

The Objective View

April 2004

Newsletter of the Northern Colorado Astronomical Society

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Next Meeting: April 1 7:30 PM

James Webb Space Telescope

By Dr. Dennis Ebbets

Senior Staff Scientist, Ball Aerospace

NCAS Business at 7 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.

Starwatch at Discovery Science Center

April 30 6:30 pm

May 28 7:30 pm

Rocky Mountain National Park Starwatching 2004

A spring date, April 16, will be tried this month.

Site is the end of the Upper Beaver Meadows road, starting at dusk. Ranger Jeff Maugans plans to add New Moon weekends. Summer 2004 dates: June 11, 18, 25. July 9, 16, 23. August 6, 13, 20. Contact Dan Laszlo if you are interested as a volunteer, djlaszlo@aol.com, 970 498 9226.

NCAS Dark Sky Star Party Dates

April 9, 10, 16, 17

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@starmon.com, with questions about star party status or dates, 482-5702.

Other Events

Little Thompson Observatory Star Night, Berthoud

April 16 Star Night 7 – 10 pm

<http://www.starkids.org>

Cheyenne Astronomical Society, Cheyenne Botanical Garden

April 16 7 pm Paul Crips Stardust Mission

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

Open House, Chamberlain Observatory, dusk to 10 pm

Apr 24, May 29, Jun 26 303 871 5172

<http://www.du.edu/~rstencel/Chamberlin/>

Longmont Astronomical Society

April 15 7 pm Longmont Christian School, 550 Coffman St

<http://longmontastro.org/>

Global Net of Astronomical Telescopes Needs You

Dr. Culver has short-period variable star candidates which need monitoring. If you can contribute CCD images of selected 15th to 18th magnitude stars, please call Dr. Culver in the Physics Dept, CSU, 491-6206 for more information.

Sterling Star Party is coming up on April 16th and 17th for a weekend of star gazing, LAS puts on the first of the summer star gazing events. This is a great place for a star party and if you have never been there it is almost as dark as Fox Park, better than Pawnee. Heated bathrooms with hot showers and nice big camp sites makes it a very user friendly place for us astronomers. Bob Loomis, North Sterling State park ranger waives camping fees but still need State park pass, 5 dollars per day only. This will be a two night event but Saturday is the advertised day for locals to come out and share the views with us, they mostly leave early and us dark sky people have Friday night and rest of Saturday night after crowds leave for ourselves. Maps and directions can be had from me gary30views@earthlink.net or LAS people or even North Sterling State park people. If you love dark sky observing this is it, one of the best of the year, slightly behind our favorite, Fox park, weekend under the Stars, which is still the best for us each year.

[Map for North Sterling State Park](#)

More About Our April 1 Speaker

The Hubble Space Telescope has been the premier instrument of NASA's space astronomy program during the 1990s, and will continue to be for most of the next decade. Observations made at the limits of Hubble's capabilities have motivated plans for an even more powerful follow-on mission, the James Webb Space Telescope. JWST will be an international collaboration between NASA, the Canadian Space Agency and the European Space

Agency. It will be a reflecting telescope with a segmented 6.5 meter diameter primary mirror, optimized for infrared imaging and spectroscopy, in orbit around the sun at the L2 Lagrangian point. Ball Aerospace has played a key role in Hubble program for nearly twenty five years, and is part of the prime contractor team led by Northrop-Grumman Space Technologies for the development of JWST. This talk will discuss the scientific goals of the mission, and how those objectives have led to the specification of its requirements, choices of design features and evaluation of its expected performance.

Brief biography of the speaker:

Dennis Ebbets is a Staff Consultant at Ball Aerospace Systems Division in Boulder, Colorado. Since joining Ball in 1985 he has worked primarily on science instruments for NASA's Hubble Space Telescope, and on design studies for other space science missions, including the Next Generation Space Telescope (now named the James Webb Space Telescope). He is a member of the Investigation Definition Team for two instruments aboard Hubble, the Goddard High Resolution Spectrograph and the Cosmic Origins Spectrograph. Dr. Ebbets holds an undergraduate degree in physics from West Virginia Wesleyan College and a Ph.D. in astrophysics from the University of Colorado. He is active in several professional societies, including the American Astronomical Society, and the Society of Photo-optical Instrumentation Engineers. Dennis enjoys the opportunities to communicate the scientific results of NASA programs to the public, and is a frequent speaker at schools, service clubs and professional organizations. He resides in Boulder with his wife and three children.

Desert Sunset Star Party - May 13-16, 2004

The 2004 Desert Sunset Star Party will be held at the Caballo Loco Ranch, about 11.5 miles south of Three Points, AZ, on Rt. 286, and then east for 8 miles. This RV ranch is in a secluded area of Arizona with dark skies. The Sierrita Mountains block the light dome of Tucson. The domes of Kitt Peak are in clear view to the west. The DSSP begins on Thursday night and runs through Saturday night. We will have a speaker on both Friday and Saturday evenings along with door prize giveaways. Registration information is posted on the DSSP website -

<http://chartmarker.tripod.com/sunset.htm>

Pat and Arleen Heimann
Chart Markers and More

March 4 NCAS Program Postponed due to Weather

NCAS Business, March 4 2003

President Dan Laszlo called the meeting to order. Max Moe announced his upcoming trip to MacDonald Observatory. He will return to the University of Arizona Summer Program in 2004. Dave Chamness announced the Crow Canyon Summer Program, more information at www.crowcanyon.org Andrea Schweitzer is recruiting volunteers for Little Thompson Observatory. Rodney Howe is interested in IR spectroscopy research, and hopes to find a partner with a 10 inch or larger

scope, preferably with GoTo function. Dan Laszlo announced dates for Rocky Mountain National Park.

Pawnee Grasslands on March 19-20, 2004

Great time last night, biggest crowd for CFN, too bad half left before it cleared. Here is an image processed of the transit. From QuickTime movie converted to AVI format, Nikon 8700, 130 images stacked.

DD



I thought it was ladies night out at Cactus Flats North this Saturday night new moon star party. It was great to see so many of the dark sky marines other halves show up. I think this was the largest crowd to date for CFN new moon event, even Cheyenne club members showed up. Lots of dark sky astronomers showed up, I lost count how many but it was like a summer event almost, except for the cold part, but heck it was about equal to WUTS at Fox park in summer anyway, about 27 degrees maybe? Well trio transit of moons on surface of Jupiter was spectacular. We all caught the double dot spots then witnessed the third one on other side of dark band, easily seen. New 30 mirror coating on edge on galaxies like NGC 4565 and 5907 and spiral M51 were some of the best views to date for scope. We were blessed with clear skies, most of the night, some clouds early to scare off the doubtful, but stayed up till 2 am, bye, gary

Yes. It was the largest crowd of people I had ever seen up there. Almost packed ;-). One thing you can always count on is Gary G showing beautiful views through his 30" to all. I have NEVER seen M51 as detailed through any scope as I did through Gary's. Discarding to the views through the 92" WIRO a couple of years ago, this view is at the top of my all time list. I often setup next to Gary to listen to his comments of the sky throughout the night. Saturday night, with Gary's brother Ed visiting, who, in the dark, sounds EXACTLY like Gary, it was hard to determine if Gary was talking or Ed was talking...made an interesting evening for all who "listened". It was neat to meet people's other half. Makes our hobby just that much better when all family members can become involved.

Friday night, the weather did not match the clear sky clock at all. I guess when they pulled the plug on CSKs, they played a trick on us. Tom Teters, Steve Lynch and myself waited for the sky to clear, which it

did sometime around 1AM, but the seeing was very poor and the wind was wicked. So we spent the evening in Steve's camper. Steve "kicked us out" of his HEATED camper about 2 AM. If he wanted us to leave earlier, he should not have fed us all those goodies and turned on the heat ;-)

Saturday night looked to be more promising than Friday, but by sunset, the clouds (high haze) was everywhere. So I watched the transit of the moons and shadows, and watched Europa disappear and reappear from behind Jupiter. By about 11:00 PM, the sky consistently cleared from the NE and by midnight, the sky was in great shape. By 1 AM, a brisk E wind was starting to blow, and by 3 AM, the wind was making it cold (Yep, I am a wimp ;-). So I packed it in.

As it turned out, I found out my sleeping bag didn't do much to keep me warm, so I watched the sun rise, packed it all up and headed for home. Got to McDonalds at US-14 and I-25 about 7:30 AM for a big breakfast and then hit I-25 south.

The biggest surprise for me of Saturday night was the reappearance of Europa. I had it noted that it would clear the planets' surface at 12:05 AM. I watched and waited...12:30 AM, no moon...12:45 AM...no moon...So I figured I subtracted our time zone from UT incorrectly and I would see it at 1:05 AM. I continued to watch and at 12:52 AM, it "appeared" a LONG WAY from the planet, when it emerged from Jupiter's shadow. This was REALLY COOL!!! If I had given it 1/2 a thought, I would have realized this, for I watched the two moon shadows all night move across the planet. I like these kinds of "ah ha"s.

tffn Mike

From Dave Larison: Grand Mesa Star Party July 15-18

Aaron Reid from the Grand Junction club sends news that plans are progressing for a regional star party on top of Grand Mesa scheduled for July 15-18, 2004.

A weblink for the event is now up:

<http://www.coloradowestastronomy.org/SP04.html>

Although it's a long drive for Front Range folks, the site and event sounds very appealing... (Dave L.)

This is the event with the MARS summer meeting.

>Dave,

>...Our strategies are to have primitive camping, plenty of space for that, on the RMSS size scale, and we are providing a >bunch of porta-potties, as well as talks, a single catered >meal is possible, and on the Mesa are some >campgrounds/fishing depending on a person's picking. Several members have camp trailers, myself included, and we will, set up a Gazebo, type deal for the programs. Mainly, it's >where the stars are! Our board meeting is a week from now >on the 15th and we will update the website then as well.

>Aaron

X-43A Scramjet Streaks Across Sky

By Leonard David

Senior Space Writer

posted: 09:40 pm ET

27 March 2004

UPDATE: Story first posted 5:37 p.m. EST, March 27, 2004

Aviation history was made today as NASA successfully flew its experimental X-43A research vehicle, a forerunner of craft that could well offer alternate access to space in the future.

Preliminary indications are that the craft appeared to meet a major milestone: propelling itself slightly over Mach 7, seven times the speed of sound, or some 5,000 miles per hour.

Coverage at Space.com:

http://www.space.com/missionlaunches/x43_launch_040327.html

Binoculars for Sale

11x80 binoculars in excellent condition, with caps and case.

\$145. Contact REScline@aol.com

URL for Clear Sky Clocks for Colorado

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

Best Looks

Moon	By Venus 4/22 By Mars 4/23 By Saturn 4/24 By Jupiter 4/2, 29, 30
Mercury	In West at dusk, first days of month
Venus	In West at sunset
Mars	In West after sunset
Jupiter	High in S near midnight
Saturn	High in WSW at dusk

Lyrid Meteor Maximum (weak) April 22, look predawn

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

TO:

International Space Station Passes for Loveland – Fort Collins

April 2003

Date	Mag	Starts Time	Alt	Az	Max Altitude Time	Alt	Az	Ends Time	Alt	Az
29 Feb	1.8	04:59:04	13	N	04:59:04	13	N	05:00:21	10	NNE
30 Mar	0.8	19:46:21	10	NW	19:49:01	26	NNE	19:49:28	25	NE
31 Mar	0.3	20:17:01	10	NW	20:19:18	46	NW	20:19:18	46	NW
01 Apr	0.4	19:12:26	10	NW	19:15:15	33	NNE	19:17:16	16	E
01 Apr	2.2	20:48:12	10	WNW	20:49:08	16	W	20:49:08	16	W
02 Apr-0.7		19:43:04	10	WNW	19:46:07	72	SW	19:47:06	38	SE
03 Apr	1.6	20:14:25	10	W	20:16:37	18	SW	20:16:58	18	SW
04 Apr	0.0	20:08:55	10	WNW	20:11:53	50	SW	20:14:50	10	SE
05 Apr	2.2	20:40:37	10	W	20:42:11	13	SW	20:43:46	10	SSW
22 Apr	1.8	05:15:29	10	S	05:17:30	17	SE	05:19:30	10	E
24 Apr	1.2	04:39:38	17	SSE	04:40:47	22	SE	04:43:10	10	E
25 Apr-0.8		05:07:56	19	SW	05:09:59	86	ESE	05:12:57	10	NE
26 Apr	1.0	04:04:20	27	ESE	04:04:20	27	ESE	04:06:29	10	ENE
26 Apr	0.6	05:36:40	10	W	05:39:18	29	NNW	05:42:01	10	NE
27 Apr-0.8		04:32:21	51	W	04:32:58	71	NNW	04:35:56	10	NE
28 Apr	2.0	03:28:30	18	ENE	03:28:30	18	ENE	03:29:29	10	ENE
28 Apr	1.0	05:00:15	13	WNW	05:02:16	25	NNW	05:04:48	10	NNE
29 Apr	0.3	03:56:17	44	NNE	03:56:17	44	NNE	03:58:39	10	NE
29 Apr	1.9	05:30:06	10	NW	05:31:44	14	NNW	05:33:22	10	NNE
30 Apr	1.3	04:23:58	18	NW	04:24:56	21	NNW	04:27:20	10	NNE
01 May	1.9	03:19:48	22	NNE	03:19:48	22	NNE	03:21:06	10	NE
01 May	2.1	04:52:54	10	NW	04:54:19	13	NNW	04:55:44	10	NNE