

Triton Fun Company

Science Newsletter May 2009

# Science Newsletter

## May 2009

### The 100 hours of Astronomy: Orange County Astronomers share the sky

C. Bobchin

#### Special points of interest:

IYA2009

Triton Fun stuff

Superfluous questions

400 years ago, an Italian mathematician aimed a small tube with some glass lenses inside it at the sky. With that simplest of gestures, man's view of the universe was forever changed. That man, Galileo Galilei, lived at a time when people thought the Earth was the center of the Universe and everything else revolved around us. When Galileo saw the moons of Jupiter, craters and mountains on the moon, the rings of Saturn (though he did not recognize them as rings) and sunspots, he gave further evidence that the Earth was not the center of the Universe as previously thought. He was labeled a heretic by the Catholic Church and spent the rest of his life under house arrest.

In that era, the dawn of modern Astronomy, thousands of people looked at the heavens through the crude telescopes of the time. Today, in celebration of the 400<sup>th</sup> anniversary of the telescope, the United Nations and International Astronomical Union declared 2009 to be the **International Year of Astronomy**. Part of this celebration was a world wide outreach event/star party held between April 2<sup>nd</sup> – April 5<sup>th</sup> 2009. The idea was to get as many people as possible to look through telescopes during this 100-hour period.

Here in Orange County, California, the Orange County Astronomers,

or OCA, have always had a very active outreach program and we decided that this was a great chance to show people that our club normally does not reach what objects they could see through a telescope. There were several events we participated in: One was held at a school in **Garden Grove** next to the Route 22 freeway. One was supposed to be held at O'Neill Regional Park in south Orange County, but alas, that got canceled due to skies being too overcast to see anything. The University of California, **Irvine** (UCI) had star parties Fri, Sat. and Sun. Members of OCA were present all three nights. California State University, **Fullerton** also hosted viewing sessions, both for solar during the day and the usual night time objects. We also had an event at the **Mission Viejo** library, which included a panel of professional and amateur astronomers and webcasts from several major observatories.

I participated at: the school at Garden Grove, Cal State Fullerton's night time event, and UCI's Sunday night star party. During those events, I showed the wonders of the night sky to over 500 people. There were more people in attendance but even with several telescopes, there was limited time and not everyone had a chance to see everything being shown.



For my targets, I chose Saturn to start the evenings since it was high in the sky at sunset and it is an object no one ever tires of. Once the sky got dark however, I decided to show folks something unique. I've always been a fan of observing *planetary nebulae*: those smallish, round looking, fuzzy objects that signal the end of some star's life (and any possible planets orbiting them). (They are NOT planets, but were called planetary nebula by early astronomers). In the summer I'm partial to the Ring Nebula (M57) in Lyra, or the Dumbbell Nebula (M27). But the late winter/early spring has its share of nice planetaries. Among my favorites are the Ghost of Jupiter, The Blinking planetary, and the Cat's Eye Nebula. But for various reasons (such as, they were too dim for the light pollution, rose too late, etc.), I did not choose to show them. Instead I set my sights on one of my favorite planetary nebulae, NGC2392, often called the "Clown Face" or "Eskimo" nebula.

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We are always looking for **contributors** to the Science Newsletter. If you would like to write an article about a science subject you are excited about, or contribute a superfluous question, or if you would like to be on our **mailing list** for future newsletters, please e-mail us at:

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100 Hours of Astronomy: *continued*

Photos/Info: [Orange County Astronomers/C. Bobchin/BBC Science/NASA/coolsciencenews\\_website](#)

At low power this nebula is nothing spectacular, just another grayish, fuzzy spot that frustrates novice viewers with small telescopes. But throw some power at it (around 150x or more) and a scope with at least 8" of aperture, and you will start to see some of the detail which gives this exploded star its name. As the guests stepped up to the eyepiece, I would tell them to relax, take their time and tell me what they see. Virtually all of the people saw the same thing in the eyepiece at first glance: two bright stars. When I asked them to describe them, one was always seen as fuzzy or out of focus. Upon further examination they were usually able to see the central star and then the shells of gas surrounding the star and making it look fuzzy (and somewhat resembling an "Eskimo" wrapped up in the hood of his parka). When I explained that they were looking back approximately 3000 years in the past, most people were shocked and amazed. Then I tell them that they are looking at the remains of a star similar to our Sun that had ended its life; they always asked how long we have before our Sun did the same thing. I explained that, since it is not likely to happen before 4.5 billion years from now, no one had anything to worry about.

Another object I showed during the outreach sessions was the Orion Nebula. I explained that this was a stellar nursery some 1500 light years away and 15 – 20 light years in size; the assembled people were again amazed.

The one event I did not get a chance to go to was the event at the Mission Viejo library. I did get a report from OCA member Rich Stember who was the coordinator of the event. He sent me the following report about the turnout for this event:

"I would say that the Mission Viejo Library event was a success -

- well attended and very well received. I estimated that a total of 250 - 300 people attended over the two days."

"The panel discussion was very lively. Our three astronomer panelists each gave very interesting and entertaining presentations. While it drew a small audience (~ 30 people), it was indeed a very lively discussion with a lot of good questions from the audience."

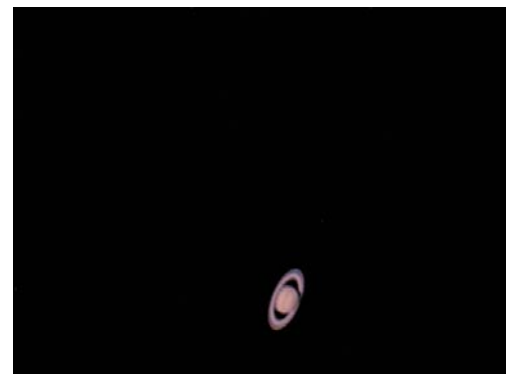
"Our Photography and Astronomy Image Exhibit drew a lot of compliments. The webcasts from IYA were really superb. While technical difficulties interrupted the broadcast several times, the interviews I did see were really enlightening."

"And finally, the *star party* was a big success. We had 7 volunteers at telescopes and yet, there were people lining up until almost 10 p.m. that night to view as much as they could."

"A big Thank You to all of the OCA members who helped. And Thank You to our panelists who did a fabulous job. And last but not least, Thank You to the Tantons and the rest of the Mission Viejo Library staff (especially the person who donated the Moon Pies!). The library staff were very generous with their time and labor. They have agreed to the idea of making this an annual event at the library." - R. Stember

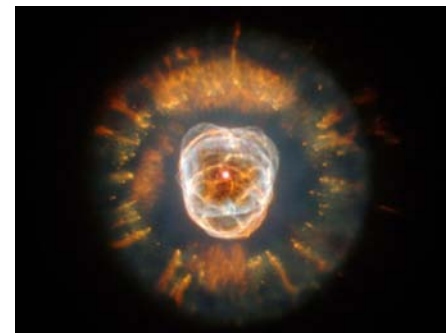


For me, spending the time under the stars showing the night sky to over 500 people, explaining what they were seeing, how to recognize constellations, discussing light pollution (which was very prevalent at all the events I attended) and other aspects of astronomy was time well spent. I look forward to the rest of IYA 2009 and introducing more people to this wonderful, exciting and fascinating hobby. %%



**Planet Saturn**

Everybody's favorite celestial object, seen at the Orange County Astronomers star party for the 100 hours of Astronomy event



**NGC2392**  
The "Eskimo Nebula"

**Messier object 42 (M42)**

The Orion Nebula

Photo by C. Bobchin

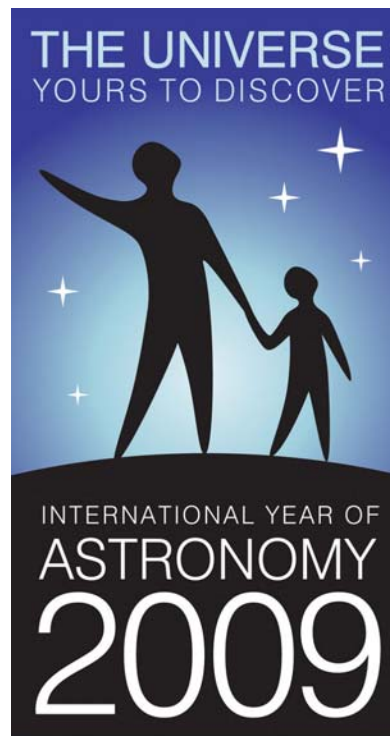
## TRITON FUN PRODUCTS

2009 has been declared the "International Year of Astronomy". Events and activities to further the excitement of astronomy are being planned by IYA committees in over 100 countries. The logo for the IYA2009 is shown below. For more info on upcoming IYA2009 events, go to: <http://www.astronomy2009.org>

Triton Fun is an authorized distributor of T-shirts, sweatshirts and long-sleeve tees sporting this new logo. Part of the proceeds from the sale of these shirts will go to support astronomy clubs and astronomy activities connected with IYA2009 in California.

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\*\* Send us your superfluous questions for a future issue ! They can be on any subject. The funnier, the better. M.D., our editor, appreciates the help and will send you a free Triton Fun coffee mug as compensation for your question. Or write an article for us and be read by professional and amateur astronomers and scientists in the U.S. and Canada ! \*\*

## Superfluous Questions:

- 1) In the movie *Pure Country*, country singer Dusty's hometown is in *what state* ?  
a) Nevada    b) Texas    c) Colorado    d) Montana
- 2) When Dusty runs off from his band, he misses the concert in *what city* ?  
a) Shreveport    b) Houston    c) Baton Rouge    d) Bozeman
- 3) His best friend Earl looked for Dusty at his grandmother's house. What was her name ?  
a) Suzy    b) Lula    c) Mary    d) Ivy
- 4) Dusty falls for a rancher lady named Harley. Where did Harley finally learn Dusty's true identity ?  
a) Austin    b) Las Vegas    c) Cheyenne    d) Colorado Springs

→ ANSWERS in next months issue of the Science Newsletter ! ←---

\*\* ANSWERS to April's Superfluous Questions: 1. c) Canada 2. d) Atlantic Ocean 3. c) Kaua'i 4. c) Nauru