

OBSERVER

Newsletter of the Denver Astronomical Society
One Mile Nearer the Stars

Image copyright 2003 Chris Tarr

A PLETHORA OF GALAXIES

Inspired by an article in *Sky & Telescope*, Chris Tarr shot a wide-field image of the Abell 262 galaxy supercluster. The field of view is about 2 degrees

wide (about two fingers wide held at arms length) and contains more than 40 galaxies. Notice the variety of galaxy types—many are elliptical (like

large fuzzy stars); several are spiral face-on. Check out page 4 to see a labelled copy of this image.

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C O L U M B I A L O S T

I write this (late) and can barely concentrate on anything outside the constant CNN newscasts and the loss of the Space Shuttle, Columbia. Today (02/01/03) is my oldest son's 21st birthday and we spoke over our cell phones as we stood outside, hoping to see and/or hear the reentry of the shuttle. We waited from 6:45A.M. to 7:02A.M, but, nothing. **Following is a report from Joe Gafford:**

"I was at the Kennedy Space Center this morning when the shuttle Columbia didn't arrive. I was in the Visitor's Center parking lot (recommended area) to see the landing. They put the live mission transmissions through their PA system. The last I heard was

Mission Control querying about tire pressure then an unintelligible response, then nothing from the shuttle. 9:16 EST came and went; those of us outside got concerned when we heard no sonic boom nor saw any air activity. Shortly people got on their phones and learned from friends and family that they already got images from Dallas area already on CNN. I went into the Visitor's Center and to the Launch Status Center exhibit to get information. No information except the contingency plan in effect. I have a picture inside the exhibit of people waiting for information (See Page 2). People waited awhile and approached the security person in the exhibit and patted him on the back. I was there yesterday and got a two-day pass—I was going to board the shuttle bus and see them roll it to the maintenance building."—Thank you, Joe. I'm sure most members' thoughts and prayers are with the astronauts families and NASA.—Patti Kurtz

- 1 New moon
- 2 Jupiter at opposition
- 9 First quarter moon
- 16 Full moon
- 23 Last quarter moon

PRESIDENT'S CORNER

Join us on a field trip! We will be heading north for a wonderful evening of observing at the Little Thompson Observatory in Berthoud on February 22nd and April 12th. You will be able to look through the 18-inch Tinsley Cassegrain telescope and visit with Greg Marino, longtime DAS member, who is now volunteering at the observatory.

In 1996, the Little Thompson Science Foundation (LTSF) was founded to promote math and science education at the Thompson and Saint Vrain schools. In 1968, the telescope was built for Mr. C.F. Rehnborg. After owning the telescope for almost thirty years, it was donated by his estate to the Mt. Wilson Telescopes in Education project, in turn donated to the LTSF. The telescope, originally built for \$24,000 is now appraised at three times that amount.

The observatory will be open to DAS members on February 22nd and April 12th from 6:30P.M. - 10:00P.M. Don't let the drive detour you; the trip will be well worth it. The main telescope will be open with smaller scopes outside. Also, don't miss the constellation wall, by utilizing red and black light, various celestial objects fade into the background as the Milky Way reveals itself. Excluding a major blizzard, the observatory will be open and there will be plenty to entertain you even



People await news of Columbia's status at the Kennedy Space Center Launch Status Center on February 1, 2003.

Image: © Joe Gafford, 2003

if the weather doesn't cooperate. Special thanks to Greg Marino, DAS member and telescope operator at LTO; Meinte Veldhuis, President of The Little Thompson Science Foundation; and Dr. Chet Rideout, Ecology, Astronomy, Educational Supervisor; for making the field trips possible. Visit www.starkids.org/ for more information. Hope to see you all there!

Directions: Take I-25 north to exit 250 (Highway 56). Exit west onto highway 56 and continue for several miles until you reach a "Y" in the road at highway 287. Turn left onto southbound 287 (it actually heads east-west for a few miles, so you will be going west bound). Follow 287 west to 8th street. Turn left (south) on 8th street and follow it around until it ends at Spartan Drive. Turn right (west) on Spartan drive and the high school will be on your right with the blue and white LTO building off beyond the parking lot. Park in the high school lot and walk through the gate to the observatory.—Carla Swartz

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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.

DAS Schedule

FEBRUARY

1-2 Dark Sky Site Weekend

7 E-Board meeting, 8 P.M.

8 Clean-up Day (4:00 P.M.) and Open House (the Open House begins at dusk.)

14 Valentine's Day

21 General Meeting at Olin Hall, DU, 7:30 P.M.—Speaker: Robert Zubrin (Mars Society), "Exploring Mars on Earth," and Officer/E-Board Elections

Public nights are held every Tuesday and Thursday evenings beginning at the following times: October 1 - March 31 at 7:00 P.M.

April 1 - September 30 at 8:30 P.M. at Chamberlin Observatory

Costs to non-members are: \$3.00 adults, \$2.00 children.

Please call (303) 281-9052 for reservations.

MARCH

1-2 Dark Sky Site Weekend

7 E-Board meeting, 8 P.M.

8 Clean-up Day (4:00 P.M.) and Open House (the Open House begins at dusk.)

17 St. Patrick's Day

22 Spring Banquet 6:30 P.M.—Speaker: Dr. Roger Clark (DAS), See Page 3.

www.denverastrology.org

Annual Spring Banquet

Saturday, March 22, 2003

The White Fence Farm (6263 West Jewell, Lakewood, CO 80232, 303-935-5945) will cook up a delicious meal for the DAS Spring Banquet on Saturday, March 22. We will have cocktails from 6:30-7:00P.M., dinner at 7:00, and a presentation from Dr. Roger Clark to follow. Dr. Clark's talk is entitled, *Imaging Spectroscopy: Earth and Planetary Remote Sensing and Development of the First Genera-*

tion "Tricorders." The buffet will include White Fence Farm chicken, baked potatoes, various salads and cole slaws, corn fritters, and last but not least, sundaes for desert.

Reservations are limited and must be paid in advance. Dinner will cost \$20/person. **Please make checks payable to the Denver Astronomical Society and mail to Steve Solon, 9774 West Elmhurst Place, Littleton, CO 80128 by March 8.** Hope you can join us for our spring celebration and the installation of new officers.

Prize Participation Winner!

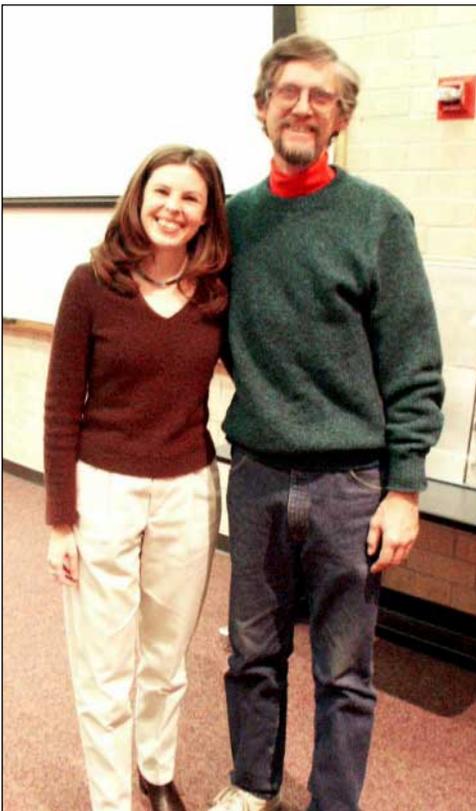
Congratulations to Ted Cox! DAS participation prize winner . . .

Ted is an active DAS member and has devoted a great deal of time to a number of club activities, he also continues to help shape the future of the club as an e-board member. For many years he has operated the 20-inch Alvan Clark during public nights, and during open houses makes his scope available and assists others with theirs. Additionally, as a general contractor by trade, he has played a significant role in the development of the Edmond G. Kline Dark site. We are very pleased to honor Ted with our participation prize.

He owns a 6-inch D&G refractor on a Losmonde mount, 8-inch Portaball, 12-inch dob from JMI and a 18-inch dob is on order from Galaxy. The yearlong subscription to *Sky & Telescope* will help Ted stay current with the newest techniques for keeping his scopes in perfect collimation. The next DAS participation prize drawing will be held at the annual spring banquet on March 22nd. The recipient will be given a pre-paid year of DAS membership dues, or a subscription to *Sky and Telescope, Astronomy*. You can also become eligible for participation prize by volunteering for public nights, open houses, school star parties, clean up days at Chamberlin or work days at the Edmond G. Kline Dark Site. Please see an e-board member for a slip and their signature to become eligible



Last year's Spring Banquet served up a terrific talk from Roger Clark about his work on different Mars projects. This year's talk is entitled, *Imaging Spectroscopy: Eath and Planetary Remote Sensing and Development of the First Generation "Tricorders."* Above from left to right: Dr. Roger Clark, Larry Brooks, and Carla Swartz.



Prize participation winner, Ted Cox with Carla Swartz.

Image: © Bill Ormsby, 2003

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 (cbcarlso@du.edu). See the back page of this newsletter for more information.

for the next drawing. Remember the more you volunteer, the more opportunities you have for winning a prize.

Thank you Ted, we truly value the contributions you make to the DAS through the donation of your time and expertise. By the way, if anyone would also like to personally express their appreciation, I hear that despite his healthy eating habits, he has an affinity for maple syrup.

Welcome New Members!

The following folks joined the Denver Astronomical Society during the last few months. Welcome new members!

• John Martens

Note from the editor:

Thanks to **Carla Swartz** who wrote this month's President's Corner. Carla is the DAS acting President while Larry Brooks recovers from his illness.

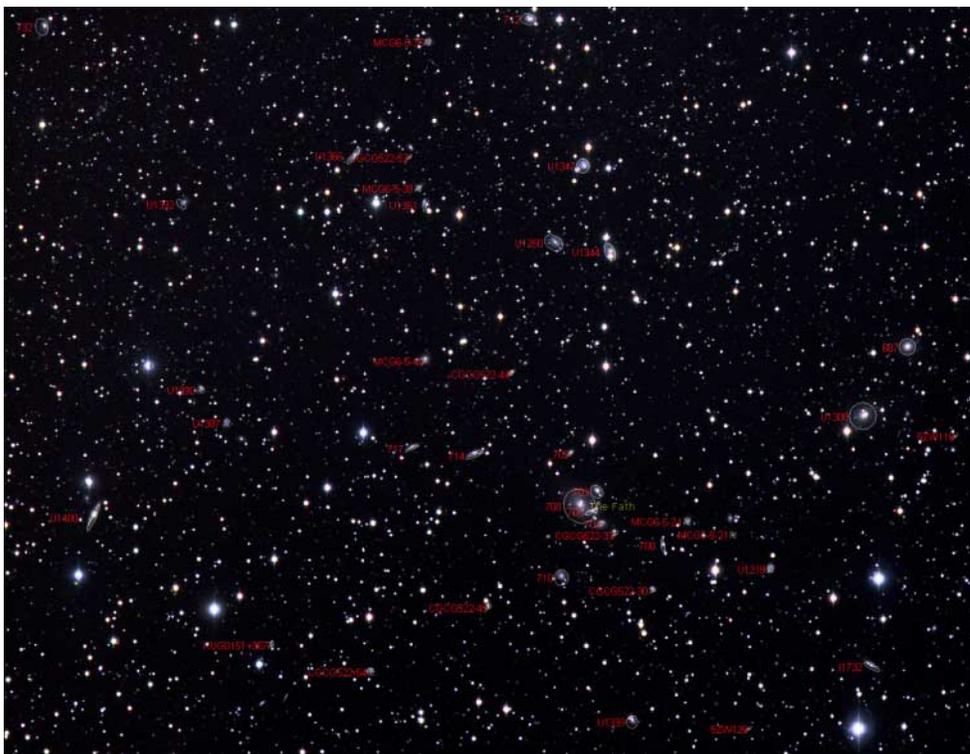
Newsletter contributions (ccd and film astrophotos, members with telescopes, star party candid, short observing anecdotes, observing and imaging tips, etc.) are welcome and encouraged. This is your chance to strut your stuff! **Please call me for submission instructions.**

**Patti Kurtz

(303) 948-5825

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updates



Abell 262 Galaxy Cluster from Page 1. Using TheSky software (Software Bisque), Chris Tarr labelled about 30 of the galaxies in the image. He points out a good barred-spiral (U1350) that shows the bar segmenting the center.

Image copyright 2003 Chris Tarr

The Dark Site's Observatory Code

Thanks to Joe Gafford, the Edmund G. Kline site now has an observatory code—H05.

Longitude: w103° 55' 45.2''

Latitude: 39° 38' 39.1''

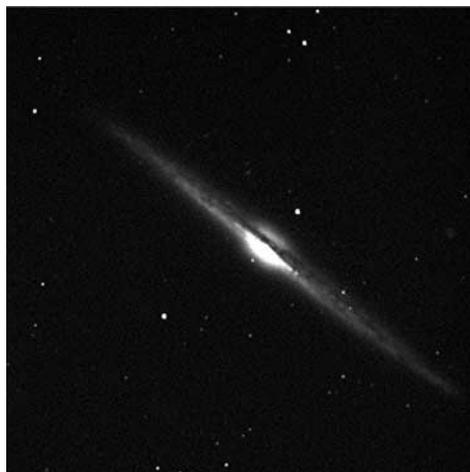
Elevation: 1569 meters.

The coordinates are for the upper, south end of the site. Apparently this area is better for those who want to do astroimaging and astrometric measurements. The code was obtained by doing astrometric measurements on four asteroids over two nights onsite and turning them over to the Minor Planet Center. Joe used his 18-inch telescope and sacrificed a deep-cycle battery in the effort.

When sending in the astrometric measurements, use the code if you are doing it on the EGK site only. This is for sending in asteroid,

comet, and supernova reports. No longitude and latitude information are needed.

While getting astroid data for the EGK observatory code, Joe Gafford imaged NGC 4565. It is a composite of two one-minute exposures, Binned 2x2, no filter, on an SBIG ST2000XMccd. He used his 18-inch f/4.5 telescope on the morning of January 8, 2003.



Directions to the E.G. Kline Dark Site

The DAS Edmund G. Kline Dark Site 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 the site from Denver, arrival from the North (for after-dark arrivals):

Take I-70 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.

o b s e r v e r s d e c k

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*.



Denver Astronomical Society

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

FEBRUARY'S MEETING

FEBRUARY 21:

General Meeting at Olin Hall, DU, 7:30 p.m.—Speaker: Robert Zubrin (Mars Society), "Exploring Mars on Earth," and Officer/E-Board Elections.

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E-mail Address:	_____
Occupation:	_____
Other Interests:	_____
(Associates Only) School:	Grade: _____
Do you want to download the newsletter in PDF format from our website instead of by postal mail?	
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Yes	<input type="checkbox"/> No <input type="checkbox"/>
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Regular Membership: \$30	Associate: \$10 (Age 22 and younger)
.....	\$
Astronomy Magazine/\$29
Sky & Telescope Magazine/\$29.95
.....	\$
Van Nattan Scholarship Fund	\$
Chamberlin Restoration Fund	\$
Total Amount Paid	\$
Please mail Dark Sky Site donations to: DAS Treasurer, Chuck Carlson, at the address below. (Make checks payable to the Dark Sky Site Fund).	
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	

join us