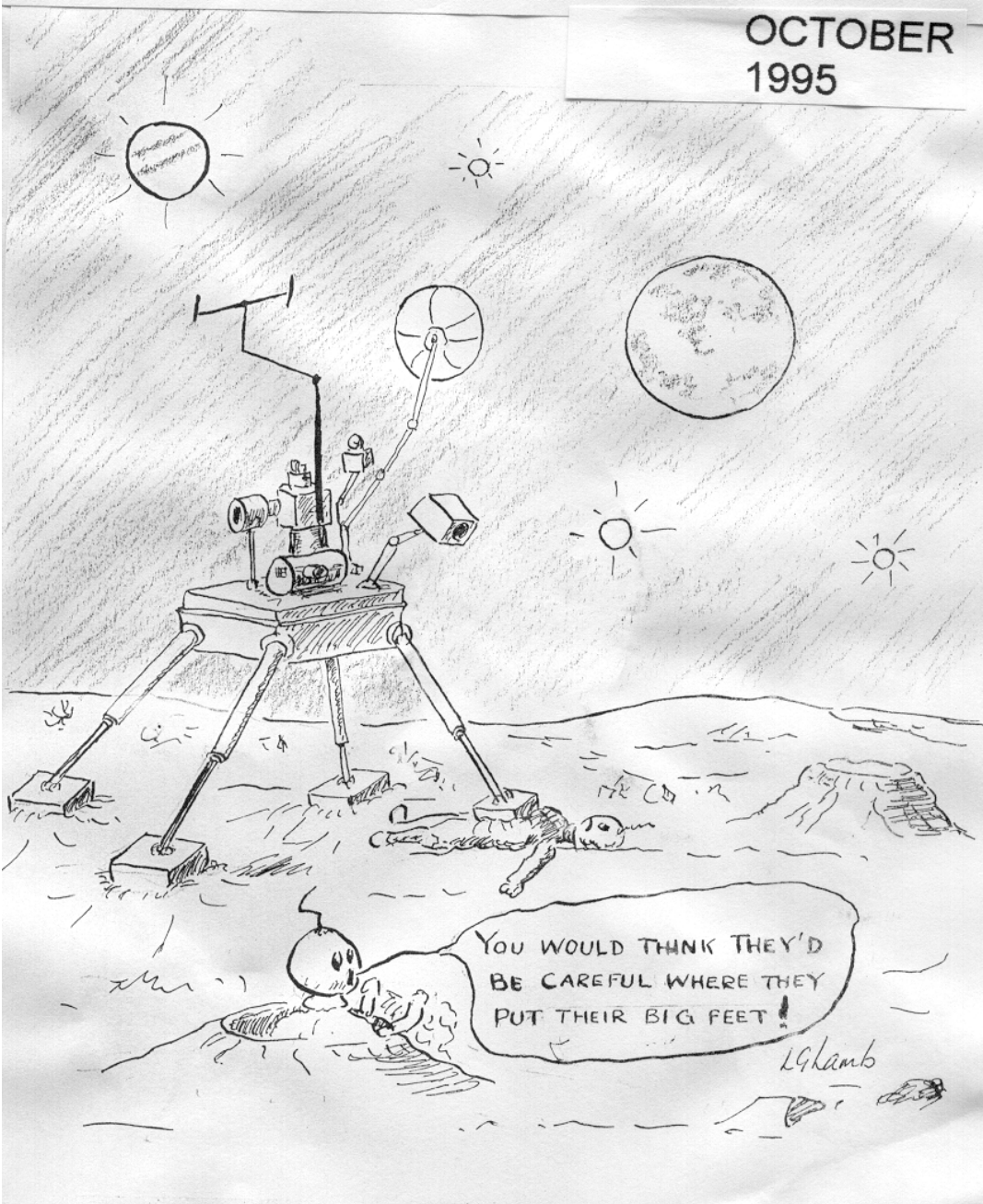


ORWELL ASTRONOMICAL

SOCIETY IPSWICH

OCTOBER
1995



NIGHT SKY

All times GMT

SUN

Rises approximately at 06.10 to 07.00
Sets approximately at 17.40 to 16.30

MOON



1st



8th



16th



24th



30th

MERCURY Mercury will be at inferior conjunction on the 5th. It returns to the morning sky, reaching greatest western elongation on the 20th. It will be at mag. -1 at the end of the month.

VENUS Venus will remain very low down in the evening sky all month.

MARS Mars will be in low down in the western sky after sunset. Mag. 1.5

JUPITER Jupiter will be set by 1800 by the end of the month. Mag. -1.8.

SATURN Saturn is presently in Aquarius, and will be at setting at about 0200 by the end of the month. Mag. 0.8

URANUS Uranus will be setting at about 21.00 by the end of the month. Mag. 5.7

Neptune Neptune will be setting at about the same time as Uranus. Mag. 7.9

R. Gooding

OCCULTATIONS DURING OCTOBER 1995

The table lists disappearance times of stars of magnitude 7.5 or brighter which are occulted during the month. Only events taking place under favourable circumstances are listed. The data relates to Orwell Park Observatory, and timings, etc. will differ slightly for nearby locations.

Date	Time (UT)	Mag	Lunar Phase	Sun Alt (°)	Star Alt (°)	Star (D=double)
Sun 01 Oct	21:03:45	6.8	0.53+	-31	9	ZC2731 (D)
Thu 05 Oct	00:32:37	4.8	0.85+	-41	12	ZC3185, 46 Cap
Thu 05 Oct	00:48:04	6.0	0.85+	-41	10	ZC3187, 47 Cap
Sat 07 Oct	00:03:34	7.5	0.97+	-43	33	ZC3460, 12 Psc

James Appleton

SOCIETY NEWS

Second Open Weekend October 27th, 28th, & 29th.

The theme for this Open Weekend will be to see Saturn without its rings. The observatory will be open at the usual times, from 20.00 to 22.00. As normal as much help as possible will be required.

Christmas Meal Wednesday 13th December

Our first choice for a meal was at the Ostrich, Wherstead. This is not possible as the pub will be closed over the Christmas period for refurbishment. The alternative is at th Shepard & Dog at Nacton. Any one interested in attending, please contact Roy Gooding. A £5 deposit will be required to book a place, before the end of October.

Return of Unused Observatory Keys

If any member has a set of observatory keys and no longer needs to use them, could you please return them to Roy Gooding. The keys will be reissued to members who have expressed an interest in starting new evening meetings. A set of keys costs the society about £12.00, and there are over 15 sets of observatory keys.

MIR SPACE STATION SIGHTINGS

Data supplied by Satellite Laser Ranger Group, Herstmonceux.

MIR space station passes from 1995 Aug 21 to Dec 31
Mostly West to East - should be the brightest thing in the sky!

Predictions computed 1995 August 21 - actual rise and set times may gradually change (increasingly early or late) through the period.

Visibility column below indicates illumination of satellite at the beginning, middle and end of the pass, where:

* = sunlit in dark sky; S = in Earth's Shadow; D = Daylight
Max

Date	Sat	Rise	Set	Elev	Visibility	
		GMT	GMT			
Sep 25	Mon	Mir	0443	0447	44	***
Sep 26	Tue	Mir	0348	0351	29	S**
Sep 27	Wed	Mir	0428	0433	67	S**
Sep 28	Thu	Mir	0333	0337	43	SS*
Sep 29	Fri	Mir	0414	0419	81	S**
Sep 30	Sat	Mir	0319	0323	66	SS*
Sep 30	Sat	Mir	0455	0500	74	***
Oct 1	Sun	Mir	0400	0404	71	S**
Oct 2	Mon	Mir	0304	0309	88	SS*
Oct 2	Mon	Mir	0440	0445	79	***
Oct 3	Tue	Mir	0346	0350	72	SS*
Oct 4	Wed	Mir	0250	0254	64	SS*
Oct 4	Wed	Mir	0427	0431	72	***
Oct 5	Thu	Mir	0330	0335	80	SS*
Oct 6	Fri	Mir	0412	0416	59	S**
Oct 7	Sat	Mir	0317	0321	67	SS*
Oct 7	Sat	Mir	0453	0456	24	***
Oct 8	Sun	Mir	0357	0401	38	SS*
Oct 19	Thu	Mir	1830	1833	32	**S
Oct 20	Fri	Mir	1910	1914	60	**S
Oct 21	Sat	Mir	1815	1819	48	**S
Oct 22	Sun	Mir	1855	1900	80	**S
Oct 23	Mon	Mir	1800	1804	71	***
Oct 23	Mon	Mir	1936	1940	67	**S
Oct 24	Tue	Mir	1841	1845	73	**S
Oct 25	Wed	Mir	1746	1750	62	***
Oct 25	Wed	Mir	1922	1926	65	**S
Oct 26	Thu	Mir	1826	1831	74	**S
Oct 27	Fri	Mir	1907	1912	77	**S
Oct 28	Sat	Mir	1812	1816	74	**S
Oct 29	Sun	Mir	1853	1857	53	**S
Oct 30	Mon	Mir	1757	1801	64	**S
Oct 31	Tue	Mir	1838	1842	34	**S

On the Edge of Saturn.

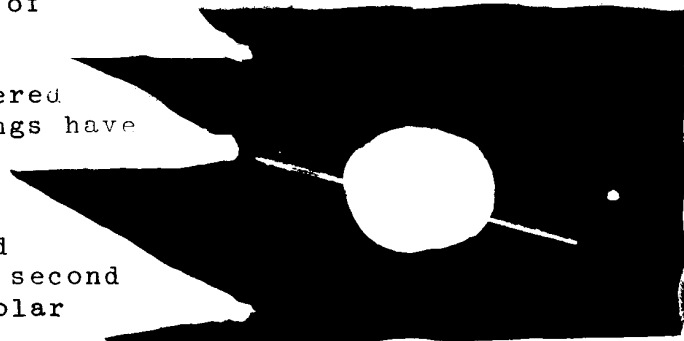
By J. Walsh.

This is a very exciting time for anyone who observes Saturn. For during 1995 the normally bright ring system is edgeways on to us, and this is a very opportune time to observe Saturns vast retinue of moons. In May of this year, The Hubble Space Telescope discovered another four moons, which now brings Saturns tally up to twenty seven moons in all. These new moons are very small, no more than forty five miles across. It is also interesting to note that between 1655 and 1980 a total of thirteen of Saturns moons have been discovered while Saturns rings have been edgeways on to us.

The largest of Saturns moons and incidentally the second largest in the Solar System after

Jupiters Ganymeade is Titan, a planet sized satellite and at 3,200 miles in diameter makes Titan larger than the planets Mercury and Pluto, and is the only satellite in the Solar System with an appreciable atmosphere of mainly Nitrogen and other gasses which are so similar to the same primordial gasses the Earth once had. I sometimes wonder if Titan was warmer life could start there.

Saturn at the time of writing is about 820,000,000 miles from Earth, and can be seen as a disc in most small telescopes. The largest telescopes will detect Saturns ring plane as a faint line, Saturns rings are very thin in proportion to the 171,000 mile wide span of the main ring system. The main body of Saturn is 74,560 miles in diameter and appears very squat. Planetary scientists call this Oblateness, and this is caused by the planets gasses bulging out at the equator due to Saturns very fast rotation period of just over ten hours



under half of that of the Earths twenty four hours. Saturn is also less dense than water, and at 0.704 to that of water hypothetically Saturn would float on water if we could find an ocean big enough!!

Saturns mean distance from the Sun is 886,710,000 miles and it takes Saturn almost thirty years to go once round the Sun. Because of these vast distances Saturn is very cold, about -180°C at the cloudtops. Saturns atmosphere comprises of mainly Hydrogen and Helium with smaller amounts of Ammonia, Methane, Acetyline, Ethane and Phophine. Because of Saturns orbital inclination of 26° there will be seasons of such, but so far out from the Sun any temperature change will be minimal.

Finally Saturns named moons, apart from Titan, already mentioned, they are named thus - Atlas, Prometheus, Pandora, Janus, Epimethius, Mimas, Enceladus, Telesto, Tethys, Calypso, Dione, Helene, Rhea, Hyperion, Iapetus and Phobe.

The next time Saturn is Edgeways on to us will be in fourteen years time in 2009, but will be too near the Sun for us to observe in any detail. So for now we will have to be content, and make the most of our time on the edge of Saturn.

NEW LIBRARY BOOKS

During recent months, the OASI library has acquired the following books:

CONSOLMAGNO & DAVIS, *Turn Left At Orion*. An excellent observing guide for beginners with small telescopes or binoculars. Contains comprehensive finder charts and descriptions.

MANLY, *Unusual Telescopes*. A humorous look at some curious telescope designs.

ILLINGWORTH (Ed), *Collins Dictionary of Astronomy*. An updated version of a long-established dictionary. It is comprehensive, and benefits from a good system of cross-referencing entries.

NICOLSON, *Heavenly Bodies*. The book to accompany the recent TV series. A good introduction to astronomy for beginners.

The library is located next to the club room at the observatory, and is free for the use of all members of OASI. Please see me with any requests for purchase of other books by the library.

James Appleton

MOONS OF SATURN WORDSEARCH.

By J. Walsh.

T	Z	Y	I	U	W	P	R	O	M	E	T	H	E	U	S
E	T	Z	W	P	H	U	W	V	Y	X	O	M	N	U	U
T	Z	N	E	N	E	L	E	H	S	T	S	Z	E	X	T
H	B	O	T	N	P	Q	R	P	Z	M	H	H	T	Y	E
Y	U	I	T	Z	H	O	D	O	E	D	T	C	Z	F	P
S	V	R	E	P	I	M	E	T	H	E	U	S	M	N	A
P	M	E	L	R	W	H	T	J	M	P	X	Q	Y	Z	I
G	I	P	E	V	J	H	I	I	G	P	R	F	L	M	K
A	J	Y	S	U	V	T	P	W	S	X	T	I	T	A	N
L	P	H	T	Y	W	E	C	O	U	D	V	E	T	Z	V
Y	T	A	O	M	C	B	Q	D	I	O	N	E	Q	U	P
P	O	Q	T	I	G	U	H	I	A	C	D	R	T	S	A
S	H	M	V	M	W	A	F	E	P	E	S	B	D	A	N
O	L	O	J	A	N	U	S	M	E	B	O	A	W	P	D
I	N	P	E	S	X	Y	J	Z	T	N	C	X	L	Y	O
H	J	O	K	B	K	G	L	F	U	D	S	Z	R	T	R
S	U	D	A	L	E	C	N	E	S	B	A	R	H	E	A

ATLAS	EPIMETHEUS	HYPERION	MIMAS	PHOEBE	TELESTO
CALYPSO	ENCELADUS	IAPETUS	PANDORA	RHEA	TETHYS
DIONE	HELENE	JANUS	PROMETHEUS		TITAN

NEW CAR PARKING FOR 1995

The society has been asked by the school to change our present car parking arrangements. Will all members and visitors please now park around the grass island in front of the school and not near the school kitchens

PROGRAMME FOR OCTOBER

Mondays from 7.30pm No Directors available for this night	GENERAL OBSERVATION SECTION
Tuesdays from 7.30pm Mr D Barnard	GENERAL OBSERVATION SECTION daytime only
Wednesdays from 7.45pm Mr M Cook	NEBULA & FAINT OBJECTS SECTION Mr D Payne
Thursdays from 7.30pm Mr P Richards	OBSERVATORY VISITS FROM OUTSIDE GROUPS
Fridays from 7.30pm 13th 27th Mr J Hood	DOUBLE STARS Mr M Barritt

All members are welcome to come but, on nights other than Wednesdays please check with the director of the night that the observatory will be open.

Lectures and other events:

Next Committee Meeting Saturday October 14th in the club room.

e-mail enquires to oasieng@btcs.bt.co.uk
WWW url <http://www.ast.cam.ac.uk:80/~ipswich/>

1995 COMMITTEE

	Home Phone	Work Phone
CHAIRMAN	D Payne	
SECRETARY	R Gooding	
TREASURER	M Nicholls	
MAINTENANCE CO-ORD	M Cook	
JOURNAL CO-ORDINATOR	E Sims	
PUBLICITY & VISIT CO-ORD	P Richards	
EQUIPMENT CURATOR	M Harlow	
SPECIAL EVENTS CO-ORD	M Andrews	
LIBRARIAN & COMP SOFTWARE	J Appleton	
JOURNAL ARTICLES TO	E Sims	Ipswich Suffolk IP1 4HA
CORRESPONDENCE ADDRESS	R Gooding	OASI Secretary Ipswich Suffolk IP1 6AE

**ORWELL ASTRONOMICAL
SOCIETY IPSWICH**

OPEN EVENINGS

**October 27th, 28th, 29th,
8.00pm - 10.00pm.**

Weather permitting.

See Saturn without the rings

At

Orwell Park Observatory

Nacton Near Ipswich

Binoculars may be useful

Slides and talks if cloudy.

Entrance by donation

Adults 75 p

Child or O.A.P. 50 P

Enquiries to O.A.S.I. Secretary

Mr R Gooding

168 Ashcroft Rd

Ipswich Suffolk

IP1 6AE