

# JOURNAL

of

## THE NOTTINGHAM ASTRONOMICAL SOCIETY

JANUARY 1996

---

### **EDITORIAL**

Welcome to the January 1996 meeting of the Nottingham Astronomical Society. May I wish all members a happy new year and hope that you all enjoyed the holiday. I went down with the 'flu the week before Christmas.

Chris Riley (Journal Editor)

### **NEWS**

Galileo, NASA's probe to Jupiter, has performed well as it arrived at the planet. The entry probe transmitted information about the atmosphere of Jupiter to the orbiter for 57 minutes. This is estimated to take the probe to a depth of 160 kilometers below the cloud tops. Getting the data back to earth will take considerably longer due to the slow data rate (8 bits/s). The orbiter has transmitted the first 40 minutes worth of data back to earth. The rest will be sent later this month when the probe is back in contact with earth. At the moment since Jupiter is behind the Sun until mid January. The orbiter is now in orbit around Jupiter having successfully fired its main engine on arrival at the planet.

Observations made by the Hubble Space Telescope reveal that the elliptical galaxy NGC4261 contains a giant disc of dust and gas. New pictures of this disc have revealed a black hole. A surprise was that the black hole was not at the centre of the disc. One theory for this is that as matter falls onto the black hole hot jets of gas are formed. Gas would not be falling symmetrically onto the black hole, so one jet would be stronger than the other. The effect would be to push the black hole across space.

# SKYNOTES

For January 1996

by B. Griffin, Director of Observing

## SOLAR & PLANETARY DATA

OBJECT	DATE	RA h m	DEC °'	MAG	DIA "	ELONGATION,	CONSTN,	VISIBILITY
Sun	Jan.	3 18.52	-22.55					
		13 19.35	-21.38					
		23 20.18	-19.39					
Mercury	Jan.							Badly Placed throughout the month
Venus	Jan.	8 21.37	-16.05	-3.9	13.0	24 °,		Evening Twilight, SW
		28 23.09	-6.47	-3.9	14.3	38 °,		Evening Twilight, SW
Mars	Jan.							Badly placed in evening twilight
Jupiter	Jan.							Badly placed in evening twilight
Saturn	Jan.	8 23.26	-5.56	+1.2	15.0			Evening Sky, Aquarius, SW
		28 23.33	-5.11	+1.2	15.0			Evening Sky, Aquarius, SW
Uranus	Jan.							Not visible
Neptune	Jan.							Not visible

## LUNAR DATA

### Phases:

Full:-	5d 21h	Last Quarter:-	13d 21h
New	20d 13h	First Quarter	27d 11h

### Apsides:-

Apogee	5d	Perigee	20d
--------	----	---------	-----

## RISING & SETTING TIMES

<u>DEC31/JAN1</u>		<u>JAN31/FEB1</u>	
Sun sets	16h 00m	Sun set	16h 40m
Mars sets	17h 05m	Mars sets	17h 20m
Neptune sets	17h 20m	Venus sets	20h 20m
Mercury sets	17h 30m	Saturn sets	20h 30m
Uranus sets	17h 40m	Jupiter rises	06h 00m
Venus sets	18h 45m	Mercury rises	06h 30m
Saturn sets	22h 20m	Neptune rises	07h 00m
Jupiter rises	07h 30m	Uranus rises	07h 20m
Sun rises	08h 10m	Sun rise	07h 45m

## TAURUS

Taurus ( the Bull ) is well placed for observation at this time of year being high in the sky

by mid evening. The brightest star in the constellation is Aldeberan ( $\alpha$  Tauri) It is a orange-red giant star, magnitude 0.8 and lies 68 Light years distant.

### Double Stars

$\theta^1 \theta^2$  (theta) Tauri in the Hyades cluster, is a naked eye double. It consists of a white and a yellow star of magnitudes 3 and 4.

$\kappa$  (kappa) Tauri and 67 Tauri form a wide pair of yellow stars of separation 339 arc-seconds. The magnitudes are 4.4 and 5.4 respectively

$\sigma^1 \sigma^2$  (sigma) Tauri are a wide pair of white 5th magnitude stars situated in the Hyades star cluster.

$\phi$  (phi) Tauri is a 5th magnitude orange star with a 9th magnitude companion.

$\chi$  (chi) Tauri, situated north of the Hyades, is a pair of blue and yellow star separated by 19 arc seconds. Their magnitudes are 5.5 and 7.6.

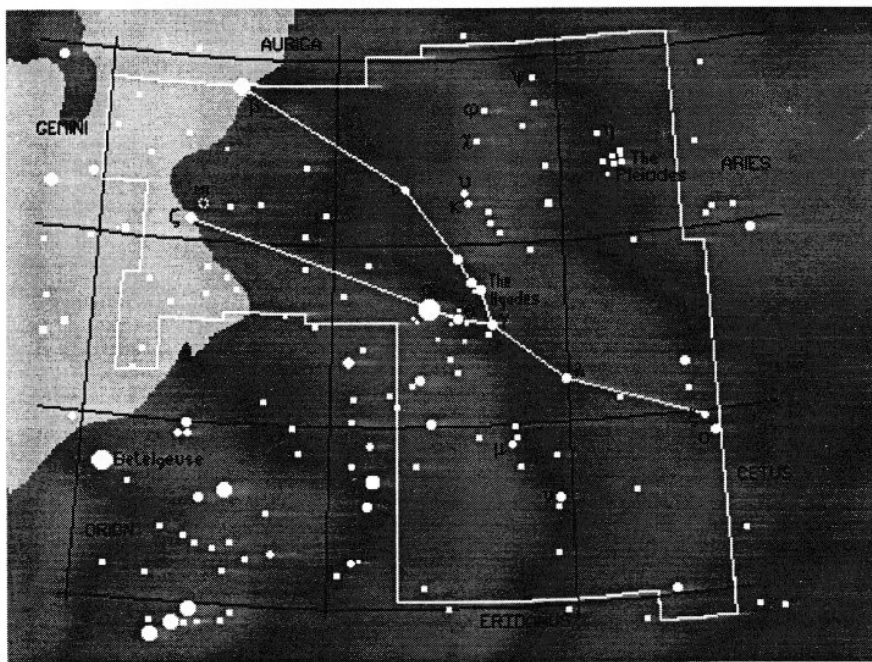
### Deep Sky Objects

The Pleiades or M45 is a nearby (415 light years) open cluster consisting of over 200 young stars. To the naked eye M45 appears as a hazy patch of about 6 stars, but in binoculars or a small telescope many more stars can be seen.

The Hyades is a more open cluster situated at a distance of 130 light years. It is made up of about 200 stars. The average age of the stars is thought to be about 400 million years as opposed to the stars of the Pleiades which are believed to be only 10-20 million years old.

The Crab nebula or M1 is a supernova remnant of a star that exploded in 1054 AD. It shines at magnitude 8.5 so can be seen as a small patch of hazy light in small telescopes or binoculars.

NGC1647 is another star cluster situated just north of the Hyades. It contains about 200 stars and shines at a magnitude of 6.4. NGC1647 lies 4.5 times further away than the Pleiades.



---

Note: Don't forget the January informal meeting at Dove's house:-

26, The Paddocks,

Nutall.

Tel. 9383586

---

#### Weekend Observing Sessions

To find out about weekend observing sessions contact either Brian or Robin.

Brian Griffin Tel. (0115) 9298364.

Robin Gray Tel. (0115) 9654782.

---

#### ABOUT the SOCIETY

Affiliated to the British Astronomical Association  
Member of the Federation of Astronomical Societies

President:- Mr. A. Elliott  
Vice President:- Mr. R. Haynes  
Mr. A. Heath ( former Dir. BAA Saturn Section)

Honorary Secretary:- Mr. C.J. Brennan  
40 Swindon Close,  
The Vale,  
Giltbrook,  
NOTTINGHAM, NG16 2WD.

Telephone 0115 938 4521

Meetings:- Djanogly City Technology College,  
Sherwood Rise,  
Nottingham Road,  
NOTTINGHAM, NG7 7AR

Doors open:- 7:30pm  
Meeting starts:- 7:45pm  
Meeting ends:- 10:00pm

There are formal monthly meetings with speakers. They are held in Room 003 on the ground floor in the C.T.C.. A small charge of £1.50 Adults, £1.00 Juniors is made to non-members. Invited guests free.

Subscriptions:- £15.00 Full Adult  
£7.50 Junior (16 or under, FTS, Senior citizens, Unemployed persons (UB40 holders)). Subscriptions become due at the half price subscription rate is charged for persons joining after April 1st each year.

---

### NOTTINGHAM ASTRONOMICAL SOCIETY

Name:-  
Address:-

Please tick as required:

I would like more information about the Society.....[ ]

I would like to make a donation to the Society.....[ ]

I enclose the standard year membership fee of £15.00...[ ]

I enclose the reduced year membership fee of £7.50\*.....[ ]

\* The reduced membership fee is for younger members, 16 or under, full time students, Senior citizens, and unemployed persons.

Please make all cheques/postal orders payable to:  
NOTTINGHAM ASTRONOMICAL SOCIETY