



The Faint Fuzzy

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The Official Newsletter of the West Kentucky Amateur Astronomers *December 2007*

From the President:

I'd like to wish everyone a Merry Christmas and a Happy New Year, and hope that you get some great astro-gifts!

—Dale Baltimore

From the Editors:

2007 has been a great year for WKAA and we're looking forward to another terrific year in 2008. We would like to remind club members to submit articles or observing notes to share with our readers. Please send them to vickers[@]aeneas.net.

—Bob & Melissa

UPCOMING MEETING:

Next meeting: Dec. 8th, at 7:00pm. If it is clear, we'll observe afterwards!

Last Meeting Highlights: November 10

There were 17 people in attendance, including one visitor, Ron Williams, from Big Rock, TN. Club President Dale Baltimore brought the meeting to order after everyone had enjoyed the potluck Chili Supper. Thanks to everyone who brought food—it was all delicious!

Star Party Wrap Up

Dale thanked various members for their help at the Star Party. He mentioned that the signup sheets for talks and volunteers really worked well. He has received a number of emails from participants who were very positive about the party.

The Star Party was profitable for the club again this year. We had two vendors, both of whom donated prizes, and both felt it was worth their while to come. Attendance was up this year, partially due to good weather predictions. Also, the number of family registrations was up because the party coincided with fall break for many school systems.

Some suggestions were made for next year:

- A Dinner Bell would be helpful to announce the start of talks and meals.
- Schedule the talks for the afternoon, rather than the morning, to allow for sleeping in.
- The new projector was helpful for talks and movies. A larger screen would be good.

Thanks, John!

John Holland has donated a DVD player for club use. It will come in handy with the new projector.

Library Additions

Carol Baltimore has ordered 2 AL Observing Guides—"Galaxy Groups and Clusters" and "Planetary Nebulae."

Polo Shirts

See Dale Baltimore if you haven't gotten yours yet. It's not too late to order one.

"For Sale" on Google Groups Web Page

John Holland has set up an area on the [google groups web page](#) to list items for sale. Check this site frequently to see what is there!

LBL Annual Volunteer Dinner

Every year the Friends of LBL Association honors the volunteers who help out throughout the year with various programs, including the Summer Nights and other astronomy outreach events that WKAA sponsors. This year, Harold Meyers and John Holland attended the dinner, held at the Brandon Springs group center. Harold received the award for the most hours—he only missed one Summer Night. He got a coffee mug and a \$25 gift certificate for Sky & Telescope.

TREASURER/ALCOR REPORT

David Paessler reports that the club is still in good shape financially. Star Party T shirts sold well—but there are still a few left. David will bring them to the meeting for discounted sale if you are interested in one. Buying a shirt, even if you did not attend the Star Party, is a great way to support the club and help us get back the cost of the t shirts.

WKAA in 2008

Mark your calendars! The [club activities schedule](#) for 2008 has been posted on the website. In addition to the regularly scheduled meetings, you'll find dates for the "FYBO V" Winter mini-star party, Astronomy Day, LBL Summer Nights, and the TLSP.

PUBLIC OUTREACH

Boy Scout Merit Badge Night

After the meeting, club members set up their scopes on the field and spent the next couple of hours working with a Boy Scout troop from Hopkinsville. Fifty or so boys attended a special planetarium showing (thanks, Don Partain!), and then worked with club members on the requirements for their astronomy merit badges. It was a good group of boys and a clear, chilly night. Thanks to all the club members who stayed and helped!

The Night Sky Naturalist, by Bob Vickers

The Perseus I Galaxy Cluster

This month I want to make the newsletter live up to its name by examining some truly faint fuzzies! Let's push the envelope a little and do some *really-deep* sky observing.

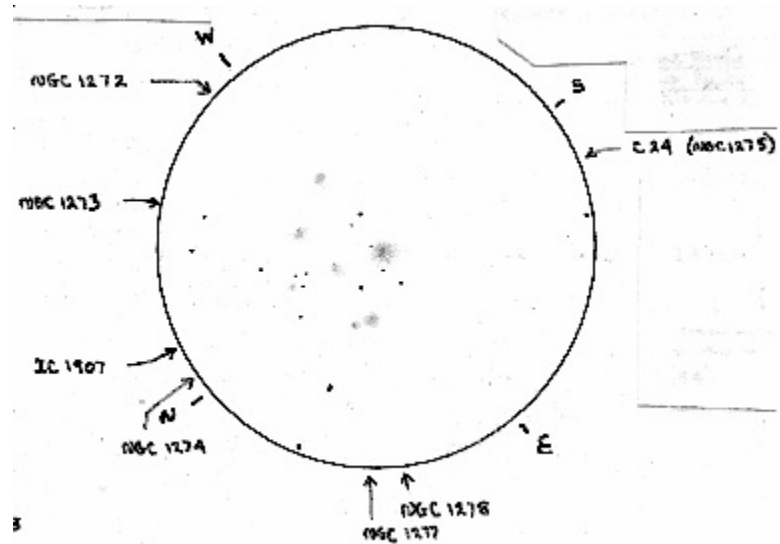
Located in the constellation Perseus, about 2 degrees east of Algol and slightly to the north, lies a challenging group of galaxies called Perseus I or Abell 426. The center of this group is between 230 and 300 million light years away from us. Only two of its brightest members, NGC 1275 and NGC 1270 are plotted on Chart 4 of Wil Tirion's *Sky Atlas 2000.0*, so to identify the dimmer members of this group use the A4 chart of the *Uranometria* atlas, or better yet, a photograph of the cluster ([available online](#)).

I first "discovered" the Perseus I cluster in 2003 when viewing the Astronomical League Caldwell Object list. The brightest member of the group, NGC 1275 (also called Perseus A)

is listed as Caldwell 24 and is located at the group's very center. With an approximate visual magnitude of 11.9, it should be discernable with an 8 inch scope, or even a 6 inch under very dark skies. Hubble Space Telescope photographs show it as two galaxies in violent collision, but in my 12.5 inch it is just a dim, nearly circular glow becoming gradually, then suddenly, brighter toward the center. The nucleus is nearly starlike. Identified as a strong source of radio emission, it is also known as 3C84.

But C24 is just the tip of the Perseus I iceberg. The next three brightest galaxies are NGC 1272, NGC 1273, and NGC 1278. NGC 1272 is listed as the brightest of the three in all the references I looked in, but NGC 1278 seemed slightly brighter to me. Maybe it is a just a little more concentrated than the others. These three galaxies form a nice little parallelogram with NGC 1275.

At 122x, my 12.5 inch scope showed three more dim galaxies in this 26 minute field of view, NGC 1277, NGC 1274, and IC 1907. IC 1907 is just visible with averted vision and appears as a dim star similar in brightness to three stars just to its south. A few other members of the Perseus cluster (including NGC 1270, NGC 1267 and NGC 1268) are located another 6 to 10 minutes west of this main group, just on the edge of the field of view. I'm not sure how many of these galaxies are visible in 8 to 10 inch scopes.



What I have described above is just the concentrated central part of Perseus I. *Uranometria 2000.0* shows 55 galaxies within a boundary of a little over 1.5 degrees from the center, and I periodically return to the cluster to try and bag another faint fuzzy. But recent professional surveys show a staggering 3800 galaxies within a 4 degree radius. Not all of these are true members of the cluster, however. Amateur astronomer Albert Highe has even compiled a list of 351 galaxies he has deemed to be part of the cluster. These galaxies are supposedly bright enough to see with larger aperture scopes under dark skies with excellent transparency. (This may have to be a future project if I can just convince Melissa that I really need that 20" Obsession for research purposes!)

As awesome as Perseus I is, it is only a part of the much larger Pisces-Perseus supercluster of galaxies which may stretch for some 500 million light years. What started as a simple search for C24 has now evolved into an ongoing observing project which allows a glimpse into the large scale structure of the universe. Is this a great hobby or what?

ASTRONOMEDIA

Cloudy Nights.com Gadget How-To

From Harold Meyers: I don't know if you frequent Cloudy Nights but I read an article on how to create an astronomy gadget for XP, ME and other non-Vista MS operating systems. The gadget allows you to put the Clear Sky Clock, Moon Phase, Moon Rise and Set times, or

anything else on the net that you may want on your desktop or your home page. Tom Trusock from Cloudy Nights wrote the article and gave permission to [link](#) to it in the newsletter.

If you see an interesting website, article in the news, or upcoming tv show you think club members would like to know about, please send it to us at [vickers\[@\]aeneas.net](mailto:vickers[@]aeneas.net)

CLUB RESOURCES

Loaner Scopes/Imager

The club has two Dobsonians (6", 8") and a Meade Deep Sky Imager available for club members to borrow. Anyone who has been a club member for six months, completes a training/safety session, and signs a written agreement may borrow one of the scopes or the imager.

Library

The club has several books and magazines available to members for reference or checkout. Take a look and see what we have at the next club meeting.

Magazine Discounts

Club members who subscribe to *Sky & Telescope* or *Astronomy* magazines through the club receive a discount! Annually you can save \$10 on *Sky & Telescope* and \$9 on *Astronomy*. Contact David Paessler for more information.

CLUB OFFICERS

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