

The Objective View January 2003

Newsletter of the Northern Colorado Astronomical Society

Jan Kok, President
kok@ezlink.com 970 266 0318
Kimon Berlin, Vice President
kimon@deepskymarines.org 970 267 9908
Gerry Reynolds, Treasurer
gerryreynolds@earthlink.com 970 226 0705
David Chamness, Secretary and AL Correspondent
dec@ftc.agilent.com 970 482 1794
Tom Teters, Web Site Editor
tomt@starmon.com 970 482 5702
Dan Laszlo, Newsletter Editor
djlaszlo@aol.com 970 498 9226

Meetings first Thursday of each month

Next Meeting: January 2 7:30 pm
Fort Collins Lighting, by City of Fort Collins

NCAS Business at 7 pm: Elections for Officers 2003

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 Star Party Dates

January 3, 4, 24, 25

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. Our standard nights are the weekend of the New Moon, sometimes a weekend before and after. The site is now officially wheelchair accessible, but there are no facilities so bring essentials. If there is much wind, members may set up at Crow Valley Campground near Briggsdale. Call **Tom Teters**, starmon@jymis.com, with questions about star party status or dates, 482-5702 or 482-0807.

Discovery Science Center Starwatching

January 10	6:30 pm
February 7	6:30 pm
March 7	6:30 pm
April 4	7:30 pm
May 9	8:00 pm

Longmont Astronomical Society 1st Quarter Moon
Public Viewing Nights, Flanders Park

January 11

Other Events

Little Thompson Observatory Star Night, Berthoud
January 17 Star Night 7 – 10 pm
<http://www.starkids.org>

Cheyenne Astronomical Society
January 17 Cheyenne Botanical Garden
<http://users.sisna.com/mcurran>

Open House, Chamberlain Observatory, dusk to 10 PM
Jan 11, Feb 8, Mar 8, Apr 5, May 15 303 871 5172
<http://www.du.edu/~rstencel/Chamberlain/>

Longmont Astronomical Society
January 16, Longmont Christian School, 550 Coffman St
<http://laps.fsl.noaa.gov/cgi/las.cgi>

December 5 Program

Comets and Aurora Borealis in Stereo Views
By Bryan R. White

Bryan grew up in the bright skies near Detroit, Michigan. He traces his love of the sky to his father's purchase of an 80 acre farm near Ortonville. Their farming experience was straight out of "Green Acres," but Bryan was sure he could see a billion stars for the first time from his yard. At 6 years old he spotted an object above the trees which was the newly discovered Comet Mrkos. Bryan unsuccessfully lobbied for conversion of a silo to an observatory. His interest was rekindled in 1985 with Halley's Comet, and he purchased a Celestron 8. He began shooting piggyback photos. He realized that astrophotos with a foreground were more appealing, and gave a sense of scale. He lamented a lack of great comets for years, but got some nice shots of Comet Levy. He was drawn to the Winter Star Party in the Florida Keys, and saw Comet Hyakutake from the beach in 1996. Bryan had used his grandfather's stereo-opticon, and he wondered, why not try stereo photos now. He visited a friend in a photo shop, and bought 2 cameras and a spacing bar. He traveled for 5 weeks and took 1500 stereo images, trekking through Arizona, Utah, and Colorado. He returned East to Klingmans Dome, NC, and captured the comet's closest approach, as it brushed by M101 in Ursa Major. He could make out a 50 degree tail on the comet in April. His next quarry was Comet Hale-Bopp. His images began with the Comet in Cygnus, swinging by the North America Nebula. He was at the Grand Canyon, shifting gear in the dark, and realized he was a few steps from a 500 foot drop. He spent 4 nights at Arizona's Meteor Crater. One morning's high clouds were joined by a high altitude exhaust trail from a White Sands missile launch. He was the only camper in the Monument Valley campground when he captured Comet Hale-Bopp over a Mitten there. The comet had moved to Casseopeia when he reached Zion National Park, and the Navajo Trail in Bryce National Park. He captured snowy scenes from Molas Pass

The Objective View January 2003

Newsletter of the Northern Colorado Astronomical Society

between Silverton and Durango, Colorado. He was up all night and shot both moonlit and starlit foregrounds. His view from Loveland Pass added lights from trucks passing in the night. He uses matched cameras 12 inches apart, which exaggerates the stereo impression 4-fold. He would be up all night, then sleep from 5 to 11 am. He has a mountain Hale-Bopp image posted in the new Denver Museum astronomy area. He then headed to Water Rock Knob in North Carolina to image the comet in the evening sky. Mattel made their only purchase of an image for their Viewmaster science series: the first stereo shot with Hale-Bopp. He photographed near Maggie Valley in western NC. The view brought back memories of Comet Mrkos over the trees. He traveled south to the Okefenokee Swamp, 60 miles from the nearest town, and saw the zodiacal light brilliantly. The comet reddened as it set. Florida gave great foregrounds with hanging Spanish Moss and palm trees. He has captured the comet with the Moon, aided by a small cloud to block the Moon, Comet with Airliner, Comet with Fireflies. Bryan was again imaging Comet Ikeya-Zhang 2002, but has not prepared a show yet. His next obsession was capture of the aurora with his stereo cameras. In October 2001 he made a scouting trip to Yellowknife in Canada's NW Territories, followed up in January and March 2002. Fifteen thousand Japanese tourists visit there yearly to see the aurora. October was mostly cloudy, but there were a few incredible nights. January was special, the Sun never rose above 10 degrees elevation, and was up from 10 AM to 3 PM. Snow was too cold to melt, so it sparkled like a billion diamonds. The aurora would seem best at 10 PM, midnight, and 2 to 3 AM. Exposures were 30 seconds, unguided. The air was typically -40 degrees at night, warming to -15F in daytime. Snow would form spontaneously in the air, with no clouds, after sunset. Trees were stunted, with only 150 miles from the treeless tundra. He traveled on roads carved on frozen lakes by the mining industry. Trucks ran 24 hours a day, rolling by in packs of 3. Bryan has seen every color in the aurora. He would see it begin in the northwest, like toothpaste squirted from a tube, expanding to cover much of the sky. It can tower like a skyscraper. The light would form an arc, curtain, fingers extending up and spreading sideways. He would see the light outshine a Full Moon, and extend south to Orion. The dark parts of the sky were the darkest he'd seen, he could make out 13 stars in the Pleiades. He took 1000 shots. He often heard wolves howling but never saw one, until a night an animal ran toward him from 100 yards away. He was unarmed, and watched it run flat out until it stopped 10 feet away, then rolled playfully, just a dog. Bryan used electric socks on his feet, chemical handwarmers in gloves, and Kendrick heaters on his equipment. He wore 4 layers of clothing. He carried a level to set up his gear and compulsively checked focus. He used a 28mm f/1.9 lens, closed 1 stop to help sharpness. He used Fuji 400 Professional, pushed to ISO 800. Comet photos used Kodak slide film for more blue sensitivity. He reached Yellowknife by 2 days of continuous driving. He only forgot to restart his vehicle once, and sleeping in cost him a frozen engine and a trip to the dealer for repair. Bryan is happy to schedule his spectacular show for groups, see his website:
www.nitescapes3d.com

NCAS Business

December 5, 2002

President Jan Kok called the meeting to order. Nominations for officers were invited. Nominees were Max Moe, Vice President. Kimon Berlin, Secretary. Nate Perkins, Treasurer. A nominee for President is needed. The NCAS program in January is on Fort Collins lighting by a representative of the city. April program is by Steve Lee, on the Destination Mars exhibit. Brad Jarvis announced Mars Society plans to build an observatory at their Utah mission site. Software Bisque has donated "The Sky" software for instrument control. A CCD camera is needed.

Scope for Sale

Coulter 10 inch Dobsonian. Like new. Includes Kellner eyepiece, eyepiece rack, red-dot aiming device, aperture stop, dustcap. \$600. Call Gene, 970-568-0545.

Best Looks

Moon	by Mercury 1/3 by Saturn 1/15, by Jupiter 1/19 by Venus and Mars on 1/27
Mercury	Low in SW, eves, first few days of month
Venus &	low in ESE predawn
Mars	low in ESE predawn. By Beta Sco 1/21-23
Jupiter	Overhead through middle of night
Saturn	Visible from early evening through night by Crab Nebula 1 st week, but glare hides it

From Archer Sully: Sky Transparency & Seeing Forecast

I've altered the following link for Colorado.

http://cleardarksky.com/csk/prov/Colorado_clocks.shtml

Clear Sky Clock Update from Tom Teters

<http://www.cleardarksky.com/c/CctsFltsNCOkey.html>

<http://www.cleardarksky.com/c/FtClInsCOkey.html>

<http://www.cleardarksky.com/c/DckClrkObCOkey.html>

Forwarded from Andrea Schweitzer, for Jan 16 2003:

Since I also worked on the Voyager project, I'm looking forward to this show, too! Andrea

Friends, I would like to call your attention to a TV program that will air on January 16, 2003 on A&E. I'm attaching the promotional material released by the Executive Producers, Cosmos Studios and Norman Star Media. It is a (belated) celebration of the 25th anniversary of the launch of the Voyager mission. This show does a lovely job of detailing the Voyager mission and its scientific, cultural and historical significance, from the point of view of the individuals involved. And it is the only TV documentary I know of which describes in full the making of the Voyager Record.

Don't miss it!

Warm wishes for a Merry Christmas,

Carolyn Porco

The Objective View January 2003

Newsletter of the Northern Colorado Astronomical Society

This is SKY & TELESCOPE's AstroAlert for Comets

NEW COMET IN HERCULES

Using giant 20 x 120 binoculars, Japanese amateur Tetuo Kudo has discovered a comet of 9th (or perhaps) 8th magnitude, moving east-southeast through Hercules. He made the find early on the morning of December 14th (local time). According to the announcement on IAU Circular 8032, confirming CCD images by Ken-ichi Kadota (Saitama, Japan) revealed a short tail about 1/3 degree in length, pointing away from the Sun.

A preliminary orbit calculated by Brian G. Marsden of the Minor Planet Center in Cambridge, Massachusetts, indicates that this comet is headed for perihelion in late January, when it will pass well inside the orbit of Mercury and may brighten considerably. Unfortunately, it will then be almost directly *behind* the Sun as seen from Earth, hence virtually impossible to observe. Before that time, Northern Hemisphere observers should be able to follow the comet with binoculars in the morning sky through mid-January. Skywatchers in the Southern Hemisphere are in a position to see it emerging from the Sun's glare in late February, in the evening sky.

Congratulations, Tetuo Kudo!

The ephemeris below, calculated from Marsden's preliminary orbital elements on Minor Planet Electronic Circular 2002-X84, gives the comet's right ascension and declination (equinox 2000.0) at 0 hours Universal Time on selected dates. Also listed are the comet's distance from the Earth (Δ) and Sun (r) in astronomical units (where 1 a.u. is about 149,600,000 kilometers), its elongation angle from the Sun in degrees, predicted magnitude, and the constellation through which it is passing. (If the numbers in the columns don't line up properly, reset your e-mail program to a fixed-width type font like Courier.)

Visit <http://cfa-www.harvard.edu/iau/cbat.html> for information on subscribing to the IAU Circulars. Or go to <http://cfa-www.harvard.edu/iau/mpc.html> for similar information relating to the Minor Planet Center's many services.

Roger W. Sinnott

Senior Editor
Sky & Telescope

		Comet C/2002 X5		Kudo-Fujikawa		
Date	R.A. (2000)	Dec.	Elong.	Mag	Constell	
0h UT	h m	° ' "	°			
Dec. 26	17 24.7	+35 44	60.4	7.0	Herc	
Dec. 28	17 40.1	+33 28	57.8	6.8	Herc	
Dec. 30	17 55.0	+31 02	55.1	6.6	Herc	
Jan. 1	18 09.3	+28 27	52.2	6.5	Herc	
Jan. 3	18 23.0	+25 45	49.2	6.3	Herc	
Jan. 5	18 36.1	+22 56	46.0	6.1	Herc	
Jan. 7	18 48.5	+20 01	42.8	5.9	Herc	
Jan. 9	19 00.4	+17 02	39.5	5.7	Aql	
Jan. 11	19 11.6	+13 58	36.1	5.4	Aql	

AstroAlert is a free service of SKY & TELESCOPE, the Essential Magazine of Astronomy (<http://SkyandTelescope.com/>). This e-mail was sent to AstroAlert subscribers. If you feel you received it in error, or to unsubscribe from AstroAlert, please send a plain-text e-mail to majordomo@SkyandTelescope.com with the following line -- and nothing else -- in the body of the message:

unsubscribe comet e-mail@address.com
replacing "e-mail@address.com" with your actual e-mail address.

=====
=====
From: Dan Laszlo
2001 S Shields St Building H
Fort Collins CO 80526

TO:
