



A newsletter for users of the STARLAB Portable Planetarium and Digital STARLAB, as well as astronomy educators around the world.



Volume 6 - Spring 2008

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Gary Kratzer is a master science teacher at Oak Park Middle School in Lake Charles, LA. He has been editor of the STARLAB News (and now STARLAB e-News) since 1991. Send Gary your news, stories, tips, events at gkratzer@rocketmail.com for

Welcome to STARLAB e-News, Volume 6!

Summer is almost here - a time for well-deserved rest and relaxation. But for those of you looking for additional professional development opportunities between those dips in the pool, consider the following:

- Participate in the [Starry Night/Digital STARLAB Institute](#) on July 14-15, 2008
- Create a Starry Night lesson for the [Cosmic Lesson Competition](#) - you could win a complete Digital STARLAB system!
- Present or participate in a forthcoming [STARLAB workshop](#).

Read on for more details and to see how the STARLAB and Digital STARLAB are being used by educators around the world. I would love to hear about your experiences with STARLAB. Please consider sharing them with our readers. In the

User News & Contributions: STARLAB Around the World

by Gary Kratzer



University of Alaska Fairbanks

Dr. Robert Herrick, a professor at the Geophysical Institute at the University of Alaska Fairbanks, purchased a Digital STARLAB in October, 2007 with the intent of taking it to local schools and small, isolated communities around Alaska — a challenging proposition to say the least, as many villages are not accessible by road and travel is quite expensive. Despite the logistical challenges, Dr. Herrick and a few graduate students have brought the Digital STARLAB program to approximately one thousand students and a few hundred adults over the past 6 months.

"When we visit a school during the day, we usually focus on teaching a few key astronomy concepts borrowing from the pre-packaged lessons that come with the Starry Night software. We have mostly visited elementary schools, but have also visited a middle school and high school. For 'family science nights' and other informal educational settings, we have custom designed shows (html scripts in Starry Night) that include imagery and movies featuring aspects of research that takes place here at the Geophysical Institute. In particular, we have some all-sky images and time-lapse movies of Aurora that project nicely on the dome."

In February, Dr. Herrick's STARLAB visited Barrow — the northernmost community in the United States — as well as the tiny nearby village of Nuiqsut. The visit was hosted by the Barrow Arctic Science Consortium (BASC). He and a colleague traveled from the Museum of the North (on campus at UAF), and brought along some Aurora-related outreach activities to compliment the planetarium shows. Approximately one-third of the town's population of 400 came out to go through the planetarium despite the -20F temperature. Participants were particularly interested to see the night sky as it appears in the southern United States and the southern hemisphere. Living so far north they typically see celestial bodies more or less circle around the sky, so they found it fascinating to know that in other parts of the world objects actually rise in the east and set in the west!

Dr. Herrick and his staff have encountered great enthusiasm for the Digital STARLAB, and it is proving to be a valuable outreach tool. For more information about this exciting STARLAB program, contact [Dr. Robert Herrick](#).



Galaxy Scientific Group, Hong Kong

With 3 Classic STARLABs and a Digital STARLAB, Galaxy Scientific serves more than 10,000 visitors annually! Savio Fong, STARLAB Coordinator, describes their programs as being targeted to families, primary schools students, secondary school students, university students, and the general public. The programs include astronomy-focused, or "cross-over" programs like "When Fireflies Meet the Stars," and "Launching Sky Lanterns Under a Starry Sky." As astronomy becomes a greater part of formal education in China in the form of liberal studies, Savio expects more participants in their programs to be from secondary schools. He is also expecting a huge surge of interest in astronomy when China launches its first astronauts into space and as a result of the upcoming Lunar Explorer mission. For more information about the Galaxy Scientific Group, contact [Savio Fong](#).

Ramstein Middle School, Kaiserslautern, Germany

For more than 25 years STARLAB has been a part of the Ramstein Middle School curriculum. This is indeed one of our senior STARLABs still in operation around the world. The current district coordinator for STARLAB use is Gerry Adams. Gerry schedules the use of STARLAB in the 11 DOD school districts and reports that the unit is booked for approximately 18-20 weeks per year. He also trains everyone responsible for using STARLAB, compiles a monthly newsletter with tips on using STARLAB, and runs star parties during the school year that are open to families, students and teachers within the school district.

Twenty-five years and going strong! What a testimonial to the durability and quality of STARLAB. For more information about this STARLAB program, contact [Gerry Adams](#).



Youth Science Center, Hacienda Heights, California

The Youth Science Center STARLAB is a brand new traveling outreach astronomy program that caters to public schools. The newly formed program is supported by private foundation grants, the schools involved, or school district. The Digital STARLAB programs coordinated by Mariann Hess, are given during classroom time for Grades 2 –5. In addition, special programs are held at night for scout groups for students in grades K-6. The STARLAB programs consist of path of the sun in the summer and winter, the solar system, constellations, and a fly-by of the moon. The contact person for more information is [Ron Chong](#) or you can visit their website at www.youthsciencecenter.org.

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The Digital Dish

Don't Miss the Digital STARLAB/Starry Night Institute — July 14-15, 2008

You are invited to join us for the 2008 Digital STARLAB/Starry Night Institute at Malone University in Canton, Ohio. This two-day institute will explore diverse astronomy education techniques using digital technology and tools. Courses will cover a broad range of digital planetarium topics from basic techniques and terminology to advanced lesson creation with Starry Night™ High School software. [Click](#) for complete details, rates and a registration form.

There is Still Time to Enter the Cosmic Lesson Competition! Find out how your school can win a complete Digital STARLAB Planetarium system . . .

The Cosmic Lesson Competition offers a wonderful educational experience for teachers and their students in middle and high schools in the USA and Canada. Using a team approach, participants are challenged to create a dynamic lesson using Starry Night software for ultimate presentation in the Digital STARLAB Planetarium. Incorporating outside images, video and data, teams will attempt to create the most effective and impressive lesson possible. Here is a simple breakdown of what you need to do.

- Form a Cosmic Lesson Competition Team
- Register Your Team
- Take Advantage of Training Events
- Submit Your Lesson Plan by December 31, 2008

The first place award is a 5-meter complete Digital STARLAB All-dome Projection Planetarium (a \$58,000 value!). The competition will challenge and inspire teachers and students in a way that will be educationally rewarding and memorable. For all the details and/or to register to enter the competition, please go to www.cosmiclesson.com.

See the New Digital STARLAB!

Check out our [Workshop and Convention Calendar](#) to see when and where the new Digital STARLAB will be making appearances. It is continually updated so keep checking back. We hope to see you at one of these venues. You can also contact us to set up a local Digital STARLAB demonstration. Contact [Reed Varian](#) if interested.

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The Inside Scoop from LTI

Resources . . .

Standards Correlations

- [Grades K-4](#)
- [Grades 5-8](#)
- [Grades 9-12](#)

Finding STARLAB Funding

- The STARLAB [Funding Finder page](#)
- [Funding Research Request Form](#)
- [Star-Struck: Finding the Funding to Make Your Dreams of a STARLAB Purchase Come True](#) booklet

STARLAB Shape-up Forms and Pricing

[Download forms.](#)

Opportunities . . .

Participate in Some STARLAB Workshops . . .

STARLAB users and Ambassadors are invited to present or participate in workshops this summer or fall. There are

several workshop opportunities this summer you should consider including the Digital STARLAB/Starry Night Institute, July 14-15. Hope to see you this summer! Check out our [calendar listing](#).

Prepare Your Cosmic Lesson Team!

You can still take advantage of this terrific opportunity to engage students in an exciting learning experience and perhaps win a Digital STARLAB planetarium. Get your "Cosmic" team together! Go to www.cosmiclesson.com to get the details.

Product Information . . .

Fall in Love All Over Again with the STARLAB FiberArc Projector

Have you had a chance to check out the incredibly vivid and bright images that the [FiberArc Projector](#) brings to the STARLAB experience? In addition to its clarity and brightness, it has these great features . . .

- built-in meridian and cardinal points projections
- four fully movable and flexible gooseneck side lamps
- daily motion control with variable speed and direction

It will truly get you excited and revitalized about your STARLAB program. You, too, will fall in love with STARLAB all over again! And, you are considering upgrading from a Standard to FiberArc Projector, now is a great time. For the first time, we are offering an upgrade for just the projector! See the pricing below.

FiberArc Projector Upgrade Price: \$9,925 (projector only)*

MultiLens Starfield Cylinder Price: \$1,600 (cylinder only)*

Regular FiberArc Package Price: \$12,500 (projector, MultiLens Cylinder, travel case, lamp, etc)*

*Domestic pricing (US and Canada).

New Cylinders for the Standard and FiberArc Projectors

- [Moon Cylinder](#)
- [Radio Sky Cylinder](#)
- [Inuit Sky Lore Cylinder](#)
- [Polynesian Voyaging Cylinder](#)

Hands-On Optics Kits (HOO)

NSF-Funded [Hands-On Optics Kits \(HOO\)](#) are now available from LTI! [Click for more info . . .](#)

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STARLAB Funding Finder

by [Ellen Weiner](#)

Finding the Funding for Your STARLAB — Think LOCAL!

You hear the word “local” all the time now: eat locally, act locally. When you think about fundraising for your own STARLAB, you should think “local” as well.

Most funders are interested in supporting their local communities. For corporations, this means the communities in which their employees live and work. For private foundations, this means the communities in which their trustees live, or have a historical connection to. While there are large foundations and corporations that give grants nationally, the majority of funders want to support projects in their local areas.

Each funder defines their community differently. Many will only fund in certain counties or regions of a particular state. Others will only give grants in particular cities or towns. Some that fund in large cities are even specific about the neighborhoods they will support.

What all of this means for you is that when you start looking for funding for a STARLAB, you should **begin by**

searching in your institution’s local community. Think about the people you serve, and where they live. Perhaps your organization serves people from several counties or cities; or you may be at a school that serves a small town. Knowing where your constituents come from is key to securing funding. You must be able to tell the funder that their dollars will serve people from the communities they are targeting.

Next, **think about your institution and the companies it does business with.** Approach banks, electric companies, phone/internet providers, and large vendors (cafeteria food vendors, office supply companies). Be sure to let them know that your institution is a customer. Next, look at major employers in your area. Are there any large to mid-size companies with headquarters nearby? If yes, it’s likely that the company will have a corporate giving program, and they will be interested to know if some of your constituents (or their parents) work for the company.

Foundations act locally as well. There are community foundations that are established specifically to support organizations located in a particular county, city, state, or region. Some cities/towns have education foundations that are established solely to support programs in particular school districts. If your district has an educational foundation, be sure to approach them about funding a STARLAB. Private or independent foundations often have locally-driven missions as well, so find out if any are located in your area.

Learning Technologies offers a free grant research service that can help you find foundations and corporations that make grants in your local area. To take advantage of this service, fill out a [Research Request Form](#). Be sure to give us as much information as possible about your location so that we can help you “think local!”



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Ask the Editor

by Gary Kratzer

Our school district is in the process of purchasing a new Classic STARLAB system. Should we get a Standard or Giant Dome?

	Classic Standard Dome	Classic Giant Dome
Capacity	25-30 students	60-70 students
Diameter/Minimum Room Requirements	16 feet/Min. room size: 21 x 21 feet	22 feet/Min. room size: 27 x 27 feet
Ceiling Height	10.5 feet minimum	13.5 feet minimum
Dome Weight	45 lbs	90 lbs

I am so glad you asked this question before you finalize your order. Check out the specifications in the chart above and then consider the following:

- What is the average class size in your district? Do you plan to combine classes? (Keep in mind that it is possible to comfortably fit more small elementary students in the dome — up to 30 — than bigger secondary students — closer to 25.)
- What is the amount of floor area available at a typical school site? (If the classrooms are too small, do you have a gymnasium, auditorium or other multi-purpose room available to accommodate the dome?)
- What is the average ceiling height of classrooms? (Make sure that ceiling height is adequate so that the dome isn’t flattened at the top, and that there aren’t sharp objects such as sprinkler heads sticking down that could

- puncture the dome.)
- Who will be in charge transporting the equipment? (Will it be one person, or several? Will there be a cart or dolly available?)

Once you answer these questions, the dome size that is most appropriate for your situation should be more clear. If not, you can always contact LTI to discuss it further.

If you have a question for Ask the Editor, send it to gkratzer@rocketmail.com.

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The Project STAR Corner



The Project STAR Solar System Scale Model Kit — A Tool for Meeting National Education Standards

This kit allows students to hold the solar system in their hands! They can get a real sense of how far away the planets are and how big they are in relation to one another. Using multiple combinations of these spheres, students can simulate the relationship of the planets to the sun, the moon to the planets, and planets to planets. Try the Solar System Scale Model to meet the following NSES standard:

Standard: Earth in the Solar System

*(Grades 5-8): The earth is the third planet from the sun in a system that includes the moon, the sun, eight other planets and their moons, and smaller objects, such as asteroids, and comets. The sun, an average star, is the central and largest body in the solar system.**

For more information on the Solar System Scale Model Kit or any other Project STAR Hands-on Science Kits, please contact LTI at 800-537-8703, starlab@starlab.com or visit our Web site at [Project STAR webpage](#).

**from the National Science Education Standards, National Research Council, National Academy Press, Washington, D.C., 1996.*

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Bulletin Board

Bring Galileo to Your Class!

Imagine the wonder of Galileo's first look through a telescope four hundred years ago. It was the beginning of our fascination with the universe within which our earth resides. In 2009 [The International Year of Astronomy](#) will be celebrated worldwide to mark this historic milestone. Students in classrooms everywhere should be engaged in activities to bring the importance of this event into focus. So, what can we do to capture for our students Galileo's experience and all we have learned about our universe since?

Within the STARLAB curriculum and the many classroom astronomy materials available from LTI, lie some terrific

opportunities for learning.

Activity Ideas

- Stargaze under the STARLAB night sky. Learning about the history of visual exploration, and all about stars and planets and moons.
- Make a telescope and talk about our desire and the benefits of seeing things up close.
- Study the properties of light and how Galileo used light to explore the sky with his telescope. Where does the light come from?
- Look at the effects different things have on light (a lens, filter, the atmosphere, etc.). Bend it, bounce it, focus it.
- Consider what we have done historically to improve our knowledge of the universe. Look out, go out, send instruments out.
- Discuss who are the other important explorers who came after Galileo. What did they teach us?

We want to support your efforts to bring the “Galileo” celebration to life for your students. We can help you find curriculum and classroom tools to develop your lessons. We would also love to hear about your plans. If you share some curriculum ideas with us we will publish them in our STARLAB e-News for the benefit of others.

Imagine how proud Galileo’s teachers where 400 hundred years ago. And just think — sitting among your students may be another Galileo!

2009 marks the 400th anniversary of Galileo's first astronomical observation through a telescope and with that, the International Astronomical Union is launching a global celebration. Their goal is to celebrate astronomy's "contributions to society and culture, with a strong emphasis on education, public engagement and involvement of young people, with events at national, regional, and global levels throughout the whole of 2009." To find out how you can be involved, please visit their Web site at www.astronomy2009.org.

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STARLAB e-News Archives

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We also have pdf versions of STARLAB News (print version) back issues from Winter 1995 to Fall 2005 ([see archives](#)). Issues prior to Winter 1995 are not available as a pdf. Please [contact LTI](#) directly for availability.

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