



August 2007

"If the Sun and Moon should ever doubt, they'd immediately go out."
 William Blake- Poet

Stellar Scenes THEATER UPDATE

New Director is here!
 Marc Rouleau



Coming Soon to a Sky near you!

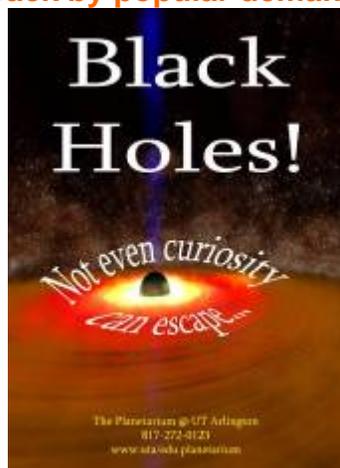


Starts September 1



Coming October 11

Back by popular demand:



Far Out Fact

WHO DISCOVERED the EARTH is ROUND?

Let's say you're a contestant on a TV quiz show. This is your question—*who first knew the Earth was round?* If you answer correctly, you win a ride as a "guest astronaut" on the next shuttle mission. So who was the well-rounded individual?

Christopher Columbus?
 Wrong.

Galileo Galilei?
 Nope.

Albert Einstein?
 Sorry.

The answer?
 No one knows for sure.

Most accounts say it was Aristotle. This famous Greek philosopher noted that it was *common knowledge* that lunar eclipses proved the Earth was round. So he did not take credit for the discovery.



How does a moon eclipse prove the Earth is round? During each lunar eclipse (see below how to spot one this month!) the shadow on the Moon is always round. Aristotle noted that people knew the shadow came from the Earth. Our planet blocks out the Sun's light as seen from the Moon. Only a sphere could always cause these shadows to be curved. Thus, the Earth is round.

UNIVERSE UPDATE

On to Mars—Again!

We have five spaceships at Mars—two rovers and three orbiters. In early August, NASA will start to make it six with the Mars Phoenix Lander launch. This spacecraft will look beneath a frigid arctic landscape for conditions favorable to past or present life.



The journey to Mars will take about eight months when in May 2008 the Phoenix begins its descent to touch down successfully. This lander will not move like rovers Spirit and Opportunity. Instead the Phoenix will stay put and its array of scientific instruments will prod and poke the soil, ice and atmosphere on Mars. Planetary scientists will gather the data and always be on the look out for any evidence that primitive microbes exist or have existed on the red planet.

<http://mars.jpl.nasa.gov/>

Teacher in Space

Many of us sadly remember the 1986 Shuttle Challenger disaster that took the lives of seven astronauts including the first teacher in space Christa McAuliffe.

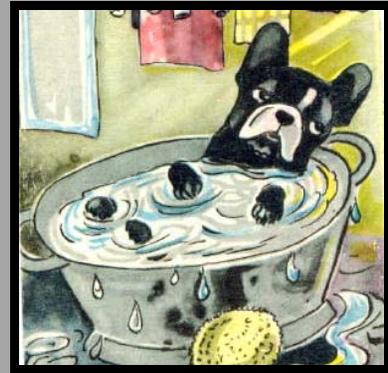


On August 7, NASA will launch Space Shuttle Endeavour's STS-118 mission with teacher Barbara Morgan on board. Ms. Morgan was selected as the backup candidate for the NASA Teacher in Space Program on July 19, 1985. Following the Challenger accident, Morgan assumed the duties of Teacher in Space Designee. She returned to Idaho to resume her teaching career, teaching second and third grades at McCall-Donnelly Elementary. But Morgan also kept working with NASA's Education Division. Her duties as Teacher in Space Designee included public speaking, educational consulting, curriculum design, and serving on the National Science Foundation's Federal Task Force for Women and Minorities in Science and Engineering.

This is the 22nd shuttle flight to the International Space Station. It will continue space station construction by delivering a third starboard truss segment.

Cosmic Curiosities

DOG DAYS of SUMMER?



Ah, August. When summer gets hot and humid and autumn is anticipated. Some call it the “dog days of summer.” Why? Well, let's get Sirius and find out.

No, I did not spell Sirius wrong. Seriously. Sirius is a star. It's the brightest star in the entire night sky. And we have to get Sirius to answer our question.

Sirius is located in the constellation of Canis Major--the big dog! Canine means dog. Thus, Sirius is often called the dog star.



In late summer, the dog star rises and sets with the Sun. This means Sirius is behind the Sun. Or astronomically speaking, Sirius and the Sun are in conjunction.

The ancient Romans believed that the heat from bright Sirius teamed up with the Sun's heat to make the Earth even hotter. They named this period of time the “dog days of summer”—after the dog star.

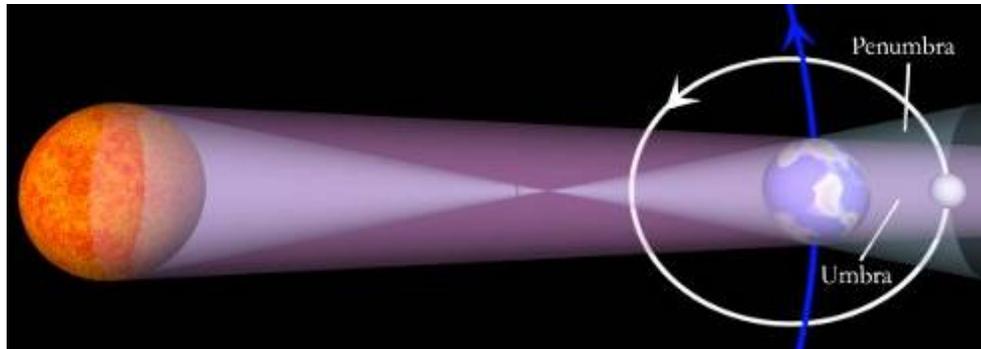
Although August is certainly hot, the heat is not due to the added heat of Sirius. The dog star is extremely far away compared to the Sun. How much further? Well, our best spaceship could get to the Sun in less than one year. At that same speed—about 10 miles a second--the spaceship would take 200,000 years to get to Sirius!

So what does cause a hot August? The heat of summer is a direct result of the Earth's tilt as it orbits the Sun. We'll explain that more another time. Seriously.

August SKY SIGHTS

LUNAR ECLIPSE!

Get ready for a **very** early morning lunar eclipse this month! Details below.



A lunar eclipse occurs when the Moon passes through the Earth's shadow. The entire eclipse can take about 3 hours with the total phase lasting about one hour. During the total phase, viewers often see the Moon turn a ruddy, red or orange color due to the Sun's red light being refracted, or bent, by the Earth's atmosphere onto the Moon. The Moon will be in the western sky. The Moon will set at 6:17 a.m. as the Sun rises in the East.

Meteor Shower

The Perseid Meteor shower will peak on the night of August 12 and 13. The Moon that night will not be around thus offering even darker skies. No binoculars or telescopes are needed to see these "falling stars." Just lie on a lawn chair or blanket and enjoy.



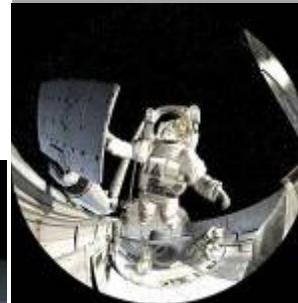
The Perseids happen every year because the Earth's orbit intersects with tiny dust debris left over from Comet Swift-Tuttle.

The Planets

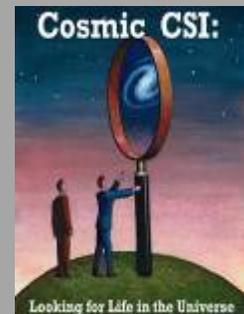
Say good-bye to **Saturn** & **Venus** this month in the evening sky. Dazzling Venus will re-appear in the morning sky by the end of August. Look for it low in the east about 40 minutes before sunrise. Saturn will be visible low in the morning toward mid-September.

Mars is still slowly moving into the evening sky for some great appearances in late fall and winter. By August 31, Mars will rise before midnight. If that's too late, look for the red planet high in the southern sky amongst the bright stars of Taurus about an hour before sunrise.

Now Showing!



Astronaut!



Cosmic CSI



Rock & Roll Hall of Fame

Ticket Prices:

\$5 – Adults

\$4 – Kids (18 & under), Seniors, & non-UTA Students

\$3 – UTA Faculty/Staff/Alumni

\$2 – UTA Students

\$3 – Group of 10 or more with reservation

Show Times are:

Wednesday through Saturday

11:00 AM – Astronaut

2:00 PM – Cosmic CSI

Thursday Nights

7:00 PM – Astronaut

8:00 PM – Cosmic CSI

The Planetarium @ UT Arlington

700 Planetarium Place

Box 19059

Arlington, TX 76019

817-272-0123

<http://www.uta.edu/planetarium>

Jupiter is located just above the red star Antares (meaning rival of Mars) low in the south sky for all of August! Jupiter will not leave our evening skies until around Thanksgiving.

Mercury is too close to the Sun to be seen this month.

Beautiful Pairings with our *Moon*

August 5 **3rd Quarter Moon** (am)
August 7 Mars, Pleiades, & Crescent Moon (am)
August 12 New Moon
August 17 Bright stars Spica & Crescent Moon (pm)
August 20 **1st Quarter Moon**
August 21 & 2 Jupiter, Antares and near Full Moon (am & pm)
August 28 Full Moon--ECLIPSE!



