

PLANET EARTH

A Trash Bin Marks the True Location of the Greenwich Meridian, 334 Feet to the East

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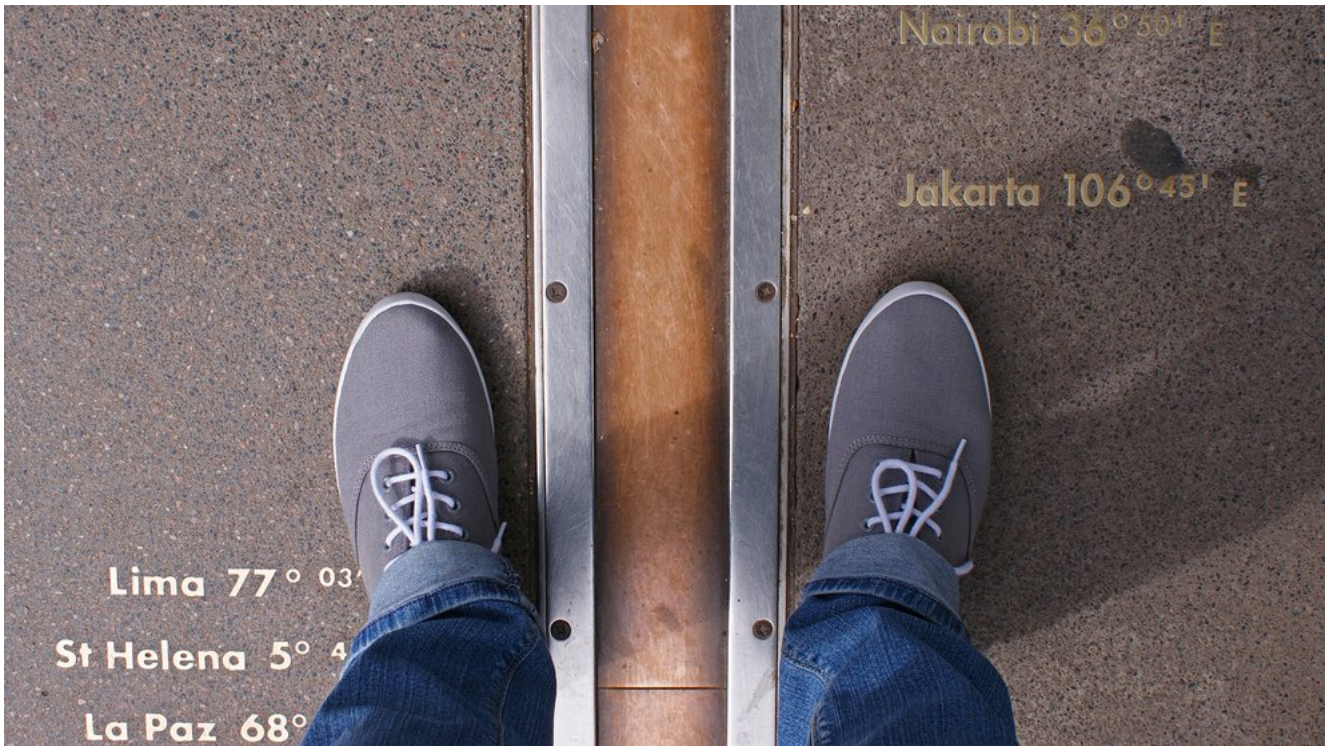
There are three different prime meridian lines in Greenwich, England, and none of them are accurate.

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There's Halley Meridian and Bradley Meridian, both used before the current marker, the famed Greenwich Meridian. But the genesis of each new day, longitude 0°, belongs to none of these. The line demarcating Earth's hemispheres actually lies 334 feet to the east of the official Greenwich Meridian, cutting through a pathway nearby a garbage receptacle.



The Greenwich Meridian Line separates the world's eastern and western hemispheres.

Here's Sara Knapton, [writing](#) for the Telegraph:

The Prime Meridian was set in 1884 using the large Transit Circle telescope built by Sir George Biddell Airy, the 7th Astronomer Royal. The telescopes tracked the movement of 'clock stars'—circumpolar stars which never rise or set. Because these stars are always present in the sky and transit the meridian twice each day their appearance in the telescope cross hairs can be used to set time and longitude.

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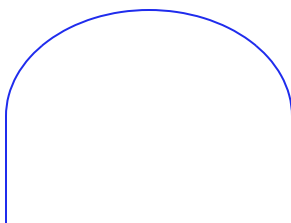
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A basin of mercury was used to make sure that Airy's telescope was kept exactly vertical so that it could align with the clock stars. But astronomers failed to take into account that subtle changes in gravity would impact the telescope alignment and give a wonky reading.

Global positioning systems take such gravitational effects, which arise from Earth's irregular shape and varied local terrain, into account. So when GPS was introduced in 1984, the true location of longitude 0° was revealed—but the marker at Greenwich wasn't changed. [A newly published paper](#) in the *Journal of Geodesy* confirms that this "deflection of the vertical" is merely a local effect due to the direction of gravity in Greenwich, and not a universal change in our planet's longitude system.

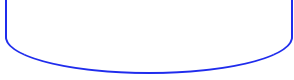
The real meridian also runs through a café around the corner from Greenwich Observatory (you can see this if you type "Prime Meridian" into Google Maps on your iPhone). At the very least, this coffee shop may become a wildly successful business in the near future.

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