

ASTRONOMICAL SOCIETY OF FRANKSTON, INC.P.O. BOX 596, FRANKSTON 3199NEWSLETTER JUNE, 1986MEETING, WEDNESDAY, JULY 9th

The July meeting will be held in Room F.6 of the Upper School, Peninsula School, Mt. Eliza, starting at 8 p.m. This meeting will feature two speakers - Bruce Tregaskis who will talk on the Earth's renewable energy sources in the form of sunlight, wind and tidal power, etc., and Brian Cabena, whose talk is entitled "In the beginning?"

MEETING, WEDNESDAY, AUGUST 13th

A symposium and review of the recent apparition of Comet Halley is to be held at the August Meeting.

OBSERVING NIGHT, SATURDAY, JUNE 28th

The June Observing Night is scheduled for the evening of Saturday, June 28th, or, if clouded out, for Sunday, June 29th, commencing at 7 p.m. at Peninsula School Observatory. This should be a good evening for planetary observing, in particular for observation of the Red Planet Mars which reaches opposition, or closest approach, on July 10th at almost its closest possible position to Earth, and high in the sky in Sagittarius. Saturn will also be a good object for observation on this night, to the west of Mars in Libra, whilst Jupiter, rising before midnight, is in Aquarius to the East.

- 2 -

SOCIETY NEWS

The Society's May meeting took the form of a visit to the Melbourne Observatory complex situated next to Government House and adjacent to the Shrine of Remembrance. Bruce Tregaskis acted as guide and demonstrator for the party of members, some of whom had visited the Observatory on a number of previous occasions and others for whom the visit was a first time.

Bruce outlined the history of the Observatory which was established in the last century and has housed a range of telescopes, the largest of which was the so-called "Great Melbourne Telescope" of 48 inch aperture, which was located in a run off roof building, now used by the Department of Weights and Measures. This telescope originally possessed a mirror of 'speculum' metal, a metallic compound used for astronomical mirrors before the present day technique of depositing a film of silver, or more recently aluminium, on glass was developed. This telescope is no longer at Melbourne, but is now at Mt. Stromlo Observatory in a rebuilt form, using a conventional aluminium on glass mirror.

Our party also visited the 8 inch refractor telescope housed in a standard observatory dome. This telescope is the property of the Museum of Applied Science and provides fine views of astronomical objects. The other telescope currently in use at the Observatory is a 12½ inch Newtonian housed in the main Observatory Dome and members were shown the instrument and its method of operation, although cloud, and some rain, prevented actual observations of any kind.

- 3 -

Another building visited was the old 3 inch Zeiss refractor observatory, now used mainly for storage, and, seen from the outside, was the old Transit House where accurate measurements of star positions were formerly undertaken.

Professional operation of the Observatory ceased many years ago now as a result of the ever increasing light pollution of the Melbourne night sky; however, Astronomical Society of Victoria continues to use the Observatory for demonstrations with the 12½ inch and 8 inch telescopes, and the State Government has plans for developing an Astronomical Museum in the complex.

As a result of the cloudy conditions preventing use of the telescopes on the sky, the party retired to the annexe to the 8 inch dome, where Bruce Tregaskis showed NASA views of the Voyager encounter with Saturn and the Viking lander on Mars, which arrived on the surface of Mars in 1976 and transmitted detailed surface views of the area surrounding its landing site.

ANNUAL SUBSCRIPTIONS

Members are again reminded that subscriptions for 1986 became payable on January 1st and are as follows:-

Adult Members	- \$12.00
Member and Associate	- \$20.00
Pensioner Member	- \$ 8.00
Junior Associate	- \$ 8.00

If you wish to remain a member of ASF please pay your subscription to the Treasurer, Peter Brown, at the next meeting, or by mail to 7 Kiandra Court, Frankston, 3199.

SKY NOTES

Comet Halley remains visible as a telescopic object in the constellation of Hydra, and can be seen in the western evening sky at around 9th to 10th magnitude during June and July.

Constellations. The most conspicuous feature of the evening sky during the months of June and July is the bright central region of our Milky Way galaxy, seen in the direction of the constellations of Scorpius and Sagittarius, now high in the zenith. The Milky Way shows great diversity here on a clear dark night, with bright areas alternating with dark rifts caused by clouds of interstellar dust, which actually blocks out most of the light of the great star concentrations at the centre of the Galaxy, situated some 30,000 light years distant, and the position of the true centre of our system has been determined by radio telescopes, not optical telescopes. This centre is located between the 'tail' of Scorpius and the 'Teapot' of Sagittarius.

To the eastwards of Sagittarius, and along the Milky Way, can be seen the constellation of Aquila, the Eagle, with its bright leading star Altair, and below this, near the northern horizon, is the bright bluish light of the star Vega, in Lyra the Harp. Vega is of special interest, as it has recently been discovered to have a ring, or belt, of dust in orbit around it, possibly a system of planets in the early stages of formation.

In the southern sky the two Magellanic Clouds are now close to the horizon with Achernar, in Eridanus, below, while Crux, the Crane and Piscis Australia, the Southern Fish, rise in the East.

Planets. The winter of 1986 promises to be a good period for planetary observing. Mars is at

- 5 -

a very close opposition in July with an apparent angular diameter of 23 seconds of arc, and already polar caps and surface features may be seen on a clear night with a steady atmosphere and higher telescopic powers.

Saturn is at opposition on May 28th and has its ring system widely open for viewing. A range of satellites, in addition to bright Titan, can be seen in the telescope. Jupiter is rising in the later evening sky and, as always, provides a fascinating spectacle through the telescope with ever changing satellite phenomena and phenomena of its cloud belts to be seen.

Uranus, in Ophiuchus and Neptune in Sagittarius may be seen in the telescope as small steady discs and their location provides an interesting challenge to the observer with binoculars or telescope, and the charts in the ASV Yearbook.

Venus is now a dazzling object in the early evening sky and during June and July Mercury may be glimpsed in the evening twilight, both planets showing phases when seen in the telescope.

THE MOON

New Moon	June 8	July 7
First Quarter	June 15	July 15
Full Moon	June 22	July 21
Last Quarter	June 29	July 29

NEWS NOTES

The Galactic Centre - A Black Hole confirmed?

Over recent years, there has been much speculation about the possibility of "Black Holes" existing at the centre of galaxies, including our own Milky Way galaxy.

- 6 -

Recent research at the University of California at Berkeley, seems to strongly support the idea of a Black Hole at the centre of our own galaxy. Studies there have shown that orbital motion of gaseous material around the point Radio Source Sagittarius A* indicates the presence there of an enormous amount of matter some 4 million times that of the Sun in a volume about the size of Saturn's orbit. Further studies of X-ray radiation from Sagittarius A* are expected to yield further confirmation of this finding.

from 'Sky & Telescope', March 1986.

President	-	(059) 75-3040
Vice-President	-	787-2444
Treasurer	-	787-5679
Secretary	-	(059) 85-4927

