St Catharines Photographic Club

Editor: Cheryl Wamboldt **Volume 10 Issue 4**

June/July 2017

Many of life's failures are people who did not realize how close they were to success when they gave up.

- Thomas Edison (Inventor, 1847-1931)

I have been doing the Tripod Topics for a few years now and enjoy the feedback I receive from the members. It helps motivate me to do the best I can with what I have to work with. Please let me know what you would like and I will work hard to achieve it for you. This is the Member's paper.

Cheryl Wamboldt,

Editor Tripod Topics

New Executive 2017/2018

Co-Presidents

Treasurer

Secretary

THE SUMMER SOLSTICE

The summer solstice was upon us: June 20th and the 21st and was the longest days of 2017 for anyone living north of the equator. If pagan rituals are your thing, this is probably a big moment for you. If not, the solstice is still pretty neat.

Technically speaking, the summer solstice occurs when the sun is directly overhead the Tropic of Cancer, or 23.5° north latitude. In 2017, this will occur at exactly 12:24 am (Eastern) on the 21st. (But we can celebrate on either day.)

Below is a short scientific guide to the longest day of the year (though not, as we'll see, the longest day in Earth's history — that happened back in 1912).

1) Why do we have a summer solstice, anyway?

Okay, most people know this one. Earth orbits around the sun on a tilted axis (probably because our planet collided with some other massive object billions of years ago, back when it was still being formed).

So between March and September, Earth's Northern Hemisphere gets more exposure to direct sunlight over the course of a day. The rest of the year, the Southern Hemisphere gets more. It's the reason for the seasons:

In the Northern Hemisphere, "peak" sunlight usually occurs on June 20, 21, or 22 of any given year. That's the summer solstice. By contrast, the Southern Hemisphere reaches peak sunlight on December 21, 22, or 23 and the north hits peak darkness — that's our winter solstice.

Note that the solstice also gives us the longest twilight of the year, usually about 1 to 1.5 extra hours after sunset. (Brett Schneider has more charts on that; his entire post is worth your time.)

Side note: This year, the Muslim holy month of Ramadan coincides with the solstice. (Ramadan's dates vary each year, but in 2017 it runs from May 26 to June 24.) Which makes for a grueling challenge in some places: Muslims are supposed to fast until sunset during Ramadan, but for those living in Norway, Sweden, or Iceland, daylight can last up to 20 hours. "In these cases," Vox's Jennifer Williams explains, "Muslim religious authorities have decreed that Muslims can either fast along with the closest Muslim country or fast along with Mecca, Saudi Arabi

2) Is the solstice the latest sunset of the year?

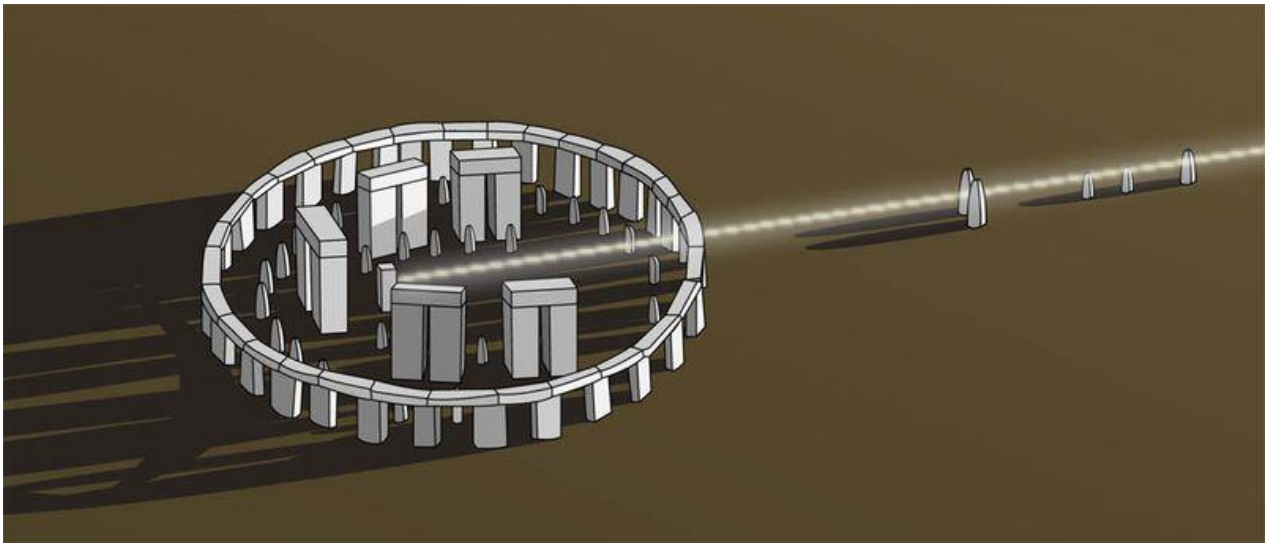
Not necessarily. Just because June 20 is the longest day of the year for the Northern Hemisphere doesn't mean every location has its earliest sunrise or latest sunset on that day.

If you live in Washington, DC, you missed the earliest sunrise — it happened back on June 13. But you can still catch the latest sunset on June 27. If you like sleeping in, that's arguably the most exciting day of the summer.

3) What does all this have to do with Stonehenge?

No one really knows why **Stonehenge** was built some 5,000 years ago (at least I don't, sorry). But one possibility is that it was used to mark solstices and equinoxes. That's because during the summer solstice, the sun rises just over the structure's Heel Stone and hits the Altar Stone dead center.

Here's **a graphic** from NASA imagining what a summer solstice sunrise might've looked like back when Stonehenge was fully intact:

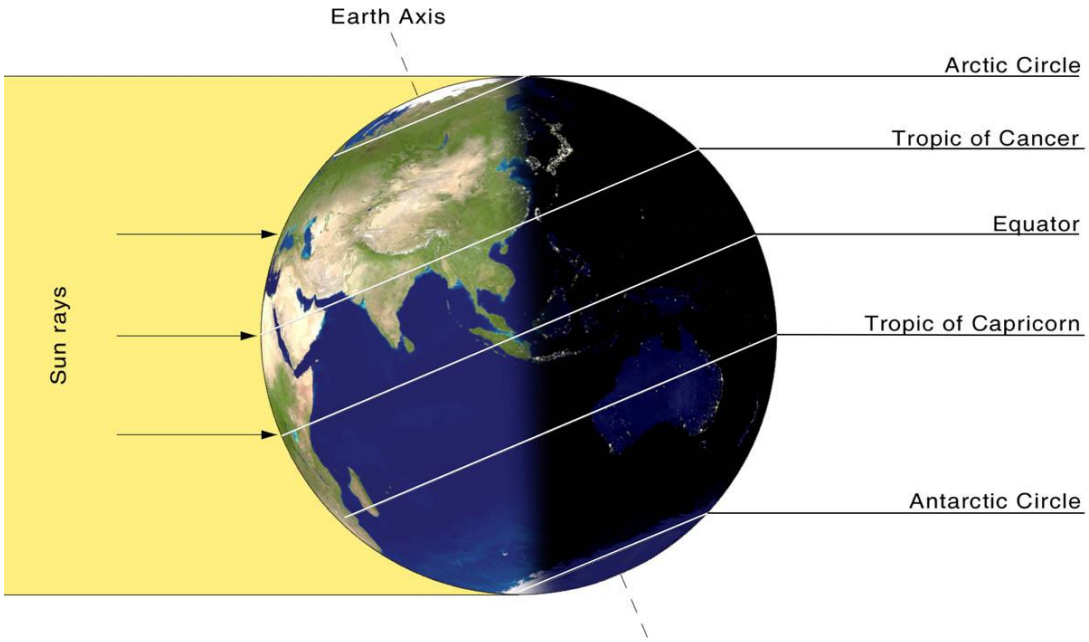


Given that, you'd *think* 2017 would be the longest day in all of history. But while it's certainly up there, it doesn't quite take top honors.

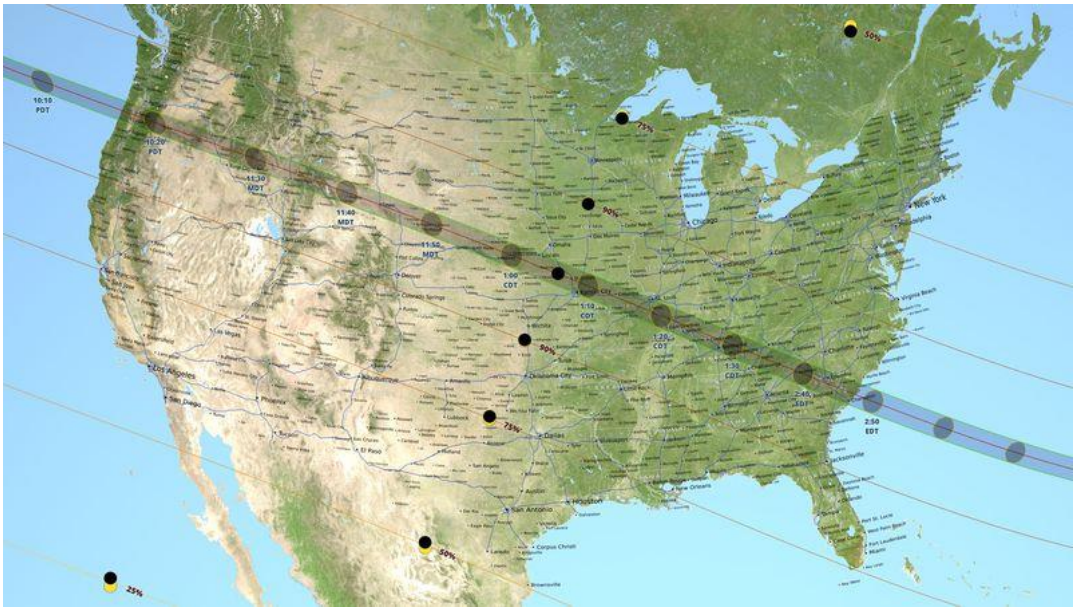
That's because tidal friction isn't the *only* thing affecting Earth's rotation — there are a few countervailing factors. The melting of glacial ice, which has been occurring since the end of the last ice age 12,000 years ago (and is now ramping up because of global warming), is actually speeding up Earth's rotation very slightly, shortening the days by a few fractions of a second. Likewise, geologic activity in the planet's core, earthquakes, ocean currents, and seasonal wind changes can also speed up or slow down Earth's rotation.

When you put all these factors together, scientists have estimated that the longest day in Earth's history (so far) likely occurred **back in 1912**. That year's summer solstice was the longest period of daylight the Northern Hemisphere has ever seen (and, conversely, the 1912 winter solstice was the longest night we've ever seen).

Eventually, the effects of tidal friction should overcome all those other factors, and Earth's days will get longer and longer as its rotation keeps slowing (forcing timekeepers to add leap seconds to the calendar periodically). Which means that in the future, there will be plenty of summer solstices that set new records as the "longest day in Earth's history."



5) Isn’t there going to be a solar eclipse?



No, not on the solstice.

But there *will* be a rare solar eclipse across the entire continental US a bit later in the summer, on August 21.

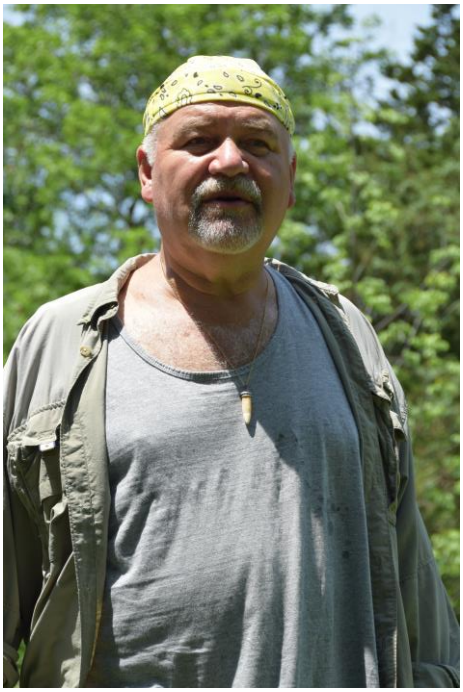
On that day, the Earth, moon, and sun will be in perfect alignment to cast a 60-mile-wide shadow that will trace itself across the country like a dark laser pointer on a whiteboard.

In the bull’s eye center of the moon’s shadow known as the totality, the sky will go dark for a few minutes in the middle of the day, stars will appear, and birds will become confused and start chirping their nighttime songs. And it’s all because of a cosmic coincidence: From the Earth, both the moon and sun appear to be roughly the same size.

COURCHAINE / HENRY'S LENS OUTING

Karen & Leon's 2810 Effingham Road, St. Catharines

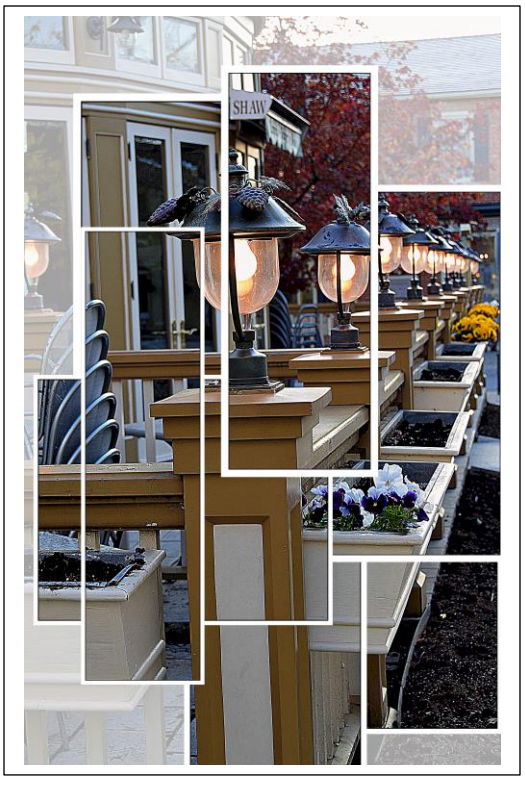
2017



Everyone had a wonderful time once again at the Courchaines for our annual get together with Bob & Meg from Henry's. Thank you again Karen & Leon.

2017

Courtesy of Dave Vandelaar in NOTL



A couple of my pictures from Outings

CAPA WINNERS

Doug Irwin, Christine Lowden, Randy Lowden, Dave Vandelaar, Bryan Urquhart

2016-2017 Banquet

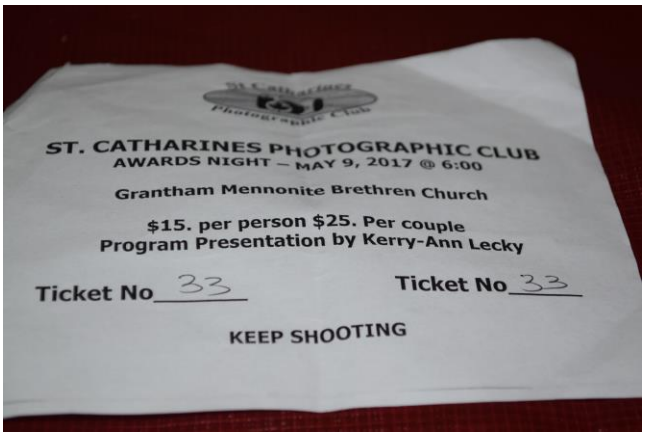
Banquet Speaker

Kerry Ann Lecky Hepburn

Our Favourite Lifetime Couple


Helping in the Kitchen


Our 50/50 Man



Divisions Altered Image of the Year

Cheryl Wamboldt Winner

Divisions Nature Image of the Year

Dave Vandelaar Winner

Divisions Open Image of the Year

Cathy Swain Winner

Top Aggregates of the year

Bronze Mike Filiti

Sharpe-Tester Dave V

Photo Essay/Travelette-Doug I

President's Medal-Vartkes P.

Total Aggregate

Silver & Senior

Monochrome Prints

Stephen Hops Bronze

Total Aggregate

Gold Colour Prints

Stephen Hops Bronze

Campbell H. Silver

Swan & People's Choice Prints

Mason Prints

Mono & Colour

Our Banquet was a great success having it at the church. Special thanks to Leah for all her hard work getting the food organized and all the girls who helped in the kitchen. Without your hard work it would not have been such a success.

Don't forget to contact Cheryl Swain about the craft show to let her know you are interested in getting involved.

Cswain1953@gmail.com

St Catharines Photographic Club

Artisan Craft Sale

Saturday September 23, 2017

10:00 am – 4pm

Location: Grantham Mennonite Brethren Church

469 Grantham Ave, St Catharines

The St Catharines Photographic Club will be hosting an Artisan Craft Sale

Vendors will be from across Niagara as well as club members:

- Jewelry, prints, greeting cards from original photography, fabric art, woodworking objects, pottery, clothing, bake sale and more!
- Watch for our announcements on facebook and local advertisers
- Visit our website at http://stcphotoclub.ca

Admission: Free, non-perishable donation to Community Care

Contact: craftsale923@gmail.com

Plan to attend and bring your family & friends!

See you next time

Cheryl Wamboldt Tripod Topics 2017