

SDAA

San Diego Astronomy Association

Promising the Sun, the Moon, and the Stars...and Delivering!



Office (619) 645-8940
Observatory (619) 766-9118
http://www.sdaa.org
A Non-Profit Educational Association
P.O. Box 23215, San Diego, CA 92193-3215

SDAA Business Meeting

Will be held at:

SKF Condition Monitoring
4141 Ruffin Road
San Diego, CA 92123-1841
December 10th at 7:00 pm

The Ultimate Star Party!

Please join us January 18 for the annual SDAA banquet. Details and invitations are inside.

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News and Notes

December 2002

Eyepiece Shootout 7, The Frustrating Foursome... by Bret Akers and John Kuhl

The competitors:

The 21mm Pentax XL comes into this comparison touting Pentax's proprietary Super Multi-Coatings (SMC) and ED glass to minimize chromatic aberrations and astigmatism. Physically, like all of the Pentax XLs it's a big eyepiece with a twist-up rubber eyecup. It's got 6 lens elements, 20mm of eye relief, a 65-degree apparent field of view, a 1.25" barrel, and weighs in at 12 ounces. New, these eyepieces generally run about \$220.

The 22mm Vixen Lanthanum Superwide uses the rare earth glass lanthanum to minimize chromatic aberrations and astigmatism and provide a long 20mm of eye relief. There's a lot of glass in this eyepiece, 8 lens elements in a 5-group design. Additionally, each lens element is fully multicoated with blackened edges. It's a tad heavier than the Pentax, but it has the same 65-degree field of view and 1.25"/2" barrel. New, this eyepiece is about \$235.

The 22mm Tele Vue Panoptic falls right in the middle of the Panoptic line. It weighs in at 1 pound with its 6 optical elements. It has the combination 1.25"/2" barrel and delivers the Panoptic-standard 68-degree apparent field of view. Tele Vue specs 15mm of eye relief, but some have reported that the eye relief is really closer to 11mm. How much? It's about \$280 new.

The 22mm Nagler Type 4 is the largest of the Type 4 eyepieces at 1.5 pounds. This is easily the largest eyepiece in this comparison and, of course, requires at least a 2" focuser. It has a 6-element

configuration and a fairly generous 19mm of eye relief. It also has the Tele Vue's infamous Instajust. Some like it, we don't. However, since it's a Nagler, you get an 82-degree apparent field. And since it's a Nagler, it's not cheap. \$460 new.

Once again, there's a big price difference between the least expensive and most expensive eyepiece. The 22mm Nagler is more than twice the price of the 21mm Pentax.

Testers and observing conditions:

Before we get into this, one thing needs to be said. Testing 4 eyepieces against each other is a big pain in the neck. Never again... Aside from the exercise of juggling 4 expensive eyepieces in and out of the focuser, remembering the subtleties from one view to the next proved to be difficult in many cases. If we did this again, we'd do this over 2-3 sessions.

With that said, we continued to use the 12.5" f/5 Dobsonian for the review. We conducted this test at TDS on November 2nd. It wasn't the best of nights, but it was adequate for testing at these powers.

On to the results...

On-Axis Sharpness: M11 was the target and the results were obvious. The Nagler was clearly the sharpest. The other three were very close with the Pentax and Panoptic performing extremely close.

Ranking: 1. Nagler, 2. Pentax, 3. Panoptic, 4. Lanthanum

Off-Axis Sharpness: Same results as the on-axis test, but the difference between

(continued on page 4)

Astronomy 101

Heavenly Geometry

In the skies above, over the eons that man has looked at the stars, he's found familiar shapes. These shapes make up most of our constellations, Orion, Sagittarius, Taurus, etc., and the shapes represented important things to man in mythology and everyday life. To some people, the shapes formed simple patterns, The Northern and Southern Cross, the Summer Triangle, and this week's subject, the "Winter Hexagon." The shapes were most often made up of bright stars and may have spanned large portions of the sky. So let's find the Winter Hexagon and marvel at the bright stars it contains.

To find the Winter Hexagon, step outside in the cool winter air around 11:00 PM in late November, 10:00 PM in mid-December and 9:00 in January. Look to the South and find the constellation of Orion. Remember Orion, "The Hunter," from my third article? The most prominent feature was his belt and sword, which look like a "little dipper." Using the three stars of his belt to point the way, follow a line down to the Southeast to the brightest star in the sky Sirius; this will be the starting and base point of our hexagon. Now return to the center star of the belt of Orion and go, at a 90 degree angle, from the belt to the Southwest, and you'll find a bright bluish star, Rigel. Rigel represents Orion's foot and the second star of our hexagon. Return to the three belt stars and follow the line they form in the opposite direction of Sirius and they point to an orangish star in Taurus, Aldebaran. Aldebaran, or "The Follower," is the third star of our hexagon. So now we have three points of our hexagon drawn in the sky, from Sirius to Rigel to Aldebaran. To find our fourth and highest point, look higher in the sky to the bright star Capella, or "The Charioteer's Eye," of Auriga. It lies directly opposite Sirius on the other side of Orion. Our hexagon is now half complete and we're heading home. From Capella,

go to the East, to the two beautiful stars Castor and Pollux of Gemini, "The Twins." Pollux the most Eastward of the two is our next point. From Pollux, look due South, and you'll see the bright star Procyon of Canis Minor, "The Little Dog." Draw the final line of our Winter Hexagon back to Sirius, "The Dog Star," of Canis Major. To draw our Winter Hexagon, we've traversed through eight constellations, starting in Canis Major, through Lepus, Orion, Taurus, Auriga, Gemini Canis Minor and back to Canis Major. Each of these constellations deserves its own story, and I hope to cover them all for you in the future. Here is some interesting information about the stars that form our Winter Hexagon...

Sirius - The brightest star in the sky is also one of the nearest to Earth. Sirius is just under 9 light years away.

Rigel - A blue supergiant star that remains very bright despite lying almost 800 light

years away, it's the 7th brightest star in the sky.

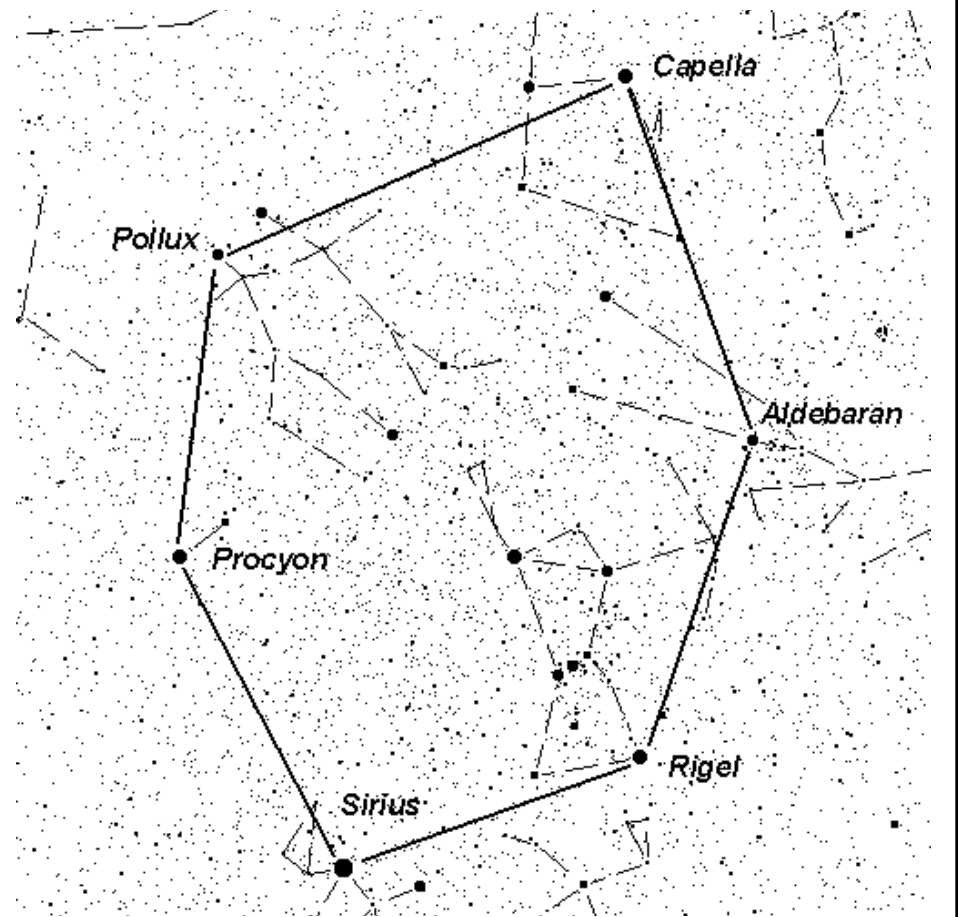
Aldebaran - A prominent orange giant, 14th brightest, the 'eye' of the constellation Taurus. Its name means 'the follower' because it follows the Pleiades across northern winter skies.

Capella - A brilliant yellow star system, the sixth brightest in the entire sky, lying in the constellation of Auriga, the Charioteer.

Pollux - An orange giant, the brightest of the stars of Gemini despite its 'Beta' designation, and 16th brightest in the entire sky. It is less than thirty-five light years from the Solar System.

Procyon - A very prominent and nearby star, Procyon is not only the eighth brightest star in the sky, but is also just eleven light years from the Sun.

I hope you've enjoyed the tour through the Winter Hexagon. Next month: Gemini - The Twins.





Program Meeting By John Restivo

As I had noted last month, there will be NO PROGRAM MEETING for the month of December. This will allow the members to share this holiday season with their loved ones. The Program Meeting for the month of January is, of course, our annual Banquet on January 18th, 2003, at the Honalei Hotel.

On behalf of the Board, I hope this holiday season brings you good health, good friends and maybe a GPS LX-200, AP or Tak. Seriously, this is a time we should all reflect the blessings we may have received during the past year and maybe go an extra step and share one of those blessings to our less fortunate members of society.

I look forward to seeing a lot of you next year at the Banquet. I wish you a safe and blessed holiday season and, of course, clear dark skies.

November Board Meeting By Scott Baker

The meeting was called to order at 7:07 PM. Those in attendance were: Julie Quinn, Terry Stewart, Shawn and Diana Kelly, Bob Wetzel, John Restivo, Jim Traweek, Brian McFarland, Mike Dietz, Jennifer Pesqueira, Brian Staples, Christopher Watson and Scott Baker.

Treasurer's Report: Jennifer Pesqueira gave her Treasurer's Report, it was reviewed, moved, and approved by the Board.

Vice President's Report: John Restivo reports that Earl Towson will be the guest speaker at the November Program meeting. As of yet, there is no guest speaker for the banquet but Jim Traweek announced that he has two potential candidates.

Librarian's Report: Bob Wetzel reports that there is still approximately \$100 left in the budget for the acquisition of books, which he will use to purchase items for the library. The library is still looking for a permanent "home," once it is moved from

the Rueben H. Fleet Theater. Bob also reports that the Science Fair is in March and judges will be needed to attend.

Site Maintenance Report: Terry Stewart reports that supplies, paper products, trash bags, coffee, etc. were recently taken to TDS. Peter DeBaan will be installing a vent fan in the wall of the warming room to help cool it during the warm summer months. Scott Baker has donated a small refrigerator, which will be placed in the warming room for everyone's use, and a barbecue to replace the rusted out one by the storage shed. Jim Traweek reported that the gate to the observatory area, on the North side of the property, needs to have the hinges tightened. Scott Baker volunteered to do the job.

Banquet Report: Diana Kelly reported that the invitations will go out in the next newsletter. The recent posting on the Yahoo Group, that the banquet would be on the 9th of February, was incorrect, the banquet is still scheduled for January 18th.

Star Party Report: Mike Dietz reported that there were 12 star parties last month, and 10 scheduled for this month. The planning of star parties at Mission Trails is shaping up, with the plans focused on using the overflow parking area, adjacent to the campground as the site. Mike Dietz will continue on as the Star Party Chairperson, but not as a voting member of the Board, since his term limit is up.

Observatory Report: Jim Traweek reported that the adjustments on the club scope are proceeding and that the images it's now giving are the best it's seen in years. It has become very obvious that the focuser on the scope is in dire need of replacement and the Board voted unanimously to spend up to \$1000 to replace the focuser. It was also reported that the original optical engineer that designed the mirrors for the scope is willing to take the mirrors back to his lab, set them up, find the absolute best position (collimation point) for them, mark them for reinstallation, and return them to us. There will no cost involved with this and should only take a week to do.

Old Business: Brian Staples reported that an old friend of his, who was interested in joining the SDAA, had told him that he had sent in a check two years ago, which was cashed, yet he never received anything in the mail from the club. It was voted by the Board to give this person a two year membership for his patience. A letter will be written, with the club's apologies, informing him of his membership status, and he will receive his New Member Handbook soon afterwards.

New Business: Brian McFarland suggested that the club invest in another observatory grade scope, and suggested we purchase an 8", f15, D&G refractor with equatorial drive and tripod that is currently for sale. Brian has been in contact with the owner and the scope is a real bargain that shouldn't be passed up. It was voted by the Board to invest up to \$4000.00 to get the scope and have it shipped to San Diego. The scope, once checked out, will be set up in front of the club observatory on Star Party nights until a permanent observatory can be built for it. This scope should be a fabulous instrument for planets and planetaries. It should be perfect for the Mars opposition next summer!

Minutes taken by: Scott Baker.

Treasurer's Report By Jennifer Pesqueira

With the addition of the following members we now have a total of 526 SDAA members. Please welcome: Douglas Dilley, Kerry Lynch, Bill, Edwards, Stacy & Ed Kazimierski, Jeanne Loring, David Pierce, Stephen Tomacelli and Matthew Waclawik. Welcome to SDAA and may you enjoy clear dark skies.



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Eyepiece Shootout 7

(continued from page 1)

each eyepiece was a bit greater.

Ranking: 1. Nagler, 2. Pentax, 3. Panoptic, 4. Lanthanum

Contrast: For this test, we looked at NGC 7331 since it was high in the sky. The Pentax came out on top as it showed the most galactic dust lane detail and extension. This was not a surprise as the Pentax coatings have historically been credited with the superb Pentax XL contrast. However, the Lanthanum and the Nagler were not far behind. Unfortunately, it was easy to see that the Panoptic was outclassed in this test.

Ranking: 1. Pentax, 2. Lanthanum, 3. Nagler, 4. Panoptic

Chromatic Aberration: We had a bit of a surprise in this test, the Panoptic won this test easily and the Nagler easily came in dead last. So where does that leave the others? At the outer edge of the field, the Pentax has pretty good color correction and the Lanthanum comes in just okay.

Ranking: 1. Panoptic, 2. Pentax, 3. Lanthanum, 4. Nagler

Field Flatness: About a year ago we looked through this same 22mm Lanthanum and remarked how flat the field was. Well, it's still as flat as ever. Score one for the Lanthanum. Second place is a draw with the Panoptic and Nagler nearly indistinguishable (as long as you don't go all the way to the edge of the field on the Nagler). Pulling up the rear is the Pentax XL.

Ranking: 1. Lanthanum, 2. Panoptic & Nagler, 4. Pentax

Eye Relief and Comfort: There's really something to say about an 82-degree apparent field of view. There's even more to say when it's tack-sharp with a great snap to focus and very forgiving eye placement. Score another for the Nagler. Next in line would have to be the Panoptic. So what about the Pentax and the Lanthanum? Well, there was some dissent in the ranks. One felt the Pentax had an excessive blackout problem so it should come in last. The other felt the Lanthanum should come

in last because it didn't have a good focus snap making critical focusing a bit of an adventure. So we compromised, they both came in last...

Ranking: 1. Nagler, 2. Panoptic, 3. Pentax & Lanthanum

Light Transmission: After looking at M71, the Pentax XL did it again. It must be those coatings!

Ranking: 1. Pentax, 2. Nagler, 3. Lanthanum, 4. Panoptic

Coatings: Was there any question that the Pentax would come out on top here too? Not really... The Nagler came in a solid second with the Lanthanum and Panoptic looking pretty much identical.

Ranking: 1. Pentax, 2. Nagler, 3. Lanthanum & Panoptic

Conclusions: Whew! What a job. For this test it's easier to say which eyepiece didn't win. That distinction goes to the Panoptic. Next up the ladder has to be the Lanthanum. It performed very well in some tests, but its results were hindered by its lack of sharpness. So that leaves us with the Nagler and the Pentax. If you assign a points system, 4 points for first, 3 for second, etc., the Nagler and the Pentax come out identical. This means that the Pentax has got to get the best value award since it costs less than half as much as the Nagler. The other question is money aside, which one would you want. Although were not fans of the Instadjust on the Nagler, it's tough to overlook its sharpness, ease of use, and the huge 82-degree apparent field of view. For that reason the Nagler seems to be secured in the focuser more frequently and for longer periods of time.

Note: The opinions expressed in this review are solely those of the author(s) and do not constitute an endorsement by the San Diego Astronomy Association.

Dava Sobel at UCSD

**Tuesday, February 11, 2003
5:30-7:15 p.m.**

The celebrated author of international bestsellers *Galileo's Daughter* and *Longitude*

offers dramatic insights into Galileo and his world-shaking scientific discoveries.

Registration fee is \$35 (no refunds or discounts). When registering, use section ID number 038299.

There are 4 easy ways to register for any Revelle Forum event:

By phone: Call (858) 534-3400

Online: <http://revelleforum.ucsd.edu/registration.htm>

By Mail/Fax: Call (858) 964-1051, or e-mail us at ahl@ucsd.edu, to have a copy of the form sent, faxed, or e-mailed to you

In-person: Visit any of our three Extension campuses in La Jolla, Sorrento Mesa, or North County

Early registration is advised as we anticipate selling out both events. Please visit the Revelle Forum website (<http://revelleforum.ucsd.edu>) after December 1st for more details!

In her bestselling book, *Galileo's Daughter*, science writer Dava Sobel offers a compellingly vivid and personal account of Galileo Galilei, a near-mythic figure whom Albert Einstein called the father of modern physics -- indeed of modern science altogether. Sobel spins her story from the perspective of Galileo's remarkable daughter, Virginia, a cloistered nun whose lively correspondence Sobel has translated in a new book, *Letters to Father*. Both works dramatically recolor our conceptions of Galileo, whose 17th-century clash with the Church marked a pivotal point when humanity's understanding of its place in the universe was radically overturned. Winner of the Christopher Award and the *Los Angeles Times* Book Award, *Galileo's Daughter* was named a Notable Book of the Year by *The New York Times*. The PBS program NOVA has recently broadcasted a television documentary of *Galileo's Daughter* and previously produced a television documentary adaptation of Sobel's other international bestseller, *Longitude*.

Praise for Ms. Sobel's work:

"Sobel is a master storyteller.... What she



San Diego Astronomy Association

has done, with her choice of excerpts and her strong sense of story, is bring a great scientist to life."

- Alan Lightman, *The New York Times Book Review*

"Sobel seamlessly recounts history as wonderful narrative filled with outsized characters all marching toward a booming climax."

- *The San Diego Union Tribune*

"*Galileo's Daughter* is a remarkable work for the beauty of the writing and the clarity of the time and relationships it creates. Sobel pays close attention to fine detail, resulting in a work that feels real."

- *The Denver Post*

"Sobel does wonders clearly explaining scientific principles... [She] is a most original writer, with a reverence for history and storytelling."

- *USA Today*

"[Sobel] shows herself a virtuoso at encapsulating the history and the politics of science. Her descriptions of Galileo's ideas... are pithy, vivid, and intelligible."

- *The Wall Street Journal*

SDAA Editorial Staff



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Randy Marsden
John Mood
Jennifer Pesqueira
John Restivo

SkyWatch for December, 2002

John Mood



[Times PDT] [* = Easy] [** = Moderate] [*** = Difficult]

Sat., 30 Nov. ---- STAR PARTY @ Tierra del Sol.

Tues., 2 Dec. ---- NEW MOON, 11:34 p.m.

Sat., 7 Dec. ---- STAR PARTY @ Tierra del Sol.

Sat., 14 Dec. ---- GEMINID METEOR SHOWER this morning [N. B. !]; one of year's best w/ c. 75 slow-moving bright yellow meteors per hour; Moon sets @ 2:00 a.m.

Thurs., 19 Dec. ---- FULL MOON, 11:10 a.m.

Sat., 21 Dec. ---- SOLSTICE, 5:14 p.m.

Sat., 28 Dec. ---- STAR PARTY @ Tierra del Sol.

Wed., 1 Jan. ---- HAPPY NEW YEAR!!

Thurs., 2 Jan. ---- NEW MOON, 12:23 p.m.

Sat., 4 Jan. ---- STAR PARTY @ Tierra del Sol.

EVENING PLANETS:

URANUS (mag. 5.8) [*½] is in Capricornus the Goat, but catch it fast before it sets. SATURN [*] is impaled on one of the horns of Taurus the Bull, & is beginning to put on its best show in 30 years the next half year, since its rings are tilted the most in 15 years & the planet is approaching perihelion in its 29-year orbit. JUPITER [*] is on the border of Leo the Lion & Cancer the Crab, & gets higher in the sky as the month progresses.

MORNING PLANETS:

Dim MARS [*½] & spectacularly bright VENUS [*] are in Virgo the Virgin, just below Spica & w/in 5° of each other all month, w/ closest approach of 1.5° occurring on the 6th.

BEGINNING OBSERVERS:

There are many "specialties" in astronomy. One can concentrate on the Moon, planetary nebulae, double (& multiple) stars, galaxies, etc. One I've rarely mentioned here is VARIABLE STARS, stars whose apparent brightness varies over time. This means they have a spectacular advantage over any other kind of astronomical observing, which is that one can observe changes as they take place.

There are 2 kinds of variable stars:-- "eclipsing binaries" which dim regularly

because an unseen companion star passes in front of the primary star, & "pulsating variables," which dim somewhat irregularly because of intrinsic pulsations.

The place to begin is w/ Algol, Beta Persei, well-placed these winter evenings. It is an eclipsing variable, usu @ mag 2.1 but every 69 hours it dims to mag 3.4. What makes it so easy to spot is that it is right next to a Rho Persei, which is mag 3.3, so one can easily compare the 2 stars to see when Algol is under eclipse. The eclipse takes several hours to fade & brighten, but stays at mag 3.4 for about 2 hours.

The ancients knew of this variation in brightness & "Algol" means "demon," because of its strange variability, as well as signifying the head of Medusa in Perseus's hand (along with Rho, Pi & 16 Persei). I've always thought Perseus looks like he's running furiously to the right with Medusa in his outstretched hand, like he's running to show it to someone!

This month, Algol will be at mid-eclipse on 3 Dec. (3:00 a.m.), 5 Dec. (just before midnight), 8 Dec. (8:30 p.m.), 11 Dec. (5:50 p.m.), 20 Dec. (8:00 p.m.), 23 Dec. (4:45 a.m.), 26 Dec. (1:30 a.m.) & 28 Dec. (10:30 p.m.).

Every time I'm out observing during the winter, I automatically look to see if Algol is in eclipse. With a little practice, you can also, & perhaps you'll be bit with the variable star bug. There's even an organization of pros & amateurs dedicated to it, the AAVSO, American Association of Variable Star Observers. Perhaps you'll join!

TIERRA DEL SOL

LAT = 32° 36' 46" N (± 0.1'), LONG = 116° 19' 55" W (± 0.1'), ELEV = 3710' (± 5'), at the bathroom, as determined from USGS 7.5 min 1/24000 map.

Send comments & questions to me by phone (619/225-9639), USPS (4538 Long Branch Av., San Diego, CA 92107) or my newe-mail address (1happyalien@cox.net).

¡HAPPY VIEWING!



San Diego Astronomy Association

You are cordially invited to

The San Diego Astronomy Association's Annual Banquet



Saturday, January 18, 2003
6:30 P.M. to Midnight



at the

Red Lion Hanalei Hotel
2270 Hotel Circle North , San Diego, CA 92108

Tickets are \$35 each.

Parking is \$2 per car at the gate.

Please mail payment and the invitation below to SDAA as soon as possible to get your name on the attendance list for the event. If time permits, a confirmation will be mailed to you.

Any unsold tickets will be available at the door the evening of the event.

Send a check payable to SDAA to:

SDAA Banquet
P.O. Box 23215
San Diego, CA 92193-3215

The menu is scheduled to include fresh seasonal fruit upon guests' arrival and a buffet dinner with:

- California Greens with Choice of Dressing
- Marinated Black Bean Salad
- Red Dill Potato Salad
- Pineapple Coconut Cole Slaw
- Marinated Baked Chicken
- Braised Beef Short Ribs
- Potatoes au Gratin
- Fresh Seasonal Vegetables
- Corn Bread with Honey Butter
- Chocolate Fudge Torte

A cash bar will be available.

Fabulous door prizes will be raffled off. Past prizes have ranged from posters to books to meteorites to telescopes.

Each guest is given one raffle ticket; additional tickets may be purchased for \$1.

A wide variety of items will be up for auction.

Don't miss out!

For more information, contact Shawn or Diana Kelly at sdkellysdaa@yahoo.com or call (619) 645-8940

SDAA Banquet

Name: _____

Address: _____

City, State, Zip: _____

Telephone: _____

Email: _____

Number attending: _____ @ \$35 each

Total payment included: \$ _____



San Diego Astronomy Association

Leonids Over Tierra Del Sol By Randy Marsden

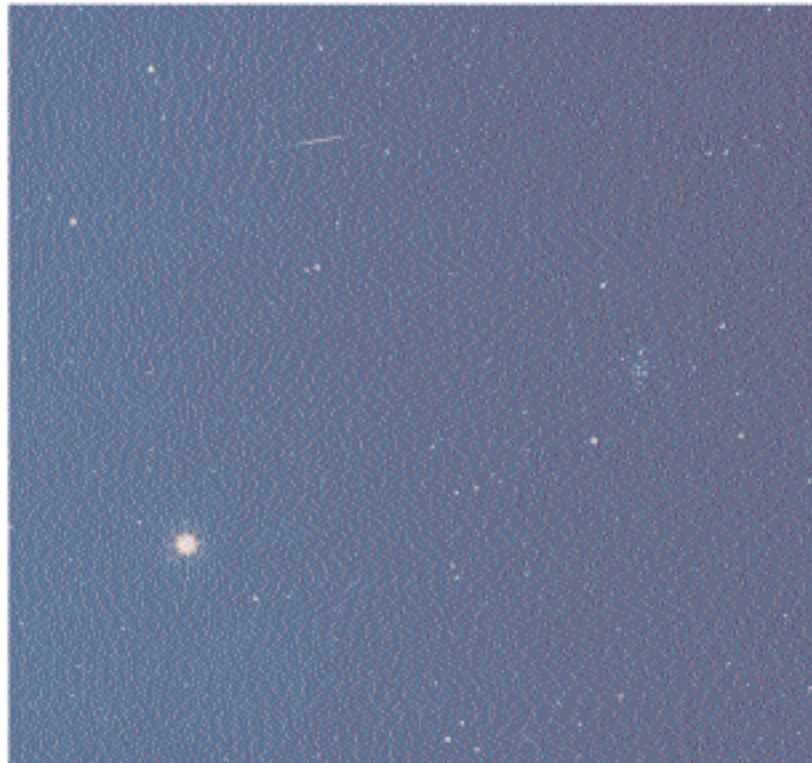
Since I had never photographed a meteor shower, I thought that I would give the Leonids a try since this was predicted to be the last major storm until the end of this century. I loaded my 30 year old Mamiya Sekor SLR with KODAK Gold 400 print film and put on a 35mm f2.8 Vivitar lens (also 30 years old) and headed out to TDS. I had hoped to do some CCD imaging before the storm and set up my LX-200, got polar aligned and then the wind began to blow from the east, shaking the scope too much for CCD work. I piggybacked the camera on the scope and set the f stop to 4.0 to make the images a little sharper than they might be with the lens wide open. Since I was all set up to image with my SBIG ST-7, I used it to autoguide the tracking while I tried to get pictures of the meteors.

Because it was a full moon, I guessed that five minutes would be the longest exposures possible before the scene completely washed out but still long enough to capture some fainter stars and hopefully a meteor or two. I started shooting about 2:00 and finished about 3:15 when the shower seemed to be over. The photo shown here is the best that I was able to achieve. Jupiter is in the lower left, M44 in the center right and M67 is faintly visible just to the right of the three star asterism at the bottom center of the photo.

When I was trying to locate M67, I was confused by the three stars in a triangle at the bottom center of the image. Looking at star charts, there are only supposed to be two bright stars at that location - the two lower ones. The upper star should have been three magnitudes dimmer than the others. I thought perhaps it was a satellite, minor planet, airplane, or some other anomaly. But, it looks the same in all 16

images taken that night, no minor planets brighter than magnitude 14 were in that area, and the star at that location, SAO 98244 listed at magnitude 8.5, has not previously been reported to be a variable star. I went out on a limb and reported this to the IAU CBAT. Brian Marsden (no relation) confirmed that there were no minor planets nearby and that no variable star had been reported at that position.

The following Saturday night, I took some CCD images of that same region and found that SAO 98244 was now only 0.2 magnitudes brighter than listed. Since I was not using photometric filters this is within the margin of error of measuring the magnitude. So, the mystery remains - what made that bright image at that position on the night of the meteor shower? I will continue to watch this star with film and with CCD whenever the skies are clear enough and I have the free time.



Leonids over Tierra del Sol. Jupiter is in the lower left, M44 in the center right and M67 is faintly visible just to the right of the three star asterism at the bottom center of the photo.



San Diego Astronomy Association

The San Diego Astronomy Association wishes you and yours a safe and happy holiday season. We look forward to a new year of clear, dark skies.



New Board Members

Per the SDAA bylaws, a Nominating Committee was established to solicit nominations from the membership. At November's Program Meeting, nominations were also taken from the floor. The following people have been nominated to serve on the Board:

President: Brian Staples

Vice President: Scott Baker

Corresponding Secretary: Christopher Watson

Directors: Shawn Kelly, Brian McFarland, Julie Quinn, and Dr. Art Young.

Clip and Save

2002 Board of Directors and Chairpersons

President, Observatory Director, Jim Traweek
email: President@sdaa.org619-477-7279

Vice President, John Restivo
email: VicePresident@sdaa.org858-268-3856

Treasurer (Membership), Jennifer Pesqueira
email: peskee2@elindio.net619-276-9568

Recording Secretary, Melinda Baker
email: aislinn@cts.com858-792-5581

Corresponding Secretary, Dennis Ritz
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Star Party Director, Michael Dietz619-334-9930

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So. County Star Party Coordinators, Rich Bentley & Stewart Hall
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email: t-c-b@juno.com619-295-2449



SDAA Calendar of Events

December 2002

S	M	T	W	T	F	S
1	2	3	4 ● Stars in the Park	5	6	7 Star Party at Tierra Del Sol
8	9	10	11 ☾	12	13	14
15	16	17	18	19 ○	20	21
22	23	24	25	26 ☽	27	28 Star Party at Tierra Del Sol
29	30	31				

The Back Page

Scope City has Moved by John Restivo

Scope City has relocated to a larger facility.
Their new address is:

7061 Clairemont Mesa Blvd., San Diego
92111

(858) 277-6687

www.scopecity.com

Come in and meet the new manager, Adam Houser. He said that discounts are available to SDAA members. The complex is in the business mall directly east of the 805 Freeway behind Starbuck's.

Desert Sunset Star Party

Chart Markers And More Invites you To
The Desert Sunset Star Party

May 1-4, 2003

Kartchner Cavern State Park
Benson, Arizona

For details visit

<http://chartmarker.tripod.com/sunset.htm>

Thank you!

Heartfelt thanks go out to the Board members (outgoing and staying!) for their service to the San Diego Astronomy Association, and we offer a warm welcome to the new

volunteers who have offered their time and knowledge to the club for the next term.

Reminder:

We have a new combination on the gate at Tierra del Sol. Check your mailing label before heading out to the site!



MEMBERSHIP INFORMATION

Send dues and renewals to P.O. Box 23215, San Diego, CA 92193. Include any renewal cards from Sky & Telescope, Astronomy, or Odyssey magazine in which you wish to continue your subscription. The expiration date shown on your newsletter mailing label is the only notice that your membership in SDAA will expire. Dues are \$35 for Contributing Memberships; \$25 for Senior (Basic) Membership; \$3 for each Family membership. In addition to the club dues the annual rates for magazines available at the club discount are: Sky & Telescope \$29.95, Astronomy \$29, and Odyssey \$25.46. Make checks payable to S.D. Astronomy Assn. PLEASE DO NOT send renewals directly to Sky Publishing. They return them to us for processing.

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