ORWELL ASTRONOMICAL SOCIETY IPSWICH

JUNE 1991

SOCIETY NEWS

1 COMMITTEE MEETING

The next committee meeting will be on Saturday 6th July, with a start at 7.30pm in the club room. As usual this is an open meeting and any member who wishes to attend will be welcome.

NIGHT SKY

All times GMT

SUN Rises approximately at 03.50
Sets approximately at 20.20

MOON

5th 12th 19th 27th

MERCURY Mercury will be at superior conjunction on the 17th, and will not be observable this month.

VENUS Venus will be visible in the evening sky. By mid month it will be setting at about 23.00. Mag.-4.2

MARS Mars remains an evening object. Mag. 1.7, It will become lost in the evening twilight by the and of the month.

JUPITER Jupiter is still well placed for observing. By mid month it will be setting at about 23.20. Mag.-1.8

SATURN Saturn will be rising at about 22.20 in mid month. It is near the border of Capricornus and Sagittarius. Mag. 0.4

URANUS Uranus is in Sagittarius, and rises at about 21.30. Mag. 5.7

NEPTUNE Neptune is also in Sagittarius, and will be rising at about the same time as Uranus. Mag. 7.9

PLANETARY CONJUNCTION

During the month there will be a rare conjunction of the planets Venus, Mars and Jupiter, in the evening sky after sunset.

June 14th Mars and Jupiter O.5° apart.
June 17th Venus and Jupiter 1.3° apart.
June 23rd Venus and Mars O.5° apart.

The crescent moon is near by on the 15th and 16th.

OBSERVING VENUS IN DAYTIME

If you know the approximate time that Venus is due south it is possible to observe it in day light. As usual I will first state the obvious.

IF YOU ARE LOOKING FOR VENUS IN THE DAY TIME WITH BINOCULARS MAKE SURE THAT IT IS IMPOSSIBLE TO LOOK AT THE SUN.

For safety I always find a position that puts the sun behind a wall, which then makes scanning the sky quite safe.
Venus will be approximately due south 4.15pm through out the month.

R.GOODING

THE GRAZE OF ZC 936

On the night of 16th May 1991, the star ZC 936 was "grazed" by the moon.

Having obtained detailed information of the graze from the BAA some months ago, the society formed a number of observing parties to record the event. As usual, the response from most of the society meant that only a limited number of sites (1) could be chosen to set up telescopes.

This time the track passed close to DUNWICH.

At 2000hrs on the 16th May, the participants gathered at the home of Martin Cook. The sky was completely clouded and it was decided to call off 22 mile trip to the chosen site near Dunwich.

However, by chance I was taking part in a company course at Aldeburgh and when I contacted Martin to tell him that the sky was completely clear he thought I was pulling his leg !

The "call off" decision was hurriedly reversed and all participating members set off for the pre selected meeting point.

On arrival at the site, part way along a farm track, the sky was clear apart from some clouds lurking ominously close to the Western horizon. Martin set up his 4.5 inch reflector and at a magnification of about 150 the star was located already close to the lunar limb. A frantic scramble ensued to set up the rest of the instruments, get the MSF Rugby clock running, (this is a radio driven clock that is accurate to some thousandths of a second and gives a "bleep" every minute) and get the tape recorders running.

By 2209 hrs it was obvious that this was going to be a very near MISS. Incorrect predictions, mistaken map reading, or was this the whole point of graze observing ?

Close inspection seems to indicate that we were positioned right on the track, N 52deg 17min 35secs, E 1deg 36mins 38secs, at a height above sea level of less than 15 meters.

A full report will be sent to the BAA of the observation.

A.J.Smith

DOOMED ????????

Little did we realise 5 years ago as we watched night after night for the fuzzy blob in the heavens which was Halleys Comet, that ours could be the last generation to see a spectacle that had been about since at least 240B.C. which was the first recorded sighting.

Halleys Comet has been seen and recorded every time it has traveled past the Earth on its 76 year orbit since 240BC. In the past many people have looked on the comet as a harbinger of doom but to others it has brought good luck.

The Chinese have recorded Halleys Comet with naked eye for more than 2000years right up to 1835AD, and comparison of their observations show that the comet has not faded significantly over this time. The only apperance not recorded by the Chinese is for its second known visit of 164BC but in 1984 astronomical historians deciphered a Babylonian tablet in the British Museum, and found a discription of a comet in 164BC and also one of its next visit in 87BC, So this had to be Halleys Comet.

Halleys Comet next appered in 12BC. Some historians have argued that this could have been the star of Bethlehem but the dates dont tie up.

Its apperance in 66AD could have been an omen of the fall of Jerusalem to the Romans.

When Halleys Comet appered in the sky in 218AD it marked the end of the Hun dynasty, which had ruled China for four centuries.

The comet was on the side of the Romans again in 451AD when it returned in time for the battle of Chalons, where they defeated the armies of Attila the Hun.

In 684AD Europe had three monthes of rain, crop failure and a terrible plague.A book called the Nuremberg Chronicles written a long time afterwards says that there was a bright comet in the sky during that year so many people blamed the comet for those hard times.

In 837AD the comets return was very spectacular as it swept past the Earth on its closest pass ever recorded which was only ten times as far off as the Moon.

In 1066AD William the Conqueror saw a bright comet which we now know was Halleys Comet. His army conquered England in that year and he had a picture of the comet embroidered in the Bayeux Tapestry which told the story of the conquest. The comet struck terror into the hearts of Englands King Harold and he died on the battlefield at Hastings.

In 1301AD the comet was immortalized by the Florentine artist Giotto De Bondone when he depicted it as the Star of Bethlehem in his painting of the Adoration of the Magi in the Arena Chapel, Padua.

In 1456AD ecclescastical authority saw the comet as an agent of the Devil and the Pope excommunicated it.

More important astronomers in Europe began to make accurate observations of the comets motions as it reapeared in 1531 and 1607. When it appeared again in 1682 one of those watching was an English astronomer named Edmond Halley. Using the theory of gravity formulated by Isaac Newton he worked out the orbits of two dozen comets for the first time.So he boldly predicted the return of Halleys Comet in 1758.

Halley died in 1742 but on Christmas night 1758 a German amateur astronomer Johann Palitzsch picked up the comet near the predicted position so comets were not mystical portents but physical bodies bound by the laws of gravity.

On its return in 1910 some spectacular photographs were taken of the comet and its tail which the Earth almost passed through.

1986 and the world is waiting with all the latest technology scientists and astronomers can muster to find out more about comets.The USSR Academy of Scienses sent two spacecraft Vega 1 and Vega 2 carrying cameras and instuments to study the gas and dust in the comets coma.

The Japanese Institute of Space and Astronomical Science sent two spacecraft to study the effects of the solar wind on the comet,the second one also had an ultra violet camera to study the growth and development of the comets hydrogen cloud.

The last spacecraft to approach the comet was sent by the European Space Agency it was named Giotto after the Italian painter. Using the information sent back by the Russian spacecraft Giotto went as close as possible to the nucleus and sent back television pictures from inside the coma of Halleys comet.

On February 12th 1991 two Belgian astronomers took a routine photograph of the comet now so far away from the Sun that no light should be reflected at all but they found a large bright patch instead. Tracking this bright object for several nights it still followed Halleys orbit exactly so it had to be Halleys Comet.

It is now thought that a collision must have happend, that has either shattered the comet completely or broken it into two or more larger pieces. If this has happend then on its return it will be even less of a specticle.So until 2061 when Halleys Comets return is predicted we can only speculate as to the fate of our most famous or infamous travelor around our galaxy.

E Sims

Dance of the Planets - June 1991

David Payne

During the month of June one of the best series of planetary conjunctions for a decade occurs between Jupiter, Venus and Mars. The first event of note is not a conjunction but Mars passing through the 'Beehive' star cluster M44 on the 7th June. Jupiter passed just south of M44 around the 20th May and made a fine sight in binoculars. Mars however passes almost centrally through the cluster and will be splendid in telescopes. Mars enters the cluster around 4:00pm (UT) on the 7th in full daylight and emerges around 8:00am (UT)on the 8th. During the late evening of the 7th June it is therefore nicely centred in the cluster.

The next event is a conjunction of Jupiter and Mars on the 14th June when Mars passes about 0.6 degrees north of Jupiter. Closest approach is early afternoon but the two planets have not moved far apart by evening time. If you have setting circles on your telescope this could be a good opportunity for some daylight observing. Mars is now nearly 200 million miles away, exhibits an angular diameter of only 4.5"and shines at magnitude +1.7. Jupiter is 550 million light years away with an angular diameter of 33" and shines at magnitude -1.8. Both planets can be seen in the same field, if a low power wide field eyepiece is used, and the contrast in both magnitude and size will be striking to observe.

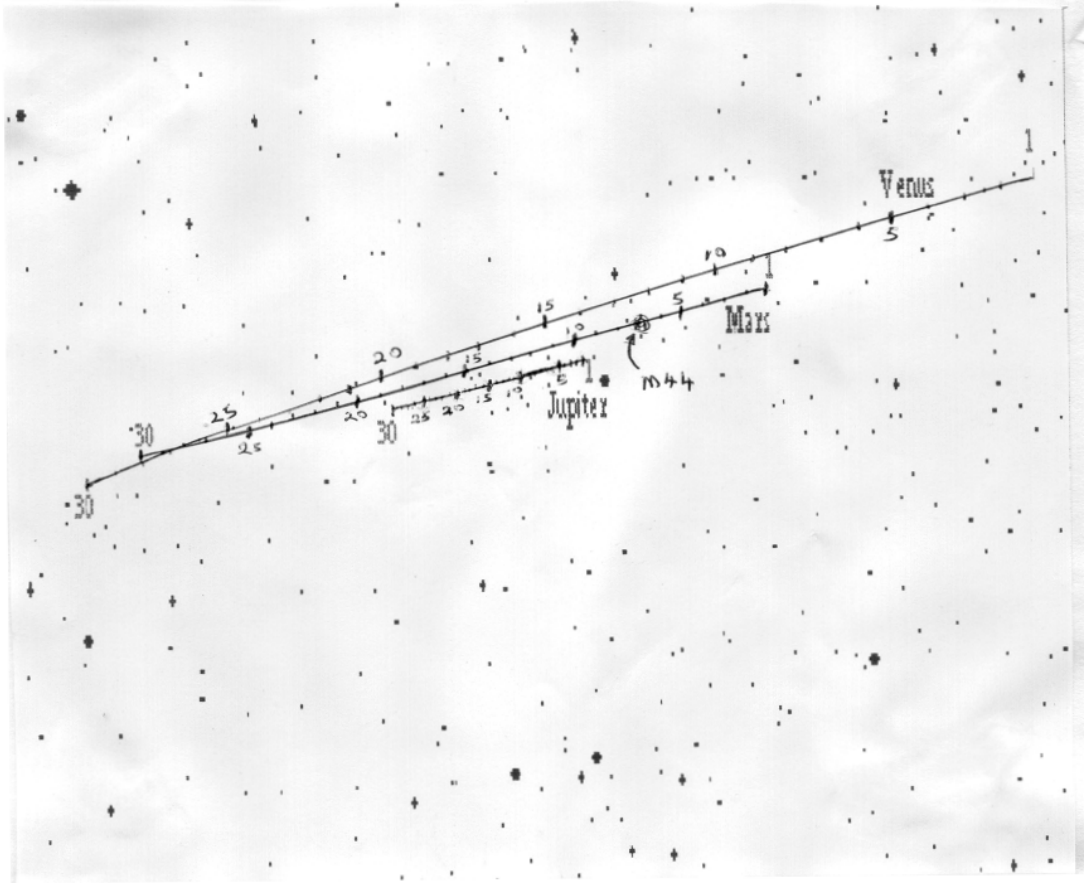
On the following evening 15th June the crescent moon approaches to about 1.5 degrees southwest of Jupiter. Mars is still well under one degree from Jupiter to the northeast and Venus is less than 1.5 degrees to the

northwest. Add to this the Beehive cluster only a further 1.5 degrees west of Venus and a magnificent sight for binoculars and some fine photographs should be possible with cameras fitted with telephoto lenses, Weather permitting!

On the 17th and 18th all three planets form a small triangle around 1.5 degrees across and again should be a fine sight for binoculars and photographers. Those possessing rich field telescopes should be able to view all three planets in the same field of view!

The final conjunction in June occurs on the evening of the 23rd between Venus and Mars when venus passes only 1/4 degrees north of Mars.

Although this is the last conjunction for June there is a further conjunction of Jupiter and Mercury on the morning of 15th July when Mercury passes within a few arc minutes of Jupiter. Unfortunately closest approach occurs before they have risen in Britain and they rise after after sunrise (both being evening objects)and therefore require finding and observing in daylight low down near the horizon. Setting circle will probably be a must!



PROGRAMME FOR JUNE

DAY	DIRECTORS	SECTION	PHONE No.s
Mondays from 8.00pm		GENERAL OBSERVATION SECTION	
3-10 17-24	Mr R Newman	[redacted], Felixstowe, IP11 9DY.	Tel. Fel. [redacted]
	Mr J King	[redacted], Felixstowe, IP11 9LQ.	Tel. Fel. [redacted]
Tuesdays from 8.00pm		GENERAL OBSERVATION SECTION	
4-11 18-25	Mr R Newman	[Address above.]	Tel. Fel. [redacted]
	Mr J King	[Address above.]	Tel. Fel. [redacted]
Wednesdays from 8.00pm		NEBULA AND FAINT OBJECTS SECTION	
5-12 19-26	Mr M Cook	[redacted], Ipswich, IP4 5PZ.	Tel. Ips. [redacted]
	Mr D Payne	[redacted], Wickham Market, IP13 0SD.	Tel. W.M [redacted]
Fridays from 8.00pm		PLANETARY AND LUNAR SECTION	
7-14 21-28	Mr P Richards	[redacted], Ipswich, IP4 1QB.	Tel. Ips. [redacted]
	Mr R A Lobbett	[redacted], Felixstowe, IP11 8UJ.	Tel. Fel. [redacted]
	Mr G Marriott	[redacted], Ipswich, IP4 4JB. [Assistant Director]	Tel. Ips [redacted]

All nights are open to all members, but, on nights other than Wednesdays, ring directors to confirm. Directors will also be able to tell you if a group visit is taking place. All sections observe anything of interest, but the title indicates the main specialism.

Lectures and other events : COMMITTEE MEETING

The next committee meeting will be on Saturday 6th July at the observatory starting at 19.30. As usual this will be an open meeting and any member may attend if they wish.

1991 COMMITTEE

CHAIRMAN	D Payne	[Address above.]	Home: Work:
VICE CHAIRMAN /VISITS CO-ORD	D Barnard	[redacted], Ipswich, IP4 5PP.	Home: Work: [redacted]
SECRETARY	R Gooding	[redacted], Ipswich, IP1 6AE.	Home: Work:
TREASURER	M Nicholls	[redacted], Capel St Mary, Ipswich, IP9 2EX.	Home: Work:
MAINTENANCE CO-ORD	M Cook	[Address above.]	Home: Work:
JOURNAL CO-ORD	E Sims	[redacted], Ipswich, IP1 4HA.	Home:
LIBRARIAN	P Richards	[Address above.]	Home: Work:
EQUIPMENT CURATOR	J King	[Address above.]	Home:
SPECIAL EVENTS CO-ORD	A Smith	[redacted], Ipswich, IP4 5RZ.	Home: Work: