



# @ the Bradbury

Special News & Events

## Save the Date!

- DEC  
4-6

Los Alamos  
Winterfest Weekend
- DEC  
6

Hanukkah Begins
- DEC  
12

Scientists in the Spotlight  
11:00 AM TO 1:00 PM

Chat with scientists about computer software and engineering. All ages welcome.
- DEC  
17

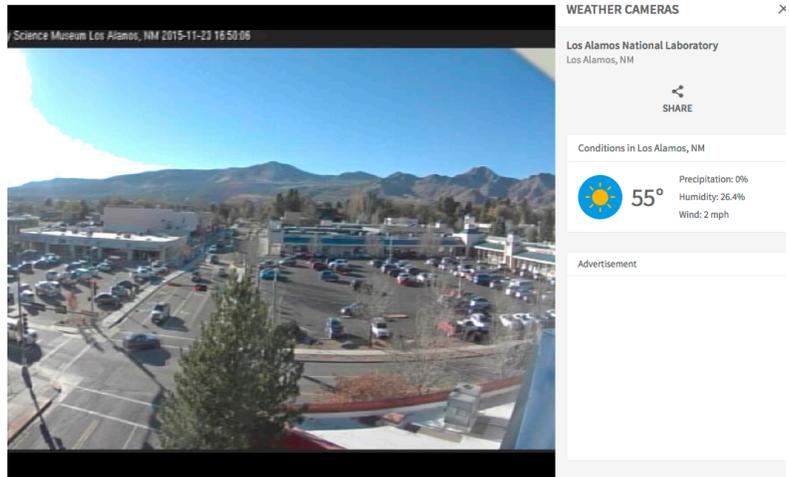
Science On Tap  
5:30 PM to 7:00 PM

@ UnQuarked  
145 Central Park Square  
Los Alamos, NM
- DEC  
24

Hanukkah Ends/  
Christmas Eve
- DEC  
25

Christmas Day  
Museum will be CLOSED
- JAN  
1

New Year's Day  
Museum will be CLOSED



## Weather Camera Back In Service

For the past couple of years people have been able to view the weather looking toward the Jemez Mountains from the roof of the Museum. Unfortunately, due to a technical problem earlier this year, the camera went out of service. At that time museum staff came to realize how important that view is to some!

Apparently, people who used to live here (regardless of their current location) like to check the weather in Los Alamos from time to time. In some cases it's because of ties to the area or because they used to live or work here. It's also possible they still have family or friends here and want to keep tabs on the weather, particularly if inclement.

The service is now back online and people can check the observations in Los Alamos and in other locations throughout the state. The service is offered by WeatherBug, the world's largest weather observation and lightning detection network.

If you'd like to check the weather in Los Alamos, the feed from the camera is located here.

## Featured this Month: Teri Roberts and Isaac Salazar



Stop by the Bradbury on Saturday, December 12, from 11 a.m. to 1 p.m. to chat with Teri Roberts, a software quality engineering and development specialist. She can help you better understand how a computer “knows” what it’s doing.

During that same time you can visit with Isaac Salazar, a mechanical engineer, who will be there to talk about how experimental variables can be used to improve science. If that’s not enough, you can also make and fly a paper helicopter. (Yes, if you make one you can take it home with you to continue the fun and learning.)

Join us every second Saturday of the month for Scientist in the Spotlight, a program featuring scientists that have been certified for public outreach through the museum’s Scientist Ambassador Academy. These scientists are available to talk with museum visitors for a couple of hours about their favorite science, technology, engineering, or math (STEM) subject. Conversations are intended for all ages and include interactive hands-on activities that make learning easy and fun. To learn more, go here.

# SCIENCE ON TAP



## Next-generation Rocket Propellants

Los Alamos National Laboratory scientists recently flight-tested a new rocket design that includes a high-energy fuel and a motor design that also delivers a high degree of safety. Bryce Tappan, with the Lab’s High Explosives Science and Technology Group, will make a short presentation on the topic followed by questions and discussion on Thursday, **December 17** starting at 5:30 p.m. at UnQuarred in at 145 Los Alamos’ Central Park Square in Los Alamos. The local chapter of the American Chemical Society will provide refreshments for this event.

Conventional solid-fuel rocket motors work by combining a fuel and an oxidizer, a material usually rich in oxygen, to enhance the burning of the fuel. In higher-energy fuels this mixture can be somewhat unstable, and can contain sensitive high explosives that can detonate under high shock loads, high temperatures, or other conditions.

The new rocket fuel and motor design adds a higher degree of safety by separating the fuel from the oxidizer, both novel formulations that are, by themselves, not able to detonate.

"Because the fuel is physically separated from the oxidizer," said Tappan, "you can utilize higher-energy propellants."

Tappan has most recently been working on scaling-up the design, as well as exploring miniaturization of the system, in order to exploit all potential applications that would require high-energy, high-velocity, and correspondingly high safety margins.

Admission is free and open to the general public.

Science on Tap regularly takes place on the Third Thursday of each month at 5:30 p.m.

To subscribe to our monthly newsletter, visit the museum’s website.

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Newsletter

# Collections NEWS

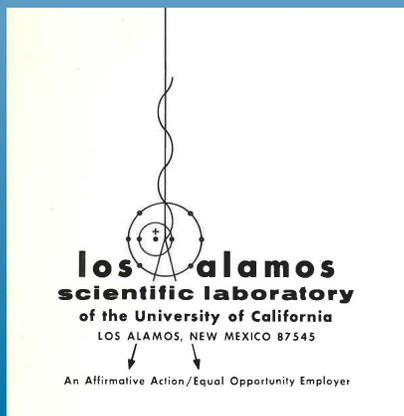
## Appreciating a Former Lab Logo

You may have heard that the museum is planning to create a small retail space that will carry a selection of souvenirs imprinted with the Lab's logo. You may have even participated in the poll we ran last month, soliciting ideas for what items to stock. (See the related story below.)

One suggestion was posted to our Facebook page: Why not use an older logo and print some "vintage" T-shirts and coffee mugs, etc.? While that is a possibility for the future, the current plan is to only carry items bearing the Lab's contemporary logo.



Still, you have to admit this former Los Alamos Scientific Laboratory design, used from the early 50's to 1978, has a certain beautiful appeal. The graphic is meant to depict a gamma ray (the wavy line) interacting with an oxygen molecule and producing a new positron and electron (the two distal arrows).



Artifacts and archives bearing this logo include: A gift plaque for a LANL retiree fabricated here (above right) in 1980 or '81; a decorative sphere from the United Kingdom's Atomic Weapons Research Establishment (right) and cover pages from many early publications (left).



## And the Results Are In

Speaking of logos...

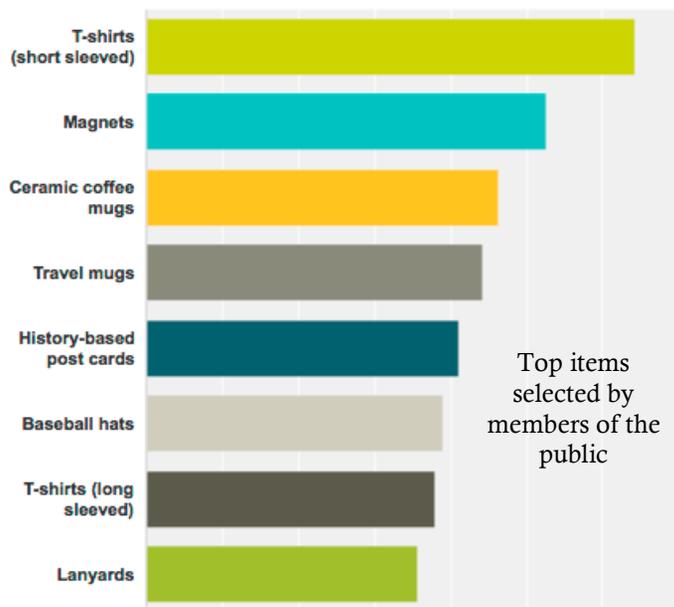
Thank you to all of you who took the time to respond to the Lab logo survey.

Its purpose was to determine what items people might want to buy with the Lab's logo. (See the story above.) Both employees and the public were asked to respond. In total, more than 750 people answered the survey.

While both employees and the public were interested in coffee mugs and T-shirts, members of the public were more interested in magnets (magnets ranked in 8<sup>th</sup> place for employees), while employees were more interested in potentially purchasing polo shirts (they ranked 9<sup>th</sup> for members of the public).

Once the Bradbury Science Museum Association has gained its nonprofit organization status, it plans to sell Lab logo items to generate funds to support additional educational outreach.

You'll be notified via this newsletter and other media as these plans come to fruition.



# Mark Your Calendars!

Special Events Calendar



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4 Los Alamos <u>Winterfest</u>	5 Los Alamos <u>Winterfest</u>
6 Los Alamos <u>Winterfest</u> Hanukkah Begins	7	8	9	10	11 B	12 Scientists in the Spotlight 11 AM to 1 PM
13	14	15	16	17 Science on Tap @ UnQuarkeD. Los Alamos 5:30 to 7:00 PM	18 A	19
20	21	22	23	24	25 Christmas Day MUSEUM CLOSED B	26
27	28	29	30	31	A	

## About the Museum

Bradbury Science Museum is located at 1350 Central Avenue in downtown Los Alamos, New Mexico. Approximately 65 interactive exhibits trace the history of the WWII Manhattan Project, highlight Los Alamos National Laboratory’s current and historic research projects related to defense and technology, and focus on Laboratory research related to energy, environment, infrastructure, health and global security concerns.



**Hours: Tuesday – Saturday: 10:00 AM to 5:00 PM, Sunday & Monday: 1:00 PM to 5:00 PM**