

# THE HEADLINER

Lucent Technologies  
Bell Labs Innovations



Connectivity Solutions, Omaha Works

March/April 1999



Photo by Linda Ryan



*STEADY WORK...How can human hands do micro-size work like the kind needed to assemble ROC® fiber jumpers? That's a job for engineer Jerry Glenn, shown here working on modifications to special equipment designed to hold miniscule parts (magnified on the monitor), so an assembler can fit pieces in place precisely with no further movement. The fiber jumpers are used in F22 fighter planes like the one pictured.*

The optical equivalent of our copper media-based products

## Fiber optic apparatus comes to Omaha

If you think that “reliable optical card-edge connector” is the kind of name that only the Pentagon could love, you may be correct. The connector—known as the ROC® connector—is a component of a relatively new product designed by Bell Laboratories called a ROC fiber jumper. Targeted primarily for the U.S. military and aircraft industry, the jumper will be used in the Air Force’s F22 fighter jet and in the Army’s Apache helicopter to connect computers to instrument display panels.

The ROC fiber jumper is one of a number of fiber optic apparatus products that are being integrated into the Omaha Works’ interconnection products group (IPG). Fiber optic

apparatus—or FOA—products are the “optical equivalents of the portfolio of copper media-based products” that the IPG already manufactures, said Chuck Meyers, manager of premises distribution products.

In early October 1998, the decision was made to transfer FOA products from the Atlanta Works to Omaha so that Atlanta could focus on manufacturing optical fiber and cables. The market for fiber optic apparatus products has great growth potential, according to Meyers, who is overseeing the transfer operation.

To meet demand last year, Atlanta produced more than 6 million units of ST® type connectors alone, another FOA product being integrated into

Omaha’s manufacturing.

Overall, production will include plastic piece parts, connector assembly and final assembly of various types of equipment, Meyers said. Among them is the MAMU (multiple access management unit) and the Smart LGX® fiber test and surveillance system.

### Same applications

“These products are used in the same applications as much of our copper-based media products in IPG.” They are used for central office cross connects, distribution frames, equipment wiring and generally for data

Continued on Page 6



## FOCUS ON SERVICE

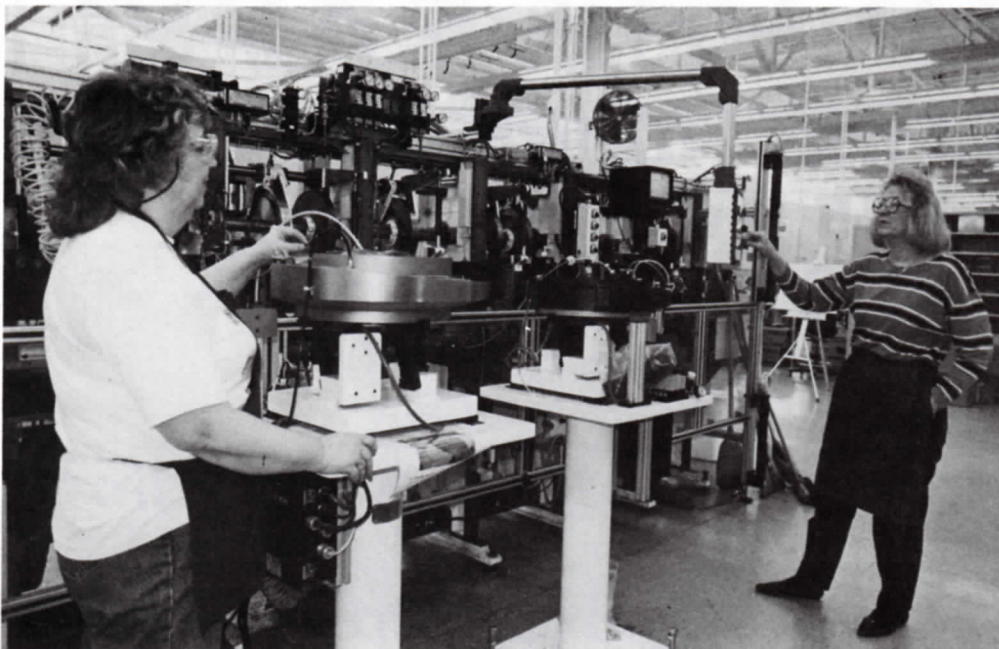


Photo by Linda Ryan

**FULL SPEED AHEAD...** Helen Latimer (left) and Sharon Yearsley operate a Bodine machine that assembles ST® II and ST®II+ connectors, already at high levels of production since the job was transferred here from Atlanta.

contribute to a sizable cost reduction and get the product out the door faster, according to the engineer overseeing the operation, John Valdez. ST connector assembly will no longer require an application of epoxy, which operators must handle as a hazardous material. The four robotic machines now used for epoxy applications will be removed, he said.

### Learning something new

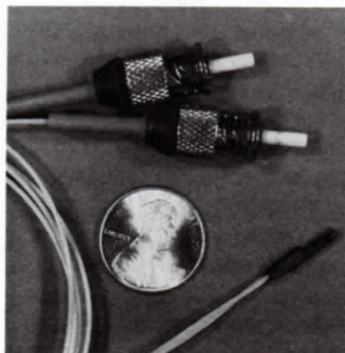
Meanwhile, the southeast area of Building 30 (on the tool room side of the wall) is being prepared for equipment assembly and testing operations, some requiring semi-clean environments. As training of production associates begins, they're discovering some very distinct differences between fiber optic apparatus and copper apparatus assembly work.

For example, fine-polishing the ends of fiber optic cable to eliminate scratches and debris, thus ensuring unhampered light transmission at the connection point. Or learning to use ultra magnification instruments to assemble parts of ROC fiber jumpers—parts so small that they're measured in micrometers.

Until now, the ROC fiber jumper was assembled under Bell Labs laboratory conditions, said engineer Jerry Glenn, who is charged with setting up the semi-clean "ROC Room."

"Lab settings are ideal for startup designs but not necessarily conducive to manufacturing conditions," he said. Assembly work associated with fiber optic apparatus, like the ROC fiber jumper, requires a greater degree of precision and focused attention to detail.

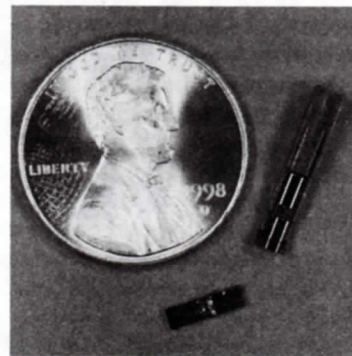
All the more reason, Glenn summed up, that the FOA transition team is concentrating not only on transferring the job to Omaha, but on honing it into a high-quality, efficient and safe operation second to none in the industry. ■



**END TO END...** The ROC® fiber jumper consists of ST® connectors on one end and a modular back plane ROC connector on the other end.

Photos by Steve Miller

**SMALLER THAN A PENNEY...** Assembly of the ROC connector will require special equipment to adapt human capabilities to micro-size work. The larger piece is the back plane housing. The smaller piece is a silicone chip in which assemblers must insert two sapphire lenses that look as if they might be tiny seahorse eggs—measuring only 5 micrometers.





Global Day of Caring is April 24

# Show you care: Plant a tree, paint a map

L ucent employees from all over the world will give their communities the gift of their time and service when they participate in the company's fourth annual Global Day of Caring project. Employees, their families and friends volunteer to perform various tasks designed to enhance the communities in which we live and work.

In previous years, the event was held in early fall, but this year it has been moved up to springtime. Locally, the Global Day of Caring will be observed on Saturday, April 24, 1999. Organized by the Heartland Pioneers, the day will consist of cleaning up debris, sprucing up facilities and planting 100 trees at Adams Park in Omaha. Volunteers also will paint oversized maps of the United States—used in educational programs—on the playgrounds of John F. Kennedy and Martin Luther King elementary schools.

Last year, Heartland Pioneers enlisted the aid of more than 60 volunteers who cleaned up several illegal dumpsites in Omaha. They removed 80 tons of trash that filled nearly a dozen super-sized dumpsters.

Throughout the company, more than 13,000 people in 24 countries



Pioneers file photo

*ALL THAT LITTER...Last year's Global Day of Caring crew cleaned up illegal dumpsites in the city. Among the volunteers was Flo Helme's spouse, Cal.*

participated in the 1998 program, providing services ranging from wiring schools for Internet service to organizing food drives.

Volunteers for this year's activities should meet at Adams Park, 3121 Bedford Ave., at 7:45 a.m. (parking available at the community center). A picnic lunch will be served at noon.

Sign-up sheets are in the main cafeteria and at plant entrances. Volunteers also may sign up at the Pioneer display table at the Earth Day Expo in the Works Auditorium April 15 and 16.

For more information about Global Day of Caring, call Joe Kvetensky, Ext. 3043. ■

(Continued from previous page)

4/17—Lester Green, 30; Steven Odell, 30; Patricia Franco, 20.

4/18—Lawrence Safiran, 30; Ajdrna Boger, 20.

4/21—Thomas Johnson, 15; Leo Reading, 15.

4/22—Gene Baumgart, 40; Patricia Johnson, 15.

4/23—Allen Wilson, 20.

4/24—Bobby Wolkins, 40; Roy Yeck, 40; Rebecca Kingham, 15; Darlene Madison, 15.

4/25—Colleen Gibilisco, 10.

4/26—Shirley Barnes, 35.

4/27—Raymond Bohac, 40; William Carson, 40; Larry Kroeger,

40; Kenneth Wright, 40; Joseph Modie, 35.

4/29—Glen Hopkins, 40; Harold Staub, 40; Lovell Jorden, 35; Decresia De Floria, 30.

4/30—Linda Jurgens, 25; Robert Sadil, 20; Daniel Synowiecki, 20; Steven Mathis, 15.

## Feb. is popular retirement month

The names that follow are employees who most recently retired from the Omaha Works, the largest share of them choosing to retire in February.

The names are listed according to the month in which their retirements became effective, with years of service given after their names:

**February**—Mary Laizure, 21 years; Merle Nootz, 30; Calvin Maholmes, 32; Randy Pegg, 15; Forest Payne, 39; William Brumfield, 30; Louis Johnson, 34; Judith Nelson, 34; Richard Hopkins, 29; Daniel Langdon, 41; Eugene Drvol, 41; Douglas McGuire, 39; George Coventry, 38; Robert Heaton, 31; Linda Giebler, 34; James Roper, 30; Michael Bizal, 42; Sharon Brown, 30.

Edith Ohara, 37; Ronald Hickey, 30; (Continued on next page)



## NEWS IN BRIEF

(Continued from previous page)  
Richard Toelke, 34; Dale Wichman, 42; Agoston Frics, 32; Richard Kyriess, 39; Charles Ferguson, 40; Stephen Costello, 37; Paul Guhl, 40; Charles Gallup, 39; Harold Staub, 39; Arnold Kelson, 12; Jessie Knutson, 30; Darrell Lieber, 40.

**March**—Kenneth Watkins, 42; Richard Griffin, 42; Stephen Tasto, 28; Otis Knutson, 38; Gerald Kalina, 15; Margaret Abrams, 37; Lola Boger, 28 years; Samuel Palermo, 41.

### Product quality rates an 'A'

Quality Assurance has awarded the following IBUs the grade of "A" for their product quality achievements for the March 1999 rating period:

**IBU ACC**—DSX.

**IBU AC2**—Plug-in electrical protector units; plug-in mechanical protector units.

**IBU AC4**—300-type central office connectors; 78, 89, 112 connector blocks.

**IBU AC7**—Injection molded products.

**IBU AG1**—108 and 110 connecting blocks; 110 patch panel assembly; 110 wiring blocks; modules, face plates and adapters.

**IBU AG0**—Packing, distribution products.

**IBU AG2**—Patch cord base assemblies.

**IBU AD7**—Broadband cabinets; wireless cabinets.

**IBU AD3**—Metal fabrication.

**IBU 200**—Miscellaneous products.

**IBU F22**—Central pack.

**IBU F26**—Packing, international.

**IBU F29**—Packing, international

NTT.

**EW&C**—DFW, cross and hookup wire; terminating cable; coaxial cable; inside wire cable.

### Thanks for food drive donations

The yearly Spring Food Drive, which benefits the Greater Omaha Food Bank, was another big success,

according to drive coordinators Bonnie Stuto and Dennis Karloff.

Employees donated a total of \$1,525 in cash and more than 100 pounds of non-perishable food items. The Heartland Pioneers added another \$500 to the collection. The money was used to purchase much needed meat products for the Food Bank, which supplies food pantries throughout the metro area.

### AT&T offers new corporate program

The AT&T Corporate Appreciation Program has added something new to its list of special offers on telecommunications services to Lucent employees: The AT&T Personal Network.

An AT&T Personal Network combines telecommunications services tailored for your needs at competitive rates, such as wireless, home phone, calling card and even Internet service.

As a Lucent employee, you will

receive 500 free minutes to be placed in your minute rewards account—250 free minutes when you sign on and 250 more after your first year.

You'll also earn additional rewards each time you use your network. After accumulating minutes throughout the first year, your free minutes will be distributed on your AT&T Personal Network bill over the second year; minutes earned during the second year will be applied during your third year. (Some conditions and restrictions apply.)

To learn about the AT&T Personal Network that's right for you, call **1-800-357-9704, Ext. 64088** and speak to an AT&T rep. Or visit <http://ion.hr.lucent.com>. Have your Social Security number and/or employee ID number ready. Offer expires May 31, 1999.

### In memoriam

**Warren Hall**, production specialist in IBU ABAA0, Feb. 28, 1999. ■

The Pioneers' Ethnic-Cultural Fair is Tuesday, May 18...  
**PASS IT ON!**

Visit the Works Auditorium and see multiple displays of artifacts and collectibles representing the diverse ethnic and cultural backgrounds of Omaha Works people. Open during lunch and dinner breaks on all three shifts.



Community service and fun, too

# SOS seeks 6th through 9th graders

If your 6<sup>th</sup>, 7<sup>th</sup> or 9<sup>th</sup> grader missed out on last year's 4-H Summer of Service program, don't let the opportunity slip by again. Summer of Service—or SOS—is a program for young people in grades six through nine that combines guided community service projects, education and recreation.

This year SOS begins June 14 and ends Aug. 6, 1999, conducted in four blocks of two-week sessions. Admin-

istered and supervised by the Nebraska Cooperative Extension Service in Douglas County, activities focus on the environment, helping others, beautifying Omaha and a "grab bag" of miscellaneous projects.

### \$82,000 grant

Last year's activities included cleaning up and maintaining the Open Door mission, sprucing up Laurel Hill

Cemetery and participation in various child day care and senior citizen center activities.

With Lucent Technologies being a member of the project's funding organization called the American Business Collaboration for Quality Dependent Care (ABC), the Lucent Family Care Development Fund allocated \$82,000 to the Douglas County SOS program. Half of the amount was used last summer and the other half is to be used this summer.

In return, children of Lucent employees are guaranteed enrollment in the program—up to 40 per session—before the program is opened up to the public May 1.



Douglas County Extension Service photo

*WETLANDS MONITORING...As a participant in last year's SOS program, Evy Akpan, daughter of David Akpan, helped keep algae under control at Heron Haven, 120th & Maple streets.*

### Ride to & from Works

Each participant must pay \$60 per session, but receives a \$10 stipend at the end of each session that is completed. The cost covers van transportation to and from the Lucent property (pickup at 6:45 and 7:45 a.m. and drop-off at 3:15 and 3:45 p.m.) and fees for recreational activities. Youths work at community service projects Mondays through Thursdays, but Fridays—with lunch provided—are reserved for leisure-time activities such as ball games and trips to recreational parks.

Cindy Hendricks, SOS project coordinator, said the program provides an excellent opportunity for participants to make new friends and learn about leadership roles. It also helps them to "make a positive contribution to their community and learn to accept and value human diversity." ■

*Editor's note: Extension Service representatives will be in the main cafeteria to provide more information and application forms on Tuesday, April 13, and Tuesday, April 27, from 7 to 8:30 a.m., 11 a.m. to 1 p.m., and 7 to 8 p.m. both dates. Questions about the program also may be directed to Marie Pope, Ext. 3607, or Larry Cherry, Ext. 3523.*

## \$\$\$ for occupational employees

Occupational employees, take note: In your next quarterly statement (arriving in your home mail), you will see a \$500 contribution of Lucent stock credited to your Long Term Savings and Security Plan account as of Feb. 1, 1999. This is the second of three special company contributions to the accounts of all eligible full-time occupational employees—even for those who are not contributing to the Plan.

Generally, you must have been on active payroll or on an approved leave of absence on Feb. 1 to receive the contribution. The next and final \$500 contribution will be made this August. ■



# Moving FOA to Omaha

More than just 'pulling the plug' on equipment

(Continued from Page 1)

network applications. "Most are already part of the SYSTIMAX® and ExchangeMAX® product offers," he added.

Although the Omaha Works is no stranger to integrating additional products into its operations, it remains a sizable challenge to ensure a smooth transition—more than just pulling the plug on machines and reinstalling them here. Customers still want their orders on time, so it is critical that engineering, materials management, production and the related support organizations—from both Atlanta and Omaha—work efficiently and focus as a team on the tasks at hand.

What kind of tasks? Building up gap stock to meet customer demand while equipment was being transferred to the Omaha Works. Designing and implementing floor plans for optimum product flow. Improving on the manufacturing process itself, paying heed to the quality of work life as well as speed and product quality. Training

the production team in new assembly and testing methods.

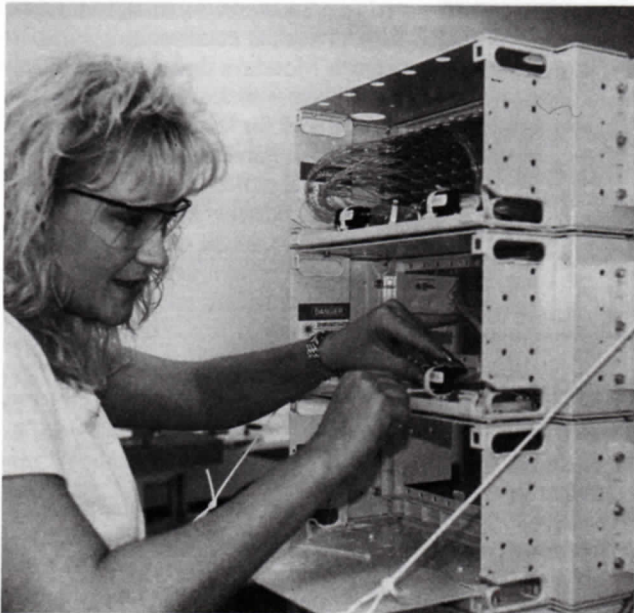
So far, the transition has been on schedule, Meyers noted. Nearly all manufacturing operations associated with FOA products being transferred here will be up and running by the end of May.

## Connectors in production

"Connector assembly and injection molding of plastic piece parts are already at high levels of production," he said. ST and SC-type connectors are being assembled in the southwest area of Building 30.

Two Bodine machines have been transferred here from Atlanta for the operation. One Bodine currently is used to make ST® II and ST® II+ connectors, and the other assembles SC connectors. Still another Bodine machine from Atlanta is being re-tooled for use in ST connector operations.

Improvements to that Bodine, as well as a minor change to the one currently used to assemble ST connectors, will



*THE PATH TO PERFECTION...After carefully routing fiber strands, Sandra Hull secures them to a multiple access management unit (MAMU) during training.*



Photos by Linda Ryan

*NOTHING LESS THAN PERFECT...Anna Ripley (seated) learns how to test SC fiber connectors with the help of Michelle Hemsing of the Works technical staff.*



## FOCUS ON SERVICE

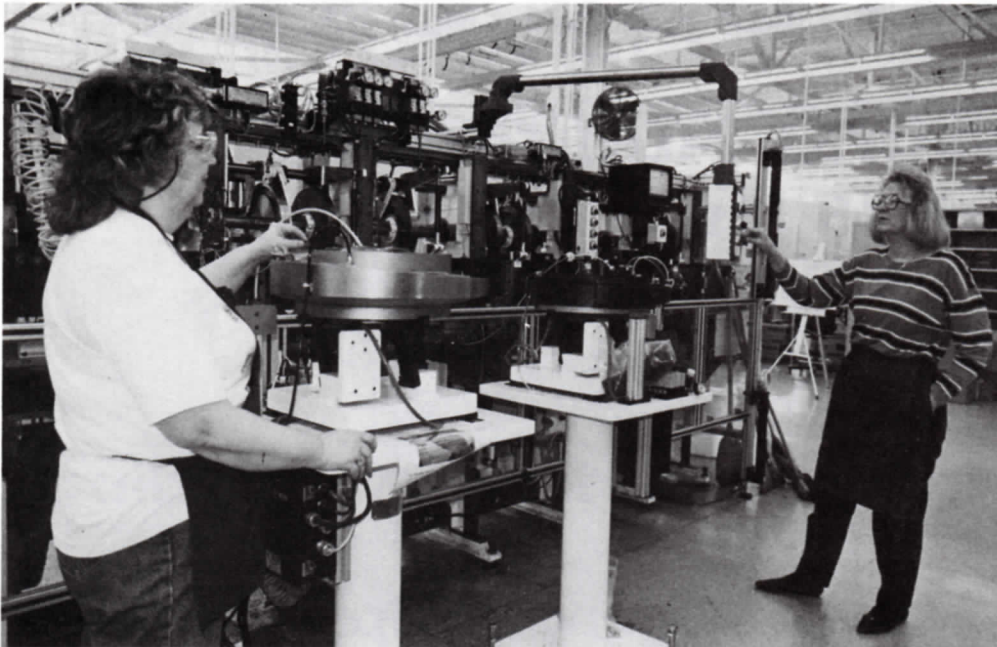


Photo by Linda Ryan

**FULL SPEED AHEAD...** Helen Latimer (left) and Sharon Yearsley operate a Bodine machine that assembles ST® II and ST®II+ connectors, already at high levels of production since the job was transferred here from Atlanta.

contribute to a sizable cost reduction and get the product out the door faster, according to the engineer overseeing the operation, John Valdez. ST connector assembly will no longer require an application of epoxy, which operators must handle as a hazardous material. The four robotic machines now used for epoxy applications will be removed, he said.

### Learning something new

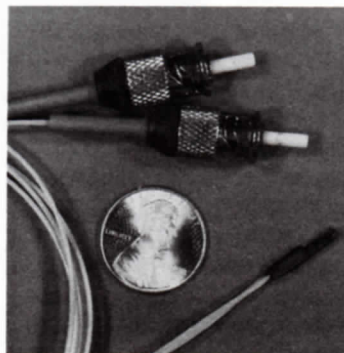
Meanwhile, the southeast area of Building 30 (on the tool room side of the wall) is being prepared for equipment assembly and testing operations, some requiring semi-clean environments. As training of production associates begins, they're discovering some very distinct differences between fiber optic apparatus and copper apparatus assembly work.

For example, fine-polishing the ends of fiber optic cable to eliminate scratches and debris, thus ensuring unhampered light transmission at the connection point. Or learning to use ultra magnification instruments to assemble parts of ROC fiber jumpers—parts so small that they're measured in micrometers.

Until now, the ROC fiber jumper was assembled under Bell Labs laboratory conditions, said engineer Jerry Glenn, who is charged with setting up the semi-clean "ROC Room."

"Lab settings are ideal for startup designs but not necessarily conducive to manufacturing conditions," he said. Assembly work associated with fiber optic apparatus, like the ROC fiber jumper, requires a greater degree of precision and focused attention to detail.

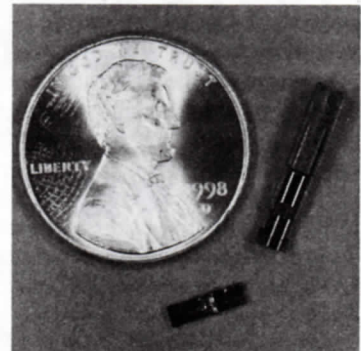
All the more reason, Glenn summed up, that the FOA transition team is concentrating not only on transferring the job to Omaha, but on honing it into a high-quality, efficient and safe operation second to none in the industry. ■



**END TO END...** The ROC® fiber jumper consists of ST® connectors on one end and a modular back plane ROC connector on the other end.

Photos by Steve Miller

**SMALLER THAN A PENNEY...** Assembly of the ROC connector will require special equipment to adapt human capabilities to micro-size work. The larger piece is the back plane housing. The smaller piece is a silicone chip in which assemblers must insert two sapphire lenses that look as if they might be tiny seahorse eggs—measuring only 5 micrometers.



Don't miss the  
**Earth Day Expo!**

**Works Auditorium**  
**April 15 (1st & 2nd shifts)**  
**April 16 (3rd shift)**

Open during lunch & dinner hours

**Many environmental displays including:**

**\*Lawn & garden tips**

Those Douglas County Extension experts are  
back...bring samples!

**\*Creature features**

Representatives from the Henry Doorly  
Zoo, Raptor Recovery Center &  
the Wildlife Rescue Team--even  
a wild critter or two!

**\*Organic foods**

Food co-op alternatives.

**\*ISO 14001**

What we're doing at the Works.

**...And much more!**

**DOOR PRIZES!**  
**PRIZE DRAWINGS!**  
**FREE POPCORN!**

