



AU AstroNews

The Newsletter of the Astronomical Unit

May 2015

Sponsored by the Santa Barbara Museum of Natural History



Next stop: the Universe. Photo credit: Tom Totton.

OUR MAY SPEAKER

Our speaker for the May 1st meeting will be Joe Tufts, who is currently the Senior Instrumentation Scientist at LCOGT in Goleta, where for eight years he has been responsible for the development of much of the LCOGT astronomical instrumentation. He has also been involved in one way or another with most of the other telescope and observatory systems. Prior to his work in town, he completed his graduate work at the University of Texas and McDonald Observatory where he co-built, supported, and operated five different instruments including both visible and near-infrared spectrographs.

In his own words, Joe tells us “Roughly nine years ago LCOGT started building the first homogenous global network of large telescopes dedicated to time domain astronomy. At the time there was no telescope vendor who could supply the quantity of telescopes and instrumentation that we wanted in the time frame we needed, so we built our own. Typical of projects of this scale, we started from a largely blank sheet of paper and considered everything from optical design to software architecture. In the end we settled on equatorially mounted 1 m Ritchey-Chrétien telescopes in traditionally styled Ash Domes. All instrumentation is mounted at the Cassegrain focus in either a primary imaging field or one of four off axis fields. Similar hardware concepts were also chosen for a

second network of 0.4 m telescopes. Linking it all together is a software stack designed for running each network of telescopes as a single unit rather than independent telescopes. This talk will review with pictures and examples many of our more tangible design decisions. For anyone who has fought with mount vibration, focus, collimation, field identification, power and ground issues, tube and dome seeing, or software instability, you will find something familiar. We made many right and wrong choices along the way, and we’re no strangers to the pride or shame that comes with admitting them. The goal of the talk is to find and expose the handful of limiting factors which determine the ultimate performance of our network. All math will be accessible and all jargon defined.

OUTREACH SUMMARY

Since the last outreach report, intrepid AU astronomy volunteers Angela Bates, Karen & Tim Crawford, Joe Doyle, Mike Farris, Art Harris, Jürgen Hilmer, Sean Kelly, Ken Kihlstrom, Chris Larson, Pat & Chuck McPartlin, Janet & Martin Meza, Bonnie & Bruce Murdock, Max Neufeldt, Edgar Ocampo, Javier Rivera, David Salvia, Colin Taylor, Tom Totton, Chris Ulivo, Tom Whittemore & Chatt Aiton, Patricia & Jerry Wilson, Paul Winn, and Linda & Harold Yarbrough showed neat stuff in the sky to **1389** people.

MAY OUTREACH EVENTS

Here are the AU events scheduled so far for May. To get the latest information on schedules, or directions, just contact Chuck at 964-8201 or macpuzl@west.net

FRIDAY, MAY 1, 7 PM

Monthly meeting in Farrand Hall at SBMNH. Start with a quick planetarium show, then hear about LCOGT telescopes and instruments.

MONDAY, MAY 4, SETUP 7:30 PM

Telescopes for San Miguel Residence Hall at UCSB. Contact Chuck to arrange for a parking permit.

SATURDAY, MAY 9, 5 PM

AU planning meeting at SBMNH, in the classroom next to Javier's office.

SATURDAY, MAY 9, 7:30 PM

Monthly public star party at SBMNH, outside Palmer Observatory.

THURSDAY, MAY 14, SETUP 5 PM

Science Night At IV Elementary School, 6875 El Colegio Road.

THURSDAY, MAY 14, 6 PM TO 9 PM, FOLLOWED BY STAR PARTY

Celebrate dark skies and bright stars at Sedgwick Reserve. Learn about Sedgwick's application to become a Night Sky Refuge, tour the Byrne Observatory, and honor the organizations and individuals who have championed dark skies at Sedgwick. RSVP by May 7 to Patti Winans via email (patti@bren.ucsb.edu) or phone 893-4589. SBAU telescopes for a star party.

FRIDAY, MAY 15, SETUP 7:30 PM

Telescopes for the monthly Public Telescope Night at Westmont College, at their observatory next to the baseball field.

SATURDAY, MAY 16, SETUP 11 AM

Solar scopes for a Sun Day at Goleta Public Library, 500 North Fairview Avenue.

TUESDAY, MAY 19, SETUP 8 PM

Telescopes for Santa Rosa Residence Hall at UCSB, but we'll set up on the San Miguel lawn. Contact Chuck to arrange for a parking permit.

THURSDAY, MAY 21 - MONDAY, MAY 25

Annual RTMC Astronomy Expo at Big Bear Lake. Hang out with 2000 or so of your favorite amateur astronomers at 7000 feet.

TUESDAY, MAY 26, SETUP 7 PM

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



Chuck shares the skies at the Bacara Resort. Photo: Tom Totton.

“Time Travel”

Tom Totton, SBAU 2015 President

There never seems to be enough time to complete all the home maintenance items that come due in the Spring. The same goes for all the duties of Club officers and appointees that keep us rolling through the year. Our Vice President, Jerry Wilson, lines up our monthly special speakers using a wide variety of communications and hopes that each one finds Farrand Hall. Our Treasurer, Tim Wittenburg, has numerous receipts to process via the Museum accounting while holding down a real job the rest of the time. Secretary Colin Taylor must track all the members to see if they have been naughty or nice, and if nice, there is a name tag waiting for them at each 1st Friday meeting.

Our over-taxed Equipment Manager, Art Harris, worries about crowding in our shed near the Palmer Observatory with our big scopes and many small donated ones. What are we going to do with that 29" heavy mirror glass from the Shipman reflector? Chuck McPartlin, as our Outreach Coordinator, must find space in his calendar for the public's heavy demand for star parties and Keynote shows. Newsletters require Tom Whittemore to squeeze time out of his teaching responsibilities to edit questionable articles and fonts, then choose photos that convey the SBAU's many activities to a wide audience. The many arrangements for the Holiday Party and insuring Refreshments are at general meetings fall on Janet and Martin Meza. And then there are the constantly changing web pages that Webmaster, Paul Winn, tweaks with software that always wants updating. Do not forget to thank him for handling sales of donated equipment, dealing with folks across the country.

I guess I have it easy with all this help in squeezing the club duties to fit the time allowed. I even made it up to my first Figueroa Mountain dark sky site (#2, The Saddle) that was put together by Joe Doyle on April 18. It was plenty dark and using the Sky Tour function of the Celestron Advanced VX mount, as suggested by Bruce Murdock, I spun through a number of galaxies and double stars that I had not clearly seen before. Scott Reid, communications professor at UCSB, and Joe had their large Dobsonian telescopes picking out deep sky objects. In Joe's 18", the Pinwheel galaxy was filling his eyepiece with its spiral arms, surrounding its bright core, which I initially thought was the complete galaxy. And earlier on Saturday, Mike Farris wrangled a few of us to continue helping on his latest SBAU feature film, sure to be out later this year. Chuck and Adrian Conrad are the actors, Adrian Lopez recorded sound, and Edgar Ocampo kept the Sun from hitting the camera. See his green screen setup from last time here: <https://www.flickr.com/photos/sbaushots/16985050409/in/set-72157651997490421>. Mike has enough equipment to run his own studio, and only a small part of our galaxy will need cleanup after this video is completed. I hope your time is stretching to meet all the activities in your life which, hopefully, includes your Santa Barbara Astronomical Unit!



*"Say, Jerry. Do you happen to know the value of Pi to 100 places?"
Photo: Tom Totton.*

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On the Web: <http://www.sbau>

May 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 SBAU MEETING 7PM	2
3	4 SAN MIGUEL RESIDENCE HALL UCSB 7:30PM	5	6	7	8	9 Planning 5 PM, SBMNH STAR PARTY 7:30-10PM
10	11	12	13	14 IV ELEMENTARY 5PM SEDGWICK RESERVE 6PM	15 WESTMONT COLLEGE 7:30PM	16 GOLETA PUBLIC LIBRARY 11AM
17	18	19 SANTA ROSA RESIDENCE HALL UCSB 8PM	20	21 RTMC	22 RTMC	23 RTMC
24 RTMC	25 RTMC	26 CAMINO REAL MARKETPLACE 7PM	27	28	29	30
31						

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