

# The Objective View

Newsletter of the Northern Colorado Astronomical Society

March 2007

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Cheyenne Astronomical Society, Cheyenne Botanical Garden  
March 16 7 pm

<http://home.bresnan.net/%7Ecurranm/index.html>

Chamberlin Observatory Open House, dusk to 10 pm

Mar 24, Apr 21, May 26, Jun 23, July 21 303 871 5172

<http://www.du.edu/~rstencil/Chamberlin/>

Longmont Astronomical Society March 15 7 pm FRCC on

2121 Miller Road <http://longmontastro.org/>

## February 1 Program

**Nitescapes 3-D: Comets and the Aurora in 3-D**

**Landscapes, by Bryan White**

**Next Meeting: March 1 7:30 PM**

## Near Earth Asteroids, Threat and Promise

### Dan Durda, Southwest Research Institute

### Discovery Science Center

**730 E Prospect Ave, Fort Collins**

Club business at 7:15 pm

### Meeting directions:

In Fort Collins, from the intersection of College Ave and Prospect Rd, head East about 1/2 mile. See the Discovery Center sign to the South. From I-25, take Exit 268, West to Lemay Ave, continue West 1/2 mile, see Discovery Science Center on the left.

### NCAS Programs

April 5 Lee Gregory, NCAS Choice Messier Images Part II

### NCAS Public Starwatch

March 23	7:30 pm	Discovery Science Center
April 20	8:00 pm	Discovery Science Center
May 25	8:30 pm	Discovery Science Center

### Rocky Mountain National Park Starwatch

Dates for 2007 are June 15 & 22; July 6 & 20; Aug 3 & 17.

Please email objview at ncastro.org if you can volunteer.

### Other Events

Little Thompson Observatory Star Night

March 16 7:30 pm Aurora in 3-D Bryan White

<http://www.starkids.org>

CSU Madison Macdonald Observatory Public Nights

On East Drive, north of Pitkin Street

Tuesdays 8 pm if clear, when class is in session

Bryan's fascination with comets was sparked by his independent discovery of Comet Mrkos, seen from his family's farm in 1957. He is a self-taught astrophotographer. With the arrival of Halley's Comet in 1986, he was started to apply 3-D photography techniques, for an uncanny sense of place. Comet Hale-Bopp was an incredible opportunity, and he crisscrossed the US to image the comet from sites like a 100+ year-old church by Folkston Georgia, the Cataloochee Ski Area in North Carolina, Waterrock Knob on the Blue Ridge Parkway, Loveland Pass, Monument Valley, Grand Canyon, Zion and Bryce Canyon. He had the Monument Valley campground to himself, with an awesome comet view.

Bryan shows his images with the space music of Atlanta composer Jonn Serrie. He has enjoyed his share of extreme weather, and a close call with the cliff edge in the dark. He has imaged a variety of astronomical events since, including occultation of Saturn by the Moon, and the recent transit of Mercury. He was in SW New Mexico for the 2001 Leonid Meteor Shower and was able to catch 7 meteors in one frame.

He was once in position to catch the predawn launch of a missile from White Sands Missile Range. He typically shoots with a pair of Olympus OM-2 bodies, 50mm, 28mm, or 135 mm lenses, and recently Fuji Pro 400F slide film. Cameras are spaced 9 inches, for a three-fold increase in the illusion of depth. He used other equipment to image some more modest recent comets, Comet Neat, Comet Macholz, and Comet LINEAR. He caught the tail end of Comet McNaught from the Pawnee Grasslands on January 19 2007. He is a regular visitor to Yellowknife, Northwest Territories, for the best views of the aurora borealis. Even at solar minimum last year, he was able to capture many images. His aurora collection numbers over 4000 images. The area is crossed by ice roads in the winter, and tanker trucks run 24 hours a day. The typical temperature is -40 degrees. He can function for about 30 to 60 minutes before warming up in the van. The sky is so dark, he was spotting 13 stars in the Pleiades. His collection of images is otherworldly, likely only surpassed by being there. Don't miss Bryan's upcoming show for Little Thompson Observatory in March 2007!

Bryan White's website: [www.astro-photo.com](http://www.astro-photo.com)

## NCAS Business, January 11 2006

Vice President Greg Halac, called the meeting to order. The meeting schedule and observing nights were announced. Mary Laszlo was congratulated for her image selected for [www.space.com](http://www.space.com). New visitors were welcomed. David H. Levy's recovery was noted.

### GLOBE Light Pollution Project

This would be a fun and educational activity to do at star parties during March - Andrea

----- Forwarded message -----

Date: Thu, 22 Feb 2007 20:31:49 -0700

From: Connie Walker <[cwalker@noao.edu](mailto:cwalker@noao.edu)>

Subject: Join the GLOBE at Night Program for a Star-Hunting Party: March 8-21!

Can You See the Stars?

Join thousands of other students, families and citizen-scientists hunting for stars during March 8 - 21, 2007. Take part in this international event called GLOBE at Night to observe the nighttime sky and learn more about light pollution around the world.

GLOBE at Night is an easy observation and reporting activity that takes approximately 15-30 minutes to complete. Citizen-scientists record the brightness of the night sky by matching its appearance toward the constellation Orion with 1 of 7 stellar maps of different limiting magnitude. They then submit measurements on-line at [www.globe.gov/globenight/](http://www.globe.gov/globenight/).

Resulting maps of all observations are created and placed back on-line by the GLOBE at Night staff within the couple of weeks that follow.

The five easy star-hunting steps, for which more information is provided online, are:

- 1) Find your latitude and longitude.
- 2) Find Orion by going outside an hour after sunset (about 7-10pm local time)
- 3) Match your nighttime sky to one of our magnitude charts.
- 4) Report your observation on our website.
- 5) Compare your observation to thousands around the world.

Helpful and user-friendly ancillary materials such as a teacher packet and science standards, a family packet, and student games and information are provided online at [www.globe.gov/globenight/](http://www.globe.gov/globenight/).

You can also subscribe to our mailing list to receive updates and results of this campaign. Visit [www.globe.gov/globenight/](http://www.globe.gov/globenight/) and click on "subscribe" at the bottom of the webpage.

During the 2006 event over 18,000 people from 96 countries submitted observations, including data from every U.S. state. Help us exceed these numbers in 2007!

GLOBE at Night is a collaboration between the National Optical Astronomy Observatory ([www.noao.edu](http://www.noao.edu)), The GLOBE Program ([www.globe.gov](http://www.globe.gov)), Centro de Apoyo a la Didactica de la Astronomia, Windows to the Universe, The International Dark-Sky Association ([www.darksky.org](http://www.darksky.org)) and Environmental Systems Research Institute, Inc.

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### February Observing on the Plains, from Dan Lafaive

I went out last night to the Raymer site. Cactus Flats had a small mount of packed snow/ice in front of the gate from the snow plows, so I didn't want to venture in there.

Last night was awesome! It's Galaxy Season! With the Virgo galaxy cluster being at it's zenith at around 2-3 AM. I was out all night. I got home and went to bed at 10AM (I strongly recommend against doing this, ever :) It wasn't too cold, but it was occasionally windy. Seeing started out poor due to the wind and improved to about a 7/10. Great view of Saturn and ok views of Jupiter and Orion.

M81 & M82 looked great (there's actually a lot of nice galaxies in that area of the sky that you'll see if you pan around a bit.

Saw a bright fireball over to the South-east at around 11 PM. It flared up twice during its very short trajectory. Also observed a nice bright Iridium flare towards the morning.

All in all, it was a nice night. I'm glad I went out.

Now, back to winter and snow and its assorted nasty weather! :)

Dan Lafaive

### Alan Stern to Lead Science Mission Directorate

NASA Administrator Michael Griffin announced that Dr. S. Alan Stern will be the agency's associate administrator for the

Science Mission Directorate, effective April 2. Stern succeeds Dr. Mary L. Cleave who announced her retirement.

Stern joins NASA from the Southwest Research Institute's Space Science and Engineering Division, Boulder, Colo., where he has been serving as executive director of the Space Science and Engineering Division.

As chief executive of NASA's Science Mission Directorate, Stern will direct a wide variety of research and scientific exploration programs for Earth studies, space weather, the solar system and the universe beyond. In addition, he will manage a broad spectrum of grant-based research programs and spacecraft projects to study Earth and the universe.

Stern is a planetary scientist and an author who has published more than 175 technical papers and 40 popular articles. His research has focused on studies of our solar system's Kuiper belt and Oort cloud, comets, satellites of the outer planets, Pluto and the search for evidence of solar systems around other stars. He has worked on spacecraft rendezvous theory, terrestrial polar mesospheric clouds, galactic astrophysics and studies of tenuous satellite atmospheres, including the atmosphere of the moon.

Stern has a long association with NASA, serving on the NASA Advisory Council and as the principal investigator on a number of planetary and lunar missions, including the New Horizons Pluto-Kuiper Belt mission. He was the principal investigator of the Southwest Ultraviolet Imaging System, which flew on two space shuttle missions, STS-85 in 1997 and STS-93 in 1999.

He has been a guest observer on numerous NASA satellite observatories, including the International Ultraviolet Explorer, the Hubble Space Telescope, the International Infrared Observer and the Extreme Ultraviolet Observer.

He holds bachelor's degrees in physics and astronomy and master's degrees in aerospace engineering and planetary atmospheres from the University of Texas, Austin. In 1989, Stern earned a doctorate in astrophysics and planetary science from the University of Colorado at Boulder. He is an instrument-rated commercial pilot and flight instructor, with both powered and sailplane ratings. Stern and his wife have three children.

For more information about NASA and its suite of science programs, visit the Internet at: <http://science.hq.nasa.gov>

### **Ultralight Scope Builder Nate Perkins Finishes a 16''**

Here are some shots that I uploaded to my web page:

[http://home.comcast.net/~nathan\\_perkins/misc/astro/16dob/16dob.htm](http://home.comcast.net/~nathan_perkins/misc/astro/16dob/16dob.htm)

### **Forty-Second George Gamow Memorial Lecture Mar 19**

[http://www.colorado.edu/physics/Web/Gamow/lecture\\_2007.htm](http://www.colorado.edu/physics/Web/Gamow/lecture_2007.htm)

Lisa Randall, Professor of Physics, Harvard University

"Warped Passages: Unraveling the Mysteries of the Universe's Hidden Dimensions"

Monday, March 19th at 7:30 p.m., Macky Auditorium  
Boulder Campus, Free and open to the public.

Do we inhabit a three-dimensional universe floating in a four dimensional space? What if the extra dimensions required by string theory were not curled up and unobservably small, but unfurled and vast, extending forever? Could an invisible universe only a tiny fraction of an inch apart in another dimension explain phenomena that we see today in our world? These are among the questions that we will consider in this lecture about extra dimensions of space.

Lisa Randall studies particle physics and cosmology at Harvard University, where she is professor of theoretical physics. Her research concerns elementary particles and fundamental forces, and has involved the study of a wide variety of models, the most recent involving extra dimensions of space. She is currently working out the implications of extra-dimensional models for experiments, particularly those that will take place at the Large Hadron Collider (LHC). She has also worked on supersymmetry, Standard Model observables, cosmological inflation, baryogenesis, grand unified theories, general relativity, and string theory. Professor Randall recently completed a book entitled Warped Passages: Unraveling the Mysteries of the Universe's Hidden Dimensions, which was included in the New York Times' of 100 notable books of 2005.

### **Best Looks**

Moon 3/3 lunar eclipse visible about 1800 to 1810  
By Saturn 3/1; By Antares + Jupiter 3/11, 3/12;  
By Mars 3/15 to 3/17; by Venus 2/20, 21  
by Pleiades 3/22  
Mercury Very low in WSW first 2 weeks  
Venus Low in W at dusk  
Mars Low in SE at sunrise  
Jupiter Low in S at sunrise  
Saturn High in E in evening

From: Daniel Laszlo  
S Shields St Building H  
Fort Collins CO 80526

**TO:**

International Space Station passes for Loveland – Fort Collins

March 2007

Date	Mag	Starts			Max. <u>Altitude</u>			Ends		
		Time	<u>Alt.</u>	<u>Az.</u>	Time	<u>Alt.</u>	<u>Az.</u>	Time	<u>Alt.</u>	<u>Az.</u>
<a href="#">27 Feb</a>	-0.6	19:22:49	10	WNW	19:25:40	61	SW	19:25:41	61	SW
<a href="#">28 Feb</a>	1.6	19:42:53	10	W	19:45:02	19	SW	19:45:04	19	SW
<a href="#">01 Mar</a>	-0.8	18:26:53	10	NW	18:29:47	75	SSW	18:32:36	10	SE
<a href="#">02 Mar</a>	1.5	18:46:31	10	W	18:48:53	23	SW	18:51:13	10	S

<a href="#">15 Mar</a>	2.1	06:20:28	10	S	06:22:08	15	SE	06:23:47	10	E
<a href="#">16 Mar</a>	0.2	06:36:39	10	SSW	06:39:17	43	SE	06:41:57	10	ENE
<a href="#">17 Mar</a>	2.2	05:21:22	10	SE	05:22:06	11	SE	05:22:55	10	ESE
<a href="#">18 Mar</a>	0.6	05:38:15	26	SSE	05:38:57	31	SE	05:41:27	10	ENE
<a href="#">19 Mar</a>	-1.1	05:54:52	36	WSW	05:55:51	80	NNW	05:58:35	10	NE
<a href="#">20 Mar</a>	2.7	04:40:13	11	E	04:40:13	11	E	04:40:20	10	E
<a href="#">20 Mar</a>	0.2	06:11:14	18	W	06:12:42	30	NNW	06:15:13	10	NE
<a href="#">21 Mar</a>	1.8	04:56:21	20	ENE	04:56:21	20	ENE	04:57:23	10	ENE
<a href="#">21 Mar</a>	1.2	06:27:45	10	WNW	06:29:36	16	NNW	06:31:29	10	NNE
<a href="#">22 Mar</a>	1.0	05:12:17	26	NNE	05:12:17	26	NNE	05:13:49	10	NE
<a href="#">23 Mar</a>	1.1	05:28:00	19	NNW	05:28:00	19	NNW	05:29:53	10	NNE
<a href="#">24 Mar</a>	1.7	05:43:33	11	NNW	05:44:21	12	NNW	05:45:36	10	NNE

<a href="#">26 Mar</a>	2.4	04:43:12	10	NNE	04:43:12	10	NNE	04:43:15	10	NNE
<a href="#">30 Mar</a>	2.1	05:44:35	10	NNW	05:45:51	12	NNE	05:47:07	10	NE
<a href="#">31 Mar</a>	1.6	05:59:20	10	NNW	06:01:25	19	NNE	06:03:30	10	ENE

To check passes:

<http://www.heavens-above.com/main.asp?Loc=Fort+Collins&Lat=40.585&Lng=-105.084&Alt=1525&TZ=MST>