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Blind Love

Love is blind! Engraving from Harper's Weekly magazine (April 28, 1883) shows a woman viewing the transit of Venus through a telescope. Doing so with no solar filter would result in instant eye damage and likely blindness. Do not let June 5, 2012, be your blind date--use proper observing equipment and common sense.

Color image at
http://www.nmm.ac.uk/rog/Transit%20of%20

Safe Viewing Techniques

To observe the transit of Venus directly you must protect your eyes at all times with proper solar filters. However, do not let the requisite warnings scare you away from witnessing this rare spectacle. You *can* experience the transit of Venus safely, *provided you use proper eye protection*. A variety of solar viewing devices available for purchase are listed at the **Store** page, or you can **build a Sun Funnel** for your telescope.

⚠ See **http://youtu.be/4RGr9FcBrSM** video or read *Viewing the Transit & Eye Safety* at **june2012/eye-safety/280-viewing-the-transit-eye-safety** for definitive advice on viewing the sun safely; by B. Ralph Chou, MSc, OD.

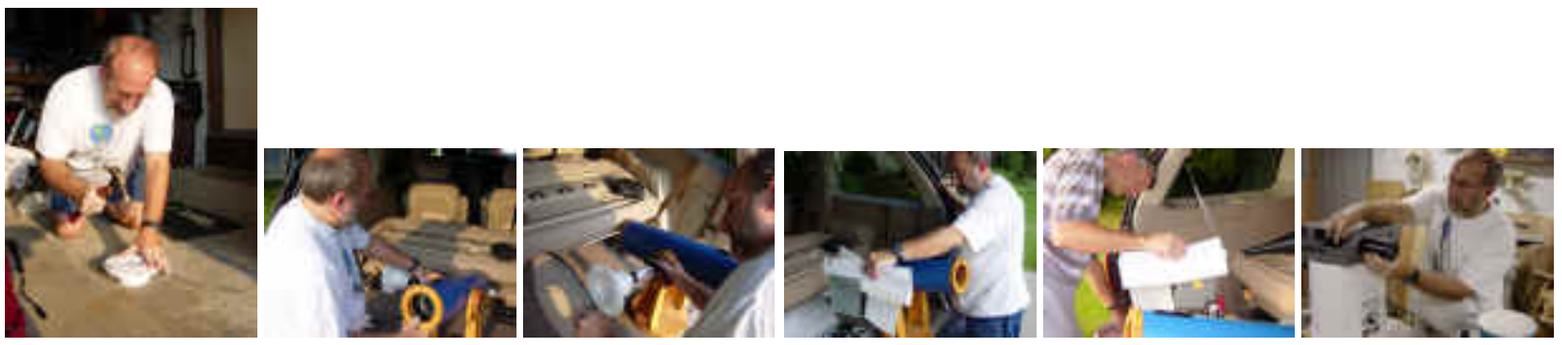
Must-See TV (Transit Venus) Screen

At the 2003 Annual Conference of the **Great Lakes Planetarium Association (GLPA)**, participants of the make-it-and-take-it workshop constructed a device with which a crowd can view the sun safely. Download simple instructions to find parts list and suppliers.

[**UPDATE**: See improved instructions from 2011 ASP workshop at **http://www.transitofvenus.org/docs/Build_a_Sun_Funnel.pdf**.]

Basically, a variety of inexpensive parts...

... and experimental designs...



Unattended Equipment Hazards

Always be aware of the power of the sun. Yes, it obviously can fry your eyes without your knowing it, for your eyeball has no pain receptors within. But there are other burn hazards. Keith Johnson of the Fleischmann Planetarium shares this story:

"Just to underscore the necessity of keeping constant watch on your telescope while it's pointed at the Sun... I was running a basic astronomy class lab in Tucson while I was in grad school one day, and we were observing the Sun with a white-light filter. I had placed a film container over the finder as usual. But apparently not firmly enough: it fell off at one point, and I didn't notice it.

One undergrad had come in her pajamas and bathrobe, believe it or not (it was an early-morning class). While she was peering intently through the main eyepiece, I noticed some smoke starting to come from the shoulder of her bathrobe. Sure enough, the finder had set her robe on fire! or at least smoldering..."

Safety Notice

Viewing the sun without proper equipment and/or techniques can result in serious eye injury and blindness. The solar observing descriptions and comments listed in this website are not an endorsement of any particular technique or product. Observers are responsible for their own eye safety. This website accepts no responsibility for the conduct of others in viewing the sun. For definitive advise on observing the sun, see *Viewing the Transit & Eye Safety*, by Dr. B. Ralph Chou, at **http://www.transitofvenus.org/june2012/eye-safety/280-viewing-the-transit-eye-safety**.

"It is never safe to look at the sun without proper eye protection. No filter should be used with an optical device (e.g. binoculars, telescope, camera) unless that filter has been specifically designed for that purpose and is mounted at the front end (i.e., end towards the Sun). Unsafe filters include all color film, black-and-white film that contains no silver, photographic negatives with images on them (x-rays and snapshots), smoked glass, sunglasses (single or multiple pairs), photographic neutral density filters and polarizing filters, computer disk media. Most of these transmit high levels of invisible infrared radiation which can cause a thermal retinal burn. The fact that the Sun appears dim, or that you feel no discomfort when looking at the Sun through the filter, is no guarantee that your eyes are safe. A person with eye damage from improper viewing may not notice the damage until hours later."

http://www.leaderdog.org/

For observers who refuse to view the sun safely--Leader Dogs for the Blind in Rochester, Michigan.

...led to the final two products.

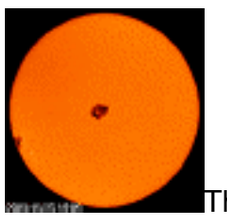
Workshop participants construct their solar-viewing devices; images courtesy of Gene Zajac.

Making it happen; image courtesy of Marc Rouleau.

No, Bart, it doesn't work that way; image courtesy of Gene Zajac.

Donors generously contributed alternative sun-viewing resources. Learning Technologies, Inc. contributed a **Sunspotter**. Rainbow Symphony contributed a pair of **Solar Shades** for every conference delegate. And Ray Shubinski set up a solar telescope. Images courtesy of Gene Zajac.

The Sunspotter resolves the sunspot groups; image courtesy of Marc Rouleau.



The sun, seen here as a SOHO photo from that day, put on a spectacular show. Image courtesy of **SOHO (ESA & NASA)**.

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