A magazine for Betolett-Packard people

January-February 1995

MISURE

Linux

HP teams up with the Celtics



FROM THE EDITOR

OSTON, Massachusetts—A few weeks ago, I had the opportunity to visit Boston Garden—the legendary home of the 16-time National Basketball Association (NBA) champion Boston Celtics. The Garden is a special place—hallowed, some would say. And it's a special year: the 67-year-old structure will be demolished after the 1994-95 NBA season.

This was my first and, most likely, last trip to the Garden. I should have been there 17 years ago, but I passed up the opportunity. In the process, I missed being part of NBA history. Here's the story:

In 1976, I was a young sports writer in Phoenix, Arizona. The top assignment in the sports department was to write about the Phoenix Suns' pro basketball games. Dave, the regular Suns writer, was ill a lot that year, and I jumped at the chance to "cover" the Suns.

Defying all odds, the Suns advanced to the NBA finals. They would face the venerable Boston Celtics in legendary Boston Garden in the best-of-seven-game series.

Dave, feeling better by the end of the season, would write the game story. I would write a second story for home games, based on locker room interviews.

The series began as expected. Boston won the first two games in the Garden. Phoenix surprised the critics by winning the next two at home. Now it was time for the fifth game back at the Garden.

Even though it was the NBA finals and one of the biggest events in Phoenix sports history, the newspaper decided to send only Dave to Boston. As much as Dave and I protested, the newspaper chose not to send a second writer.

Dave quickly figured out a solution: I could sleep in his hotel room and the Suns' public relations director could get game credentials for me. All I had to do was come up with \$600 for airfare.

I debated the decision for hours: I really wanted to go to the Garden, but \$600 represented most of my life's savings at the time. Besides, if Boston won Games 5 and 6, the series would be over. But if Boston won Game 5 and Phoenix won Game 6, I could still go to Game 7 in the Garden. Hey, it's only a game, I concluded.

It was much more than a game. It was, arguably, the greatest game in NBA playoff history. Boston won 128 to 126 in three overtimes. Two nights later, the Celtics beat Phoenix in Game 6. The series was over. The opportunity was gone. It took 17 years before the Suns were in the NBA finals again. I was long gone from Phoenix by then and my friend, Dave, had died.

So, a few weeks ago, while researching the *MEASURE* story on page 8, I entered the Garden for the first time. I walked on the famous parquet floor, looked up to the rafters to the 16 championship banners and zeroed in on the 1976 banner. I stood there in a momentary trance until a Celtics' official tossed a basketball to me. "Go ahead," he said, "take a shot." A little embarrassed, I was just about to say "no" when I flashed back on 17-yearold images: Game 5, Dave and lost opportunities. Go ahead, tear down Boston Garden. I've made my shot. I have my memory.

Jay Coleman



On the cover: Boston Celtics' guard/forward Blue Edwards (30) drives past two Detroit Pistons players to score a basket in a National Basketball Association game in November. The Celtics recently teamed with HP in a 3-year relationship (see page 8). Photo by Steve Lipofsky.



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Tools and training are available to employees to thwart ergonomic disasters-in-waiting. Jackie McSwanson, a PeopleBase program manager, shows an all-too-common office scene.

HP launches a broad program to cut injuries and make work areas work better.

No pain, tremendous gain

By Joan Tharp

Harold Brown's not one to complain. After an eight-hour day at his computer in the Instruments and Photonics Lab of HP Labs, he figured his aching back and tender hand just came with the territory.

"I always thought that was the price you paid for doing the work you do," he says. "It never occurred to me that I had any control over it."

But Harold found out pain needn't be part of his job description. As part of HP Labs' decision to give ergonomic education and work-area assessment to all Palo Alto employees, Harold learned about injury prevention, got a new chair and had the casters on the legs of his desk removed so that the desk was several inches lower and more com-

HP's injury and illness rate is nearly twice as high as the computer industry average.

fortable to work at. Within a couple of days, he felt less pain in his back and his hand no longer ached.

His productivity jumped, too. "Pain really makes it hard to concentrate. It used to be that I'd never make major changes in my work late in the day because inevitably I'd mess it up," Harold says.

Smoothing out the way people work in the office or out on the floor-that's the science of ergonomics and the main objective of HP's worldwide ergonomics program.

HP's concentrating on ergonomics because the company's injury and illness rate is nearly twice as high as the computer industry average and it hasn't budged much in three years. (The rate is based on injury and illness reports filed with the U.S. government.)

As at most electronics firms, ergonomic injuries are the bulk of the company's total injuries—in HP's case, nearly 60 percent. (Ergonomic injuries also are a leading occupational injury in the United States.) By reducing the number of these injuries, HP hopes to cut its overall injury rate in half by 1996.



HP is sponsoring a study of how to cut risks of ergonomic injury. Carol Lopez, Corporate Offices personnel support specialist, uses biofeedback to learn how to relax muscles.

Getting HP's injury rate down has been one of CEO Lew Platt's Business Fundamentals since the beginning of FY 94.

What exactly is an ergonomic injury and how do you know if you're courting one?

There are two types of ergonomic disorders, both of which can arise when jobs or the workplace are not optimally designed for the body.

One type is commonly referred to as cumulative trauma disorders (CTDs) or repetitive strain injuries. CTDs are injuries to the muscles, tendons or nerves in the neck, back, shoulders, arms, wrists or hands.

Three factors work together to produce a CTD: frequency, force and posture. You increase your risk of getting hurt when you repeat a motion

over a long period of time, especially when you use force and either move awkwardly or keep the same posture.

In fiscal 1993, CTDs comprised 32 percent and were the largest single component of HP's total injury rate.

The second type of disorder is overexertion-muscle sprains caused by a one-time effort to lift, push or pull.

If you or someone you know has had an ergonomic injury, you know how debilitating and frustrating it can be. You can't twist open a jar lid. You hesitate before sitting, knowing that one slightly off-kilter movement will send a tsunami of pain up your spine.

These injuries hurt the company, too. In 1993, ergonomic injuries accounted for \$5.4 million—nearly 70 percent—of HP's U.S. workers' compensation claims.

And ergonomic injuries can dull HP's competitive edge. HP and other electronics companies have trimmed

Computer user's ergonomic checklist

- · Feet flat on the floor or supported by a footrest
- · Wrists straight and relaxed
- · Forearms parallel to the floor
- · Head and neck upright
- · Lower back fully supported by your chair
- · Frequently used items (manuals, files, telephone) within easy reach

No pain

their work forces significantly over the past several years, and now run very lean. HP's higher-than-average injury rate means that it has a greater percentage of employees out of commission or unable to work a full day

"I'm dismayed and frustrated at how many employees will work in what clearly are uncomfortable environments."

than many competitors. That's not what you want to hear when you're racing to get a new product to market.

Reducing injuries is the immediate goal of HP's ergonomics program. At the same time, HP wants the productivity benefits that come when ergonomic thinking permeates a company.

Ergonomics is all about designing workplaces for the people who work in them. When you do that, not only do injuries drop, but productivity jumps because people are working comfortably, and their motions are smooth and efficient.

Want proof? Consider the Analytical Products Group's Bay Analytical Operations (BAO). Ergonomic improvements in production over the last several years have reduced production's ergonomic injury rate by nearly 90 percent from 1991 to 1994. Productivity improvements equally are impressive. For example, a new tool for gluing two parts ended the ergonomically risky practice of pinching and holding the material by hand while waiting for the glue to set. Out-

Symptoms of ergonomic disorders

- Tenderness, soreness or swelling in your shoulders, arms, elbows or wrists
- A popping noise when you move
- · A tingling sensation
- Numbness
- · Cramping
- Pain
- · A weakened grip

put has jumped 10 times and the quality of the parts has improved.

Numerous studies show that ergonomic improvements pay off in the office, too. One recent one by E.I. Du Pont de Nemours reports a 20 percent improvement in productivity after offices were made ergonomically sound.

An ergonomics task force representing all businesses is working to increase the company's ergonomics know-how. Programs to date are:

- a consultant's review of the company's ergonomics programs
- employee awareness and injuryprevention training, including an on-line course for computer users (see box on page 7);
- guidelines that help HP's health-care providers assess and treat injuries;
- furniture standards for buying ergonomically correct equipment;
- cross-functional teams at major entities, charged with diagnosing and curing ergonomic problems on the floor and in the office.

Employee training has been the main emphasis since the task force began last year. That's because, as Labs' Harold Brown found out, aware employees can reduce their risks. Ergo-wise employees also can come up with great fixes. (Most of the ergonomic improvements at BAO were proposed and designed by production employees who had zeroed in on risks.)

But getting employees to sign up for training isn't always easy, say members of HP's ergonomics task force. "Training keeps falling off the plate because of time constraints," says Suzanne Gallo, ergonomics program manager at the Cupertino, California, site.

Cupertino has one of HP's most proactive and successful ergonomics program, and its ergonomic injury rate is lower than the company's.

Ergonomic improvements weren't terribly expensive and the program seems to have a lasting effect.

However, Gallo estimates that no more than 10 percent of the site's employees have gone through injuryprevention training.

Ergonomics task force members also worry that some employees may skip training or keep quiet about pain because of dedication to the job or concern about being pegged as a weaker member of the team.

"I'm dismayed and frustrated at how many employees will work in what



Colorado Springs Division redesigned the packaging process so that operators, such as Chris Montoya, can tilt products and slip them into shipping cartons instead of lifting them.

clearly are uncomfortable environments," says Judy Goodnow, occupational health program manager in Corporate Environmental Management and co-chair of the company's ergonomics task force. "But HP people are the kind that really want to get the product out the door."

Judy also was disturbed when a manager who had been in pain for a while told her he hadn't said anything because "he didn't think it was cool to complain."

She and other ergonomics advocates in HP say management support can make all the difference between a mediocre and a meaningful ergonomics program. But convincing managers to act before there's a problem can be a tough sell, they say, because the payoff is not always clear to them.

Glenn Osaka, general manager of the Professional Services Organization in the Solutions Integration Group, understands managers who have doubts. Back in 1991, when he ran the Commercial Systems Division (CSY), he couldn't prove to his management that divisionwide training and office

evaluations would help the business and employees. He also didn't have a lot of money for replacing furniture.

Glenn says he "drove it through on faith," based on common sense and experience with a back injury.

Glenn says ergonomic improvements weren't terribly expensive and the program seems to have a lasting effect. In 1994, CSY had an ergonomic injury rate less than half that of the site's.

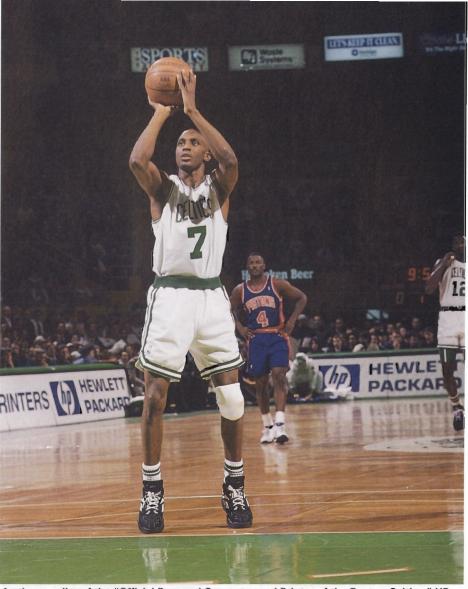
The company's ergonomics task force says every function and employee has a part to play in getting ergonomic injuries down for good, and making the work environment comfortable and productive. Employees need to take and use the training available to them. Managers need to support training, work-area evaluations and ergonomic improvements in their businesses. And engineers and officespace planners need to design with the human in mind. M

(Joan Tharp is a communityrelations specialist in HP's Corporate Communications department. -Editor)

On-line with **ErgoSmart**

If you're on HP's common operating environment—PC COE you can train yourself to be ergonomically smarter when working at your computer by taking the "ErgoSmart" selfpaced course. Just click on the "Infonet" icon and then the "RS WIN" icon. Enter "ErgoSmart" in the dialog box and click on "Search."

HP joins forces with the world-famous Boston Celtics basketball team in one of the best sports-marketing relationships today.



As the supplier of the "Official Personal Computer and Printer of the Boston Celtics," HP has forged a 3-year relationship with the famous team, including star guard Dee Brown.

A team on the move

By Jay Coleman

BOSTON, Massachusetts—Ever since Bill Vonachen's team moved into the land of the 7-foot giants, the HP players have felt 10-feet tall.

Bill is the district sales manager for HP's Burlington, Massachusetts, sales district for Computer Products Organization (CPO) equipment. And in August, the HP team scored a major coup when Hewlett-Packard equipment was named "the Official Personal Computer and Printer of the Boston Celtics" professional basketball team.

If you know anything about sports, you know that the Celtics epitomize excellence in athletic tradition. They've won 16 National Basketball Association (NBA) titles, including an unprecedented eight consecutive championships between 1959 and 1966.

The Celtics play in the historic Boston Garden arena with its distinctive parquet floor. And a list of their world-famous alumni comprises a Who's Who of basketball legends, including Bob Cousy, Bill Russell, John Havlicek and Larry Bird. Celtics

games consistently capture some of the highest TV ratings and Celtics merchandise-T-shirts, jackets and so forth—are among the biggestselling items among sports fans.

It's a land where 7-foot players are commonplace, and it's a new territory for HP. Being a part of the Celtics' aura puts HP in elite company.

"It's essential that we become a brand name if we're going to remain competitive and defend our marketshare," says Tara Agen, HP marketing program integrator. "Having a relationship with an organization as professional and prestigious as the Boston Celtics is fantastic. We're no longer the 'new kid on the block' in sports-marketing partnerships."

Adds Stuart Layne, the Celtics' vice president of planning and special events, "The Celtics-HP relationship is as good

> That's when HP entered the game. "We saw this as a tremendous opportunity to fill the Celtics' and HP's needs," HP's Bill Vonachen, explains.

"The Celtics needed to automate their marketing, coaching, finance, office, ticketing and NBA operations. We needed a way to increase visibility for HP products with corporate and consumer customers in this market, as well as a way to motivate our reseller base and end-user customers to buy more HP products.

"Teaming with the Celtics represented a total win-win situation."

First, Bill recruited nine HP organizations (see box at right) to supply HP products—particularly personal computers, printers, networking products and peripherals—for the Celtics' 28-node PC network.



The 1994-95 basketball season is the last for the legendary Boston Garden where 16 NBA championship banners hang.

HP Corporate Account Rep Rob Carbonaro assessed the Celtics' networking needs, made sure that the reseller could meet those needs and managed product shipments from the nine HP divisions.

Next, Rob and HP Sales Rep Todd Gustafson worked with Copley Systems—the Celtics' reseller of choice—to ensure that the HP equipment was installed properly, and that the integration and rollout proceeded smoothly. Copley, one of the largest resellers of HP products, will handle all post-sales activities, including systems integration and support.

Bill negotiated the overall deal with the Celtics while Tara concentrated on the marketing relationship. The network was up and running and the Celtics-HP relationship was in full swing by the time Boston opened the 1994-95 NBA season on November 4.

"We saw this as a tremendous opportunity to fill the Celtics' and HP's needs."

an example of a marketing partnership as you'll find in sports or advertising today."

How did the Celtics and HP become teammates in this three-year deal?

It all began a year ago when Celtics' management decided it was time to upgrade the team's computer systems. "We were in the Dark Ages, but probably still ahead of a lot of NBA teams," Stuart says. IBM and Digital Equipment Corporation—with headquarters in nearby Maynard, Massachusettsdidn't seem interested.

HP's all-division and entity team

To build a championship relationship with the Boston Celtics, HP's Boston Sales Force 12 team assembled an all-star lineup of HP divisions and entities that provided equipment. They are:

- · Grenoble PC Division
- Network Server Division
- · DeskJet Marketing Center
- · LaserJet Marketing Center
- Roseville Networks Division
- Mobile Computing Division
- Information Storage Group
- Greeley Hardcopy Division
- · San Diego Imaging Division

Team

Perhaps the most impressive statistic is that the HP team handled the negotiations and logistics with the Celtics while simultaneously achieving 120 percent of its sales quota.

For the Celtics, higher productivity was the pivotal difference—and HP could deliver that difference.

HP's computing system gives the Celtics access to "real computing

"If we help HP sell products, we'll have a long-term relationship with them."

power," says Jay Wessel, the team's computer consultant. "This puts us at the front of the league."

Don Vendetti, Boston's assistant director of sales, says that the new networking capabilities mean that any of 10 Celtics sales reps can look up any future game, such as what group tickets have been sold and what's available. "The only way we could do that before," Don adds, "was to walk to another office and hope to find a hard-copy list."

Ticketing will be especially challenging next year when the Celtics move from the historic, 15,000-seat Boston Garden next door to the new 18,400-seat Shawmut Center.

"In the past," the Celtics' Stuart Layne says, "if you didn't come or watch every night, you'd miss something unique that Larry Bird did. Now it's important for us to highlight the class, style and image that the Boston Celtics franchise represents."



Stuart Layne (right), Celtics vice president of planning and special events, discusses marketing ideas with HP's Bill Vonachen and Tara Agen in a Celtics conference room.

"Some day, fans will be able to buy tickets from their home computers," adds the Celtics' Don Vendetti. "Without the network, that vision wouldn't be possible."

The transition to a new arena and a new era of Celtics basketball coincides perfectly with HP's increased entry into consumer markets, particularly through its CPO products.

The HP-Celtics' relationship provides instant exposure. HP receives ads in the Celtics' media guide, year-book, game programs (Hoop magazine) and on court-side signs during games. Game-night activities and opportunities to host resellers and other key customers at popular Celtics games also score extra points for HP. There's even a chance of involving Boston's star guard, Dee Brown, a computer-science graduate, in community events.

In addition to the computer network, the Celtics believe that they also benefit greatly from the partnership with HP.

"Our intention is to find ways to help HP be successful," the Celtics' Stuart Layne says. "If we help HP sell products, we'll have a long-term relationship with them.

"In some ways, this relationship is under the microscope within HP. The Celtics have a mystique, a pride and a tradition that surpasses any image of any sports team in the world. We enjoy being the model relationship." M

From banking to automated tracking systems, HP's Worldwide Customer Support Operations launches a host of new services to meet its customers' shifting needs.



The mushrooming desktop-computing business prompted the Finance and Remarketing Division to establish HP Asset Management Service, says Mandeep Khera, operations manager, who meets with Program Manager Monica Hasegawa.

vour service

By Andrew Ould

When Johan Vanoverbeke became HP's country support manager for Belgium in October 1993, one of his first steps was to meet with customers to hear what they wanted from HP's Worldwide Customer Support Operations (WCSO).

"They said they wanted us to take a different approach," Johan recalls. "They wanted us to shift from being reactive-waiting for something to happen and then going to fix it-to being proactive."

A survey of HP service and support operations around the world shows that Johan's experience is not unique. The shift among customers from proprietary computing to standardsbased computing-which first jolted the computer systems business-is now redefining the role of service and support.

"Traditional hardware maintenance is still an absolute requirement," says Eric Rocco, Dataquest's program manager of customer service trends in Framingham, Massachusetts. "But the smart companies are investing in new services that help customers make the transition to multivendor, open-systems computing."

If anything, the migration from proprietary to open systems is accelerating, says Jim Arthur, WCSO general manager and an HP senior vice president. "Customers today expect

Service

us to deliver a much broader range of services than in the past. Making a successful transition into these new businesses is fundamental to WCSO's long-term success."

Key new WCSO services include:

- selective outsourcing, where customers hire HP to help them run specific parts of their computer networks or systems;
- mission-critical support, where customers depend on HP to keep their most important applications available continuously; and
- asset management, where HP provides automated tracking of PCs, peripherals, and software.

"The open-systems movement has spawned all this change. And it's just going to continue; it's not going to slow down," Dataquest's Eric Rocco says.

The following snapshots give a closer look at how WCSO is creating and delivering new services around the world.



Australia

"An idea whose time has come"

Since November 1993, when HP launched its selective outsourcing program, the new service has proved a hit with Asia Pacific financial firms, including J.P. Morgan & Co., NatWest Markets and others. With selective outsourcing, customers hire HP to run specific parts of their networks or systems.

Despite this string of wins, the going was tough at first.

"Nobody wants to be the first person to do business with you when you



HP servers and 24-hour "mission-critical" support keep the Czech National Bank's information system up and running.

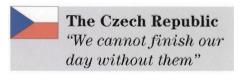
have no references," says Chris Gibbins, sales and marketing manager for operations services in Asia Pacific. "It's a very tough sell."

Yet Chris, a 16-year HP veteran, convinced NatWest to hire HP to run its network—even though it runs on non-HP systems.

"I recognized early in the project that networks are not the business of banking," says Stephen Coleman, head of capital markets information technology at NatWest. The company NatWest picked to run its network "had to have extensive expertise in network management, as our widearea network is critical to the bank's operation." He adds: "A breakdown of only minutes could cost us dearly."

Customers are choosing HP's selective outsourcing program because it helps them make the move from mainframes to a client/server environment, improve information-technology performance and focus their employees on core business objectives.

"Selective outsourcing is an idea whose time has come," says Dataquest's Eric Rocco. "Few customers want to outsource everything."



When Czechoslovakia split into the republics of Czech and Slovak in January 1993, the Czech National Bank (CNB), the government's central bank, went hunting for a new computer system to run the country's banking system.

"We knew we didn't want a mainframe," recalls Vladimir Fritsch, manager of the bank's systemadministration division in Prague. "We knew we wanted open systems because it would give us a more flexible environment."

But Vladimir worried over who would support these new UNIX® systems. He knew that he would have trouble finding employees with detailed UNIX and networking expertise.

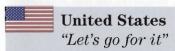
Vladimir eventually chose three advanced HP 9000 servers to run the country's banking system-monitoring the Czech Republic's treasury bill market, supervising the country's commercial banks, collecting transaction data from branch offices and linking 600 CNB employees by e-mail.

He also hired Hewlett-Packard s.r.o, HP's wholly owned Czech subsidiary, to provide around-the-clock support to keep the banking information system up and running.

The applications running on the CNB's HP servers "are an integral part of our system," Vladimir says. "We cannot finish our day without them."

For the CNB, HP delivers what's called "mission-critical" support. As part of the CNB's support package, three HP support engineers are dedicated to the CNB's computers. One of those engineers is on-call after business hours and on weekends. HP's Prague response center promised to solve the CNB's problems in two hours or involve another HP response center.

"The CNB order has given us a good chance to show that HP can deliver advanced support here in Prague," says Alexander Pokorny, HP district support manager. "Other potential customers are considering having us deliver similar support for them."



Until October 1993 Mandeep Khera was head of leasing administration for WCSO's Finance and Remarketing Division (FRD). Then FRD General Manager Craig White tapped the 34year-old Mandeep to create and launch a new service-HP Asset Management Service.

FRD had considered offering asset management for several years, but customers began requesting it more enthusiastically in 1993, according to Mandeep. The reason: desktop computing assets have doubled in the last five years, making it difficult for information technology departments to track their desktop hardware and software.



Australia-based Chris Gibbins (left), an HP Asia Pacific sales and marketing manager, dashes off to his next appointment during a recent business trip to Tokyo.

"Craig said, 'There's a need; let's go for it,' " Mandeep recalls. "We had the customer in mind and just went forward." In six months, Mandeep and his small team created the service and brought it to market.

According to market researchers, U.S. companies lose \$20 billion a year because of lax management of desktop assets such as PCs, printers and software.

"Somehow assets grow legs and walk off," Mandeep says. Other problems: companies buy more software licenses than they have employees, pay maintenance for hardware that doesn't exist or that's still under warranty, or have trouble coordinating upgrades and training.

The HP Asset Management Service gives companies a way to control these and other "hidden" asset costs. After first conducting a thorough inventory of all the desktop assets,

HP then provides automated tracking and detailed reporting on a company's desktop assets.

Would he do anything differently next time? "Sure, with more time to plan, things would go more smoothly. But in real life you never have as much time to plan as you might want," he said. M

(Andrew Ould works in the PR department for HP's Worldwide Customer Support Operations in Mountain View, California.—Editor)

Seoul survivors

SEOUL, South Korea—Samsung Hewlett-Packard (SHP), HP's joint venture with Samsung Electronic Corporation, had a record-setting 1994 despite worldwide anxiety over North Korea's leadership change and its development of nuclear weapons.

What is now the Republic of Korea was either occupied or at war from 1910 to the end of the Korean War in 1953.

Stunning postwar industrialization programs built from rubble what is now the world's 13th-largest economy. The country's strong growth has been fueled mainly by the government's strong export-driven and protectionist trade policies.

General Manager John Toppel says SHP's 1994 growth was 96 percent, making Korea the company's ninthlargest market. The Computer Products Organization grew 278 percent, driven mainly by inkjet printer sales for home users. Localization efforts have yielded huge payoffs. Korea's International Procurement Operations exports totaled \$500 million in 1994.

As the political situation with the North relaxes, HP already is investigating its entry into the marketplace there. Says John, "North Korea is moving toward normalized relations with the world and becoming less isolated. We want to be the first multinational computer company to set up shop in Pyongyang." M

-Jean Burke Hoppe







Samsung Hewlett-Packard (SHP) employees (from left) Hyung Dong Chin, Eui Jung Chung and Hyeok Kim enjoy a snack during their lunch period in downtown Seoul. The SHP building is visible in the background.

Heavy traffic jams are common during commute hours, so SHP subsidizes the cost of cellular telephones for Soon Keun Park and other employees who spend most of their time calling on vendors and other customers.

bottom left

Test and Measurement Organization field engineer En Sang Jeong chats with friends outside the Toksugung Palace while a newly married couple (left) have photos taken following their wedding-a popular custom in Korea.

right

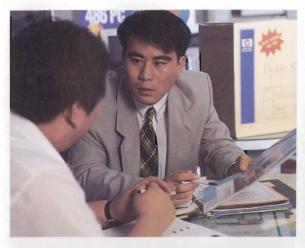
Shin Bok Yi (from left), Do Kyun Kim, Seong Hee Kim and Kyu Young Lee meet outside the Samsung Hewlett-Packard main entrance on their way to work.



Korea

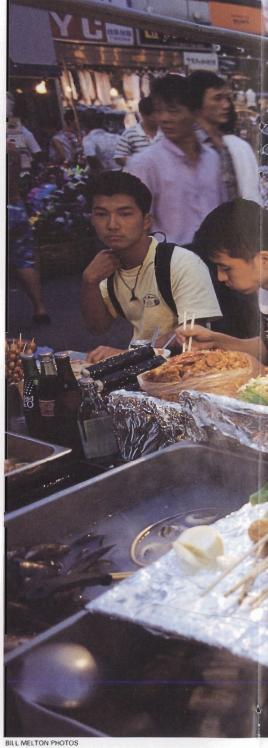
right

Sales rep Hyun Sam Shin points out features of the HP DeskJet printer to an employee of Union Computer, one of the biggest dealers in Seoul.









right

Assemblers, including Ji-Yean Kim (foreground), work on power supplies for HP instru-ments. HP's Korean manufac-turing facility is about seven miles from HP's sales office.

right

Jung Hyun Kim prepares dinner while her mother, Kil Mi Park, finishes the ironing in Jung Hyun's Seoul apartment. Kil Mi also helps care for her 2-year-old granddaughter while Jung Hyun works at SHP.



above

Soon Keun Park (left), a facilities purchasing supervisor, welcomes newly hired field engineers Eun Sang Jeong (center) and Woo Sehk Seh to SHP during dinner at an outdoor restaurant in Nam-Dae-Moon Market in Seoul.

Addicted to adventure

By Jean Burke Hoppe

HP's foreign-service employees willingly trade all the comforts and security of home for work assignments in foreign lands. Whatever possesses them? HP's foreign-service employees (FSEs) are a misunderstood lot.

Kanji Yamada, the controller for HP's Test and Measurement Organization in Japan, says his Yokogawa-Hewlett-Packard co-workers tease him about his recent "three-year vacation" as financial policies manager for the Corporate Financial Reporting department in Palo Alto, California.

American John Toppel, general manager of Samsung Hewlett-Packard in Seoul, Korea, says most people think he's crazy for moving his family around like a Bedouin tribesman. Others, he says, simply don't see the benefits and "hidden rewards" of meeting and working with people all over the world.

U.S.-born Steve Paolini, currently product development manager for HP's Components Group in Japan (who is moving to a similar job in Malaysia in March), is always surprised when people say foreignservice assignments seem too big a burden. "To me, it's just so obvious that this is a really useful experience, like going to graduate school."

About 500 HP people are currently in foreign assignments worldwide, says Pat Randall, relocations specialist in Corporate Worldwide Relocations. About 190 are from the United States.

HP Chairman, President and Chief Executive Officer Lew Platt says, "HP desperately needs its FSEs. These are the people who carry the HP flag and open up new territories. They're truly pioneers with experiences to match."

A lot of people unfamiliar with international transfers make snide

remarks about the perceived glamour and perks of international assignments, says Pat. That irks FSEs who know the true hardships also involved.

The disruption can take its toll on even healthy marriages. Some people turn to alcohol and drugs to deal with the stress. It can be especially difficult when a family member becomes ill, either in the foreign country or back home. In 1994, John Toppel lost both his mother and grandmother, and

"When you're halfway across the world, you have to take the initiative to stay in the loop."

regrets that he couldn't be of more support to them and the rest of his family during a difficult year.

Going home after an assignment is always hard, personally and professionally. "You truly are a different person, and you will never see the world the same way again," John says. "When you get home, you discover that people haven't changed in the same way as you have."

Kanji Yamada agrees. "Coming home was the hardest part. Maybe my memory fools all of my family and we only remember the good things. But it opens your eyes. You want to learn more."

Another pitfall is the "out of sight, out of mind" syndrome, says Suresh Rajpal, general manager of HP India, who also has worked several jobs for



The Metro train system often is the fastest mode of travel around Moscow, Russia, says HP Russia General Manager Nick Rossiter.

HP in the United States, Canada and Hong Kong. "When you're halfway across the world, you have to take the initiative to stay in the loop. Part of the risk involved is that it is your responsibility to find your next job after an assignment. You need to stay in touch."

Despite the down sides and sacrifices, John Toppel and his family have loved roaming the world. What does it take? "I think you have to be a personal risk taker and very self-reliant. You need to be curious, adaptable and open-minded. We certainly like the idea of the constant adventure and by this point it's in our blood. I'm always ready to try something new and different."

Depending on your job, representing HP in foreign lands can mean rubbing shoulders with high-level civic and business leaders. Lew Platt says, "It's an environment that attracts a certain kind of person. Many of

them have the independence of running a business, the visibility of running a country. You're invited to all the best parties."

Nick Rossiter, an Irishman who is general manager of HP Russia, says, "You must be extremely tolerant, have a pioneering flair and possess great determination to get things done."

"Once you start with these foreign assignments, it's hard to stop."

Nick, who also has worked for HP in Saudi Arabia and England, says he finds himself in strange hotels in remote towns, having cucumbers, sour cream and weak tea for breakfast much more frequently than he finds himself at state dinners. He

remembers the irony of being grounded for a day in Nizhnevartovsk in western Siberia-one of the world's most important oil-producing areas because there was no fuel for the plane. In Moscow, you never know when the lights will go out, when the ceiling of your flat will leak or when the government-controlled heat will be shut off, Nick says.

No, it's not all glamour, and he loves every minute of it. In his fifth year in Moscow, he's already past the typical two or three years most assignments last. "I consider Moscow home. This is such an exciting place and certainly an exciting time to be doing business here. Once you start with these foreign assignments, it's hard to stop. It's as fascinating to meet the other expatriates as it is the local people."

Suresh Rajpal returned to his native India in 1989 to start HP India. He thinks it would be very difficult to

Addicted

go back to a one-dimensional job after his experiences. "I think global experience adds real value to an employee. I worry sometimes about those whose career development has been in one sector only and not across geographies. It seems a little too narrow for a company like HP. We need people with broad experience to take advantage of growth potential."

Kanji Yamada, whose two FSE assignments in the United States have taught him the profound differences between U.S. and Japanese management, says, "HP is a global company and I like feeling part of that. If I limit myself to Japan, it limits future opportunities and growth."

It was almost as if invisible forces initially drew Steve Paolini to Japan. "I had to actually come here," he says. "All the reading I had done was valuable, documentaries are informative, but I really needed to understand the way Japan functions as a society, the way the Japanese do business, the way their technology works, because it is so successful and so completely different from what Americans do."

The experience has exceeded his expectations. He regrets only that he wasn't able to master the language as well as the rest of his family has.

Julie Paolini knows that foreignservice assignments can be hardest on the non-HP spouse. Shortly after arriving in Japan from California, her 3-year-old came down with chicken pox while Steve was away on business. She had to rush Robbie to an emergency room, negotiating an unfamiliar bus route, while amusing a sick toddler and her 1-year-old, Catherine. "That's about as bad as it's gotten," she says.

After the initial culture shock wore off, she says, the experience has been wonderful. Most HP employees in



About 90 friends and neighbors attended a going-away party for Kanji Yamada and his family (center) when they left Palo Alto, California, in 1991 to return to Tokyo.

Read this before you pack your bags

Relocations Specialist Pat Randall says it takes a special type of person (with a special family) to be a successful FSE. She suggests some preliminary soul-searching, starting with the impact the move will have on your career. Is it in line with your goals? Will you be able to transfer back your new global skills? Could you go back to a narrowly defined job?

Following are some fundamental characteristics FSEs must possess:

Positive attitude. Essential for the whole family. You may face poor roads, unreliable phone and power service, unfamiliar food, overcrowded conditions, terrifying traffic or an incredible cost of living. The best FSEs take such things in stride. **Flexibility and adaptability.**The most necessary traits. An open

mind is a must.

Supportive family. Families often strengthen bonds during foreign assignments. Are you sure your children could adjust? Your spouse?

Sensitivity. All family members should understand the values and traditions of the local culture. Tolerance is key.

Sense of humor. Vital, though sometimes difficult to maintain.

Determination. Nick Rossiter calls it a "flair for pioneering." Suresh Rajpal says, "What you want to do, you can make happen. No one else makes it happen for you." Both are wildly successful FSEs. Both rely heavily on all of the characteristics above.



G.M. John Toppel (right) conducts one of his trademark standing meetings with SHP's Eun Kyung Chung (left) and Jin Chan Kil.

foreign-service assignments enroll their children in international schools and live in foreign-service enclaves, but Steve and Julie took a different approach.

They found a home in a regular Japanese neighborhood and enrolled their children in the neighborhood school. Robbie, age 6, started kindergarten three years ago and now speaks perfect Japanese; Catherine, 3, started this year. The children are the only *gaijin* (outside persons) in attendance.

The Paolinis celebrate Japanese holidays along with American ones. They spend lots of time exploring.

"To Catherine," Julie says, "Japan is home. She hasn't really known anything else."

All the FSEs feel their international assignments have had a profound impact on their souls and on their families. Says Steve: "Part of this experience goes beyond how we usually narrowly view ourselves and our lives. It's about the good of the company, even the good of society. It's

He holds the record

John Toppel is the closest HP has to a career FSE. He's spent more than half of his 22 years with HP outside his native United States. He shows no signs of settling down any time soon.

John joined HP in 1973 as a systems analyst in Corporate. He and his wife, Margaret, have had 12 different addresses in eight cities in six countries during their 23-year marriage. Their son, John Harding, 12, was born in Hong Kong.

John nearly bursts with enthusiasm and fondness recalling each of his assignments. "This has given us a totally different view of life," he says.

Since 1979, the Toppels have lived in:

Hong Kong (first HP sales manager) Palo Alto (major accounts district manager, Neely sales region)

Melbourne (director of marketing operations, HP Australasia)

Guadalajara (general manager, Microcomputadoras HP)

Geneva (computer systems sales manager, Middle East and Africa)

Seoul (general manager, Samsung HP)

probably the best way you can develop a truly global view. I feel we've given our children a great gift. They're growing up in a world that will only get more international and intertwined. This is the perfect foundation for that." M

(Jean Burke Hoppe is a Lincoln, Nebraska-based freelance writer and a former editor of MEASURE.-Editor)



It took eight years, but Medical Products Group Engineer Teddy Johnson finally saw his seed-germination experiment fly into space in September on the space shuttle Endeavour.

The gravity of the situation

An HP engineer realizes an eight-year dream and gains a piece of space history.

Teddy Johnson sat with the other VIPs (very important people) and held his breath. The space shuttle Endeavour's rocket boosters fired at precisely the right moment. The huge craft thundered into space as flames lit the early morning Florida skies.

"We were three miles from the launch pad—as close as anyone is allowed to be—and the sensation still was intense," Teddy said. "It was a great relief to have this experiment off the ground."

Teddy, an engineer in HP's Medical Products Group imaging lab in Andover, Massachusetts, was about to make space history on this brisk September 30, 1994, day.

Eight years earlier, Teddy was a high school sophomore from Chicago, Illinois, attending Space Camp at the University of Huntsville in Alabama. Teddy, three other students and a scientist devised an experiment to test seed germination in space. He never imagined that it would take nearly a decade before his experiment would fly.

"A lot of experiments go faster than that," he says, "but we were delayed

because of high school, college and our personal lives."

For Teddy, that meant finishing high school, earning a mechanical engineering degree at Stanford University and accepting a job with HP in Andover in 1993.

Although the U.S. Space Camp. under the auspices of the National Aeronautics and Space Administration, accepted Teddy's team's proposal six years ago, the students had to arrange funding to get the experi-

"When plants grow, the roots grow down because of gravity. What happens when you don't have gravity?"

ment on a shuttle, then wait until there was available room.

"It costs about \$15,000 to get a canister on the shuttle," Teddy says. "We were fortunate that a cement company wanted to conduct experiments on mixing cement in space, and the company had room for our experiment in their canister."

Teddy's experiment involved 40 cucumber, turnip, radish and tomato seeds in a growth chamber 2 inches by 2 inches by 2 inches. The seeds rested in filter paper, surrounded by insulation. At one point in the 10-day mission, shuttle astronauts flipped a switch that released water into the filter paper. Then nature—and space did the rest.



Teddy and the other VIPs were a mere three miles away from the launch pad when the Endeavour blasted off.

"When plants grow, the roots grow down because of gravity," Teddy explains. "We wanted to know what happens when you don't have gravity. How does the plant decide which direction it will grow and how does that affect the germination of the seeds?

"After all this time, I still want to know the answer."

The eight-year wait actually took a month longer than originally announced. Teddy's experiment had been scheduled on an August 18 mission, but the Endeavour had engine problems 1.9 seconds before liftoff and the mission was canceled.

"That was disappointing," Teddy says. "We had been given the VIP tour

"I feel good about contributing to a field that makes a difference in people's lives."

of the Kennedy Space Center at Cape Canaveral and we were psyched up for the launch. But it was just as exciting the second time."

Teddy's team received the spaceweary seeds about a month after the Endeavour returned to Earth. Now the team will analyze the seeds and report the results.

In the meantime, he has his hands full designing medical products for HP.

"I like the creative opportunities in industrial design," he says. "There's a great deal of creativity. Plus, I like being part of the medical community. I feel good about contributing to a field that makes a difference in people's lives."

And what about future space exploration?

"It was a wonderful opportunity and it makes me even more excited about being an astronaut someday." M

Only the empty boxes will move

By Ellen Harris

(Editor's note: In November 1994, HP closed its Waltham, Massachusetts, site and consolidated those operations at the Medical Products Group headquarters in Andover—about 30 miles away.)

WALTHAM, Massachusetts—In a few weeks, our plant will close its doors for the last time. The migration north to Andover will be complete.

Over the last year, the number of people at Waltham has dwindled down as departments moved up to the Andover campus on their assigned move date. Being one of the last departments to leave is both a blessing and a

As each department has moved, the people have taken the sights and sounds of life...

curse. Staying until the very end really helps to finalize things.

The first groups to leave Waltham hated to go, leaving friends behind as they were forced to face "the unknown." But as each department has moved, the people have taken the sights and sounds of life, leaving behind nothing



Ellen Harris packs 13 years of memories in a box and leaves the Waltham, Massachusetts, site for the last time.

but indents in carpets where Herman Miller (furniture) used to be.

Soon, I'll walk past the guard's desk and out the front door for the last time. On that day I'll carry with me my own box of memories—memories that make up the 13 years I've worked here.

My most precious memories are of people. I remember how we celebrated together—perhaps really for the first time—when we received ISO 9001 certification. That party, more than any other I went to in the Waltham cafeteria, was a party that we were all proud of. We had all made the (certification) happen—together.

I also remember how we all mourned together as redeployment hit us for the first time. The pain of being redeployed was just as painful for the manufacturing manager who announced it as it was to those of us who were now labeled "excess" and for every level in between. The tears that were shed were real as we heard of someone else who had been "hit" with the excess label, as if we were talking about shrapnel from enemy fire. And in a way we were.

I remember how happy everyone was when we heard of someone getting a job from the job listings posted for redeployed employees only. Everyone was actually joyous as news of

job offers came in for those affected. It didn't matter that the person had to take a job that was one—or several—levels below their current job. Anything was better than direct placement, which usually meant a second- or third-shift position. The label of "excess" was now off their neck. One more had "made it" and everyone gave his or her congratulations.

In many ways, as the time drew nearer for us to leave, we truly became an HP family. It's a phrase you hear all the time—you know, that "propaganda stuff"—but we were all in mourning. And like all families in mourning, we rose to the occasion.

In many ways, as the time drew nearer for us to leave, we truly became an HP family.

So, what will I do with my box of memories? Bring them to Andover with me? I think not. I'll look through the box, pick out the ones I'm most proud of—the ones I'd like to relive—and remember. I'll think about the ones I wish I had handled differently—the ones I wish I could do over—and remember.

Then, I'll walk through the door of building Number 3 in Andover for the first time with an empty box and begin collecting new memories.

Life goes on. M

(Ellen Harris is a production line specialist in the Clinical Systems Business Unit in Andover, Massachusetts.—Editor)

A new way to say "good buy"

By Betty Gerard

HP's new U.S. employeepurchase program will save money and time.

The popularity of HP printers and PCs with HP people has led to a new way to handle employee orders in the United States.

Starting February 1, 1995, the tens of thousands of individual purchases by U.S. employees each year will be made directly at retail stores or through phone order services, with a rebate paid when proof of purchase is mailed in. (U.S. readers will find a special insert about the new program bound into this issue.)

The new program replaces an employee purchase plan which the sheer volume of orders for consumer products simply outgrew. It has been costing the company about \$2.8 million a year to process U.S. employee orders—nearly 30,000 in 1994.

Angie Chavez has been administrator of the program—now under the wing of the North American Distribution Organization (NADO)—for eight years. The program handles 2 1/2 times the number of orders that it did when she began.

The program has continued to evolve over the years, and has even provided a channel for divisions to move consumer products that were returned from dealers.

It has amounted to a lot of paper handling for the 150 order coordinators and contact people at U.S. sites



who have spent substantial amounts of their time on employee orders.

At Santa Clara, California, for example, Debbie Rezendes has been shepherding employee purchases for the 28 HP entities on site.

"There's been a lot of footwork checking on whether products come in, any replacements that are needed, and credits and rebills when prices change," Debbie says. "It gets to be very involved."

Under the new plan, the HP order handlers will be freed up for their other duties as employees buy directly from their choice of thousands of retailers or place orders by phone.

(Already signed up for phone orders are MicroAge InfoSystems Services and Entex Information Services, national resellers which carry the full line of HP products and have toll-free 800 numbers.) Even the handling of rebates will be done by an outside vendor, working with Angie.

Don Schmickrath, general manager of CPO Worldwide Distribution and Logistics, sums up the practical reality of the changeover to the new program:

"Employees want to buy an HP product at a good price," he says. "And HP would like to give them that product without it costing us an arm and a leg."

The new program offers that solution, Don believes, providing brandnew products and a chance to shop for the best street price—and get a rebate from HP. (The aim is to have the combination approximate the flat discounts available under the old program.)

The tedious handling of individual orders will go away—a relief for all HP sites, as well as for NADO, which has the mission of supplying stores and resellers with Computer Products Organization (CPO) products as its highest priority.

"Because of that priority, we've had complaints that under the old program, employees couldn't be sure of getting delivery in a hurry," Don says. "Now, if the product you want is in the store, you take it home with you." M

LETTER FROM LEW PLATT

HP's chairman, president and CEO challenges all employees to take responsibility for improving customer satisfaction.



CEO Lew Platt (left) participates in a fudgetasting contest during a recent visit to the Andover, Massachusetts, site.

hen was the last time that you—as a consumer—felt you didn't receive the quality you expected from a service or product?

Maybe the product didn't work as you presumed it would. And when you complained to the company, you were transferred from department to department or you couldn't find anyone willing to resolve the problem for you.

You may be surprised to learn that when HP customers contact my office with a complaint, it usually falls into one of those three categories, as shown on the pie chart on page 27.

That's why I'd like to devote this letter to HP's customer-satisfaction program: why satisfying Hewlett-Packard customers should be one of our top priorities and why it's imperative that every employee take responsibility for making customers happy.

You'll remember that last year one of the three CEO Hoshins focused on improving a major customer dissatisfier—order fulfillment. In 1995, we've broadened our focus to the larger issue of customer satisfaction.

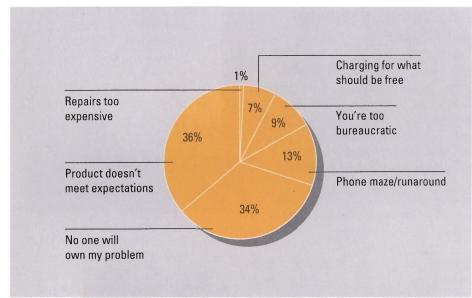
Now you may be saying to yourself, "I thought HP ranked high in customer satisfaction." That's true. We are the best in our industry. For example, J.D. Power and Associates, the international market-information firm, reported recently that HP was No. 1 in customer satisfaction among personal computer manufacturers. We scored higher than all of our top competitors, including Digital, Compaq, Dell, Gateway, Apple, AST and IBM.

However, our competitors are getting stronger at the same time that our customers' expectations of HP products and services continue to rise.

Recently, we've done a better job of tracking customer complaints that reach my office. I can tell you that the volume is increasing. I receive about 130 letters and phone calls each month from unhappy—sometimes irate—customers. Some of that volume probably is due to the increasing volume of products we're shipping, including 1 million printers each month.

But that doesn't mean we accept the increased customer complaints as a natural fallout of increased business. The complaints are a cause for real concern. It's time that we give this serious attention.

Jan Carlzon, former CEO of Scandinavian Airline Systems, pointed to research studies that show the average "wronged" customer will tell eight to 16 people. And for every customer



Lew Platt receives an average of 130 telephone calls and letters each month from customers with complaints. Here are the categories into which the complaints fall.

who complains, 26 others remain silent. He said his employees' contacts with customers create "50 million moments of truth" each year.

So what do we do to improve our moments of truth?

This letter is one attempt to emphasize the increased importance of customer satisfaction.

The second step came at the recent annual HP General Managers' meeting. I told G.M.s that managers and supervisors need to remind all employees that they should take personal responsibility for solving customer complaints at their level.

It could mean that you handle a customer question or request personally, rather than saying "That's not my department" and immediately transferring the customer to someone else. Or it could mean sending—by express delivery, if necessary—an ink cartridge instead of arguing whether it's the reseller's responsibility or HP's.

I'm positive that HP will save money and not waste its human resources if employees give customer complaints the attention they deserve during the initial customer contact.

I have a lot of respect for HP employees; it's rare that I find examples of poor judgment.

You hear a lot about "empowering" employees these days, as though it's a new concept. I believe that Bill Hewlett and Dave Packard began empowering HP employees nearly 30 years ago when they popularized the HP way"respecting the integrity of the individual," as Bill said.

I have a lot of respect for HP employees; it's rare that I find examples of poor judgment. I challenge HP managers to rekindle a passion for satisfying customers. Every customer interaction should be a means of earning customer loyalty.

Now you may be asking yourselves some questions:

- Will customers take advantage of our goodwill and end up costing us more than the problem itself? No, I believe that 99 percent of all customers just want us to be fair.
- HP employees did a good job in 1994 controlling our operating expenses; aren't you concerned that this "empowerment" could be costly? No, HP employees know how to do the right thing; we're just giving them the authority to do so.
- I'm already very busy; where will I find the time to satisfy customer requests? If we don't solve the problem early, other people will have to get involved and we'll all spend more time than necessary.

We all have high expectations as consumers. Our customers deserve nothing less. How will you handle your next "moment of truth"?



For the record

We have an exchange student from Slovakia living with us this year and she really enjoyed the article, "One man's garbage" in the November-December 1994 *MEASURE*. She is always interested in sharing stories concerning her homeland with her fellow high school seniors.

She did point out to me, however, that the town is spelled "Kosice" and not "Kospice."

SUSAN WRIGHT Palo Alto, California

"Z" as in Zamboni

It's Gretzky (not Gretsky). With a "z." As in Zamboni.

BOB CORT Boise, Idaho

The plane truth

I was just looking through the November-December *MEASURE* and noticed an error that will be noticed by more than one ex-Boeing employee here. On page 7, there is a photo of three men standing inside a "747."

There is no way you could sit 10 people across, with two access aisles, in the space in that photo. The fuse-lage also is too round to be the upper deck of a 747. Since they build all five products in the Seattle, Washington, area (737 and 757 in Renton; 747, 767 and 777 in Everett), it is a common error.

BRUCE LAPLANTE Corvallis, Oregon

You're right, Bruce. The plane in the photo is a Boeing 757 freighter.
—Editor

An English lesson for MEASURE

MEASURE is the only English magazine I read. In the May-June 1994 issue, I read the article on abbreviations, "Talking the talk." It was very instructive to me. I had seen some of the abbreviations before, but I did not know their meanings.

MEASURE is a good teacher of English for me. Please don't forget your readers are all over the world and that English is not the mother tongue for some of them.

Keep up the good work.

OSAMU NAGASE Kobe, Japan

Betsy's on the 'net

My wife and I read the *MEASURE* article in the November-December 1994 issue on Betsy Brazy and her quilt. My wife is a quilter and would like to communicate with Betsy. Is there some way we can contact her?

We enjoyed the article and we really enjoy the articles that you publish that show the artistic side of HP.

DAVID LYNCH Santa Rosa, California

You can reach Betsy Brazy, a non-HP employee, on the Internet at BzMouse@aol.com

Waxing eloquent

The November-December *MEASURE* showing Lew Platt waxing cars prompted a search of my memory bank with the following results:

1. When Lew was the Waltham (Massachusetts) Division general manager in 1980, he agreed to wash eight cars, also. So I submit that there has been no net gain in productivity in more than 15 years!

2. While Lew is shown "waxing eloquent," we had him wash the cars, which entailed more units of energy per stroke than the lesser effort needed due to the lubricity of the wax.

JOHN OLIVIERI HP retiree Norfolk, Massachusetts

Teamwork works

Thanks for your September-October *MEASURE* article ("HP's booming border business"). Our success along the border is the product of a bilateral team effort by HP-U.S. and HP-Mexico.

The district managers—Andy Perez and John Martinez in the United States, and Jorge Perez-Cantu and Hector Richerand in Mexico—helped formulate the plan that later was approved by our management.

This example shows that by working as a team, we have succeeded in positioning our company well ahead of our competitors to take advantage of NAFTA and any other opportunities along the border.

HENRY LUNA El Paso, Texas

Please send mail

Do you have comments about something you've read in *MEA-SURE?* Send us your thoughts. If we publish your letter, you'll receive a free *MEASURE* T-shirt (one size fits most).

Send your comments to *MEA-SURE* Editor Jay Coleman (the fax number and address are on page 3). Please limit your letter to about 150 words, sign your name and give your location. We reserve the right to edit letters.

Extra*MEASURE*

Science class is serious "bees-ness"

COLORADO SPRINGS. Colorado—An innovative teaching program here involving frozen bees and a boost from HP is exciting students' interest in science.

A third-grade class at Woodmen-Roberts Elementary School is reporting improved test scores after participating in the Handson Minds-on Science series developed by the Smithsonian Institution and funded by the HP Colorado Springs site.

In an experiment on pollination, students grew their own flowers and then pollinated them using freezedried bees on sticks.

Using their bee-on-a-stick, the youngsters transferred pollen from one flower to another until all of the flowers were cross-pollinated. Then they harvested and threshed their crop for seeds to produce a second generation.



a flower with a freeze-dried bee-on-a-stick.

A novel approach to teamwork

Jo Joy and her husband, Louis, have a very good understanding of teamwork. In early August, while working together to bring a baby girl into their lives, the couple witnessed the publishing of their first book, Frontline Teamwork.

"It was a very exciting time for us because the book came out a week before our baby was born," says Jo, a senior financial analyst at the Little Falls site in Delaware. "In a sense, it was like having twins."

Frontline Teamwork is a "business novel" that explains the elements of successful teamwork in a story-line format. "It's about an authoritarian company which is about to be sold



Producing a book (Frontline Teamwork) and a baby (Anjelica) in the same year was like having twins for Louis and Jo Joy.

off into pieces," Jo says. "In order to survive, the characters, both regular employees and managers, must adjust their roles and learn to work together as a team."

Jo's husband is the president of a management consulting firm. Jo says the book is based on a compilation of his consulting experiences.

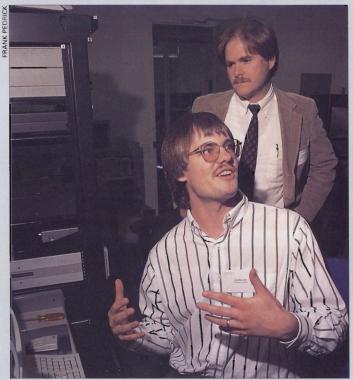
Humming a "fab-ulous" tune

CORVALLIS, Oregon—HP employees in the InkJet **Business Unit hummed** a happy tune in November and ended up winning an award.

More than 100 employees formed the InkJet Fab Kazoo Marching Band, donned Santa Claus hats and hummed "Jingle Bells" in Corvallis' Community Christmas Parade to kick off the holiday season.

The group delighted parade watchers and won an award for Best Use of Music.

Infused with the spirit of giving, the group since has sponsored an unemployed single mother of four during the holidays and "adopted" a stretch of highway near the HP site which they help keep clean.



Grad student John Boreczky (seated) explains Soda Hall's videoon-demand equipment to visitors, including HP's Don Lubin.

The building is the computer

BERKELEY, California—A new building on the campus of the University of California-Berkeley actually functions as one giant computer, thanks to the largest equipment grant in HP history.

The \$35.5 million Soda Hall, equipped with \$8 million worth of HP computing products, was financed entirely through private gifts to U.C.-Berkeley's College of Engineering. HP is the largest corporate donor in the seven-year fundraising campaign for the building.

Soda Hall is capable of delivering its services anywhere via continuous interaction with users. Students eventually will be able to access a vast amount of video, audio and written educational materials— even interact with faculty via teleconference video—whether they are seated at their computers or linked through wireless multimedia workstations.

In recognition of HP's support, including a \$1.5 million cash gift for construction by the Hewlett-Packard Company Foundation, Soda Hall's high-tech auditorium was named in honor of HP founders Bill Hewlett and Dave Packard.

HP has supported U.C.-Berkeley engineering programs with funds and equipment for more than 30 years.

| BOTTOM

For the fourth quarter of fiscal year 1994, ended October 31, Hewlett-Packard reported a 60 percent increase in net earnings, a 25 percent increase in orders and 23 percent growth in net revenue.

Net earnings for Q4 totaled \$476 million or \$1.83 per share on some 260 million shares of common stock outstanding, compared with \$298 million or \$1.18 per share in the year-ago quarter.

Q4 orders were \$6.9 billion, compared with \$5.5 billion in the same quarter of FY93.

Net revenue was \$7.0 billion, compared with \$5.7 billion in the same quarter of FY93.

For fiscal 1994 overall, net revenue rose 23 percent to \$25 billion, compared with \$20.3 billion in FY93. Orders for FY94 were \$25.4 billion, an increase of 22 percent over the prior year. Net earnings for FY94 were \$1.6 billion, up 36 percent over the \$1.2 billion earned in FY93; net earnings per share were \$6.14, an increase of 32 percent over the \$4.65 earned the previous year.

CHART CHANGES

The Computer Systems Organization (CSO) will phase out workstation manufacturing at the Exeter (New Hampshire) Computer Manufacturing Operation (ECMO) by early 1996. A new Solutions Manufacturing and Distribution Operation under G.M. Pierre-François Catte comprises ECMO, the **Networked Computer** Manufacturing Operation and manufacturing in Chelmsford, Massachusetts.

CSO has created an Americas Professional Services Organization for closer integration of PSO with CSO Americas sales. G.M. is Johnnie-Mike Irving.

A new Medical Products Group Manufacturing Operation under G.M. John Browne is responsible for worldwide manufacturing for a number of medical product lines...a Customer Services Division has been formed under G.M. Mike Blomeyer.

The HP Media Technology Operation under **Mary Eicher** has moved from CSO to Corporate Information Services.



Renee Mendez from HP's Cupertino, California, site explains the features of a new ergonomic chair to Santa Clara's Susan Farnell.

Just for the health of it

More than 100 nurses and managers from HP sites worldwide attended the first HP International Health Conference in November in Palo Alto, California.

The three-day meeting focused on HP's occupational health function as it relates to HP's business needs, and provided an opportunity for employees to share best practices with colleagues from five countries.

Bob Wayman, HP executive vice president of

Finance and Administration, opened the conference with an address on "A perspective of the business needs and future challenges to the Hewlett-Packard Company."

Topics ranged from "Empowering employees for their own health" and "The art of effective negotiation" to an examination of indoor air quality and "Future challenges in Occupational Health and Safety."

Quoteworthy

As a manager, Lew is very forgiving. He is very supportive of people who try something that doesn't work out. He is almost protective of people who stick their necks out....You can kill risk-taking very quickly if you do the opposite.

Wim Roelandts, senior vice president, HP's Computer Systems Organization, describing HP CEO Lew Platt, Industry Week magazine's 1994 "Technology Leader of the Year," in the December 19, 1994, edition of the magazine.

RESEARCH INITIATIVES

HP Labs Bristol and the Isaac Newton Institute for Mathematical Sciences at Cambridge University in England have inaugurated the Hewlett-Packard Basic Research Institute in Mathematical Sciences (BRIMS).

HP is taking part in two cooperative research efforts that have received funding from the Advanced Research Project Agency (ARPA). Silicon Video Corp. will develop a new class of flat-panel displays. A consortium led by the Integrated Circuit Business Division will create new packaging for attaching ICs to printed circuit boards.

Other agreements: Medical Products Group and Ohmeda created an alliance to develop, sell and service integrated anesthesia delivery systems, patient monitoring equipment and other products. ... Measurement Systems Organization signed an agreement with Affymetric Inc. to jointly develop and market a DNA-analysis system... Lotus Development Corporation and HP will integrate products and team-sell service.

NEW HATS

Ted Kevranian to director of Environmental Management...Saw Kong Beng to G.M. of HP Malaysia.

Jaime Reyes to operation manager, Guadalajara (Mexico) Printer Operation...Lucy Crespo to manufacturing operations manager, Computer Interconnect Operation-Puerto Rico...Todd **Reece** to G.M., Information Networks Division... Atul Bhatnadar to G.M., Singapore Networks Operation.

In the Medical Products Group, Steve Rusckowski to G.M., Clinical Information Systems.

GETTING **I** TOGETHER

HP, Asahi Glass Co. and Komag Inc. have established a new company, Headway Technologies, under Ralph Patterson as CEO, to research and make magneto-resistive heads for the data storage industry. It is in Milpitas, California.

HP Belgium has acquired Alphabit, Inc., Ghent, Belgium, which develops CAE electromagnetic-simulation software.

A blooming miracle

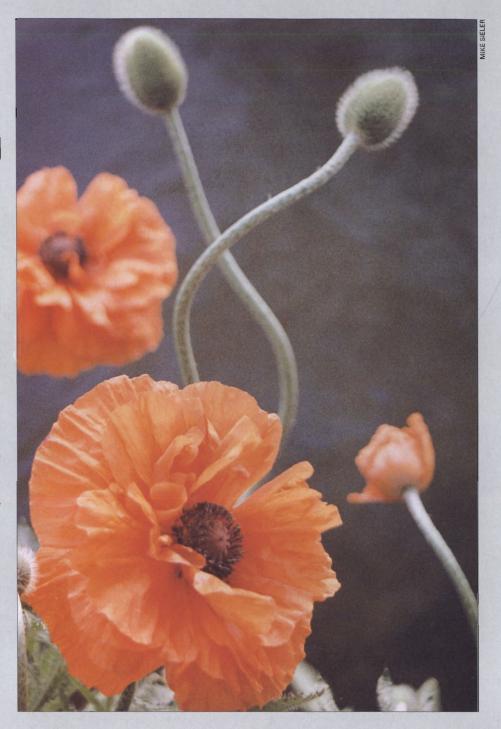
BOISE, Idaho-Mike Sieler, his family and the family dog, Nesbitt, merely were taking a casual after-dinner stroll last spring when they found a thing of beauty.

"We were walking along an irrigation canal near our home," says Mike, a manufacturing development engineer for the Boise Printer Division. "Several canals meander through the Treasure Valley and irrigate the fields of this otherwise high-elevation desert climate.

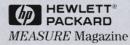
"The bright orange and green coloring of the flower (right) was in stark contrast to the generally brown grasses and shrubs that grow in abundance beginning in the late spring.

"Water from the canal helps provide a somewhat greener, 3-foot boundary along the edges of the waterways."

Mike entered the photo in the 1994 Western Idaho State Fair and won first place in the amateur photograph category.



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