

# The Objective View

September 2004

Newsletter of the Northern Colorado Astronomical Society

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**Next Meeting: September 2 7:30 PM**  
**Mars Rover Update**  
**Dr. Steve Lee, University of Colorado**

**NCAS Business at 7 PM**  
**Meeting directions Discovery Science Center**  
**703 East Prospect Rd, Fort Collins**  
<http://www.dcsm.org/index.html>

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. Enter the West Wing at the NE corner. From I-25, take Exit 268, West to Lemay Ave, continue West 1/2 mile, see Discovery Center on the left.

**NCAS Dark Sky Star Party Dates**  
**September 10, 11, 17, 18**

Cactus Flats site is on undeveloped parcel of prairie about 6 miles West of Briggsdale. Take Colo Hwy 14 East from I-25 (Exit 269). Go 19 miles East to Ault. Continue 18 miles East of Ault. At County Rd 65 (Milepost 170), turn North, go one mile. Site is through the wire gate on the right, no road, close gate and set up. Beware of the cactus. The site is now officially wheelchair accessible, but there are no facilities so bring essentials. Call **Tom Teters**, [tomt@starmon.com](mailto:tomt@starmon.com), with questions about star party status or dates, 482-5702.

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

September 17	7:30 pm
October 22	6:30 pm
November 19	6:30 pm
January 14	6:30 pm

## Other Events

Little Thompson Observatory Star Night, Berthoud  
September 17 Star Night  
<http://www.starkids.org>

Cheyenne Astronomical Society  
Sept 17 7 pm Cheyenne Botanical Garden  
<http://home.bresnan.net/~curranm/>

Open House, Chamberlain Observatory, dusk to 10 pm  
Sept 18 303 871 5172  
<http://www.du.edu/~rstencil/Chamberlin/>

Longmont Astronomical Society  
Sept 16 7 pm Longmont Christian School, 550 Coffman St  
<http://longmontastro.org/>

## August 5 Program

### NCAS Members Show and Tell

Imaging was the topic for the evening. Roger Appeldorn brought a set of 8 x 10 glossy prints from his observatory near Red Feather Lakes. He has been processing images with a 12" LX200 and a Starlight Express CCD. He had colorful views of the Dumbbell Nebula, the Eagle Nebula, and the Lagoon Nebula. Dan Laszlo gave finder information for the 11<sup>th</sup> magnitude supernova in NGC2403, in Camelopardalis. He then gave a demonstration of sunspot image capture and processing. A Nikon CoolPix 4500 was used in movie mode to make 30 second movies. The sepia image option gives better sharpness than the color or black & white options. The movies have about 500 frames. A stacking program for Macintosh called Keith's Image Stacker will import the movies. The user can then select the best frames. With typical unsteady seeing, about 1 of 5 frames makes the first cut. These are aligned. A final selection is made, then about 80 to 100 of the best frames are combined. The final stack is then adjusted with various functions. Unsharp masking makes the image look more sharp. It controls acutance in the image. It can be applied at fine or coarse levels, and the amount is adjustable. The brightness level can be finely tuned to emphasize features, or match the visual appearance. Keith's Image Stacker has many other functions. Similar programs for Windows users are Registax and Astrostack.

## NCAS Business, August 5 2004

President Dan Laszlo called the meeting to order. Nate Perkins gave the treasurer's report. Dave Chamness invited volunteers for a starwatch at Pawnee National Grasslands. We hope to schedule Steve Lee for a Mars Update soon. Dan Laszlo announced August dates for Rocky Mountain National Park.

## Rocky Mountain National Park Starwatching 2004

June 11 and August 6 were fine nights for the summer program, which had frequent weather trouble this year. Volunteers included Kimon Berlin, Randy and Judy Cunningham, Dave Dunn, Patrick Earhart, Tom Fay, Greg Halac, Dave Larison, Dan Laszlo, Phil McCallum, Nate Perkins, Bill Possel, Andrea Schweitzer, and Robert Wagner. The June night drew about 75 visitors, and August had 120. Highlights for late viewers included Supernova 2004dj in NGC 2403. A big thank you to all volunteers, your time is most appreciated!

**Weekend Under The Stars Gallery**  
Photos courtesy Gary Garzone, Dan Laszlo



Tim Brown's 10 inch Schiefspiegler captured great Mars images last summer. We saw his team's new planet host-star.



The Scope-In-A-Box packs an equatorially-mounted 12 inch Newtonian for airline carry-on, by Tom Edgar of Laramie.



Gary G and friends at his 30 inch Telekit.



Max Moe imaged a 15<sup>th</sup> magnitude asteroid for over 7 hours with his 12 inch SCT to detect its rotation.



Berglins relax before another night of galaxy imaging.

## WUTS 2004 Notes from Gary G

Well I guess the word is out about how great a place Foxpark is for Stargazing, we have made the place almost too popular. They had 231 signed in guests but I know the number was more than that with some people not registering. Despite the huge crowd there still seemed to be enough sky for all. This is really just a social event mostly with stargazing at night. I still love to share views with so many astro geeks in one place at the same time. I got there on Wednesday afternoon figuring I would beat Steve L and Dave D, you know the early birds who get there usually before the rest, but when arriving found them already there and the place packed full almost. I guess most wanted to view Perseid meteors on Thursday morning. The LAS, CAS, DAS, BASS crowds from Colorado included many, Mike Hotka, his wife Barbara, Steve L, Dave D, Roy and Monica M, Martin Butley, Julie Carmen and Mark Wiley, Ray Warren, Dave Ewing, Philippe Bridenne and his wife, Randy and Judy Cunningham, Allen P, Bill Travis, William Possel, Tim Brown, Joe Gafford, Mike Roos, Tom Teters, CCD Pete, Dan Laszlo and his great Solar filter, H alpha. also Myself, Gary, Carol and son Vincent. Special guest star was old friend, Jim Sapp who paid us a visit and set up his usual hooch tents between the trees in North Field. Jim is a special breed, one of a kind, last of master telescope builders. Mark Spalding and his two kids, Max and Ray and Loraine Moe, and yes Max's girlfriend too, Hope your astronomy does not suffer now Max, just kidding. Tom Edgar and Robert Roten, John Wagner, Marty and Marcy Curran, Mark, his wife and so many more from Wyoming clubs to name, forgive me if I forgot your name to mention but it might take a while to list them all. We also had special visit from Tom Peck, Master optician, you old timers all know him, his was old LAS club member who made the big time and worked making mirrors for the big boys in Tucson Arizona. Ray Martin, Jelm guy for University of Wyoming visited and we talked some. He is doing fine and might change jobs again so lets hope we do not lose our connection to big boy 92 inch Jelm scope for future visits. First night with meteors was very special indeed, not the Leonids of past, but always a amazing sight to see, especially in darkness of Wyoming. Bill Travis and myself stayed up till almost dawn, Bill made it, I crashed out at 4 am, he kept going like a energizer battery. Max Moe also stayed up till dawn, searching out 16th mag asteroid to get ccd info for orbit and rotation. Real good Max, You are on your way to a bright future in astronomy. Proud to say I know you and your parents. Second night was even better with less frost, only 28 degrees instead of 22 degrees the first night. so many objects to list. Old favorites like M51 in 30 scope are so awesome, NGC 891, edge on Galaxy, NGC383, six galaxies in pearl string, all in eyepiece at once, maybe better than Stephans quintet?? Third and fourth nights we searched out some faint stuff that is hard to find, only chance for some is darkness of Foxpark. Planetary nebulae and small globulars were on the menu. All got to see the Iridium satellite flare at 10:25 pm Saturday night, very bright, -8 maybe?? as all in fields let out a applause at end of several seconds of view. Thanks Dan Laszlo for right timing of event. We all also got to see both great comets up now, one

in Bootes, other in pan of Big Dipper, Ursa Major. Tom Edgar gets a big atta boy, made two suit case scopes, one 8 inch other 12 inch that breaks down and fits into suit case for airplane travel. It packed up so small, some one shouted when are you going to build a trunk sized scope??? Jim Sapp you would be gleeful, ATM-ers still do exist, and still excel most anything you could buy. I have to mention the Rock Springs Astronomy Camp had 7 scopes to view for their 20 or so kids. I think it was a way cool idea and proud to help them along some with mirror alignments and finding objects with Steve Lynch and then my son Vincent, who might have been a little interested in the girls maybe?? They even had a 20 inch Obsession, 2-15 inch Obsessions, three 10 inch and one 12 inch, pretty good line up of scopes I would have to say. Alien pictures were for kids of all ages, so they let me have one too. Door prizes were many and once again a small kid won a 8 inch Hardin scope, I love to see the kid smiling away when he got the scope, made his day or should I say his night.

I had real good time and good to take off work and forget the rest of the world for several days in last of the wild places. I am still coming down from viewing gazillions of photons, my longest stretch of four days at a WUTS event, was probably my longest clear sky adventure yet, see you at the club meeting this Thursday night at Fiske? later, gary

## Tethered Satellites Imaged



I got a video of TiPS tonight during the 11 PM flyover.

Highlight jpg is uploaded at

[http://public.fotki.com/nexstarman/international\\_space/225900.html](http://public.fotki.com/nexstarman/international_space/225900.html)

Both Ralph and Norton were visible flashing intermittently, and the (vertical) tether was continuously visible. I was not able to see the objects visually or through optical aid, I relied on the camera instead. Stellacam EX at max integrations and gain (seeing 3/5 trans 2/5 baaad) in a light-polluted city park using an 8" SCT at f/2 (Faster). It was fun!

Cheers, Eric Briggs

**Binoculars for Sale**

11x80 binoculars in excellent condition, with caps and case.  
\$145. Contact [REScline@aol.com](mailto:REScline@aol.com)

**URL for Clear Sky Clocks for Colorado**

[http://cleardarksky.com/csk/prov/Colorado\\_clocks.shtml](http://cleardarksky.com/csk/prov/Colorado_clocks.shtml)

**Asteroid Toutatis Flyby at 4 times the Moon's Distance  
Sept 21 to 29**

The four-year eccentric orbit brings this 3x1 mile rock to our neighborhood. From Sept 21 to Sept 25 it will be above our horizon as it brightens from magnitude 10.7 to 9.7. Brightest is 8<sup>th</sup> magnitude on Sept 28, visible from the Southern Hemisphere.

**Best Looks**

- Moon           By Saturn 9/9, 10  
                  By Venus 9/10, 11
- By Regulus & Mercury 9/12
- Mercury       1/4 degree from Regulus 9/10 morning
- Venus         Bright in E predawn  
                  By Saturn 9/1  
                  By Beehive Cluster 9/12-15
- Mars          By Sun
- Jupiter       By Sun
- Saturn        Low in E predawn
- Uranus        In Aquarius late evening
- Neptune      In Capricornus late evening
- Pluto         In Serpens Cauda - Oph early evenings

From: Dan Laszlo  
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**TO:**

## International Space Station Passes for Loveland – Fort Collins

September 2004

Date	Mag	Starts Time	Max Altitude			Ends				
			Alt	Az	Time	Alt	Az	Time	Alt	Az
31 Aug	2.5	04:56:18	10	N	04:57:01	11	N	04:57:44	10	NNE
01 Sep	2.2	05:25:07	10	NNW	05:26:59	15	NNE	05:28:50	10	ENE
02 Sep	2.5	04:19:30	10	N	04:20:28	11	N	04:21:26	10	NNE
02 Sep	1.2	05:54:02	10	NW	05:56:45	30	NNE	05:59:24	10	E
03 Sep	2.1	04:48:16	10	NNW	04:50:21	17	NNE	04:52:24	10	ENE
04 Sep	2.9	03:44:53	10	NNE	03:44:53	10	NNE	03:45:02	10	NE
04 Sep	0.7	05:17:11	10	NW	05:19:57	36	NNE	05:22:47	10	E
05 Sep	1.9	04:13:44	19	NNE	04:13:44	19	NNE	04:15:51	10	ENE
05 Sep	-0.8	05:46:23	10	WNW	05:49:21	61	SW	05:52:16	10	SE
06 Sep	0.2	04:42:51	44	NNE	04:43:07	45	NNE	04:46:01	10	ESE
07 Sep	-0.5	05:12:17	45	SW	05:12:22	45	SW	05:15:14	10	SSE
08 Sep	1.5	05:42:03	12	SW	05:42:03	12	SW	05:42:38	10	SSW
09 Sep	1.1	21:01:33	10	SW	21:02:49	22	SW	21:02:49	22	SW
10 Sep	0.7	19:56:02	10	S	19:58:21	20	SE	20:00:12	13	E
10 Sep	1.9	21:30:53	10	W	21:32:01	19	W	21:32:01	19	W
11 Sep	-0.9	20:24:19	10	SW	20:27:18	81	SE	20:29:03	22	ENE
12 Sep	1.0	20:53:47	10	W	20:56:29	30	NNW	20:57:36	23	NNE
13 Sep	-0.6	19:47:01	10	WSW	19:50:01	77	NNW	19:53:01	10	NE
13 Sep	2.1	21:24:01	10	WNW	21:25:54	15	NNW	21:25:54	15	NNW
14 Sep	1.3	20:16:37	10	W	20:19:11	26	NNW	20:21:48	10	NNE
15 Sep	2.2	20:46:54	10	NW	20:48:37	14	NNW	20:50:14	10	NNE
16 Sep	1.5	19:39:22	10	W	19:41:49	22	NNW	19:44:16	10	NNE
16 Sep	2.4	21:17:35	10	NNW	21:18:06	10	N	21:18:06	10	N
17 Sep	2.2	20:09:43	10	NW	20:11:12	13	NNW	20:12:43	10	NNE
18 Sep	2.3	20:40:20	10	N	20:40:44	10	N	20:41:08	10	N
19 Sep	2.2	19:32:25	10	NW	19:33:42	12	NNW	19:35:00	10	NNE
19 Sep	2.4	21:09:13	10	N	21:09:30	11	N	21:09:30	11	N
20 Sep	2.3	20:02:53	10	N	20:03:11	10	N	20:03:30	10	N
21 Sep	2.0	20:31:24	10	NNW	20:32:39	12	N	20:33:00	12	NNE
22 Sep	2.2	19:25:10	10	N	19:25:32	10	N	19:25:55	10	N
22 Sep	2.0	20:59:41	10	NNW	21:00:35	15	NNW	21:00:35	15	NNW
23 Sep	1.8	19:53:28	10	NNW	19:54:55	13	NNE	19:56:23	10	NE
23 Sep	2.9	21:28:06	10	NW	21:28:10	10	NW	21:28:10	10	NW
24 Sep	1.0	20:21:43	10	NNW	20:24:03	22	NNE	20:24:03	22	NNE
25 Sep	1.6	19:15:26	10	NNW	19:17:06	14	NNE	19:18:46	10	NE
25 Sep	1.3	20:50:08	10	NW	20:51:40	26	NW	20:51:40	26	NW
26 Sep	0.7	19:43:40	10	NNW	19:46:13	25	NNE	19:47:37	18	ENE
26 Sep	2.7	21:18:58	10	WNW	21:19:21	13	WNW	21:19:21	13	WNW
27 Sep	-0.9	20:12:05	10	NW	20:15:05	72	NE	20:15:20	65	E
28 Sep	0.4	19:05:30	10	NW	19:08:11	29	NNE	19:10:51	10	E
28 Sep	1.2	20:41:00	10	WNW	20:43:08	27	WSW	20:43:08	27	WSW
29 Sep	-0.8	19:33:56	10	NW	19:36:55	88	W	19:39:18	15	SE
30 Sep	1.5	20:02:58	10	W	20:05:23	22	SW	20:07:20	13	S
02 Oct	2.0	19:24:55	10	W	19:27:02	18	SW	19:29:09	10	S