

The Objective View

Newsletter of the Northern Colorado Astronomical Society

July 2010

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add ncastro.org to complete email address

Next Meeting: July 1 7:30 pm

**Wyoming Infrared Observatory
by Dr. Chip Kobulnicky**

Club Business at 7:15 pm

**Fort Collins Museum, 200 Mathews St
Fort Collins CO**

Enter at East door:

http://nightsky.jpl.nasa.gov/club-view-directions.cfm?Address_ID=2810

NCAS Programs

Aug 12 Club picnic at Bobcat Ridge Natural Area, 6:30 pm
Sep 2 TBA

NCAS Public Starwatch at Fossil Creek Reservoir

July 17 8:30 pm
Aug 20 8 pm

http://www.co.larimer.co.us/naturalresources/fossil_creek.htm

City of Fort Collins Natural Area Program at Sunset

Bobcat Ridge: Jul 8, Aug 12, Sep 9

<http://www.fcgov.com/naturalareas/finder/bobcat>

Dark Site Observing Dates

July 9 or 10 Keota or Foxpark site, ask FRAC

Rocky Mountain National Park at Upper Beaver Meadows

July 2, 16, 30. August 13, 27.

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

Weekend Under the Stars, Foxpark WY, by CAS/LASSO
Aug 5 – 7

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

Other Events

Chamberlin Observatory Open House, 7 to 10 pm

Jul 17, Aug 14, Sep 18, Oct 16, Nov 13, Dec 11

303 871 5172 <http://www.du.edu/~rstencil/Chamberlin/>

Cheyenne Astronomical Society 7 pm July 16

<http://home.bresnan.net/~curranm/>

CSU Madison Macdonald Observatory Public Nights

On East Drive, north of Pitkin Street

Tuesdays after dusk if clear, when class is in session

Estes Park Memorial Observatory. 8:30 pm July 17, 31.

7 pm July 22 <http://www.angelsabove.org/>

Little Thompson Observatory, Berthoud July: Closed for maintenance. <http://www.starkids.org>

Longmont Astronomical Society 7 pm July 15 at IHOP, 2040

Ken Pratt Blvd. Chris Petersen, Cloudbait Observatory,

Colorado Allsky Network. <http://www.longmontastro.org/>

**June 3 program: Astrophotography, Film to Digital, by
Mr. Bob Webb**



Comet Halley

Bob has worked in the astro products industry for companies including DFM in Longmont, Lumicon, Parks, and Meade Instruments. He had several telescopes, but enjoyed astrophotography with a 10 inch f 4.8 Newtonian he homebuilt. The mirror was a good one from a NASA project.

It has an oversized secondary for full coverage of a 35mm frame. He fabricated his mount. The pier is from a lighting fixture. He put in a 2.5 inch polar axis and 1.5 inch declination axis. It has Timkin tapered roller bearings. A

polar axis scope speeds alignment. The drive has a Mathis gear, so periodic error is small. The main drive uses AC, and the dec corrections use a DC motor, so he recently had a scramble to track down a drive corrector with a friend's help. He used several types of film including Tech Pan and 103a F. This was fast but grainy. He shot various objects from the Moon to comets and galaxies.



Horsehead and Orion Nebula

He is just getting acquainted with a Canon Digital Rebel which he finds amazing. The sensor is sensitive enough for short exposures. He gets his neighborhood sky background glow with a 5 minute exposure.



Andromeda Galaxy

He does not miss film grain. He is using the dark frame subtraction in the camera to reduce noise. He made a Hartmann mask for ease in focusing. He has promising results with the Moon so far and is anxiously awaiting clearer skies this summer.

Bob Webb is an optical technician and engineer. He worked in the telescope industry and was a staff astronomer at Griffith Observatory in Los Angeles from 1983-88. He worked in the rock music industry with Joe Walsh, Spirit, the James Gang, Dan Fogelberg, Graham Nash, and Boston. He plays acoustic and electric guitar and keyboards.



Trifid Nebula

June 3 Club Business

President Robert Michael called the meeting to order. Visitors were welcomed. NCAS was featured in a recent Legacy Magazine article authored by Lisa Coalwell. The magazine is for the National Association for Interpretation and focused on interpreting the Universe. Treasurer Jon Caldwell reported the club account is \$1057.73, which will be 797.73 after dues to the Astronomical League. Outreach Coordinator Greg Halac has lined up dates at a variety of sites for the City of Fort Collins and Larimer County. Weekend Under the Stars at Foxpark Wyoming is August 4 to 7. The Nebraska Star Party in Valentine is August 8 to 13.



Lagoon Nebula

From Rob Grover: Keota Site June 16 – 17 2010

Spent last night out at Keota with Mr. Teters. Dan Lafaive joined us after dark. The weather was breezy and quite humid. Looked at the crescent moon even before sunset. There was one mountain sticking out into the sunlight way out on the limb. As twilight fell, I moved to Saturn for a while. Then moved on to M3, M5 and M13. I enjoy observing globs as twilight fades into night and you can see ever increasing details and resolve them deeper and deeper. After twilight, the sky was dark, but I've seen it better out there. Still decent enough contrast to see some detail in M51 & NGC4565. The

Veil was merely OK until I slid the O-III into position, then it popped pretty good. The Crescent gave up a bit of detail, too. Also managed to get good views of a whole bunch of objects in the southern sky. Wild Duck Cluster, Trifid, Lagoon, Swan, Eagle, Box Nebula, Bug Nebula (thanks, Tom!), and numerous globulars in that region. Then moved over to Coma for some galaxy hunting. Along with 4565, the eyes staring back at me were nearly eerie. One of these days, I'll learn my way around that area! For now, pan & scan is fascinating. M101 was visible, but the contrast wasn't too good. In addition, I managed to glimpse the companion galaxy to M13. By then, it was around 1:30AM.

With the high humidity and breeze, it felt cooler than the low 50s showing on my thermometer so I headed into the camper, changed into some lightweight long johns and the insulated coveralls. Also made a cup of tea, took a break and headed back out for some more observing around 3AM. Dan was up and about again and mentioned he had spotted Comet McNaught. He kindly located it again for me and I took a peek through his scope. I then headed back to my scope and spent a little time finding it myself. Definitely a good view. Finished the night with a long look at Jupiter. Sky was fairly steady and I managed to see the GRS on part of its transit. Not really steady enough to get any detail in the remaining cloud band. My first view of Jupiter since it lost its southern cloud belt. Really looks empty these days. As morning twilight brightened, Dan left & I covered my scope, heading off for a few hours of sleep.

Set up the PST and watched a particularly interesting prominence. Looked like a Christmas Tree. Kept the shape from about 10AM until the clouds built about 3PM.

Tom & I had planned to spend Wednesday night out there as well, but the clouds increased through the afternoon, some raindrops spit at us. When considering the forecast for high winds by early Thursday morning we decided (reluctantly) to pack up and head back home. Too bad the second night didn't happen, but it was great to be out under dark skies again.

Or anyone headed out to Keota, I suggest going in on CR105. The ruts between 103 and the observing site are still water filled, muddy and slick (right, Tom?).

Robert Grover

From Mike Prochoda: Rocky Mtn Star Stare Report 2010

RMSS 2010 was great. We had decent observing on Wednesday and Thursday nights, (warm, short-sleeve shirt observing, but with some intermittent clouds at times). Friday was fantastic with excellent seeing and transparency, but also somewhat cooler. It was really dark on Friday night - it was the best night I have every had at RMSS. Unfortunately, it

clouded-up just before dawn on Saturday morning, then started raining later that morning, just when a lot of people were arriving at the site. The rain persisted all day and all night Saturday, and the star party was over on Sunday, just as the skies finally began to clear. Sort of a repeat of RMSS 2009, since it rained that Friday night and Saturday day, just as a bunch of people arrived for that weekend also. Take-home lesson... at a 4 or 5 day star party, arrive early and stay for the whole thing! Hope to see some of you at WUTS in August.

- Mike Prochoda (Estes Park)

From Dave Chamness: Meteorite Hunting and Collecting Magazine

Dear Readers, Meteorite Enthusiasts, Astronomers, Scientists & Educators, I'm proud to invite you to take part in the premier issue of the Meteorite Hunting & Collecting magazine by joining our newsletter list and subscribing to the bi-monthly print magazine which focuses on the adventure and fun of hunting & recovering meteorites in the field, the joy of meteorite collecting, and the science behind it all! Please visit our site for more information about this great new magazine, produced by meteorite people for meteorite people.

<http://www.meteoritesusa.com/meteorite-hunting/>

FULL COLOR ADVENTURE: Inside each full color issue you'll find meteorite hunting and collecting articles, photos, adventure stories, astronomy related articles, and a meteorite dealer marketplace. In addition, you will enjoy fine quality content written by knowledgeable and established members of the meteorite community with years of experience that will share with you the joys and wonder of rocks from space.

METEORITE WORLD NEWS & INFORMATION: You'll also enjoy updates on meteorite news from around the world featuring the top stories, discoveries, and information within meteorite world. **NEW TECHNOLOGIES & SCIENTIFIC ADVANCES:** This is an exciting time in meteorite history.

With that comes advancements in the technologies we use to discover and explore the mysteries of the universe through study, research, meteorite hunting, collecting, and science.

IN THE KNOW: With your yearly subscription of Meteorite Hunting & Collecting magazine, you'll have an inside look at all the latest technological and scientific advances that are happening within the meteorite community and main stream science. Astronomy articles related to meteorites and lots more. Your annual subscription entitles you to 6 full color issues of Meteorite Hunting & Collecting magazine chock full of meteorite information, adventure and science.

Regards,

Eric Wichman

Meteorites USA

www.meteoritesusa.com

Meteorite Hunting & Collecting Magazine

**Students Record Spellbinding Video of Disintegrating
Spacecraft Hayabusa**

http://science.nasa.gov/science-news/science-at-nasa/2010/25jun_hayabusa/

<http://planetary.org/blog>

<http://twitter.com/nivnac>

Robert White

From Andrea Schweitzer: US National Space Policy

The National Space Policy expresses the President's direction for the Nation's space activities. The policy articulates the President's commitment to reinvigorating U.S. leadership in space for the purposes of maintaining space as a stable and productive environment for the peaceful use of all nations.

http://www.whitehouse.gov/sites/default/files/national_space_policy_6-28-10.pdf

Best Looks

- Moon By Pleiades July 8; by Venus July 14
By Mars July 15; by Saturn July 16
By Jupiter July 30
- Mercury In W at dusk after midmonth. By Regulus 27th
- Venus W at twilight. By Regulus July 7 to 12
- Mars Low in W at sunset. By Saturn July 29 to Aug 1
- Jupiter In SE predawn
- Saturn In W in evening
- Uranus 2 to 3 degrees W of Jupiter



Bob Webb's Astrophoto Telescope

International Space Station Passes for Loveland – Fort Collins

July 2010

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>
29 Jun	-0.3	21:48:15	10	WNW	21:50:12	16	NNW	21:52:09	10	NNE
30 Jun	-0.5	01:00:40	10	NNW	01:02:18	17	N	01:02:18	17	N
30 Jun	0.1	22:16:24	10	NNW	22:17:16	11	N	22:18:07	10	N
30 Jun	-0.1	23:52:26	10	NNW	23:53:38	12	NNE	23:54:50	10	NE
01 Jul	-0.3	01:26:50	10	NW	01:26:54	10	NW	01:26:54	10	NW
01 Jul	-0.3	21:06:15	10	WNW	21:08:05	15	NNW	21:09:55	10	NNE
02 Jul	-0.7	00:18:26	10	NNW	00:20:08	18	N	00:20:08	18	N
02 Jul	-0.0	21:34:25	10	NNW	21:35:07	11	N	21:35:48	10	N
02 Jul	-0.3	23:10:10	10	NNW	23:11:29	12	NNE	23:12:48	10	NE
03 Jul	-0.4	00:44:35	10	NW	00:45:00	13	NW	00:45:00	13	NW
03 Jul	-1.1	23:36:08	10	NNW	23:38:22	20	NNE	23:38:22	20	NNE
04 Jul	-0.5	22:27:48	10	NNW	22:29:13	13	NNE	22:30:40	10	NE
05 Jul	-0.9	00:02:16	10	NW	00:03:20	20	NW	00:03:20	20	NW
05 Jul	-0.2	21:19:46	10	N	21:19:56	10	N	21:20:05	10	N
05 Jul	-1.4	22:53:44	10	NNW	22:56:06	22	NNE	22:56:46	20	NE
06 Jul	-0.7	21:45:22	10	NNW	21:46:54	13	NNE	21:48:28	10	NE
06 Jul	-1.9	23:19:52	10	NW	23:21:48	34	NNW	23:21:48	34	NNW
07 Jul	-1.6	22:11:16	10	NNW	22:13:43	23	NNE	22:15:16	16	ENE
07 Jul	-0.6	23:46:22	10	WNW	23:46:50	13	WNW	23:46:50	13	WNW
08 Jul	-0.8	21:02:50	10	NNW	21:04:30	14	NNE	21:06:09	10	NE
08 Jul	-3.4	22:37:23	10	NW	22:40:15	63	NNE	22:40:21	63	NE
09 Jul	-1.8	21:28:44	10	NNW	21:31:15	25	NNE	21:33:45	10	E
09 Jul	-1.6	23:03:55	10	WNW	23:05:27	23	W	23:05:27	23	W
10 Jul	-3.6	21:54:50	10	NW	21:57:46	73	NE	21:59:00	30	ESE
11 Jul	-2.3	22:21:24	10	WNW	22:24:00	29	SW	22:24:10	28	SW
12 Jul	-3.6	21:12:12	10	NW	21:15:07	84	NNE	21:17:48	12	SE

13 Jul	-2.0	21:38:48	10	WNW	21:41:17	25	SW	21:43:04	15	S
15 Jul	-1.6	20:56:09	10	W	20:58:30	22	SW	21:00:51	10	S

ISS predictions from:

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