



# AU AstroNews

## The Newsletter of the Astronomical Unit

June 2011

Sponsored by the Santa Barbara Museum of Natural History

### THE JUNE POTLUCK

As is our club's tradition, we will not have a general meeting in June. Please come join your fellow club members for the annual potluck dinner at the Broder Building on Friday, June 3<sup>rd</sup>, at 6PM. The Broder Building is on the SBMNH campus, just across the creek from Farrand Hall.



*A smiling Jim Williams poses, ready for outreach, at National Astronomy Day 2011 at the SBMNH. Photo: Bob Brown.*

### OUTREACH SUMMARY

Since the last AU newsletter, volunteers John Boyd, Bob Brown, Joe Brown, Timma Buck, Sabine & Marciano Chan, Bill Clausen, Krissie Cook, Dennis Cowan, Tim Crawford, Ed Edwards, Nancy Emerson, Mike Farris, Rod Fritz, Ruben Gutierrez,

Laurence Harms, Art Harris, Jürgen Hilmer, Mike Jogoleff, Jeremy Kerby, Chris Larson, Dale Lowdermilk, Pat & Chuck McPartlin, Martin Meza, Steve Morse, Max Neufeldt, Ron Nixon, Edgar Ocampo, Colleen & Dennis Pease, Jiri Polivka, Sal Reyes, Rosemary & Al Rice, Javier Rivera & Mike Bennett & the Quasars, Bob Richard, Nancy Rohrer, Colin Taylor, Tom Totton, Tom Whittemore, Jim Williams, Jerry Wilson, Paul Winn, and Tim Wittenburg showed astronomical goodies to 1213 customers.

### OUTREACH FOR JUNE

Here are the AU events scheduled so far for June. Events are subject to change, so to get the latest information on schedules, or directions, just contact Chuck at 964-8201 or [macpuzl@west.net](mailto:macpuzl@west.net)

#### FRIDAY, JUNE 3, 6 PM

Annual AU potluck picnic at the Broder Building at SBMNH, across the creek from Farrand Hall.

#### SATURDAY, JUNE 4, SETUP 8 PM

Telescopes for Refugio State Beach, in the day use parking lot, southwest corner.

#### TUESDAY, JUNE 7, SETUP 7:30 PM

Telescopes for a Peabody School campout at El Capitan Canyon Resort. The actual site is TBD. Contact Chuck for details.

#### FRIDAY, JUNE 10, SETUP 8 PM

Telescopes for Carpinteria State Beach, at 5361 6th Street in Carpinteria. The Casitas Pass offramp is the best exit to this outreach. We set up in the grassy area to the right of the main entrance, right across from their ranger office.

#### SATURDAY, JUNE 11, 5:30 PM

Planning meeting in the classroom next to Javier's office at SBMNH. Come plan your club's activities. All are welcome.

### SATURDAY, JUNE 11, 8 PM

Monthly Public Star Party, next to Palmer Observatory at SBMNH.

### TUESDAY, JUNE 14, SETUP 7 PM

Telescope Tuesday at the Camino Real Marketplace in Goleta. We set up in the plaza by the theater.

### FRIDAY, JUNE 17, SETUP 7:30 PM

Monthly Public Telescope Night at Westmont College, at the new observatory, next to the baseball field. See Saturn through the big scope.

### SATURDAY, JUNE 18, 7 PM

Tour of the Sedgwick Reserve, followed by a star party in the dark skies at the end of Brinkerhoff Avenue in the Santa Ynez Valley.

### WEDNESDAY, JUNE 22, SETUP 8 PM

Telescopes for the A Rocha group, on their site off Cieneguitas Road. Contact Chuck for details.

### SATURDAY, JUNE 25, 8 PM

Telescopes for campers at Lopez Lake, up by Arroyo Grande. Contact Chuck if you're planning to come, so we can arrange camping for Friday and Saturday night.  
tails. We set up on their Monte Vista lawn.

### ***From the President's pen...***

*R. Gutierrez*

### ***Astroday Kudos...***

This year's celebration of International Astronomy Day was certainly a special one. As a club, we not only enjoyed greeting the many visitors as Astronomy Magazine's number one astronomy club in the nation, but we also displayed the UC2 wheelchair-accessible telescope for the first time, and enjoyed the most membership-involved event in recent memory. Also, to "add icing to the cake," a local vendor offered artistically-designed shaved ice cones. Due to the new Blue Whale skeleton exhibit, the configuration of the booths was new, and proved to be a real winner. Speaking of winners, raffle grand prizewinner, Kevin Urango of Ventura, was one happy little boy when he heard his number called out and celebrated his birthday weekend with a Big Bang! Many thanks to all of the members who worked so hard to make yet another Astronomy Day Celebration a success, from the booth set up, the telescope demonstrations, meteorite and

astrophotography displays, the awesome mirror-grinding demonstration, to the AU clothing sales and free handouts. A very special thanks goes to the great sandwiches from the Plaza Deli – arranged by Tim Crawford – and the delicious home-baked goodies from Timma's kitchen. Fantastic job, everybody!

### ***Looking ahead...***

The AU membership is a real special group of people that not only has a passion for enjoying the science of astronomy, but also enjoys sharing it with the community. The AU has certainly lived up to Astronomy Magazine's "Out-of-This-World " award for the first half of this year, and will now gear up for the second half. But first, we'll give ourselves a break by getting together on Friday, June 3<sup>rd</sup>, at the SBMNH's Broder Building for our annual potluck instead of the general membership meeting. This is the time we set all club business aside and just enjoy each other's company. Please bring your favorite dish to share with about four others - arrive around 6 o'clock - and have a pleasant evening with your AU friends. ***Don't forget, the general membership meetings will not be held during the months of July and August. They will, however, resume in September.***

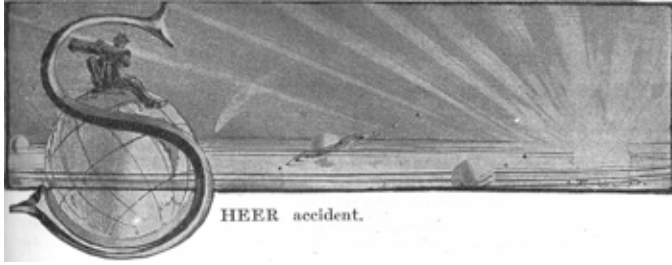
I wish to thank Nollie Dawson, Eric Larson, Catherine Rose, and the Pease family for their continued support of the club by renewing their membership, and give a stellar welcome to new members Martin Meza and the Campbell family.



*"I swear it was there just moments ago...."*

## ATM or TN?

J. A. Wilson



We amateur astronomers now live in a world that offers a wide range of commercially available telescopes, mounts and various other instruments. These scopes and instruments give today's amateur a capability to gather information that is in some cases on a par with the largest professional observatories of the 1950s. The late 50's was a time when I was getting acquainted with the skies. However, the 50's was before the introduction of the now ubiquitous Schmidt-Cassegrains and, though some commercial scopes were available, they were not as economical as today's scopes and reflected the battleship technology approach of the day. That technology was bulky, heavy and inconvenient. Refractors were f/15 or longer and reflectors were primarily Newtonians. Scopes of any interesting aperture were beyond the reach of a large number of aspiring amateurs. Mainly, for a teenager like me. So the only viable approach for many of us was to make our own.

Amateur Telescope Making (ATM) was well underway when I learned the art in the early 1960s. I joined the mirror-making workshop of the Los Angeles Astronomical Society. Society meetings were held once a month under the planetarium dome on Monday evenings when the observatory was closed to the public. Meetings frequently included a "Mars Report" by Tom Cave describing visual observations made through his 12.5 inch f/11 Newtonian in his personal observatory in his back yard, or Tommy Cragg giving his visual impression of Jupiter through the 60 inch Cassegrain he kept on Mt. Wilson.

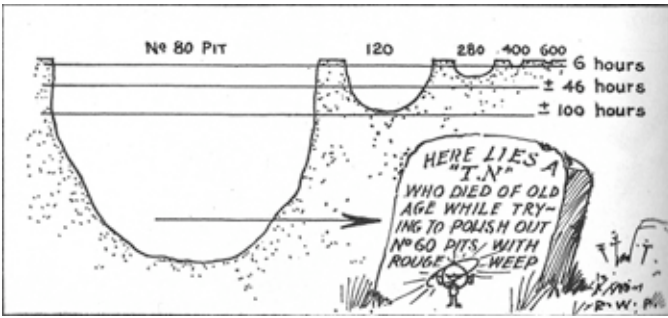
The mirror-making workshop itself was held on a different weekday evening during regular operating hours of the observatory. Those of us in the workshop used the door to the basement hidden behind the plaster model of a segment of the Moon just off the Hall of Science. Dr. Clarence Clemenshaw, the observatory director, would

frequently drop in on the LAAS meeting or the workshop sessions.

The ATM movement originally got its start in Springfield Vermont in the 1920's. Apparently its popularization came about by "sheer accident," or the "fortuitous fumbling of one man's thumb" as claimed by Albert Ingalls, associate editor of *Scientific American*. Ingalls was thumbing through "old" copies of *Popular Astronomy* and saw an article by Russell W. Porter describing how he made a mirror for his own telescope. The article was published in November 1921. A second article, published in 1923, showed the telescopes made by a small group of enthusiasts under Porter's lead. Aside from Porter's two brief articles, Ingalls was only able to find one detailed account, in English, of how to make a telescope. That was the book, "The Amateur's Telescope" by the Rev. William F. A. Ellison of Armagh Observatory in Northern Ireland and was not available in the US.

Ingalls, with Porter's help, began publishing a series of articles, beginning in 1925, on telescope use and fabrication based on the mirror-making group starting up in Springfield Vermont. The key articles appeared in the January and February 1926 issues of *Scientific American*. These two articles along with excerpts from Ellison's book were combined into a single 102-page book titled "Amateur Telescope Making." This first edition (now a collector's item) was sold worldwide and provided the first comprehensive "how to" for aspiring amateurs. Succeeding editions grew as individual readers began contributing short articles on scopes they made and innovations and insights of their own. By the mid 1930's it had become the familiar three-volume set. My set is from the fourth printing in 1943 (not a collector's item). The articles in my edition are roughly in the chronological order they were contributed. The set is still available through Willmann-Bell, but the articles have been rearranged into a more logical order, grouped by topic.

Those who picked up the hobby were referred to as Amateur Telescope Makers or ATMs. However Porter referred to himself and the original ATMs as TNs or Telescope Nuts as shown in this illustration from volume 1.



When I took up the hobby there was a larger number of telescope makers than there are today. Now the bulk of Amateur Astronomers are users and collectors - not makers - and there is an erroneous assumption that making a telescope is difficult. It is really quite simple and logical. Anyone with an interest is easily capable of producing a diffraction-limited optical system. The diffraction limit is as good as an optical system can get. With a reasonable amount of patience and guidance from the experts at SBAU, anyone can make a telescope that is very likely to equal the very best commercially-offered scope of similar aperture and design. The reason is simple. Commercial scopes are produced to make a profit. The company that makes them cannot invest a large amount of time or attention to each and every unit. Some of their mirrors are outstanding, many are adequate but some are dogs. You, on the other hand, can take the time to get yours perfect every time. We meet every other Wednesday evening at 7:30 behind the Museum of Natural History, past the frog pond, across the bridge over more frogs, in the Broder Building, on the SBMNH's campus.





The Winners! – Image by Ruben Gutierrez



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**June 2011**

<b>Sunday</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>
			1 ●	2	3 AU POTLUCK 6PM	4 REFUGIO BEACH 8PM
5	6	7 EL CAPITAN CANYON RESORT 7:30PM	8 ◐	9	10 CARPINTERIA ST. BEACH 8PM	11 PLANNING MEETING 5:30PM SBMNH STAR PARTY 8PM
12	13	14 CAMINO REAL MARKETPLACE 7PM	15 ○	16	17 WESTMONT COLLEGE 7:30PM	18 SEDGWICK RESERVE 7PM
19	20	21	22 A ROCHA GROUP 8PM CIENEGUITAS	23 ◑	24	25 LOPEZ LAKE 8PM
26	27	28	29	30		

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