

ASTRONOMICAL SOCIETY OF FRANKSTON INC.P.O. BOX 596, FRANKSTON 3199NEWSLETTER AUGUST 1987MEETING WEDNESDAY AUGUST 12th

Our Society meeting for August will be held in Room F.6 of the Upper School, Peninsula School, Mt. Eliza, commencing at 8 p.m. The talk will be on the observation, and timing, of occultations by the Moon and asteroids. It will be given by either, or both, Alfred Kruijshoop and Peter Nelson from the Astronomical Society of Victoria.

OBSERVING NIGHT SATURDAY AUGUST 22nd

The Observing Night for August will be on Saturday August 22nd at the Observatory, Peninsula School. This will be close to the time of New Moon and Saturn will again be a conspicuous object high in the sky on the Scorpius/Ophiuchus border, with the two giant outer planets Uranus and Neptune in the same region of sky for telescopic location. In the later evening Jupiter may be seen low in the East and the Milky Way star clouds of Sagittarius will be high overhead.

If the weather on Saturday is unsuitable then Sunday, August 23rd will become the Observing Night.

SOCIETY NEWS

At the Society's July meeting Ken McHarrison of Astronomical Society of Victoria's Astrophotography Section presented a talk on some of the more advanced aspects and techniques of Astrophotography for Amateurs. These included

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a discussion on gas "hypering" of Fujichrome 100 film and was presented with a description of film emulsion types and sensitivity of various films to different regions of the spectrum.

Ken's talk was illustration with an impressive display of slides of many deep sky objects taken by ASV's Astrophotography Section members who used sites near Murchison in Northern Victoria to provide sky clarity.

Ken has plans to prepare a book of slides of astronomical objects and we look forward to its completion and availability.

Bruce Tregaskis has now returned from his visit to Hawaii and we hope to hear his reports on astronomical facilities in this exotic location.

Radio 3RPP Mornington continues to record and broadcast items of astronomical interest prepared by our members and in this we are fortunate in having the interested assistance of broadcaster Audrey Smith who not only has a personal interest in astronomy but has also been a past member of our Society. Broadcasts of these items are made at 10 a.m. on Tuesdays at 94.3MHz on the FM band.

SKY NOTES

Supernova in Large Magellanic Cloud. The Supernova is now declining from its earlier brightness and as the Large Magellanic has moved closer to the horizon in the early evening sky the Supernova has become more difficult to observe, a situation which has not been helped by many nights of cloud and rain. However, with suitable observing conditions and the aid of a pair of binoculars it should be possible to observe this bizarre object for some time yet.

Constellations. The cold nights of August are often cloudy; however, once the clouds clear on a moonless night some of the stellar treasures of the night sky come into view. The Milky Way, extending across the zenith, or point overhead, contains an abundance of star clusters and clouds of glowing nebulosity interspered with areas of dark nebulosity. Through a moderate size telescope some of these regions, especially that around the so-called Keyhole Nebula, or Eta Carina nebula and extending to the Southern Cross with its dark "Coal Sack" nebulosity, are a marvellous sight. The clusters and nebulosity here are some thousands of light years distant with many of the foreground stars at distances of hundreds of light years distance. However, the nearest star system of all, Alpha Centauri, also known as Rigel Kent, the brightest of the "Pointers", is also in this same direction at 4 light years, whilst the almost equally bright nearby star Beta Centauri is at 300 light years distance.

As the month advances these Milky Way constellations start to sink in the West while other less conspicuous star groupings rise over the Eastern horizon. Here we see the zodiacal constellations of Capricornus, the Sea Goat, and Aquarius the Water Bearer extending towards Pisces the Fishes.

Below these, and close to the North East horizon is one of the best known and most easily recognised constellation groupings, the "Great Square of Pegasus". This large group of four stars of about equal brightness actually consists of three stars from Pegasus and one from the neighbouring constellation of Andromeda; nevertheless the name "Great Square of Pegasus" is an

established name for this group.

Along the line of the Milky Way and close to the Northern horizon is the constellation of Cygnus, the Swan, a constellation containing some of the very best Milky Way star fields, and unfortunately very low in the sky for our latitude, making perhaps the exception to the rule that the best astronomical sights are to be seen from the Southern Hemisphere. Cygnus consists of a group of stars like a large Christian Cross inverted in the sky, hence its alternative title the "Northern Cross". Cygnus' brightest star, Deneb, is at the lower placed head of the Cross, and the line of the Cross extends upwards to Albireo, a double star, or star which to the naked eye is a single point of light, but in the telescope is seen as a pair of stars - in this case a colour contrast of orange and blue, one of the most attractive doubles in the sky.

Planets. Saturn, of all the planets, remains much the easiest object for observation during August, placed on the Scorpius/Ophiucus border high in the sky. The ring system, unique as a telescopic object, is readily seen in the smallest telescope, and also in the telescope a number of satellites of Saturn may also be seen. As they change their positions relative to the planet they may be identified by means of the tables to be found in the ASV Yearbook 1987. Similarly, charts in the Yearbook enable the identification amongst the stars of Uranus and Neptune, both of which are accessible to binocular viewing.

Rising in the late evening sky by the end of August may be seen the brilliant planet Jupiter, better placed after midnight and before dawn. Telescopic views of Jupiter are always fascinating with the four bright satellites, known as Galilean

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satellites after their discoverer Galileo, and the ever changing pattern of cloud belts on the planet itself.

Two meteor showers which may be visible this month are the South Iota Aquarids up to August 19 and the Pi Eridanids between August 10 and September 7, these being described as "fast" and leaving trains in the sky.

THE MOON

New Moon	Aug 24	Sep 23
First Quarter	Aug 3	Sep 1
Full Moon	Aug 9	Sep 8
Last Quarter	Aug 16	Sep 15

TEKTITES - DO THEY COME FROM THE MOON?

Numerous theories exist as to the origin of tektites - glassy stones found in a variety of locations on Earth's surface. Many of these theories involve an origin outside the Earth, including theories involving ejection from volcanoes on the Moon.

Now recent researches on tektites found in Thailand, as reported in 'Sky and Telescope' for May 1987 indicate these tektites have a volcanic source but not from a volcano on Earth, the implication being that these tektites originate from a lunar volcano.

Intriguingly this would also imply, because of the established age of the tektites, that the Moon was a volcanically active body within the last 1 million years or so, a tiny fraction of its 4,000 million year history. This again suggests that volcanic activity may still persist on the Moon, providing an explanation for numerous reports

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of points of light on the Moon, the so-called
"Transient Lunar Phenomena".

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FILM NIGHT-- MONDAY SEPTEMBER 14th --MORNINGTON CINEMA

"THE AUSTRALIAN LIGHT HORSEMEN" - OPENING WEEK

We have tentatively reserved a large number of seats
for this first week of the release of this movie.

We have obtained discount prices of purchase and
will make a profit simply by selling tickets at
the normal undiscounted rate of:

ADULT: \$7.00; STUDENT: \$5.00;

CONCESSION/CHILD : \$3.50

Bookings may be made for you and your friends either
at the next 2 meetings or by phoning Peter Norman
on 059-753040.

