

Greg Smith – editor

**Volume 26, No.4
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Program: Backyard Observing
By Greg Smith

Meeting: August 19, 2020
Online at 7:00 p m

Filling the time.

What do you do on a summer evening, I mean after the dishes are cleared and put away, the laundry is washed, dried, and put away? If you are lucky like me, I get to play with my two granddaughters. But they go to bed early in the evening. There is not much on TV, as actors have not been working very much lately, the news is too depressing to watch much of. So, what do you do to fill in the long evenings till it get dark enough to see the stars?

For me, I have started to write. I know I write the newsletter and write for the Columbia River Reader, but what else is there to write about? With thanks to my son-law's Dad, who has started writing after he retired, inspired me to try my hand at it. I have started in on a SiFi, astronomy based, 'what if' story. Like in what if two asteroids collided, then what happens? I found some notes I had written some years ago about a scenario that might happen.

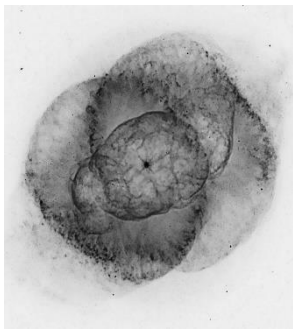
What has happened as I write, I have found that it is true, that a story can take on a life of its own. It even has its own sense of humor. When I start writing, it's like I am taking dictation. I had no idea the story

would lead in the way that it has. I think the story will come to an end shortly and I see a possible end, but then a story has a life of its own, so it could go on a bit longer. If this story goes on into fall, I may have a novel on my hands, right now it's just a short story.

Now, will I ever publish this story? I doubt it. I'll share it with friends and family, but that is about as far as I see it going.

Since it is the last half of August and it is dark enough to see Vega and Jupiter by eight-forty-five, I have gotten my scopes out to do some viewing. It is a treat to go out and do some star gazing. Talk about star gazing, I was looking a double star in my 8" scope, when a Perseid Meteor zipped through my eyepiece, splitting the double stars. Amazing experience. As I stepped back from my scope, another Perseid whipped through the sky. To see a meteor through an eyepiece, though short lived, is quite the experience. What a great coincidence to have that happen.

*Every Day is a Star Filled Day,
Every Night is a Starry Night*



NASA's TESS exoplanet-hunting space telescope wraps up primary mission

By Mike Wall, Space.com

66 confirmed exoplanets, 2,100 candidates and the search goes on.

NASA's exoplanet-hunting TESS space telescope is done with its primary mission, but its search for strange new worlds goes on.

TESS (short for "Transiting Exoplanet Survey Satellite") wrapped up its two-year primary mission on July 4, having discovered 66 confirmed alien planets and nearly 2,100 "candidates" that scientists still need to vet, NASA officials said.

TESS continues to study the heavens, however, on an extended mission that runs through September 2022.

"TESS is producing a torrent of high-quality observations providing valuable data across a wide range of science topics," Patricia Boyd, the project scientist for TESS at NASA's Goddard Space Flight Center in Greenbelt, Maryland, said in a statement. "As it enters its extended mission, TESS is already a roaring success."

TESS launched to Earth orbit in April 2018 and began its science work three months later. The probe hunts for alien worlds using the "transit method," monitoring stars for tiny brightness dips caused by orbiting worlds crossing their faces.

This same strategy was used to great effect by TESS' predecessor, NASA's pioneering Kepler space telescope. Kepler, which was declared dead in October 2018, found about two-thirds of the 4,200 exoplanets discovered to date. (Kepler finds are still rolling in; scientists continue to pore over the spacecraft's huge data set, which has more than 3,000 additional candidates that require further analysis.) TESS uses four cameras to study 24-by-96-degree sectors of the sky for about one month at a time. (Your clenched fist held at arm's length covers about 10 degrees of sky, for reference.) The probe spent the first year of its primary mission scrutinizing sectors in the southern sky, then switched to the northern sky in its second year.

The planet-hunting craft managed to cover about 75% of the sky during its two-year primary mission, NASA officials said.

The extended mission will feature the same order, with TESS focusing on the southern sky for the first 12 months before shifting to the northern sky. During that second year, the probe will also observe areas around the ecliptic, the plane of Earth's orbit around the sun.

TESS' primary mission yielded many exciting finds, including an Earth-sized planet called [TOI 700 d](#) that orbits in its star's habitable zone, the range of distances where liquid water could be stable on a world's surface. But the extended mission may be even more fruitful because the TESS team has made some improvements over the past two years.

The probe's "cameras now capture a full image every 10 minutes, three times faster than during the primary mission," NASA officials wrote in the same statement. "A new fast mode allows the brightness of thousands of stars to be measured every 20 seconds, along with the previous method of collecting these observations from tens of thousands of stars every two minutes."

The budget for TESS' primary mission was capped at \$200 million, not including launch costs, which added another \$87 million. The extended mission won't add too much to the overall price tag. For example, the extended-mission operations of NASA's New Horizons Pluto probe, which began in 2017, have cost less than \$15 million per year, on top of a prime-mission price tag of about \$780 million.

Minutes of the July Meeting

The July meeting was a picnic at Ted Gruber's home. Unfortunately, only two couples came. So, an evening of chatting and eating of their own food. No business was discussed, or sky report given.

2020 Friends of Galileo Astronomy Viewing Schedule*

August Moon: Full=3, New=18

10/11/12 Perseids Meteor Shower Peak

14/15 Club Star Party (Mike's)

19 Virtual Club Meeting (Zoom)

21/22 Club Star Party – Backup Dates (Mike's)

September Moon: Full=2, New=17

16 Club Meeting TBA (Zoom vs. MMHS)

18/19 Club Star Party (Mike's)

☞ August 2020 Meeting ☞

DATE: **Wednesday August 19**
TIME: 7:00pm
PLACE: Your Laptop / Tablet / or
Smartphone.

A **Zoom** enabled meeting

PROGRAM: Backyard Observing

Drinks : Your Choice
Snacks : Whatever is in your Cupboards

Friends of Galileo Club Officers

PRESIDENT	Ted Gruber
VICE-PRESIDENT/ PROGRAM CHAIR	Mark Thorson
SECRETARY	Becky Kent
TREASURER	Steve Powell
WEBSITE	Ted Gruber
NEWSLETTER ED.	Greg Smith
ALCOR	Tom Meek

Next Month's Newsletter Deadline

The deadline for items in next month's newsletter is:
Wednesday: seven days before next meeting.

Please feel free to send in your thoughts and experiences about your astronomical adventure.

Submit your material by E-mail to: gryth@msn.com

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