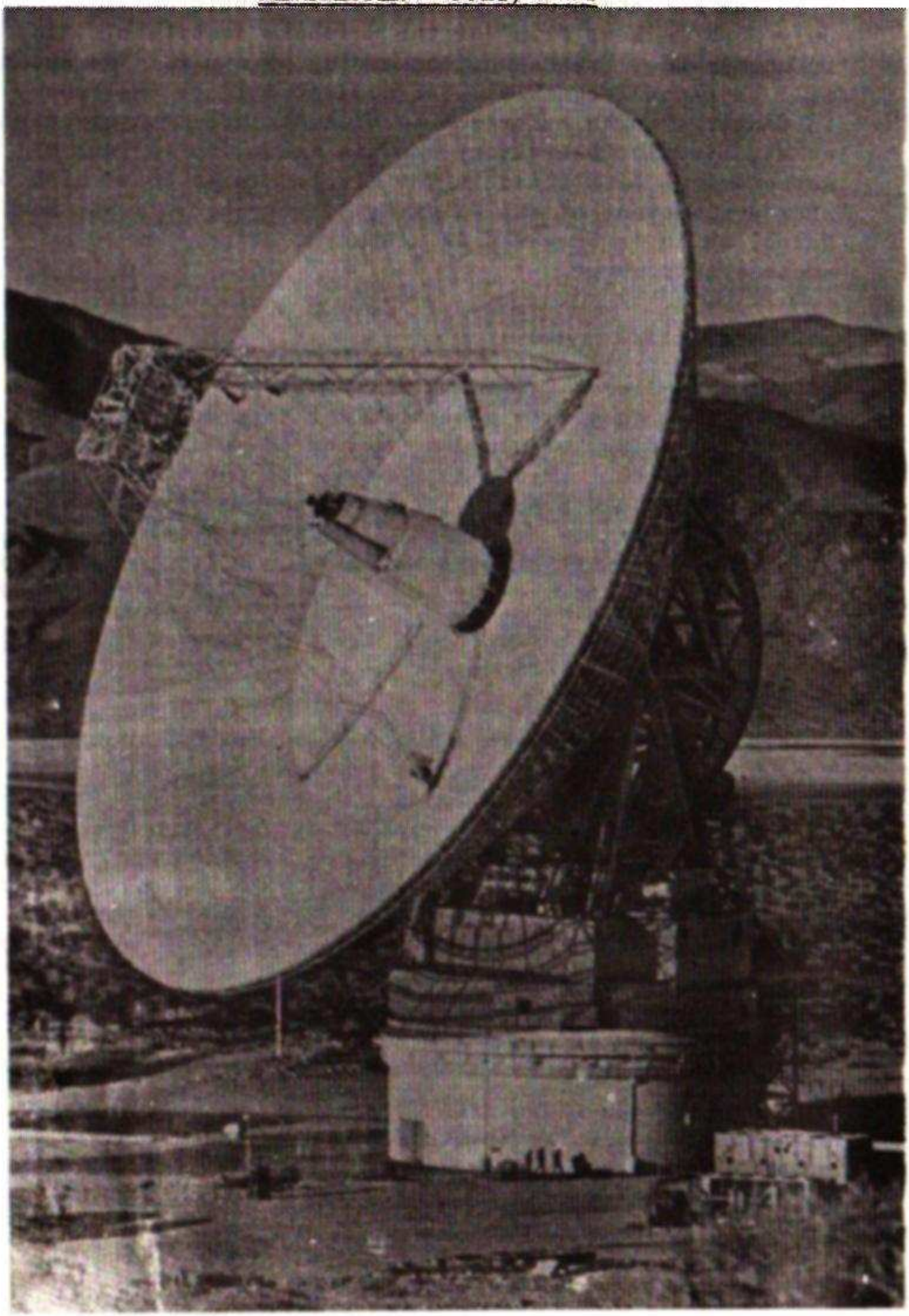
Astronomical Society of Frankston Inc

NEWSLETTER - JULY, 1984



Meeting, July 25th

The Society's July meeting will be held on Wednesday, July 25th in Room Bl.37 of the Chisholm Institute, McMahon's Rd., Frankston, commencing at 8 p.m. The speaker will be Bruce Tregaskis whose subject will be "Astronomy in Canberra" with reference to Bruce's recent observations at Mt. Stromlo Observatory and his visits to various radio astronomical facilities in the A.C.T. It is hoped also to show a videotape of the Gilgandra Observatory in New South Wales, which is operated as a tourist attraction by an amateur astronomer.

Observing Night

The nights of Saturday, 28th July or, if cloudy, Sunday, 29th July, are scheduled for this month's Observing Night, following the clouding out of the planned June Observing Night. The venue remains the New Observatory site at Peninsula School, for which see the map in the June edition of the Newsletter. Portable instruments will be needed and starting time is 7.30 p.m. For confirmation of arrangements on the day call Peter Norman (059) 75 3040, or Ken Bryant 789 1590.

Society News

At the Society's June meeting Dr. Len Halprin of Monash University spoke on his research work on variable stars, with particular reference to eclipsing binaries of the RS Canes Veratici type,star systems in which movement of the pair of stars around a common centre of gravity causes repeated eclipses of the light of one star by the other, as seen from Earth. Reference was made to the presence of "star spots" or areas of lower temperature on the star surfaces which had been deduced from the observations. The meeting concluded with the showing of two animated movies demonstrating the motions of the binary star systems Xi Ursa Majoris and Sirius A and B.

Members who would like to observe the various kinds of variable stars for themselves are asked to contact Bruce Tregaskis or Ken Bryant who will provide them with information to get started.

Sky Notes

The night sky in July and August is dominated by the bright arch of the Milky Way, the plane of our own galaxy, stretching across the sky from North East to South West. Prominent near the zenith or the brilliant constellations of Scorpius and Sagittarius, with numerous star clusters, both open and globular, and areas of nebulosity.

Towards the northern horizon is the small but interesting constellation of Lyra, the Harp, with the brilliant blue white star Vega low in the sky at the northern end of the group. Near Vega is the star Epsilon Lyrae which to good naked eye vision can just be discerned as a double star. In the telescope, however, both members of this naked eye double can be seen to be themselves close doubles, or binaries, the whole system being physically, or gravitationally associated, and known as the "Double-Double" star. About half way between the two upper stars Beta and Gamma Lyrae is the famous "Ring Nebula", probably the most photographed of the planetary nebulae and visible in most amateur instruments as a pale ring of light.

Amongs the planets, Mars and Saturn remain high in the sky during the early evening, although Mars is now receding rapidly from Earth and surface details are harder to observe. Jupiter is now a brilliant object later at night and will provide a wealth of observational opportunities for satellite and surface phenomena for some months to come.

Comet Halley 1986

Only a year or so now separates the inhabitants of our planet from yet another encounter with the body known to us as Halley's Comet. Without doubt the best known of all the Comets, Halley's Comet has been observed for thousands of years on its regular returns to the inner reaches of the Solar System in its 76 year orbit. Reactions to its appearances have varied, from awe and wonder to terror, and with respect to its last appearance in 1910 the Society now has access to two editions of Melbourne newspapers of that time, which provide a direct record of individual observations and reactions of 74 years ago. These newspapers have been passed on to member Don Leggett from the belongings of an aged relative, now deceased, and it is intended to publish items from these relating to the Comet in the interval before the 1986 return.

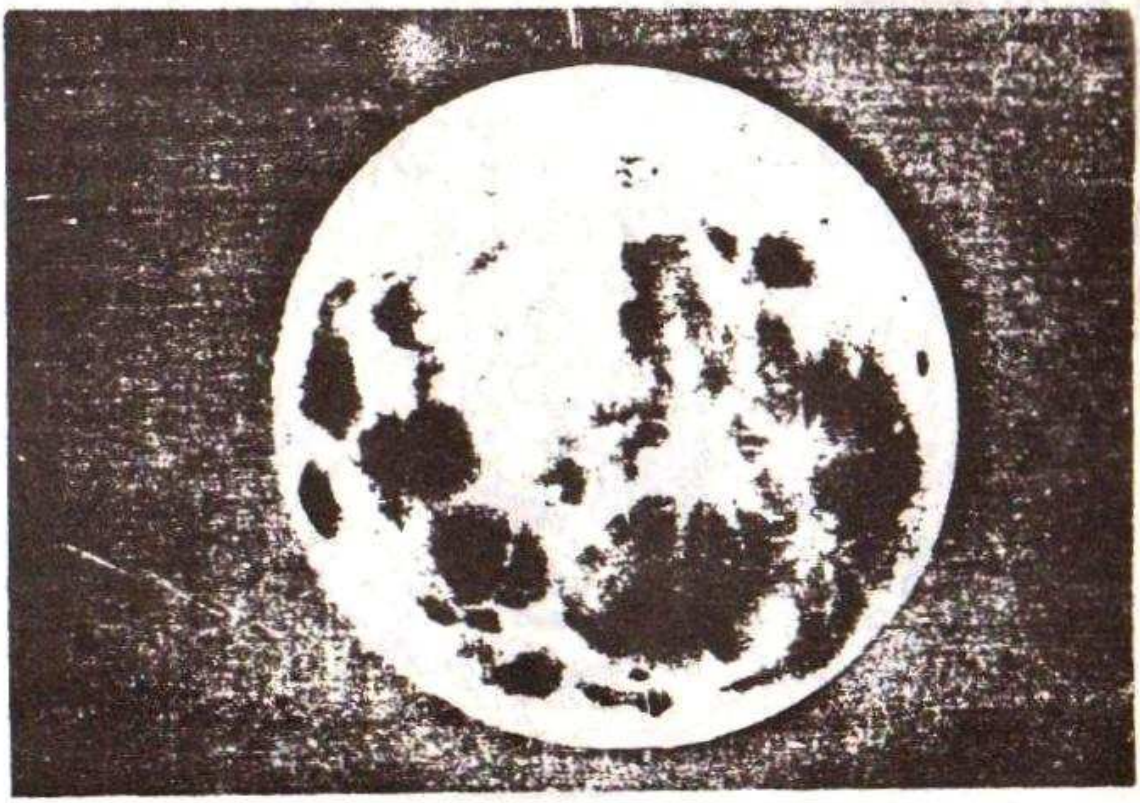
The first of these items follows below from the "Age", Saturday May 21st, 1910:-

> "The Observatory at St. Thomas, one of the Danish islands in the West Indies, reports that an enormous beam of light is stretched across two thirds of the firmament. Many of the people of Paris stayed up all night, some spent the time in feasting and others in praying, as they expected the end of the world would come. At the town of Oklahoma in the United States, some religious fanatics seized a girl of 16 years, and after clothing her in spotless white robes, were about to kill her as a sacrifice to the comet. The police interfered in time to save her".

One must hope that less hysterical attitudes will prevail this time around!

Even without a telescope one can see the dark areas on the Moon called *seas* (*mare* in Latin). The light areas are called continents. The forms and outlines of the 'seas' are useful for orientation on the Moon and it is helpful to know their names

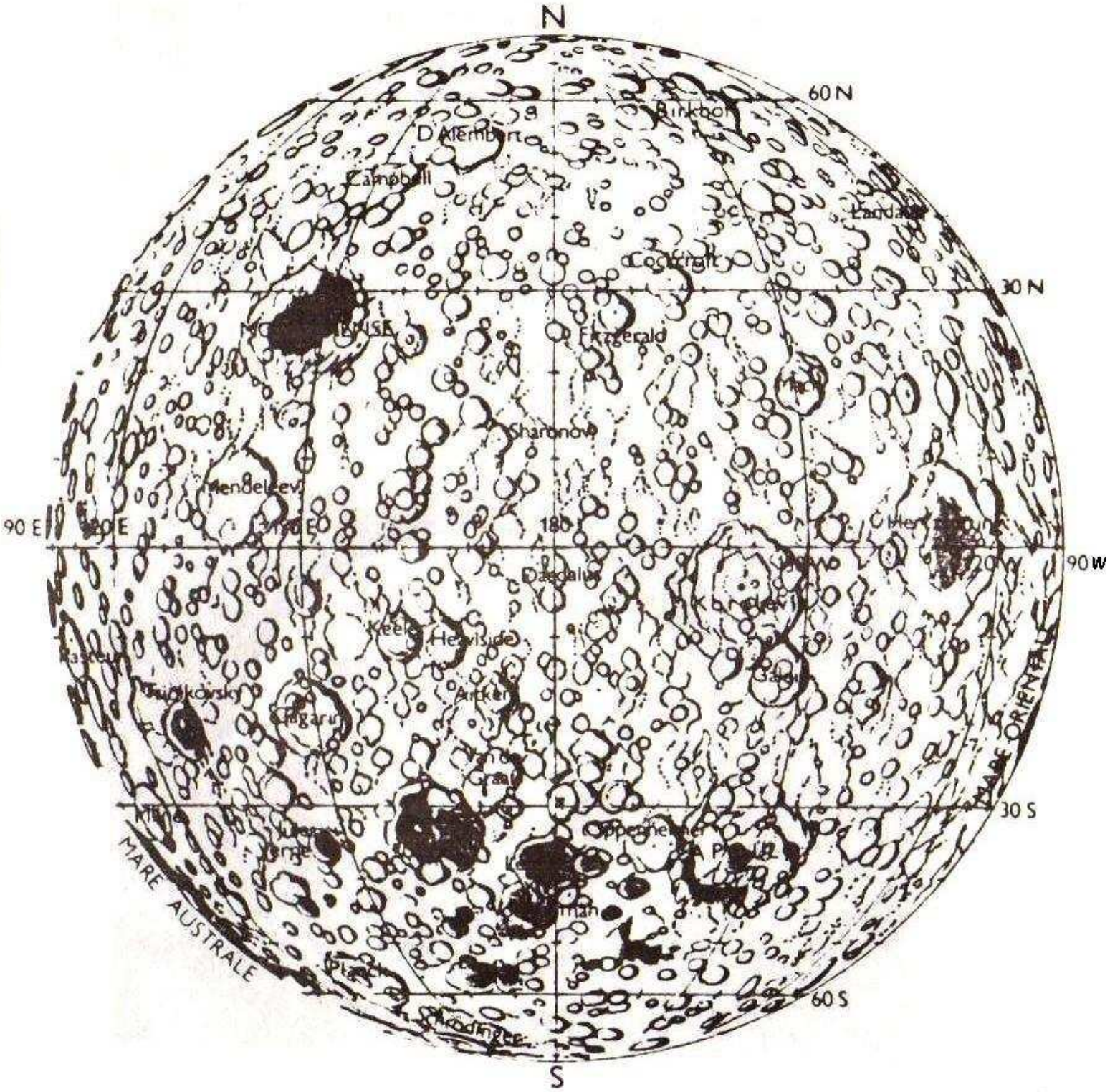
The seas do not contain water, but are solidified lava covers that fill the vast basins created by the impact and explosion of large meteoritic bodies. The surface of the seas is comparatively smooth and a small telescope reveals few details. However, with the aid of a telescope the lighter areas are revealed as craters, mountain ranges, hills, and the like Full Moon is the best time to see the bright rays extending outwards from the craters Tycho, Copernicus, Kepler, Aristarchus, etc. But other lunar features are hard to distinguish at this time, when the angle of incidence of the Sun's rays is large; visibility is far better in the oblique illumination near the terminator (the line dividing the illuminated and dark parts of the disc) at times other than at Full Moon.



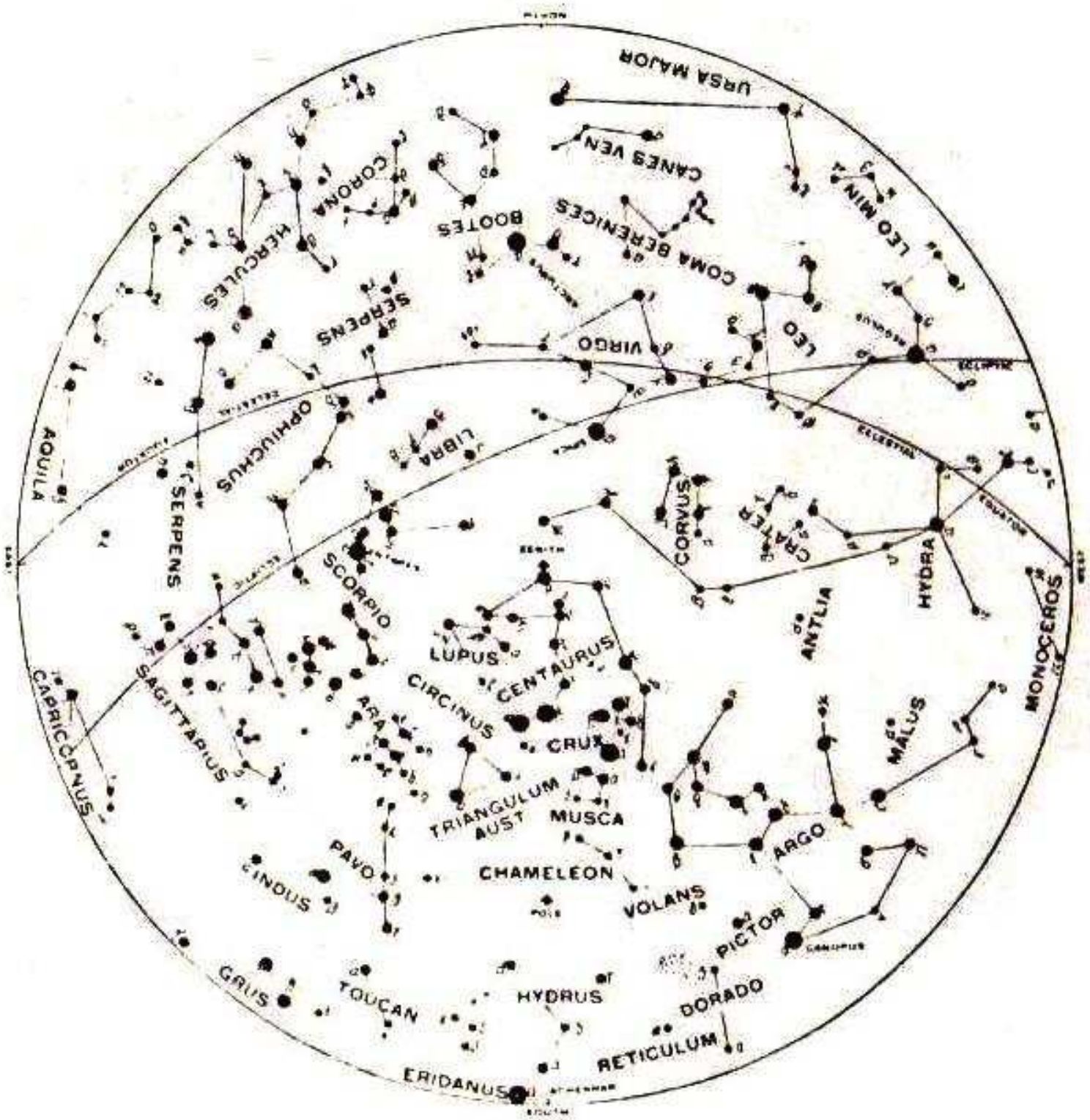
The Moon

New Moon	July 28	August 27
First Quarter	July 6	August 4
Full Moon	July 13	August 12
Last Quarter	July 21	August 20

FAR SIDE OF THE MOON



Star Groups for June and July



MAP 4

JUNE AND JULY

June	1	9·22 p.m.	July	1	7·24 p.m.
	11	8·43		11	6·44
	21	8·03		21	6·05
	30	7·28		31	5·26