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Media Release

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For immediate release:

Where to view the transit of Mercury on Monday?

The South African Agency for Science and Technology Advancement is joining other organisations to enable South African citizens to witness the transit of Mercury on Monday, 11 November 2019 from 15:30 to 18:00 at the Johannesburg Observatory.

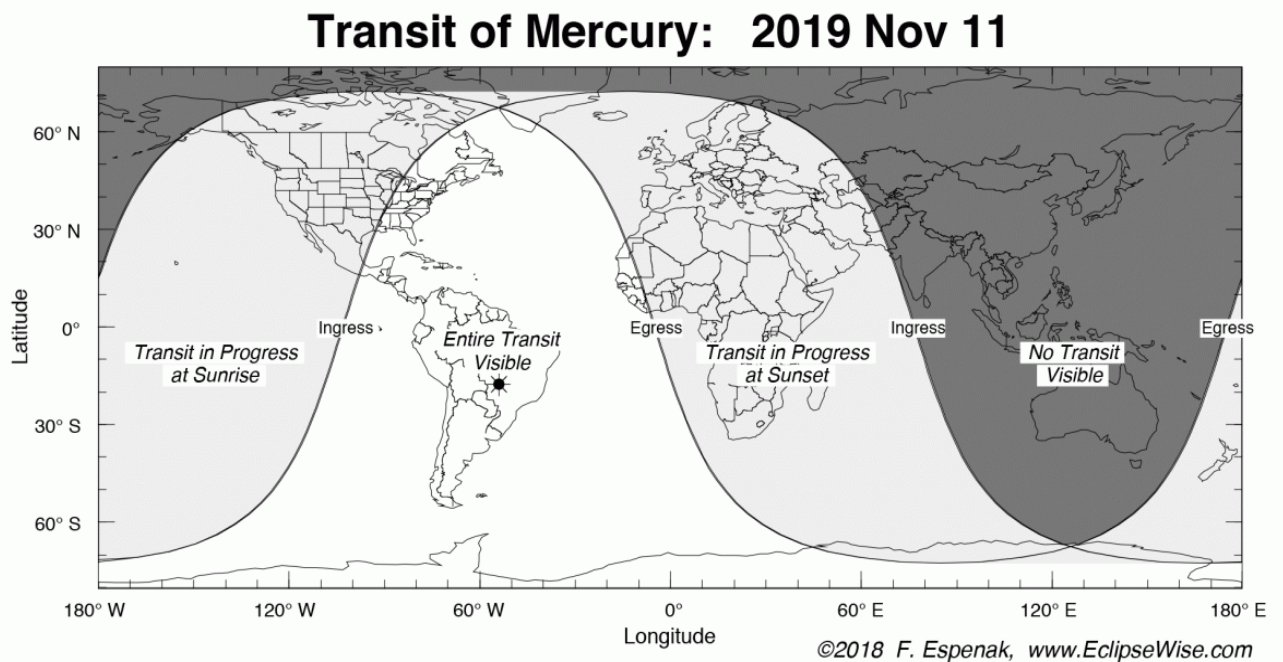
On the afternoon of 11 November, the position of planet Mercury will be directly between the Sun and Earth. Observers all over Africa will be able to see a tiny black dot making its way across the solar disk. The last time Mercury transited the Sun was in May 2016 and it will not happen for another 13 years.

The South African Agency for Science and Technology Advancement, Science Communications Manager Mr Michael Ellis, says it does not happen every day. “In fact, it will only happen again in 2032. So get ready to view the planet Mercury as it transits across the Sun - passing directly between the Sun and the Earth. It’s almost like a bird or an aeroplane flying across the sky and directly between you and the Sun, it’s only that Mercury is much further away.”

He added that “scientists are excited about the transit of Mercury because there are various experiments they can do and observations they can make as Mercury makes its journey across the path of the Sun. Previously, scientists have made some interesting observations about the atmospheric composition of planets as the Sun’s light shines brightly through their

atmosphere. Scientists have also made observations of the long term changes in the size of the Sun, by measuring what is known as the solar radius.”

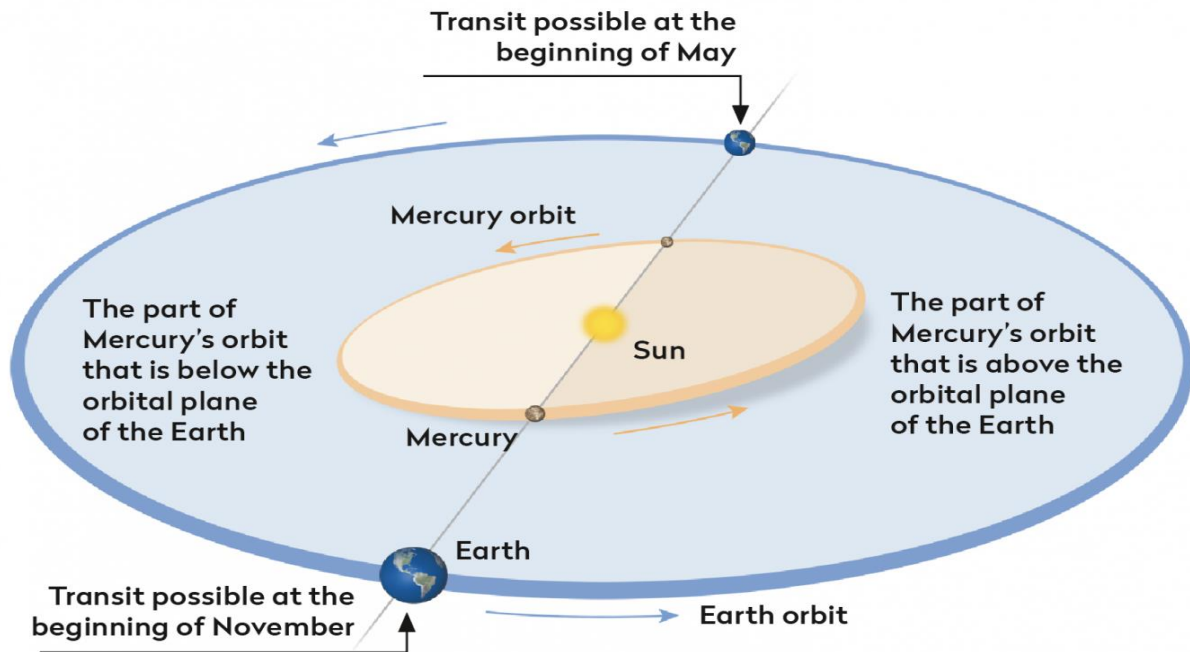
As Mercury and Venus lie within the orbit of the Earth, they sometimes come exactly between the earth and the Sun, and can be seen crossing the face of the Sun for the duration of a few hours. These planets are much farther away from the earth than the Moon, and appear to be smaller in the sky than the Moon.



Global Visibility of the Transit of Mercury on 2019 Nov 11. Credit: Fred Espenak & www.eclipsewise.com

When it comes between the Sun and the Earth on Monday, the planet Mercury will appear as a small black dot moving across the face of the Sun. Since of these planets' size relative to the Sun, a transit can only be seen by means of a telescope.

According to a statement by the African Astronomical Society (AfAS) the transit will be visible across the African continent and may be observed by projecting the image of the Sun through a small telescope. However, South Africans will be able to watch Mercury transit the Sun on Monday, 11 November at 14:35 Central Africa Time (CAT).



The mechanics of the Mercury transit. Credit: BBC Sky at Night Magazine

According to SAAO the transit will take the planet 5.5 hours to move completely across the disc of the Sun, starting at 14:35 (2:35 pm). The Sun will have already started to set by the time Mercury reaches the mid-point of its transit, depending on your location. (Sunset in Johannesburg will be at 18:31 (6:31 pm) and Cape Town at 19:23 (7:23 pm))

The last four transits occurred on November 15, 1999; May 7, 2003; November 8, 2006; and May 9, 2016. People with access to telescopes are encouraged to take the opportunity to view this rare event.

Do's

It is safe to look at the projected image, observers can project the image of the Sun onto a piece of paper. This method also makes it possible to show the transit to many people simultaneously.

Don'ts

- Do not look directly at the Sun without a proper solar viewer.
- Do not use sunglasses or tinted shades to look at the Sun.
- Do not use solar eclipse viewers with binoculars or telescopes as the lenses act like magnifying glasses, amplifying the sunlight and making the eclipse viewers ineffective.

Viewing sites

Organisations	Venue	City, town or village	Province	Time of sunset	Number of telescope
Southern Cape Astronomy	Southern Cape Astronomy Club	Pearly Beach	Western Cape	19:20	2
Cape Centre of the Astronomical Society of South Africa	Eden on the Bay Mall - Big Bay - Blouberg	Cape Town	Western Cape	19:30	5
UNISA Science Engagement Centre	UNISA Observatory	Pretoria	Gauteng	18:30	1
Senekal Astronomy Club	Resident 20 Boerbok Street	Senekal	FreeState	18:36	
South African Astronomical Observatory	SAAO Auditorium, 1 Observatory Road, Observatory,	Cape Town	Western Cape	19:23	2
Department of Science and Innovation	CSIR Campus meiring naude road, DSI Building (Building No. 53)	Pretoria	Gauteng	18:31	1
Transit of Mercury : Public Observation in Site C	Site C Taxi Rank	Khayelitsha , Cape Town	Western Cape	19h20	2
South African Agency for Science and Technology Advancement	Observatory in Johannesburg	Johannesburg	Gauteng	from 15:30 to 18:00	

If you are unable to visit a viewing site, some alternative means to view the transit include:

- Using the correct solar filter on your telescope or a specially designed solar telescope.
- Watching it online! Some astronomical organisations will be live streaming the event, so you will be able to see it there.

- Setting up your binoculars or telescope on a tripod. Aligning the telescope by using its shadow on the ground and then holding a piece of white paper about 30 centimetres from the eyepiece. You should see a projected image of the Sun on the paper.

For more information click on the link <https://transit2019.sao.ac.za>

Ends

Date: Monday, 11 November 2019

Time: 15:30 – 18:00

Venue: 18a Gill street, SAASTA Johannesburg observatory

Johannesburg

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**ABOUT THE SOUTH AFRICAN AGENCY FOR SCIENCE AND TECHNOLOGY
ADVANCEMENT (SAASTA)**

SAASTA is a business unit of the National Research Foundation (NRF) with the mandate to advance public awareness, appreciation and engagement of science, engineering and technology in South Africa.

It aims to be the leading science advancement agency in the country by promoting and communicating the value and impact of science, technology and innovation in a dynamic knowledge economy. It also intends to contribute significantly towards building a science, engineering and technology (SET) human resource base. For more information on the operations and programmes within the NRF please visit www.saasta.ac.za

ABOUT THE NATIONAL RESEARCH FOUNDATION (NRF):

The National Research Foundation (NRF) was established on 1 April 1999 as an independent statutory body in accordance with the National Research Foundation Act. The NRF is a key public entity responsible for supporting the development of human resources for research and innovation in all fields of science and technology. The organisation is one of the major players in educating and training a new generation of scientists able to deal with South African and African needs. The organisation encourages public awareness and appreciation of science, engineering and technology, and facilitates dialogue between science and society. Its vision is to contribute to a prosperous South Africa based on a knowledge economy. For more information on the operations and programs within the NRF please visit www.nrf.ac.za