

OBSERVER

May “Flowers” From April Showers?



PK 164+31.1, a Planetary Nebula in Lynx

This large, dim planetary is about the same size as the bright portion of M 27, the Dumbbell nebula. Joe used an SBIG ST-2000XM CCD camera on his 18-inch f/4.5 Newtonian. He made 40/20/20/20 minute LRGB exposures in 5-minute increments on December 23, 2008.

Image copyright 2008 Joe Gafford

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1..... First quarter moon

8..... Full moon

17..... Last quarter moon

24..... New moon

30..... First quarter moon

MAY SKIES *by Dennis Cochran*

Remember we were looking at the Virgo Galaxy Cluster in the “cup” of Virgo last month? This month is still good for that essential observation. Get thee to a dark site to see it for one of the observation highlights of your life. Menzel and Pasachoff in the *Peterson Guide to the Stars and Planets*, 2nd Ed., have a special cluster map on p. 260, with the surrounding cup area shown on p. 258. Of course you have to enter the cluster if you do a Messier Marathon since M84, 86 & 87 are at its center.

Also in that area, according to the May *S&T*, the asteroid Irene cruises by the tau star of Virgo near that constellation’s left end on May 4 and crosses the path of her sister Flora on June 6; the problem is that Flora won’t be there. She will have moved over to the right of the nearby squiggle (zeta) star of Virgo by then, which is a bright star above and slightly left of Spica,

almost halfway up to Arcturus. Follow their paths in *S&T*. By the way, if you cruise left of tau almost to the star 109 at the extreme left end of Virgo you’ll encounter the edge-on spiral galaxy NGC5746 (*S&T* p. 52.) Also in that *S&T* on p. 58 is an article by our Dr. Bob Stencel on the enigmatic Epsilon Aurigae, an object that you as an amateur might observe in the scientific mode.

Another event involving small solar-system objects is the Eta Aquarid meteor shower in the wee hours of May 6. This shower is a big event in the southern hemisphere, and comes from the leftover bits of Comet Halley.

Continued on Page 3

PRESIDENT'S CORNER

I want to open the May issue of the *Observer* by welcoming our newest members (See Page 5).

Over 60 Denver Astronomical Society (DAS) members and guests attended the General meeting April 10 to hear member Dr. Philip Good speak on the Mars Reconnaissance Orbiter's photograph of the Mars Phoenix Lander as it was soft landing on Mars last year. The MRO's photograph of the Phoenix Lander during its parachute descent is the only instance of one spacecraft photographing another from orbit around a distant planet. Following the General meeting, members and guests adjourned to the University of Denver's Chamberlin Observatory for the social gathering and viewing through the Clark 20-inch telescope. The seeing was good with little atmospheric distortion. It was a good night to view Saturn's rings and temperate zones, since the rings are at their most open point this month before moving edgewise in September.

When it comes to finances, we on the Executive Board consider ourselves stewards of your membership dues. One way to more efficiently manage the DAS budget is to cut expenses where possible. For example, if you receive the hardcopy of the *Observer* and would be just as happy receiving it online, please let us know.

You may recall that the DAS co-sponsored two International Year of Astronomy events in early April. The April 2 and April 4 events were not as well attended as we would have liked, mostly due to the lack of promised advertising, which did not materialize. Paid advertising is something that we in the DAS may have to consider if our special events are to reach the number of visitors who attend our regular monthly Open Houses. Free advertising is hard to find. If you have contacts in the media or know of some source we could use for DAS to deliver its message of outreach, please let me know.

This month marks 13 years since the Executive Board of the Society created the Public Outreach Committee. While public outreach has been



DAS President

Ron Mickle in the Meyer-Womble Observatory atop Mt. Evans.

Photo by Joanie Mickle

the cornerstone of the Denver Astronomical Society since its founding in 1949, public outreach wasn't officially appointed its committee status until May 1996. To all members who conduct the outreach activities for DAS, thanks for a job well done!

Colorado Astronomy Day is scheduled for October 24, coinciding with National Astronomy Day. Our members will be posted at the Denver Museum of Nature and Science to provide solar viewing and presentations during the day, and at DU's Chamberlin Observatory in the evening for viewing through the large telescope and member scopes. If you would like to volunteer, please contact DAS Vice President Keith Pool. More information can be found on the DAS webpage at <http://www.DenverAstro.org>.

And last, but certainly not least, I would like to thank our Editor, Patti Kurtz, for the continued quality work she does. Patti, we are very fortunate to have you.— *Ronald E. Mickle*



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The Executive Board conducts the business of the DAS at 7:30 p.m. at Chamberlin Observatory. Please see the Schedule of Events for meeting dates. All members are welcome.

www.denverastro.org

MAY'S GENERAL MEETING

GUEST SPEAKER:
KEITH GLEASON

by Keith Pool

Mr. Keith Gleason will speak at May's General Meeting on May 8. His lecture is titled: *One Mile Nearer the Heavens, A Brief History of Astronomy in Colorado.*

Mr. Gleason received his BS Degree in Physics from Oklahoma State University, and an MS degree in Astro-Geophysics from C.U. After working as an engineer in surface analysis spectroscopy and infrared and optics, He returned to the Sommers-Bausch Observatory at the University of Colorado, of which he has been the manager for the past 25 years. All of his spare time (and then some) is spent as the "hired hand" helping his wife, Joanna, tend to her flock of 100 sheep on their small ranch in the foothills above Lyons.

As always, the general meeting starts at 7:30 P.M. and is held in room 105 at Olin Hall on the D.U. Campus. Immediately following the general meeting, we will adjourn to nearby Chamberlin Observatory where there will be coffee, refreshments, conversation, and, weather permitting, some nice viewing through the 20-inch telescope.

MAY SKIES (CONTINUED FROM PAGE 1)

Last month we also mentioned Corvus, the four-sided constellation below the cup of Virgo, and the Sombrero Galaxy M104, 1/3 of the way up from Corvus to the bottom star (λ) of Virgo's cup. You might also want to try the famous Antenna Galaxies which have provided increasingly spectacular photos from the newest telescopes. If you look at Corvus' tilted top, follow it down to the right and continue off into space the same distance again. Just below and right of the Antennae are another two interacting galaxies NGC4027/27A. Thank you, Sue French.

The Big Dipper of Ursa Major is right near the zenith this month, making it the best and worst time to see its galaxies. If you can maneuver your scope or binocs into that darkest part of the sky you can find my favorite M51, The Whirlpool Galaxy just toward the zenith from the end of the handle. With my old 16" dob I could see its spiral arms. It actually is over in that chunk of sky belonging to the little Hevelian constellation Canes Venatici, two hunting dogs of Boötes, whose alpha star is on the zenith. Its beta star to the northwest marks a small group of galaxies, the one farthest back towards alpha being M94. Halfway between alpha CV at the zenith and Arcturus is the big globular cluster

M3, one of the gems of the Spring sky. Back at the Big Dipper we look away from the zenith at M81 & 82, usually located by continuing the cross-dipper diagonal from gamma to alpha beyond alpha a similar distance. M82 is a starburst galaxy and 81 is the prototypical Grand Design spiral. Still in the dipper, the beta and gamma stars form the bottom of the ladle. Beta is below alpha; towards gamma from there you can find M108 & 97, a, edge-on spiral and The Owl planetary nebula, respectively.

Jupiter rises in the morning but Saturn is up by nightfall, still below Leo. The rings will tilt four degrees. Here on Earth the DAS Open House, starring the same ringed planet, is on Saturday the 2nd, while the General Meeting at Olin Hall is the following Friday the 8th. RTMC is Memorial Day weekend. So keep looking up: you might trip over your tripod!

**PELICAN OR PTERODACTYL?**

As summer approaches, so, too, do the star clouds of the Milky Way's disc. Tucked within the tail of Cygnus the Swan lies the Pelican-North America nebular complex (above right), an active HII emission region where young energetic stars are slowly transforming cold gas to hot. In the Pelican Nebula (IC 5070 and 5067, pictured here), dense filaments of these frigid gas pillars are visible at the back of the bird's head.

Photo by Steve Solon

2009 MARATHON YIELDS SOME GREAT RESULTS

by Darrell Dodge



Seven Sisters (M45, the Pleiades)

The Pleiades sparkled beautifully for the few DAS Marathoners until the clouds moved in.

Photo by Joe Gafford

CHANGES TO 2009 RMSS

by Keith Pool

With summer being just short months away, it's time to start thinking about those upcoming summer star parties. The first large local summer star party is, of course, Rocky Mountain Star Stare (RMSS). I have been in touch with a few of the Colorado Springs members, and they are excited about the changes which are coming this year.

For those of you who may not know it, they have purchased a 35 acre tract of land about five miles north of Gardner Colorado. The benefits for those of us who attend will be darker skies and improved observing conditions, along with no Forest Service interference. The parcel they have found sits about five miles north of Gardner, which lies about halfway between Walsenburg and Westcliffe on US Highway 69. It sits at the southern end of the Wet Mountain valley, about 150 miles from where I live in Castle Rock. 12,347-foot Greenhorn Mountain lies to the east of the property, and should block any light dome that may be coming from Pueblo, Colorado Springs, or Denver, which is even more distant than it has been in the past.

For the adventurous types, daytime activities may include trips into Walsenburg and Westcliffe, where groceries and other

Glenn Frank, Pat Gaines, Bob MacArthur and I met at the Edmund G. Kline Dark Site for the 2009 DAS Messier Marathon on Saturday evening March 28th. The attendance was down because of the Chamberlin Open House and the snow storm a few days before, raising fears of snow drifts and mud. However, there were nine clear pads and three more that would have qualified users for the joint Messier Marathon and Figure Skating certificate. Sparse clouds disappeared by dark and stayed away until 3 A.M. or so, when a bank of haze began encroaching from the SW. The stiff 15-20 mpg winds made it seem colder than the 28° F reading I was getting most of the night, but observing conditions were fine.

Though seeing was not exceptional, the larger galaxies and nebulae were wonderful—very 3-dimensional—especially at the Zenith. As the Coma cluster was up there during prime viewing hours, the views of NGC 4565 and others were excellent. As for the Marathon, early evening objects like M74, M33 and even M77 and M110 were especially tough because of the Denver nebula, the moon, and lingering clouds hanging over the Continental Divide. The larger Virgo Messiers were excellent, but some of the bigger globulars (e.g. M5 and M15) also seemed especially well detailed.

“forgotten” items may be purchased. There are also some pretty decent restaurants in the nearby area. The Great Sand Dunes National Monument is also fairly close by. For those of you who may like to hike or mountain climb, nearby Blanca Peak, at 14,345 feet is the 4th highest in the state and the 7th highest in the contiguous United States, although it's a fairly long, strenuous climb.

If fishing is your thing, there are many nearby waters to “try your luck” in, and depending on which direction you drive, you have your choice of cold or warm waters.

All of these things—plus the chance to get out and observe with some old friends—many of whom we may not have seen since last summer at a site which should be truly dark, should all add up for a truly memorable weekend. I want to note, however, that attendance will be limited to the first 300 registrants, so to avoid any hassles or disappointments, you may want to register early and not show up at the “door” only to be turned away. Registration is now open and you can register on their web site at <http://www.rmss.org>.

Hope to see you all there!

There was quite a bit of nebulosity all through the Pleiades in my 11-inch SCT and Bob's 10-inch Dob.

We worked through the night pretty steadily, taking breaks in the warming hut every hour or so to drain the coffee pot. The transparency held until about 3 A.M. when it started to get a little hazy and the previously mentioned cloud bank began marching up from the SW. I caught 100 Messiers and Glenn 71, which earned him a DAS Messier Marathon certificate. Bob, who was still star-hopping when I left at 3:30 am, was hoping for 108 Messiers. Pat was imaging for awhile and then did some general looking, including the Omega cluster and the peculiar galaxy Centaurus A, which are just skimming the southern horizon at Marathon time.

Interesting enough, a "Globe at Night" survey of stars in the constellation Orion resulted in a shockingly low magnitude number (at least for my 62-year old eyes) of 4.5. By the time evening twilight was over, Orion was close enough to the glow between Colorado Springs and Denver that

Welcome to These New DAS Members in 2009:

<p style="text-align: center;">Avi Benitah Douglas G. Benton Peter Brayton Courtney D. Britton Calvin Croy Randy Dirks Alan Falenski Alan Hausdens Michael Higgins Scott M. Holloway Stanley Jarrett Anthony Kramer</p>	<p style="text-align: center;">Richard Krening Thomas MacLaughlin Kenneth D. Mahrer Ph.D. Jerry Marko Phyllis Morales Bert Paredes Sam & Nita Reske Tory Walker Justin Westfield Sarah Amalie Wilson Bill Young</p>
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many of the dimmer stars on the Globe at Night charts were totally washed out.

Let's hope for a return of the ideal 2007 marathon conditions in 2010.



A Marathon Night

Observing stations of Glenn Frank, Bob MacArthur, and Darrell Dodge silhouetted against the western sky as darkness fell on the 2009 Messier Marathon.

Photo courtesy Darrell Dodge

MONITORING PROGRESS AT CHAMBERLIN

by Steve Solon

If you've not had the opportunity to visit Chamberlin Observatory in the last eight months or so, a trip should definitely be placed on your agenda. The changes, restorations and upgrades are something to be seen. The famed observatory is no longer drab and faded, but vibrant with colors that are close to original tones, hues that existed, but were never seen in old photographs. Most of the flooring on the main level has been refinished and the old parochial-school fluorescent light fixtures have been sent to the dustbin in favor of period—but green—conscious luminaire. In addition, fire and security systems are now state-of-the-art and from the newly refurbished picture rails around the ceiling of the first floor hang eye-catching imagery and educational materials.

On the room renovation front, Dr. Stencel's beautiful new office on the first floor replaces the cluttered room that once served as the DAS's Executive Board meeting area. Upstairs, the old Director's Ready Room is now the DAS management suite, complete with new furniture and a healthy amount of much-used office equipment.

In keeping with the DAS' commitment to the public, and in harmony with presentations at the telescope, the Executive Board and Dr. Stencel recently approved the purchase and installation of two 24" flat panel monitors in the dome room. These will serve to display relevant astronomical programming, including current sky



The two 24-inch monitors, power and data lines are suspended by cables from the dome sill retainers.

Image courtesy Steve Solon

shows with video and presentations on special celestial events. The monitors will be used during both Public Night and Open House functions to enhance the public's experience in astronomy at Chamberlin.

ABOUT THE DAS

Membership in the Denver Astronomical Society is open to anyone wishing to join. The DAS provides trained volunteers who host educational and public outreach events at the **University of Denver's Historic Chamberlin Observatory**, which the DAS helped place on the National Register of Historic Places. First light at Chamberlin in 1894 was a public night of viewing, a tradition the DAS



has helped maintain since its founding in 1952.

The DAS is a long-time member in good standing of the **Astronomical League** and the **International Dark Sky Association**. The DAS' mission is to provide its members a forum for increasing and sharing their knowledge of astronomy, to promote astronomical education to the public, and to preserve Historic Chamberlin Observatory and its telescope in cooperation with the University of Denver.

The DAS is 501 (c)(3) tax-exempt corporation and has established three tax-deductible funds: the Van Nattan-Hansen Scholarship Fund, the Public Outreach Fund and the Edmund G. Kline Dark Site Fund. To contribute, please see the bottom of the membership form for details (found on the DAS website: thedas.org).

More information about the DAS, its activities and the special tax-deductible funds is available on the DAS website at www.denverastro.org.



Observatory Manager Aaron Reid and former DAS President Wayne Green work to level the new monitor by the Equipment Room door.

Image courtesy Steve Solon

Installation of the monitors took place on Sunday, April 12, while the first official rain of this spring fell outside. With the recent appearance improvements in the dome room, and not wishing to compromise the wall structure, it was decided the bracketed monitors would be suspended by cabling from the dome sill retainers. Data and power lines were tied to the support cables and run along the sill to the Equipment Room door, then taken inside to a cabinet housing a laptop computer, video splitter and surge protector.

The monitors represent the beginning of what will, hopefully, be several technical upgrades to the observatory, all designed to serve a computer-savvy public with enriching astronomical programming. The past, present and future of astronomy are slowly coming together to exist symbiotically in one of the most beautiful historic observatories in the country—a very exciting time.

Many thanks to the Executive Board, Dr. Bob, Aaron Reid and Wayne Green for their support and gymnastic help in making this improvement a reality.

REMEMBERING SOMEONE SPECIAL

I met Libby Everhart after her husband, Dr. Everhart, passed away . . . For several years in the 1990s she invited members of the DAS up to her house on Dick Mountain outside of Bailey. The house was located at higher than 9000 ft. elevation and up a pretty steep driveway. I was always impressed that she chose to continue to live up there and deal with the weather and altitude—shows how tough and individualistic she was.

We would go up there and set up some our own scopes or we observed with Dr. Everhart's telescope. He had an observing tower on the property in addition to his observatory with a 16-inch reflector. Going up the shaky tower in the dark was always a test of nerve for me, but the views were fabulous from up there. When we got cold,

Mrs. Everhart had us in for hot chocolate or coffee and we enjoyed sitting in her kitchen talking about all the objects viewed or stories of Dr. Everhart's observing up there. She was always a warm and generous host.

Here in Evergreen I would run into her occasionally when she volunteered for the Mt. Evans Hospice and would be at a local art fair or event selling calendars or just telling people about the Mt. Evans Hospice. My impression was that she was very dedicated that organization and gave many hours to helping people there.—Ron Pearson

Libby passed on last month, following her husband, and made several donations to the DAS.

SURPRISE!



Well, I only have two children (both of whom you old-timers watched growing up in the star-party fields), so, no more wedding announcements from me: My youngest, Nick, surprised my family by giving three weeks notice for his impending nuptials to the love of his life, Amanda Diaz. No, no baby on the way as they have their hands full—as Nick noted on a recent entry to his Facebook page, they are “raising two Viking children who pillage and plunder and leave nothing but ashes and chewed bones in their wake.” Thank you, DAS, for letting me share (maybe the *Observer* should have a regular page dedicated to such events).—Patti Kurtz, Editor.



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DAS SCHEDULE

MAY

- 2 Open House at Chamberlin Observa-
tory (Begins at 8:30 P.M.)
- 8 General Meeting at D.U.'s Olin Hall
(Begins at 7:30 P.M.)
- 15 E-Board meeting at Chamberlin Ob-
servatory (Begins at 7:30 P.M.)
- 22-24 EGK Dark Sky weekend
- 22-24 RTMC
- 30 Open House at Chamberlin Obser-
vatory (Begins at 8:30 P.M.)

JUNE

- 5 General Meeting at D.U.'s Olin Hall
(Begins at 7:30 P.M.)
- 12 E-Board meeting at Chamberlin Ob-
servatory (Begins at 7:30 P.M.)
- 19-21 EGK Dark Sky weekend
- 19-21 RMSS (See Page 4).
- 27 Open House at Chamberlin Observa-
tory (Begins at 8:30 P.M.)

Public nights are held at Chamberlin Observatory every Tuesday and Thursday evenings

beginning at the following times:

March 9 - April 14 at 8:00 p.m.

April 15 - September 1 at 8:30 p.m.

September 2 - March 8 at 7:00 p.m.

Costs to non-members are: \$3.00 adults, \$2.00 children.

Please make reservations via our website (www.denverastro.org) or call (303) 871-5172.



The Denver Astronomical Society
C/O Chamberlin Observatory
2930 E. Warren Ave.
Denver, Colorado 80210

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