

The Denver

# OBSERVER

Newsletter of the Denver Astronomical Society  
*One Mile Nearer the Stars*

Image copyright 2007 Philip Good

## Great Balls of Fire!

Comprised of several hundred thousand stars, M13 (NGC 6205) in Hercules is the brightest globular cluster we can see from the northern hemisphere. Philip used his SBIG ST2000XM camera through a Stellaravue SV90T APO at f/5.6. Exposures were one hour each of RGB in 10-minute subframes.

# SPECTACULAR SUMMER!

## JULY SKIES

Inside The Observer

Saturn and Venus are close together on June 30/July 1, low in the evening western sky as reported last month. By the 16th of July, look for a very slim crescent moon (two days past new) to occupy the growing

space between these planets, just as it did last month. All three reside in Leo, where you might be able, for one last time this year, to find the galaxy trio M65, M66 and NGC 3628 below and at the front of the tail triangle.

those marvelous summer gaseous nebulae, M8 (the Lagoon), the smaller M20 (Trifid), and bit farther up and to the left of the pair, M17 (the Omega) and M16 (the Eagle), which contains the dramatic "Pillars of Creation" from the famous Hubble image. While you're up there, wander northeast across Scutum toward bright Altair to find the big open cluster M11. Head back to the Teapot to find the beautiful globular cluster M22 just to the left of the top star of the lid. All of these riches swim among the luminous lanes of the Milky Way, our home galaxy. From its densest part around Sagittarius, whose clouds hide the center of the galaxy, the Milky Way extends northeast thru Aquila, Cygnus and on to Cassiopeia.

Jupiter has come along to replace Saturn as the biggie of the season. Unfortunately, it never gets higher than 30 degrees in the southern sky, where it lies roughly four degrees above Antares, the giant red star in Scorpius. Sliding your eye and telescope east along the ecliptic drops you right into the steam coming from the spout of the teapot shape of Sagittarius, where we find

The heart of the soon-to-be-gone Virgo

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7	.....	Last quarter moon
14	.....	New moon
22	.....	First quarter moon
30	.....	Full moon

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# President's Corner

The importance of observational astronomy and having dedicated time and places to share those observations is key to any amateur astronomy club. At the suggestion of several members, I am proposing we add a new meeting to the calendar. These are specifically for Observational Astronomy Workshops. The workshop is to address needs of our members and others who are new to and not very experienced with observational astronomy. Workshops are about learning and sharing—a tradition among amateur astronomers.

We have the use of Chamberlin Observatory for our Open Houses, and that time is the perfect time to host these community astronomy workshops. The workshops can also provide a re-starting point for family-based aspects of astronomy. Let's get back to the roots of observing photons, and sharing our techniques and personal experiences with the astronomical sky.

The latest news about Chamberlin and the grant is pretty much the same old news. DU is working to finalize the plan, get the contracts lined up and hopes to start work on the building in the August timeframe.

This is a good time, as the climate is drier during that time anyway.

The Board has determined that we have the same meeting over and over. To this end we may cancel every other



Wayne Green, President of the Denver Astronomical Society.

board meeting until times when the DAS has active projects that require closer attention to detail. This means the board members will be free to take advantage of the third quarter moon weekend to get some observing in! You are always welcome to send any concerns and comments to the DAS board. This board is active with many club activities, and we talk frequently about many things. Feel free to chime in at anytime.

The Astronomical League meeting is August 2-4 this year in Portland, Oregon. I will be attending as the MARS regional representative and will be getting MARS people together in July. If you have any MARS related



## JULY

- 6 General Membership Meeting at D.U.'s Olin Hall (*Begins at 7:30 P.M.*)
- 21 DAS Annual Picnic/Potluck (*Begins at 3:00 P.M.*) and Open House at Chamberlin Observatory (*Begins at 7:30 P.M.*)
- 27 E-Board meeting at Chamberlin Observatory (*Begins at 7:30 P.M.*)

## AUGUST

- 3 General Membership Meeting at D.U.'s Olin Hall (*Begins at 7:30 P.M.*)
- 9-11 WUTS: Fox Park, WY.
- 11-12 EGK Dark Site Weekend
- 18 Open House at Chamberlin Observatory (*Begins at 7:30 P.M.*)
- 24 E-Board meeting at Chamberlin Observatory (*Begins at 7:30 P.M.*)

*Public nights are held 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. at Chamberlin Observatory  
 Costs to non-members are: \$3.00 adults, \$2.00 children.  
 Please call (303) 871-5172 for reservations.

## Society Directory

- President:**  
 Wayne Green (303) 530-1023  
 Email: [wgreen@infosavvy.org](mailto:wgreen@infosavvy.org)
- Vice President:**  
 Keith Pool (303) 718-7273  
 Email: [stargeezer9@msn.com](mailto:stargeezer9@msn.com)
- Secretary:**  
 Darrell Dodge (303) 932-1309  
 Email: [dmdodge@aol.com](mailto:dmdodge@aol.com)
- Treasurer:**  
 Brad Gilman (720) 488-1028  
 Email: [treasurer@thedas.org](mailto:treasurer@thedas.org)

## Executive Board Members

- |                                  |                 |
|----------------------------------|-----------------|
| Jack Eastman                     | Ron Pearson     |
| Joe Gafford                      | David Shouldice |
| Frank Mancini                    | Bryan Wilburn   |
| Ron Mickle                       | Dan Wray        |
| Steve Solon, Past President      |                 |
| President Emeritus, Larry Brooks |                 |

## Committees

- Van Nattan Scholarship Fund**  
 P.O. Box 150743  
 Lakewood, Colorado 80215-0743
- EGK Dark Site Committee:**  
 Wayne Kaaz (Chair) (303) 840-1549  
 Email: [kaazmos@msn.com](mailto:kaazmos@msn.com)
- IDA Representative:**  
 Dr. Robert Stencel
- Public Outreach Committee:**  
 Ron Mickle (Chair)  
 Bryan Wilburn (External Outreach Coordinator)  
 Email: [bwilburn@4du.net](mailto:bwilburn@4du.net) (303) 542-5137
- Student Astronomy Committee:**  
 Naomi Pequette (Chair)

## Volunteers or Appointed Representatives

- ALCor:**  
 Jerry Sherlin (303) 680-6894  
 Email: [sherlinj@msn.com](mailto:sherlinj@msn.com)
- IDA Representative: (International Dark Sky Association):**  
 Dr. Robert Stencel
- Newsletter:**  
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**The Observer is available in color PDF format from the DAS website.**
- Website:**  
 Darrell Dodge  
**DAS Information Line:**  
 (303) 871-5172  
**DAS Correspondence:**  
 Denver Astronomical Society  
 Chamberlin Observatory C/O Wayne Green  
 2930 East Warren Avenue  
 Denver, Colorado 80210

*The Executive Board conducts the business of the DAS at 8 P.M. at Chamberlin Observatory. Please see the Schedule of Events for meeting dates. All members are welcome.*

thedas.org

# Spotlight on the July 6 General Meeting

## Guest Speaker

by Keith Pool

For those of you who were unable to attend the June general meeting, July's guest speaker promises to be equally informative and educational. Maxwell C. Moe will give a talk on the "Origins, Evolution and Morphologies of Planetary Nebulae."

Max is currently a student of Dr. Nahum Arev at the University of Colorado where he is a senior astrophysics major studying quasar outflows. Max and his collaborators are working on a hypothesis that states that it takes a binary star's interaction to eject the gas envelope necessary to form a planetary nebula (PN). Current observational estimates support Max's theories, for without a binary's interaction, there should be six times more planetary nebulae visible in the sky. Therefore, our own sun will never be a candidate for planetary nebula formation. Max will show beautiful color images of PN that point to binary interactions as the main shaping mecha-

nisms that produce the variety of morphologies of planetary nebulae which support his theory.

In addition to being a student of astronomy, Max is an avid amateur as well. He was the vice-president of NCAS in Ft. Collins a few years ago, and when he is not engaged in research using the Sommers Bausch Observatory's 24-inch scope, the 3.5-meter telescope at Apache Point, N.M., or the 4- to 8-meter class instruments in Chile, he observes using his own 12-inch reflector. Max has promised (in addition to his lecture) to share with us some secrets he uses to get the most out of observing planetary nebulae—such as how to see that elusive central star in M57 with an aperture as small as 12 inches. He claims it has nothing at all to do with sky brightness or which filter to use. Speaking of filters, he is also going to talk about which filters he prefers to use to observe PN (and not necessarily OIII).

Max has been an astronomy enthusiast since junior high school when he first pointed his 8-inch telescope at the Ring Nebula. At age 16, he became the youngest member of the Astronomical League to observe and sketch the Herschel 400 and he received first place in the AL's National Young Astronomer Awards in 2003. When he is not engaged in astronomical ventures or buried under tons of homework, Max enjoys hiking the Boulder Flatirons and bicycling along Boulder Creek.

DAS general meetings are held in room 105 at Olin Hall on the DU campus and begin at 7:30 P.M. They are open to the general public and particularly those who have an interest in learning more about the DAS. Immediately following the general meeting we adjourn to nearby Chamberlin Observatory for post meeting refreshments and conversation and perhaps, a glimpse of Jupiter through the 20-inch refractor, weather permitting.

### President's Corner (continued)

issues please let myself or our ALCON, Jerry Sherlin know.

The annual picnic/potluck is Saturday, July 21, and will follow the usual format. The DAS will provide hamburgers, brats, buns and drinks. Everyone else is encouraged to whip up those special dishes. Bryan Wilburn is the Picnic Chair this year, and can be reached at 720-219-0214. We always need volunteers, so chime right in. Check out the page at [TheDAS.org/Picnic.html](http://TheDAS.org/Picnic.html) for details and news.

We need a team of librarians! We have been receiving new material that needs to be cata-

logued. Please contact me or Brad Gilman about taking on this task. The current library is well established, but we need to have a Library Organizational Party to get the new materials cataloged and made available.

Dr. Stencel has rescued many old and valuable books from the DU library that were earmarked for off-site storage. That means recycling. He noticed a large stack of books while visiting the Penrose Library, and by acting quickly was able to convince the Library people to put these books in a safe and locked set of book cases at Chamberlin. There are first edi-

tions of many older catalogs, and one book that I noticed dated back to 1840! Thanks to Dr. Bob for a fast save.

'Tis the season to get out get your eyes full of astronomical photons. Beware, of the pesky mosquito, as West Nile Virus is still an issue in Colorado. Bring your reports to the new Observational Astronomy Workshops at Open House night. The official time is one hour prior to the starting time published for each Open House event.—Wayne Green

### July Skies (continued)

Continued from page 1

Cluster lies half way between Denebola, the tail star of Leo, and Epsilon Virginis. Besides the large elliptical galaxies M84, M86 (seen in the same field) and M87, a bit to the east, the region includes Messiers 49, 58, 60, 61, 88, 89, 90, 98, 100 and a zillion NGC galaxies.

M13, the major globular of the northern sky with 500,000 stars, is found along the western

edge of the keystone (or Chinese take-out box) at the center of Hercules, in the region west of bright blue Vega.

The new "kid on the block," comet LINEAR (C/2006 VZ13), zooms southwesterly through Bootes, the skinny kite shape anchored by Arcturus, toward month's end (check July *Astronomy* magazine, page 50.)

Next month we're treated to the Perseid meteor shower peaking on the 12th, the night of the new moon!—Dennis Cochran

updates

## About the Denver Astronomical Society

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 a 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.

More information about the DAS, its activities, and the special tax-deductible funds is available on the DAS web site at [www.thedas.org](http://www.thedas.org).



APPLICATION FOR MEMBERSHIP TO THE DENVER ASTRONOMICAL SOCIETY	
New	<input type="checkbox"/>
Renewal	<input type="checkbox"/>
Name: _____	
Address: _____	
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E-mail Address: _____	
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Regular Membership: \$35	Students: \$12 ( <i>Students under age 23</i> )
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Astronomy Magazine/\$34	
Sky & Telescope Magazine/\$32.95	
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Van Nattan Scholarship Fund	..... \$
Public Outreach Fund	..... \$
Total Amount Paid	..... \$
<i>Please make donations to the Dark Sky Site Fund payable to the DAS EGKDS Fund and mail to Steve Solon, 9774 W. Elmhurst Place, Littleton, CO 80128-5199. Please make other amounts payable to the Denver Astronomical Society and mail along with this completed form to Wayne Kaaz, 11149 Dartmoor Ct., Parker, CO 80138.</i>	



## Denver Astronomical Society

c/o Chamberlin Observatory  
2930 East Warren Avenue  
Denver, Colorado 80210

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