

The Objective View

Newsletter of the Northern Colorado Astronomical Society

February 2006

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Open House, Chamberlain Observatory, dusk to 10 pm
Feb 4, Mar 4, Apr 8, May 6 303 871 5172
<http://www.du.edu/~rstencil/Chamberlain/>

Longmont Astronomical Society
February 16 7 pm FRCC, 2121 Miller Rd
<http://longmontastro.org/>

January 5 Program

Randy Cunningham, Astrosystems

New Products for Amateur Astronomers

Randy opened his demonstration by assembling a 16 inch Telekit. It is a truss tube Newtonian telescope which features high quality components. A 16 inch is nicely balanced between ease of use and transport, and ability to show many objects well. It weighs about 120 lb. Randy is developing a tracking system for Telekits. Observers would locate objects, using digital setting circles if they wish. The tracking system would then maintain the view. It would be lighter and less expensive than a goto system. The standard azimuth bearing has stainless bearings and a brake. The secondary mirror adjusts without tools for faster collimation. In the early 1990s Astrosystems first offered a laser collimator to simplify alignment. Later units had a grid pattern in addition to a central beam. The most recent change adds a Barlow lens in the path. The spread beam hits a little paper doughnut marking the center of the primary. The shadow of the center marker is cast on the laser collimator base and precise centering is easy. Randy likes a scribed cross on the primary mirror center. He also carries a Cheshire eyepiece which takes a little longer. His features a light pipe and a centering crosshair. Most accurate for final alignment is the autocollimator. With it, light traverses the optical path multiple times. Digital setting circles make dim objects much easier to locate, especially in light polluted settings. Sky Commander and Argo Navis are popular systems.

Astrosystems frequently travels to star parties at dark sites. They enjoy Okie-Tex, Texas Star Party, Oregon, Astrofest in Illinois, RM Star Stare, WUTS in Foxpark, Wyoming.

NCAS Business

January 5, 2005

President Greg Halac called the meeting to order. Frank Rauchfuss volunteered to run for any office as needed. Elected for officers for 2006 are: President, Greg Halac, Vice President, Nate Perkins. Secretary, Dan Laszlo. Treasurer, Dave Chamness. Discovery Science Center and Observatory Village observing nights were announced. LTO and CSU observing were noted. Rodney Howe donated a slide program, Hands On Astrophysics, from AAVSO. Steve and Irene Little donated a 4.25 inch reflector and a small refractor from the Rocky Mountain Natural History Association.

Can Diffraction be Exploited in a Planet Finder? DL

It is possible to place a mask in an optical instrument to facilitate detection of a faint nearby planet. A slide presentation given to Princeton Amateur Astronomers is here:
<http://www.orfe.princeton.edu/~rvdb/talks/AAAP05/tpf.pdf>

Next Meeting: February 2, 7:30 PM
Jim Bergstrom, Ball Aerospace
Mars Reconnaissance Orbiter
High Resolution Imaging Science Experiment

NCAS Business at 7:15 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.

Observatory Village Public Saturn Watch
3733 Galileo Drive, Fort Collins

Feb 25 7 pm
April 16

Discovery Science Center Starwatch
703 E Prospect Road, Fort Collins

March 3 6:30 pm
May 5 8:30 pm

NCAS Programs, Discovery Science Center
Mar 2 Lee Gregory Lunar 100 Observing

Other Events

Little Thompson Observatory Star Night, Berthoud
February 17 7 pm Henry Throop
Orion Nebula <http://www.starkids.org>

CSU Madison Macdonald Observatory Public Nights
On East Drive, north of Pitkin Street
Tuesdays 7:30-8:30 pm if clear, when class is in session

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

From Tom Teters

As one that was struck by disbelief, when this tragedy occurred, this article really touched me.

'OUR flag was still there' - Shuttle disaster remembered 20 ...
Gainesville Daily Register - Gainesville, TX, USA
... Dr. Ron Bost, astronomy professor at North Central Texas College, said his work ... David Wiese, a doctoral student at the University of Colorado at Boulder and a
...<<http://www.gainesvilleregister.com/articles/2006/01/30/news/news4.txt>>

Tom

Cactus Flats Report January 20 to 22 From Dan Lafaive

Friday Night - January 20, 2006

On Friday, Mike Hotka, Vern Raben, David Dunn, and I got together on a frigid Friday night out in the Pawnee Grasslands at the Cactus Flats site.

We setup near the gate as planned. It was quite dry at the site, which was nice because we didn't have to deal with mud and frost. We arrived and setup between 4:30 and 6:00 with temperatures starting out around 32 F and going down rapidly from there. The skies were crystal clear. Seeing was variable at first and finally settled down to be about 8 to 8.5 or so by late in the evening.

It's been 4 months since I've had a really good clear night at a dark sky spot, so I had fun with the GoTo on my Celestron C9.25 GPS and looked at a number of familiar asterisms. I started out taking a peek at Mars. At 6pm, Mars was boiling quite a bit, and it's starting to get pretty small as we move away from each other, so it wasn't a great view. Next I went to the western sky to take some final parting looks at M15. I could see some detail, but it was pretty muddy with it being so low in the sky. I then decided to take a look at M39 which is a very "open" open cluster.

I started to hanker for some galaxies because I haven't taken a look at those for a while. So I hit NGC7331, M74, M77, and M33. Which are all pretty nice to take a look at. I then got cluster happy again and looked at M52, NGC457 (The ET Cluster), M103, and the Double Cluster (NGC869 and NGC884). Took a peak at M76 (the Little Dumbbell), and tried to find several faint Nebula and galaxies with limited success. David and Mike showed me some neat things in their scopes such as NGC891 and the nebula - Thor's Helmet (NGC 2359). I finished off the night with some crystal clear views of the Orion Nebula (M42) that showed 6 stars in the Trapezium and an absolutely awesome view of Saturn with the planet being perfectly clear at 425X with the Cassini division solidly visible - little or no blurriness in the view. And I took a parting look at M31 before we all packed it up by moonrise at 11:15.

I did have to break down and warm myself up in the vehicle because it got pretty cold! It was about 5 degrees F for the last hour we were there.

But what a night! What an absolutely wonderful evening of viewing!

Sunday Night - January 22, 2006

I got out to Cactus Flats a bit late at around 9:00. I setup in the North field. My scope was warm, so I had to wait an hour for it to cool down. From 10:00 to 1:00, the views were as awesome as they were Friday night with Saturn and Orion looking just as great! It was REALLY cold with the temperature hitting 1 degree F at one point.

I tried to start documenting my observations so I could get my Messier certificate, but it was so cold that my pen wouldn't produce ink, so I had to discontinue that process and just fly around the sky looking at whatever I had time to get in.

Pretty much everything looked great. I got great views of The Galaxies M51, M81, M82, NGC2681, 2683, 2885 and even caught some nice views of the Virgo galaxies as they came up. I also hit a number of the open clusters M34-38, and M46-48, 50, and M93. I also caught a very diffuse look at the globular - M68.

At 1:00, I packed it in and got to watch the moon rise just as I was leaving. Look forward to the weekend. See you out under the stars!

Dan Lafaive

January 28 at Crow Valley Campground From Gary G

Hello all, Good night at Crow Valley. Seven of the Dark sky astronomers showed up for pretty awesome night. Started out cloudy cleared early 7 pm, few clouds streaked thru, then mostly clear, no wind, low of 8 degrees. Dan Lafaive slept in mummy bag for -25, I had heat going in motor home. Vern Raben took some pictures, hope they came out OK. Saturn almost good, but seeing was mostly horrible with fronts moving thru. Very clear and transparent mostly, few periods where it gets soft of mushy air then back to clear again later. We stuck it out till 3 am. We got to see Leo and Virgo galaxies, lots of them. Also M51, NGC 891, NGC 4565, edge on favorite, M101, too many to list, Eskimo nebula in Gemini early was excellent. Orion always a treat in 30 inch scope in dark skies. M82 and M 81 looked real good with knots in dust lanes even. I will send off some pictures, Thanks to Ranger Steve from Forest Service who unlocked gate for us to use the campground. later, Gary

Stardust Observations From Jan 15

A beautiful breath-taking movie (needs Quicktime) of Stardust reentering, as filmed from Peter Jennisken's (NASA) Airborne Mission DC-8. You see Stardust rapidly brightening amidst the starry sky and then developing a beautiful plasma trail, while scientific crew on the DC-8 is commenting:

http://stardust.jpl.nasa.gov/anim/stardust_reentrya.mov

For me personally, also fun to hear Peter on that movie, as he is a longstanding friend of mine (we used to observe meteors together when he was still in Holland).

- Marco Langbroek

From Jim Albers

As we receive or find pictures, video, etc. of the reentry from amateur or other sources, we are posting them at

<http://dgilbert3.home.mindspring.com/stardust.htm>

until they get into the official galleries at

<http://reentry.arc.nasa.gov/viewingforum.html> .

Spacesuit Satellite Release from ISS

http://dsc.discovery.com/news/briefs/20060130/suitsat_spa.html

also available here:

<http://www.abc.net.au/science/news/stories/s1558727.htm>

List members may find it useful to use Google's news alert service to track news releases on Suitsat, it was through that service (actually because I was tracking releases on the ISS but one on Suitsat will be added!) that I was alerted to the above article.

Robert Holdsworth

Venus Near Inferior Conjunction January 12, 13 2006



Attached is an image of Venus from Fort Collins Jan 12, about 1315 MST. Taken with C102F, Nikon CP4500, movie mode,

stack of 31 frames selected from 525 frame movie, about 35 seconds of video. Seeing was unsteady so most rejected frames had visible defocus or distortion. The camera was placed in a binoviewer, which made aim and focus simpler.



C102F, Nikon CP4500, 35 best frames of 525, Quicktime movie processed with Keith's Image Stacker and Photoshop

The image Jan 13 is not as good for extension at the tips, but shows the crispness of the bright part of the crescent better, especially if you don't enlarge too much. I could tell visually that the SW quadrant, right half of the crescent, has some albedo differences.

Cheers, Dan Laszlo, NCAS

Best Looks

Moon by Mars and Pleiades 2/5
Near Saturn 2/11; by Jupiter 2/20
By Venus 2/24, 25

Mercury	Evenings in W last 3 weeks
Venus	Bright in SE predawn
Mars	Evenings by Pleiades 2/13 to 20
Jupiter	In S predawn
Saturn	High in middle of night. By Beehive cluster
Uranus	In Aquarius, low in SSE evenings By Mercury 2/14

From: Dan Laszlo
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TO: