

ALMANAC

All times U.T for B.S.T. Add one hour

Rise and set times are for Worthing

July / August / September

LUNAR

July	Date	Time	Rise	Set
Last quarter	16th	19.46	23.40	11.46
<i>Perigee</i>	21st	04.28	361,236 km	
New Moon	23rd	09.46	04.31	19.49
First quarter	30th	15.23	12.38	23.18

August

<i>Apogee</i>	2nd	17.55	405,035 km	
Full Moon	7th	18.11	19.27	04.03
Last quarter	15th	01.15	23.24	13.17
<i>Perigee</i>	18th	13.18	366,121 km	
New Moon	21st	18.30	04.33	19.05
First quarter	29th	08.15	13.31	22.46
<i>Apogee</i>	30th	11.25	404,308 km	

September

Full Moon	6th	07.03	18.55	05.04
Last quarter	13th	06.25	22.59	13.30
<i>Perigee</i>	13th	16.06	369,860 km	
New Moon	20th	05.30	05.53	18.29

EARTH

July	Sunrise	Sunset
16th	04.05	20.07
23rd	04.14	19.59
30th	04.24	19.49

August

7th	04.36	19.36
15th	04.48	19.21
21st	04.57	19.09
29th	05.09	18.53

September

6th	05.21	18.35
13th	05.32	18.20
20th	05.43	18.04

PLANETS

(As at July 20th)

	Rises	Sets	Mag
Mercury	06.28	21.04	-1.9
Difficult evening object, probably only visible for another 7 to 10 days			
Venus	01.15	17.04	-4.5
Very bright morning object in the pre-dawn sky			
Mars	04.16	20.13	+1.7
At solar conjunction on July 27 th , not observable			
Jupiter	11.25	22.44	-2.0
Very bright evening object in Virgo, but setting during the evening now			
Saturn	17.25	01.41	+0.9
Evening object in Ophiuchus, visible until after midnight			
Uranus	22.55	12.49	+5.8
Difficult morning object in Pisces			
Neptune	21.38	08.38	+7.8
Difficult morning object in Aquarius, now rising during the evening			

PLANETS

(As at August 21st)

	Rises	Sets	Mag
Mercury	06.11	18.58	-0.5
Approaching inferior conjunction, catch it as a morning object in September			
Venus	01.47	17.39	-4.3
Very bright morning object in the pre-dawn sky			
Mars	04.06	18.58	+1.7
Now a morning object in Leo, but not yet observable			
Jupiter	09.45	20.46	-1.8
Very bright evening object in Virgo, but setting early in the evening now			
Saturn	15.15	23.27	+1.0
Evening object in Ophiuchus, visible until late in the evening			
Uranus	20.49	10.43	+5.8
Difficult morning object in Pisces, now rising in mid-evening			
Neptune	19.31	06.28	+7.8
Difficult object in Aquarius, at opposition in early September			

PHENOMENA

July

Day	Hour	
16th	24	Uranus 4° N of Moon
20th	11	Venus 3° N of Moon
23rd	13	Mars 3° N of Moon
25th	09	Mercury 1° S of Moon
27th	00	Mars at solar conjunction
28th	20	Jupiter 3° S of Moon
30th	05	Mercury at elongation east 27°

August

3rd	03	Saturn 3° S of Moon
7th	18	Penumbral lunar eclipse
13th	00	Perseid meteor shower peak
13th	05	Uranus 4° N of Moon
19th	05	Venus 2° N of Moon
21st	05	Mars 2° N of Moon

21st	18	Total solar eclipse (small partial here)
25th	13	Jupiter 3° S of Moon
26th	21	Mercury at inferior conjunction
30th	03	Saturn 4° S of Moon

September

2nd	00	Mars 4° N of Mercury
5th	05	Neptune at opposition
9th	10	Uranus 4° N of Moon
12th	10	Mercury at elongation west 18°
16th	18	Mars 0.1° S of Mercury
18th	01	Venus 0.6° N of Moon
18th	20	Mars 0.1° S of Moon
18th	23	Mercury occulted by Moon

Minima of Algol

July	22nd	05.48	25th	02.36	27th	23.24
	30th	20.12				

August	14th	04.18	17th	01.06	19th	21.54
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September	3rd	05.54	6th	02.42	8th	23.36
	11th	20.24				

Lunar Occultations Times as at Greenwich U.T.

Date	Z.C. No	Mag	Phase	U.T.
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July

25th	Mercury	0.2	Diss	07.34
25th	Mercury	0.2	Reapp	07.53

August

5th	2734	5.2	Diss	01.02
13th	364	4.3	Reapp	23.55
15th	508	4.1	Reapp	03.50
15th	640	5.3	Reapp	23.53
16th	661	4.5	Reapp	02.35
16th	669	3.8	Reapp	03.45
16th	671	3.4	Reapp	03.47
16th	677	4.8	Reapp	04.42
16th	Aldebaran	0.9	Diss	06.43
16th	Aldebaran	0.9	Reapp	07.40
17th	814	5.4	Reapp	03.06
24th	1821	2.8	Diss	20.02

September

10th	364	4.3	Reapp	06.56
12th	635	3.7	Reapp	06.49
17th	1375	5.4	Reapp	05.05

Richard Godley