

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

NO. 16

NOVEMBER, 1947

COMMENT

It is a matter of considerable satisfaction to report that both the Society's recent ventures which relied extensively upon fine weather for their success were favoured by almost ideal conditions.

The first of a regular series of open-air meetings was held on October 23rd at Trent Boulevard Schools, West Bridgford, and a round dozen members spent an enjoyable two hours exploring the heavens with the 6½" reflector, under the expert guidance of Mr. Lane Hall and Mr. Fox. Needless to say, the Moon was the centre of attraction, but, despite the consequent handicap in other directions, remarkable views of double stars and some nebulae - including the famous Ring nebula in Lyra and the Great Andromeda Nebula - were obtained.

How many of those who saw the latter paused to reflect that they were looking out into the depths of space, far beyond the boundaries of our own stellar system, and that the rays of light entering their eyes had been travelling for 800,000 years?

The other venture, the Society's second excursion to places of astronomical interest, took place on October 26th when a party of members and friends went to Cambridge and passed a highly instructive and interesting afternoon amongst the impressive array of telescopes and other astronomical instruments of the University and Solar Physics Observatories there.

Beneath the giant dome of the 25" Newall refractor, members saw the Sun in projection and were gratified to note the numerous sunspots extending across the disc.

Another rare thrill came in viewing the Sun in Hydrogen light by means of that peculiar instrument - the spectroheliometer. A further treat afforded by this instrument was the impressive view of a solar prominence.

Altogether, the Cambridge visit proved a memorable occasion.

In passing, your Secretary was interested to note, when signing the Visitors' Book on behalf of the Society, that the previous signature was that of a famous astronomer, at one time a noted Director of Kodaikanal Observatory, India, - John Evershed, F.R.A.S.

In the latest issue of the British Astronomical Association Journal, which is available to members at the Society's meetings, the report of the B.A.A. Aurora and Zodiacal Light Section contains the names of two of our most industrious members, Malcolm Dean and W.E. Fox. Both are worthy of our heartiest congratulations for their continued practical work in the astronomical cause.

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THE SKY IN DECEMBER

The Julian Date for December 0 is 243 2520. For other dates add the date.

The Sun

Solar rotation No. 1260 began on November 17 and rotation No. 1261 begins on December 14. Activity still continues at a high level as far as numbers of

spot groups are concerned but there is a noticeable falling off already in the size of individual groups. This is usual just before maximum, the most violent outbreaks occurring as the active period builds up.

The Moon

Moonlight interference is most marked in the last third of the month. There are occultations of three stars in Taurus on Christmas night, 56 Tauri (a near miss) about 8h.25m.GMAT, Kappa Tauri about 11h.28m, and Nu Tauri about 12h.10m. All are of short duration and the oblique approach to the moon makes the timing a little uncertain in the absence of local computation. The moon is two days short of full but is high in the sky and binoculars should suffice for the second and third stars which are both 4.4 mag.

The Planets

Venus sets two hours after the sun at the end of the month, and gradually begins to dominate the evening twilight.

Mars rises in the late evening and moves deeper into Leo but more slowly, becoming stationary in R.A. early in the new year but continuing south in declination. It is approaching the earth fairly rapidly and will slightly outshine Saturn by the end of the month.

Saturn rises before Mars. The two planets remain fairly close together with the first magnitude star Regulus (Alpha Leonis) between them. Titan is in line with the eastern end of the rings on the 7th and 23rd, and then north, west, and south at four day intervals.

Meteors

The Geminid shower will give a good display on December 12th and 13th, of rather slow meteors of moderate brightness. There will be no interference from the moon. The radiant area is near Alpha and Beta.

Variable Stars

Convenient minima of Algol are on Dec. 6th at about 8h.GMAT., Dec. 9th at about 5h.30m.GMAT., and Dec. 29th, at about 7h.GMAT. The early evening minimum of the 9th is on a Wednesday, but may be caught by our junior members, and there will be moon interference after minimum on the 29th. Make estimates of brightness four to six times per hour.

Mira Ceti seems to be rising to a very bright maximum and may well become the brightest star in an undistinguished part of the sky. It will be sufficiently noteworthy to be looked for and followed by a casual star-gazer. Super-maxima of this star so well placed in a dark sky do not occur many times in a generation, and in a few years time the maxima will be shifting back into the morning skies.

Fixed Stars

For the benefit of those learning and locating constellations from a star atlas, the Right Ascension on the south meridian at 7h.GMAT on Dec. 7th is 0h., and on the 23rd is 1h. A watch or clock set 7 hours slow on the 7th, or 6 hours slow on the 23rd will record approximate sidereal time, and the time shown by the watch will be also the Right Ascension of the south meridian, which will enable the right map to be located for any time of the evening or morning, mental allowance being made when required for 24 hour reckoning on the 12 hours dial.

A.W. LANE HALL,
Director, Observing Section.

THE PRESIDENTIAL ADDRESS

Delivered at

The Annual General Meeting, October 2nd, 1947.

In opening the new session I would first like to thank you for the honour you have done me in asking me to be your President for the coming year. Our first year under our retiring President, Mr. Bennett, has been a great success, and I hope that we shall not only hold our ground but move on to greater strength.

Astronomy is a science which many people are inclined to take not quite seriously. They like to refer to those of us who pursue it by the slightly contemptuous term "star-gazers", particularly if we are amateurs. The feeling at the back of this is probably that astronomy is too remote from the problems of every day life to be worth consideration.

This is, of course, a profoundly mistaken point of view, for from the purely academic researches so often spring the most startling practical results, as witness the atom bomb to which astrophysics contributed its quota in helping to reveal the structure of the atom.

For myself, I do not resent the suggestion that my approach to the natural world is not one of cold deliberate science; it is indeed tinged with wonder. If I were asked why I chose astronomy as a hobby I should simply say it was because I cannot help looking at stars. The night sky has for me an irresistible fascination due in part to its serene beauty, and in part to its impenetrable mystery.

A mystery impenetrable because however much scientific method may reveal of the constitution of the stars and the order of their movements, it can never tell us why they are there. Moreover there is good reason to believe that the order we find in the physical universe has been placed there by our own minds, being implicit in our methods of observation, and is at the best but a narrow aspect of an order whose totality is outside the comprehension of science.

However, we need not worry about this. The fact is that whatever it is that draws us to the works of creation, their contemplation always arouses in us a burning desire to know more about them, and more, it stimulates our own creative instincts. We are not content merely with learning what others have found out; we wish to see for ourselves and make our own discoveries.

At first sight this seems an impossible task for the amateur. Pick up any standard work on astronomy and you will soon see what an enormous amount of study is necessary to get a very modest working knowledge. Glance at some paper on modern research and you will realise that even then you have an immense distance to travel before you can reach the frontiers of knowledge and advance into the unknown.

Fortunately, this is only a very one-sided way of looking at the matter. Much research depends for its advance on the painstaking accumulation of data by a whole army of observers who may be of modest attainments and possess simple equipment. It is here that we come in, and I would like to emphasise how much it adds to one's interest in, and enjoyment of astronomy, to take part in an observing programme.

There are many subjects to choose from. The sun is a popular one for small instruments and we have seen an excellent start made this year by some of our younger members in drawings of sun spots.

For those with telescopes both small and large, the long-period variable stars provide a fascinating study. These stars vary in brightness enormously over periods from a few months to a couple of years, but unlike most recurring celestial phenomena which perform their cycles with a perfect rhythm and precision, they are unreliable, being indeed more like Rupert Brooke's vague unpunctual star, and never exactly repeat their performance. These stars want watching, and we need more observers to record their behaviour.

I cannot go into all the possibilities on this occasion, but I would mention meteor watching and comet sweeping for those with patience and persistence, and for the possessors of the larger telescopes, the planets. The ever-changing surface of Jupiter has been the happy hunting ground of amateurs for generations,

and most of what we know of that planet is due to their work.

Now work of this sort needs co-ordinating; it is essentially a work of co-operation. For many years it has been successfully organised in this country by the British Astronomical Association but there is plenty of room for local organisations such as ours to foster this spirit of enquiry, to assist its expression and to direct it into useful channels. It also enables us very happily to meet together at regular intervals and discuss the different aspects of astronomy that interest us.

The Nottingham Astronomical Society succeeds in all these functions very well and in none better than in the training and organisation of observers under the very able direction of Mr. Lane Hall. I feel that this is a great source of strength and vitality to us, and I hope very much that more and more of you will try your hand at this work and learn something of the fascination of observational astronomy.

R.F.T. Granger.

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NOTES AND ANNOUNCEMENTS.

SOCIAL EVENING

Preliminary arrangements have been made for a Social Evening to take place in the Jacobean Room at the Elite Cinema building on Wednesday, January 7th, 1948.

This function is being organised jointly by our own Society and the Nottingham Scientific Film Society and it is hoped to have a pleasant and enjoyable evening at which the accent is on the social rather than the practical aspects of our two interests.

Further details will be announced in the December issue of the "Bulletin".

BEGINNERS' HALF-HOUR

In response to the friendly criticisms that much of the subject matter discussed at the ordinary meetings is "over the heads" of the beginner-group of members, it is being arranged that at the conclusion of the formal proceedings of the meetings in future, those who wish, will assemble in one corner of the room for a beginners' half-hour at which the simple facts of astronomy, etc. will be explained.

CAMBRIDGE UNIVERSITY OBSERVATORY

The Mathematical Society of the University College, Nottingham, have kindly arranged that one or two seats in a coach trip to the Cambridge University Observatory, being organised next term, will be made available for those members of our Society who were unable to take part in our own recent visit or may wish to go again.

Details will be announced when they are available.

OPEN-AIR MEETINGS

The next Open-Air Meeting will take place at Trent Boulevard Schools, West Bridgford, on Thursday, November 20th, 1947, WEATHER PERMITTING. If the weather at 6 p.m. on that evening is NOT clear, the meeting will take place on the following Thursday (November 27th). If the weather is NOT clear then, the meeting will NOT be held.

The following meeting will take place on Thursday, December 18th.

These meetings commence at 7 p.m. and the Schools can be reached by taking a No. 12 bus from South Parade (Council House Square), Nottingham, and alighting at Lady Bay Road (2½d. fare).

NEXT MEETING

The next ordinary meeting will take place in the Mechanics Institution, Nottingham, on Thursday, December 4th, 1947, at 7.30 p.m.

COMMITTEE MEETINGS

At the Committee Meeting held on November 6th, it was resolved that, in future, the Committee Meetings should be held at 7 p.m. on the first Thursday in each month

instead of at 6.30 p.m. as at present. In the event of the business for discussion so demanding it, the Secretary may call a Committee Meeting at 6.30 p.m., in which case circulars will be despatched to those concerned.

The next Committee Meeting will be held, in accordance with this resolution, at 7 p.m. on Thursday, December 4th, 1947.

ADDRESSES

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NOTTINGHAM

12th November, 1947.