

T H E
NOTTINGHAM ASTRONOMICAL SOCIETY
B U L L E T I N

NO. 59

Price: 2¹/₂d.

MARCH, 1952

The Nottingham Astronomical Society was formed in 1946 to provide a rallying point for residents of Nottingham and district interested in the night sky.

COMMENT

Open Meeting

The Society's first open meeting on March 5th, 1952, proved to be a great success. Approximately 240 people crowded the Mechanics Minor Hall to see the three special astronomical films and to hear the President describe the nature and aims of the Society. It remains to be seen whether there is an influx of new members as a direct result of this meeting but the Editor, who was privileged to play a large part in organising the function, feels that the greatest measure of success lies in the wide publicity obtained through the good offices of the local press, the Nottingham City Transport department and several local book-shops and libraries. The fact that the Society exists must surely be much more widely known than hitherto.

Annual Dinner

The Annual Dinner on February 9th, 1952 was also a pleasant occasion but the much smaller number of members and friends present compared with the attendance at the previous Dinners was due almost certainly to the very high charge the Society was compelled to make this time. At the March Committee meeting, the Treasurer reported that the Hotel have only charged for a three-course meal (as actually served) whereas the Manager only offered a four-course meal. The matter is to be investigated at the next Committee meeting when the necessary receipts will be available. A report on the unhappy situation will then be submitted to the ordinary members and, if possible, recompense offered to those concerned.

Membership

The Society's membership is now (March, 1952) 46. It is just possible that the figure will reach a round 50 before the present session is completed. (A.J.A.)

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THE SKY FOR APRIL

The Julian Date for April 0.0 is 243 4102.5 For other dates add the date.

THE SUN

Solar Rotation No. 1318 begins on March 17 and No. 1319 begins on April 13.

The Equation of Time (difference between Mean Time and Apparent Time) is zero on April 16 so that during April the sundial time will very nearly agree with ordinary clock time.

THE MOON

Lunation No. 362 begins with the New Moon of March 25 and No. 363 begins with the New Moon of April 24. Phases for the period are:-

362:	(New Moon: March 25	Full Moon: April 10
	(First Quarter: April 2	Last Quarter: April 17
363:	(New Moon: April 24	Full Moon: May 9
	(First Quarter: May 2	Last Quarter: May 16

There are no occultations of note during April.

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THE SKY FOR APRIL (continued)THE PLANETS

Mercury will be in Inferior Conjunction on April 5 and will not be seen during the month. See special note regarding the March apparition at the end of these notes.

Venus closes in to the Sun and will not be visible either as a morning star or an evening star during April.

Mars rises in mid-evening and brightens rapidly as it approaches opposition (May 1). Magnitude -1.0 on the 5th and -1.5 on the 30th. It may be easily identified by its brightness and colour half-way between the stars Spica and Antares ('Rival of Mars'). It is as bright as Sirius and in the absence from the night sky of Venus and Jupiter has no planetary rival.

Jupiter disappears from the evening sky during April as it passes the Sun on the far part of its orbit (April 17).

Saturn, which shares the responsibility of gracing the night sky only with Mars this month, is above the horizon nearly all night. It is in opposition on April 1 and is therefore at its most favourable position for observing. The rings are still fairly narrow (although slowly opening out) which accounts for the rather low opposition magnitude of 0.6 compared with -0.9 at the most favourable oppositions when the rings are fully open. It is thus only half as bright as Mars in April. Saturn is close to the 3rd mag. star Gamma Virginis; less than $\frac{1}{4}^{\circ}$ on May 1. Titan, the largest and most easily seen of the satellites will be at Eastern Elongation (about 3°) on April 4 at 15.8 hrs GMT and on April 20 at 13.5 hrs GMT.

Uranus is an evening star in Gemini and, with Neptune, in opposition on April 10 in Virgo (mag. 7.7) requires the BAA Handbook Charts for safe identification.

THE STARS

The splendid constellation of Orion will be still visible in the western sky but will be involved in increasing twilight. The central star group, facing south, will be Leo - the Lion, with its striking sickle of stars ending in the bright star Regulus. The 'tail' is tipped with the star Denebola. In the south-east will be Spica, the principal star of Virgo (look for Saturn also). In the east will be the constellation Bootes and its bright star Arcturus. The famous Plough of the star group Ursa Major will nearly overhead. The advent of Summer Time will end early evening observing but a glance at about 11 pm in the eastern direction may result in Mars and lower down, the red star Antares, being picked up. (A.J.A.)

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Mercury in March

In the Bulletin for February, 1952 (No. 58), it was stated that Mercury should be looked for low in the west at about 40 minutes after sunset during the period March 16 - 23. Mr. Lane Hall points out that Jupiter will be in the same part of the sky and confusion between the two planets may well ensue particularly as both will be at about the same magnitude (Jupiter may be a shade brighter). The Editor has no precise figures for Jupiter's position at this time but it would appear that Jupiter sets a few minutes after Mercury until March 17 or 18 and two or three minutes before Mercury from then until March 27 or 28. At all events, the two planets will indeed be very close together during the whole period. This fact may assist in the observation of Mercury. Look for the two, one will be Mercury; Mr. Lane Hall, who has the full Nautical Almanac, will perhaps be able state which is which.

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"A PERSONALITY IN ASTRONOMY - NICOLAUS COPERNICUS"

by A. K. Bennett

Copernicus, or Koppernick, was born in Prussian Poland on February 19, 1473, the son of a wholesale trader in copper. Nicolaus, however, was adopted by his uncle who in 1489 was Bishop of Ermeland.

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NICOLAUS COPERNICUS (continued)

As a young man, Copernicus studied mathematical science at the University of Cracow and there also acquired some skill in painting. When he was 23 years old, he went to Bologna to study canon law and astronomy. At Rome in 1500, he himself lectured with success. In 1497, however, he was elected Canon of the Cathedral of Frauenberg and he re-crossed the Alps in 1501 with the intention of asking for further leave of absence to continue his studies. Late in 1501, he entered the Medical School at Padua where he remained until 1505, having meanwhile taken a doctor's degree in Canon Law at Ferrara on May 1, 1503.

After his return to Poland, he resided at the episcopal Palace of Heilsberg as his uncle's physician until the Bishop's death on March 29, 1512. He then returned to Frauenburg and rigorously attended to his capitular duties. He never took orders but acted continually as the representative of the Chapter under harassing conditions, administrative and political. He was, besides, Commissary of the diocese of Ermeland. His medical skill was always at the service of the poor and he was frequently in demand by the rich. He also laid a scheme for the reform of the currency before the Diet of Grandenz in 1522. Yet, in spite of these many occupations and duties, he found time to elaborate an entirely new system of Astronomy, by the addition of which, man's outlook on the universe was fundamentally changed.

The main lines of his great work 'De Revolutionibus Orbium Coelestium' were laid down at Heilsberg.

At Frauenburg, from 1513, he sought, with scarcely any instrumental means, to test by observation, the truth of the views it embodied. His dissatisfaction with Ptolemaic doctrines was of an early date, and he returned from Italy where so-called Pythagorean opinions were then freely discussed, in strong and irrevocable possession of the heliocentric theory.

The treatise in which it was set forth, virtually finished in 1530, began to be known through the circulation in manuscript form of a 'Commentariolus' or brief popular account of its purport, written by Copernicus in that year. Johann Albrecht Widmanstadt lectured upon it in Rome, Clement VII approved, and Cardinal Schonberg transmitted to the author a formal demand for full publication. But, his assent to this was only extracted from him in 1540 by the importunities of his friends, especially his enthusiastic disciple, George Joachim Rheticus, who printed in the 'Narratio Prima' (Danzig, 1540) a preliminary account of Copernican theory, and simultaneously sent to the press at Nuremberg, his master's complete exposition of it in the treatise 'De Revolutionibus Orbium Coelestium' (1543).

Unfortunately, the first printed copy reached Frauenburg barely in time to be placed on his master's death-bed.

Copernicus was seized with apoplexy and paralysis towards the close of 1542 and he died on May 24, 1543, happily unconscious that the fine epistle, in which he had dedicated his life's work to Pope Paul III was marred in its effect by an anonymous preface, slipped in by Andreas Osiander, with a view to disarming prejudice by insisting upon the purely hypothetical character of the reasonings it introduced.

Of Copernicus, Goethe writes:-

"Of all discoveries and opinions, none may have excited a greater effect on the human spirit than the doctrine of Copernicus.

The world had scarcely become known as round, and complete in itself when it was asked to waive the tremendous privilege of being the centre of the universe.

Never, perhaps, was a greater demand made on mankind - for, by this admission, so many things vanished in mist and smoke! What became of our Eden, our world of innocence, piety and poetry; the testimony of our senses; the conviction of a poetic-religious faith? No wonder his contemporaries did not wish to let all this go, and offered every possible resistance to a doctrine which in its converts authorised and demanded a freedom of view and greatness of thought so far unknown, indeed, not even dreamed of."

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ASTRONOMICAL NEWSJUPITER'S NEW SATELLITE

It now appears almost certain that a nineteenth magnitude object detected near Jupiter on photographs taken at Mount Wilson in September, October and November, 1951, is a new satellite, J XII. The first detection was made by Dr. Seth Nicholson (seen in the 'Story of Palomar' film) who has now discovered four of the twelve Jovian satellites, a distinction he shares with Galileo.

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ANNOUNCEMENTSNext Meeting

The next meeting will be held in the Mechanics Institution, Nottingham, on Thursday, April 3rd, 1952, at 7.30 pm.

Mr. W.E. Fox will give an illustrated talk entitled "PLANETARY OBSERVATIONS" dealing particularly with Jupiter. Mr. A.W. Lane Hall will speak about the night sky for the current month.

The meeting will be preceded by a Committee meeting at 7 p.m.

Open Air Meetings

The winter session of open air meetings will be terminated by the advent of Summer Time, presumably in mid-April. The combination of the full moon period and the Easter holiday period in the first part of the month means that no meetings will be held in April and the session ends with the March programme, repeated here:
MARCH 18, 19, 20, 25, 26, 27.

Talks Programme

It has been suggested that one meeting in the near future be devoted to a repetition of a talk given by the late R.F.T. Granger in 1947 entitled "IS THERE LIFE ON THE PLANETS?" It will be arranged at a meeting in the next (1952-53) session that this or a similar talk be given by one of the speakers.

The September meeting, at which business of the forthcoming Annual General Meeting is often discussed, is not suitable for a full talk but Mr. Ashmore is hoping to give a short address on the occasion of the bi-centenary of the adoption by this country of the 'New Style' Calendar.

The Editor is now considering the list of meetings for the whole of the Seventh Session (1952-53). He earnestly requests members to submit their names as willing to give a talk to the Society. Any topic with an astronomical bias may be chosen and the earliest volunteers have the greatest choice of date.

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8.3.52