

# DENVER OBSERVER

Newsletter of the Denver Astronomical Society

*One Mile Nearer the Stars*



M81, a Bode's Galaxy in Ursa Major  
Image: ©Steve Bell

## Winter Nights Harbor Star-Packed Sights

It can be a pleasure simply to walk outdoors on a dark winter night and look up. Orion holds court within a spectacle of starlight. See how many colors you can count as Sirius glitters nearby. Dazzling stellar clusters can be picked off in binoculars, while some star-packed galaxies are within reach of low-powered telescopes. Sweep through Auriga to Gemini and glimpse M38, M36, M37, and M35. From there you'll practically bump into Jupiter steadily shining in the night. And, don't forget the occultation of Saturn by the moon on the 20th. It will be some years before we have a favorable view of this again.—PK

# Star Light, Star Bright

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## FEBRUARY SKIES 2002

**A**lthough our Colorado temperatures can be bitter cold this time of year, spring is just around the corner! Winter nights, however, offer most of the brightest stars in the sky for our gazing pleasure and February highlights the beautiful gas giants, Jupiter and Saturn. Treat your sweetheart to a binocular view of the Pleiades, and don't forget the moon—it should be a nice sliver on Valentine's Day. Neighborly Luna makes for some interesting views this month as it passes just below Mars on the 16th, occults Saturn on the 20th, and slides within 1° of Jupiter on the 24th. Mercury will shine for those willing to get up early and look for it in the pre-dawn sky. It's only about 5° above the horizon just ahead of the sun after the 10th but drops steadily towards the end of the month. During the last week of February, watch for Comet LINEAR WM1 about 10° to the right of where Mercury was. Bundle up and enjoy your month.—Patti Kurtz

- 4 ..... Last quarter moon
- 12 ..... New moon
- 20 ..... First quarter moon,  
..... Moon occults Saturn at 4:42 p.m.  
(last favorable occultation of  
Saturn until 2014—*Astronomy*.)
- 24 ..... Jupiter 0.9° S of Moon
- 27 ..... Full moon



With three five-minute exposures Chris snapped these Leonids from Grand Lake, CO. on November 18, 2001.

Image: © Chris Tarr, 2001



On December 14, 2001, Costa Rica was the place to ring in the New Year a bit early. The annular eclipse looked terrific even through the clouds.

## PRESIDENT'S CORNER

### Club Activities

We have a number of activities in which club members can participate. Following is a brief summary. Please consider volunteering for one or more events and share your hobby with others:



**Public Nights** are every Tuesday and Thursday nights. During the winter we

start at 7:00P.M.; in the summer we start at 8:30P.M. The program begins with a slide show and, weather permitting, ends with great views through the 20-inch Alvan Clark.

Often we have binoculars on the balcony for those waiting in line for the scope. If you have church or school groups, this is a great place to bring them. We charge \$1 for kids and \$2 for adults. Call 303-871-4333 for reservations. We are looking for volunteer

*Continued on page 3*

## DAS Schedule

### FEBRUARY

- 1 E-Board meeting, 8 P.M.
- 8-10 Dark Sky Site Weekend
- 22 General Meeting at Olin Hall, DU, 7:30 P.M.—Dr. Robert Stencel, (University of Denver) “Update on South American Observatories,” and Election of officers.
- 23 Observatory Cleaning Day at 10:00A.M. and Open House (begins at 7:00P.M.)

### MARCH

- 1 E-Board meeting, 8 P.M.
- 15-17 Dark Sky Site Weekend
- 23 Observatory Cleaning Day at 10:00A.M. and Open House (begins at 7:00P.M.)
- 30 Spring Banquet at the Blue Bonnet Restaurant (cocktails at 6:30P.M.) and Installation of New Officers. See Page 3.

Public Nights are held every Tuesday and Thursday from  
7:00-9:00 P.M.

at Chamberlin Observatory

Costs to non-members are: \$2.00 adults, \$1.00 children

Please call (303) 871-4333 for reservations.

### DAS Officers

**President:**

Larry Brooks (303) 986-5255  
Email: LBrooks100@aol.com

**Vice President:**

Patti Kurtz (303) 948-5825  
Email: pkurtz@starfirecreations.com

**Secretary:**

Ron Pearson (303) 670-1299  
Email: rpearson@ecentral.com

**Treasurer:**

Chuck Carlson (303) 744-7331  
Email: chcarlo@du.edu

**ALCor:**

Jerry Sherlin (303) 680-6894  
Email: SHERLINJ@aol.com

**Chief Observer:**

Jack Eastman

### Executive Board Members

Ted Cox	Jerry Sherlin
Jack Eastman	David Shouldice
Joe Gafford	Steve Solon
Greg Marino	Dan Wray
George Jones, Past President	

**DAS Information Line:**

(303) 986-5255

**DAS Correspondence:**

Denver Astronomical Society  
c/o Larry Brooks  
3686 South Depew, #8  
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**Van Nattan Scholarship Fund**

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Denver Observer editor, Patti Kurtz  
StarFire Creations Unlimited  
(303) 948-5825

**The Observer is available in color PDF format from the DAS website.**

*The Executive Board conducts the business of the DAS at 8 P.M. at Chamberlin Observatory. Please see the Schedule of Events for meeting dates. All members are welcome.*

# www.denverastrosociety.org

## PRESIDENT'S CORNER

(Continued)

lecturers and scope operators (we'll train you on the big scope) for those evenings.

The **Library** is open for members during Public Night events. During winter hours please come a few minutes before 7:00P.M. or a few minutes after 8:00P.M. so you don't interrupt the slide presentation. The library is also open after the **General Meeting** and during an Open House.

We also have **school star parties**. We take our scopes to schools and set them up for students, parents, and teachers. It is very rewarding to have people look at objects for the first time. Very often, the students and their parents have never looked through a telescope. If you have kids in school, we will be glad to visit that school. We charge a \$50-\$100 fee. Even if you do not have a scope, we need help for these programs. I can bring an extra scope for you to use—whether you're experienced or not, we're happy to show you the ropes. Once again, volunteers are really needed.

One Saturday per month, we open Chamberlin Observatory for our popular **Open Houses**. Members bring their scopes and set them up for public observing behind the observatory. Once again, we invite you to participate. If you don't have a scope, we have club scopes available. Additionally, if you have a new scope and want some help, bring it and we will find some help for you.

We can also use **club instructors**. In the past we have held classes in Star Hopping and Mirror Making. We also have mirror grinding equipment in the basement of the observatory.

Members are also welcome to attend **Board meetings**. If you cannot attend and have a suggestion for the club, please contact me or any board member.

If you would like to volunteer for any of these activities or have any questions, please call me at 303-986-5255 or e-mail me at [Lbrooks100@aol.com](mailto:Lbrooks100@aol.com)—Larry Brooks

*Sky & Telescope sends only one notice before subscriptions end. The DAS sends only one issue of The Denver Observer after dues expire. The cost of magazines (Astronomy and Sky & Telescope) is in addition to the annual dues. For questions concerning memberships, please contact DAS Treasurer, Chuck Carlson ([chcarlo@du.edu](mailto:chcarlo@du.edu)). See the back page of this newsletter for more information.*

## DAS SPRING BANQUET AND INSTALLATION OF NEW OFFICERS

The Blue Bonnet Restaurant (457 South Broadway, 303-778-0147) will cook up a Mexican Fiesta for the DAS Spring Banquet on Saturday, March 30, 2002. The buffet will include cheese enchiladas, crispy chili rellenos, a scrumptious taco/burrito bar, green and red chili, rice and beans, chips, salsa, and guacamole. Dinner this year will cost \$18/person and must be paid in advance. Please make checks payable to the DAS and send to Greg Marino (10791 Grove Street, Westminster, CO 80031) by March 15, 2002. We have to cap the reservations at 70 people this year, so if you want to attend, be sure to get your checks in as soon as possible. Dr. Roger Clark will be our presenter this year and will be speaking about Mars.

## Raffle Winners Announced

The DAS would like to extend its heartiest congratulations to the winners of last year's "Christmas 2001" raffle. As you know, we raffled off an 8-inch Orion SkyQuest Dobsonian telescope (among other things) to raise money for upcoming additions to the Dark Sky Site.

The Grand Prize winner of the telescope was Mrs. Sandra Titus of Denver. Mrs. Titus had, naturally, "never won anything before in her life," so was ecstatic when we finally reached her to give her the news. She and her husband have a second home in Nebraska, where the new telescope will reside.

Our 1st Prize winner of the laminated Messier Marathon charts was Mr. Stan Obert of Lakewood. Look for his name in an upcoming edition of the Astronomical League's *Reflector*, 'cause we know he's gonna be busy come March.

And finally, our 2nd Prize winners of the *Handy Space Answer Book* are M. Lipton of Denver and Ms. Carole Benton of Centennial.

Our deepest thanks to all who participated in the raffle. The funding for the Dark Sky Site Project comes from member donations and proceeds from events like our raffle: DAS general funds are not used for construction and improvement. That means that "viewers like you" are the hope for this project and its future. We gratefully acknowledge all your contributions and efforts—without them, there would be no concrete pads or warming trailer for Henry to mow around. Lest we forget the outhouse (let's try), it

should be replaced with a comfy vault toilet sometime this year. It's a terrific site, folks. Avail yourselves if you've not.—Steve Solon

S & S OPTIKA  
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Supply Store  
(303) 789-1089

## Note from the editor:

Newsletter contributions (ccd and film astrophotos, members with telescopes, star party candid photos, short observing anecdotes, observing and imaging tips, etc.) are welcome and encouraged. This is your chance to strut your stuff! **Please submit by the 15th of each month as follows:**

**Film:** Glossy prints by mail\*\* or scanned and uploaded (high res.) to the listserve upload area.

**CCD:** Uploaded to the listserve upload area (resolution as high as possible, please).

**Text:** Articles should be no more than 250 words, please. Please paste article(s) into an email and send to me at: [pkurtz@starfirecreations.com](mailto:pkurtz@starfirecreations.com).

If you don't receive a confirmation email from me, I didn't get your email. Also, be sure to let me know if you've uploaded a file. Thank you!

\*\*Patti Kurtz  
(303) 948-5825

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# updates





NGC 253  
Image ©: Gary Jensen

## 'Dark Sky Site Courtesy

*Please remember that white light disrupts the eye's dark adaptation and can ruin Astrophotography. Following these simple guidelines will improve the experience for all:*

- ★ Drive carefully on the road, there are blind spots in the low area and you will find cattle on the road at times.
  - ★ Try to arrive before dark.
  - ★ If you have to arrive after dark, turn off headlights when turning into site.
  - ★ Turn off all dome and trunk lights. If a light can't be turned off, pull the fuse, use layered red brake light tape or just duct tape over it.
  - ★ When you drive in, position your car so you can drive out directly instead of using your back up lights.
  - ★ Use only dim red flashlights. Never shine a flashlight in someone's face or on their scope.
  - ★ Please wipe your feet carefully before using the warming hut.
  - ★ Please chip in and do some cleaning up in the hut or at the observing sites. It is the responsibility of all users to keep the place nice.
  - ★ Serious astrophotographers may wish to use the South field since it is somewhat isolated from the rest of the area.
  - ★ If you are the last person to leave the site, turn off the lights and the heaters in the warming hut. Then, lock the warming hut and close the gate to the site.
  - ★ Members are responsible for educating their guests as to the rules.
  - ★ Prospective members, out of town astronomers, and others may be guests one time.
  - ★ Members can bring family any time and personal friends on a limited basis, but should not abuse the privilege.
  - ★ Groups of five or more guests must be cleared through the President or Vice President prior to visiting the Dark Sky Site.
  - ★ There is no sleeping in the warming shed overnight. However if you need to nap for a short period, you can use the shed. We would rather you fall asleep there rather than at the wheel on the way home.
  - ★ You may warm drinks in the microwave—it is not there for warming food and cooking since we have no water to clean up. If you spill, please clean up after yourself
- OTHER SUGGESTIONS:**
- ★ Wear warm clothing. The nights can be extremely cold in the winter and surprisingly cold in the summer.
  - ★ Bring your own power such as a battery and/or an inverter since the power sites are limited. Also bring extension chords.
  - ★ Hot drinks can help you survive the night!
  - ★ When approaching the telescope of someone who does not know you, introduce yourself and ask before looking through the scope. Most members (with the exception of astrophotographers when they are taking pictures) will be happy to share their scopes.
  - ★ Bring your own toilet paper in case that in the porta-potty runs out.

## Directions to the Dark Sky Site

*The DAS Deer Trail Dark Sky Site (DSS) is about 60 miles east of the "mousetrap" in downtown Denver.*

Take I-70 east to the Deer Trail exit (exit 328), turn left at the end of the exit ramp, and turn left again on CR 217 (after the Texaco station). Take CR 217 just over 1/2 mile, and turn right (east) onto CR 34. Stay on CR 34 about 6 miles until you get to CR 241. Turn left (north) onto CR 241 and continue about 1.5 miles – you'll see a culvert with a wide gate on the right (east) side of the road.

*Directions to DSS from Denver, arrival from the North (for after-dark arrivals):*

Take I-25 eastbound to exit 316 (Byers). Turn left at end of ramp which puts you on eastbound US-36. Take US-36 east 17.2 miles to CR 241. Turn right (south) onto CR 241 and continue for 6.2 miles. The DSS entrance is on the left between two tall posts.

*Note: Travel distance from Denver using the North route is actually 3.9 miles shorter than the traditional route. The first 5 miles of CR 241 going south from US-36 is narrow and somewhat rough. Be careful.*

## Warming Hut Rules

- The last people on the site must turn off the lights and the heat.
- A microwave will be provided for warming food. Please clean up after yourself.
- No pots and pans, appliances, or other supplies are to be left in the shed.
- No personal supplies are to be left in the shed overnight.
- Do not donate furniture or other things unless you clear it with the D.S.S. committee first.
- No food left overnight in the shed.
- No sleeping overnight in the shed.
- Quick naps are permitted if you feel you might fall asleep on the way home. We would prefer you get your nap rather than falling asleep on the road. However, we don't want it to become a tent for camping.
- Clean up after yourself before you leave the site.
- Please clean up all food that drops or is spilled, otherwise it will attract mice and insects.

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## About the Denver Astronomical Society

The DAS is a group of amateur and professional astronomers that share a mutual interest in the heavens. The DAS operates the University of Denver's Chamberlin Observatory, along with its prized 1894 Alvan Clark 20-inch refracting telescope. Our members have been involved with the first public planetarium at the Denver Museum of Science and Nature and the Smithsonian Astrophysics Observatory's "Moon Watch" program. The DAS successfully petitioned to have the Chamberlin Observatory listed on the National Register of Historic Places.

Our Credo is to provide members a forum for increasing and sharing their knowledge, to promote and educate the public about astronomy, and to preserve the historic telescope and observatory in cooperation with the University of Denver. To these ends we have established three tax deductible funds: the Van Nattan Scholarship Fund, the Chamberlin Restoration Fund, and the DAS Dark Sky Site Fund. This last fund was established in order to construct and maintain observing facilities near Deer Trail in eastern Colorado.

Please call our Info Line at (303) 871-5172 and drop by the General Membership meetings. Become a member and enjoy speakers, facilities, events, and our monthly newsletter, *The Denver Observer*.

APPLICATION FOR MEMBERSHIP TO THE DENVER ASTRONOMICAL SOCIETY	
New <input type="checkbox"/>	Renewal <input type="checkbox"/>
Name: _____	
Address: _____	
City, State, Zip: _____	
Phone numbers: Home ( ) _____ Work ( ) _____	
E-mail Address: _____	
Occupation: _____	
Other Interests: _____	
(Associates Only) School: _____ Grade: _____	
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Regular Membership: \$30	Associate: \$10 ( <i>Age 22 and younger</i> )
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..... \$ _____	
Chamberlin Restoration Fund .....	
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Total Amount Paid .....	
..... \$ _____	
<i>Please mail Dark Sky Site donations to:</i> DAS Treasurer, Chuck Carlson,	
at the address below. (Make checks payable to the Dark Sky Site Fund).	
<i>Please complete this form, or a copy, and mail it with your check or money order payable to The Denver Astronomical Society: DAS Treasurer, Chuck Carlson; 1521 So. Vine St.; Denver, CO 80210</i>	



## Denver Astronomical Society

c/o Chamberlin Observatory  
2930 East Warren Avenue  
Denver, Colorado 80208

### FEBRUARY'S MEETING

FEBRUARY 22:

Dr. Bob Stencel, "An Update on South American Observatories," and Election of Officers.

join us