



STARDUST

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THE DECEMBER MEETING

According to Hoyle or According to Gamow? Don't fail to hear the debate on the conflicting theories concerning the Origin of the Galaxies, to be held at the Queen Elizabeth Planetarium on Thursday, December 8, at 8.15 p.m. The teams will be

FOR HOYLE

Professor L. E. H. Trainor
Mr. Dave Marven

FOR GAMOW

Professor E. S. Keeping
Mr. Robert Allin

Come, and bring a friend with you. Refreshments at close as usual.

News from Near and Far

A good many of our members already know that during the current year the degree of Doctor of Philosophy was awarded to Christine Ann Culp Rosenfield. The subject of her thesis was "Interferometric Study of Concentration Polarization at Low Current Densities". Christine was born in Lansing, Mich., in 1936, received her B.Sc. in Chemistry from the University of Michigan in 1957, was graduate teaching assistant at the University of Alberta from 1957 - 1959, and International Nickel Teaching fellow 1959-1960. We would like to pass along the Centre's congratulations to Christine. Incidentally, we have been trying for some time to obtain the new address of Don and Christine. If any of our members have it, please inform the Editor or Dr. Crosby. Thanks.

Ian McLennan has again been hitting the headlines, this time by getting married. He and Adrian Frame were united in marriage on November 12. At the time of writing the happy couple are still on their honeymoon. We wish them both a long and happy partnership in this greatest of all ventures.

Radio signals detected by Dr. Fred T. Haddock of the University of Michigan indicate that the atmosphere of Saturn has a temperature of -280 F., a figure which confirms theoretical calculations previously made. The measurements were made with 3-centimetre waves. Signals have also been received from a planetary nebula 3000 light years away. These achievements were reported in November by the U.S. Office of Naval Research as a result of observations made with its 85-foot radio telescope.

The U.S.A. succeeded in putting into orbit the satellite Tiros II, with two television cameras aboard. Although one of the cameras failed to function, considerable satisfaction has been expressed at the near perfection of the orbit, with its apogee and perigee of 431 and 496 miles respectively. Tiros II is thus expected to have a long life.

On the morning of December 1, 1960, the U. S. S. R. succeeded in putting a 5-ton satellite into orbit, containing two dogs and other animals and vegetable organisms together with television equipment which appeared to be functioning perfectly. At the moment we have no reports as to the inclination of the orbit or the period of the satellite, but if it is visible in these latitudes our observers will doubtless discover it.

The theory has been advanced by A. Zolotov, a Soviet scientist, that the great meteorite which fell over Siberia on June 30, 1908, exploded in the atmosphere, and that the strange craters found near the Tunguska River were due to the explosion--a thermo-nuclear one, according to Zolotov--before it reached the earth. Whatever the cause, we can personally well remember one of its effects. There was a night that summer in England when "it didn't get dark", a phenomenon that to small children was rather frightening. We shall await the evidence for Mr. Zolotov's theory with interest.

What's in the Night Sky? The constellation of Gemini should attract the attention of amateur astronomers during the coming month. Not only will there be the annual shower of meteors (the Geminids) radiating from this area on and around December 13, but the planet Mars, at present in this constellation, will be very bright and in an excellent position for viewing during most of the night.

In the southwest, Venus is a brilliant object for about 3 hours after sunset. Jupiter and Saturn may also be seen briefly in the south-west, but rather too low for good observing.

Orion, of course, is the winter constellation par excellence, not only because of its size and beauty, but also because of the variety of astronomical objects it contains. Even with low power glasses one may readily discover the great nebula and a large number of double stars, while to the top left of the Orion rectangle the beginner can see for himself one of the greatest stars in the heavens, the giant red star Betelgeuse, a good 300 million miles in diameter. Westward of Orion are two famous star clusters, the Pleiades and the Hyades. To look at these through any telescope is a rewarding sight.

Official Opening On December 21, at 13.27 M.S.T., the centre of the sun will be directly over the Tropic of Capricorn as it starts on its return trip to our northern latitudes. Although snow has been on the ground for some time already, this marks the official commencement of winter. It will doubtless become decidedly colder, but at least we shall see the days steadily lengthening with their promise of spring to come.

WANTED We are still looking for someone to undertake the addressing of copies of STARDUST. This means the typing of 75-100 addresses each month. Would any volunteers please get in touch with either Garry Marlies or the Editor.

AND NOW, A MERRY CHRISTMAS AND A HAPPY NEW YEAR!

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