

ASTRONOMICAL SOCIETY OF FRANKSTON, INC.NEWSLETTER OCTOBER 1985Meeting, Wednesday November 27th

The speaker at the Society's November meeting will be Ken Harrison of the Astrophotographic Section of Astronomical Society of Victoria, who will be discussing astrophotographic techniques with special reference to Comet Halley at its forthcoming return.

The November meeting is also scheduled to be the Society's Annual General Meeting for 1985 and an election of Office Bearers for the forthcoming year will be held.

Members are requested to complete the nomination forms for Office Bearers which will be distributed to them prior to this meeting and return them not less than 7 days prior to the November meeting, and preferably at the October meeting in order to comply with legal requirements.

Observing Night for November

An Observing Night will be held on Saturday, November 16th at the Observatory site, Peninsula School, Mt. Eliza, commencing at 8.30 p.m. In the event that Saturday night is clouded out, then Sunday, November 17th will be substituted as the Observing Night.

The Moon will be three days old on November 16th and Jupiter and Mercury will be well placed for observation, together with a variety of deep sky objects. Please bring portable instruments for this viewing night.

End of year B.B.Q. and Observing Night, December 7th

A BBQ and Observing Night at a site in the Dandenongs is being planned for Saturday, December 7th. Weather permitting, there should be the opportunity for a social occasion and deep sky observing from a new and attractive location.

To enable planning for this BBQ to proceed members are asked to complete and return the cut-out form in this Newsletter to indicate whether they expect to be attending on December 7th.

Society News

The talk at the Society's September meeting was given by Bruce Tregaskis and was on the subject of the visual and photographic observation of comets. Bruce showed numerous slides taken by himself and others of a variety of bright comets observed over a large number of years, and made the point that of the many comets which are discovered and observed only a very small proportion become naked eye objects such as is anticipated for the return of Comet Halley in 1985/86.

Bruce further discussed the orbit of Comet Halley and observing prospects for this return with reference to observing "windows" occurring when the comet is well placed in the sky and the Moon is out of the field, and explained methods of estimating comet brightness magnitudes.

With reference to observations of Comet Halley, Bruce recommended that as far as possible observers practise on other comets prior to the arrival of Halley to sharpen their observing techniques. A reprint of an article "How to find Halley's Comet" from Astronomy magazine, August 1985 and a planet graph including Halley's Comet were distributed to members.

Steve Malone is recently returned from a trip to various regions of outback Australia in the Northern Territory and Western Australia and during the course of the trip became involved in enquiries relating to Aboriginal myths and legends about the night sky. As a result he is currently planning a research project on Aboriginal Astronomy with the eventual aim of producing a publication on the subject to coincide with the Bicentennial of white settlement in Australia in 1988.

Whilst on the same trip in Western Australia Steve was able to enjoy the spectacle of a view of the Zodiacal Light from a site with clear dark skies. The Zodiacal Light is a band of light in the plane of the Zodiac, or path of the Sun and planets, and results from the scattering of sunlight by dusty material in the plane of the Solar System. It has the appearance of a band of light extending upward from the horizon after sunset or before sunrise and requires an especially clear atmosphere to perceive.

Members who may be travelling to outback areas, perhaps to view Halley's Comet, may like to attempt similar observations of this phenomenon rarely seen near habitated areas.

A successful Observing Night was held on Sunday, October 6th at Peninsula School, Mt. Eliza in clear skies, washed clean by the previous day's rain. Views of a variety of deep sky objects and planets were enjoyed by a number of members and visitors, including a visiting Astronomy lecturer from Montana, U.S.A. who was seeing Souther skies through a telescope for the very first time.

Sky Notes

A further chart prepared by Bob Heale, using his microcomputer, is included in this Newsletter to indicate the path of Comet Halley in October. Members with larger aperture telescopes should now be able to pick up the faint image of Comet Halley without too much difficulty in the early morning sky.

Constellations

The evening sky in November sees the bright Milky Way constellations of Scorpius and Satittarius, high in the sky during winter, sinking to the western horizon, whilst at the same time the summer constellations of Orion and Carina, also in the Milky Way, are rising in the East.

At this time of the year the plane of our Milky Way galaxy coincides with our local horizon and the sky is dominated by the relatively faint constellations away from the plane of the Milky Way.

Near the zenith there is a grouping of constellation figures bearing the names of birds - a sort of Celestial Aviary - with Toucana, the Toucan; Grus, the Crane; Pavo the Peacock; Apu, the Bird of Paradise; and Phoenix, the mythical bird rising from the flames.

Further to the north are the aquatic constellations of Cetus, the Whale; Aquarius, the Water Bearer; and Piscis Australis, the Southern Fish, with the zodiacal constellation of Pisces, the Fishes to the north of Aquarius. Other notable constellation figures are the 'Great Square' pf Pegasus now due north and the

- 4 -

long chain of stars forming the constellation of Eridanus, the Celestial River stretching from the borders of Orion to the bright star Achernar near the zenith.

Planets

Jupiter remains a bright object in the evening sky during November and continues to provide a changing spectacle of satellite and cloud belt phenomena. This year a number of mutual eclipses and occultations occur between Jupiter's Gallilean satellites, i.e. a satellite will eclipse, or occult, another satellite in addition to the usual eclipses and occultations of satellites caused by the body of Jupiter itself. A list of these mutual eclipses and occultations can be found in the 1985 BAA Handbook and provide an interesting series of observations through a telescope.

Saturn, in the constellation Libra, is too close to the Sun for observation in November and will emerge in the morning twilight in early December.

Fast moving Mercury, closest planet to the Sun, can be seen in the evening sky soon after sunset during November, reaching zero magnitude on November 6th. This is the best opportunity in 1985 to view Mercury from our latitudes.

Total Eclipse of the Moon, Tuesday October 29th

An eclipse of the Moon in the early morning hours of October 29th will be total between 0.3h.19m and 04.05m. This event occurs whilst the Moon is close to its furthest distance from Earth and this should produce a relatively light eclipse, compared to an eclipse at perigee, the closest point in the Moon's orbit to Earth.

The Moon

New Moon	Nov 13	Dec 12
First Quarter	Nov 19	Dec 19
Full Moon	Oct 29	Nov 27
Last Quarter	Nov 6	Dec 5

- 5 -

New NotesThe Age/Washington Post, October 5th -

"University of Chicago scientists investigating the theory that an asteroid smashing into the Earth, 65 million years ago produced climatic changes leading to the demise of the dinosaurs, have found that the sediment layer relating to this period contains 10,000 times as much carbon, in the form of soot, as would represent a normal level. It is proposed that this results from enormous forest fires caused by the asteroid impact depositing soot into the upper atmosphere and greatly lengthening the cooling effect previously calculated to be produced by the deposition of impact debris into the atmosphere, and thereby lowering temperatures at the Earth's surface to a degree where mass extinctions of species resulted."

This finding seems to strongly support the theory of a major asteroid impact occurring at this time 65 million years ago and provides an additional perspective to the talk given by Peter Norman at the July meeting on cometary collisions with Earth and the periodic extinctions of life forms on Earth.

The Secretary: Astronomical Society of Frankston.

I will/will not be attending the BBQ on December 7th.

NAME:

ADDRESS:

.....

(Please delete where not applicable)

