

May Skynotes

MONTH HIGHLIGHTS

Saturn is still the only evening planet to be seen, in the north-eastern sky at sunset. **Jupiter**, **Venus** and **Mars** are in the early morning sky.

SUNRISE & SUNSET TIMES

	Rise	Set
Friday 1st	7:01	5:34
Monday 11th	7:10	5:23
Thursday 21st	7:19	5:15
Sunday 31st	7:26	5:10

MOON PHASES

First Quarter	Saturday 2nd
Full Moon	Saturday 9th
Last Quarter	Sunday 21st
New Moon	Sunday 24th
First Quarter	Sunday 31st

The Moon will be at *apogee* (furthest from Earth) on Thursday 14th, at a distance of 404 914km.

The Moon will be at *perigee* (closest to Earth) on Tuesday 26th, at a distance of 361 154km.

LET THE MOON BE YOUR GUIDE

The Moon can be used as a pointer to find other objects in the sky:

- On the night of the 3rd the waxing gibbous Moon is close to **Regulus** (*Leo*).
- On the following evening of the 4th the Moon lies near the planet **Saturn**.
- During the night of the 10th the Moon is very close to the red giant star **Antares** (*Scorpius*).
- The near-Full Moon sits near the star **Spica** (*Virgo*) on the night of the 13th.

- After midnight on the 16th and during the morning of the 17th the last quarter Moon sits alongside **Jupiter**.
- Before sunrise on the 21st, the last glimpses of the waning crescent Moon can be seen near **Venus**.
- After sunset on the 26th the first glimpses of the thin crescent Moon can be seen above the star **Elnath** (*Taurus*).
- After sunset on the 27th the new crescent Moon sits to the west of the twin stars **Castor** and **Pollux** (*Gemini*), forming a triangle with them, and the following evening of the 28th the Moon lies above them, forming a line.
- On the 30th the Moon again draws near **Regulus** (*Leo*).
- During the evening of the 31st the First Quarter Moon sits beside **Saturn**.

PLANETS

Mercury is again too close to the Sun in the sky to be seen this month.

Venus appears in the eastern sky just before dawn. It starts the month brilliantly, reaching its greatest brightness on the morning of the 2nd, making a strong contrast with the nearby planet **Mars**. During the month the planet starts to fade, although only slightly, but rises earlier and is higher in the sky at sunrise. On the morning of the 21st the crescent **Moon** sits alongside Venus.

Mars remains close to **Venus** throughout the month, but the 'morning star' outshines it. Sitting near Venus and Mars on the 21st is the crescent **Moon**.

Jupiter rises in the east after midnight and can be seen throughout the early hours of the morning. Well below Jupiter, sitting much closer to the eastern horizon are **Mars** and **Venus**. On the morning of the 17th the last quarter Moon is beside **Jupiter**.

Saturn continues to shine brightly throughout the night until it sets around midnight. It can be seen in the north-east at sunset. On the nights of the 4th and again on the 31st the **Moon** sits near Saturn.

METEORS

The *Eta Aquarids*, linked to **Comet Halley**, are well placed this year, with the waxing Moon setting before the shower's peak occurs on the morning of the 6th. Typical rates for the shower are normally high with the Southern Hemisphere reaching 30 meteors per hour. This year may be a good year for this shower with peak rates of over 70 meteors per hour. *Eta Aquarids* are often very fast, usually yellow in colour and with persistent trains. The meteors appear to come from the constellation Aquarius, which can be found in the north-east before sunrise.

There are also some minor meteor showers centred on the constellations of *Scorpius* and *Sagittarius* that can be seen until July. Meteors are best looked for between midnight and dawn.

STARS & CONSTELLATIONS

The constellation of *Scorpius* can be seen rising in the south-east. The scorpion's heart is marked by the red star **Antares**. This is a very rich area of the Milky Way and the scorpion's tail contains many beautiful star clusters that can be seen using binoculars.

The brightest star in the night sky, **Sirius**, is low to the western horizon. Lying above and to the south of Sirius is **Canopus**, the second brightest star in the night sky. Canopus belongs to the constellation *Carina (the keel)*. Low in the north-west the twin stars of *Gemini*, **Castor** and **Pollux**, have almost disappeared from our evening sky by the end of May.

Prominent in the northern sky is the constellation of *Leo, the lion*. We view Leo upside down compared to how it is seen in the Northern Hemisphere. To find Leo, look for an upside down question mark or sickle shape. The brightest star in this constellation is **Regulus**, meaning 'little king'.

INTERNATIONAL SPACE STATION

From Earth, the ISS appears as a bright star that steadily moves across the sky. It can often be seen from Melbourne, for example at:

6:55pm – 7:00pm, Sunday 3rd May.

The Station will first appear above the north-west horizon and will travel overhead, pass the bright star **Sirius**, and

travel towards **Saturn**, disappearing shortly before it reaches the position of the planet.

Predictions of when to see the ISS can be obtained from the website: www.heavens-above.com (<http://www.heavens-above.com>)

ON THIS DAY

1st 1958, the discovery of the powerful **Van Allen radiation belts** (concentrations of electrically charged particles) that surround Earth is announced.

4th 1989, the first planetary mission launched from a Space Shuttle, *Magellan* is sent to study **Venus**.

5th 1961, *Mercury 3* launched the first American, Alan B. Shepard Jr, into space.

7th 1992, the Space Shuttle *Endeavour* blasts off on its maiden voyage. It was the 7th shuttle mission.

8th 1963, the first transatlantic colour TV pictures were sent via *Telestار 2* (USA).

9th 1962, a laser beam was bounced off the **Moon** from Earth by MIT scientists.

11th 1916, Albert Einstein's 'General Theory of Relativity' was first presented.

14th 1973, *Skylab 1*, USA's first space station was launched.

18th 1991, Helen Sharman, the first Briton in space, blasts off onboard a *Soyuz* spacecraft.

18th 1969, *Apollo 10* was launched. It was a full dress rehearsal for the Apollo 11 mission without actually landing on the **Moon**.

19th 1919, Total solar eclipse studied by British astronomer Eddington in order to test Albert Einstein's General Theory of Relativity.

20th 1990, The *Hubble Space Telescope* sent its first photograph from space, an image of a double star 1,260 light years away.

25th 1961, President John F. Kennedy launches the USA's race to the **Moon**.

28th 1959, Rhesus monkey Abel and squirrel monkey Baker were launched for a brief suborbital space flight in the nose cone of *Jupiter Missile AM-18*.