

Transit of Mercury 7th May 2003

by **Peter Anderson**

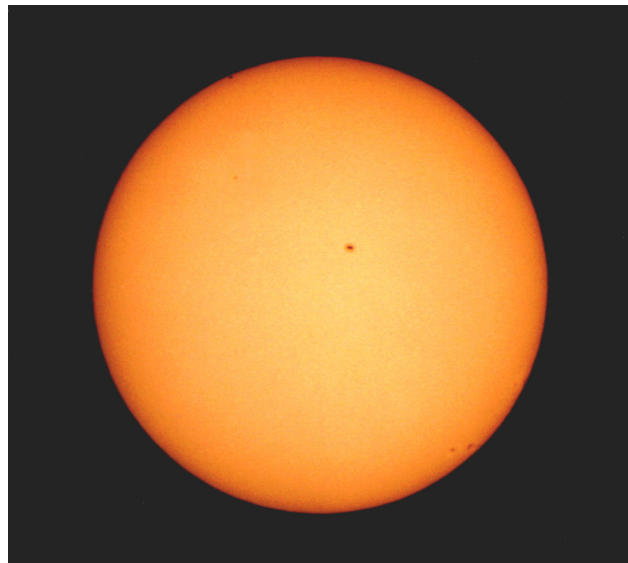
Mercury is the innermost planet. Because its orbit is inclined 7 degrees it transits the solar disc infrequently, the next occasion being on **9th November 2006** (Australian time).

The path of Mercury for the transit of **7th May 2003** was in a south-westerly direction first entering the north-north eastern part of the solar disc at position angle 15° and leaving it at position angle 291°.

The first contact (the exterior of the disc of Mercury) was first seen from Eastern Australia around 3.14pm Eastern Australian Standard Time (EAST). Second contact (when the disc of Mercury was wholly within the Sun,) occurred four minutes later. From Brisbane the Sun was then only 23° and 22° altitude and it sank lower as the transit continued setting at 5.13pm, somewhat before mid-transit.

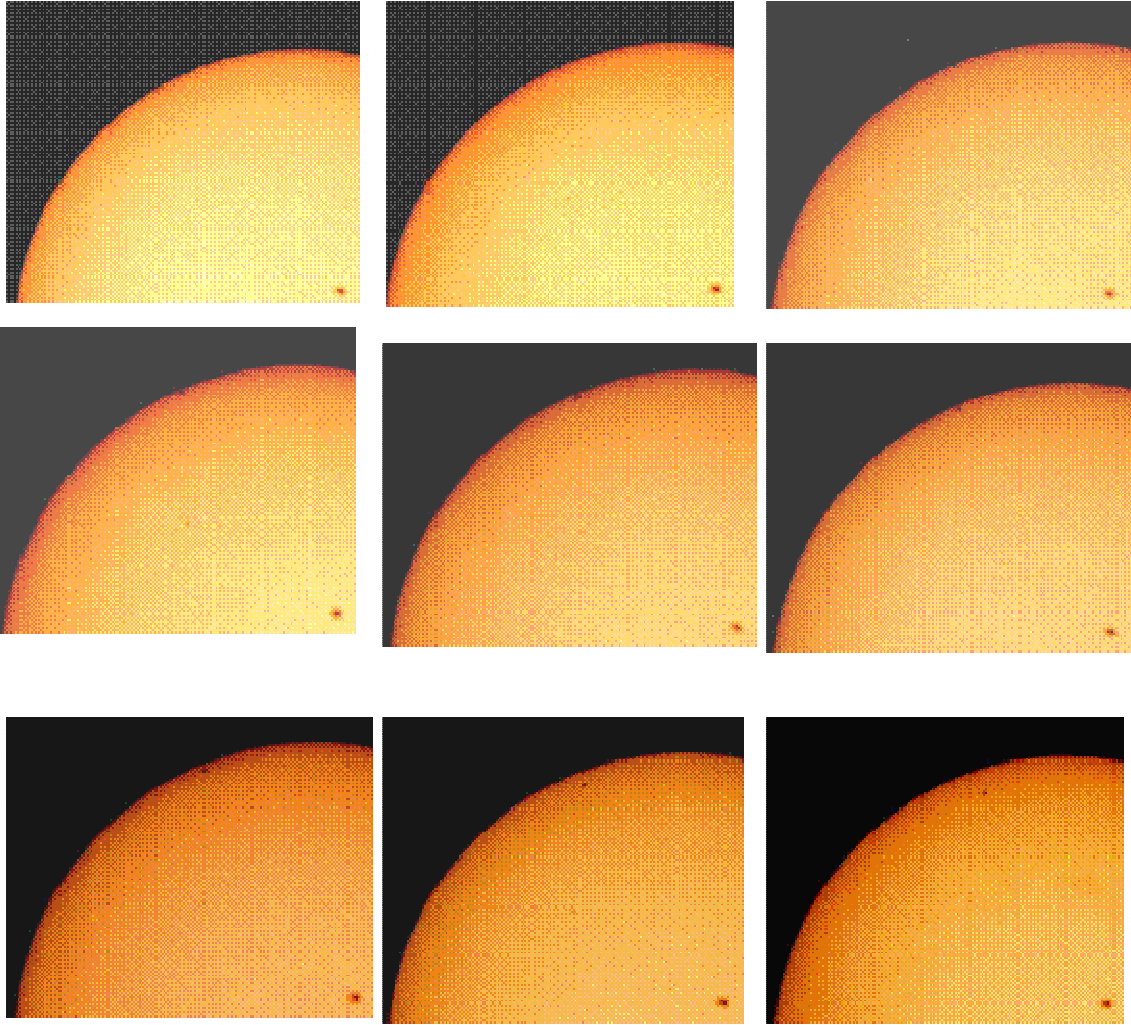
The 5 hour 18 minute duration transit continued with third and fourth contacts occurring at 8.28 and 8.32pm EAST long after sunset, even from Western Australia.

The photograph opposite shows the full disk of the Sun taken at F14 with a 90mm ETX telescope just before second contact. Mercury is the small indentation in the solar limb at the 11 o'clock position.



The photographs on the following page are a selection of cropped images showing only the north eastern quadrant of the Sun. They were enlarged from part of the 35mm frames taken at F14 with a 90mm ETX telescope which recorded the whole solar disc. They show the early stages of the transit.

There is a large sunspot at the lower right of each image and a small sunspot just below centre. Naturally these remain stationary while Mercury enters the disc and moves towards the right in succeeding images. (These images have not been manipulated except to adjust brightness and contrast and remove spots and blemishes).



Extracted from the June 2003 Newsletter of the Astronomical Association of Queensland.