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YOU ARE INVITED TO AN OPEN DAY OF THE ORWELL ASTRONOMICAL OBSERVATORY ON 30th SEPTEMBER BRING ALL YOUR FRIENDS AND RELATIVES.

(MORE DETAILS IN SEPTEMBER ISSUE)

O.A.S.I.

A special general meeting of the O.A.S.I. was held on the 12th July (Wednesday) to which some twenty people managed to come. At this meeting, the Rules of the C.A.S.I. were read out, alongside the Licence, dictating the terms for the use of the Orwell Park School Observatory. After being read, they were discussed, with a few other matters. By a vote, the Society adopted these documents. The meeting was adjourned until August 2nd (Wednesday), at the same time.

On August the 2nd, the arrangements for the Open Day celebrating the Observatory's centenary were made. Those who did not manage to come to that meeting, please phone me, Mr. Easty (Ips [redacted]) or Mr. Wilkes (Ips [redacted]) as soon as possible.

Mr. A.E. Whitworth, who is qualified to use all the telescopes (except the 98-inch) of the Royal Observatory has expressed interest in our 10-inch refractor, and wishes to become a member of the Society so that he may use the instrument for photography.

The parts for the drive of the 10-inch refractor are now ready. Mr. D. Bearcroft has already started to assemble them.

It is imperative that the telescope is not misused by members, and use can only be made of it in the presence of a committee member, or other authorised person. The drive, and associated mechanisms, is very delicate.

A plasterer came to decorate the Observatory on Saturday 22nd July. More decorating was done on the 10th August and 12th August. Many Volunteers are needed to help decorate the Observatory. Anyone who is able to help at some time, please contact Mr. Easty, (Tel Ips [redacted]) or Mr. Wilkes (tel Ips [redacted]) as soon as possible.

The shutter of the dome is now in working order, and the observatory is operational again. The observatory is used frequently now. Members wishing to come along, contact me, or Mr. Roy Cheesman of [redacted] Ips, (no telephone). Mr. Cheesman usually goes up on Wednesdays if it is clear, and some other days if something interesting is going on. Mr. D. BEARCROFT (tel Ips [redacted]) CAN ALSO BE CONTACTED, AS HE ALSO FREQUENTS THE OBSERVATORY.

Many of these Journals are delivered by [redacted] in the spare time of the committee members, or posted with money from the committee members' own pockets. It would facilitate delivery if you could all send me some stamped addressed envelopes. It would ensure that you receive the Journals promptly, and would save us a great deal of time and trouble. Thank You!

The USSR's Venus probe, Venera (Venus)-8, reached the vicinity of the planet Venus on July 22nd, after a journey of 300 million kilometres in 117 days. 86 communications sessions had been held with the probe since its departure from Earth in April. On April 6th a mid-course correction had been made to ensure an arrival at Venus at the needed time and place. On July 22nd the vehicle entered the Venusian atmosphere. A landing capsule separated at 10.40 a.m. (Moscow time). Aerodynamic 'braking' slowed the vehicle from 11.6 kilometres per second, to 250 metres per second, causing the vehicle to heat up. Experiments were made during descent, by parachute. Landing occurred on Venus' daylight hemisphere at 12.29 a.m. (Moscow Time). This was the first landing on Venus' day side. For 50 minutes, data was received from the surface of Venus giving information on the rock of Venus' surface, temperature, and atmospheric pressure.

GENERAL MEETING WILL BE HELD ON AUGUST 29th AT THE OBSERVATORY (8 p.m.)

ADVERTISEMENT: 3" (7.5 cm) REFRACTOR FOR SALE, £40 new, ONLY £15.00 DEAL TELESCOPE. CONTACT S. THORPE, MENDLESHAM [redacted].

CYGNUS is still the most prominent constellation, but the Autumn constellations are becoming visible.

PEGASUS:- The Flying Horse. Three of the chief stars of Pegasus, Alpha α (Markab), Beta β (Scheat), and Gamma γ (Algenib), together with Alpha Andromedae (Alpheratz), make up the celebrated Square. Actually the square is not as distinct as may be thought from the maps, but it is easy enough to find, as it is fairly high towards the autumn, though not very high at the moment. Two of the stars in the 'W' of Cassiopeia point to it. The most interesting object is the red giant, Beta β (Scheat), which varies between magnitudes $2\frac{1}{2}$ to $2\frac{3}{4}$, in a period which is roughly 35 days, but subject to marked irregularities. Its diameter is nearly 150,000,000 miles, but its mass is only 9 times that of the Sun, so - like all red giants - it is comparatively rarified. Its changes may be seen by using Alpha α (Markab) (Mag 2.5) and Gamma γ (Algenib) (Mag 2.84), as comparison stars.

ANDROMEDA: Gamma γ Andromedae (Almaak or Almach), is a fine double star. The primary is yellowish, and a moderate telescope will suffice to show the fifth magnitude bluish companion.

Stars and Nebulae (11.35 p.m. BBC-1 T.V. PROGRAMME BY PATRICK MOORE ABOUT ANDROMEDA NEBULA ON 16th AUGUST)

- 1) M-31 in Andromeda is close to the star Nu (ν) Andromedae. It is a giant Galaxy, although with most amateur equipment i.e. binoculars or small telescope, it looks just like faint fuzz of light. The 10-inch refractor shows it quite well.
- 2) M-76 is a double nebula, like the Dumb-Bell χ Nebula in Vulpecula, but much smaller. It is a gaseous nebula, therefore belongs to our system. It is towards the top left hand corner of Map IVa, and is in Perseus.
- 3) 7243, H VIII 75 (marked as 75^h on the map) is in Lacerta, above the Great Square of Pegasus. It is a fine open cluster, irregular in shape, and followed by a beautiful star-filled field.
- 4) 7662 H IV 18 Andromedae (marked 18^h) is a comparatively bright slightly elliptical planetary nebula, 32" x 28", bluish. With a low power almost star-like; in a 10-inch telescope the dusky centre makes it appear annular (i.e. as a bright circle with a bang in the middle, looking like a bright ring). A 14th mag nucleus is visible in very large telescopes and clear in photographs.
- 5) NGC 7772 is interesting. It seems to be a V-shaped cluster of stars. It is best visible in long exposure photography.

Below is a complete map of Hercules, which comes in between Map IIb of the May Journal, and Map Ib of the April Journal. This map should enable readers to find the globular Hercules clusters of M-13 and M-92 (which I can find quite easily in my 10x50 binoculars), see notes in May Journal. 5N or 6210 5N to give it its full official designation, is a bright planetary nebula, just visible in a small telescope, or binoculars.

METEOR SHOWERS:-

Alpha Capricornids (yellow fireballs, favourable) maximum of 10 per hour on 1st August, end on 25th.

Iota Aquarids (double radiant, very favourable) maximum 12 per hour on 6th August, ends on 25th.

PERSEIDS, best shower, maximum 65 per hour on August 12th, at 06 hours G.M.T. Many bright fireballs, fragmenting, meteors with fine trains, very favourable.

Kappa Cygnids, 18th to 22nd August, Maximum 6 per hour, glorious fireballs exploding.

In the map on the right, the blue dotted lines show how I find M-92 and M-13. M-13 is $\frac{1}{3}$ the way from η to δ . Quite some progress has now been made in restoring the observatory. An electrician has come to put lamps on the telescope, & to put mains points in throughout the building; new doors are being hung, the walls have been plastered in the telescope room; the sidereal clock room is being converted into a photographic darkroom.

I LOOK FORWARDS TO SEEING YOU ALL AT THE GENERAL MEETING ON AUGUST 29th at THE OBSERVATORY.

The Norwich Astronomical Society is trying raise £10,000 for its new Observatory. They are seeking SPONSORS, who could give them £1 each, towards their fund. Their telescope will be an impressive 30" reflector, and is certainly a very worthwhile cause. Anyone who can spare £1, please let me know. Sponsors will receive a quarterly newsheet, and invitations to all Norwich Astronomy meetings.

