

2-7 Sunday meteor shower expected to be best yet

(AP) — Brew some coffee, pack the lawn chairs. Astronomers predict this year's Leonids meteor display, expected to appear before dawn Sunday, will be a dazzler worth missing a little sleep.

"It's now or never," said Robert Siegel, president of the Astronomical Society of the Pacific. "Astronomers don't think we'll see another storm like this one until the year 2099. We will probably never see a better meteor shower in our lifetimes."

Every year, scientists fly to places like the Gobi Desert or Canary Islands to watch the heavens rain fire for a few minutes in November. This year, the alignment suggests that North America will be squarely beneath one of the most vigorous shooting meteor showers, the Leonids, which streak across the Pacific Islands and the Far East as natural fireworks, too.

The most optimistic celestial forecasts call for a steady storm of 4,000 meteors per hour, or about 70 per

minute around 5 a.m. EST Sunday. With clear skies, luck and the bonus of a nearly moonless night, people in some locations could see twice that.

The Leonids are dust particles shed by Comet Tempel-Tuttle. Like a truck barreling down a dirt road, the comet trails a cloud of dust as it orbits the sun once every 33 years.

The meteors are called Leonids because they appear to radiate from the constellation Leo, the Lion. A really big meteor is equal to a grain of rice.

Earth usually crosses a thin section of the Leonids trail; perhaps 10 meteors per hour streak across the night sky.

When the comet sweeps close to the sun, the sun's heat causes it to shed more debris like a truck hitting a mud puddle. Earth gets splattered when it plows through the thick wake. It occurs every November for a few years until the particles dissipate.

In 1966, observers couldn't count

the shooting stars fast enough. Estimates ranged as high as 150,000 per hour.

Comet Tempel-Tuttle most recently passed close to the sun in February 1998, and since then, in the words of forecaster Joe Rao, the Leonids have "gone berserk."

While meteor displays thrill amateur stargazers, they also hold scientific promise. Comets are hurtling balls of ice and debris left over from the birth of the solar system more than 4 billion years ago.

The particles contain basic elements like iron, as well as carbon-based molecules. Some scientists believe this is how Earth was seeded with organic compounds.

"The chemical precursors to life — found in comet dust — may well have survived a plunge into early Earth's atmosphere," said NASA scientist Peter Jenniskens, who directs airborne surveys of the Leonids.

Raining diamonds

This Sunday, Nov. 18, the Earth will pass through three streams of cosmic dust left by an orbiting comet. North Americans may see a two-hour burst of lights as particles burn up in Earth's atmosphere. The Leonids meteor display starts at about 5 a.m. EST, or 2 a.m. PST.

Year of comet's orbit: 1899, 1932, 1965, 1733, 1767, 1800, 1833, 1866, 1699.

Shows are visible when Earth passes through remnants of comet Tempel-Tuttle's progress.

Rings of cosmic dust: The comet probably consists of dust and ice. As the comet nears the sun, ice melts and minuscule particles are shed in a cloud that trails the comet along the orbit.

One orbit every 33 years: The comet's orbit extends beyond Uranus, which is 1.8 billion miles from the sun.

Streaks across the sky: Meteors, or the particles blown off a comet, are minuscule, typically the size of a pin head. Traveling at speeds over 150,000 miles per hour, meteors burn brightly as they generate friction in our atmosphere, producing a gas trail that appears as a streak of light.



On Sunday, Earth will pass through the meteor streams from 1767, 1699 and 1866.

SOURCES: Dr. Tony Phillips, NASA; The Aerospace Corp.; The American Meteor Society

SENATE

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ad accused the Pro Traditions faction of ramming through responsible legislation.

But Pearson said that the overwhelming majority of senators that supported the resolution indicated that the senate was speaking for the student body.

"I'm appalled at Jackman insinuating that people who voted for the resolution are of lower caliber than those who opposed it," Pearson said. "That's low and irresponsible, and his personal attacks have no place in this debate."

At Wednesday's meeting, supporters tried a different tactic to bring the resolution to the floor.

Kevin Capps, a senate officer and sophomore history major, said that with a two-thirds vote, the senate could discuss and vote on the bill during an open session, which is usually used as a time for senators to discuss comments and ideas.

After the senate voted 37 to 22 to discuss and vote on the resolution, debate began again.

"Two weeks ago, we brought the Bonfire 2002 Election Resolution to the floor, it was hotly debated and discussed and there were a lot of things that it went through and passed 39 to 13," Capps said. "I hope that our feelings have not changed. We have been through a lot in order to get it to this point where we can speak on behalf of the student body. We need to make sure that those in the administration know what the students want."

Arguments made against the resolution were made because some senators were concerned about the safety of Bonfire 2002.

"My number one concern is safety. You and I want Bonfire to return in 2002, but the fact remains that 12 students died. I presented to the authors of this resolution today my concern over safety and it was not included or amended into the resolution. This is why I voted against the resolution last time. It does not mean that I do not support Bonfire because I believe that [safety] should be our top priority," Senator Derek Mercer, a sophomore political science major, said.

After an extended debate period ended, the resolution passed with a vote of 38-13 and one abstention.

In other business, a new bus route was proposed to the Student Senate in the West Campus Bus Route Bill. Senator Daniel Pearson, who authored the bill, said that a bus route, called Wehner Express, could be created by Bus Operations to take students from the Memorial Student Center and Fish Pond directly to Wehner via University Drive and then back to the MSC again.

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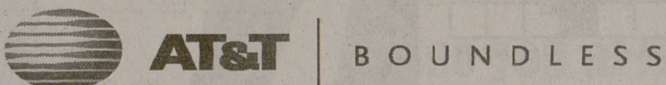
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