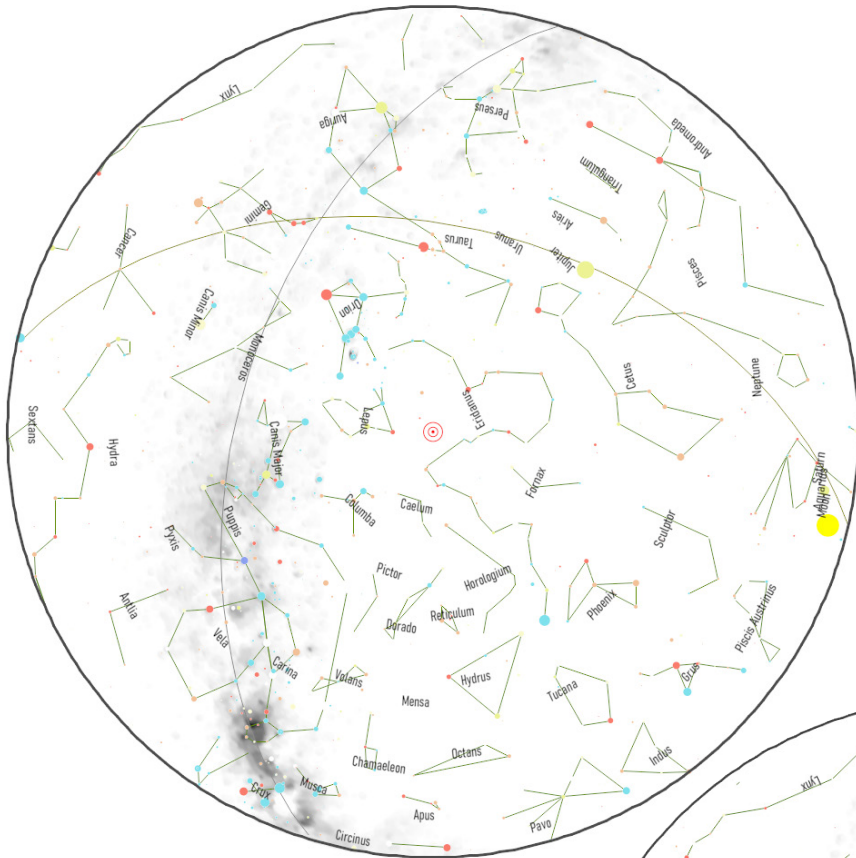
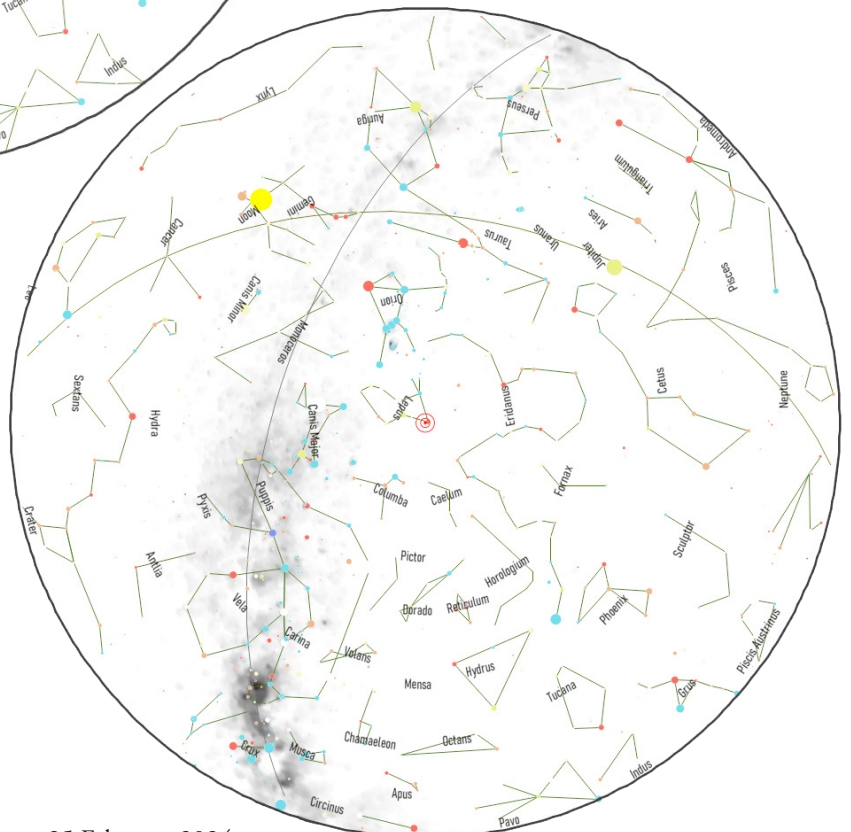


Astronews February 2024

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Skychart at Windhoek on 10 February 2024



Skychart at Windhoek on 25 February 2024

Moon Phases

03 Feb 2024	Last Quarter
10 Feb 2024	New Moon
16 Feb 2024	First Quarter
24 Feb 2024	Full Moon

Solar System

Planet	Visibility	Rise	Culm.	Set
Mercury		05:50	12:24	18:59
Venus		04:31	11:10	17:49
Mars		04:46	11:25	18:04
Jupiter		11:57	19:37	23:17
Saturn		07:32	13:51	20:11
Uranus		12:43	18:17	23:50
Neptune		08:51	14:58	21:05

Mercury will soon pass behind the Sun. From Namibia, it is not observable – it will reach its highest point in the sky during daytime and is no higher than 8° above the horizon at dawn.

Venus remains just about visible as a morning object, now well past its greatest elongation west and returning closer to the Sun. It is visible in the dawn sky, rising at 04:23 – 2 hours and 11 minutes before the Sun – and reaching an altitude of 24° above the eastern horizon before fading from view as dawn breaks at around 06:20.

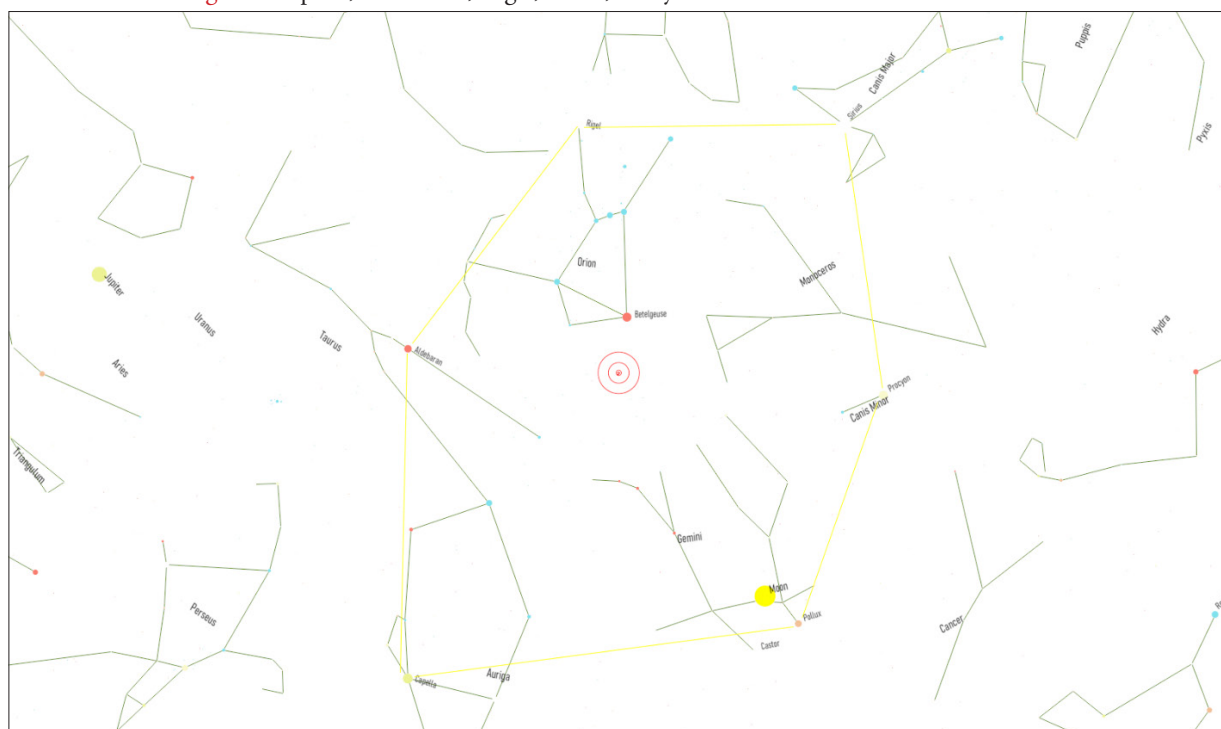
Mars recently passed behind the Sun at solar conjunction. It is visible in the dawn sky, rising at 04:48 – 1 hour and 46 minutes before the Sun – and reaching an altitude of 14° above the eastern horizon before fading from view as dawn breaks at around 05:59.

Jupiter is currently an early evening object, now receding into evening twilight. It will become visible at around 19:45, 42° above your north-western horizon, as dusk fades to darkness. It will then sink towards the horizon, setting 3 hours and 47 minutes after the Sun at 23:17.

Other Occurrences

The **Southern Cross**, Crux, will become visible again in February from around 20h30 on the south-eastern horizon.

Look for the **Summer Hexagon** – Capella, Aldebaran, Rigel, Sirius, Procyon and Pollux.



Close approach of the Moon and Jupiter

On 14 February 2024, the Moon and Jupiter will make a close approach, passing within $2^\circ 53'$ of each other. The Moon will be 6 days old. The pair will become visible at around 19:45, 42° above your north-western horizon.

The Moon will be at mag -11.6, and Jupiter will be at mag -2.3. Both objects will lie in the constellation Aries.

Credits: <https://in-the-sky.org>, ASSA Sky Guide 2024, SkyChart/Cartes du Ciel

Constellation of the Month

by Simon van der Lingen

February evening skies are dominated by Orion, directly overhead at about 9 pm each night. Orion is a well-known constellation, with the three bright stars of his Belt being easy to find even in not particularly dark skies. Once you have found the Belt, look for the three much fainter stars of the Sword, the red Supergiant Betelgeuse marking his right shoulder and the blue supergiant Rigel of his left knee. Bellatrix and Saiph, blue giant and supergiant respectively, show us Orion's left shoulder and right knee. On a dark night, look for Orion's head and the Bow in his left hand.

Alnitak, the brightest of the Belt stars is a triple-star system, with Alnitak B orbiting Alnitak Aa and Alnitak Ab. The primary star, Alnitak Aa, is about 33 times as massive as our Sun and outshines it some 21,000 times. Alnilam, the single middle star in the Belt, is 64 times as massive and outshines our Sun about 830,000 times. Mintaka, the belt star closest to Rigel, is a complicated star system with two main stars orbited by a third, with a fourth and fifth star (and possibly others) orbiting the central three.

The central star of the Sword is easily seen through binoculars to be a bright nebula, lit up by the energetic stars recently formed within it. This star nursery is of particular interest to astronomers who are watching the ongoing formation of stars and planets within it.

Betelgeuse, 17 or 18 times as massive as our Sun, has consumed all the hydrogen at its core. The resultant Helium ash heap is hot enough and dense enough to begin fusing Helium into Carbon and Oxygen. Once the Carbon starts forming other elements, it will quickly progress to the production of Iron – once it does that, the star will immediately collapse, then explode into a Supernova momentarily as bright as the rest of the Milky Way combined. From our vantage point, 580 light years away, we will see a bright flash, then an expanding cloud of gas nearly as bright as a full moon for several months. Astronomers have different opinions about when this will happen, but all agree that the end is nigh! At 580 light years distant, it is possible that this has already happened, but that the light from the explosion has not yet reached us.

Close to the constellation of Orion the Hunter, look for Lepus the Hare and the two hunting dogs Canis Major and Canis Minor.

