Meeting of the Eagle Valley Astronomical Society

When: Thursday, April 12, 2012, 7:30-9:00 PM Free and open to the public; no reservation required.

Where: Walking Mountains Science Center,

318 Walking Mountains Lane (off Buck Creek Road), Avon, Colorado

Note the new signs directing visitors to the Science Center.

Contact: Lara Carlson, Community Programs Director Walking Mountains Science Center, <u>970-827-9725</u>, ex. 129, or John W. Briggs, HUT Observatory, john.w.briggs@gmail.com, 970-328-6228 or cell 970-343-0618.

Meeting Topic:

Observing Mars by Eye, Telescope, and Spacecraft

Eagle Valley Astronomical Society will meet Thursday evening, April 12, starting at 7:30 PM at the Walking Mountains Science Center near the base of Bush Creek Road in Avon. Lisa Judd, Vice President of the Denver Astronomical Society, hosted by Walking Mountains staff naturalist Katie Eyles, will be the featured speaker. Mars is a timely topic because it has recently undergone "opposition." This is when it appears opposite to the Sun in the sky and is in fact closest to Earth in its orbit. As Ms. Judd will discuss, Mars is presently found in the southeastern evening sky in the constellation Leo. It appears to the eye as a bright, orange, star-like object. But a small telescope magnifying it only about 50 times will reveal it as a disk that is obviously different than the appearance of stars. Robotic spacecraft are currently revealing more detailed information about Mars than yesteryear's astronomers might ever have imagined possible.

Our featured guest this month is participating in a speaker exchange between Eagle Valley Astronomical Society and the Denver Astronomical Society. EVAS member John Briggs will be presenting "The Magnificent Yerkes Observatory of George Ellery Hale" at the May 4 monthly meeting of the DAS at University of Denver.

Recent Local Astronomy News

HUT Observatory near Eagle recently hosted a workshop involving teachers and astronomers from as far away as Massachusetts. Topics of interest included observing the rotational periods of asteroids, recording meteors by automatic video systems, and improving the robotic abilities of telescopes. Participants enjoyed a very interesting tour of DFM Engineering, the famous telescope-building firm in Longmont, and an open house at University of Denver's historic Chamberlin Observatory, where the century-old 20-inch refracting telescope showed what was, for many of us, the best view of Mars during its current apparition. Photos of Denver's impressive refractor and a 53-inch reflector under construction at DFM Engineering are shown below. The large reflector is one of several being built at DFM that will be housed at a mountain site of Mexican National Observatory on the Baja Peninsula. The project goal is to measure diameters of Kuiper Belt objects, distant asteroid-like bodies in our solar system.

Professor Robert Stencel, Director of Chamberlin Observatory, has suggested that a 12-inch reflecting telescope built by the late Edgar Everhart, his predecessor at Chamberlin Observatory, might be a resource in the Eagle area. Discussions are underway how this idea might best be implemented. Independently, a youth camp program in the Eagle Valley area is considering building a new local observatory using a telescope potentially now available in Texas. EVAS members are assisting during initial considerations.

Two families active with EVAS are now using loaner telescopes made available through the Society. Charles Overy and his son, Andrew, are running the club's Celestron 11 telescope, and they have implemented computer control using *Stellarium* software. Tim Hargreaves and his family are using "Big Red," the 13-inch Dobsonian reflector that was recently made available by Eagle Valley Middle School and refurbished by John Briggs. With cleaned mirror surfaces, new eyepieces, and a new finder, this telescope is now performing well. We hope to have additional telescopes in the loaner program before long.



Chamberlin Observatory, University of Denver. 20-inch refractor, moving to view Mars.



Frank Melsheimer demonstrates the motion of a large telescope at DFM Engineering.



A DFM staff optician polishes and shapes a large telescope mirror in Longmont, Colorado.

Notes from last month's meeting.

John Briggs spoke on the common use of robotics in astronomy today, demonstrating a computer-controlled 12-inch Meade telescope in the Walking Mountains classroom. Charles and Andrew Overy, meanwhile, set up the Society's Celestron 11-inch telescope outside and controlled it for our observing session using the free Stellarium software. First-time EVAS participants Mike King and "Cosmic Dave" Young introduced themselves, each of them already having been active promoting astronomy in the Eagle Valley area. Mr. King has an 8-inch Dobsonian telescope and Mr. Young has 18-inch and 25-inch portable reflectors - the 25-inch Dobsonian being the largest telescope we know of in the region. Mr. Young has also been active in color celestial photography with his 18-inch, which is equatorially mounted for tracking the sky during long exposures. Mr. Briggs showed images from his recent trip to Yerkes Observatory of the University of Chicago, where he is assisting in a mirror-recoating project for a 1-meter reflector housed there. Travel related to the Yerkes project will prohibit John from attending the April EVAS meeting, but he expects to return with additional interesting images. Local astronomy enthusiast Mr. Greg Caretto reports that he has recently acquired a 12-inch Dobsonian reflector, and he hopes to begin using it and to meet EVAS members as soon as possible. Staff at Keystone Science School run an observatory and are interested to meet Eagle Valley astronomers. Devil's Thumb Ranch, a resort in Tabernash, Colorado, is planning an expanded program of astronomy as an addition to its featured activities.

A Note on the Future.

Repeating from our previous announcements, we hope that additional astronomers in the Eagle Valley area and beyond will hear about our meetings and join us, normally on the second Thursday of every month at Walking Mountains Science Center in Avon, Colorado. Note that astronomy clubs like ours always welcome folks, young and old, who are experienced or just starting an interest. The purpose of our organization is to share and encourage interest! If you're already involved with astronomy, you can especially help. We look forward to having more telescopes set up at meetings, additional speakers, more loaner telescopes, weekend star parties, and field trips. One of many active clubs setting an excellent example here in Colorado is the Denver Astronomical Society. It meets regularly at the historic and magnificent Chamberlin Observatory of the University of Denver: http://www.denverastro.org/. Another organization of interest is the Front Range Astronomy Club, an email-based group that connects members of individual astronomical societies in the Colorado region.

Walking Mountains Science Center: http://www.walkingmountains.org/

Additional note: Mr. Briggs has had temporary trouble with an e-mail account, and he apologies. His account at john.w.briggs@gmail.com is an active alternative.

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