

Sidereal Times



http://www.austinastro.org

2006

Meeting Date

January 13

7:30 p.m.

Location TBA

January Speaker:

**Dr. Eiichiro Komatsu,
UT Astronomy Dept**

January Topic:

TBA

*(See Website
for latest details)*

*There will be a "merchandise"
(formerly t-shirt design) contest
at the January business meeting
(Friday, January 13). Start thinking
about an item and design you'd
like to see the club sell and bring
your ideas to the meeting.*

December Holiday Party a Knock-Out!

See pages 6-7 for photos!



*"Sidereal Times" is an official
monthly publication of the
Austin Astronomical Society.*

We love you, Earl!



Earl and Susan Carls, at Darin Koch's birthday party on November 27, 2005.

Wild Basin Floor Tile Unveiled



Finally, after years — six years, to be precise — the AAS Wild Basin 4-tile set has been drawn and sealed in the middle of the Wild Basin Education Center floor.

Thanks to AAS member Cecile Shopen for undertaking this artistic task!

The brief history of this project is that in 1999, several AAS members with a matching gift from the club agreed to purchase two tiles from the Basin, and the Basin gave AAS two more tiles for all its years of service. This is a wonderful living memory of the long-term collaboration existing between our two organizations.

This newsletter is dedicated to the late, great Earl Carls, a true Renaissance Man with a broad array of lifetime experience and knowledge and many hidden talents. One aspect of Earl that we all knew well was his love of astronomy and his burning desire to pass that joy along to others, especially young and inquiring minds. Earl's last words were, in fact, in behalf of enhancing the quality of education for young people. He has left us too soon.

One of Earl's favorite projects were the star parties he hosted out at the Bamberger Ranch. In honor of Earl, the Bambergers are holding a volunteer appreciation party on January 29, 2006 at the Bamberger Ranch Reserve and this day will be especially set aside to honor Earl's memory. Members of the Austin Astronomical Society and all those who knew and loved Earl are invited to come and share in the joy that this dear friend brought into each of our lives.

Susan Carls has sent in a special request to AAS members.

Since Earl was so often the man behind the camera, rather than in the shot, Susan doesn't have a lot of pictures to remember him by. Any pictures you may have of Earl at star parties or AAS events would be greatly appreciated. Please email them to Susan at sfd928 at yahoo.com or mail them to 8011 Bayview, Baytown, Texas 77520.



Leonard Harvey provides a demonstration in telescope basics. See article on ARGOS Lock-In night, page 8.

Calendar of Events

9 JANUARY

EC Meeting

13 JANUARY

Monthly Meeting,
Regular & Young
Astronomers
7:30 pm

17 JANUARY

Meet the President
Open House at Wild
Basin, 5-7 pm

21 JANUARY

AAS/COE Public
Observing Night
Star Party

21 JANUARY

Joint Star Party with
HAS (Houston) in
Columbus

28 JANUARY

AAS Members Only
Night Star Party

29 JANUARY

Memorial for Earl Carls
at Bamberger Ranch
Preserve

4 FEBRUARY

Joint Star Party with
TAS (Dallas) and CTAS
(Waco) at Turner
Research Station

10 FEBRUARY

Monthly Meeting,
Regular & Young
Astronomers
7:30 pm

18 FEBRUARY

AAS/COE Public
Observing Night
Star Party

25 FEBRUARY

AAS Members-Only
Night Star Party

Minutes – December 2005

There was no meeting in December; therefore there are no minutes to report. ★

A Special
Thanks to
Volunteers...

Joyce & Steve Barrett
Sandy Behrman
Harriet Strieber

Please Note New Rate

If you are newly subscribing or resubscribing to Astronomy Magazine: the yearly rate is now \$34.00 (not \$29.00) and a two year subscription is now \$60.00 (not \$55.00). If you send in the old amount, you will be contacted for an additional five dollars. The club makes no profit whatsoever on magazine subscriptions.

If you have any questions or comments about the price increase or other magazine/membership/dues-related matters, please contact your treasurer, Mark Lyon.

New Editor Named

Jim Chandler has announced the appointment of Julia Harvey as the new newsletter editor. Julia will be starting her post in January. Please submit all photos and articles to Julia for the February newsletter. ★

Thank-You

General Printing, Inc. (GPI)
8906 Wall Street, Ste. 708
Austin, TX 78754

EC Minutes – December 2005

There was no meeting of the Executive Committee in December; therefore there are no minutes to report. ★

Treasurer Report – December 2005

By Mark Lyon, Treasurer

For the period of 12/1/2005 through 12/31/2005

Deposits: \$507.97 which encompassed:

\$ 457.00 Club Dues
\$ 50.00 Donations
\$.97 Interest income

Expenses: \$1,037.85 which encompassed:

\$ 98.85 Sky & Telescope Magazine
\$ 68.00 Astronomy Magazine
\$ 200.00 Newsletter printing
\$ 182.00 Merchandise purchase
\$ 150.00 Bulk mail permit
\$ 327.00 Club insurance
\$ 12.00 Checking account maintenance

The checking account balance as of 12/31/05 was \$ 12,581.36

The CD balance as of 12/31/05 was \$ 4,483.22

Total Cash Balance \$ 17,064.58

January Observing Targets

by Brian Cuthbertson

Perhaps it's appropriate that the winter Milky Way is up in, well, winter. With this month's target constellations, we're basically looking away from the warm glow of the Milky Way core toward the outer, colder edge of our galaxy, and beyond that to the frigid emptiness of intergalactic space.

So now's the time for sweaters and Orion; time enough next summer for suntans and Sagittarius. Happy New Year, and enjoy!

U Orionis rating EASY

Long period variable star
RA 5h 55.9m Dec +20d 10.5' (2000)
Magnitude 5.4 (max)

This variable, in far northern Orion, offers us a 2-for-1 special due to its proximity to 4th-magnitude CHI-1 Orionis. CHI-1 is a main sequence star similar to the Sun, but about 1.5 times as luminous. It dominates a

bright asterism less than a degree wide that includes U, and so serves as a good starting point. CHI-1 is a Sun-like G0 star that lies just 32 light-years away. It's a copious emitter of coronal radiation because it's just 300 million years old, very young compared to the Sun's 4.5 billion years. It also rotates 4-5 times faster than the Sun.

U Orionis is located just half a degree ESE of CHI-1. Distance-wise, however, CHI-1 and U aren't neighbors at all. At 800 to 900 light-years, U is a much more distant object.

U's magnitude variations were discovered in 1885, fairly late for such a bright star. At its discovery, it was considered a possible nova. But a December 1885 Harvard spectrum showed features virtually identical to those of well-known long-period variable Mira Ceti. All such variables have strong dark bands of titanium oxide and bright lines of hydrogen.

Being a Mira-type variable, U is obvious due to its red color. Of more interest to amateurs, U is one of the few long-period variable stars that's visible to the naked-eye at maximum. Its brightness ranges over 7 magnitudes, from 5.4 to 12.5, with a period of a year and a week. At maximum U is about 250 times as luminous as the Sun, not a star you'd want to orbit at an Earth-Sun distance!

M37 rating MEDIUM

Open cluster in Auriga
RA 5h 52.4m Dec +32d 32.8' (2000)
Magnitude 5.6

Of Messier's three Auriga open clusters, M37 stands out in several ways. While the other two, M36 and M38, lie inside the Auriga pentagon nestled among other clusters and nebulae, M37 is an outsider. It lies beyond the pentagon to the SE, in the direction of Gemini and Orion. Second, M37 was the first of the three clusters observed by Messier, in 1764. Finally, at 200+ million years, M37 is the oldest of the three, and is usually considered the finest one. Just as for fine wines, aging is apparently beneficial in this case! All 3 clusters lie at about the same distance from us, roughly 4000 to 4500 light years.

Like M36 and M38, M37 is well-known binocular object. The three clusters form a curving line that al-

most fits in a binocular's field of view. But because their brightest stars are just 9th magnitude, most binoculars show them as unresolved cotton puffs. A telescope is needed to resolve them into stars.

M37 is superb in most any scope. It will probably look like a nebula in any aperture less than 2 inches, but in anything larger, some of the individual stars will be easily visible. Some observers have noted M37's loops and curved lines of stars, which also seem to be a feature of other open clusters like nearby M35 in Gemini. M37 contains about 150 stars between magnitudes 9.2 and 12.5, and it may as many as 500 members total. Because M37 is an older open cluster, it has few remaining B-class stars. Most bright members are spectral class A, along with at least a dozen red giants.

19th century observer T.W. Webb said of M37, "Even in small instruments it is extremely beautiful, one of the finest in its class." Although I'm skeptical of most "best in class" labels (car ads use them far too often), Webb does have a good reputation. So take a look and see if you agree with him.

M79 rating HARD

globular cluster in Lepus
RA 5h 24.2m Dec -24d 31.3' (2000)
Magnitude 7.8

One of the best-known objects in winter skies south of Orion, M79 lies in southern Lepus (the Hare). It can be easily located by imagining a line from Alpha SSW to Beta Leporis, and extending it about 4 degrees further SSW.

Once in the vicinity, you'll find M79 lying between two 9th magnitude stars lying 10' north and south of its position. The cluster can be seen with binoculars in good conditions. It's bright in a 2.4-inch refractor, but you'll need a 6-inch scope to partially resolve it, and a 10-inch to resolve it completely.

M79 has been known since 1780, when Frenchman P. Mechain first called attention to it in October of that year, and Messier observed it several weeks later. Early observers including Smyth and Webb all described the cluster as becoming very much brighter at its center. In today's 10-inch scopes, this bright core appears about 1' across, and the surrounding cluster extends to about 4.5' in diameter.

Some modern observers, with scopes ranging from 4-inch refractors to 14-inch reflectors, have noted a possible dark lane near the edge of the cluster. Take a look; maybe you can find this "dark side" of M79 yourself.

★

Shoot for the Stars ★

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Upcoming Events

Houston Astronomical Society 50th Anniversary Picnic January 21, 2006

50 years ago in September, 1955, the Houston Astronomical Society was formed. The Society has done many new things over the years. One of the major accomplishments since the founding of the Society was the building of our Columbus Observatory. The land surveying started in 1979, and in 1982 the current observatory building was dedicated. Three years later a time capsule was placed in the ground on the south side of the building.

On Saturday, January 21, 2006 (with a rain date of January 28th), we will have our annual picnic (the Fall Picnic was postponed due to Hurricane Rita). At the picnic we will unearth and open the capsule. And to help celebrate our 50th anniversary we are inviting all the area clubs to attend our picnic. As usual, the HAS will supply the food for the picnic, hot chili with onions, cheese and Fritos, and sides, you bring the drinks. We will also have the observatory open for our visitors, a constellation tour at twilight, and the usual observing session when it gets dark. Bring your own telescope to test our night skies. There will be a "light window" around midnight that if you would like to leave you may, or you can spend the night at the site if you wish.

The planned schedule of activities is as follows. Gates open at 10 a.m. on Saturday. Unearthing of time

capsule is at 2 p.m. Dinner is served at 4 p.m. Observing begins at dark (sunset is 5:57 p.m.; twilight ends at 7:18 p.m.). Gates close noon on Sunday.

AAS members who would like to attend should email Steve Barrett no later than January 8. Please include your name and mailing address along with number of adults and children in your party. A map to the site will be mailed to you.

RV Information: You may bring your RV/trailer/5th wheel to the site. However, we do not have enough utilities for power, water and dump to support everyone. So if you plan to come to the site, be prepared to dry camp (we do have a dump station if you want to dump before leaving). As an alternative, there is an RV park on I-10 at Hatterman Lane, which is the exit to get to the site. From there it is about a 15 minute drive to our site. If you are interested in staying at the RV park, here is their contact info: Motorcoach RV Park, 2965 Hwy 90, Weimar, TX 78962, 979-732-9494, www.motorcoachrvpark.com

Motel Information: There are several motels in Columbus if you want to spend the night or part of the next day before going back home. Contact Steve Barrett for details.

Starfari Coonabarabran, Australia March 24-31, 2006

Ever dared to go where few AAS'ers have been before? Have you imagined seeing with your own eyes those "floating marshmallows" known as the Large and Small Magellanic Clouds; the granddaddy globular of them all, Tucanae 47; Omega Centauri and Omega Centaurus A – at 75 degrees in the sky; eta Carina NEBULA; NGC 2070, aka Tarantula; NGC 3918, if planetaries are your thing; or the Silver Coin Galaxy, NGC 253? And that's just to whet your appetite!

The intrepid Down Under explorers have set the date for their next adventure to March 24-31, 2006 at a dark sky site just minutes from the world famous Siding Spring Observatory near Coonabarabran, New South Wales. This year's date has the good fortune of hooking in nicely with the South Pacific Star Party – the big 'un in Australia – scheduled March 31 – April 2 so you can even add another "star party notch" to your belt.

If you are interested in learning more about this trip, just email anne@hadkins.com for more information on the trip details, or call 451-8895 (day) or 451-0339 (evenings).

Memorial for Earl Carls Bamberger Ranch Preserve January 29, 2006

One of Earl's favorite projects were the star parties he hosted out at the Bamberger Ranch. In honor of Earl, the Bambergers are holding a volunteer appreciation party on January 29, 2006 at the Bamberger Ranch Preserve and this day will be especially set aside to honor Earl's memory. Members of the Austin Astronomical Society and all those who knew and loved Earl are invited to come and share in the joy that this dear friend brought into each of our lives.

Sign Up Now For the 28th Annual Texas Star Party April 23-30, 2006

Submit your Reservation Request Form before January 14, 2005 to enter the TSP drawing. Just go to www.texasstarparty.org/draw/htjml for additional information and to find the form.

Participants at the Texas Star Party can select from a variety of accommodations on the Prude Ranch, including bunkhouses, private cabins, trailer hookups, and campsites with convenient bathhouses. All accommodations include access to a TV lounge, a western-style dining room, and an indoor swimming pool. And, of course, the convenience of three observing fields.

The TSP Registration Fee (this is separate from and does not include your accommodations charge) is \$50 per person if you preregister before March 25, 2006. Each additional family member is just \$30 more.)

The drawing for names is in late January and, if your name is drawn, you will get a TSP Registration Form (and optional Prude Ranch Reservation Form) to send in with your payments in February/March.

Sign up now! Go to the website at texasstarparty.org for all the latest details. We look forward to seeing you next April!

More Events

LBJ Ranch Star Party March 18, 2006

The next LBJ Ranch Star Party is scheduled for Saturday, March 18, 2006! Bring your telescope and join us as one of the AAS volunteers for this great event!

Invited guests (50-100) of LBJ Ranch National Historic Site will have an opportunity to look through our telescopes. Afterwards, we can enjoy the dark skies from this great site located at the end of LBJ's private runway, west of Johnson City.

We will caravan as a group from Southwest Austin near the "Y" at US 290/71 at approximately 5:30 p.m. and observe until about 11:00 p.m. Sunset is at 6:41 p.m. and moonrise is at 10:24 p.m.

If you are interested, contact me right away – the deadline for signing up is January 15, 2006.

Yes, the US Secret Service will be checking you out since Lady Bird may be in the vicinity.

Open House Wild Basin Preserve January 17, 2006, 5-7 pm

AAS members are invited to attend a "Meet the New President" Open House at Wild Basin Preserve.

Friends of the Basin will get a chance to meet the new President, Roy Keithley, and all of the Wild Basin Board, staff, and many volunteers. Refreshments and entertainment will be provided by the Basin.

This coming year will be an exciting one for the Basin as it seeks to expand its public outreach by enhancing its education center and building a new onsite observatory.

Walter Laich, general manager of the Basin, extends this special invitation to AAS members and looks forward to many of our members being a part of this special evening and getting a chance to hear about the exciting plans for the upcoming year. Hope to see you all there!

Joint Star Party CTAS/TAS/AAS Turner Research Station, Waco February 4, 2006

AAS has been invited by the Central Texas Astronomical Society to a special joint star party with their club (CTAS) and the Dallas club (TAS). This special session is scheduled the evening of February 4 which is the same night as their regular member star party, so there will be viewing on the observing field at the Turner Research Station (TRS) as well as use of the 24-inch robotic research-grade telescope for imaging. The 24-inch will be dedicated to an all-nighter to do whatever imaging you choose with the time split between the Dallas and Austin clubs. Dick Campbell, one of the Directors of CTAS, an engineer at the Paul J. Meyer Observatory, and Chairman for this Invitational Star Party, also remarked that one of their modest goals will be to introduce both guest clubs to the possibilities of collaboration for science and education. AAS members are welcome to camp out at TRS (primitive camping only with porta-potties). There is no restriction on attendance except that only about a dozen or so people can be in the control room at one time. There are also motel rooms in Clifton (10 mi N) and Gatesville (20 mi S).

You can find more information about this world-class facility at <http://www.centexastronomy.org/calendar/eventlists/memberparties.htm> and <http://lonestaricon.com/News/2004/42news03.htm>

Anyone interested in attending should RSVP to Anne Adkins at anne@hadkins.com by January 31.

ARGOS Lock-In UT Astronomy Dept/LBJ High School March 4, 2006

The next ARGOS lock-in date is tentatively set for the night of March 3/4 at LBJ High School. Contact Leonard Harvey or Anne Adkins for further details and see article on page 8.

Constellation Of The Month "Triangulum" The Triangle

By Mark Johnston

History: Triangulum (in ancient Greek $\Delta\epsilon\lambda\tau\omicron\tau\omicron\nu$) is listed among the constellations in the earliest surviving complete classical astronomical work, the *Phainomena* of Aratos, written about 270 B.C. The Greek celestial Triangle was, however, an equilateral figure, comprised of Alpha, Beta, and 12 Triangulum, rather than the present scalene figure of Alpha, Beta, and Gamma. It got reduced to its present size in the late 17th century when Hevelius made a new constellation which he called Triangulum Minor, from Iota 10 and 12 Trianguli. The first Asteroid was discovered in Triangulum on January 1, 1801 by Giuseppe Piazzi from his observatory in Sicily.

Constellation: Alpha is sometimes known as Caput Trianguli, Latin for the "head of the triangle"; another rare name is Mothallah, Arabic for "triangle". Beta is the brightest star of the constellation at magnitude 3.0; distance: 115ly. Gamma star is magnitude 4.0; distance: 150ly.

Stellar Objects: From our view Triangulum is not in a very star-cluttered star field. There are a few doubles that range in brightest magnitude of 5.0 to dimmest magnitude of 11.4 and range in separation from 1.7 - 114.3 arc seconds. 6" aperture and up with high magnification (150x - 200x) is for best views to see 10.2 - 11.4 magnitude companion stars.

Deep-Sky Objects: Triangulum has no Nebulae at this Time in Space. It does contain Galaxies; the most well known and photographed is NGC 598, also known as the famous M33 discovered by Charles Messier (the Comet Ferret) in August 1764. M33 is a large galaxy with low surface brightness and is a challenging object for small telescopes. Magnifications from 25x - 75x in 20-24" scopes is best, much detail can be seen in the larger scopes. There are more NGC galaxies to be seen in 8-10" scopes but most need 12-22" and dark skies for good views. NGC 672 can be seen in 4-6" scopes at 50x. There is one open star cluster: Collinder 21 magnitude 7.3 makes a star pattern of a "C". Use low power for these stars are 6' wide. Larger aperture is best 8" and up; in 12-14" at 125x reveals a dozen 8th and 10th magnitude stars

Location: Triangulum is high in the East at 18:00 hrs on January 1st. Draw a Triangle (imagine that) from Gamma Andromeda and Beta Andromeda as the base line for imaginary Triangle; the point line will be right at or next to Alpha Triangulum. Happy New Year 2006!



AAS HOLIDAY PARTY — BLAST OFF TO FUN!



No doubt the legend of the holiday pozole has made its rounds and, if you missed the out-of-this-world AAS Holiday Gala, it would be a shame if you didn't have the opportunity to cook yourself up a great big pot of this famous recipe at home. AAS member, master chef and preparer of this famous spicy dish, has kindly supplied the recipe for all. Thank you, Terry Phillips, for divulging your culinary secrets!

Warm-Your-Tummy Pozole

2 lbs. lean pork shoulder cut into 3/4" cubes
30 oz. can yellow hominy (pozole amarillo)
30 oz. can white hominy (pozole blanco)
1 large yellow onion 1/4" dice (about 1.5 cups)
3 ribs celery 1/4" dice
2 T. chopped garlic (more if you like)
2 or 3 poblano chile peppers fire roasted, peeled, 1/4" dice
4 or 5 dried ancho chilies or 1-2 T McCormick's Gourmet Collection "Ancho Chile Pepper" powder

6 dried Chipotle peppers or 1-2 T McCormick's Gourmet Collection "Chipotle Chile Pepper" powder
1 T. cumin
2 T. oregano
1/2 stick butter
1/3 cup olive oil
flour
6 14.5 oz. cans chicken broth

Assembly

Prepare the chile peppers (see below).

Dredge the pork cubes in flour and brown in a heavy skillet with the olive oil. When browned, move the meat to a 6 qt stock pot or crock pot. Melt the butter with the oil remaining in the skillet and sauté the onion and celery until the onion turns translucent. Add the garlic and sauté for another minute. Add the Cumin and Oregano. I crush the Oregano between the palms of my hands as I add it. Sauté for another minute, then transfer the skillet contents to the stock pot with the meat. Add the chilies or powdered equivalent and the chile simmering liquid if used. Add the hominy including the liquid. Add the chicken stock. Simmer for 1 hour. Stir well every 15 minutes or so. After the first hour, skim off any oil that rises to the top. Adjust seasonings (e.g., add more!) and continue simmering until pork is tender. Serve with chopped cilantro if desired. Serves two (or more if absolutely necessary).

Preparing the peppers (the hard way)

With a sharp knife, slice the Ancho peppers in half and remove the ribs and seeds. In a skillet containing 1/4" of water, float the Anchos with inside facing down. Toss in the dried Chipotles. Cover and simmer for about 5 minutes. Remove the puffed up Chipotles to a plate, slice open, remove the seeds and ribs. Return to the skillet and continue to simmer. Remove one Ancho at a time to the plate, insides facing up. Holding the pepper at one end against the plate with a fork, take a spoon and scrape the red pulp off to one side leaving the translucent pepper hull behind. Collect the red pulp from all the Anchos and discard the hulls. Reserve the dark simmering liquid. By now, the chipotles should be soft enough to scrape out their pulp. Chop the chile pulp into fine pieces until it has a paste-like consistency. Roast the Poblano chilies over a gas flame until the skins blacken, or you can roast them under broiling element in an electric oven. Once the skins are good and blackened, toss the peppers into a Ziploc bag. They'll continue to cook in their own steam until they cool. When cool, slip off the skins under running water, then slice the chilies open and remove the seeds and ribs. Finally dice the chilies in 1/4" pieces.

Preparing the peppers (the easy way)

Some folks can't handle roasting and simmering chilies. It certainly drives my kids out of the house! Gloves are recommended when handling the peppers. It's a hassle. I only do this because I'm something of a pyro. It turns out HEB now carries powdered "Chipotle Chile Pepper" and "Ancho Chile Pepper". It's McCormick's Gourmet Collection in the spice rack 2 oz bottles. Some HEBs even carry already roasted and peeled Poblano peppers in vacuum packs in the produce section next to the vacuumed packed avocados. If you go this route, just start with 1T of Chipotle and 1T of Ancho. Add more after the stew's been simmering if you want more kick.



Decreasing Light Pollution in South Central Colorado

Report by: Ed Stewart, Westcliffe, CO
<stargazer_at_skytmn.com>

Some of you may remember me from when I left Austin in July 2000 to retire in rural Colorado near a very small community called Westcliffe, which is about 50 miles due west of Pueblo. One of the attractions was a newly formed group called Dark Skies, Inc. that works to keep the skies dark before light pollution gets out of control. Two years ago we raised \$15,000 to replace 45 street lights in town, and we have hooded many private yard lights as well. Thought some of you would find these articles in our weekly newspaper interesting. I especially like the headline on the first one that indicates how much the attitude here has changed from "don't tell me what to do with my property" to "Jumping on Dark Skies bandwagon." This change took over five years to accomplish. Please visit our website at: <<http://www.wetmtndarkskies.org/>> for more.

Jumping on Dark Skies bandwagon, Round Mountain to replace lights

Plans are underway by the Round Mountain Water and Sanitation District to replace the existing lights at the sewer treatment plant with high efficiency bulbs, as well as shielded light units recommended by the Dark Skies organization.

The decision to replace the current lighting was made during RMW's regular board meeting earlier this month.

Total estimated cost of the project is \$1,697,43. RMW will pay \$1,197.43, while Dark Skies will pick-up the remaining \$500 tab.

Voting in favor of the measure were board members Jim Barney, Dan Diaz and Chris Haga. The lone nay vote was by Greg Veltre.

—Nora Drenner

Dark Skies organization to host star-gazing party this weekend

Everyone is invited to get up close and personal with the stars this weekend at the inaugural Star Party hosted by the Wet Mountain Dark Skies organization and the Pueblo Astronomy club.

Professional and amateur astronomers will be on hand with their telescopes beginning at dusk on Friday and Saturday nights, Sept. 30 and Oct. 1, to provide a closer look at the heavens and to act as guides for novice sky watchers.

Dark Skies representative Bob Gilchrist said, "there will be plenty of good gear set up so people can have a good look and it should be a good weekend for deep sky viewing."

He also noted that no lights are visible from the location of the party at the Cross

D Bar Trout Ranch and with an altitude of 9,300 feet the atmosphere is clearer than at lower altitudes.

Attendees are encouraged to bring their own equipment, such as binoculars or telescopes, but it is not required as there will be telescopes on site. Power will be available for computers or other equipment requiring electricity. People are also reminded to dress warmly.

This free event will take place at the Cross D Bar Trout Ranch campground, located 2.1 miles south of Highway 96 on Rosita Road, County Road 347. Camping and R.V. parking will be available at no charge and the camp store will be open.

For additional information, call Gilchrist at 783-2944.

ARGOS Lock-In Night a Success!

By Chris Cotter

Thanks to everybody who helped out and/or attended Friday night and Saturday morning's astronomy lock-in in the LBJ Omega Lab. Searching for planets around pulsating white dwarf stars and learning about the physics of white dwarfs is exciting stuff indeed and it was evident that the students thought so, too. The lock-in went very well with clear nights here in Austin and at McDonald Observatory. We had 17 LBJ students attend and two college students (including Jorge Bernal, a Lanier graduate, and David Reaves, a junior at UT. Both have worked with Don in the astronomy department).

Two folks from the Austin Astronomical Society made it out (Anne Adkins and Leonard Harvey) and were very helpful with showing the kids

how to use telescopes and spot some interesting nighttime objects (Mars, Saturn, nebulae, etc.) and showed the kids some photographs. Brad Armosky (from UT/Stardate and McDonald Observatory) had some interesting activities for the kids to do and brought along some great demonstrations. We had the videoconferencing system set up in advance so we could see and talk to Fergal Mullally (the astronomer on duty at the 82-inch telescope) and Fergal could see and talk to us in real time as well. Don Winget (head of the UT astronomy department) made a presentation on several topics in his always masterful way. Numerous people helped out behind the scenes, and Jonathan and I handled the logistics of encouraging kids to come and taking care of the planning for the lock-in.

All in all, it was a big success and we'll look forward to the next one in the spring!



Above: Videoconferencing with McDonald Observatory. Right: Live data from target white dwarf.

Chris Cotter is the Astronomy Club co-sponsor at LBJ High School and teaches calculus, pre-calculus, and pre-AP geometry. He has been collaborating with Don Winget and the UT Astronomy Department on this project for several years.

What Does the M Mean, Anyway?

By Ron Carman

Anyone who has been observing and learning the sky for a while has certainly heard about a number of objects (110, to be exact) that are designated with the letter M followed by a number. When I was in my teens (yes, I was once!) and first heard about them, it made me curious to learn more about these so-called "faint fuzzy" objects. I found out that while some of them are faint and fuzzy, not all of them are too faint or even fuzzy. The letter M is in honor of their discoverer, Charles Messier.

Charles Messier (1730-1817) was a French astronomer whose specialty was looking for comets. He observed over 50 comets and claimed to have discovered 21 of them. While comet hunting, he soon discovered that there are numerous objects in the sky that look faint and fuzzy like comets, but are not comets, since they don't move around in the sky the way comets do. To keep from confusing these non-cometary "nuisance" objects with real comets, he decided to make a record of those he found, noting their exact locations in the sky so other comet hunters wouldn't confuse them with real comets. He numbered them

in the order he found them, which is the reason they seem to be scattered at random around the sky.

At one time he intended to list them in order of right ascension, but never got around to it before his death and by then his list included 103 objects of various types, including nebulae, star clusters, and galaxies.

A few more were added later, either by some of his fellow comet hunters or astronomers who may have read about them in his earlier notes. The last one (110) was added in 1966 as a separate object that he had included on his drawing of the Andromeda galaxy, M31.

All of Messier's objects are visible from mid-northern latitudes. Since France is on about the same latitudes as Minnesota, Messier couldn't see anything more than about 40° south of the celestial equator. The southernmost of his objects (M7) is almost 35° south. Some of them have common names such as the Dumbbell Nebula (M27) or the Great Hercules cluster (M13); others are visible to the naked eye, such as the Pleiades (M45) and the Andromeda Galaxy (M31). Some can be seen in binoculars, while some are so faint we need a telescope to see them. All of

them are visible in a six-inch diameter scope if the sky is dark and clear.

Remember that Messier's list is not all-inclusive; there are many more objects in the sky that he never got around to recording. Later astronomers have catalogued many thousands more using Earth-based telescopes, and the Hubble Space Telescope has found countless more. One fine example which Messier somehow overlooked is the Double Star Cluster in Perseus, which is spectacular in even a small scope.

Later astronomers compiled other catalogs; one of the best known is the New General Catalogue (NGC) which includes over 7000 objects of various types, numbered in order of increasing right ascension (we will cover the topic of right ascension in another article). And to this day, there are still astronomers who specialize in trying to find more comets and other previously unknown objects in the sky. It's quite interesting to think that today many astronomers spend time looking for these same objects that Charles Messier considered "nuisances" and listed them as things to avoid! Happy hunting!



The Austin Astronomical Society is a non-profit corporation organized under Section 501(c)(3) of the Internal Revenue Code. Contributions and gifts are welcome and are deductible for federal income tax purposes.

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Serving September 2005 – August 2006

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Monthly meetings of the AAS are held at 7:30 p.m. on the second Friday of each month, in RLM 4.102 on the UT/Austin campus. See the AAS website, www.austinaastro.org.

Monthly Observing Sessions are held on designated Saturdays nearest the New Moon at Canyon of the Eagles. Membership in the Austin Astronomical Society is open to anyone interested in Astronomy or the Space Sciences. Membership includes a subscription for the *Sidereal Times* and membership in the Astronomical League (Southwest Region) and a subscription to their newsletter, *The Reflector*.

Deadline for the *Sidereal Times* is two weeks prior to the monthly meeting. Articles, photos, feedback and suggestions from the membership are welcome.

Austin Astronomical Society's Membership Form

Name: _____

Address: _____

Phone #: _____ E-mail: _____

Address change requested (current members only).

Please include my personal information on the membership list.

Please send me information on the E-mail "Exploder."

Please sign me up for:

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Junior or Senior Membership \$15.00 _____

Sky & Telescope Subscription \$33.00 _____

Astronomy Subscription \$34.00 _____

TOTAL: _____

Mail To: A. A. S., P. O. Box 12831, Austin, TX 78711

**AAS Monthly Club
2006 Star Party Schedule**

Below are the planned dates and times of the Society's star parties for 2006. The star parties are held at the Eagle Eye Observatory at the Canyon Of The Eagles location. Our star-party "Go/No Go" phone number is (512) 323-5574. On Public Observing Nights, members of the public are welcome; the arrival deadline time is sunset, and access to the observatory is via a "hayride" coordinated by AAS and Canyon of the Eagles Lodge. The hayrides will begin approximately 30 to 40 minutes prior to dark. On Members Only Nights, participation is limited to AAS members and their invited guests. The gate will close approximately 10 minutes before dark.

Month	Members Only Date	Public Observing Date
January	28	21
February	25	18
March	25	4
April	29	CenTex Mar 31 & Apr 1
May	27	20
June	24	17
July	22	29
August	CTSP 25-26	19
September	23	16
October	21	14
November	18	11
December	16	9

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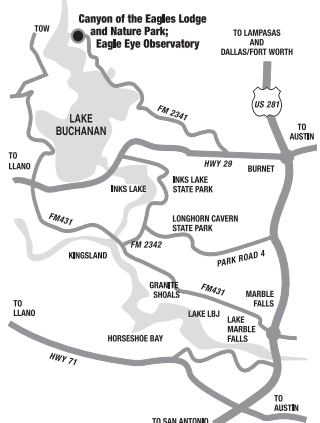
After finally finding some time under the stars, have you ever thought, "What should I observe? There's so much up there!"

The Astronomical League offers nearly 30 observing programs to help in just that situation. Some are designed for the novice such as Constellation Hunters, Universe Sampler, and Lunar Clubs. Other programs, including the Messier, Urban, and Planetary Observer Clubs, are better suited for intermediate observers. More experienced deep sky hunters can hone their skills with the tougher selections of the Herschel, Arp Peculiar Galaxies, and Galaxy Groups and Clusters Clubs. Truly, there is a program for everyone!

Upon completion of each club, the observer is presented a certificate suitable for framing and a nifty lapel pin. These lists are a low stress way to enjoy the many wonders of the night sky.

Check out which program is right for you! Visit www.astroleague.org/observing.html

MAP TO EAGLE EYE OBSERVATORY



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Join Us for
PIZZA
After the Meeting!

Longtime club member, Bill Tschumy, has started a new business, "Think Astronomy". According to Bill, Think Astronomy will conduct private star parties and computer-facilitated classroom talks about astronomy in the greater Austin area. Bill will come to your location and guide your group on a tour of the night sky. He is also available to come to your classroom and present engaging talks about astronomy, using hands-on learning methods and computer-based planetarium software. And, finally, for those individuals needing just a little help getting started in astronomy, Bill will come to your house or meet you at a prescribed observing location, and help you become familiar with your equipment and the night sky.

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Current Rosters Available via email.

Contact Mark Lyon for more information.

WELCOME
NEW MEMBERS!

Silvia, David,
and Rachel Smith

We now have 228 paid members!

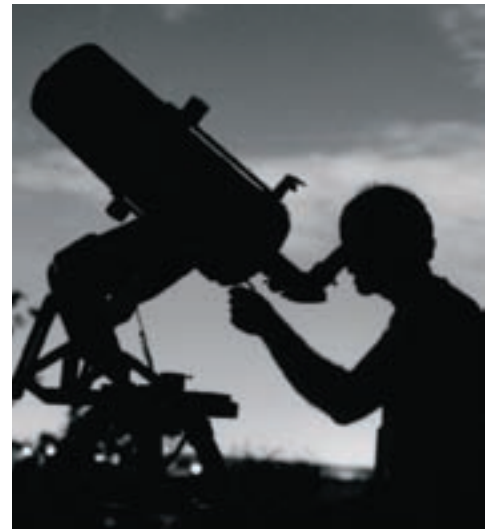
January Astronomical

C A L E N D A R

January, month of the god Janus who faces both forward and backward through the door.

- Jan 3** Quadrantid meteor shower peak.
- Jan 4** Moon 4.6° S of Mercury 18 cst.
- Jan 4** Earth at perihelion (nearest to the Sun).
- Jan 6** Comet Shoemaker-Levy 7 Closest Approach to Earth (1.370 au)
- Jan 6** Comet Parker-Hartley Closest Approach to Earth (2.291 au).
- Jan 11** Comet C/2005 B1 (Christensen) Closest Approach to Earth (3.340 au).
- Jan 11** Scheduled launch of NASA's Pluto New Horizons Pluto-Kuiper Belt Mission.
- Jan 14** Full Moomn CST/17 UTC.
- Jan 15** Cassini, Titan Flyby.
- Jan 16** Comet C/2005 X1 (Beshore) Closest Approach to Earth (2.528 au).
- Jan 19** ALOS 1 H-2A Launch (Japan)
- Jan 20** Comet Mueller 2 Closest Approach to Earth (2.390 au).
- Jan 25** Saturn occults PPM 125631 (8 mag star).
- Jan 26** GPS 2RM F-2 Delta 2 Launch.
- Jan 27** Saturn at opposition.
- Jan 28** 20th Anniversary (1986) Space Shuttle Challenger Accident.
- Jan 29** New Moon CST/2 UTC.
- Jan 29** Comet C/2004 D1 (NEAT) Closest Approach to Earth (1.106 au).
- Jan 30** Comet Tuttle-Giacobini-Kresak Closest Approach to Earth (1.547 au).

The Milky Way on January evenings crosses overhead diagonally from southeast to northwest.



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Sidereal Times

2006 January

The January Austin Astronomical Society Club Meeting

Place: To Be Announced

Date: Friday, January 13, 2006

Time: 7:30 pm CST

Check our Web Site for latest information

Sidereal Times



http://www.austinastro.org

2006

Meeting Date

January 13

7:30 p.m.

Location TBA

January Speaker:

**Dr. Eiichiro Komatsu,
UT Astronomy Dept**

January Topic:

TBA

*(See Website
for latest details)*

*There will be a "merchandise"
(formerly t-shirt design) contest
at the January business meeting
(Friday, January 13). Start thinking
about an item and design you'd
like to see the club sell and bring
your ideas to the meeting.*

December Holiday Party a Knock-Out!

See pages 6-7 for photos!



*"Sidereal Times" is an official
monthly publication of the
Austin Astronomical Society.*

We love you, Earl!



Earl and Susan Carls, at Darin Koch's birthday party on November 27, 2005.

Wild Basin Floor Tile Unveiled



Finally, after years — six years, to be precise — the AAS Wild Basin 4-tile set has been drawn and sealed in the middle of the Wild Basin Education Center floor.

Thanks to AAS member Cecile Shopen for undertaking this artistic task!

The brief history of this project is that in 1999, several AAS members with a matching gift from the club agreed to purchase two tiles from the Basin, and the Basin gave AAS two more tiles for all its years of service. This is a wonderful living memory of the long-term collaboration existing between our two organizations.

This newsletter is dedicated to the late, great Earl Carls, a true Renaissance Man with a broad array of lifetime experience and knowledge and many hidden talents. One aspect of Earl that we all knew well was his love of astronomy and his burning desire to pass that joy along to others, especially young and inquiring minds. Earl's last words were, in fact, in behalf of enhancing the quality of education for young people. He has left us too soon.

One of Earl's favorite projects were the star parties he hosted out at the Bamberger Ranch. In honor of Earl, the Bambergers are holding a volunteer appreciation party on January 29, 2006 at the Bamberger Ranch Reserve and this day will be especially set aside to honor Earl's memory. Members of the Austin Astronomical Society and all those who knew and loved Earl are invited to come and share in the joy that this dear friend brought into each of our lives.

Susan Carls has sent in a special request to AAS members.

Since Earl was so often the man behind the camera, rather than in the shot, Susan doesn't have a lot of pictures to remember him by. Any pictures you may have of Earl at star parties or AAS events would be greatly appreciated. Please email them to Susan at sfd928 at yahoo.com or mail them to 8011 Bayview, Baytown, Texas 77520.



Leonard Harvey provides a demonstration in telescope basics. See article on ARGOS Lock-In night, page 8.