

**Program** – "US Space & Rocket Center in Huntsville, AL". – Mark Thorson

**Volume 28, No.6**  
**October 2022**

**Greg Smith – editor.**

**Meeting: Wednesday 7pm**  
**October 19, 2022**  
**ZOOM/R. A. Long Rm 130**

### **Autumn's Clear Skies, and a story.**

We certainly have had a good run of clear nights, different from last month. I hope many of you have been taking advantage of them. With bright Jupiter up early in the evening, it makes for a bright beacon to draw us out under somewhat warm night skies. Makes for a delightful time with a telescope and a few favorite stellar objects to view. A waning moon is slowly darkening the sky allowing the veil of its brightness to be drawn back to let us see the beauty of a dark starry sky.

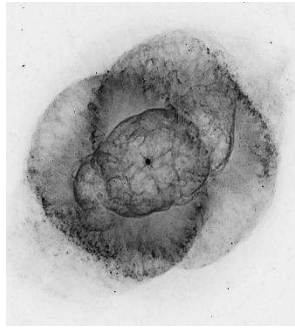
It is nice to hear we will have another chance to see if the test flight of the Artemis moon rocket will finally succeed. November 14<sup>th</sup> is the next try. At least it's not a Friday the 13<sup>th</sup>. It's a Monday. Let's hope for some good clear Florida weather this time. Is the third time going to be the charm for the launch?

Two years ago, I took an idea that I had for a science-fiction story and wrote a complete story. It took off with a life of its own. I had no plan or outline. The story seemed to write itself. I was just the typist of

the narration. The ideas came flowing at a high rate of speed. I could hardly keep up. It developed into story of the discovery of an outpost on an asteroid that had been hit by another asteroid. The US had a robotic probe, just like the ones that went to Jupiter and Saturn, sent to see what had happened to the smashed asteroid. Low and behold structures were found. Soon after an artificial Fast Radio Burst was discovered from our Oort Cloud. It was assumed it was the inhabitants of the destroyed facilities that had relocated. NASA and JPL then put out a low key request to Universities with astronomy programs for suggestions on how to contact these alien visitors. A plan was submitted by four graduate students. It was selected by NASA and JPL. Then the story develops into what I call a Sci-Fi Hallmark story.

I sure had fun writing it. Learned a lot about writing too.

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



Anyone for  
Galactic  
Spaghetti.



## Astronomers baffled by black hole burping out spaghettified star years after eating it

By [Ben Turner](#)

Astronomers have spotted a black hole mysteriously spewing up chunks of a devoured star several years after consuming it.

The event, which scientists have classified as AT2018hyz, began in 2018 when astronomers saw the black hole ensnare a hapless star in its strong gravitational pull before shredding it to pieces. Then, three years later, in 2021, a New Mexico radio telescope picked up a signal indicating unusual activity — the black hole had begun burping the star out at half the speed of light.

Black holes have previously been spotted gobbling down stars before vomiting them out, but until now, the ejection has only ever taken place at the same time as the meal. The researchers used four Earth-based observatories located around the globe and two observatories in space to spot the event; they published their findings Oct. 11 in *The Astrophysical Journal*.

"This caught us completely by surprise — no one has ever seen anything like this before," lead author Yvette Cendes, an astrophysicist at the Harvard and Smithsonian Center for Astrophysics, said in a statement.

Black holes are messy eaters that like to play with their food. A black hole's consumption of a star is called a tidal disruption event (TDE) because of the powerful tidal forces that act upon the star from the black hole's gravity. As the star is reeled ever closer to the black hole's maw, the black hole's tidal forces strip and stretch the star layer by layer; transforming it into a long, noodle-like string that gets tightly wound around the black hole like spaghetti around a fork to form a ball of hot plasma. This is known as spaghettification. This plasma quickly accelerates around the black hole and spins out into an enormous jet of energy and matter, which produces a distinctive bright flash that optical, X-ray and radio-wave telescopes can detect.

But AT2018hyz is unusual: Not only did it wait for three years after snacking on the star to emit a flash, but the speed of the material sent flying from its mouth is staggering. Most TDE outflows travel at 10% the speed of light, but the ejected star matter of AT2018hyz is traveling as fast as 50% the speed of light.

"We have been studying TDEs with radio telescopes for more than a decade, and we sometimes find they shine in radio waves as they spew out material while the star is first being consumed by the black hole," study coauthor Edo Berger, a professor of astronomy at Harvard University, said in the

statement. "But in AT2018hyz there was radio silence for the first three years, and now it's dramatically lit up to become one of the most radio luminous TDEs ever observed."

Cendes believes it could be belatedly expelling its earlier meal. "It's as if this black hole has started abruptly burping out a bunch of material from the star it ate years ago," Cendes added.

The researchers aren't sure what is causing the flash to be delayed, but they think this postponed could be more common than once thought. To test if that's the case, astronomers will need to look at sources of other TDEs, previously assumed to be out of action, to see if they can catch them flashing once more.

"This is the first time that we have witnessed such a long delay between the feeding and the outflow," Berger said. "The next step is to explore whether this actually happens more regularly and we have simply not been looking at TDEs late enough in their evolution."

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## **2022 Friends of Galileo Astronomy Viewing Schedule**

### **October    Moon: New=25, Full= 9**

19            Club Meeting (In-Person/Zoom) R.A. Long High School  
21/22        Club Star Party @ Mike's

## ☞ October 2022 Meeting ☞

DATE: October 19, 2022

TIME: 7:00pm

PLACE: Hybrid in person / Zoom - originating from R, A. Long H. S. Rm 130

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### Moon Phases

New: Nov. 23, Wed      1<sup>st</sup> Qtr.: Nov. 30, Wed      Full: Dec. 7, Wed      3<sup>rd</sup> Qtr.: Nov. 16, Wed

End of twilight - when the stars start to come out.

Wed, Oct 19<sup>th</sup> 6:48 pm.    Mon, Oct 31<sup>st</sup> 6:59pm    Fri, Nov 11<sup>th</sup> 7:14pm    Wed, Nov 16<sup>th</sup> 6:48pm

**The Star Report** is posted on the clubs website: 1. It is listed in the blog portion of the website.

### **Minutes of the August FOG Meeting**

Meet in Rm 130 at R A Long High school. In person: Mark Thorson, Ted Gruber, , David Frechtman, Steve Powell, Gayle Gonzales. Tom Meek, Stephanie & Stephen Foster. Online: Howard K, Becky Kent, Carolyn Hail.

Subjects talked about :Solstice Walk – Dec 17<sup>th</sup> .

Mt St Helens – we are going try to change it up next year with having us only be in charge of the public viewing at night. Also having the ability to cancel 48 hrs. in advance if weather is not going to be clear. Tentative Dates July 18<sup>th</sup> or Aug. 19<sup>th</sup>

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## Friends of Galileo Club Officers

PRESIDENT	Ted Gruber
VICE-PRESIDENT/ PROGRAM CHAIR	Mark Thorson
SECRETARY	Greg Smith
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 adventures.**

Submit your material by E-mail to: [gryth@msn.com](mailto:gryth@msn.com)

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 Longview, WA

