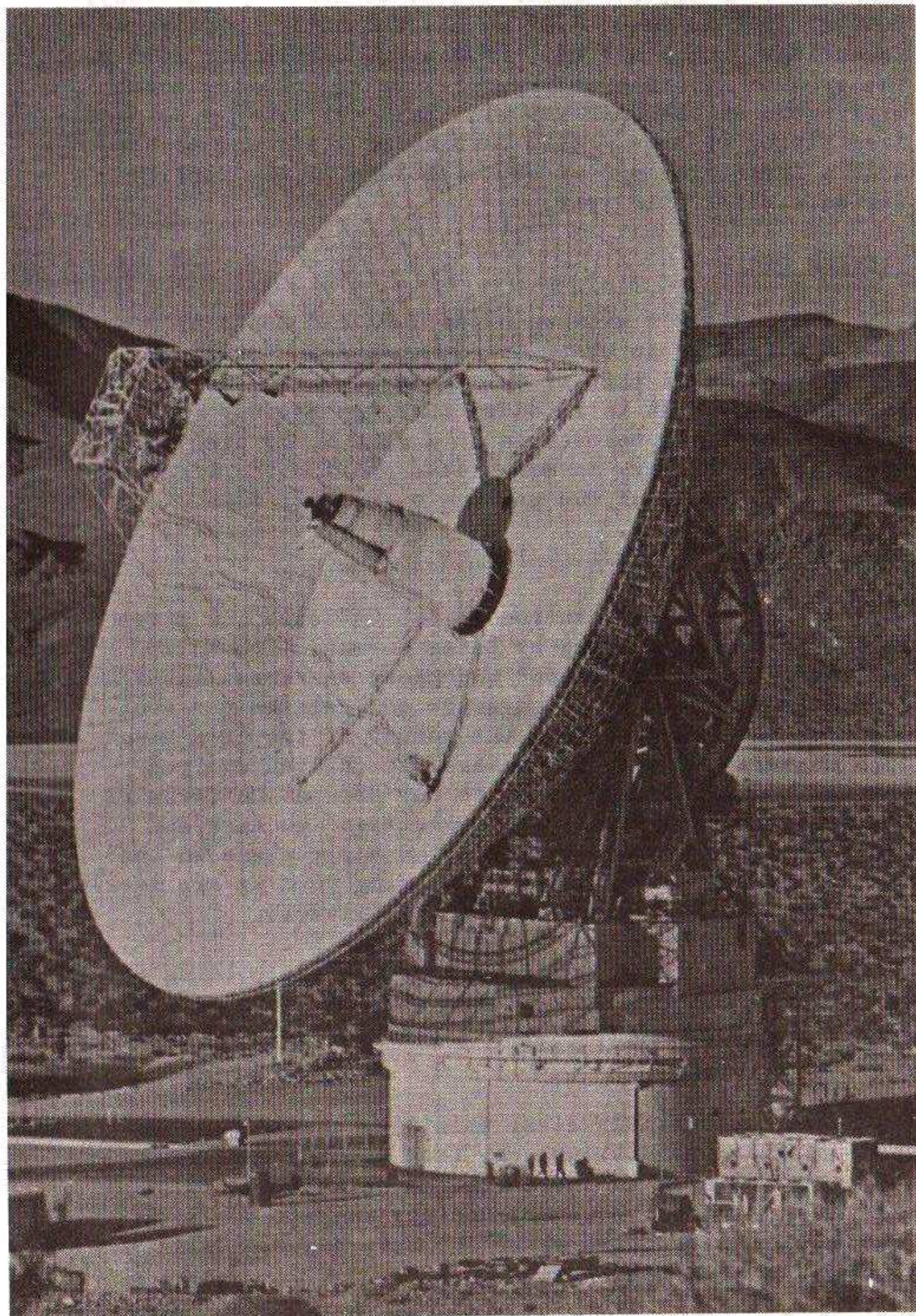


Astronomical Society of Frankston

Newsletter - October, 1983



Meeting, Wednesday, October 26th

A.S.F.'s October meeting will be held on Wednesday, October 26th in Room Bl.37 at the Chisholm Institute of Technology, McMahon's Rd., Frankston, commencing at 8 p.m. The speaker for this meeting will be Flight Lieutenant Billington of the RAAF who will talk on "UFOs" - Unidentified Flying Objects - with particular reference to the RAAF's investigations of UFO sightings in the Bendigo region earlier this year.

Viewing Night

The Society's viewing night for this month will take the form of an observing demonstration provided for the public as part of this year's Mornington Tea-Tree Festival. It is intended that the Society will use members' portable telescopes at a site in Mornington on the night of Friday, November 4th. Further particulars will be available at the meeting on October 26th.

Society News

A talk on the Evolution of the Universe was given to the September meeting by Peter Norman. The talk, entitled "Cosmic Countdown" was based on recent material from Scientific American magazine and related the evolution of the Universe from the moment of the "Big Bang" to a Universe firstly of Quasars, which then evolved through a Radio Galaxy stage to our present Universe of clusters and superclusters of Galaxies. Quasars and Radio Galaxies are now viewed as an early stage in the history of the Universe and in viewing them we are looking back into the past structure of the Universe.

Tentative plans have been made for the holding of this year's end of year Barbeque and Star Party at the "See Winds" Park at the top of Arthur's Seat, Dromana.

If the sky is suitably clear this site should provide good observing conditions away from the sky glow from the Melbourne area to the north. A definite decision has yet to be made, however, and any suggestions from members for alternative sites for this function will be welcomed by your Committee.

- (c) bring about Court actions;
- (d) receive a bequest from a will;
- (e) sue or be sued.

Liability for debts is limited to the assets of the Society and the amount members may have agreed to provide in the rules of the Association. The membership is protected from any further personal financial responsibility.

A corporate body has a legal existence entirely separate from its members and is capable of acting in its own name. It also has perpetual succession.

The cost of incorporation is \$60.00 and the lodging of notice of each Annual General Meeting with the Financial Statement is \$20.00.

To incorporate, this Society needs the approval of the majority of its members, not simply those present at a meeting. Therefore if you are unable to attend the meeting on October 26th next, would you please fill in the form below and send to the Secretary, Mr. B. Tregaskis, 21 McGower Rd., Mt. Eliza, now. This is most important.

To: Secretary,
Astronomical Society of Frankston.

As a member of this Society I hereby give my approval for incorporation to be proceeded with.

Name _____

Address _____

Signature _____

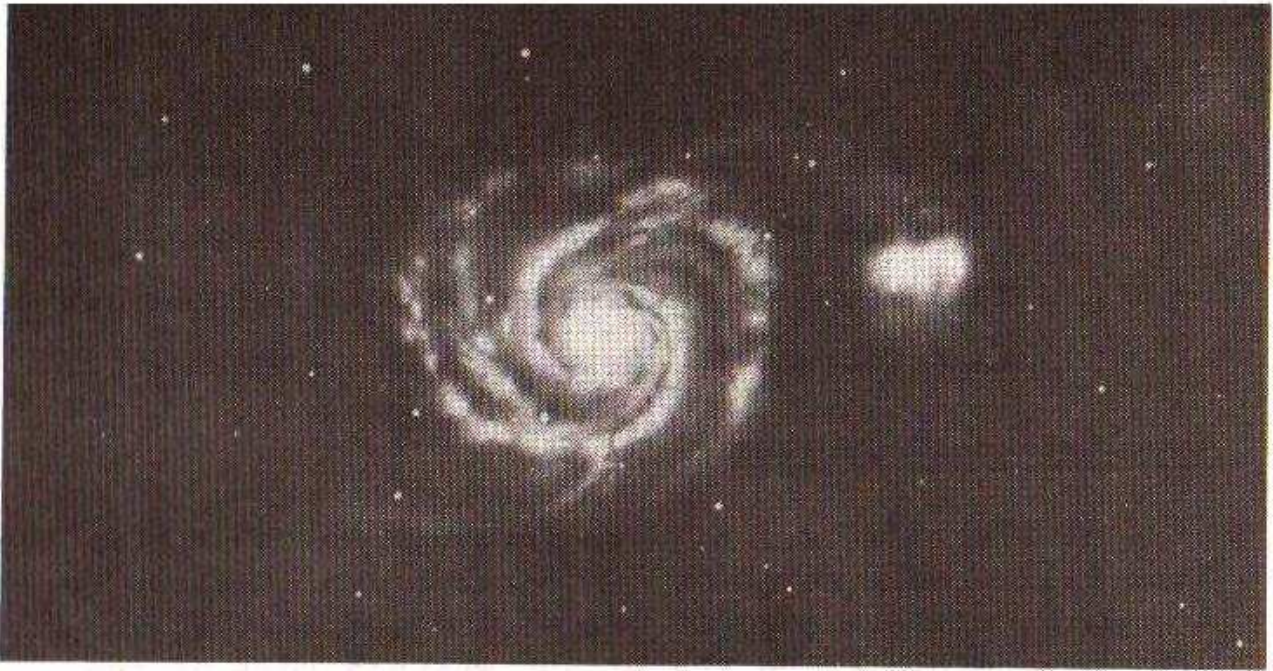
Date _____

Galaxies are other 'island universes' like our own Milky Way Galaxy in its entirety, but so far away that they, too, appear as faint nebulae in our sky. Galaxies differ in appearance, dimensions, proportion of stars of various types, total mass, quantity of interstellar matter they contain, and so on. In general, the sizes of galaxies range from several thousand to a hundred thousand light years across and the number of stars they contain may be several hundred thousand million. In 1975 the most distant of the known galaxies was 3 C 123, which is 8 thousand million light years away and can only be observed with the aid of modern professional equipment.

Galaxies are divided according to their appearance into elliptical galaxies, spiral galaxies, barred spirals and irregular galaxies. The spiral structure of some galaxies was discovered in the mid-nineteenth century by Lord Rosse. Visually galaxies look like hazy clouds or hazy stars; the structure is evident only on rare occasions. Details can be captured only with large photographic telescopes.

The Small Magellanic Cloud (SMC) is a companion of our Galaxy. This irregular galaxy is 220,000 light years distant and has an apparent diameter of $5^{\circ}20'$. It is visible to the unaided eye as a 'severed fragment' of the Milky Way (see p. 157).

The Whirlpool galaxy M 51 in Canes Venatici (the Hunting Dogs) is 37 million light years distant and has an apparent diameter of $10'$. It is linked by one arm with a smaller galaxy. The spiral structure is visible with a larger telescope.



Sky Notes

The Springtime skies in our latitudes display a relatively small number of bright stars and star clusters compared to the brilliant skies of Summertime still to come. However, as we look away from the plane of the Milky Way into intergalactic space other external galaxies come into view and with amateur size telescopes many of these can be located.

The faint constellation of Fornax has on its border with Eridanus a cluster of galaxies consisting of some 18 reasonably bright galaxies and other fainter ones. The cluster is centred at R.A. 3h. 35m. Dec. $-35^{\circ} 40'$, and with a wide field eyepiece such as an Erfle, or similar, and a 20cm telescope it is possible to view in the one field a total of 7, or more, galaxies at the one time. This cluster of galaxies is situated at some 55 million light years distance.

Also in Fornax is the so-called "Fornax System", a dwarf irregular galaxy detectable only by photography because of its dispersed nature. The "Fornax System" is at about 630,000 light years distance and is one of our Local Group of galaxies.

Amongst the planets Jupiter remains visible in the early evening sky through into November, but Saturn is now too close to the Sun for observation. Uranus and Neptune can still be located in the early evening and Venus is a brilliant object in the pre-dawn sky.

The Moon

New Moon	October 6	November 5
First Quarter	October 14	November 13
Full Moon	October 22	November 20
Last Quarter	October 29	November 27

Occultation of Jupiter

At 17h. 47m. A.E.S.T. on Tuesday, November 8th, the Moon will occult Jupiter, the occultation starting on the dark, eastern edge of the Moon and finishing at 18h. 54m. A.E.S.T. on the bright western edge of the Moon.

For Sale

Newtonian reflector telescope 'Yosco' brand 11 cm. (4 $\frac{1}{2}$ ") aperture with equatorial mount and tripod, power drive, assorted eyepieces, Sun and Moon filters, \$325.00 o.n.o. Contact John Falmer, 204 McMahon's Rd., Frankston, Ph. 783-2598.

Incorporation

The Committee of this Society recommends to members that incorporation under the Associations Act, 1981 be proceeded with immediately.

The reasons are as follows:-

1. The setting up of our telescope in the grounds of the Peninsula School, Mt. Eliza.
2. The necessity to raise certain funds for this purpose.

Such arrangements make it essential for the Society to become a legal entity. An incorporated body can, in its own right -

- (a) make contracts;
- (b) hold a lease for premises;

