

# CENTI ASTRO-SPACE ACTIVITIES



## **COSMIC DIMENSIONS**

February 2022 V. 1 Issue 2

Welcome to the second issue of Cosmic Dimensions. With the last issue most everyone also received my updated brochure and flyer explaining what I offer. If you didn't receive these let me know and I will send them to you. I can't believe that the first month of 2022 is coming to an end. We can all hope that this year will be a healthy and happy one. In the coming months you will be introduced to many exciting events about Astronomy and Space Exploration. This issue will introduce you to the following:

- SAVE THE DATE - FREE WEBINAR - THURSDAY, FEBRUARY 17<sup>TH</sup> , 2022
- WHAT'S UP IN THE NIGHT SKY FOR FEBRUARY
- FAMOUS FEMALE ASTRONOMER
- IMPORTANT SPACE MISSIONS PLANNED FOR 2022
- JAMES WEBB SPACE TELESCOPE FAQs | STAR WALK
- SPACE PIC OF THE MONTH
- COSMIC TIDBITS
- EVENTS IN HISTORY
- BENEFITS OF SPACE EXPLORATION
- FEBRUARY ASTRONOMY JOKE
- SPACE QUOTE
- INSPIRATIONAL QUOTE

## **SAVE THE DATE - FREE WEBINAR**

*I will be hosting a free webinar*

DATE: Saturday, February 19<sup>th</sup>, 2022

TIME: 1:00 PM EST

TOPICS: ★ Networking

★ Answer questions

★ Learn about my courses, webinars and workshops.

★ Scheduling

Reservations are required. Call or email me at:

716 - 338 - 7596 [centiaastro@gmail.com](mailto:centiaastro@gmail.com)

*Once you have registered, a link will be sent to your email for you to log in.*

# WHAT'S UP IN THE NIGHT SKY FOR FEBRUARY

Night Sky Notebook

<https://www.youtube.com/watch?v=fDnhRNRXzP8>

## FAMOUS FEMALE ASTRONOMER

### Cecilia Payne-Gaposchkin (1900-1979)

- Country: born in the UK, active in the USA
- Notable discovery: composition of stars

Cecilia Payne became interested in astronomy after she attended a lecture by Arthur Eddington, who had confirmed Albert Einstein's theory of relativity while observing a solar eclipse. After graduating from Cambridge University, she moved to the USA, as she felt there would be more career opportunities there than in the UK.



In 1925, Cecilia presented her doctoral thesis, where she proposed that stars, including our Sun, were composed primarily of hydrogen and helium. This groundbreaking discovery was initially rejected: at the time, most scientists believed the Sun was made up of the same elements as the Earth. However, her discovery was eventually recognized; she received several awards and became the first female professor at Harvard University.

Objects named in honor of Cecilia Payne-Gaposchkin: asteroid 2039 Payne-Gaposchkin, Payne-Gaposchkin Patera (volcanic crater) on Venus.

Source: *Star walk*

## IMPORTANT SPACE MISSIONS PLANNED FOR 2022

### A private mission to the ISS

*When: February 21-March 3, 2022 and September 2022-March 2023*

The private spaceflight company Axiom has a contract with SpaceX to launch four crewed missions to the ISS. All will use SpaceX's Falcon 9 rockets and Crew Dragon spacecraft. The first Ax-1, will launch in 2022 and the second, one, Ax-2, might also. Ax-1 will see former NASA astronaut Michael Lopez-Alegria take three space tourists on an eight-day mission to the ISS while Ax-2 will have another ex-NASA astronaut, Peggy Whitson, do the same in fall 2022 or spring 2023.

## Dream Chaser' finally goes into orbit

*When: March, June, August and November 2022*

It looks like a mini-Space Shuttle and it lands on a runway like one, too, but Sierra Space's nine-meter "[Dream Chaser](#)" has bigger ambitions. In 2022 it will make a number of scheduled test flights to the ISS to provide cargo delivery and the return of science experiments under a Commercial Resupply Service 2 (CRS2) contract with NASA. Sadly none of them will be piloted—Dream Chaser can take seven astronauts, but it can also fly autonomously.



Dream Chaser spacecraft landing after a test flight at Edwards Air Force Base, California in 2017.

ASSOCIATED PRESS

## NASA's Juno captures a close-up of Europa

*When: February and September 2022*



This color composite view combines violet, green, and infrared images of Jupiter's intriguing moon, ...

[+] UNIVERSAL IMAGES GROUP VIA GETTY IMAGES

NASA's Juno spacecraft—in orbit of Jupiter since 2016—made [a distant encounter with Jupiter's moon Europa](#) in October 2021. However, there's more where that came from in 2022. The \$1.1 billion spacecraft will next get a view of Europa in February 2022, from a distance of about 29,000 miles/47,000 km), followed in late September 2022 by a close-up from just 221 miles/355 kilometers) above Europa's surface.

## JUICE heads for Jupiter

*When: May 2022*

The European Space Agency's [JUperiter ICy moons Explorer](#) (JUICE) mission is scheduled to launch in 2022 and arrive in the Jovian System in 2029. It will then take three and a half years to examine Jupiter's moons Ganymede, Europa and Callisto.



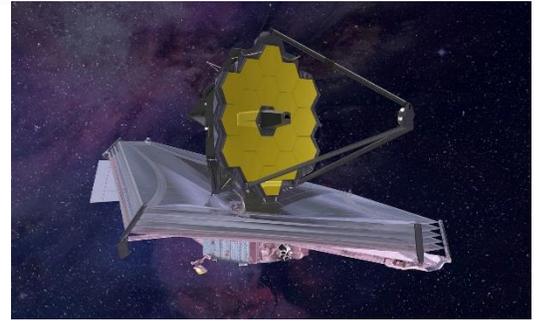
The European Space Agency's JUperiter ICy moons Explorer (JUICE) probe will launch in 2022.

SPACECRAFT: ESA/ATG MEDIALAB; JUPITER: NASA/ESA/J. NICHOLS (UNIVERSITY OF LEICESTER); GANYMEDE: NASA/JPL; IO: NASA/JPL/UNIVERSITY OF ARIZONA; CALLISTO AND EUROPA: NASA/JPL/DLR

## James Webb Space Telescope FAQs | Star Walk

In the last issue I gave a brief description about the James Webb Telescope. *Click on the link below* to view a video answering the most commonly asked questions about the largest and most powerful telescope ever launched into space.

<https://www.youtube.com/watch?v=b6qRVnZDrpA&t=205s>



## SPACE PIC OF THE MONTH



Called the Bird or the Tinker Bell Triplet, ESO 593 IG-008 is a cosmic mashup of three intertwined galaxies lying some 650 million light-years away. Captured with the VLT at Pananal in Chile, the distant merger contains a tiny bluish irregular galaxy (at right) as well as two spirals. Credit: ESO

Found on Facebook. Posted by David J. Eicher who is Editor-in-Chief of Astronomy magazine

*What do you think it looks like? Take a minute or two and look at it. Let me know your opinion. Shoot me an email with your answer. Send it to [centiaastropace@gmail.com](mailto:centiaastropace@gmail.com)*

# COSMIC TIDBITS

How many moons could fit inside the Earth? Answer in picture.



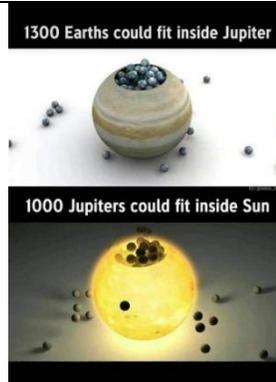
How many moons could fit inside the sun?

Ans. 64,300,000

How many Earths could fit inside the sun?



What's the answer?



## EVENTS IN HISTORY

There are many historical events that have occurred, but January and February mark anniversaries of three tragedies that happened in the United States.

January 27, 1967 Apollo 1 Fire Killed 3 astronauts. Virgil "Gus" Grissom, Ed White and Roger B. Chaffee **For more information click link:** <https://www.space.com/nasa-apollo-1-fire-55-years-orion-moon-return>

January 28, 1986 Challenger Shuttle broke apart 73 seconds after launch killing 7 astronauts. Gregory Jarvis, Christa McAuliffe, Ronald McNair, Ellison Onizuka, Judith Resnik, Michael J. Smith and Dick Scobee **For more information click link:** <https://www.spacesafetymagazine.com/space-disasters/challenger-disaster/>

February 1, 2003 Columbia Shuttle disintegrated upon reentry killing 7 astronauts. Rick D. Husband, William C. McCool, Michael P. Anderson, David M. Brown, Kalpana Chawla, Laurel Clark and Ilan Ramon **For more information click link:** <https://www.space.com/19436-columbia-disaster.html>

NASA remembers fallen astronauts on 55th Apollo 1 anniversary

**Click link:** [https://www.youtube.com/watch?v=Sih1\\_kbgWYo](https://www.youtube.com/watch?v=Sih1_kbgWYo)

# **BENEFITS OF SPACE EXPLORATION**

## **Space-Age Water Purification Anywhere on Earth**

**Company puts NASA-enhanced filter in consumer water bottles, looks to expand to developing world**

Originally published 01/24/2022

Piush Soni didn't think much about clean drinking water until it became hard to find.

**As a gemologist spending long periods in African jungles, he realized he wasn't the only one worrying about his next drink of water. "In these countries, you had children dying weekly, drinking from puddles, rivers, and lakes. It's only there that you realize how valuable water really is."**

**One place where drinking water is even scarcer, however, is space. To read more:**

**<https://spinoff.nasa.gov/Space-Age-Water-Purification-Anywhere-on-Earth>**

## **ASTROSPACE JOKE of the MONTH**

**Why did Mickey Mouse go to outer space? *To find Pluto.***

## **SPACE QUOTE OF THE MONTH**

**"Space is for everybody. It's not just for a few people in science or math, or for a select group of astronauts. That's our new frontier out there, and it's everybody's business to know about space." – *Christa McAuliffe.***

## **INSPIRATIONAL QUOTE OF THE MONTH**

**"Life is like riding a bicycle. To keep your balance, you must keep moving." - *Albert Einstein***

## **CONTACT**

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