

THE HEADLINER

Lucent Technologies
Bell Labs Innovations



Omaha Works

November/December 1997

Season's greetings

As we begin to celebrate this holiday season with our families and friends, I want to thank each of you for your fine contribution to the Omaha Works and Lucent this past year. Business is good, and we're ensuring our continued success with constant improvements to the ways we can better serve our customers. None of it would be possible without your combined support and commitment.

Traditionally, this is a time of year when we count our blessings. I count you among mine—not just as valued members of our Works team, but as generous people who are responsive to their community's needs and as friends who have welcomed me and my family to Omaha. Enjoy the holidays, and may the year ahead bring you and yours peace and happiness.



Les Cole

How could the Omaha Works, well known for its heroic ability to meet customer orders in extraordinary or crisis situations (see story on Time Warner, Page 6), be missing the mark to meet "customer commit" dates—the dates we promise customers our products will be in their hands?

That's what our customers wanted to know. And because customers tend not to be forgiving of broken promises for long, the Works has responded by taking a hard look at who we are and what we can and can't do.

The results show marked improvement. As we head into a new calendar year, we are making or exceeding our goal to meet our commit dates at least 95 percent of the time. And for 1998, the Works' product teams are looking to push that to 100 percent.

Direct from the customer

Customers can and do become disgruntled when we don't meet our commit dates to them, Connectivity Solutions Vice-President Les Cole reminded those attending recent Strategy Forum sessions for management

KEEPING OUR PROMISES

employees.

"It's not an option," he said. While we cannot always achieve an unreasonably short delivery date, "we should achieve our committed ship dates *each and every time*" or our

business will suffer the consequences. Customers mince no words when they are displeased with our shipping performance, Cole said.

He cited feedback from one customer who wrote, "If delivery performance doesn't improve, we will take our business elsewhere."

"Abominable" wrote another when we failed to meet commit dates. One customer bluntly stated, "When Lucent misses an order, it's news to them. We do not trust the intervals."

"We can't expand our business and establish good working relationships with customers when they can't even rely on us to deliver on the dates WE say we can deliver," said Connie Schmidt, material management and customer service director.

What turned around our unacceptable commit date

(Continued on Page 6)

GigaSPEED™ draws rave reviews

Lucent Technologies' new high-speed cabling system, the SYSTIMAX® GigaSPEED™ Solution, was awarded the Data Communications "Best of Show Winner in the Category of Best LAN Product" at the recent prestigious Interop '97 Show in Paris.

Copper GigaSPEED components are manufactured at the Omaha Works. The high-tech product—which has many new patents pending—was developed by Bell Laboratories and launched in September 1997, heralded as the most significant development in copper cabling since the introduction of the Category 5 cabling standard.

GigaSPEED was developed to provide the best channel performance on the market today in anticipation of emerging bandwidth intensive applications; for example, gigabit data transmission, multimedia, shifting LAN traffic patterns, and the use of network computers.

The award was judged on a number of merits, including business benefit, product improvement and overall advancement of the state of networking. The

SYSTIMAX GigaSPEED Solution exceeded all of these requirements.

It displays not only an ability to cope with the emerging technologies of the 21st Century, but also vital "backward compatibility," ensuring that all existing electronics and applications can be supported by the solution.

"I am delighted, but not surprised, that Lucent Technologies has won this award," said Pierre Raucaz, regional director of Lucent Technologies in Paris.

"The introduction of our SYSTIMAX GigaSPEED Solution is not only a landmark for the cabling industry but for the networking industry as a whole. Gigabit technologies are increasingly becoming a reality in today's workplace and it is imperative that the cable infrastructure can support them."

Raucaz said that while Category 5 systems will be pushed to the limit to support applications such as Gigabit Ethernet, Lucent's GigaSPEED Solution easily will support them "with the added benefit of being able to use less complex electronics." ■



Holiday projects reflect the Works' tradition of giving

It was so cold that ice coolers really weren't needed the day that Heartland Council Pioneers distributed frozen

turkeys at a Works parking lot to volunteers for a Salvation Army Thanksgiving Day project known as "Turkeyfest."

Works employees and retirees drove up to get a total of 50 turkeys that they would cook in their homes and return to the Salvation Army for Thanksgiv-

ing Day. Still more volunteers carved the cooked turkeys and helped package the meat along with dressing and other accompaniments, then deliver the complete meals to 1200 needy families in the city.

Tom Gourlay of the material

(Continued on next page)

THE HEADLINER

The Headliner is an internal publication of the Omaha Works, produced monthly by the public relations department and printed by the Works print shop.

Your comments and suggestions are welcome and should be directed to:

Linda Ryan, Editor
Ext. 3795

The next issue will be published in January 1998. All news items should be in to the PR office by no later than 9 a.m. Monday, Jan. 5, 1998.

COLD TURKEY...
Tracie Georges was one of a number of Works employees and retirees who picked up turkeys last month from Tom Gourlay to cook for the Salvation Army. Turkey dinners with all the fixins' were delivered to 1200 needy families on Thanksgiving Day.



Photo by Linda Ryan

(Continued from previous page) planning a procurement department was in charge of this year's effort.

Turkeyfest is one of several holiday-time projects which employees support with their time and money.

Another is the annual in-plant toy drive chaired by Carolyn Landrum. Combined donations from employees and the Pioneer organization amounted to \$2,500, used to buy toys for the Salvation Army to distribute to needy families at Christmas.

Landrum and her committee, which included Bobbi Cooper, Jane Peters, Jan Smith, Connie Boardman, Shirley Blankenfeld and Bonnie Parker, purchased toys at the Half-Price Store at a 20 percent discount off regular and sale prices.

Employees also responded generously to the Thanksgiving Food Drive, said co-chairs Dennis Karloff and Bonnie Stuto. The drive raised more than \$2,500 in combined employee and Pioneer monetary donations and some 144 pounds of non-perishable foods.

The money was used to purchase meat products for the Greater Omaha Area Food Bank, which supplies community food pantries.

The organizers for each of these projects said that they are most grateful to all of the employees and their families who helped make these programs a success.

Honors given for best-dressed dolls and bears

In yet another holiday project, Works employees and/or family members have been recognized for having contributed the best-dressed dolls and bears to the Salvation Army's annual Dress-a-Doll/Dress-a-Bear program. The program is one in which volunteers throughout the community outfit dolls and bears provided by the Salvation Army, to be distributed to needy youngsters at Christmas.

Award winners in this year's
(Continued on next page)

Safety Bingo is a daily reminder

Safety is more than luck

It's something we should always think about and incorporate into our daily work habits, but it's not easy to talk about—even as a reminder—without sounding “preachy” or boring.

So three production teams in Building 30 have figured out another way to keep safety on everybody's mind, that has succeeded in holding employee interest and has improved safety records. It's an updated version of “Safety Bingo,” not unlike one that was played plant-wide in the early 1980s.

Versatile program

The new version is tailored to and managed by smaller work groups, each of whom decide how and what prizes will be awarded. Similar to regular Bingo, employees get Safety Bingo cards. Each day that a work group hasn't had a reportable accident resulting in injury, a number is drawn (for that group) as employees try to fill their cards, “bingo” and win prizes.

Sometimes the pot's sweetened: Winners in one group get a bigger prize if they bingo in a week when the group has met all of its “customer commit” dates—or if their work area holds title to a departmental housekeeping award.

After just a couple of months, “we're getting a lot of good response,” said Rod Petersen, who oversees the game in IBU D17, cabinet fabrication. “I think the game draws attention to the safety aspect—it's an everyday reminder.”

In nine weeks since the

game began, the section had two reportable accidents. “It used to be that we had an average of one reportable accident a week,” Petersen said.

With many employees new to the group, it seemed the majority of accidents were resulting out of carelessness or not knowing proper safety procedures. The game has drawn attention to safety, getting employees to think about safe work habits—“it's like an everyday reminder,” he said.

Woodie Haynes, who oversees the longest-running Safety Bingo program in IBU C17 (begun late in 1996), figures reportable accidents in his work group have been cut by 80 percent. As of early December, the section hadn't had an injury in two months.

“People are wearing their ear-plugs and safety glasses, they don't stand pallets on end, they're cleaning up oil spots right away...I don't have to remind them, they do it without being told,” he said.

It could work for you

Haynes thinks the game has made a difference in safety and, like Petersen, he believes it could be just as effective in other areas, too. Based on these two work groups' results, a third Safety Bingo program recently was introduced in IBU D13, the sheet metal shop. Connie Carlson oversees that program.

Petersen, Haynes and Carlson are all members of a subcommittee to the Omaha Works Joint Union/Management Safety Committee. If other work groups would like to organize a Safety Bingo program, Petersen (Ext. 3135) and Haynes (Ext. 4828) have offered to share some tips. ■



NEWS IN BRIEF

(Continued from previous page)
project—listing categories, winners and how they placed in a category—are as follows:

Dolls

◆Bride dolls—Kathy Schutte, first place; Mary Walls, third.

◆International/ethnic—Bill and Alma Sucha, second; Kathy Schutte, third.

◆Historic—Pat and Kerri Starr, first; Bill and Alma Sucha, second.

◆Seasonal/holiday—Kenn Schutte, third.

◆Storybook/celebrity—Pat and Kerri Starr, first.

◆Most original Barbie—Barbara Brown, first; Joyce Alexander, third.

Bears

◆Sports—Norm Wemhoff, second.

◆Storybook/celebrity—Kenn Schutte, first.

◆Special award—Adele and Ashley Gibbs.

Safety speaker, VPP celebration slated for January

If you liked Bruce Wilkinson, who entertained while delivering his safety message to employees at meetings held last January, you'll love John Drebinger who is the scheduled speaker for the January 1998 all-employee safety meetings.

That's not just the opinion of the Works environmental health and safety staff, but of Wilkinson himself who recommended Drebinger as a

speaker.

Drebinger will speak at sessions scheduled on all three shifts Jan. 20 through 23. His visit will coincide with a celebration officially marking the Omaha Works' being recertified to VPP (Voluntary Protection Program) Star Status.

VPP Star Status is OSHA's top honor for safety in the workplace. Official word of our recertification came after auditors inspected the Works in early August.

Drebinger is a professional member of the National Speakers Association, a member of the National Safety Council and the American Society of Safety Engineers. He has a bachelor's degree in speech and is a certified hypnotherapist.

Next month, check with your supervisor for the day and time you are scheduled to attend a meeting.

Kids got you on edge?

Create more satisfying, productive relationships with your children or grandchildren through *STEP*...

Systematic Training for Effective Parenting

At this 7-week workshop you learn:

- ✓How to understand your child's behavior.
- ✓How to listen and talk to your child.
- ✓Discipline that makes sense...and more!

Workshop schedule starts Jan. 12 week
(must take classes after work hours):

Tuesdays—8:15 - 9:15 a.m.

Thursdays—2 - 3 p.m.

Tues./Thurs.—11-11:30 a.m.

or 11:30 a.m. - noon (bring lunch)

Call Janet Dean, Ext. 3177 for more info



Problem-solving rates awards

Three Omaha Works AQTs (area quality teams) took top honors in a contest sponsored during National Quality Month (October), in recognition of how well they applied the Quality Improvement Storyboard problem-solving process in their work areas.

AQTs that entered the contest set up displays in the auditorium, highlighting their respective storyboard process.

First-place winner was AQT 68 representing the PCS cabinet area. The team focused on traceability issues. As part of its problem-solving process AQT 68 established a "follow ticket" form that is now placed on each cabinet. Information written on the form helps to trace back to any vendor or in-house problem. Members of this first-place team are Lynn Nelson, Tina Gipe, Chris Alvarado, Santha Krishnan and Cathy Placzek.

Second-place honors went to an EW&C (electronic wire and cable) AQT called the FAT (Fat and Thin) team. The AQT's problem-solving process focused on eliminating insulate wire bulges in cable.

Third-place winner was the EW&C Length Improvement Team. The

focus of their problem solving was researching the loss of dollars due to excessive remnants.

Trivia contest winners named

It pays to know the facts about quality, as the following employees found out during October's Quality Month Trivia Quiz. They correctly responded to quality-related questions and were awarded gift certificates to the Westroads. The winners:

Albert Tingley, Barbara Robertson, Betty Abahl, Brenda Schuster, Bryan Wilkie, Carla Kritenbrink, Carol Adams, Carol McKinley, Charlene Thompson, Cherylene Leffall, Christine Alvarado, Cindy Casey, Colleen Gibilisco, Craig Williams, Cynthia Claborn and Danny Griswold.

Dave Allen, Denise Williams, Dennis Brown, Donna Cunningham, Donovan Dirks, Eugene Bowman, Eugene Sterkel, Francis Graser, Gary Rezek, George Sims, Georgetta Callaghar, Gus Checketts, Harold Rief, Harvey Marx, Howard Eliuk, J.A. McManigal, James Ellis, James Palron.

Jeffrey Winters, Jerome Keuter, Jim Johnson, Jim Vandevagt, Joe Ksiazek, Joe Muzic, John Beck, John Elvers, Jon Lasser, John Schwenck, John Staskiewicz, Joyce Gates, Judy

Durand, Karolyn Ruth, Kimberly Rucker, Larry Henry, LaVerne Hanke, Lloyd Donahoo, Lou Arterberry and Louise Carlson.

Marcia Welniak, Margaret Archer, Marge Bruno, Marla Granderson, Marlin Lustgraaf, Marvel Thiel, Mary Terry, Mary Walls, Merlena Hartmann, Michelle Alvarado, Mike Jaeger, Millie Johnson, Mozella Grigsby, Nancy Godios, Neil Becker, Otis Knutson, Pat Hartung and Pat Rolf.

Patrick Michalak, Patty DeBolt, Patricia Nicholson, Rhonda Gibbons, Richard Bowen, Rick Lamb, Rita Casey, Robert Krokauggek, Robert Speilman, Roger Cote, Rose Larson, Rosemarie Desautels, Rudi Parson, Samuel Davis, Sandra Weberg, Sharon Cubrich, Sheila Filipiak and Shelley Bruno.

Sherlyn Hayes, Sherril Mefford, Stanley Petrusis, Steve Nosal, Sue Davis, Theresa Burdess, Kim Beccard, William Peters, Thomas Padworny and Virginia Campos.

Nov./Dec. service anniversaries

The following employees' milestone service anniversaries (in five-year increments) were celebrated in November and December. The

(Continued on Page 8)

United Way/CHAD drive is success; prize winner named

It's a good thing that Sharon Versch (IBU D13) and her husband were in the process of building a new home that includes space for a home theater. Versch won the big-screen TV that was awarded by drawing at the conclusion of the recent United Way/CHAD in-plant campaign.

You might say she was doubly excited about winning: Her family already has a large-screen TV which she said would be positioned alongside her new unit.

"We're really big sports fans," she said, indicating both TVs will get a real workout over the holidays.

The Works collected pledges this year that surpassed last year's campaign total. Employees pledged \$284,628 while Life Member Pioneers and retired employees pledged \$4,070. That brought the grand total to about \$288,700 compared to last year's total of \$283,535.

The pledges helped the community-wide United Way/CHAD drive raise a total of \$16,702,902. ■



Photo by Linda Ryan
AND THE WINNER IS...Sharon Versch.



Photo by Linda Ryan

MOMENT'S NOTICE...Marilyn Bernardini (left), Tim Connor and Thelma McKiddy didn't have much time to pack before leaving for Manhattan, N.Y.

At the customer's service

Have tools, will travel

How far should we go to serve the customer? As far as it takes, says a 90-type cabinet team that barely had time to complete a day's shift before hopping a plane to travel some 1,200 miles to assist a customer.

Planning engineers Karolyn Allen and Norm Wemhoff and senior production specialists Marilyn Bernardini, Tim Connor and Thelma McKiddy received word close to 3:30 p.m. on a Wednesday last month that they were needed early the next day in Manhattan, N.Y. to modify three 90-type cabinets for our customer, Time Warner Inc.

Made to specs, the cabinets were a new Bell Labs design, manufactured for the first time at the Omaha Works. But when Time Warner installed them at ABC (TV Network) studios, some signal interference posed problems.

Works technical staff members joined in phone conference calls with Bell Labs and Time Warner teams to work out a solution. When they did, there wasn't time to ship all three cabinets back to the Works to be modified. Time Warner had a tight deadline to meet, in which it was to turn the cabinets over to its customer, AT&T. Could Lucent modify the cabinets on the spot?

KEEPING OUR PROMISES

(Continued from Page 1)

performance results that were evident earlier in 1997 was "focusing on the shop's capability.

"We had to completely understand what we can and can't do," she said. It involved improving communications between operating shops and planners; looking at how our data systems work—or don't work; developing better working relationships with suppliers; and constantly reviewing and improving the manufacturing process itself.

"Maybe we need to add a shift. Or maybe we need different machinery or more training," Schmidt noted.

"The point is we must know our capability, understand it, and only then can we make responsible commitments to our customers."

An overview of what the Omaha Works is doing to ensure that customer commit dates are met follows:

Electronic Wire & Cable (EW&C)

- ◆ Meetings are held daily on all three shifts to review shipping performance and to encourage communication that addresses the issues. During these meetings, which are attended by coaches (supervisors), production control and associates, any potential threats to shipping performance are identified and action items are assigned.

- ◆ Gap analysis data, which tracks why shipments have been missed in the past, is shared weekly with production teams—including associates. When a shipment is missed, the analysis and plans for improvement are reviewed. The EW&C staff reports on delivery results and plans at the Works' weekly scheduled performance meetings for managers

- ◆ Emphasis has been put on nurturing a much closer working relationship between EW&C's material management team and the manufacturing team. To foster improved understanding of capability and capacity, Level 3 ("layout") associates now review a customer's order with planners *before* the order is logged into the CAPS/TWINS scheduling system.

- ◆ EW&C's Manufacturing Excellence team and the Works' Learning and Performance Center team have developed "The Theory of Constraints" classes for all EW&C employees. Eighty-five percent of the employees have attended the classes, which teach the basics of drum, buffer, rope scheduling and the difference between constraint and non-constraint resources in a manufacturing facility.

Plans for 1998 include completing employee training and expanding the application of the constraints theory to all EW&C processes.

After some fast legwork—which included a 60-mile round trip home for McKiddy to pack her bag, some rearranged baby-sitting schedules, and rounding up special shop tools needed for the job—the group made their 7:30 p.m. flight to New York.

Time to refuel

The team arrived at LaGuardia Airport sometime after midnight. None of the five had eaten dinner, but managed to grab a late supper at an all-night eatery. After just a couple of hours' sleep, they reported to a Time Warner central office to work on one of the cabinets that had been moved from the ABC studios.

"I think they (Time Warner engineers) were really surprised to see that three production line workers came out" to work with them, Bernardini said.

The Works team, Labs and Time Warner crews worked a long day modifying the single cabinet, testing and retesting it. "It was a real learning experience to see how they tested equipment," Connor commented.

Early Friday morning all but the Labs crew met and were

dispatched to three different ABC studio locations to reinstall the tested cabinet and modify the other two already there. The three senior production specialists each worked on a cabinet with the engineers.

By 3 p.m., their work was complete, just in time for Time Warner's deadline. But no sight-seeing for the Works team. The five headed back to the airport for the return trip to Omaha—or so they thought.

LaGuardia's busy Friday schedule and snow kept them waiting for takeoff for nearly two hours. They missed their connecting flight in Minneapolis, where they had to spend the night until a Saturday flight to Omaha.

By now the seasoned travelers—each having had about 11 hours total sleep over 3 ½ days—had learned the importance of being flexible. Even when the suitcase holding shop tools didn't arrive at Eppley Airport until Sunday—or when Wemhoff's and Connor's personal baggage was lost until Monday.

Nevertheless, it was worth it, said McKiddy. "I know that I'll probably never have the opportunity to do something like this again." ■

Interconnection Products Group (IPG)

◆One of the main obstacles to not meeting customer commit dates was not focusing on the metric that measures the shop's performance—the Shop Operating Execution Report. By refocusing on the metric, the shop is better able to make judgments and execute plans that are based on a common goal.

◆Another impediment to meeting commit dates was insufficient or lack of understanding job responsibilities, especially since this product group has experienced an influx of employees new to the company as well as to the job. Classes have been offered to operating management and materials management personnel that address the guiding metric and how to interpret reports, with an emphasis on working together better by sharing information critical to on-time delivery. Special training for planners also help them to have a better understanding of their roles within the manufacturing process.

◆A process improvement team, consisting of supervisors and engineers, has begun taking a closer look at manufacturing areas, to determine where long-term improvements might be made that affect capabilities, capacities and cycle times. In 1998, the effort will be broadened to include more direct participation by area quality teams (AQTs) in gathering data.

Outside Products Group (OPG)

◆A weekly commit date report has been initiated that makes it easier to track which planner and which shop is responsible for a particular order.

◆A root cause analysis procedure has been introduced that helps identify major areas that pose obstacles to meeting customer commit dates. For example, it analyzes and categorizes where parts shortages are likely to occur, or

provides systems and logistics data detailing how we move things in the manufacturing process—and what happens in the Global Provisioning Center (GPC) warehouse once a product lands there for shipment.

◆Supervisors, engineers, planners and production employees are meeting together more often to review their area's shipping performance and what can be done to make improvements. Overall, a better working relationship has developed among these groups, especially between the production and materials management teams.

◆OPG has re-engineered how it plans for and provides after-market kits for cabinets, resulting in more efficient use of labor and having less negative impact on other orders that must be met.

◆In 1998, OPG plans to apply daily scheduling vs. weekly loading in more of its shops. ■

NEWS IN BRIEF

(Continued from Page 5)

anniversary date is given first, with service years after the employee's name.

11/1—Richard Browns, 30; Paula Kight, 30; Linda Ryan, 20.

11/2—Don Leisey, 10.

11/6—Dale Wineinger, 30; William Bader, 30; Biagio Stuto, 30.

11/7—John Shimkus, 25.

11/8—Judy Stroy, 30.

11/13—Thomas Vacanti, 30; Dennis Trost, 30.

11/14—George Friesell, 30.

11/17—Donald Donovan, 25.

11/18—Eugene Drvol, 40.

11/21—John Pierce, 20.

11/27—Robert Ludlow, 30.

11/28—Etta Flott, 30.

12/3—Duane Hamilton, 35.

12/4—Ronald Radke, 30; Ronald Schaaf, 30; James Stanfield, 35.

12/9—Charles Syslo, 40; Patricia Hale, 20.

12/10—Barbara Morehouse, 25.

12/11—Karen Kunz, 30; David Stastny, 30; Vickie Gundlach, 30.

12/13—Ronald Dye, 35; Joye Scott, 35.

12/14—Jimmie Chambers, 30.

12/17—Anthony David, 35.

12/18—Walter Rokus, 30.

12/22—Gloria Campbell, 30; Carla Dixon, 30.

12/26—James Witte, 30; John Proksel, 30.

12/27—Leonard Gurbacki, 40.

12/30—Ralph Culbertson, 15.

12/31—Terry Latimer, 35.

Product quality rates an 'A' during November

Quality Assurance has awarded the following IBUs the grade of "A" for their product quality achievements for the November 1997 rating period:

IBU C15—110 patch panel

assembly; 110 wiring blocks; premise connection products.

IBU C12—188, 189, 190, 300 building entrance protectors; plug-in protector units.

IBU C17—Injection molded products.

IBU D19—Connector products.

IBU D17—Broadband cabinets.

IBU F22—Central pack.

EW&C—DFW, cross, hookup wire; inside wire cable; LAN cable.

Omaha Works retirements

No more scraping icy windshields in the Works' parking lots for these people. Lucas Larry officially retired Oct. 31, 1997, with 31 years of service. Geraldine Dibble retired Nov. 25 with 29 years of service, and Margaret Williams retired Dec. 1 after 32 years of service. ■



50TH ANNIVERSARY
of the
TRANSISTOR

Dec. 16, 1947 - Dec. 16, 1997

BRILLIANT!

IF the transistor had not been invented at Bell Laboratories 50 years ago, today much of Lucent's business would not exist. Nor would space travel, personal computers, modern telecommunications—including the Internet—or electronic devices. Invented to replace power-hungry vacuum tubes, the transistor transformed nearly every aspect of society!

❖ If you used vacuum tubes instead of transistors to make the latest digital cell phone, it would occupy a space larger than the Washington Monument.

❖ If created with vacuum tubes instead of transistors, the main storage capacity of a notebook computer would require power systems, cooling equipment, wires and frames enough to fill one tower of New York's World Trade Center.

❖ A typical integrated circuit used in a computer today contains from 3 million to 5 million transistors.

❖ There are some 200 million billion transistors in the world today—about 40 million for every woman, man and child.