



Société Astronomique
de Genève

La nuit est belle : turning off public lighting in Greater Geneva

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What will we see in the sky after sunset on September 26, 2019?

Local time Geneva (GMT+2)

The Sun

Firstly the sun will set in Geneva at 7.26 p.m. It will disappear behind the horizon and twilight begins.

The Planets

From 8 p.m. planet Jupiter:

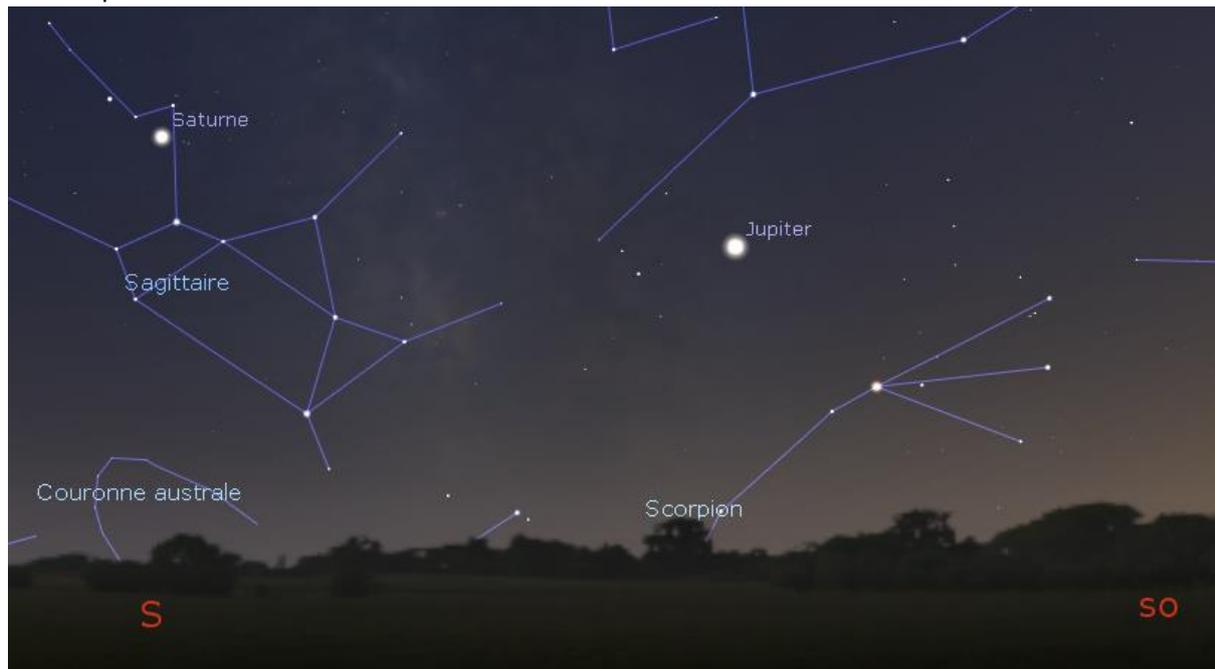
- Will appear looking like a bright white star
- Will be situated half-way between South and South-West at 17° above the horizon
- Will be the brightest light in the sky in that direction
- Will be visible in a small telescope with its Galilean moons

From 8.10 p.m. planet Saturn:

- Will appear looking like a star, like Jupiter
- Will be less bright than Jupiter
- Will be situated due South at 21° above the South horizon
- Is famous for its rings which are visible in a small telescope. Everyone who sees it for the first time is impressed.

See the following page for the corresponding sky charts.

At 9.10 p.m. with the constellations:



Same view at 9.10 p.m. without the constellations:



The Milky Way

Astronomical twilight will take place at 9.07 p.m. (the sun will be 18° below the horizon):

- This is official night time
- The sky will be very dark and all the stars will be visible
- Now turn towards the South-West to see the Milky Way (our galaxy made up of 100 to 200 billion stars) rising vertically from the horizon to a vertical position above our observation site (see the sky chart below).
- The later it gets, the brighter the stars become enhancing the visual effect
- As the Earth turns:
 - The Milky Way will change position during the night
 - The starry sky turns at 15° per hour round the North star

The centre of our galaxy - the Milky Way – will be close to the South-West horizon. That is where the majority of stars will be concentrated (see the map below). Seen through binoculars, it is a magnificent sight. Jupiter and Saturn will be close to the centre of our galaxy (picture below).



Andromeda Galaxy

Among other objects visible in binoculars is the great galaxy of Andromeda (marked with a yellow arrow below). At 9.20 p.m. it will be situated between North East and East at 40° above the horizon. This galaxy is also made up of 100 to 200 billion stars and is 2 million light-years distant. It is the closest galaxy to ours.



There are more than 100 billion galaxies in the universe.

Thus there are more stars in the universe than grains of sand on the surface of the Earth.

The reason for turning off the lights is to give everyone the opportunity of seeing the starry sky such as it has been visible from Earth for more than 4 billion years, i.e. filled with stars such as you can see from photos taken from the middle of deserts and far from urban areas.

The Great Bear

Looking North, the Great Bear (also known as the Big Dipper) will be visible and higher in the sky is the Milky Way (as below).



The Moon

This is the phase of the moon as it will appear when it rises on September 27, 2019, after 5.19 a.m.



To sum up

Why September 26, 2019:

- Verticality of the Milky Way (our galaxy) above the horizon after sunset to give the best view possible to show "La nuit est belle".
- Close to the new moon: giving a greater contrast to the Milky Way
- Jupiter and Saturn visible: two magnificent planets to view through a telescope
- Dark sky from 9.07 p.m. - accessible to curious people of all ages ☺

Important:

- Since the Earth turns on its axis, the heavenly bodies and stars move. The whole sky will move 15° per hour towards the West.
- The time of the rising and setting of the planets is calculated on the basis of a theoretical horizon situated at sea level (i.e. without the presence of mountains).

General:

- If you stay longer watching the sky you may be lucky enough to see shooting stars
- Take advantage of the amazing sky backdrop to take photos. You just need a tripod and a camera which can be regulated manually to adjust the main opening of the diaphragm, sensitivity, the length of exposure and clarity.

Geneva:

- Latitude: 46.2° North
- Longitude: 6.1667° East

The poet Guillaume Apollinaire left us with these words : « Il est grand temps de rallumer les étoiles... it is high time to relight the stars». His text will be very relevant on this unique evening of September 26, 2019 !