

ALMANAC

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

Rise and set times are for Worthing

November / December

LUNAR

November	Date	Time	Rise	Set
Last quarter	19th	21.12	23.08	13.20
<i>Perigee</i>	23rd	07.42	366,716 km	
New Moon	26th	15.07	07.04	16.19

December

First quarter	4th	06.59	13.11	23.46
<i>Apogee</i>	5th	04.09	404,446 km	
Full Moon	12th	05.13	16.27	07.38
<i>Perigee</i>	18th	20.26	370,265 km	
Last quarter	19th	04.58	23.35	12.43

EARTH

November	Sunrise	Sunset
19th	07.21	16.09
26th	07.32	16.02

December

4th	07.43	15.56
12th	07.53	15.54
19th	07.58	15.55

PLANETS

(As at November 21st)

	Rises	Sets	Mag
Mercury	05.41	15.37	+0.3
Morning object in the south-east before dawn			
Venus	09.42	17.21	-3.9
Very bright evening object, setting long enough after the Sun to be seen			
Mars	04.48	15.04	+1.7
Morning object in Virgo and then Libra, and observable			
Jupiter	09.50	17.45	-1.9
Very bright evening object in Sagittarius, but increasingly in twilight			
Saturn	11.09	19.16	+0.6
Bright evening object in Sagittarius, visible until early evening			
Uranus	14.59	05.13	+5.7
Difficult evening object in Aries, visible almost all night			
Neptune	13.37	00.43	+7.9
Difficult evening object in Aquarius, observable until after midnight			

PHENOMENA

November

Day	Hour	
24th	09	Mars 4° S of Moon
24th	14	Jupiter 1° N of Venus
25th	13	Mercury 2° S of Moon
28th	10	Mercury at western elongation 20.1°
28th	11	Jupiter 0.7° S of Moon
28th	19	Venus 2° S of Moon
28th	21	Saturn 0.9° N of Moon
30th	12	Ceres 2° S of Venus

December

4th	12	Neptune 4° N of Moon
8th	11	Uranus 5° N of Moon
11th	05	Saturn 2° N of Venus
22nd	04	Winter solstice

Minima of Algol

November	20th 20.06	23rd 16.54	
December	2nd 07.24	5th 04.12	8th 01.00
	10th 21.54	13th 18.42	

Lunar Occultations Times as at Greenwich U.T.

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

28th	Jupiter	-1.7	Reapp	10.29
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December

5th	5	4.6	Diss	18.05
5th	5	4.6	Reapp	19.17
5th	18	5.8	Diss	21.36
13th	928	5.9	Reapp	05.09
13th	946	3.5	Diss	06.44
13th	946	3.5	Reapp	07.16
14th	1078	6.0	Reapp	03.09
15th	1224	5.3	Reapp	04.12
18th	1702	4.0	Reapp	23.38

Richard Godley