

OBSERVER

Summer Nebulae Abound



The Cocoon Nebula (IC5146) and its associated dark nebula Barnard 168

Located in the constellation Cygnus about 4,000 light-years away, the Cocoon Nebula is believed to represent three types of nebulosity: emission, reflection, and absorption. Philip took this image from Thunder Ridge in South Park, CO. on July 10-11, 2008. He used an SBIG ST-10XME CCD camera with a Stellarvue SV90T refractor on an Astro Physics Mach1 GTO mount. Exposure time totaled four hours in LRGB.

Image copyright 2008 Philip Good

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SEPTEMBER SKIES

This month some of us will be back from a vacation in which we got closer to the stars by taking ski lifts up to dizzying heights in the Alps. Although this lifting happened during the day, so no stars, but you can see the flying saucers better from up there. “Look, everybody! Blinking lights, windows, green men. . . no? Nobody else saw it? Oh. . . never mind. No, I’m feeling quite well, thank you. But I will have another glass of wine.”

Behind the dense traffic of flying saucers (or in Denver, clouds), one can find Lyra and Cygnus these evenings, captained by two of the three stars of the Summer Triangle, Vega and Deneb. The small constellation Lyra harbors the Ring and the Double Double, while Cygnus has Albireo and the Veil and wide-field

camera objects like the Pelican and North American nebulae. The Double Double is the epsilon star of Lyra, to the left, east of bright Vega. It is a widely-spaced pair. At a magnification high enough that this pair are on opposite sides of the visual field, each of these stars can be separated into a close pair. If you can’t split these, ask someone with a bigger or higher-end scope, presumably with better optics, to show you.

You will remember that M57 the Ring Nebula is an exploded star positioned between the two bottom stars of the Lyra parallelogram. If you note the distance between those two stars and

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PRESIDENT'S CORNER

The day of the picnic was very busy, with the telescope operator's recertification class, the picnic in the afternoon and the evening filled with around 200 guests for the Open House. After the picnic a few of us MARS (our AL Region) people travelled to Des Moines, IA for the National Astronomical League (AL) and Association of Lunar and Planetary Observers (ALPO) co-convention. My apologies for the late arrival of the pre-picnic Newsletter.

Estes Valley Astronomical Society has raised their hand to bring the Astronomical League 2010 Convention to Estes Park. As the MARS Chair, I was tapped to pitch Estes Valley's proposal to the AL Executive Council. The proposal was well received. I was pleasantly surprised by people coming to me to encourage Estes Valley to host the convention once again in Colorado. They are working the details now. The League still holds the convention DAS hosted in 1998 as a gold standard!

There is a lot of work in putting a convention together, but the city of Estes Park has a person dedicated to helping with these events so the burden for 2010 is not as high as with past conventions. This year's convention was attended by roughly 160 people, many of them ALPO members. I had the privilege of meeting and spending a few moments with Walter Haas. Dr Haas founded ALPO in 1947 and is currently the emeritus director of ALPO. ALPO



has indicated a willingness to join with the MARS region for 2010. One very interesting session at the Convention this year dealt with the status quo of amateur



Where's Waldo?

Can you find your president?

Photo courtesy ALCON 2008 Convention

astronomy clubs. DAS is one of the best clubs out there! We were the only club at the meeting that could report a modicum of growth last year. I believe growth is more about supporting our members' various interest in amateur observing and astronomy and not about being a big club per-se. I came away with a strong belief that our DAS Ambassadors and Mentors are really helping people join and enjoy the club. If you would like to take on the unofficial role of Ambassador or volunteer to work with a new member as a DAS mentor see anyone on the executive board. If you are looking for a DAS mentor see me.

The Open House on August 9th and the General Meeting on August 15th focused on our student members. Naomi Pequette coordinated the event at the Open House. We held a get-together with our students to explore how DAS can help with their plans for this next academic year. At the General Meeting we presented the Van Nattan-Hansen scholarship awards. I accepted the Jack Horkheimer award for national service for Neil Pearson at the Astronomical League Convention this year and Darrell Dodge presented this

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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.



Colorado Astronomy Day 2007

Astronomy Day is a day of fun for club members and visitors alike.

Image copyright 2007 Ron Pearson

COLORADO ASTRONOMY DAY 2008

Colorado Astronomy Day will be October 4 this year with festivities at the Denver Museum of Nature and Science, the Historic Chamberlin Observatory of the University of Denver, the Grange at Castle Rock, and other sites around the state. Rodney Pinkney is spearheading DAS's Colorado Astronomy Day festivities. Remember, the International Year of the Telescope and the International Year of Astronomy is just around the corner — making Colorado Astronomy Day the perfect time to start our projects!

We always have great fun at the DMNS, where we bring our telescopes to show the Sun and other daytime planets, work with the public to raise their awareness of amateur astronomy in general and light pollution in particular. We will co-host speakers at the Museum and shift to Chamberlin for an Open House event in the evening.

This is a fun day for club members, chime in and enjoy yourselves!—*Wayne Green*

PRESIDENT'S CORNER (CONTINUED)

award directly to him on behalf of Mr. Horkheimer at the general meeting.

We have Colorado Astronomy Day coming up. Rodney Pinkney is this year's coordinator! We're looking for the usual events at the Denver Museum of Nature & Science and might just consider doing a little sidewalk astronomy around town. If you know of some great spots for a few DAS'ers to set up solar scopes let Rodney know.—*Wayne Green*

SEPTEMBER SKIES (CONTINUED FROM PAGE 1)



then continue down that line to the left about twice that distance, you'll find the concentrated cluster M56. Next, in the same direction slide down almost as far again to come to Albireo, the beautiful two-color double star in the head of Cygnus. Now slide some more, about the M57-Albireo distance to find M27 the Dumbell Planetary Nebula, the other exploded star that's easy to see. Then go back to Albireo. Follow the neck and

body of the swan to the left all the way to Deneb at the tail of the swan (and top of the Northern Cross). Now note the distance from the middle or crossing star of Cygnus, Lambda, to Deneb. Search that distance to the northeast beyond Deneb and go down a ways to find M39, a low-power or binocular cluster. Just southeast of Deneb are the North American and Pelican Nebulae; good luck with those.

Back to the lambda star of Cygnus. Move down to the first bright star, Epsilon Cygnii. Between it and the 2nd wing star farther down, slightly to the right of that line lies the Cygnus Loop, commonly called the Veil. Once you have found one part of the loop notice the direction in which it is curved and move across to the other side of the loop. Take your time with the Veil: its intricate beauty is hard to imagine being born of an explosion. The west side has two concentric layers. If you can't see it well

enough or at all, ask someone with a bigger scope to show you the Veil. Look for it if you take your scope into the mountains. A nebula filter may make it easier to see. The westernmost layer of the loop contains 52 Cygnii, a blue-orange double like a fainter Albireo. For a harder project follow the other wing upward to the first wing star (Delta) and then 70% of the way to the next wing star. To the left of this wing line is the Blinking Planetary NGC 6826. The central star blinks on and off as you move your eye. Below it is another fainter planetary NGC 6833.

Don't forget to look at Jupiter, or to come to the Open House on Saturday the 6th, or both. Keep looking up and you'll see those . . . um, you know.—*Dennis Cochran*

ASTRONOMICAL LEAGUE CONFERENCE UPDATE

The 2008 AL and ALPO Convention held in Des Moines, IA provided some valuable insights. I attended the Council and Business meeting in my capacity as the MARS Chair. Vern Rabin, President of LAS, Regional representative and the AL Webmaster was there as well. Around 160 people attended this year's convention -- many from ALPO (Association of Lunar and Planetary Observers). ALPO demonstrated the need for amateur imaging of Mars and Jupiter. Currently, NASA emphasis is on Mercury, Mars and Saturn. This leaves Jupiter and the outer planets wanting for observations. All it takes is a Webcam, filters, and a willingness to forget all about the theory of optics and grab those images! Dr. Parker recommends pushing the effective focal length (EFL) to obscene values! He uses a long focus Newtonian and eyepiece projection. Nominal to poor seeing is not an issue!

A very important session about starting, developing and maintaining member clubs was held all afternoon. I have to say that I am proud of the level of participation and strength that DAS has relative to many other clubs in the League. They really picked my brains all weekend (all three neurons worth.) You can thank yourselves, the Executive Board and long traditions for our successes.

My focus was on the mechanics of holding a National Convention. I spent time with several Des Moines Astronomical Society and with Bill Bogardus of the Amateur Observer's Society of New York and chairman of ALCON 2009. My goal is to refresh the current guidelines for hosting a national convention. Very insightful, and my hat is really off to Des Moines Astronomical Society for a great convention this year.

On Thursday Evening we traveled to the the Science Center of Iowa and the Drake Observatory. The planetarium at the Science Center has an excellent approach to presentations different from ones I've seen before. Drake Observatory is very interesting and faces many of the same issues as Chamberlin. Dr. Charles Nelson and I spent time discussing strategies for public outreach and community education. We were treated to a fierce storm later that evening.

The Friday *Star-B-Que* (what they call picnics in Iowa) was at the Ashton Observatory, a collaborative effort between Jasper County and the Des Moines Astronomical Society. The evening was quite pleasant in the bucolic Iowa countryside. An excellent observatory, details at <http://www.dmasonline.org/ashton/ashton.html> (See links to other club observatories at www.thedas.org/links.html).

Dr. Mike Reynolds treated us to a rare view of hunting for meteorites in Antarctica. Dr. Reynolds is the current Executive



Director of ALPO and a very respected expert on meteorites. And we think heading to WUTS is cold!

Overall, I realized that conventions—with their sessions and the chance to have side conversations about astronomy—still have great value for observers and amateur astronomers.

On a serious note we are seeing amateur astronomy aging with time with a overall decrease in League participation. The League is taking this seriously and working to develop new programs to better support community education through outreach and to help develop League members skills with scientific observing. Any ideas you might have are greatly appreciated.

I very much enjoyed the trip. This year I let Dr. Mike talk me into joining ALPO as my interests are in solar system dynamics. We have Jupiter well positioned and I look forward to implementing ideas Dr. Don Parker offered us in his talks.—
Wayne Green.

Photo Credit: ALCON 2008 Convention



REMINDER:
Public Nights start at
7:00 P.M. beginning
September 2nd!

DAS AWARDS VAN NATTAN HANSEN SCHOLARSHIPS FOR 2008!

DAS Van Nattan Hansen Scholarships were awarded to two Student Members of the DAS this year! Presentations were made at the August 15th general meeting. The scholarships were awarded to long-time DAS Student Members Naomi Pequette and Neil Pearson. Naomi received a scholarship award in the amount of \$1200 and Neil received a scholarship in the amount of \$800.

Naomi will be starting her second year majoring in Physics with a minor in AstroPhysics and mathematics at the University of Denver. Neil Pearson has just graduated from Clear Creek High School in Evergreen, and will be starting his first year at the Colorado School of Mines in mid-August. Both students demonstrated high academic ability in mathematics and the physical sciences have had extensive involvement in volunteer and work activities in the DAS, physical sciences, astronomy and astrophysics.

Naomi's main interests as an undergraduate major are in astrophysics and cosmology while doing research work on Mira variable stars under the supervision of Dr. Rob-

ert Stencel. You may remember that Naomi was selected as the Astronomical League's National Young Astronomer (NYAA) in 2007.

Neil has not yet selected a major at CSM but has experience and strong interests in the physical sciences of geology and geological engineering as well as astronomy. He represented his high school in National Science Foundation conference for the selection of the Deep Underground Science and Engineering Laboratory (DUSEL) as well as grinding his own 8 inch telescope mirror in the 2005-6 DAS ATM class, and regularly sharing his telescope building abilities with many students and parents at DAS Open House and other public events. Neil also has a strong interest in meteorites and hopes to continue to develop these interests and continue involvement in amateur astronomy with DAS while at Mines. Neil also recently received an Honorable Mention Award for the Astronomical League's 2008 NYAA and received 2nd Place for the Jack Horkheimer Award, which awards students for service to their Astronomy clubs.



2008 Van Nattan-Hansen Scholarship winners Naomi Pequette and Neil Pearson.

Neil shows off his Horkheimer Award plaque.

The Van Nattan Hansen Committee of the DAS congratulates these two Student Members and looks forward to continuing its support of students of the physical sciences, Astronomy, and mathematics.—*Ron Pearson.*

OUR NEIL PEARSON IS A JACK HORKHEIMER AWARD WINNER!

Neil Pearson took Second Place in the Jack Horkheimer Award for Exceptional Service by a Young As-

tronomer. Wayne Green accepted the award on Neil's behalf at this year's Astronomical League Convention. Jack, who gives his age as . . . "somewhere between post-puberty and pre-senility" has been admonishing us to "Keep Looking Up." At the August General Meeting, Darrell Dodge had the privilege and honor to present this plaque to Neil.

Neil also took Honorable Mention in the Astronomical League's National Young Astronomer's Award and is the recipient of a DAS Van Nattan Hansen Scholarship.

To Neil we say "Keep Looking Up."

2008 ROCKY MOUNTAIN



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 tradi-



tion 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.thedas.org.

STAR STARE IN PHOTOS

A GOOD TIME WAS HAD BY ALL

Thanks to all the photos from Ron Pearson!
The previous page shows July 4th fireworks over Como, CO. taken from RMSS's Lost Creek site in the early evening.

Upper right: Ivan Geisler explains his 6-inch f/8 folded refractor and accessories to the ATM Walkabout.

Center: Neil Pearson DAS Student member explains his home-built 8-inch f/6 newtonian to the ATM Walkabout.

Lower right: The crescent moon sets over the Mosquito Range on July 4th.

Images copyright 2008 Ron Pearson



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DAS SCHEDULE

SEPTEMBER

- 2 7:00 P.M. Public Nights begin.
- 6 Open House at Chamberlin Observatory (7:00 P.M.)
- 12 General Membership Meeting at Olin Hall (Begins at 7:30 P.M.)
- 19 E-Board meeting at Chamberlin Observatory (Begins at 7:30 P.M.)
- 26-28 EGK Dark Sky weekend

OCTOBER

- 4 Astronomy Day (Open House at Chamberlin Observatory follows day at DMNS at 5:00 P.M.)
- 11 DAS Auction at Chamberlin Observatory (Setup at 11:00 A.M., Auction begins at 1:00 P.M.)
- 17 E-Board meeting at Chamberlin Observatory (Begins at 7:30 P.M.)
- 24-26 EGK Dark Sky weekend

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.thedas.org) or call (303) 871-5172.



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