What's Up in the Night Sky for AUGUST



Presented by

Night Sky August 2024 Events | Planetary Alignment https://www.youtube.com/watch?v=rPjC-PIPa3A

Tonight's Sky: August https://www.youtube.com/watch?v=SLIvXIAHj7U

10 AMAZING NASA INVENTIONS THAT RESHAPED OUR WORLD

Source: 24/7 Wallist

1. Artificial limbs

Innovations originally designed for space vehicles, including artificial muscle systems, robotic sensors, diamond joint-coatings, and temper foam, make artificial human limbs more functional, durable, comfortable, and life-like.

2. Scratch resistant lenses

After NASA developed scratch-resistant astronaut helmets, the agency gave a license to Foster Grant to continue experimenting with scratch-resistant plastic coatings, which now comprise most sunglass and eyeglass lenses, prescription and otherwise.

3. Laser eye surgery

Technology used to track astronauts' eyes in space, originally intended to assess how a human's frame of reference is affected by weightlessness, has become essential for use during laser eye surgery. The device tracks a patient's eye position while the surgeon operates.

4. Solar cells

Out of a need to increase the efficiency of the energy systems aboard the International Space Station, NASA has helped invent and improve photovoltaic cells, sharing the advancements with other companies to accelerate the technology.

5. Freeze-dried foods

In preparation for the Apollo missions, NASA utilized a freeze-drying technique perfected by Nestlé to bring food to 20% of its original weight while managing to retain 98% of the food's nutritional value.

6. Cellphone cameras

In the 1990s, NASA's Jet Propulsion Laboratory invented a light, miniature imaging system that required little energy in order to take high-quality photographs from space. This technology has become standard in cellphone and computer cameras.

7. Grooved pavement

While searching for ways to increase safety during shuttle landings, NASA scientists discovered that cutting grooves into the runway helped channel water and significantly reduce hydroplaning. Many highways and airports now have grooved pavement.

8. Resistance-based workout machines

Because traditional weight-lifting machines don't work in zero-gravity, NASA sought a way for astronauts to maintain muscle tone using resistance-based workout equipment. Funding the work Paul Francis, inventor of a resistance-based weight-lifting system called SpiraFlex, NASA got what they were looking for and Francis's work was later incorporated into the Bowflex Revolution, a quieter, safer, more compact home gym than the traditional weight and cable machines.

9. Infrared ear thermometers

Infrared ear thermometers, which allow for instant temperature capture without the risk of crossinfection, utilize the same technology developed for assessing the temperature of distant planets.

10. Ice-resistant airplanes

Ice is a real threat for shuttles in space, and NASA has devised multiple electronic solutions to prevent ice formation on spacecraft exteriors. Some of these are now used on commercial aircraft.

SOLAR SYSTEM FACT SHEETS

I recently published a series of 11 fact sheets on the solar system. They include facts on the solar system in general, the Sun, the 8 planets and a solar system bundle and are available for purchase on several sites. Each of these fact sheets include a cover depicting the object with the remaining pages including the unique facts. Why not check them out in my website store. Here is just a small sample.



Click on the following link to check them out: <u>https://www.centiastrospace.com/shop</u>

First Steps: Human Footprints on the Moon

Coming soon!! The course I have been wanting to develop since the 50th anniversary of the Apollo 11 Lunar landing. Currently in the process of completion is the course "First Steps: Human Footprints on the Moon". It is geared for middle school students to Adults and will be available as an online on-demand course. On-demand means once a student registers



for the course, they can complete it at their leisure with no time constraints. It starts with the tragic loss of the Apollo 1 astronauts to the successful landing of Apollo 11. Here is the description:

Embark on an odyssey that transcends time and space—a journey that began with a dream and culminated in Neil Armstrong's historic 'giant leap for mankind'. In this course, we'll explore the early Apollo missions, from the tragic fire of Apollo 1 to the triumphant landing of Apollo 11. Delve into the science, teamwork, and sheer courage that made these pioneering missions possible. Learn about the technological innovations, rigorous training, and meticulous planning that propelled us to the Moon. From the Earth-shaking launch of the Saturn V rocket to the first human footprints on the lunar surface, each mission brought us one step closer to fulfilling a dream as old as humanity itself. Get ready to be inspired by the cosmic pioneers who dared to defy gravity and left an indelible mark on human history. Join in on the journey back to a time when the whole world looked up at the sky and dared to dream.

A second course is also under development entitled Lunar Legacy: The Final Footsteps of Apollo which covers the remaining Apollo missions. More information is coming soon!



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