The Objective View      April 2002
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 Channas, Secretary and AL Correspondent
dec@ftc.agilent.com
970 482 1794

Tom Teters, Web Site Editor
tomt@jymis.com
970 482 5702

Dan Laszlo, Newsletter Editor
djlaszlo@aol.com
970 498 9226

Meetings first Thursday of each month

Next Meeting:  April 4  7:30 PM
Little Thompson Observatory
By Tom Melscheimer

Meeting directions
Discovery Center Science Museum
703 East Prospect Rd, Fort Collins
http://www.desm.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 Public Starwatch at Discovery Center
Bring a scope of binoculars to share on Friday nights near First Quarter Moon. Set up in the South parking lot. Contact Dan Laszlo with questions: djlaszlo@aol.com  498 9226
April 19  7 PM
May 17  8 PM

NCAS Star Party Dates
April 5, 6, 12, 13
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. Call Tom Teters, tomt@jymis.com, with questions about star party status or dates, 482-5702 or 482-0807.

Longmont Astronomical Society 1st Quarter Moon Public Viewing Nights
April 20 (Astronomy Day!), May 18, June 15, July 13, August 17, September 14, October 12, November 9, December 7

NCAS Calendar
May  John Morse, Eta Carinae and High Mass Stars
June  Brian Rachford, Aurora Forecasting

Other Events
Little Thompson Observatory Star Night, Berthoud
April 19 7 PM  Michael Hotka, The Solar System
http://www.starkids.org

Cheyenne Astronomical Society
April 19 7 PM
http://users.sisna.com/mcurran

Open House, Chamberlain Observatory, dusk to 10 PM
http://www.du.edu/~rstencel/Chamberlin/
April 20  303 871 5172

Longmont Astronomical Society
http://laps.fsl.noaa.gov/cgi/las.cgi
April 18

March 7 NCAS Business Meeting
Club business was deferred, for observation of Comet Ikeya-Zhang.

March 7 Program
Deep Impact Mission, by Jim Crane
Ball Aerospace

What would happen if a 350kg copper mass were to collide with a 6 km comet nucleus at 23000 miles per hour? JPL researchers hope to vaporize pristine material within the solid nucleus and analyze its spectrum. The impact will also help distinguish the correct model for the structure of the comet nucleus. The craft is launched on Jan 2 2004 with an instrument module and a detachable impactor that separate within a day of impact. In July, 2005, the impact and its consequences will be monitored by both the instrument package and ground observers. Jim Crane is the senior engineer integrating the various systems on the craft. Ball is recruiting amateur astronomers for a worldwide observing team. Gary Emerson is a Colorado contact for amateurs at Ball Aerospace, at 303 939 4702. There may be changes in the comet’s coma visible from Earth. The comet is to be visible from Australia at the impact time. See: www.ball.com/aerospace/deepimpact.html

Local Astronomy Internet Group
“Astro-Colorado is a Yahoo Group moderated by NCAS member Dave Larison. The site can be used for announcements, discussion of current observations, equipment questions, and file uploads. Anyone can view contents, but only members may post. See:
http://groups.yahoo.com/group/astro-colo
Comet Ikeya-Zhang by Tom Teters:  
http://starmon.com/ikeyazhang.html

This image is a combination of two 17 sec. exposures using a ST-6 CCD camera through a Stellarvue 80mm refractor, tweaked with CCDops5.21 and Photoshop5.5. Taken at 7:33pm Sat. March 9, 2002. This comet was only up about an hour after twilight, in Pisces, so I took as many shots as I could, but none of them higher than about 40° above the horizon. Notice the split in the tail. The color is false and displays differences in luminosity and the F.O.V. is 1° x 45'.

Comet Snyder-Murakami, C/2002 E2

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Apr 01  19 15.1 +22 00 1.380 1.562  80.4  10.1  Vul  
Apr 02  19 15.9 +23 14 1.376 1.567  80.9  10.1  Vul  
Apr 03  19 16.7 +24 28 1.373 1.572  81.3  10.2  Vul  
Apr 04  19 17.5 +25 43 1.371 1.577  81.8  10.2  Vul  
Apr 05  19 18.2 +26 57 1.369 1.582  82.2  10.2  Vul  
Apr 06  19 18.9 +28 12 1.367 1.588  82.6  10.2  Vul  
Apr 07  19 19.6 +29 27 1.367 1.593  83.0  10.2  Vul  
Apr 08  19 20.2 +30 42 1.366 1.598  83.4  10.2  Vul  
Apr 09  19 20.9 +31 57 1.366 1.604  83.8  10.2  Vul  
Apr 10  19 21.5 +33 12 1.367 1.610  84.1  10.2  Vul  
Apr 11  19 22.0 +34 26 1.368 1.615  84.4  10.3  Vul  
Apr 12  19 22.6 +35 41 1.370 1.621  84.7  10.3  Vul  
Apr 13  19 23.1 +36 55 1.373 1.627  85.0  10.3  Vul  
Apr 14  19 23.6 +38 08 1.375 1.633  85.2  10.3  Vul  
Apr 15  19 24.0 +39 22 1.379 1.639  85.4  10.3  Vul

From SKY & TELESCOPE's AstroAlert for Comets

**COMET SNYDER-MURAKAMI**

Within a few hours of each other on March 11th, Douglas Snyder in Palominas, Arizona, and Shigeki Murakami outside Niigata, Japan, spotted a faint, tailless comet moving northeastward through the constellation Aquila. Snyder was using a 20-inch reflector, Murakami an 18-inch.

Coming close on the heels of the similar visual discovery by Kaoru Ikeya and Daqing Zhang six weeks earlier, this new find further dispels the notion that professional surveys for near-Earth asteroids always catch in-bound comets long before amateurs with backyard telescopes have a chance. The visual feats of these four observers could inspire a whole new generation of amateur comet hunters.

According to the orbital elements calculated by Brian G. Marsden (Smithsonian Astrophysical Observatory) and published in Minor Planet Electronic Circular 2002-F23 of March 18, 2002, Comet Snyder-Murakami is now already headed back out of the solar system. When it passed through the perihelion point of its essentially parabolic orbit on February 21st, it was 1.47 astronomical units from the Sun (about as far out as Mars). This comet's orbit is inclined 92.6 degrees to the plane of the ecliptic.

The following ephemeris, calculated from Marsden's orbital elements, gives the comet's position each day for the next two months. "Delta" and "r" are its distance from the Earth and Sun, respectively, and the elongation is its angular separation from the Sun. Also listed are the comet's predicted magnitude and the constellation through which it is passing.

Roger W. Sinnott, Senior Editor, Sky & Telescope

Comet Snyder-Murakami, C/2002 E2

Comet Ikeya-Zhang, March 19, 2002.  4° x 6°

Dan Laszlo, f/1.5 8” Schmidt Camera, 5 min, ISO 100
Kodak Elitechrome slide scan by Gerry Reynolds

More comet images:  http://encke.jpl.nasa.gov/
**UPDATE ON COMET UTSONOMIYA**

New Comet Utsunomiya, whose discovery was announced March 20th, should brighten to about 6th magnitude in the coming weeks. But it lies near the Sun throughout this period, so observations will be difficult. That's the indication of Brian G. Marsden's orbit calculations published in Minor Planet Electronic Circular 2002-F39. (Visit the Minor Planet Center Web site at http://cfa-www.harvard.edu/iau/mpc.html for information on subscribing to those circulars.)

Comet Utsunomiya reaches perihelion in the third week of April, when it will be between the orbits of Mercury and Venus. By then it will have crossed from the morning to the evening sky for observers in the Northern Hemisphere. The comet will be easier to observe from the Southern Hemisphere after mid-May, but soon thereafter it will fade rapidly as it departs the inner solar system.

The following ephemeris, based on Marsden's preliminary orbit, gives the comet's right ascension and declination (equinox 2000.0) at 0 hours Universal Time on each date. Also given are its distances from the Earth (Delta) and Sun (r), elongation, predicted magnitude, and the constellation through which it is passing.

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**From SKY & TELESCOPE's AstroAlert for Comets**

Watch the observing section of SkyandTelescope.com for further updates on this object. (For example, the ephemeris may change slightly as the orbit is improved in the coming days.)

Roger W. Sinnott, Senior Editor, Sky & Telescope

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Comet Utsunomiya, C/2002 F1

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Way to go, Max!
From Ray Moe
To All,
My son Max (16 year old high school sophomore), asked me to let his deep sky friends know that he just received confirmation that he has been accepted to this summers Advanced Teen Astronomy Camp at the University of Arizona. He will spend eight days at the Steward Observatory at Mount Lemon and Mount Bigelow with Dr. Don McCarthy, professor of Astronomy at the University of Arizona. They will be assigned research projects using the observatory's 60 inch and 61 inch telescopes, as well as specialized spectrometers, photometers and CCD's. Requirements for selection included a reference letter from his teacher and a 700 word essay (Max's essay was about 5,000 words). For those that might know Max, he has been anxious about whether he would be selected. Now he knows and has to wait. On a side note, Max, his Dad and Mom are heading to Texas this Saturday for our one week spring break. We will be visiting the McDonald Observatory area (Fort Davis and Big Bend) to see our National Parks/Monuments and other sites. Max hopes for four or five nights of new (or near new) moon observing to complete his remaining Herschels. Visiting sites by day, observing at night - when does his parents sleep and vacation. Oh well!

Max's Dad - Ray

Observing Report 03/09-10/2002
Cactus Flats (aka Pawnee Grasslands)

The "Flats" played host to a good sized group of photon starved astronomers last night. I arrived early in the afternoon to take in some Solar observing. Sunspot region 9866 was very active with a flare that lasted a good 20 minutes. It produced a spike that rose to a height of about 1/3 solar diameter, I had to move the image to the edge of field due to doppler shift so it was visible. This spike reached maximum height, separated and then faded away all in the span of 15 minutes, just amazing to watch. By sunset there were 8-10 vehicles with a few more arriving later. First order of the night was to locate comet Ikeya-Zhang on the western horizon. For those of you who have yet to see this comet I would recommend trying in the next few days. It is probably the most stunning comet since Hale-Bopp. A tight, slightly oval coma with a bright tail that split into two. I noticed a bluish color which was confirmed by some younger eyes in attendance. Spanning about 3.5 degrees in my binoculars it was also spectacular in telescopes. Early evening conditions favored planetary viewing. I watched a "barge" transit across Jupiter's SEB(?). Saturn was spectacular as ever with the planet casting a nice shadow on its highly inclined rings. As is usual at the Flats the seeing came and went the rest of the night. Transparency was good to very good all night so my agenda of Galaxy hunting was well served. This time of year little effort needs to be spent on an observing program, you can spend hours just hunting Messier's though I did manage to log some interesting Hickson groups along with some other "off the beaten path" type objects. Around 1:00a.m. someone mentioned that Omega Centauri would be rising soon. Remembering the night several years ago seeing this awesome object just above the horizon I noticed that stars were visible very low on the southern horizon. Tom T. checked its transit time on his laptop which was 2:15ish a.m. Knowing that if we wait that long it would be lost in the Denver nebula I started scanning the horizon at 1:30 a.m. Unfortunately since that night two years ago there are new houses south of the Flats (along with more going in) with one spotlight in the area I was scanning. I finally found it and we all had a look while Tom took some nice CCD images. I wonder just how far north this can be seen? By 2:30 a.m. the wind started to come up and soon everyone left began to break down and pack up for the drive home. All in all a great night to be out under the stars.

Till next time,  Dave D

** Surprise highlights the asteroid threat **
From S Steele:
An asteroid as wide as a Boeing 747 narrowly missed Earth last week -- and we never knew it was coming. MSNBC's Alan Boyle reports on the "deep impact" gap.


Sky Images Wanted for Online Magazine
The new www.coloradomagazineonline.com is interested in publishing amateur star pics in an ongoing column, "What's New In The Universe." Contact me if you are interested in submitting pics - with brief descriptive captions that describe the shot and telescopes used.
Mel Fenson, Editor tiger@indra.com

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

TO: