

# ALMANAC

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

Rise and set times are for Worthing

December / January

## LUNAR

### December

New Moon	18th	06.30	07.46	16.29
Apogee	19th	01.26	406,903 km	
First quarter	26th	09.20	12.16	00.25

### January

Perigee	1st	21.55	356,566 km	
Full Moon	2nd	02.24	17.12	07.49
Last quarter	8th	22.25	23.22	11.39
Apogee	15th	02.11	406,461 km	
New Moon	17th	02.17	08.00	16.56

## EARTH

### December Sunrise Sunset

18th	07.58	15.55
26th	08.02	15.59

### January

2nd	08.02	16.06
8th	08.01	16.13
17th	07.55	16.28

## PLANETS

(As at December 21st)

	Rises	Sets	Mag
<b>Mercury</b>	06.27	15.10	-2.0
Morning object, visible in the south-east before dawn			
<b>Venus</b>	07.39	15.33	-3.9
Still an early morning object, but too close to the Sun now			
<b>Mars</b>	03.22	13.19	+1.2
Morning object in Virgo and moving into Libra before Christmas			
<b>Jupiter</b>	04.05	13.37	-1.8
Now an easy morning object in Libra			
<b>Saturn</b>	07.57	16.02	+1.3
At solar conjunction then a difficult morning object in Sagittarius in January			
<b>Uranus</b>	12.42	02.22	+5.8
Evening object in Pisces, visible into the early hours			
<b>Neptune</b>	11.29	22.16	+7.9
Difficult evening object in Aquarius, visible until mid-evening			

Richard Godley

## PHENOMENA

### December

Day	Hour	
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
21st	21	Saturn at solar conjunction
25th	18	Saturn 1° N of Venus
27th	18	Uranus 5° N of Moon

### January

1st	20	Mercury at western elongation 23°
3rd	20	Quadrantid meteor shower peak
9th	06	Venus at superior conjunction
11th	06	Jupiter 4° S of Moon
11th	10	Mars 4° S of Moon
13th	08	Saturn 0.7° N of Mercury
15th	02	Saturn 3° S of Moon
15th	07	Mercury 3° S of Moon

### Minima of Algol

<b>December</b>	18th	08.06	21st	04.54	24th	01.42
	26th	22.30	29th	19.24		

<b>January</b>	1st	16.12	10th	06.42	13th	03.30
	16th	00.12	18th	21.06		

### Lunar Occultations Times as at Greenwich U.T.

Date	Z.C. No	Mag	Phase	U.T.
<b>December</b>				
23rd	3268	5.3	Diss	18.48
28th	364	4.3	Diss	19.22
29th	508	4.1	Diss	23.03
30th	635	3.7	Diss	17.06
30th	667	5.0	Diss	21.20
30th	677	4.8	Diss	22.47
31st	Aldebaran	0.9	Diss	01.14
31st	Aldebaran	0.9	Reapp	01.59
31st	832	4.3	Diss	21.25
31st	836	5.7	Diss	22.06

### January

4th	1434	5.4	Reapp	20.47
5th	Regulus	1.4	Diss	08.42
5th	Regulus	1.4	Reapp	09.19