



Hi-Desert Star

Valley gets starstruck at astronomy fest

By Rebecca Unger
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YUCCA VALLEY — “I have a space suit, and you don’t!” Jane Houston Jones teased her listeners with what might be the ultimate taunt for astronomy fans Saturday.

Jones, a speaker at the Starry Nights Festival Saturday, has the best job in the world. She parlayed her passion for amateur astronomy and her powers of professional grant-writing into an outreach education career for the Jet Propulsion Laboratory in Pasadena.

Lately, she’s been polar-bear watching in Manitoba while collecting generations of “sky stories” from First Nations elders.

“The Cree call the stars ‘the spirit lights above us,’” Jones said. “Our Orion the Hunter is the Crees’ Friendly Giant, who painstakingly set crystals in the sky. Fox was impatient to play with him so he tossed the blanket with crystals into the sky and created the Milky Way.”

Jane and her husband, Morris, are also weekend “guerrilla” sidewalk astronomers.

“We set up our telescopes where people will trip over them, and then we force them to look at the moon and the planets,” Morris said with a laugh.

The couple were just two of the speakers delivering insights into the mysteries of the cosmos at the 15th annual Starry Nights Festival at the community center Saturday.

Dennis Mammanna is a



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Jane Houston Jones, left, has been collecting the traditions of generations of First Nations peoples. The Andromeda Society’s Joyce Metcalf holds a dreamcatcher, a web woven with crystals on a red willow frame, that was a gift from an elder to Jones to snare her bad dreams and send them on their way.

thor, photographer and tour guide for all manner of space phenomena. He used his stunning photographs from a recent Alaska trip to explain the physics of the Northern Lights.

The aurora borealis occur over the north and south poles when electrically charged particles in the solar wind leak through our planet’s magnetic field. The areas around the Arctic are more populated than those around the Antarctic, so the auroras are commonly known as Northern Lights.

“It’s like being inside a lava lamp,” Mammanna quipped. “But the Inuit people imagined it was a kind of soccer game played by the spirits with a walrus skull.”

Look on the sunny side of life

Not a night owl? Try solar science to maintain your circadian rhythm.

“Astronomers love stars, and our sun is the Rosetta Stone of astrophysics,” said John Varsick, research astronomer at the Big Bear Solar Observatory. “We can get a really good look at it.”

The mountaintop observatory holds the record for the longest continuous reading of the sun’s magnetic field. It also houses the GONG telescope as one of six facilities in the Global Oscillation Network Group.

“The sun vibrates like a

bell,” Varsick explained as he showed video of the star’s pulsating, swirling, spewing photosphere. “Measuring the frequencies of the surface bobbing up and down can tell us about the internal pressures and temperatures inside of the sun.”

For the truly dedicated armchair skywatcher, Matthew Ota of the Orange County Astronomers demonstrated free-ware and share-ware computer programs that virtually explore the solar system and the reaches of space beyond.

Software like Celestia and Universe Sandbox are so much fun, it’s easy to forget these are educational programs.

Hey, it’s not the end of the world

Syzygy is many things to many people. To a poet, it’s the combination of two metrical feet into a single unit. To Alex McConahay of the Riverside Astronomical Society, it’s “the straight line configuration of three celestial bodies in a gravitational system,” also known as Dec. 21, 2012: The End of the World.

McConahay enumerated four theories of disaster: “The world will end because the alignment of the solar system will throw their orbits out of kilter, or the solar system will cross the galactic plane’s field of gravity and be sucked out of whack, or the magnetic poles will shift, or a black sun or planet will crash into the solar system.”

McConahay explained that though the magnetic poles do shift, it happens over millennia. He noted the Earth’s magnetic field is 50,000 times stronger than that of the Milky Way. A planet couldn’t sneak up on us, because we would feel the effects of its gravity.

And using the Mayan long-count calendar to calculate our expiration date due to a major planetary conjunction?

According to McConahay’s sister, an author who lives with today’s Mayans, “none of them are worried about it.”

So mark your calendars for Starry Nights Festival 16 — and 17!