 17.30 UT, 9 day Moon.
 Colong: 28°
 Seeing: clear & cold - AIV



Mons Piton at sunset

11th December 1998, 03.15 - 04.20 UT, 21/22 day Moon
 Colong: 179°
 Seeing: clear - AII mostly & AIII



Montes Harbinger - sunrise

29th November 1998, 21.45 - 22.35 UT, 10 day Moon

Colong: 42°

Seeing: clear - AIII / AII



North of Aristarchus

29th November 1998, 21.45 - 22.35 UT, 10 day Moon

Colong: 57°

Seeing: clear - AIII / AII



Otto Struve, Russell & Eddington

2nd December 1998, 22.50 - 23.10 UT

13 day Moon. Colong: 79°

Seeing: drifting clouds, but AII



Stöfler at sunrise

20th June 1999, 20.30 - 21.30 UT. Cast shadows

drawn at 21.00 UT, 7 day Moon

Colong: 355°

Seeing: clear - AII

Nottingham Astronomical Society

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Meetings

Formal monthly meetings, with speakers, are held on the first Thursday of each month (except August) in Room 003 at:

Djanogly City Technical College

Sherwood Rise
Nottingham NG7

Doors Open: 7.30pm

Meetings Start: 7.45pm

Meetings Close: 10.00pm

Non-members are very welcome at these meetings and there is no charge for the first meeting. A small charge of £2.50 adults, £1.25 juniors is made to non-members after their first attendance. Invited guests are free.

Annual Subscriptions

Full Adult: £ 20

Junior: £10 (17 years, or under)

Concessions: £10 (Full-time students, UB40, Senior Citizens)

Subscriptions become due at the October AGM. Half price subscription is charged if joining after 1st April.

Cheques payable to:

'Nottingham Astronomical Society'

Weekend Observing Sessions

To find out about weekend observing sessions, please contact either:

Brian Griffin: 0115 9298364, or

Robin Gray: 0115 9656340

If you would like further information about the NAS, or would like to join The Society, please contact the Honorary Secretary, Carl Brennan, at the address given above, or speak to any committee member at one of the regular monthly meetings.
