Crewkerne & District Astronomical Society

Sky Notes June 2016

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

Solar Solstice June 20 The longest day. The Sun will be up for 16 ¾ hours.

Moon's Phases

New	June	05d. 03h. 00m.
First Quarter	"	12d. 08h. 10m.
Full	"	20d. 11h. 02m.
Last Quarter	"	27d. 18h 14m

Moon at perigee (nearest to Earth) June 03d. 11h. Diam. 33' 05"
Moon at apogee (furthest from Earth) " 15d. 12h. " 30' 30".

. **The Planets**

Mercury : A late morning object all the month. On the 1st. it rises at 03.20, ½ hour before dawn, and by the 30th. at 03.10, 35 mins before the Sun. It reaches its greatest western elongation , 24°, on the 5th. It starts the month in eastern Aries near the border with Taur Moving E.N.E. it enters Taurus around the 8th. and crosses it to end the month on the border with Gemini. A total travel of 45°. It pas 3° N. of 1st. mag star Aldebaran, Alpha Tauri, on the 19th.
Mid month Mercury will be mag. -0.2, 6.6" diam., elong. 21° E. and rising at 02.50, 50 mins. before dawn.

Venus : Venus is at superior solar conjunction on the 6th., and will be close to the Sun for the next 3 months. It sets at sunset, 20.20, (the 13th.,and by the 30th. at 20.50, ½ hour after the Sun. It starts the month in Taurus some 5° N. W. of Aldebaran. Moving E. it crosse Taurus to enter Gemini on the 17th., and ends it some 10° S.W.of Pollux, Beta Gem. A total distance of 38°.
Mid month it will be -3.9 mag., 9.6" diam., elong. 2.5° E. and setting at 20.30, only 10 mintes after the Sun.

Mars : An evening / morning object, on the 1st. setting at 03.05, ¾ hour before dawn. On the 30th. at 00.50. At the beginning of th month it lies in eastern Libra, near the border with Scorpius. Moving W.N.W.. it travels 6° during the month, ending it at a stationary p on the 30th. and 6° S.E.of 2.5 mag. star Alpha Librae.
Mid month it will be mag. -1.7, 18" diam., elong. 151° E. and setting at 01.50.

Jupiter : An evening object, but getting earlier. At the start of the month setting at 01.00, and by the end at 23.05. Lying in S E. Leo between Sextans and Scorpius it travels 2½° S.E. during the month, ending it some 12° S.W. of 2nd. mag. star Denebola, Beta Leonis. (the 11th. at 20.00 it will lie 1.5° N. of the nearly F.Q. Moon.
Mid month it will be mag. -2.0, 36" diam., elong. 81° E. and setting at 00.10.

Saturn : With opposition on June 3rd., it will be visible most of the night. On the 1st. it rises before sunset and sets after dawn. By the it sets at 02.10, 1½ hours before dawn. Remaining in S.W. Ophiuchus, near the border with Scorpius, it moves 2° W. during the montl ending it 6° N.N.E of 1st. mag. star Antares, Alpha Scorpii. At midnight on the 18th./19th. Saturn will be 3° S. of the nearly Full Moon
Mid month it will be mag. 0.0, disc diam.18.4", rings 41.6", elong. 168° E. and setting at 03.15, 20 mins. before dawn.
Titan, mag. 8.1 & max. elong. 190". Greatest W. elong. on June 2 & 18, greatest E elong. on June 10 & 26.

Uranus : A morning object, getting earlier At the beginning of the month rising at 02.00, 1¾ hours before dawn. At the end it rises at 00.10. Continuing to lie in S.E. Pisces, near the Cetus border, it travels 1° N.E. during the month, ending it 2.7°' N. of the 4.8. mag. Mu (98) Piscium.
Mid month Uranus will be mag. 5.9, 3.5" diam., elong. 62° W. and rising at 01.10..

Neptune : On the 1st. it is an early morning object, rising at 01.00. From the 15th. it starts to rise before midnight, becoming nomina an evening / morning object. On the 30th. it rises at 23.00. Remaining in central Aquarius, from a stationary point near the start it mo a few arc minutes S.W. during the month. It ends it ½° S.E. of the 3.7 mag. star Lambda (73) Aqu.
Mid month Neptune will be mag. 7.9, 2.3" diam., elong. 103 ° W. and rising at midnight.

Meteors

Ophiuchids : May 19 to July. Two maxima and radiants. First on June 10th. Radiant at R.A. 17h.56m., Dec. -23°, in N.W. Sagittai Culmination at 00.45, altitude 15°. Zenith Hourly Rate 5. Moon not too favourable, near F.Q, setting at 23.00. Second on June 20th. radiant at 17h. 20m., Dec. -20° in N.E. Scorpius. Culmination at 23.20, altitude 18°. Z.H.R. 5 Moon very unfavourable, Full, risin 20.03.

Deep Sky Objects

M49 (NGC 4472) : A type E4 elliptical galaxy in Virgo, discovered by Charles Messier in 1771. A member of the Virgo cluster o galaxies, the second brightest. One of the largest ellipticals, with a mass of 1,500 billion Suns. It lies at a distance of 54 million L.Y., a diameter of 157,000 L.Y., an apparent size of 10.2' x 8.3' with an integrated magnitude of 8.4. It is a very strong radio and X-ray sour There are some 5,700 globular clusters surrounding it.
To find it, start from Denebola, mag. 2.2 Beta (94) Leonis, the 'tail' of the Lion. Go 7½° S.E. to 5.8 mag. 12 Virginis and carry on anot 4½° to M49, which lies between a pair of 6th. & 7th. mag. stars. It can be found with binoculars in dark skies. R.A. 12h. 28.9m., Dec.

M87 (NGC 4486) : A type E1 elliptical galaxy also in the Virgo cluster, and the largest, discovered by Messier in 1781. With a m of 2,000 billion Suns, it is one of the most massive known. It lies at a distance of 57 million L.Y., with a diameter of 132,000 L.Y.
Its apparent size is 8.3' x 6.6' and int. mag. 8.6. Observations, particularly with the Hubble Space Telescope, indicate that a black hol with a mass of 3 billion Suns lies in the galaxy's nucleus, within a zone 120 L.Y. across. These also revealed a jet of hot ionised gas (plasma) extending towards the elliptical galaxy M84, which might possibly be transferring matter to it. 1,600 globular clusters have b detected surrounding the galaxy. The brightest is mag. 23 ! M87 is also one of the most luminous radio sources.
To find it, start again from Denebola. 18° E.S.E. of it is Vindamiatrix, 3rd. mag. Epsilon (47) Vir. M87 lies between them, some 8° fro Epsilon and 10°from Denebola. It is also 3½° N. and slightly E. of M49. Again binocularly visible. R.A. 12h. 30.8m., Dec. +12° 24'.

Arthur Davis May 20