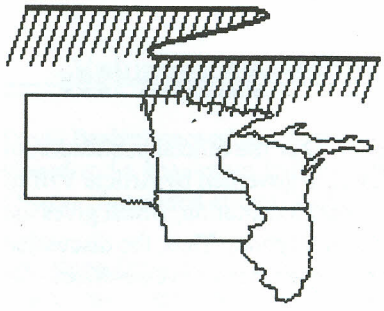


NORTHERN LIGHTS

ASTRONOMICAL LEAGUE
NORTH CENTRAL REGION

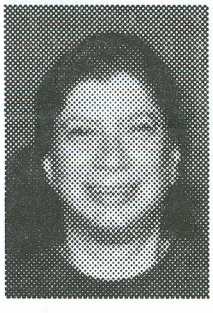
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Roaming the Region

by Janet Stevens



This quarter, two N.C.R.A.L. member societies had problems at their observatories. Most of you know about the theft of several items, including a couple of telescopes, eyepieces, an SBIG ST-4 CCD, and other accessories at the Des Moines Astronomical Society's observatory on July 21. Unfortunately, theft also appears to be on the rise at star parties in the past few years. It is truly sad that we must warn other astronomers to watch their equipment. The D.M.A.S. is busy trying to replace those items stolen. They have already purchased new eyepieces and some filters, and are on the lookout for a new CCD. D.M.A.S. member Keith Jamison has replaced the stolen 8" Cave Newtonian/Cassegrain with a 10" Cave telescope of the same type.

Just a few days earlier, 17 inches of rain fell in a two-day period in the area surrounding Naperville, Illinois. The DuPage River runs about 300 feet from the Naperville Amateur Astronomers' Glen D. Riley Observatory that ended up with 25 inches of water inside. Fortunately, most of their equipment, accessories, charts and supplies are stored at a higher level. The one smaller 'scope that got wet has since been cleaned, dried and is as good as new. N.A.A. held their final post-flood work session on September 21.

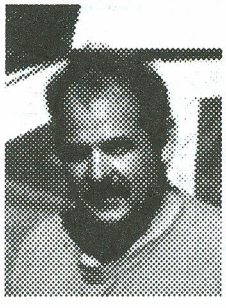
On a brighter note, The South East Iowa Astronomy Club held dedication ceremonies for its new Prugh-Carver Observatory on October 4. The new facility is next to the Witte Observatory, and is a roll-off roof structure that will house several different telescopes, including the 8-inch Frecker refractor that was originally at the Witte home.

As reported in the last issue of *Northern Lights*, the May meeting of the Cedar Amateur Astronomers included a fund-raising equipment sale. The sale was very successful, garnering more than $600 for their observatory fund. This fund will go toward an additional building at their observatory. The new building will have a 18' x 24' roll-off roof and will be near the current dome. Permanent mounts for at least two telescopes, as well as storage areas are included in the design.

Northern Lights can be reached via E-mail at 73357.1572@compuserve.com (back up bstevens@mcs.net).

Confessions of a Telescope Junky.

by Gary Poliquin
Northwest Suburban Astronomers



Hi! My name is Gary and I am a telescope junky. Hand me two lenses and I start holding them up in each hand, alternating them and trying to get an image.

I have made copyscopes, too many to count. I can't stop. A trip to the science surplus center never fails to result in the purchase of some lenses for a small telescope project. The more home crafted the better. I once even made a telescope out of a Pringles can.

I've probably cut and glued more PVC than your local plumber. I think I've used every kind of PVC connection ever made. A scrap of aluminum or PVC tubing lying on the roadside or set out as someone's Monday morning trash causes me to do U-turns in heavy traffic.

I have even vandalized perfectly good telescope apparatus to get that one unobtainable/unmakeable part required to complete a Tube Goldberg project. The acquisition of just ONE telescope part sets me off on a new building spree.

I can't even make a trip to the local hardware store without seeing potential dew shields, counterweights, and tripod legs. If I were to find a scrap of metal that even remotely resembles a 30-inch mirror

cell, I would be doomed to make that 'scope.

The lack of a machine shop doesn't stop me, it just slows me down a little. I've spent hours slowly hacksawing my way through four foot steel pipe or manually filing away inches of metal by hand and drilling and tapping holes by hand.

I can't stop, because you see, I am a "Telescope Junky".

Minutes of the Meetings of the North Central Region of the Astronomical League July 27, 1996 Rockford, Illinois

By Dr. Stephen H. Peters
Secretary/Treasurer
N. C. R. A. L.

Regional Council Meeting



The 1996 meeting of the Council of the North Central Region of the Astronomical League was called to order by Chairman Paul Castle at 9:00 a.m. The Chairman established that, in accordance with Article III, Section 2 of the Constitution, a quorum was present. The Chair then welcomed the two clubs that have rejoined the Region: the Ames Area Amateur Astronomers (Ames, Iowa) and the Delta Astronomical Society (Escanaba, Michigan). The agenda for the business meeting to follow was established. The meeting adjourned at 9:05 a.m.

Regional Business Meeting

The annual business meeting of the North Central Region of the Astronomical League convened at 9:05 a.m. with Regional Chairman Paul Castle in the chair and Secretary/Treasurer Stephen Peters present. Nineteen of the 33 societies in the region responded to the roll call.

The minutes of the 1995 annual meeting, held at Moorhead, Minnesota on June 24, were approved as presented.

Reports:
Treasurer Stephen Peters presented the annual financial report, which was approved. Vice-Chair Sharon Stauffer had no report. Regional Representative Marian Bachtell was not present and had not submitted a report.

Northern Lights co-editor Bert Stevens reported that 500 copies of the newsletter are distributed each quarter and that the current subscription prices cover the costs. However, a price increase will probably be necessary in 1997. Bert also made a plea for articles.

Dan Koehler, chair of the Midwest Light Pollution Conference, held on March 30, 1996 in Milwaukee, Wisconsin, reported that the conference was successful.

The Racine Astronomical Society gave a slide presentation on the 1997 Regional Convention, which will be held on June 6-7 at the University of Wisconsin-Parkside (Racine, WI).

Unfinished Business and General Orders:
The Chair noted that distribution of Northern Lights, the official publication of the Region, is governed by Article VIII of the regional Constitution, which gives the editor full discretion. Thus, the discussion and vote at Moorhead have no effect.

Dan Koehler proposed that the Region donate $500 to the International Dark Sky Association. Tim Hunter, I.D.A. president, spoke on potential uses for the money, which really needs to grow to $2,500. Janet Stevens moved that the N.C.R.A.L. join the I.D.A. as a corporate member at the rate of $100 a year. Seconded and carried.

Chairman Castle presented the League's budget situation, which projects a shortfall by the end of the fiscal year due to increased costs for paper and postage, increased observing programs, and more members. The Mid-States Region will be funding the Messier Club for one year and the Southwest Region, through the Texas Star Party, will be donating $2,000 for program support. League President Barry Beaman described what the League is doing to rectify the situation. Jim Fox moved that the N.C.R.A.L. contribute $1,500 to fund the National Outstanding Young Astronomer Program for one year. Seconded and carried.

Frank Roldan, chair of the Nominating Committee, presented the slate of officers for the coming year:

Chairman, Bert Stevens, Racine Astronomical Society. There were no nominations from the floor. Dan Koehler moved that nominations be closed and a unanimous ballot be cast for Bert. Seconded and carried.

Vice Chairman, Sharon Stauffer, Rockford Amateur Astronomers, for reelection. There were no nominations from the floor.

Northern Lights is the newsletter of the North Central Region of the Astronomical League. It is published quarterly in January, April, July, and October. Individual subscriptions are $3.00 per year and group subscriptions for NCRAL members only (minimum 10) are $2.00 per copy per year, all sent to the same address. Send checks made payable to *Northern Lights* to: *Northern Lights*; P.O. Box 8067; Rolling Meadows, IL 60008-8067. Visit the Astronomical League Web Site at: http://www.mcs.net/~bstevens/al/index.html.

Articles and ideas for articles about any astronomical topic of interest to amateur astronomers are invited and should be mailed to the above address or e-mailed to 73357.1572@compuserve.com. *Northern Lights* is edited by Berton and Janet Stevens. All material is copyright 1996 by the authors and used with their permission.

David Bachtell moved that nominations be closed and a unanimous ballot be cast for Sharon. Seconded and carried.

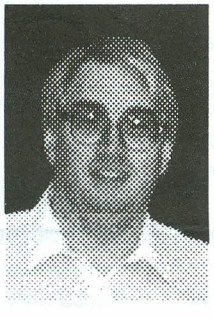
Secretary-Treasurer, Stephen Peters, Marquette Astronomical Society, for reelection. There were no nominations from the floor. Jim Fox moved that nominations be closed and a unanimous ballot be cast for Steve. Seconded and carried.

Dan Koehler asked whether the 1997 Midwest Light Pollution Conference would be held with the Regional Convention. Bert Stevens moved that Dan Koehler be the chair of the 1997 Midwest Light Pollution Conference, which will be held at a place and date to be determined, and that $500 be allocated as seed money. Seconded and carried.

The meeting adjourned at 10:00 a.m.

From the Chair of the N. C. R. A. L.

by Bert Stevens



At the North Central Region of the Astronomical League's annual business meeting at ALCON '96 in Rockford, IL, I was elected the new chair for our Region. I ran unopposed. Both of the other Regional officers, Stephen Peters from Marquette, MN, and Sharon Stouffer from Rockford, IL, who were up for reelection also ran unopposed. While both Steve and Sharon have been and will be excellent officers, I am concerned by the lack of amateur astronomers interested in holding office in the Astronomical League, and in local astronomical societies.

Perhaps it is a sign of the times. Many people seem to be involved in multiple hobbies (especially if you consider children a "hobby") and that, combined with the increased demand by their employers to work longer hours, many amateurs have little time to devote to the hobby. Many local societies are also having problems getting people to run for local offices.

Like many of you, I have many commitments that I must keep. One of them is this newsletter you are reading. I feel that the organizations I belong to are important enough for me to support. A few I support with just my membership. To others I donate time, and still others money. But whatever the case, these organizations are worth supporting.

We need your support. Your local astronomical society, the North Central Region, the Astronomical League, and amateur astronomy itself need your help. Many technical hobbies, such as amateur radio and radio control aircraft, are losing members. More important, younger people are not entering the hobby and the average age of the members is increasing. If this trend continues, in forty years there will be no amateur astronomers, no astronomical societies, no amateur observatories.

What is the cause of this decline? One is the lack of access to dark skies. We are all aware of the loss of this precious natural resource. A youngster cannot go out in his or her backyard and study the sky from urban areas. Light pollution masks all but the brighter objects. In larger cities, observers are lucky to see third magnitude stars.

Young people find it far easier and more interesting to spend their time playing with computers than observing. They do not have to carry out a telescope, fight light pollution, and their computer never gets clouded out, though occasionally the Internet does go down. I believe the interest in the universe is still there, but it is now directed into surfing the 'net and viewing celestial objects on the computer screen rather than through the telescope.

This is where you come in. If we are going to stop the decline of amateur astronomy, people like you and me are going to have act. Here are a few suggestions about what you can do.

Volunteer to help in your local astronomical society. All societies need their members to make the society work. Voluntary, appointed positions are always wanting for people to fill them. These often deal with public or member services. Without these services, astronomical societies cannot exist.

You can also help with public observing nights, member nights, and other society activities where knowledgeable and skillful amateurs can convey their knowledge and love of the sky to the public and to newer members. Societies will not function without officers, and you can be one of those who keep your society moving forward.

If this trend continues, in forty years there will be no amateur astronomers, no astronomical societies, no amateur observatories.

Outside your local society, you can give talks to the public on astronomy, emphasizing amateur activities and the joys of observing the sky. You can give these talks at your local library, park district, or even city hall will often rent out a room for public events. Be sure that there is plenty of publicity for the event, even if you have to provide it yourself. You can also tailor a talk for children, and work with the teachers at your local grade and high schools to expand the science education to include astronomy and allow you to bring your knowledge to the children.

Among the other things you can do are to join the International Dark Sky Association. They are working hard to get lighting engineers and manufacturers to develop better lighting systems and

provide governmental units with information on light pollution and model light pollution ordinances. You can petition your town, county, and state to pass light pollution ordinances.

Most importantly, you must go out and observe. Plan a group observing event. These often attract more society members out to observe, creating a "mini-star party". Observing is often an individual effort, but it can be an enjoyable group activity as well. Don't let that telescope live in the closet!

These ideas are just a start. I am sure you can come up with more, perhaps better ones. The most important thing is to make time for amateur astronomy among the commitments you have in your life.

I wish you clear, steady skies and good observing!

Lunatics Anonymous

by S. J. Martens
Quad Cities A. S.

It's bad enough trying to plan observing sessions around pesky cloud-cover and inconvenient city-glow, but we obsessed stargazers must eventually submit to the fact that several (usually perfect) nights during the month will be stolen from us by the fierce galaxy/nebula/comet/cluster-killing light pollution of Earth's sole, weather-beaten natural satellite: Luna.

However, before we start firing our homemade Scud missiles moonward, note that not only is our Moon not to be blamed for its interference, but should instead be praised for the role it plays in our survival.

First, the actual light reflectivity (albedo) of the Lunar surface could not be much lower, it is only Luna's proximity to Earth that causes Sol's light to reach us so dramatically. Imagine being orbited by a satellite having the albedo of, say, Venus (who's reflected light, even at hundreds of times the distance of our Moon, can create shadows here on Earth). At least the light from even a Full Moon allows us to easily observe double-stars and the other planets.

It is certainly not our Moon's fault that it orbits us at such a relatively close distance. Indeed, from its constant librating, nutating, and tidal effects on Earth, it appears that our satellite is fighting tooth and nail to put some serious A.U.s between it and us. In fact, Luna is making some slow but steady headway for its efforts. Over several hundred millennia, tidal friction and other factors will significantly slow Earth's rotation and increase our Moon's distance, eventually creating "days" as long as the lunar month and eliminating total solar eclipses. I do not know anyone who is looking forward to that!

It also seems that our Moon has ensured our temporary existence by regulating the axial tilt of Earth. In time, without Luna's anchoring gravitational effects, the pull from other planets would play tug-of-war with our comfortable 23½° tilt. This could possibly disrupt our moderate seasonal variations to the point where we would either be incinerated by intense heat, or thrown into another ice age.

Of course, these worst-case scenarios are just theories that might occur millions of years from now. But after putting our Moon's existence into perspective, I decided that it would not kill me to spend a month or so seriously studying our "scapegoat" satellite.

I received the Lunar Club requirements just in time for 1996's Blue Moon, and over several nights in June and July I tackled the list of 100 naked-eye, binocular, and telescopic observing targets. Like many amateurs, I was already familiar with most of the maria and larger distinguished features from previous low-power viewing. However, after a few intimate 150x crater-hopping sessions, I realized that I had much to learn about the structures and landscape of our humble Moon.

There are only 50 or so of the lesser known craters on the Lunar Club checklist, but searching for fifty craters out of the 50,000 or so that are available sometimes proved comparable to finding Lunar needles in a haystack. But as I jumped from Aristarchus-this and Longomonta-that, various patterns and crater-asterisms became apparent, and I started each session feeling increasingly at home with our Moon's surface. Of course, those observers who have been spoiled by years of electronic guidance would probably find crater-hopping to be no less a major pain in the Rupus Recta!

I also found it interesting that higher-power Lunar observations seem much more microscopic in nature, rather than telescopic. It felt like I was l was looking for detail in germs and amoebae in Biology class rather than staring into the sky.

Another nice reward for my extended Lunar viewing was the occasional flock of birds or a jetliner that I caught transiting the illuminated disc. Maybe it's just me, but seeing the silhouette of a 737 cross in front of our Moon, and watching as the turbulence caused the limb to shudder, elongate, and finally restabilize, was almost as satisfying as it was compelling.

I like this kind of challenge, and I feel it is something every amateur astronomer should do at least once, like finding Pluto just once so you can say you have done it. Still, there are many reasons to recommend even occasional lunar observing: Where else can we find such an easy, reliable, intricate target? Lighting, transparency and seeing conditions are usually of no concern, and the varied lighting of Luna's surface usually allows us to discover something new or unusual.

Besides *you-know-who* does not get nearly as upset when I observe from the driveway!

It is the very error of the moon;
She moves more near the Earth
than she was wont,
And makes men mad.
- William Shakespeare

(You can try your eye at meeting the Lunar Club observing requirements. For further information, contact:

S. A. Nathan
A. L. Lunar Club Co-ordinator
45 Brewster Road
West Springfield, Ma. 01089
(413) 967-9435

or visit the Astronomical League Web Site at http://www.mcs.net/~bstevens/al/. Select Observing Clubs and then The Lunar Club. Reprinted from The Meridian, *newsletter of the Quad Cities Astronomical Society)*

Star Party Round Up.

Wisconsin Observer's Weekend 1996

by Tom Jorgenson
N.E.W.S.T.A.R.

Another successful Wisconsin Observer's Weekend (W.O.W.) Was held June 12-14, 1996, at Hartman Creek State Park outside wonderful Waupaca, Wisconsin. The event started early Friday afternoon and continued through Sunday. To complement the clear skies Friday night, and the astronomical companionship throughout the weekend, the Waupaca area again sponsored two additional events: StrawberryFest and the Mid-Western Model Train Association. We missed Scout Captain Don Wyman's underground cooking, but I am sure we will be privileged in years to come. N.E.W.S.T.A.R. was host to guests from all over the Mid-West and as far away as the Yucatan Peninsula, Mexico. Thanks for traveling 3,000 miles, Jaquin!

Some 87 astronomers attended W.O.W. 1996 with an assortment of celestial equipment. All popular telescope designs were represented. Pete Smitka wins the award for bringing the largest telescope, a 25-inch Kriege Obsession Dobsonian, which highlighted Friday evening with extraordinary views of the sky. One Meade 12-inch LX 200 was represented at Campsite Three; two Meade 10-inch LX 200 and one Meade 8-inch LX 200 Coffey-grinder gathered light at Campsite One for all to see. Bruce Weideman sponsored a major rework of his Meade 16-inch Dob that included a new sky catalog and dual axis drive system. Dan "Toolman" Hermans and Doug Richter chipped in with much of the labor. New member Rick Beal sponsored fabulous views of upcoming Comet Hale-Bopp in his Ultima 2000. The Neville team was there for everyone to get the first view of popular celestial objects from the Eastern skies. "Mr. Herschel" Terry Becker, took care of all the really challenging objects. Overall, Friday evening was packed full of hours of viewing. Unfortunately, Saturday evening skies did not cooperate so everyone spent the evening around the campfire telling stories and myths, Ha! Ha! Jon and I meandered over to the Beal's Chocolate Chip cookie factory campsite. Hope we did not eat all your cookies, Jason, but we could not help our selves. I hope to see everyone next year at W.O.W. 1997!

Northwoods Starfest Review

by Gary Baier
Neville P. M. A. S.

The Northwoods Starfest for 1996 sponsored by the Chippewa Valley Astronomical Society is an event only in the history books. For those who do not know, the Northwoods Starfest is held every August at the Hobbs Observatory in Fall Creek, WI. The five members of N.P.M.A.S. attending were Don DeWitt, Katrina Anderson, Ron Parmentier, George McCourt, and myself. In all, there were more than forty people attending.

For myself, it was old home week, even if I did arrive late Friday due to family commitments. I was not there for very long when Don and George asked if I would accompany them up to the 24-inch reflector. It turned out that observing was not what they had in mind. They just wanted to test the stability of the mount. For those who have never been to Hobbs, the telescope is a 24-inch on an alt-az mounting that has a 5-inch naval gun mount for a base. Each of them took turns looking through the 'scope while the rest of us jumped up and down and hit the 'scope. It was rock steady just as I remembered. The optics are not perfect, but using it is wonderful for students. You simply enter the object of coordinates into the computer and hit "G" for go. There are those who consider this cheating, but it does save time.

Thanks to Don's lucky observing pants, we had two clear nights. Katrina spent much of her time checking out objects she found in the binoculars or finding double stars. Don brought his big Dobsonian that allowed me to observe through it for the first time. George spent time talking with Bob Elliot from the Chippewa Valley A. S. about an observatory he is helping to design. Ron got to spend some time talking with Bob Custer, a good friend of mine, about the next few close approaches of Mars using a portable computer. We may convince Ron on the merits of computers yet. I got to roam the field talking to people which is what I like doing best.

Friday night was a little special. Everything was starting to dew up after midnight, so we grabbed the chairs from the classroom and sat outside. The final touches of the Perseid Meteor Shower provided a fairly good show. Most agreed they were at least as good as the previous weekend. Many of us talked until 3:00 a.m. In all it was a very good night.

Saturday evening started with a talk on the CCD astronomy done with two societies from Minnesota and the C. V. A. S. This has been an ongoing joint effort where each society provides a specialty such as telescope, computer, or C.C.D. camera. Many of these images have appeared in *Astronomy* over the last few years. Again we observed until 3:00 a.m. or later. I called it quits both nights when Venus appeared above the trees.

There is some bad news to report however. Sometime during Saturday night, Don's binoculars were stolen. Exactly when they were taken or who stole them is not known. It is sad to think that amateur

astronomy would have enemies, but this theft and a few others at recent star parties appear to have greatly diminished the fun of these gatherings. The openness of star parties has always been one of the major reasons I have attended. I have never been turned down when asking to use someone's telescope or binoculars. I do not want this tradition to be lost or star parties to become "by invitation only". Unless honesty makes a comeback, the best advice is to lock up everything when it is not attended.

Astrofest '96

by Randy Lutz
Sheboygan A. S.

On Friday, September 6, Dave Lea and I again made the journey to Kankakee, IL for Astrofest. The drive down went by quickly, except for the hundred or so toll booths we had to stop for once we got across the border. We arrived right at noon, and just like the last two years, we found the weather to be hot and very muggy. We proceeded to set up camp and get settled in.

After a quick tour of the flea market, we hiked down to the river for some fossil hunting. This year we were prepared with hammers and safety goggles. We found some nice trilobites hidden in the sandstone. After supper, we cruised around looking at the 'scopes and watching for bargains at the flea market.

As darkness fell, it was evident that it was not going to be a very good night for star gazing. The skies were very hazy with bands of clouds passing over. We did get a good look at Jupiter and watched as the shadows from two of its moons moved across the disc. Around midnight we packed it in and retired for the night.

Saturday proved to be a repeat of Friday's weather. A group from Missouri came down and set up a mirror grinding demonstration. They planned to grind, polish, and silver a 6-inch f/10 mirror during the day and use it that night. I signed up for a 20-minute stint at grinding with a chance to win the mirror in a drawing to be held Sunday. Between the presentations given during the day, I kept track of their progress. The grinding and polishing went smoothly all day and after supper they were ready to silver the mirror. The silvering process looked pretty straight forward and in about ten minutes we all got to view the finished mirror. They masked the outer one-quarter inch and installed the mirror in the telescope and we all waited for darkness.

The view of Jupiter using the just completed mirror was surprisingly good considering that no testing was done in advance. Unfortunately, the skies again did not permit much serious observing. We spent most of the evening visiting with some very pleasant people from New York who were camping next to us. We got a chance to view M13 through his 16-inch Dobsonian - quite a site!

Though the skies did not cooperate again this year, Dave and I had a great time. I picked up a mirror cell for the society's 8-inch mirror and learned a few mirror polishing tricks. Mark your calendars for Astrofest XVIII, September 5-7, 1997.

Ode to an Astronomer

by Don Haussler

(Dedicated to my wonderful wife-to-be and the many fine people I have met who look at the sky. May they keep looking upward!)

Hail to thee, O great stargazers,
Who study the stars, planets -- and even "quasars".

When many of us are tucked warmly in bed,
They come out; you see, they have stars in their head.

Some folks call them "weird", but they don't understand.
They thrill to see star, planet or Milky Way band

It's us "normal" ones who miss out seeing this creation,
No matter where we live, no matter what nation.

Seasons change and so do the skies,
They search and plan to observe with chart and eye.

With 'scope in arm and charts in hand,
They're off now to find a spot with tools and stand.

Looking dreamy, wondering if it will be them
Who find a great, new star out of Nature's hem.

They begin to search for star and constellation,
But if not found, they express **GREAT** consternation.

ALAS! They don't give up nor get down.
They keep looking; well, maybe with a frown.

When they find those objects -- oh they become merrier,
Quickly to see if it's on the list of Messier.

If it's on that list of a hundred and ten,
They check them off with either pencil or pen.

Now it's onward, upward for more lookin'
To see what the heavens have been cookin'.

So, nextime you see one looking at the sky
Don't worry! Don't fret or wonder why.

It's probably an astronomer, give them a "hello" and a nod,
They're just following the path Gallileo did trod.

(Don is engaged to Joyce Jentges of the Northern Cross Science Foundation of Port Washington, WI. Joyce recently moved to Kansas City. We wish her and Don the best of luck in their new conjunction.)