

The Objective View

Newsletter of the Northern Colorado Astronomical Society

November 2009

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add ncastro.org to complete email address

Next Meeting: November 5 7:30 pm

NCAS Members Show and Tell: Bring Tales, Tips, Images, Hardware . . .

Club Business at 7:15 pm

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

<http://www.fcgov.com/museum/>

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

NCAS Programs

Dec 3 Dr Jack Harvey Remote Imaging on Two Hemispheres

NCAS Public Starwatch at Fossil Creek Reservoir

Nov 27 6:30 to 10 pm

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

City of Fort Collins Natural Area Program at Sunset

Bobcat Ridge: Dec 27

Dark Site Observing Dates

Nov 13, 14 Keota site, ask FRAC

Other Events

Little Thompson Observatory, Berthoud 7 pm Nov 20
Program by Dr. Andrea Schweitzer
<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 7 pm Nov 20
<http://home.bresnan.net/~curranm/>

Chamberlin Observatory Open House, 7 to 10 pm
Nov 21, Dec 21 303 871 5172
<http://www.du.edu/~rstencil/Chamberlin/>

Longmont Astronomical Society 7 pm Nov 19 TBA
<http://www.longmontastro.org/>

October 1 Program: Your Eyes On the Sky: NEOS, Satellites and More, by Suzanne Metlay, Ph.D., Operations Director
www.SecureWorldFoundation.org

The Secure World Foundation is a fully funded not-for-profit organization devoted to space issues which significantly affect the Earth. The staff is drawn from the astronomy, spacecraft and military communities. They have an active education and public outreach component. Suzanne is known as the former educator and program coordinator for Fiske Planetarium at CU Boulder. In the 1990s she enjoyed 3 weeks on Antarctica collecting meteorites. Her husband Mike is a Fiske volunteer, electronic musician and rock magazine editor, and retired nuclear physicist. They noted that no one is looking up like amateur astronomers. They are uniquely suited for asteroid and comet observing, and track hundreds of classified satellites and debris. Google Earth can be used as part of a satellite display by using adm.agi.com and see a display of the LEO and geosynchronous satellites. A recent computer is needed, and if you can run Halo 3, it should be adequate. About 10,000 (900 satellites) objects are tracked, and 19,000 if you include the geo belt. A click will return info on the object. We are fortunate amateur Anthony Wesley continued to image, detecting an impact scar on Jupiter in July 2009. He provoked a scramble to image, including interruption of the HST calibration to snag a high resolution image. Amateurs contribute to the International Meteor Organization and have detected Perseid meteors striking the Moon. Google Earth 4/0 has an ionosphere tool and the intense ionization regions from meteors can be seen in near real time. Regrettably, this year a policy change caused classification of fireball data from defense nuclear-monitoring satellites. Chris Peterson manages cameras and reports, and can plot the track of fireballs in the Colorado region. Object 2008 TC3 was the first approaching asteroid to produce an observed flash and recovered fragments. Girls from a conservative Muslim home located

about 18 fragments, and have propelled this major discovery of the current century. Jim Benson of Space Dev is promoting NEO searching. Of recent NEO discoveries, Apophis is not a significant threat. The Earth is constantly bombarded by debris. A new meteorite was recovered near Berthoud 5 years ago. The Torino scale relates size of impactor to its effect. Suzanne's group is aiming to facilitate response to threatening objects. The legal consequences of intervention are a greater problem than the engineering. There are a number of technical approaches that could work. Secrecy impedes dissemination of satellite info, but www.satobs.org/satintro.html explains a lot. There are new chances to contribute to exoplanet data by continuous monitoring. Galaxy Zoo is the spectacularly successful galaxy classification project, which was noted recently for Hanny's Voowerp. Green peas are another odd form spotted by amateurs and discovered in July 2009. The LCROSS mission is eliciting lots of interest from amateur moonwatchers. Current topics of interest can be read at:

www.Skythisweek.com
www.universetoday.com
www.slackerastronomy.org

October 1 Club Business

President Bob Michael called the meeting to order. Event dates were announced. Treasurer John Caldwell reported on the club account. Next outreach events are at Bobcat Ridge, Pingree Park EcoWeek for Preston Jr High.

Secretary's Corner— Chad Moore November 2009

I had the pleasure of attending a unique conference in Venice, Italy in October. This was not your typical astronomy conference that delved into the new corners of science. This conference looked at the impact astronomy has had upon humanity. INSAP 6 was titled The Inspiration of Astronomical Phenomena- Celebrating the 400th Anniversary of Galileo's First Astronomical Use of the Telescope. These conferences have been held about every 4 years, and draw a diverse collection of attendees from around the world. Venice turned out to be an apt location for such a gathering, as one can see the tower where Galileo Galilei presented his telescope to influential leaders, or drive to see his final resting place in Florence. Holding such a meeting in Venice made for a memorable and moving week.

My partner Angie Richman and I presented a paper titled "Finding Inspiration in the Face of Endangered Starry Nights" which looked critically at the diminishing opportunities for connection with the cosmos due to light pollution. In a similar vein we heard presentations by Hubble Telescope scientists, noted educator E.C. Krupp from Griffith Observatory in Los Angeles, the antique telescope curator at Adler Planetarium in Chicago, Galileo aficionados, Arabic astronomy translators, even some visionary (and perhaps somewhat apologetic) words from the Vatican.



We were but one of 64 presentations strewn across art, literature, science, history, and philosophy.

Such a conference reminds us that the night sky truly does belong to us all, and we glean from it far more than just science. In today's increasing balkanization of science into smaller and smaller pieces to be dissected, it was refreshing to be with others attempting to put the big picture back together again. It is worth remembering whenever we show the views of the cosmos through a telescope that there are many ways people may be touched by the stars. It was 400 years ago this month that Galileo assembled his first telescope, with its tiny field of view and modest magnification of about 10x, and dared to point it skyward.

October 16-17 Keota Report from Gary Garzone

Hey astronomers. Wow! is what I got to say about Friday and Saturday nights at Keota dark sky site. Two nights, no clouds, entire sky view all night long. Pretty good transparency and some decent periods of seeing as usual for high plains views. Low temperatures did get cold of course, probably mid 20's for Friday night's low. Saturday was a bit drier air, as far as frost goes, and not as cold. Lows near 40 mostly then near 30's for lows. What a huge crowd of dark sky starved people, over 22 people I counted. Plenty of space to park and enjoy the darkness. Jon F commented you even see stars to Horizon for first time in awhile, transparency was very good Saturday night. Best picks were NGC 891 one of my favorites, Stephans Quintet, Perseus Galaxy Cluster, and Orion too, fall is back. Summer stuff still visible early evening then moved on to Fall and Winter objects. Jupiter always a treat still big and bright. We even got to see Mars, first time for me this year. Not much yet but hopefully get some good pictures in a few months from now. Mike Roos's 13 mm Ethos eyepiece was a treat on the 30 scope, thanks Mike.

Ken O toole has quite the set up. AP mount and wide field scope. Paul Robinson helped me find three comets, did not find the fourth one. Vern's Camera was not working right so no stellar cam shots, darn. Cheyenne Wills had trouble too with guider, Damon Alcorn did get some good pictures I think. Bob Grover got some shots too and few other people. Tom Teters the master had his C 14 scope, and nice bino's on stand for easy viewing, 15 X 90. Wide clear views of Milky Way was awesome. Mike Hotka was working on some faint stuff as usual, finding challenge objects in place like Keota is fun, why we go to dark sky places. Meteors were good. We saw one early evening, a very good one, got bright, turned green, then flash out.. Several others with trains that take few seconds to disperse. Thanks Vern for letting us know about the camping rules in Keota area for Pawnee grasslands.

I would say this makes up for few missed photon sessions for us. Long nights this time of year. Few pictures, enjoyed the weekend and seeing my astronomy friends actually getting some photons in. Bye, Gary

Free Weekly Space Calendar

The Year In Space, published in cooperation with The Planetary Society, is now offering free online and e-mail versions of its popular print edition desk calendar. The new companion website and the weekly newsletter are completely free - no purchase is necessary.

The online calendar and the newsletter are very concise but packed with information that amateur astronomers and space enthusiasts will find useful.

Now in its 17th year of publication, The Year In Space features images and information from the past, present and future of space exploration and astronomical discovery. Each weekly space photo-essay is accompanied by daily Moon phases, night sky information, space history dates, and more.

See the current week in space online:

<http://www.yearinspace.com/the-week-in-space>

Sign up for the free weekly newsletter:

<http://www.yearinspace.com/weekly-e-mail>

Learn about the 144-page desk calendar:

<http://www.yearinspace.com/desk-calendar>

If you have any questions about the free online calendar, the free weekly e-mail newsletter, or the desk calendar, please contact me and I'll do my best to help you.

Thanks very much! Clear skies,

Steve Cariddi

Publisher, "The Year In Space"

The Very Long Mystery of Epsilon Aurigae, by Robert Stencel

See Sky and Telescope, May 2009

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

Chance for Good Leonid Show Nov 17 2143 UT 2009

See:

http://science.nasa.gov/headlines/y2008/04dec_leonids2009.htm

Best Looks

Moon By Pleiades Nov 3; by Mars Nov 8-9
By Saturn Nov 12; by Venus Nov 15; Jupiter 23rd
Mercury Difficult in SW end of month
Venus In E at dawn start of month
Mars In E predawn. By M44 Oct 30 to Nov 2
Jupiter In S in evening
Saturn In ESE at dawn
Uranus In SSE in Pisces
Neptune By Jupiter in Capricornus

International Space Station Passes for Loveland – Fort Collins

November 2009

Date	Mag	Starts			Max. altitude			Ends		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
6 Nov	-1.1	18:34:49	10	SSW	18:35:50	18	S	18:35:50	18	S
7 Nov	-0.7	18:57:17	10	WSW	18:58:16	19	WSW	18:58:16	19	WSW
8 Nov	-2.3	17:45:22	10	SSW	17:47:55	30	SE	17:49:10	21	E
8 Nov	0.4	19:20:32	10	W	19:20:33	10	W	19:20:33	10	W
9 Nov	-3.3	18:07:42	10	WSW	18:10:34	74	NW	18:11:19	44	NE
10 Nov	-2.2	16:55:45	10	SSW	16:58:17	29	SE	17:00:51	10	ENE
10 Nov	-1.6	18:30:52	10	W	18:33:20	27	NNW	18:33:20	27	NNW
11 Nov	-3.3	17:18:00	10	WSW	17:20:51	77	NW	17:23:43	10	NE
11 Nov	-0.3	18:54:36	10	NW	18:55:15	13	NW	18:55:15	13	NW
12 Nov	-1.7	17:41:03	10	W	17:43:35	27	NNW	17:45:42	13	NNE
13 Nov	-0.9	18:04:41	10	WNW	18:06:27	15	NNW	18:07:25	13	N
14 Nov	-1.8	16:51:05	10	W	16:53:38	28	NNW	16:56:10	10	NE
14 Nov	-0.4	18:28:49	10	NNW	18:29:04	10	NNW	18:29:04	10	NNW
15 Nov	-1.0	17:14:37	10	WNW	17:16:25	15	NNW	17:18:14	10	NNE
16 Nov	-0.6	17:38:41	10	NNW	17:39:20	11	N	17:39:58	10	N
20 Nov	-0.9	17:33:49	10	N	17:34:44	11	N	17:35:31	10	NNE
21 Nov	-1.3	17:55:27	10	NNW	17:57:04	16	N	17:57:04	16	N
22 Nov	-0.9	16:43:19	10	N	16:44:09	11	N	16:44:59	10	NNE
22 Nov	-1.5	18:17:16	10	NW	18:18:41	22	NNW	18:18:41	22	NNW
23 Nov	-1.4	17:04:52	10	NNW	17:06:46	16	NNE	17:08:39	10	ENE
23 Nov	-1.0	18:39:17	10	NW	18:40:24	21	NW	18:40:24	21	NW
24 Nov	-2.4	17:26:34	10	NW	17:29:10	31	NNE	17:30:56	16	E
24 Nov	0.1	19:01:46	10	WNW	19:02:18	13	W	19:02:18	13	W
25 Nov	-3.5	17:48:29	10	NW	17:51:22	89	SSW	17:53:03	22	SE
26 Nov	-1.1	18:10:52	10	WNW	18:13:17	25	SW	18:15:33	11	SSE
27 Nov	-3.4	16:57:34	10	NW	17:00:25	85	NE	17:03:15	10	SE
28 Nov	-1.0	17:19:48	10	WNW	17:22:17	27	SW	17:24:45	10	SSE

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>