

# Crewkerne & District Astronomical Society

## Sky Notes August 2018

All timings are Universal Time. (G.M.T.) U.K. local time is now 1 hour more. (B.S.T.)

### Moon's Phases

Last Quarter	August	04d. 18h. 18m.			
New	"	11d. 09h. 58m.			
First Quarter	"	18d. 07h. 49m.			
Full	"	26d. 11h. 56m.			
Moon at perigee (nearest to Earth).	August	10d. 18h.	Diam. 33' 13".	Distance 358,100 km.	
Moon at apogee (furthest from Earth)	"	23d. 11h.	" 29' 33"	" 405,700 km.	

**Partial Solar Eclipse.** On August 11<sup>th</sup>. Visible from northern Asia and northern Europe.. From 01.48 U.T. to 04.13 U.T. Greatest eclipse at 03.01 U.T. when 0.34 of the Sun will be obscured.

### The Planets

**Mercury :** Is at inferior conjunction (lying directly between the Earth and the Sun) on the 9<sup>th</sup>. A late morning object following conjunction, it rises at dawn, 04.40, on the 12<sup>th</sup>. and by the 31<sup>st</sup> at 03.30. It starts the month in S.E. Leo on the border with Cancer. It travels 7° N.E. to a stationary point around the 20<sup>th</sup>., then back S.W. 7° to the end of the month. Its best morning appearance this year. It reaches greatest western elongation 18.3°W. on the 26<sup>th</sup>., at mag. -0.2.

Mid month it will be mag. 3.1, 10.1" diam., elongation 10°W., and rising at 04.00, ¾ hour before dawn.

**Venus :** Continues to be an early evening object. It is at its greatest eastern elongation on the 17<sup>th</sup>., 45.9°E., when it will be mag. -4.5. At the start of the month it sets at 21.10, an hour & 20 minutes after the Sun, and by the end at 19.40, 50 minutes after the Sun. It starts the month in S.W. Leo, close to the border with Virgo. Moving S.E. it enters it on the 2<sup>nd</sup>. and ends it 1° S.W. of the 1<sup>st</sup>. mag. star Spica, Alpha Virginis. A total travel of 15°.

Mid month it will be mag. -4.3, 24" diam., elong. 46° E. and setting at 20.30, an hour after sunset.

**Mars :** Following opposition on July 27<sup>th</sup>. it is visible all evening. On the 1<sup>st</sup>. it rises at 20.20, ½ hour after sunset and sets at 03.10, ½ an hour after sunset & sets at 03.10, an hour before dawn. By the 31<sup>st</sup>. it sets at 00.50. However, it is very low down in Capricornus, at the best visible only 10° above the southern horizon. During the month it travels 6° S.W. to a stationary point on the 28<sup>th</sup>., on the border with Sagittarius.

Mid month it will be mag. -2.5, 23" diam., elong. 175° W. and rising at 01.30.

**Jupiter :** An early evening object. At the start of the month it sets at 22.50, and by the end at 21.00, 2 hours after sunset.

Remaining in eastern Libra, it moves 1° E.S.E. from a stationary point 1° N. of of Alpha Librae.

Mid month Jupiter will be mag. -2.0°, 36" diam., elong. 75° E. and setting at 21.50.

**Saturn :** Another early evening object. On the 1<sup>st</sup>. it sets at 01.30 and by the 31<sup>st</sup>. at 23.20. Remaining in N.W. Sagittarius, it travels 1¼° W.S.W. during the month above the 'Teapot'.

Mid month it will be mag. 0.3, disc diam. 17.7", rings 40.3", elongation 135°E. and setting at 01.50.

Titan, mag. 8.3 & elong. 180". Greatest E. elong. on August 1 & 17. Greatest W. elong. on Aug. 9 & 25.

**Uranus :** A late evening and morning object. At the start of the month it rises at 22.20, and by the end at 20.20. It remains in the S.W. corner of Aries, close to Pisces and Cetus. It moves 0.2° S.W. to a stationary point on the 8<sup>th</sup>., then moves back 0.1° N.E. to the end of the month..

Mid month Uranus will be mag. 5.8, 3.5" diam., 105° W. elong. and rising at 21.20, 1¼ hours after sunset.

**Neptune :** Continues to be a morning and late evening object. On the 1<sup>st</sup>. it rises at 21.10, an hour & 20 mins. after sunset, and by the 31<sup>st</sup>. at 19.00, only ¼ hour after sunset. It continues to lie in N.E. Aquarius close to the border with Pisces. It travels ¾° S.W. during the month, ending it 1° N.N.E. of the 6<sup>th</sup>. mag. star 83 Aqu.

Mid month Neptune will be mag. +7.8, 2.3" diam., elong. 158° W. and rising at 20.00, 40 minutes after sunset.

### Meteors

**Delta Aquarids :** July 15 - August 20<sup>th</sup>. The second maximum occurs on August 6<sup>th</sup>. Radiant at R.A. 23h. 04m., Dec. 02°, 13° S. of mag. 2.6 Alpha Peg. Culmination at 02.00, altitude 41°. Z. H. R. 10. Moon fairly favourable, 2 days after L.Q. rising at 00.12 on the 7<sup>th</sup>.

**Iota Aquarids :** July - August. Maximum also on August 6<sup>th</sup>. with 2 radiants. The northernmost one is at R.A. 22h.4m. & Dec.-0.6°, which is 5½° S. of 4<sup>th</sup>. mag. star Alpha Aqu. Culmination at 01h.01m., altitude 33°. The other one is at R.A. 22h 10m. & Dec. -15°, which is 10° W. of 4<sup>th</sup>. mag. star Delta Aqu. Culmination at 01h. 06m., altitude 24°. Z.H.R. 8.

**Perseids :** July 23 - August 20. Maximum August 13d. 01h. Probably the best known of all the meteor showers, and one of the most prolific, with a Z.H.R. of 80+. Created when the Earth passes through the trail of dust left behind by Comet P109/Swift-Tuttle (the Great Comet of 1862). It has an orbital period of 129 years and its last perihelion passage was in 1992. Maximum is near New Moon, so conditions are very favourable. The shower's radiant is at R.A. 03h. 11m., Dec. +58°, around 8° N. of the 2<sup>nd</sup>. mag. star Alpha Persei, and is circumpolar.

### Deep Sky Objects

**M2 (NGC 7089) :** A globular cluster in Aquarius, discovered in September 1746 by Jean-Dominique Maraldi whilst searching for a Comet. 14 years later Charles Messier found it and listed it as the second object in his infamous catalogue of objects to avoid when searching for comets. He acknowledged Maraldi's precedence in its discovery. M2 is a dense cluster of 1.5 million stars with a mass of 900,000 Suns situated 40,850 L.Y. away from us with a diameter of 190 L.Y. Its apparent diameter is 16' with a magnitude of 6.4. The brightest stars in it reach a magnitude of 13.1. M2 lies 5° North of the 2.9 mag. star Beta (22) Aquarii and it can be easily found with binoculars, although at least a 6 inch telescope is needed to see the individual stars. R.A. 21h. 33.5m., Dec. -0° 49'.

Arthur Davis July 2018.















N Aqr  
E W Urano 255

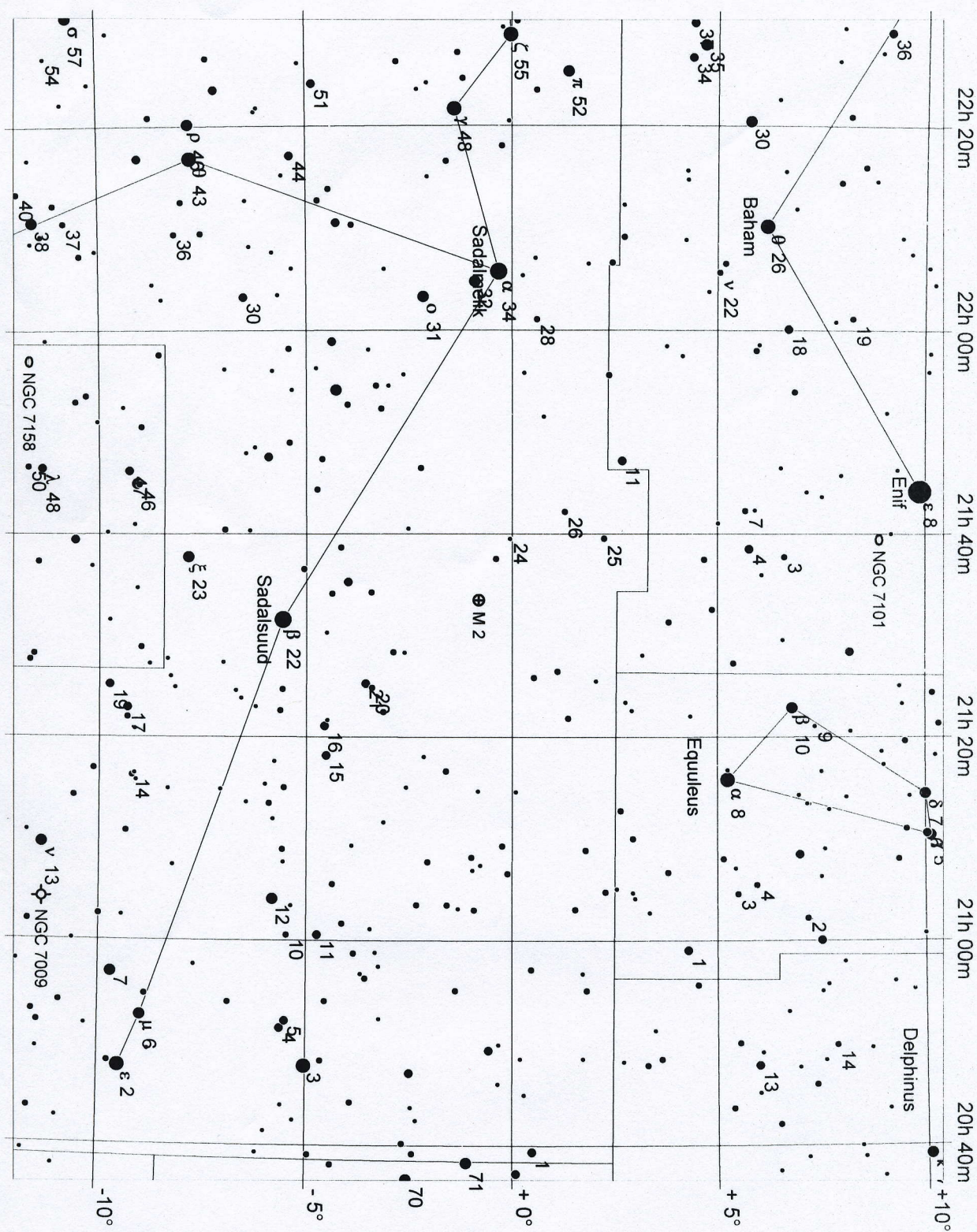
$$\begin{array}{r} 22^{\circ} 30.8' \\ \times \\ 28^{\circ} 24.9' \end{array}$$

21h 33m 28.1s  
-00° 48' 41"

Jul 18, 2018  
11:29am LT  
11:29 UT  
N 51° 0' 0.0"  
W 3° 0' 0.0"  
Alt: -30.6°  
Azim: 314.7°  
Trans: 02:02  
Rise: 20:12  
Set: 07:54

Quasar		Double Star	
Galaxy		Glyx Cl	
Globular		Open Cl	
Planetary		Clust+Neb	
Bright Neb		Dark Neb	
Asterism	+	Unknown	X
Comet		Asteroid	

M 2  
NGC 7089  
Globular Cluster  
21h 33m 28.1s  
-00° 48' 41"  
Mag: 6.6 (V)  
Mag V(tip): 13.1  
Mag V(HB): 16.1  
S.B.: ---  
B-V (tip): +1.60  
Size: 16.0'  
Class: 2  
R.V.: -6  
Source: Skiff



M2 (NGC 7089) in Aquarius.