

MERCURY UPDATE

By Patrick McNamara, Docent at the Cameron Park Rotary's Community Observatory

This month sees the appearance of the very evasive planet Mercury. Named after the Roman messenger God, Mercury darts back and forth from morning to evening sky several times a year but it is not easy seen. The reason for this is that it is never far from the Sun in our sky which makes it difficult to find in the sun's radiance.

During the month of March, this year, Mercury reaches what is known as its Greatest Elongation. This term refers to the fact that the planet is at its furthest from the sun in its orbit as seen in the sky of the Northern Hemisphere. It is therefore most visible to us Northerners as it follows the sun over the horizon every evening.

Looking low towards the Western horizon at twilight the giant Jupiter slides lower each night until by the end of the month it will no longer be visible as it draws too close to the sun for us to see. Around the middle of the month, though, Mercury can be seen as a slightly dimmer star to Jupiter's lower right during its Greatest Elongation. Mercury will then make an exit with Jupiter by the month's end.

Our solar system's smallest planet, Mercury is a little over a third of the distance from the Sun to the earth. For those looking for somewhere different to settle in our current financial climate, unfortunately Mercury would be a very inhospitable place to live.

A crater pitted rock 1.5 times the size of our moon, the surface area of Mercury is approximately 7.5 times that of the USA, so if you are a world traveler, flights around your new home might be a little shorter.

The days and years on Mercury would take some getting used to. When compared to earth, Mercury travels around the sun very quickly but turns on its own axis very slowly. Its year or orbit period (once around the sun) is around three months (our time). Mercury rotates around its own axis (one day) once every two months (our time). The confusion comes when these two are combined. If you lived on Mercury the sun would rise and set only once every two Mercury years. Using our time standard, with sun-rise as the start of a day, it would be daylight for 3 months and night time for 3 months. Blackout curtains would be a thriving business!

If you think you could live with this, try out the temperature range. Although Mercury is so close to the sun, the temperatures are not as high as one might think. Because of the vacuum surrounding the sun, heat experienced in its region of influence is due to the action of the Sun's electromagnetic radiation on a material's particles. There is no significant atmosphere on Mercury so the planet's temperature is experienced in its surface and is very dependent on whether the surface is facing the Sun or not. During daylight hours the temperature can reach 800°F, while at midnight the same region can reach -260°F. Finally, in the shadowed areas of polar craters, where the sun is never seen, -300°F is not unusual. Time to bring out those ear warmers Aunt Agnes gave you for Christmas 10 years ago!

Finally, trying to balance all the negatives for living on Mercury, this might be the most appealing aspect of relocating. Mercury's gravity is only 38% of the Earth's. This means a 200lb person would only weigh 76lbs! Talk about an instant weight loss.

All in all, unless one was prepared to put up with massive inconvenience, Mercury is not an option for habitation by humanity. To learn more about the wonders of the universe, please visit the community observatory located behind the El Dorado Center, Folsom Lake College in Placerville. For more information go to www.communityobservatory.com