

The Objective View

Newsletter of the Northern Colorado Astronomical Society

May 2009

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add ncastro.org to complete email address

Next Meeting: May 7 7:30 pm

**Astrophotography for Non-Millionaires
by Alan Jeter**

Club Business at 7:15 pm

**Discovery Science Center
703 E Prospect Ave, Fort Collins**

<http://www.ncastro.org/Sites/DiscoveryCtr.htm>

Club Brochure: http://www.ncastro.org/Contrib/2009_Brochure.pdf

NCAS Programs

June 4 TBA

Public Starwatch at Discovery Science Center, South Lot

May 29 8:00 pm

City of Fort Collins Natural Area Program at Sunset

Bobcat Ridge: May 28, Jun 25, Jul 23, Aug 27, Sep 24, Oct 22

Rocky Mountain National Park Starwatching

Meet at dusk at the Upper Beaver Meadows trailhead. June 12, 26; July 10, 24; Aug 14, 28

<http://www.ncastro.org/Sites/RockyMtnNP.htm>

Dark Site Observing Dates

May 22, 23 Pawnee-RAC-Keota, ask FRAC

Other Events

Little Thompson Observatory, Berthoud Matt Morgan:
Meteorites. May 15 7:30 pm <http://www.starkids.org>

CSU Madison Macdonald Observatory Public Nights
On East Drive, north of Pitkin Street
Tuesdays after dusk if clear, when class is in session

Cheyenne Astronomical Society May 15 7 pm
Cheyenne Botanic Garden.
<http://home.bresnan.net/~curranm/>

Chamberlin Observatory Open House, 7 to 10 pm
May 2, May 30, June 27, July 25, Aug 29 303 871 5172
<http://www.du.edu/~rstencil/Chamberlin/>

Longmont Astronomical Society May 21 NOAA Space
Weather Prediction Ctr, Boulder, Members only, see:
<http://www.longmontastro.org/>

**April 2 Program: Nitescapes 3-D: Landscapes with
Comets and Aurora by Bryan White**

Bryan's fascination with comets was sparked by his childhood "discovery" of Comet Mrkos in 1957. He dragged his father out to look, a night before the news hit the papers. 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 eerie sense of place. Comet Hale-Bopp was an incredible opportunity, and he crisscrossed the US to image the comet from sites like a Georgia swamp and the Cataloochee Ski Area in North Carolina. His forays in the dark nearly led to a tumble into the Grand Canyon. Bryan shows his images with the space music of Atlanta composer Jonn Serrie. He was once in position to catch the pre-dawn 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. He is starting to experiment with a digital SLR. Cameras are spaced 9 inches, for a three-fold increase in the illusion of depth. He was recently traveling to catch Comet Lulin. He is a regular visitor to Yellowknife, Northwest Territories, for the best views of the aurora borealis. 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 new show incorporates landscapes from Yellowstone National Park and Chaco Canyon. His eye as an artist captures the colorful vistas in the parks. The kivas come alive in 3-D. He continues a busy presentation schedule so opportunities to see the show can be found along the Front Range. Bryan's coffee table book Prelude Lake includes 3-D images, a set of stereo glasses, and the music CD. See Bryan White's website:

<http://www.astro-photo.com/index.html>

Estes Park Memorial Observatory Dedication April 25, from Steve Little

The dedication was very successful, about 400 people attended...lots of cake eaten and coffee drunk. Speeches given, and we are all very tired. There was a real whirlwind of activity in the days leading up to the finale. We had low clouds and off and on snow Saturday, so no viewing of anything. The 12" has been collimated, and has a solar filter + an H-alpha scope attached. One of these days we will have some clear weather.

The Very Long Mystery of Epsilon Aurigae, by Robert Stencel

See Sky and Telescope, May 2009

<http://mysite.du.edu/~rstencel/epsaur.htm>

Recent Deer Trail and Keota Site Observing

From Mike H:

Went out to Deer Trail last night to observe. It was one of the strangest nights of observing I have had in quite some time. The evening started off clear overhead, no wind and clouds hugging the northern and eastern horizons. Then about 10 PM, the sky started to cloud over with a patchwork of clouds. Then shortly after 11 PM is was crystal clear. The wind started to stir and blew from basically all directions for most of the early night. About 1 AM, a very brisk wind from the NW blew for about 10 minutes. I thought I was going to have to pack it in. About the time I was going to cover the scope and go to bed, it stopped. Absolutely calm the rest of the night. I continued to observe till a bit after 2 AM. The sky transparency varied from times being incredible to times being just average. It did this all night while I was observing. The stars were steady most of night though.

Bagged 45 galaxies and lots of old favorites. Took a nap and woke up to see the Moon pass in front of Venus at 162x. Pretty cool...

I finished another Astronomical League observing club with my observations last night. This one is the Local Galaxy Group and Neighbors. This one is nice for enough of the objects are fairly bright (12th magnitude or brighter ;-) and easy to find. I recommend it to anyone who likes to look at galaxies.

Two other Denver club members were there last night, Jim Holder and Joe Gafford and this morning, Brendan showed up to watch the Moon and Venus play in the eastern sky.

Mike Hotka

Sounds like a successful night at Deer Trail.

I was out at Keota and was Joined By Dan LaFaive

Given that the day was so spectacular, I was hoping to beat the odds re Clear Sky Clock that predicted clouds till midnight. Wouldn't you know it, but as I was heading E on Hwy 14, this large bank of clouds (called a cloud street in glider terms) formed right overhead from Ft Collins to Sterling. That was the clouds you saw to the North.

The surprising thing was that there was virtually no wind in the grasslands - a really unusual condition and the quiet was absolute and wonderful. True to the prediction the clouds hung around till about midnight then went away completely opening up some really nice sky. It was great for an hour or so and then started playing tag with intermittent clouds (sometime significant, sometime just a little). Temperature was reasonable most of the night then about 3AM it cilled down fast and everything sxtarted to dew up.

I was trying to observe in the Coma Berenices area but that is where the clouds hung the most. But Ursa Major was open most of the night and I ended up cataloging 48 galaxies and one owl (nebula). I was hoping for some Leo and Virgo galaxies, but by the time the clouds cleared after midnight, these constellations were heading into the Denver/Ft Collins light domes.

Saw a number of meteors (Lyrids, and random), and did sight some 12.5 - 13 mag galaxies in the high Northern declinations (with my 12.5inch Newtonian) - a nice dark site when the weather cooperates. Stayed up till 4 AM so was asleep for the occultation, but nice looking pictures from Vern et al.

With the next big storm coming this weekend, I suppose that's it for dark sky work till May. Anyone up to try Foxpark?

John Figoski

Texas Star Party Report from Bernie Poskus

Dear Folks:

I've now had three nights in a row of dawn to dusk observing here. While none of the three nights alone has been the best night I've ever had, I've certainly never had three consecutive nights in a row this good. I've observed for close to twenty solid hours already, and can't count the number of different objects I've observed. Last night, I worked through Cancer (some really dim stars in that constellation), some really dim galaxies in Ursa Major, and a bunch of stuff in Corvus (these objects are all out of the last three months columns written by Sue French in "Sky&Telescope"). One cool thing is a six star system on the border between Virgo and Corvus (near

Sombrero Galaxy), referred to as "Stargate". It is a triangle of three stars within a second triangle of three stars. Conditions last night started out with compromised transparency and seeing, but as the night grew colder (all three nights have seen near to below freezing temperatures), the transparency got much better. Early this morning, we saw the Snake Nebula quite clearly, as well as Barnard 55 and 56. Also, Pckering's Triangle was almost as bright as the rest of the Veil Nebula. I did not stay up for the Venus/Moon shindig.

Regarding Planet-Planet Transits

There have been a number of occultations/transits involving one inferior and one superior planet. The last was a transit of Jupiter by Venus in 1818, and the next will be a transit of Jupiter by Venus in 2065 (probably too close to the Sun to see, however).

Occultations/transits between two superior planets are extremely rare. Jupiter occulted Neptune in 1702. Mars will transit Jupiter in 2223 (be sure to mark your calendar).

Here's a helpful list:
http://en.wikipedia.org/wiki/Occultation#Mutual_planetary_transits_and_occultations

I don't think there are any orbital resonances that would preclude a transit or occultation of Saturn by Jupiter, but I don't think any such event has been calculated, past or future. I don't think the Solar System ephemeris models are accurate enough to project far enough to accurately predict such an event.

Saturn and Jupiter, will, however, be impressively close on Dec 21, 2020- just a few arcminutes apart. Both should be easily seen at reasonable magnification in the same eyepiece view (if anybody is still using eyepieces in 2020 <g>).

Chris L Peterson
 Cloudbait Observatory
<http://www.cloudbait.com>

Live Earth from DISH Network

I was channel surfing on Dish Network the other day and discovered they are now broadcasting a live view of Earth from their satellite in orbit 22,000 miles up. The picture updates about every 15 seconds. Its pretty cool. Channel 212

for you Dish Network subscribers.

--Randy Moench

Wyoming Infrared Observatory Accepting Applications From Leonard Sitongia

I just saw the following announcement and am passing it along. I don't know the details.

PUBLIC OBSERVING TIME AT THE WYOMING INFRARED OBSERVATORY

As the recipient of an NSF PREST grant, the Wyoming Infrared Observatory is offering time to the community on the 2.3 m telescope between 2009 July and 2012 June. Currently available instruments include an optical prime-focus camera and an optical longslit spectrograph. Both service and visitor observing modes are available. We are also willing to entertain the possibility of visitor instruments. Although we cannot provide funding for travel or subsistence, we can offer visiting astronomers free lodging at the observatory. Proposers should consult the WIRO web page at <http://physics.uwyo.edu/observatories> and are encouraged to contact observatory director Chip Kobulnicky (chipk@uwyo.edu) for additional information prior to the quarterly proposal submission process.

**Saturn's Titan Shadow Crosses the Planet over 5 h
 May 14 2326 MDT
 May 30 2032 MDT**

Eta Aquariid Meteor Shower AM May 6

Best Looks

- Moon By Saturn May 3; by Jupiter May 17;
 By Venus and Mars May 21
- Mercury In W 1st week; by Pleiades May 2
- Venus In E predawn; by Moon & Mars May 22
- Mars Low in E predawn
- Jupiter In SE in morning
- Saturn High in S evenings. Ring tilt 4 degrees
- Uranus In SE predawn end of month
- Neptune By Jupiter all month

International Space Station Passes for Loveland – Fort Collins May 2009

Date	Mag	Starts			Max. altitude			Ends		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.

5 May	1.2	02:51:10	10	N	02:51:19	10	N	02:51:45	10	N
5 May	1.0	04:25:57	10	NNW	04:27:38	14	NNE	04:29:19	10	NE
6 May	1.3	03:17:17	10	N	03:17:59	11	N	03:18:41	10	NNE
6 May	0.1	04:51:34	10	NNW	04:54:06	25	NNE	04:56:37	10	E
7 May	1.0	03:42:48	10	NNW	03:44:35	15	NNE	03:46:21	10	NE
7 May	-1.9	05:17:23	10	NW	05:20:20	68	NE	05:23:17	10	ESE
8 May	1.3	02:34:22	10	N	02:34:55	11	N	02:35:41	10	NNE
8 May	0.0	04:08:25	10	NW	04:11:00	27	NNE	04:13:35	10	E
9 May	0.9	02:59:45	11	NNW	03:01:28	15	NNE	03:03:20	10	ENE
9 May	-2.2	04:34:13	10	NW	04:37:11	77	NE	04:40:08	10	ESE
9 May	-0.8	21:02:18	10	S	21:04:24	18	SE	21:04:35	18	SE
10 May	-0.2	03:25:55	15	NNW	03:27:50	29	NNE	03:30:28	10	E
10 May	-1.4	05:00:31	10	WNW	05:03:07	28	SW	05:05:42	10	SSE
10 May	-2.5	21:27:21	10	SW	21:30:13	68	SE	21:33:08	10	ENE
10 May	0.7	23:03:40	10	WNW	23:05:28	18	NNW	23:05:28	18	NNW
11 May	-2.4	03:53:44	73	NW	03:53:59	87	NE	03:56:55	10	SE
11 May	-0.9	20:18:54	10	S	20:21:09	20	SE	20:23:24	10	E
11 May	-0.6	21:53:35	10	W	21:56:18	35	NNW	21:59:02	10	NE
11 May	1.3	23:31:08	10	NNW	23:32:16	12	N	23:32:38	11	N
12 May	-2.4	20:44:05	10	SW	20:47:00	77	SE	20:49:53	10	NE
12 May	0.8	22:20:32	10	WNW	22:22:35	17	NNW	22:24:37	10	NNE
13 May	-0.4	21:10:22	10	W	21:13:02	32	NNW	21:15:43	10	NE
13 May	1.3	22:48:02	10	NNW	22:49:02	11	N	22:50:01	10	N
14 May	0.9	21:37:22	10	WNW	21:39:18	16	NNW	21:41:15	10	NNE
15 May	-0.2	20:27:06	10	W	20:29:43	30	NNW	20:32:20	10	NE
15 May	1.3	22:04:52	10	NNW	22:05:45	11	N	22:06:37	10	N
15 May	1.2	23:40:53	10	NNW	23:41:41	12	N	23:41:41	12	N
16 May	0.9	20:54:08	10	WNW	20:55:59	15	NNW	20:57:50	10	NNE
17 May	1.4	00:06:17	10	NNW	00:06:22	10	NNW	00:06:22	10	NNW
17 May	1.2	21:21:41	10	NNW	21:22:24	11	N	21:23:06	10	N
17 May	0.9	22:57:28	10	NNW	22:58:44	12	NNE	22:59:28	11	NNE
18 May	0.7	23:22:49	10	NNW	23:24:05	17	N	23:24:05	17	N
19 May	1.1	20:38:24	10	NNW	20:39:00	10	N	20:39:36	10	N
19 May	0.8	22:13:57	10	NNW	22:15:19	13	NNE	22:16:41	10	NE
19 May	1.1	23:48:21	10	NW	23:48:42	13	NW	23:48:42	13	NW
20 May	-0.1	22:39:18	10	NNW	22:41:37	21	NNE	22:41:46	21	NNE
21 May	0.6	21:30:24	10	NNW	21:31:52	13	NNE	21:33:19	10	NE
21 May	-0.1	23:04:50	10	NW	23:06:23	26	NNW	23:06:23	26	NNW
22 May	-0.2	21:55:44	10	NNW	21:58:06	22	NNE	21:59:27	16	ENE
22 May	0.9	23:30:43	10	WNW	23:31:00	12	WNW	23:31:00	12	WNW
23 May	0.5	20:46:47	10	NNW	20:48:20	13	NNE	20:49:53	10	NE
23 May	-1.9	22:21:15	10	NW	22:24:06	56	NNE	22:24:06	56	NNE
24 May	-0.4	21:12:07	10	NNW	21:14:33	23	NNE	21:16:58	10	E
24 May	-0.4	22:47:10	10	WNW	22:48:46	25	W	22:48:46	25	W

25 May	-2.1	21:37:38	10	NW	21:40:31	63	NE	21:41:55	27	ESE
26 May	-0.6	20:28:26	10	NNW	20:30:55	25	NNE	20:33:25	10	E
26 May	-1.3	22:03:34	10	WNW	22:06:15	34	SW	22:06:38	32	SSW
27 May	-2.2	20:53:57	10	NW	20:56:51	70	NE	20:59:45	10	ESE
28 May	-1.0	21:19:55	10	WNW	21:22:32	30	SW	21:24:41	13	SSE
30 May	-0.6	20:36:14	10	WNW	20:38:46	27	SW	20:41:17	10	SSE

<http://www.heavens-above.com/main.aspx?lat=40.4997&lng=-105.05736&loc=Fort+Collins+CO+USA&alt=0&tz=MST>