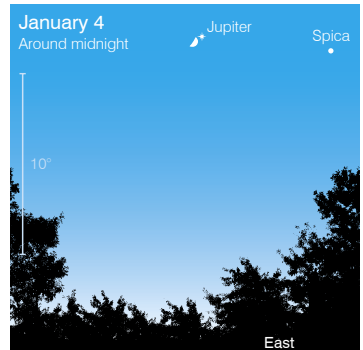


Diary for January

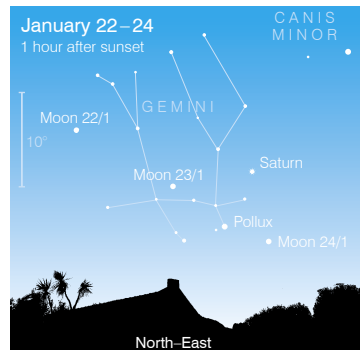
d h Event

01		All five naked-eye planets visible together (Jan 01–18)
02	03	Earth at perihelion ($r=0.983296$ AU)
03		Callisto (Jupiter IV) at maximum elongation (7.9')
03	19	Last Quarter Moon (19:46)
04	02	Moon occults Jupiter (as seen from Harare)
04	13	Spica 2.4° S of Moon
07	19	Mars 3.4° N of Moon
07	20	Antares 1.2° S of Moon
08		Saturn in ascending node
08	23	Mars 4.6° N of Antares
09	02	Mercury 4.9° N of Moon
09	03	Venus 4.8° N of Moon
09	10	Moon southernmost declination ($\delta=-27^{\circ}49.7'$)
10	12	Moon at perigee; proxigean spring tide
10	14	New Moon (14:03)
11		Callisto (Jupiter IV) at maximum elongation (8.2')
11	12	Titan (Saturn VI) greatest eastern elongation
12		Mercury in descending node
12	02	Neptune 4.7° N of Moon
13		Seen from Saturn, Earth transits the Sun
13	11	Uranus 3.3° N of Moon
13	21	Saturn nearest Earth ($1\,208 \times 10^6$ km, $\theta=20.64''$)
14	01	Saturn at opposition ($m_v=-0.2$, $\delta=+21^{\circ}20'$)
14	03	Mercury in conjunction with Venus (separation 21')
15		Comet 56P/Slaughter-Burnham perihelion ($r=2.535$ AU)
15	05	Mars in descending node
16		Minor planet Flora at opposition ($m_v=+8.4$, $\delta=+21^{\circ}53'$)
17	08	First Quarter Moon (08:57)
18		Venus in descending node
18		Minor planet Herculina opposition ($m_v=+8.9$, $\delta=+24^{\circ}59'$)
19		Alpha Crucids meteor shower at maximum
20		Callisto (Jupiter IV) at maximum elongation (8.3')
20	20	Minor planet 216 Kleopatra occults 10.9 mag star
22	21	Moon northernmost declination ($\delta=+28^{\circ}46.1'$)
23		Mercury at aphelion
23	20	Moon at apogee
24	10	Pollux 1.7° N of Moon
24	10	Saturn 4.9° S of Moon
25	12	Full Moon (12:32)
27	09	Titan (Saturn VI) greatest eastern elongation
27	12	Regulus 3.7° S of Moon
28		Callisto (Jupiter IV) at maximum elongation (8.6')
31	11	Jupiter 0.8° N of Moon
31	20	Spica 2.2° S of Moon

Symbols: Δ = distance from Earth; r = distance from Sun; θ = angular diameter; δ = declination; m_v = apparent magnitude; AU = astronomical unit = 149.6×10^6 km.



The Moon makes a very close approach to Jupiter as seen from most of Southern Africa. From Harare, the Moon occults Jupiter and its moons (see p56). The occultation is also visible throughout central Africa and the southern part of Australia.



The waxing Moon, Full on the 24th, passes through Gemini.

Mercury and **Venus** are in the morning sky the entire month and in conjunction on the 14th (Venus is the brighter object). **Mars** is in the morning sky for the entire month. **Jupiter** can be seen for more than half the night, and is visible in the morning twilight. On the 4th, observers in Harare can see the **Moon** occult Jupiter. **Saturn** can be seen for most of the night at the beginning of the month, and throughout the night when it reaches opposition on the 13th.