

ALMANAC

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

Rise and set times are for Worthing

November / December

LUNAR

November

New Moon	18th	11.42	06.56	16.44
Apogee	21st	18.53	406,132 km	
First quarter	26th	17.03	12.57	23.16

December

Full Moon	3rd	15.47	16.31	06.36
Perigee	4th	08.46	357,492 km	
Last quarter	10th	07.51	23.18	12.43
New Moon	18th	06.30	07.46	16.29
Apogee	19th	01.26	406,903 km	

EARTH

November

	Sunrise	Sunset
18th	07.21	16.10
26th	07.33	16.02

December

3rd	07.43	15.57
10th	07.51	15.55
18th	07.58	15.55

PLANETS

(As at November 16th)

	Rises	Sets	Mag
Mercury	09.22	16.53	-1.9

Currently visible, with difficulty, as an evening object in the south-west sky after sunset

Venus	05.58	15.46	-4.0
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Very bright morning object in the pre-dawn sky, but soon becoming too close to the Sun for observation

Mars	03.36	14.55	+1.5
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Still a morning object in Virgo, and becoming more observable

Jupiter	05.43	15.38	-1.7
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Now a morning object in Libra, becoming easily visible

Saturn	09.57	18.03	+1.3
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Early evening object in Ophiuchus, but fast disappearing into the sunset

Uranus	15.01	04.44	+5.7
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Evening object in Pisces, visible until towards dawn

Neptune	13.46	00.36	+7.9
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Difficult evening object in Aquarius, visible until after midnight

PHENOMENA

November

Day Hour

13th	06	Jupiter 0.3° S of Venus
15th	01	Mars 3° S of Moon
16th	21	Jupiter 4° S of Moon
17th	06	Venus 4° S of Moon
21st	00	Saturn 3° S of Moon
24th	00	Mercury at eastern elongation 22°
28th	09	Saturn 3° N of Mercury
30th	10	Uranus 4° N of Moon

December

6th	12	Saturn 1° N of Mercury
13th	00	Geminid meteor shower peak
13th	02	Mercury at inferior conjunction
13th	16	Mars 4° S of Moon
14th	14	Jupiter 4° S of Moon
15th	16	Venus 2° S of Mercury
17th	09	Mercury 2° S of Moon
17th	18	Venus 4° S of Moon
18th	13	Saturn 3° S of Moon
21st	16	Winter solstice

Minima of Algol

November	13th	22.18	16th	19.06	19th	15.54
	28th	06.18				
December	1st	03.12	4th	00.00	6th	20.48
	9th	17.36	18th	08.06	21st	04.54

Lunar Occultations Times as at Greenwich U.T.

Date	Z.C. No	Mag	Phase	U.T.
November				
13th	1644	4.1	Reapp	01.35
25th	3181	6.5	Diss	20.13
30th	170	6.0	Diss	00.24
December				
2nd	462	6.0	Diss	04.17
5th	947	5.2	Reapp	03.19
8th	Regulus	1.4	Reapp	22.13

Richard Godley