

SOCIETY NEWS

. 1989 ANNUAL GENERAL MEETING

The 1989 Annual General Meeting will be held on Saturday 14th January. The meeting will be in the school library, and will begin at 20.00. All members are invited to attend.

2 1989 SUBSCRIPTIONS

The 1989 subscriptions are due on 1st January.
THE RATES FOR 1989 ARF:

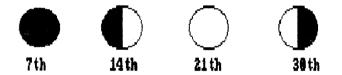
JUNIOR & OAP'S £4.50 ADULT £7.00 FAMILY £8.00

NIGHT SKY

(ALL TIMES G.M.T.)

SUN Rises approximately between 08.10 to 07.50 Sets approximately between 15.50 to 16.40

MOON



MERCURY Mercury is an evening sky object, reaching greatest elongation on the 9th (19°). It is at inferior conjunction on the 25th. At the end of the month it will be rising about 1 hour before the sun.

<u>VENUS</u> Venus is still a morning object.BY the end of the month Venus will be rising less than 1 hour before the sun.

MARS Mars will be visible in the evenng sky. It will be moving from Pisces into Aries during the month. Mars will setting at about 01.00 in mid month.

JUPITER Jupiter will visible throughout the month. It will be setting at 03.30 mid month.

SATURN Saturn is visible in the morning sky, rising at 06.50 in mid month.

<u>URANUS</u> Uranus is also in the morning sky. It is about 5° to the west of Saturn.

NEPTUNE Neptune is in the morning sky, located a few degrees to the east of Saturn.

R. GOODING

An Evening with Jupiter.

by J. Walsh.

The sky is dark and clear, ideal for observing, normally at this time I would be looking at Mars, but tonight I'm looking at Jupiter With Opposition on the 28th of this month (November) Jupiter will be 374,704,200 miles (603,000,000 km) from us. Although it's not the closest Opposition (Jupiter can come as close as 364,000,000 miles (585,785,200 km) to us.) we should get some good Observations this year if the sky remains clear. Already I can see Jupiters two largest Moons Canymeade and Callisto through 10x50 Binoculars.

Everything about Jupiter is massive, being the largest planet in the Solar System with an Equatorial Diameter of 88,980 miles (146,200 km) which is over 11 times the size of Earth's Equatorial Diameter. Jupiter is 318 times more massive than Earth, in fact, more massive than all the other known planets in the Solar System. If it were possible to stand on the surface of Jupiter you would weigh more than $2\frac{1}{2}$ times more than what you would do on Earth, but still Jupiters mass is only about a 1/1000 of that of the Sun. At 37.4 miles (60.22 km) per second Jupiters Velocity of Escape is the highest of any planet in the Solar System, which means it has been able to retain even the lightest of the gasses which makes up it's atmosphere.

Jupiters atmosphere consist's of mainly Hydrogen and Helium with smaller amounts of Ammonia, Methane, Acetylene, Ethane and Phosphin Water has also been detected. The mean temperature at the top of Jupiters clouds is about 130K (- 255 F) which is higher than expected judging by the planets distance from the Sun of 483,640,00 miles (778,320,000 km) which means Jupiter must have an internal heat souce of it's own.

Jupiter takes 11.86 Earth years to revolve once around the Sun. The Sidereal Rotation Period or Day on Jupiter is the shortest in the Solar System 9Hours 50Minutes 30Seconds. This is what causes Jupiter to bulge out at the Equator (Oblateness) and also one of the causes of the striped appearance of the planets upper cloud layers, being mostly made up of gas, Jupiters atmosphere rotates faster at the Equator than at the Poles. The other reason for Jupiters striped appearance is that there are differences in the the temperature of the various cloud layers, the lighter areas are thought to be hot gasses rising from the planets interior and the

darker areas are cooler gasses decending back inside the planet.

The main feature of Jupiter is the Great Red Spot which is thought

to be a huge atmospheric depression which has lasted hundreds of Years. Jupiter is the proud possesor of 16 moons, almost a tiny Solar System of it's own. The 4 largest moons we have known for a long time. The Galilians Ganymeade, Callisto, Io and Europa (named after their discoverer in 1610) are planet sized. In fact, Ganymeade the largest is bigger than the planets Mercury and Pluto. The Voyager Probes studied the Galilians very closely, when photographed Io was found to be volcanically active. Europa, Callisto and Ganymeade were found to have impact craters and intricate patterns and cracks on their icy surfaces. From the differences in size and their odd shapes compared to the Galilians the other 13 Sattelites

their odd shapes compared to the Galilians the other 13 Sattelites are probably captured asteriods from the asteriod belt, and are named thus. Amaltheia, Himalia, Elara, Thebe, Metis, Adrastea, Pasiphae, Carme, Sinope, Lysithea, Ananke and Leda. Another surprise the Voyager brought us was that Jupiter has a small ring system along the plane of it's Equator, to faint to be seen from any Telescope from Earth.

So like Saturn and Uranus and now Jupiter, I wonder what Voyager 2 will find when it encounters Neptune next year. I personally think that Neptune will also yeild a ring system and possibily a few more Sattelites like the other Gaseous Giants. We can only wait and see.

SOLUTION TO CROSSWORD NUMBER 15

ACROSS 1 AMATEUR, S BETELGEUSE, 7 DORADO, 8 NET, 9 PHASE, 13 PERIHELION

DOWN | ALBEDO, 2 ANTARES, 3 RHEA, 4 DISPERSION, G LEDA, 10 HALE, 11 SEA, 12 CIH 1 RE-USABLE CRAFT (5,7)

LONG PERIOD VARIABLE IN CETUS (4)

9 AN ULTRAMOE FIELD EYEPIECE (G)

10 THEY INDICATE THE DIRECTION OF POLARIS (8)

Il Point WHERE THE AXIS OF ROTATION MEETS THE SURFACE OF A PLANET (4)

13 SHOWS TIME USING SHADON OF SUN (7)

14 A "SEVEN SISTER" (7)

17 MARINER L VINING STACKERAFT DID NOT OBSERVE ONE ON MARS (5)

19 Over Hundred of THESE ARE MHOWN TO EXIST,
MORE THAN 90 OCCUR MATHRALY ON EARTH (7)

21 GEOMETRICAL PATH OF THE RADIATION OF WAVE PHERGY (3)

22 THE STUDY OF LIVING ORGANISMS ON OTHER WORLDS (12)

DOWN

I A CENTRE OF INTERISE LOWLISED MIGHETIC PIEND ON THE SUN (7)

2 DEMON STAR (B) IN PERSENS (5)

3 SERPENS - CONSTEUATION (7)

4 METER SHOWER IN DECEMBER (6)

5 LARGE STALE MOVEMENT OF THE CRUST OF A PLANET (9)

6 THE REALIERARINE OF A CELESTIAL BODY FOLLOWING ITS ECLIPSE OR OCCULTATION (8)

7 LAKGEST OF THE IMPTER PLANETS (S)

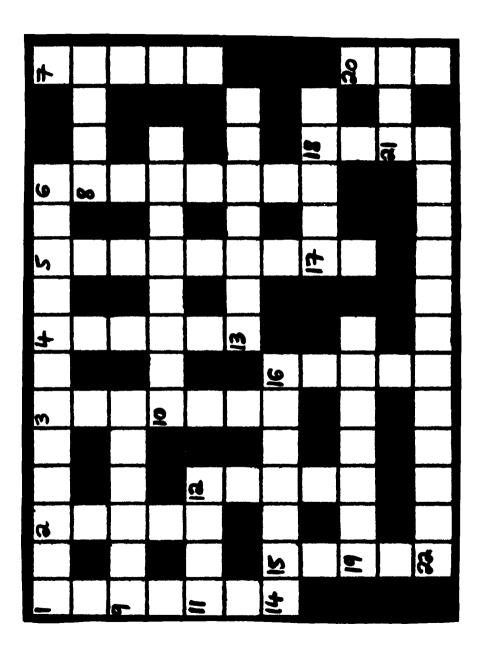
12 ADMILA- COMSTELLATION (S)

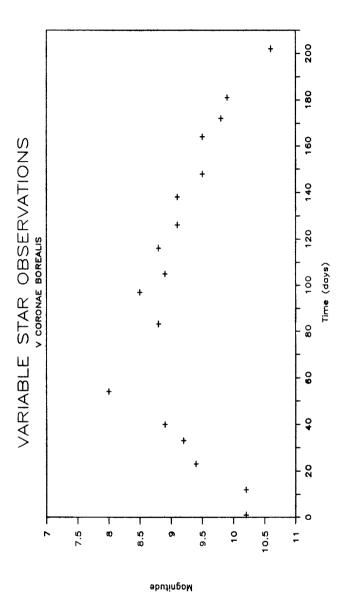
15 "KNEE" OF THE CENTRUR (B) IN CONSTELLATION
CENTRURUS (S)

16 ARABIC FOR RABBIT (a) IN CONSTRUMTION LEPUS (5)

18 ASTRONOMER ROYAL (1835-81) (4)

20 DALY ONE RECOMPTS FOR A TELESCOPE (3)

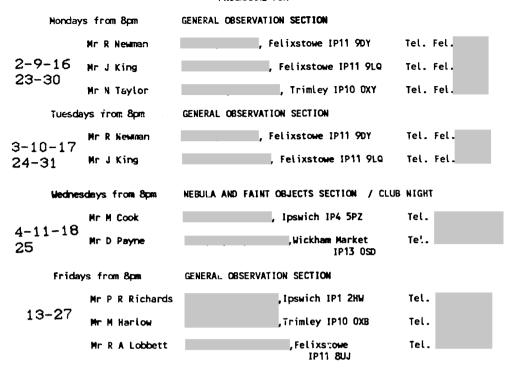




the shorter time October this year. This is rise ratio of gentle fade. always almost the ţ0 conse Borealis from April cimum followed by a more of variable and although time rise $^{\text{the}}$ considerably, maximum Coronae class 압 > shows rise this varies steep curve forquite common to fall time This light Notice the

Nicholls

PROGRAMME FOR JANUARY



On nights other than Wednesday ring directors to confirm dates.

1988 COMMITTEE

CHAIRMAN	D	Payne	(Address	above)		Home:	
		•				Work:	
VICE CHAIRMAN	D	Barnard			"Ipswich IP4 5PP	Home:	
						Work:	
SECRETARY	R	Gooding			, Ipswich IP1 6AE	Home:	
TREASURER	×	Nicholls		, Cap	el St Mary,Ipswich	Home:	
					IP9 2EX	Work:	
MAINTENANCE	M	Cook	(Address	above)		Home:	
			•		Work:		
JOURNAL	E	Sims			Ipswich IP1 4HA	Home:	
CO-ORD				•	•		
LIBRARIAN	Р	Richards	(Address above)		Home:		
			•			Work:	
EQUIPMENT	2	Neumon	(Address above	s above)	e)	Home:	
CURATOR			• • • • • • • • • • • • • • • • • • • •			Work:	
SPECIAL	M	Taylor	(Addres	s above)		Home:	
EVENTS	•		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,		Work:	
LVLAIS							