

The total solar eclipse down under: How to watch it from anywhere in the world

November 13 2012, by Nancy Atkinson



Scientists and interested skywatchers have been flocking to Cairns, Australia to witness one of the most spellbinding astronomical sights: a total solar eclipse. The November 13/14 total solar eclipse will only be visible in its entirety to ground-based observers watching from northern Australia, but several webcasts will be available so that people around



the world can watch as well. At about 22:11:48 UT on November 13 (it will be the morning of Nov. 14th in Australia) the Moon will pass directly in front of the Sun, and totality will only last about 2 minutes, with the Sun having risen just 14 degrees above the eastern horizon. The total time of the event, from first contact to fourth contact (the end of a solar eclipse when the disk of the Moon completely passes from the disk of the Sun) will be about 3 hours.

During totality the Sun appears to have a white halo – a rare glimpse of the Sun's million-degree plasma atmosphere, or corona, which is too washed out by the Sun's brightness to be observed normally.

During an eclipse, "the Moon reveals the innermost corona, which manmade coronagraphs have trouble seeing," said Shadia Habbal of the Institute for Astronomy in Hawaii, who will be in Australia for the event. "That is where all the <u>magnetic field</u> and <u>physical processes</u> responsible for heating the <u>corona</u> are evolving most rapidly."





Proba-2 image of the solar disc taken during the total eclipse of July 2010, combined with ground-based images taken at the same time to reveal the exquisite details of the solar corona. Credit: ESA

Below is a list of webcasts for those not in Australia, but an important note if you ARE going to be in an area where you can see the eclipse: DO NOT look directly at the Sun, and especially do not look through a telescope or <u>binoculars</u> at the Sun with your eyes directly. Doing so could cause serious and permanent <u>eye damage</u>. There are special eclipse glasses, or you can make your own eclipse viewers. Mr. Eclipse has a



whole list with instructions for pinhole cameras, and other safe viewing methods. If you have a telescope, the folks from Galileoscope have instructions for how to build a Sun-funnel for safe viewing.

Slooh will be having their webcast at Slooh.com, starting Tuesday, November 13th at 11:30 AM PST / 2:30 PM EST / 19:30 UTC. Viewers can watch the show on their PC or mobile device and will have the ability to ask questions to the Slooh team, including the crew located in Cairns, using the Slooh Conversations section on the Slooh homepage. Viewers will also be able to snap the live pictures directly from the Slooh homepage using Pinterest.

Another feed will be from the Cairns Eclipse 2012 Ustream channel, broadcast from over Cairns and the Great Barrier Reef, Australia: <u>www.ustream.tv/CairnsEclipse2012</u>

This channel will be live from 11 a.m. PT (2 p.m. ET) on Nov. 13, and 5 am November 14th 2012 (AEST)

Still another feed will be the Panasonic channel: Broadcast from Sheraton Mirage Port Douglas Resort: <u>www.ustream.tv/channel/panason</u> ... ive-by-solar-power-1

Panasonic's project, described as, "Filming the Sun, using the Sun" aims to capture and broadcast to the world a solar eclipse using only the power of sunlight. They're using Panasonic's high efficiency solar powergenerating system, "HIT" to generate power with a portable battery back for power storage. They'll then be able to broadcast the eclipse images captured on a Lumix GH2.

We'll be embedding a few of the feeds when they go live.

Find out more about the eclipse here.



Source: <u>Universe Today</u>

Citation: The total solar eclipse down under: How to watch it from anywhere in the world (2012, November 13) retrieved 27 April 2024 from <u>https://phys.org/news/2012-11-total-solar-eclipse-world.html</u>

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