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# CENTI ASTRO-SPACE ACTIVITIES

Welcome to the tenth issue of Cosmic Dimensions. I am still looking for contributors who will add their perspectives to this newsletter. Any Amateur Astronomers or space enthusiasts out there that would like to contribute, please contact me. Other changes are on the drawing board, so to speak. Below you will find what's included this month. Enjoy!

- WHAT'S UP IN THE NIGHT SKY FOR OCTOBER
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## WHAT'S UP IN THE NIGHT SKY FOR OCTOBER

The Night Sky

https://www.youtube.com/watch?v=dTRG3q4vpa8

## ARTEMIS I

NASA rolls Artemis 1 moon rocket off the launch pad to shelter from Hurricane lan

By Mike Wall

The move will keep Artemis 1 safe from Hurricane Ian, should the storm slam Florida's Atlantic coast.

NASA's Artemis 1 moon rocket is seeking shelter from the storm. The space agency began rolling the <u>Artemis 1</u> stack — a <u>Space Launch System</u> (SLS) rocket topped by an Orion crew capsule — off Kennedy Space Center's (KSC) Launch Pad 39B Saturday (Sept. 26) at 11:21 p.m. EDT (0321 GMT on Sept. 27).



NASA's Artemis 1 moon rocket rolls off the Launch Pad 39B at Kennedy Space Center in Florida on Sept. 26, 2022, to take shelter from Hurricane Ian. (Image credit: NASA's Kennedy Space Center)

To read more click on the link: https://www.space.com/artemis-1-moon-rocket-rollback-hurricane-ian

# MOON'S BEST FRIEND: ROBOT DOGS COULD BE FUTURE LUNAR EXPLORERS

**By Elizabeth Howell** 

Imagine fetching in the moon's gravity, a sixth of that on Earth's.



LEAP (Legged Exploration of the Aristarchus Plateau) is one dogged idea to explore the moon in the future. (Image credit: ETH Zürich/Robotics Systems Labs (RSL))

Future lunar explorers may not only be barking at the moon, but digging for scientific answers.

Dog-shaped robots may be used on future moon missions, as humanity's best friend is an agile explorer already. Leaping, digging and exploring elevated terrain are all things dogs eagerly do on <a href="Earth">Earth</a>. To read more click on the link: <a href="https://www.space.com/robot-dogs-future-moon-explorers?utm\_campaign=58E4DE65-C57F-4CD3-9A5A-609994E2C5A9">https://www.space.com/robot-dogs-future-moon-explorers?utm\_campaign=58E4DE65-C57F-4CD3-9A5A-609994E2C5A9</a>

#### FAMOUS AFRICAN AMERICAN ASTRONAUT

#### **Leland Melvin**



Leland D. Melvin, former NASA astronaut, administrator, and NFL football player.

Courtesy NASA

Leland Melvin (born February 15, 1964) is an American engineer and retired NASA astronaut who left a career as a professional football player to fly in space. Before retiring in 2014, he served aboard two space shuttle missions before being named NASA associate administrator for Education in October 2010.

Born in Lynchburg, Virginia, Melvin attended Heritage High School. Attending on a football scholarship, he received a bachelor's degree in chemistry from the University of Richmond in 1985, and a Master of Science degree in materials science engineering from the University of Virginia in 1991. An outstanding football player at the University of Richmond, Melvin was selected by the Detroit Lions professional football team in the 1986 NFL draft. After a series of minor injuries ended his professional football career, he decided to focus on his true passion, space exploration.

From 1989 to 1998, Melvin worked on advanced spaceflight research and development projects at NASA's Langley Research Center in Hampton, Virginia. Selected as an astronaut in June 1998, he reported for training in August 1998. Melvin went on to serve as a mission specialist aboard two missions on the space shuttle Atlantis: STS-122 from February 7 to February 20, 2008, and STS-129 from November 16 to November 29, 2009. In these two missions helping to build the International Space Station, Melvin logged over 565

hours in space. In his position as associate administrator for NASA's Office of Education, he worked to inspire interest in science and space exploration while making the public aware of the space agency's future goals and missions.

SOURCE: ThoughtCo Online

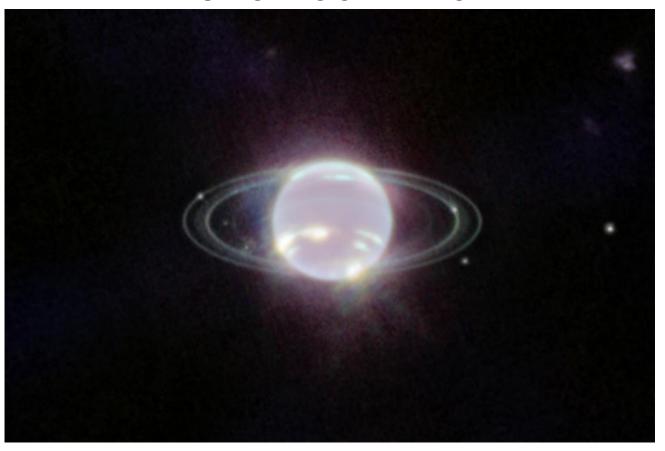
## DART MISSION

NASA DART Mission Successfully Crashes Into Asteroid During Planetary Defense Test

DART Explained: First Asteroid Crash Images https://www.youtube.com/watch?v=aQ0QIBaYmJQ



#### SPACE PIC OF THE MONTH



Neptune Shows Off Its Rings in Near-Infrared Light
On Sept. 21, 2022, the James Webb Space Telescope delivered the clearest view of Neptune's rings in more than 30 years.

Image Credit: NASA, ESA, CSA, STScI

## SPACE SPINOFFS

Space exploration has provided many benefits that people aren't aware of, but here are some things worth noting.

#### **LED Lights**

Common in car brake lights, turn signals, and stop lights, LED (Light Emitting Diode) technology has seen significant advances due to work coming from NASA. NASA uses red LEDs in experiments with plant growth for food production in space. These red LEDs also provide the tech for a handheld medical device called the WARP 10.

The WARP 10 is used for minor aches and pains and even helps with arthritic pain. As the developers of the WARP 10 use information from market research, along with NASA's experimental data, they are finding more uses for similar LED technology. These include increasing blood flow to certain areas in a person's body, creating treatments for osteoporosis, relieving pain from bone marrow transplants, and even treating degenerative diseases like Parkinson's.

#### **Artificial Limbs**

What do a Mars Rover and a human amputee have in common? The technology behind their movement.

NASA robotics research funds many market applications in robotics. This research creates robotic prosthetics with wide ranges of motion, control, and power delivery. Since a rover needs to carry its power source with it, it has limited battery reserves. Its robotic arms have to function as independently as possible. Likewise, a prosthetic limb has power reserves that are limited by a person's need for mobility.

#### ASTROSPACE JOKE of the MONTH

When does the moon gets his/her stomach full? During full moon.

#### SPACE QUOTE of the MONTH

"Every single astronaut who has come back from space comes back determined to do more to protect it." -- Richard Branson

## INSPIRATIONAL QUOTE of the MONTH

"We are limited only by our imagination and our will to act." -- Ron Garan

## CONTACT



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