

Opposites Attract: Saturn Lures Earthly Admirers

February 8 2007



The ringed planet captured by Saturn Observation Campaign members Jeff Barton and Josh Walawender. Credit: Barton and Walawender

The idea that opposites attract may be a romantic cliché. But when Saturn is at opposition, as it will be this month, it is most certainly an attraction for Saturn-watchers around the world.

Opposition is when the Sun and Saturn are lined up directly across from each other with Earth in the center. This year opposition occurs on Saturday, Feb. 10, just a few days before Valentine's Day. It's the time when Saturn comes closest to Earth and is easiest to see from our terrestrial vantage point. It puts Saturn back in the evening sky for viewing until June 2007.

Saturn's admirers are taking advantage of this opportunity. "I'm calling it a Saturn-a-thon," says Jane Houston Jones, of the events planned for

observing Saturn during opposition this coming Saturday, a day named, incidentally for the same Roman god as the ringed planet. Jones heads up JPL's Saturn Observation Campaign, an international group of volunteers who share with the public their enthusiasm for viewing the ringed beauty, both through ground-based telescopes and the instruments onboard the Cassini spacecraft. The program includes more than 350 members, many of whom are amateur astronomers, in 45 U.S. states and 52 countries.

There are going to be Saturn-viewing events all around the world," Jones says, "from California, Wisconsin and North Carolina to New Zealand, Peru and Argentina. More than 20 events have been planned for Germany alone."

"The idea for the Saturn Observation Campaign to plan a worldwide observing night came from Bob Larcher of the European Association for Astronomy Education," Jones says. "We tried to get as many members as possible to organize events on the same night, and then we'll share images, photographs, drawings, poems, and notes afterward. This is our first try, and we'll do it again next year."

When Saturn comes in for its close-up with Earth, the period just before and after are good times to see the planet. "This year, January through June are the best months to view Saturn," explains Jones. "In February, it rises at sunset and sets at dawn, so you don't have to get up in the middle of the night to see it. You can start looking for it as soon as the Sun sets. It is easy to see even from the city. Saturn will be a great target for many months to come. Observers in colder climes will appreciate that!"

Since Saturn tilts on its axis, as does Earth, it appears to wear its rings at different angles depending on its relationship to Earth. "We had a nearly edge-on view of the rings in 1995 and 1996," says Jones. "The ring tilt increased year by year to a maximum tilt of 27 degrees in early 2003.

Since then, the tilt of the rings has been decreasing and will keep closing slightly each year until 2009, when we'll again see an edge-on, or nearly invisible view of the rings." This year, Jones says, the tilt of the rings will narrow from 15.4 degrees to 6.7 degrees by December.

"Saturn is brighter this year than it will be until 2015," explains Jones, "due to a slight dimming as the ring tilt becomes more narrow and Saturn's distance from Earth increases."

The Cassini, spacecraft of course, now in its third year orbiting in the Saturnian system, doesn't have the same constraints as observers from Earth and continues to provide spectacular images of what has been called the most beautiful planet in our solar system.

"As wonderful as the Cassini images of Saturn are," says Jones, "it is still incredibly exciting to look through a telescope and see this spectacular planet with your own eyes."

For more information on the Saturn Observing Campaign, go to soc.jpl.nasa.gov/index.cfm

Source: NASA

Citation: Opposites Attract: Saturn Lures Earthly Admirers (2007, February 8) retrieved 30 April 2024 from <https://phys.org/news/2007-02-opposites-saturn-lures-earthly.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.