

# Crewkerne & District Astronomical Society

## Sky Notes : April 2013

All timings are Universal Time. (G.M.T.) (B.S.T. - 1 hour)

### Moon's Phases

Last Quarter	April	03d. 04h. 37m.
New	"	10d. 09h. 35m.
First Quarter	"	18d. 12h. 31m.
Full	"	25d. 19h. 57m.

Moon at apogee (furthest from Earth)	April	15d. 22h.	Diam. 29' 31"
Moon at perigee (nearest to Earth)	"	27d. 20h.	" 32' 59"

### Partial Lunar Eclipse

On Thursday April 25<sup>th</sup>. First contact occurs at 18.03. Greatest eclipse is at 20.07, when 98 % of the Moon's surface is in the Earth's Penumbra (outer) shadow but only 1.5 % is obscured by the Earth's Umbral (inner) shadow. A tiny eclipse!

The eclipse ends at 22.13. From our area, the Moon rises at 19.20, so the maximum should be visible fairly low above the North Eastern horizon - about 25° up. You might just see some shading of the Moon's far northern region.

### The Planets

**Mercury** : A morning object all month, but close to the Sun, and getting closer as it heads for superior conjunction on May 11<sup>th</sup>. At the start of the month it rises at 05.00, around ¼ hour before dawn, and at the end at 04.20, some 10 minutes before the Sun! During the month it travels 40° N.E. Starting in Aquarius, it enters Pisces around the 8<sup>th</sup>. and ends the month 5° W. of Aries. Mid month it will be mag. -0.1, 6.1" diam., elongation 24° W. and rising at 04.30, 20 minutes before the Sun.

**Venus** : Following superior conjunction at the end of March it is a very early evening object, best seen towards the end of the month, when it sets at 20.00, 40 minutes after sunset. During the month it moves some 38° N.E., starting in Pisces near Cetus, it enters Aries around the 13<sup>th</sup>. of April. Mid month it will be mag. -3.8, 9.7" diam., elongation 4° E. and setting at 19.20, 20 minutes after sunset.

**Mars** : With conjunction on April 16<sup>th</sup>. it is practically unobservable all month. It starts by setting at 18.45, 15 minutes after sunset, when it will be mag. +1.2, 3.9" diam. and elong. 4° E. At the end it rises at dawn, 04.30. During the month it travels 23° N.E., starting in Pisces near the border with Cetus, and entering Aries around the 18<sup>th</sup>.

**Jupiter** : Still a great evening object, but getting earlier, heading for conjunction in June. Continuing to move E. in Taurus, it travels 6° during the month, starting 6° N.E. of 1<sup>st</sup>. mag. star Aldebaran, Alpha Tauri. Mid month it will be mag. -2.0, 34.6" diam., elong. 50° E. and setting at 23.20. On the 14<sup>th</sup>. at 18.00 it will lie 2° N. of the crescent Moon.

**Saturn** : With opposition coming up on April 28<sup>th</sup>. it will be the best placed of all the planets. It will then be mag. +0.1, its brightest this year, disc 18.9" diam., rings 42.8", (inclined at 18.2°), elong. 180°, and above the horizon all the hours of darkness. At the start of the month it rises at 21.00, 2½ hours after sunset, and mid month at 20.00. Remaining in western Libra, it travels 2° N.W. during the month, to end it on the border with Virgo.

Titan, mag. 8.5 & elong. 190". Greatest E. elong. on April 1<sup>st</sup>. & 17<sup>th</sup>. Greatest W. elong. on April 9<sup>th</sup>. & 25<sup>th</sup>.

**Uranus** : Following conjunction at the end of March, it will be a very difficult morning object to observe. Even by the end of the month it won't rise until 03.45, ¾ hour before dawn. It will then be mag. 5.9, 3.4" diam. and elong. 30° W. Remaining in southern Pisces near the border with Cetus, it moves 1.7° N.E. during the month. At the end it will lie 4½° S.W. of the 3<sup>rd</sup>. mag. star Delta (63) Piscium.

**Neptune** : Slightly better placed than last month, but still a late morning object. At the start of the month rising at 04.40, an hour before dawn and by the end at 02.45, 1¼ hours before the Sun. Remaining in W. Aquarius, it travels ¾° N.E. during the month. At the end it will lie ¾° N.W. of the 5<sup>th</sup>. mag. star Sigma (57) Aquarii. Mid month it will be mag. 7.9, 2.2" diam., elong. 50° W. and rising at 03.40, 1¼ hours before dawn.

### Meteors

**Virginids** : April 6 - 17. Maximum April 11/12. Radiant at R.A. 13h. 36m., Dec. -11°, 3° E. of 1<sup>st</sup>. mag. Spica, Alpha (67) Virginis. Culmination at 01.00, altitude 29°. Zenith Hourly Rate 5.5. Moon favourable, 2 days after New, setting at 20.30.

**Lyrids** : April 18 - 24. Maximum on 22<sup>nd</sup>. 11h. Radiant at R.A. 18h. 08m., Dec. +32°, 9° S. of 1<sup>st</sup>. mag. Vega, Alpha (30) Lyr. Culmination at 02.00, altitude 71°. Z.H.R. 10. Moon unfavourable, 3 days before Full, setting at 03.00 on the 23<sup>rd</sup>.

### Comet 2011 L4 PanStarrs

See also separate note and chart. It becomes circumpolar early in April. At the start it will be relatively low in the West after sunset but as it moves North its position improves. On April 4<sup>th</sup>. it will pass 2° W. of M31. Around the 19<sup>th</sup>./20<sup>th</sup>. it will pass through the W of Cassiopeia. At the end of May it will pass 6° away from Polaris. It is expected to dim to mag. 5 by the end of April and at least to mag. 8 by the end of May.

### Variable Stars

**Algol (Beta Persei)** : Normally at mag. 2.1, every 69 hours it is partially eclipsed by a fainter orbiting companion star and drops to mag. 3.4. From maximum through minimum to maximum again takes 9.6 hours. Times of minima currently observable from the U.K. :- April 2 22.2h., April 20 03.1h., April 22 23.9h