

A magazine for Hewlett-Packard people

September-October 1997

MEASURE

Vietnam eyes
a bright future



The July-August edition of *MEASURE* barely was in employees' mailboxes when a steady stream of voice-mail and e-mail messages began arriving.

Clearly, our cover story on the "state" of MBWA—management by wandering around—struck a chord.

Or, perhaps, a dischord.

Almost all of the messages had the same refrain: MBWA is still very important, but employees see less and less every day.

What was especially troubling was that all of the employees requested anonymity. That's distressing in a company that considers open and honest communication a hallmark.

"The cafeteria used to be a great place for MBWA because managers could talk informally with employees," one person wrote. "But in today's hyperbusiness environment, you're supposed to eat lunch at your desk or attend a lunch meeting. Going to lunch in the cafeteria shows you don't have enough to do."

We're all busy, but that's no excuse for not practicing MBWA, says CEO Lew Platt. In his July-August letter to employees, Lew said that he values MBWA, in part, because he usually has three or four other "interactions" on the way to or from an employee work area.

"That doesn't happen at our site," one employee told me, "because managers are always on their cellular telephones as they rush from meeting to meeting. They're virtually unapproachable."

In the "old days," one long-time employee pointed out, managers practiced MBWA when they distributed

profit-sharing checks. Today, in our technically sophisticated world, paychecks and profit-sharing checks zap electronically into employees' bank accounts. Yes, it's efficient, expedient and saves HP thousands of dollars a year. But it robs managers of one more opportunity for face-to-face contact with employees—and on a happy occasion.

Instead of MBWA, another employee commented, it should be called MBEA—management by e-mailing around—because so many managers have employees who report to them from remote locations or they just prefer to use that medium to communicate with employees. But how, the writer asked, do you maintain a personal relationship with your employees when HP's IT policy prohibits any personal use of the e-mail system?

So what's the solution?

First, managers need to make the time to practice MBWA. If Lew can do it, they can, too. Walk down the hall if your employees are nearby; pick up the telephone if they're not. And reserve MBEA only as a last resort.

Employees—and *MEASURE*—have a responsibility to keep raising this and other issues that we believe deserve management attention.

As we said in the July-August story, MBWA is a cornerstone of the HP Way. Anything that chips away at our foundation weakens the whole company.

—Jay Coleman



On the cover: A dynamic, young work force, symbolized by Contracts Specialist Anh Thi Ngoc Le, has helped make HP Vietnam the company's fastest-growing revenue producer in Asia Pacific. HP's Thuan Thi Minh Tran and her son Thang Hoang Nam Do go for a ride in Ho Chi Minh City; Country Support Manager Tracy Tran meets with Son Manh Vuong, the director of an HP third-party company; and a street vendor displays her wares.

Photos by Wild Bill Melton.

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Editor:
Jay Coleman, ABC*

Associate editors:
Mary Anne Easley
Kathy Mirtallo
David L. Price

Art director:
Tim Mitchell

Photo research:
Carol Parcels

Circulation/editorial assistant:
Grace Razo

Intern:
Lila Kakuk

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Operating in Vietnam—HP's fastest-growing market in Asia Pacific—is an education and a challenge with huge potential.

By Jean Burke Hoppe

Photos by Wild Bill Melton



HP's business doubled after its first year in Vietnam, a "developing country" where prosperity and begging are daily realities in Ho Chi Minh City (formerly Saigon).

A dragon prepares to roar



ran Thi Minh Thuan, HP Vietnam customer-support specialist, says Ho Chi Minh City is growing so quickly that when she leaves her HP office in the afternoon, the city seems to have changed during the day.

Policy changes and fewer government restrictions on trade and travel since 1986 have given the Socialist Republic of Vietnam a new energy, Thuan says.

In Ho Chi Minh City (Vietnam's largest at 5 million), this energy is nearly palpable in the din of honking horns on streets crazily choked with Honda motorbikes, bicycles, buses, cyclos (tricycle rickshaws) and the occasional water buffalo.

Socialist Republic of Vietnam, population 75+ million

It's in the clang and buzz of construction equipment as new luxury hotels and townhomes go up to accommodate an influx of tourists, foreign investors and a growing middle class.

It's in the sound of busy cash registers and vendors hawking goods imported from all corners of the earth.

These are the invigorating sounds of a nation bent on becoming Asia's next Little Dragon—and of a people intent on becoming rich along the way.

Are these changes a good thing? Does Thuan worry that Vietnam's unique civilization and rich culture will disappear along the way? "Yes, of course, these are good things," she says. "It's wonderful for our people. We wonder, 'In a year or two, will we be like Hong Kong or like Singapore?'"

For now, Vietnam is classified as a "developing country." Annual per capita income in urban areas averages \$800 to \$1,000; in rural areas, \$250. Vietnam's communist government shifted gears in 1986, turning away from its planned agrarian model, and committing itself to *doi moi*, a program of free-market and other reforms. It has drafted foreign investment laws that are interpreted as some of Asia's most liberal. Foreign investors have happily responded. The United States visibly joined the fray when its 19-year trade embargo against Vietnam ended in February 1994.

Vietnam has much to commend it to investors: its strategic location in the heart of the world's fastest-growing region; a young, enthusiastic and highly educated population with a 93 percent literacy rate; and abundant natural resources, including coal, oil, phosphates, iron ore and gold.



HP Vietnam opened its headquarters in Ho Chi Minh City (formerly Saigon), Vietnam's center of commerce, on January 31, 1996. In its first year, business more than doubled, says

General

Manager Bob

Hughes. The Vietnam market now is HP's fastest growing in Asia Pacific, though it's HP's smallest Asian base.

Bob says continued high growth rates are probable for the next few years. "We're pretty much starting from scratch building the country's IT infrastructure," he says. "Vietnam is not burdened by an old mainframe legacy. From the very start, we'll be installing strongly PC-based, network-based solutions."

HP Vietnam's primary job combines selling and education. "There's so much enthusiasm here about information technology but also some naiveté, a lack of basic knowledge. We get very basic questions from the press and potential customers like, 'In the U.S., how does information technology improve your life? How does it work?' HP is structured to sell, not educate, but we've put dollars that might normally go toward advertising toward seminars instead."

HP Vietnam's 25 employees are a varied group. Many, Bob says, were educated in Eastern bloc countries, including Russia, Bulgaria and East Germany.

"When we first started hiring," he says, "our ad brought in 170 applicants from which we chose 17. Most were highly skilled, engineering grads who had some work experience."

Tran Thi Minh Thuan, came to HP with experience as an administrator at a petroleum company and as an admin assistant with the United Nations Development Program. Thuan works closely with HP's dealers and helped set up the Customer

"There's so much enthusiasm here about information technology but also some naiveté, a lack of basic knowledge."

Service Center, which opened in May. She's now helping to set up a service center for Hanoi as well, which is scheduled to open in early 1998. So far, she's finding the work enjoyable and challenging.

"My life has changed since I've worked here in that this is the most responsible job I've had," she says. "I



Tuan Minh Dang, Tung Ba Nguyen and Thuan Thi Minh Tran prepare for a customer presentation in a modern hotel lobby.



THÀNH THẤT LONG AN



HP Vietnam G.M. Bob Hughes says he expected some residual hostility, but has found the Vietnamese people to be "wonderful, genuinely friendly."

also are doing well, actually better than the Enterprise Servers right now.

"With Vietnam's labor-intensive economy, the computer business is just coming up to speed as companies start to look toward computerization to increase productivity. Because of the low cost of labor here, lots of light manufacturing is moving in.

"It reminds me so much of China 10 years ago," says Bob, who spent



five years in Hong Kong as Computer Products Sales and Distribution controller prior to his appointment in Vietnam, and visited China on HP business in the mid-'80s.

"In 1986, China was a country of bicycles and buses. You saw very few cars. Here, motorbikes are the primary mode of transportation. The bureaucracy can be burdensome. The traffic is terrible. There are daily power outages. Even though Vietnam is much smaller, the economy is developing much the same way China's did."

To Americans of a certain age, Vietnam evokes powerful memories of a hugely unpopular war. "You could say the Vietnam War defined my generation," says Bob, who moved to Asia

get home from work a little later and put in a lot of effort."

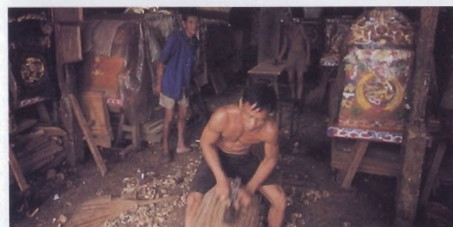
Tran Ngoc Tuyet, accounts specialist in Finance and Administration, was HP Vietnam's first employee and was involved with setting up the office from the start—everything from ordering a fax machine to making sure the electrical bills were paid. She's now focusing on setting up some of the internal systems and processes that will help business run smoothly, with an emphasis on the service and support business.

Tuyet, previously worked for a large joint-venture hotel, where she developed her accounting skills, and for a Mideast bank.

She says she's happy to have landed in a successful multinational, where she can focus on advancing in accounting, with an emphasis on finance. "I think HP is one of the best multinationals to work for, though they all provide good opportunities to learn and work," Tuyet says. "I especially appreciate the support we get from management and the encouragement we receive to make decisions."

HP also operates a sales office in Hanoi and plans to open future branches in Da Nang, which is in the middle of the country; Haiphong, a northern port city; and Can Tho, in the Mekong Delta.

HP LaserJet printers are by far HP's most successful product, Bob says. "Our reputation preceded us. Chemical Analysis Group products



Today's Vietnam is very much a blend of old and new. Traditional food booths and workers in conical hats (opposite page) are abundant, as are crafts people and laborers like casket-makers (middle above). It's also a highly educated culture. At an outdoor cafe not far from HP's sales office (top), Tien Ngoc Nguyen, Ngo Hoang Le, Tuyet Ngoc Tran and Anh Thi Ngoc Le stop for lunch; later (bottom) Tien Ngoc pauses to handle a customer call. Six people on a motorbike (right) is one solution to Ho Chi Minh City's horrendous traffic jams.



Ho Chi Minh City has a gleaming, new look compared with Saigon of 1975 (inset) when Air America helicopters carried evacuated Americans from city rooftops. You can see the U.S. Embassy building jutting out from behind the HP Vietnam sales office building on the left side of the larger, color photo.

UPI/
CORBIS
BETTMAN

from the San Francisco Bay Area. “We just moved into new offices in mid-March on one floor of Vietnam’s most modern office building. From my chair I can look out my window and see the old U.S. Embassy building—the helicopter pad where we watched soldiers scramble to leave during the fall of Saigon.

“Before coming here I prepared myself for some residual hostility. But the Vietnamese I have met are just wonderful, genuinely friendly. I think they generally regard the war as a government thing over which typical Americans had no control.

“Actually, if you refer to the war, the Vietnamese are likely to ask, ‘Which war?’ Conflict is part of their history. They’ve been controlled at different times by the Chinese, the French, the Japanese. There’s been internal conflict. There was the Cambodian invasion. The American-Vietnam war is just a blip in the grand

scheme of things, a chapter in a very long book.”

This next chapter looks more peaceful and more prosperous. “The major multinationals are here,” Bob says. “All of the top 20 U.S.-based companies have a presence. IBM is here in a very big way. Compaq has been active here for seven years. Digital and Unisys are here. Not yet here are Epson, Canon, Sun, Dell and Packard Bell.

“They all will be eventually.”

The energetic sounds of growth are too inviting. **M**

(Jean Burke Hoppe is a Lincoln, Nebraska-based freelance writer—Editor)

You can go home again

Binh Nguyen Rybacki, information technology specialist in NCS UNIX system services at the Fort Collins (Colorado) site, left Vietnam in 1975—but she’s never really left.

Since a 1993 trip she took there to make peace with her past, Binh has returned twice a year to oversee the orphanages, schools and clinics she has helped set up. She’s been a one-woman social-service agency, donating her HP salary and soliciting donations from friends to fund her humanitarian work in Vietnam.

Binh now oversees the care of more than 1,000 orphans across the country through a clinic and orphanage in a suburb of Ho Chi Minh City, a school in Ban Me Thuot for children classified as ethnic minorities, and a clinic and orphanage in Viet Tri in North Vietnam. The orphanages and schools are run by Roman Catholic nuns. Binh also has invested nearly \$7,000 in a micro-loan program for abandoned women, and is proud to report she has recouped every loan so far.

Easy for you to say

English	Vietnamese	English Pronunciation
Hello	Chào Bạn	Jow bahng
How are you?	Bạn có khoẻ không?	Bahng caw kwya-khun(g)
What is your name?	Bạn tên gì?	Bahng tayne zee
Thank you	Cám ờn	Cam uh(n)g
Goodbye	Chào tạm biệt	Jow dahm beert

BAO LÊ/SUSAN HUYNH

When you click that familiar icon on your computer screen, you're looking for a lot more than printing.

Great expectations

By David Price

Talk about practicing what you preach. Vyomesh Joshi is hard at work on an extremely important project. He starts by choosing a few cherished photographs from a well-handled family album. With the muted flash of a photo scanner, he then transforms them, as if by magic, into a series of bits and bytes.

Vyomesh adds some fresh images to the mix—ones already captured in electronic format by a digital camera. He cleans up a detail here, enhances a highlight there. Moving the photos at will around his computer screen, he crops and arranges until he has them exactly as he wishes. Then he clicks an icon and a photo printer eases out the finished product—a timeless collage of his two daughters.

"I gave it to my dad for his 75th birthday," says Vyomesh, G.M. of the Consumer Products Group's Home Business Unit. "He was very, very impressed."

Photo scanners, photo printers, digital cameras. Is this the inkjet printing business? The one spawned by a chance discovery in HP Labs

almost 20 years ago—when a technician noticed that thin, superheated film expelled tiny droplets of fluid? Well, yes it is.

Hewlett-Packard's foray into inkjet printing began modestly enough in 1984 with the introduction of the HP ThinkJet printer, targeted toward the home user. The monochrome machine offered the first indication that someday this newfangled technology could provide a higher-quality, affordable alternative to the then-popular dot-matrix printers.

That humble genesis resembles today's roaring inkjet enterprise about as much as a newborn kitten looks like a leaping tiger. Today, a better, lower-cost Hewlett-Packard inkjet printer will roll off a production line somewhere in the world every 1.7 seconds. Fifty *million* of them are churning out page after page in homes and offices around the globe, making Hewlett-Packard the undisputed world leader in inkjet printing.

The story would be impressive if it ended there. But the staggering number of inkjet printers in use today represents only a drop in the bucket of the potential inkjet business.

"More than 70 percent of all the printers sold in the world are inkjet,



Corvallis employee Dianne Hodnett prints a pattern on cloth with an HP DesignJet 750C large-format printer. The cloth can be used to make a vest like the one she is wearing.

RICH IWASAKI

Expectations

and we have more than 50 percent of the total inkjet printer market,” says Antonio Perez, vice president and G.M. of the Consumer Products Group (CPG). “But we are not really in the *printer* business. We are in the *printing* business. And we have only 2 to 3 percent of the overall printing occasion market, which includes everything from greeting cards to home photography.”

About five years ago, Antonio and other leaders of the inkjet business decided that they needed to make a dramatic shift in course.

“It was becoming obvious that a stand-alone printer for the home was not the only answer,” Antonio says. “We were discovering a couple of things: that one size didn’t fit all and that people wanted printers to be more versatile than they had been in the past.”

CPG’s fundamental realization was that people aren’t looking merely to print when they click that familiar icon on their computer screen. Antonio uses a simple, but pervasive, device to explain.

“Look at the toaster,” he says. “It’s not that terrific a product. But look what it does for you. You wake up in the morning, put two pieces of bread in the toaster and within seconds you have part of your breakfast. A toaster gives you a great experience and, boom, they sell like crazy. That’s what people are looking for. They don’t want products. They want great experiences.”

There is a term that describes the process home and business users are employing to achieve these great experiences: “access and print.” With

10 fun things to do with inkjet printing

Melissa Boyd has assembled a charming booklet called, “Fun Things To Do With Your HP DeskJet Printer.” It includes all the tips you need for a gratifying DeskJet printing experience, including a list of materials needed and helpful directions. With the booklet and some imagination, you can:

- print a T-shirt
- make a customized mouse pad
- publish your own book
- produce “shrink-art jewelry”
- make greeting cards and postcards
- print banners and signs
- make personalized wrapping paper
- produce business or ID cards
- make custom bumper stickers
- make refrigerator magnets

The booklet is not yet available outside of HP, but employees can find the complete text on the New Applications Group’s Web site at http://ijbuwww.cv.hp.com/new_apps/.

CD-ROMs, image-capture devices (such as scanners) and the omnipresent Internet, now almost anyone can fire up a PC and discover and manipulate an undulating river of graphically rich information. And print the results.

Several phenomena are driving this “access-and-print” model:

- the ever-increasing presence of personal computers in the home;
- the exploding pervasiveness of the Internet, the World Wide Web and corporate intranets;

- technological, production and supply-chain advances that have driven down the price of PCs and peripherals;
- the increasing range of affordable printing possibilities for the home user; and
- the ongoing human desire for new and better experiences.

If you think people want less of this instant-access, “dot-com” world, think again.

“People want to do more interesting things with their printers, both in business communications and in what we call the ‘social expressions marketplace,’” says Sue Schindelar, marketing manager for the Inkjet Media Division (IJMD).

With images from a variety of sources and inkjet innovations such as the HP PhotoSmart PC photography system (a digital camera, photo scanner and photo printer), it’s now far easier—and getting more cost effective—for home users to produce



Field Managers Angelo Divencenzo and Mary Borzilleri set up the traveling HP PhotoSmart PC system roadshow, which has been touring major cities in the United States.

high-quality, personalized items such as holiday newsletters and greeting cards or electronic family albums that

can be printed locally or shared over the Internet.

"What drives a social expression is the desire to celebrate a day or event," Sue says. "And different cultures drive the different social expressions around the world. Our job is to understand people's needs and give them the tools to use."

From printers, scanners, digital cameras and all-in-one devices (a printer, fax, scanner and copier in one unit) to large-format printers, low-cost color copiers and even Web-TV printers, CPG supplies the hardware that allows consumers and business users to have more gratifying printing experiences. Through its Inkjet Supplies Business Unit (IJBU), it also contributes the inkjet cartridges and media—from the top-selling bright white paper to glossy

September 1997 the organization will have introduced products in nine new categories. And although it still plans to increase its market share in the bread-and-butter inkjet printer business, CPG's future growth will depend on the market acceptance of products in these new categories.

"The essence of what we're doing is providing easy printing solutions so people can do things they've always wanted to do but couldn't figure out how," says Dana Secombe, IJBU G.M.

The new product generating the most consumer-press attention these days is the HP PhotoSmart PC system. It also illustrates how a huge company like Hewlett-Packard continues to grow: by discovering and exploiting opportunities in new markets.

"Our approach to building new businesses is to understand in incred-

ible detail the market trends and the capabilities of the technology," Vyomesh says. "Then we put together a very focused team of people whose every dream and nightmare is about building that business."

Success is defined by finding ways to apply inkjet technology to a current application and mak-

ing a 10x improvement—whether in cost, speed or ease of use. CPG has a strong track record of accomplishing this. In the last few years, it has dramatically increased the speed of large-

Nine new product categories

Between March and September of this year, CPG will have introduced products in nine new categories:

- low-cost color copying
- office all-in-one (printer, scanner, fax, copier)
- home all-in-one
- digital camera
- photo printing
- photo image capture
- B-size printing (which uses 11-inch x 17-inch paper)
- large-format printing
- Web-TV printing

format printing; revolutionized the copier business by devising a way to use plain paper in its machines; integrated printing, faxing, scanning and copying into one unit to save space and cost; and, now, given home users unprecedented control and convenience in photography.

Today, Hewlett-Packard is the worldwide leader in inkjet printing. Within the next decade, will it be a leader in other markets as well, say digital photography?

Vyomesh's home project hints at the answer. He knows full well that creativity, technical innovation and cooperation across organizations are essential. But what really matters is that magic moment when technology meets a human desire, allowing it to flourish in a flash of creative glory. And someone is thrilled with the result. **M**

ACEY HARPER PHOTOS



Consumers are discovering how HP's latest inkjet innovation can enhance their photography, from eliminating "red-eye" to creating electronic family albums.

photographic media and even fabric transfers—to complete the picture.

To illustrate how dramatic a shift CPG has made, between March and

The power of balance

Too much work? Too much life? How are HP employees handling the balancing act?

By Tena Lessor

It may be a radical, unimaginable activity for many, but Harald Bauer says that dangling 22,000 feet (6,700 meters) above land has helped him keep his work and personal life issues in perspective.

When Harald's doctor told him three years ago that if he didn't constantly exercise his post-operative knee its mobility would be lost, Harald committed to living an active, physical life.

In November 1996, Harald, HP Austria's Professional Services Organization (PSO) practice manager, took a 10-month leave-of-absence to do what he describes as his true passion: high-altitude mountain climbing.

In the first three months of his journey, Harald traveled across the

of about 22,000 feet (6,700 meters) on January 1, 1997—100 years after the first documented expedition.

By the end of his trip, Harald had climbed a total of eight mountains, seven as high as 16,400 feet (5,000 meters) and one 19,700 feet (6,000 meters).

Harald isn't done yet. "I'd like to go for the Shisha



Harald Bauer

"Find an activity you fully enjoy and that can become part of your daily routine."

Pangma Mountains in Tibet next," he says. And he still awaits the ultimate challenge—Mount Everest, 29,000 feet of ice-covered flanks. "I'd like to conquer it on my 45th birthday in five years.

"I like to do things 200 percent, including work," the zealous mountaineer explains. "But if you work 200 percent, there's no time for heavy exercise and training.

I like to mountain climb 200 percent, too. So I've found a way to do both."

"Keep the promises you've made to yourself."

Paul Sassenrath, Roseville, California

Atacama Desert in northern Chile, the driest desert in the world. Then he conquered the highest peak of the Western Hemisphere, Mount Aconcagua. He reached its summit

In September, Harald returned to HP Austria and resumed his role as PSO practice manager and his hectic schedule.

How has the time away helped? Harald says he is more relaxed, rejuvenated and re-energized.

Harald offers the following work/life advice to fellow employees. "Find

"Don't procrastinate."

Anders Herloev, Birkerød, Denmark

an activity you fully enjoy and that can become part of your daily routine."

Mark Guterman, a work/life expert who teaches the "Power of Balance" class through HP's San Francisco Bay Area Regional Training Center, says that juggling work/life demands is more complex than just managing

Key signs that you are experiencing work/life issues

- You feel rushed.
- You have trouble concentrating.
- You have trouble finishing tasks.
- You feel scattered.
- You feel out of touch.
- You have a sense of not knowing who you are.
- You wish you had more time in the day.

*Mark Guterman,
work/life balance consultant,
G&G Associates*



Denny Georg

make and the things in our lives we deem important."

Denny Georg has chosen a slightly less daring, but equally satisfying, way than Harald's approach to his work and life. Denny is director of HP Labs' Computer Systems Laboratory and general manager for Systems Technology in Palo Alto, California, but he lives in Colorado.

"Work/life balance for me is doing the work I want to do and doing what I want outside of work, too," Denny says. "I enjoy skiing, snowshoeing and hiking. Living close to the Rocky

"Look at each day as new and exciting."

Rolf Hertfelder, Böblingen, Germany

Mountains allows me to engage in those activities."

However, you can't lead anything that you don't visit, Denny says, so he travels to Palo Alto often. "It takes a real commitment on my part and my

"... doing the work I want to do and doing what I want outside of work, too."

your time better or having more time in the day. "It's about choices," he says, "the choices and decisions we

team's to make this arrangement work. I'm always available, I support my team and I anticipate their requirements and needs."

When he's in Colorado, electronic communications such as e-mail and fax keep Denny in touch.

Denny does specific things to manage and control his workload.

"If you want something different, do something different."

Chris Bouten, Roseville, California

He schedules everything. He also sets priorities and only attends to those immediate tasks.

"Work/life balance is a complex issue, but an important one to address," he says. "Higher work productivity and energy result when employees are satisfied with their lives.

"You don't have work/life balance when things aren't happening and you feel you have to instead of you want to," Denny explains. "You have work/life

Balance

balance when your outlook on work is positive and you feel energized.”

Although one doesn't arrive at work/life balance, he says, it's a goal you're always striving toward.

Diane Bassett, a communications and sales training manager in the

“Remember, work is not the end-all or be-all of life.”

Audri Ivery, Cupertino, California

Software and Services Group in Mountain View, California, has found a way to fulfill her passion for training dogs while at work.

Since 1991, Diane has trained guide dogs and brings a four-legged pupil to work each day.

Kobi, a gentle golden retriever and Diane's fifth trainee, tags

along for everyday tasks. Because of her dog-training knowledge, Diane can train them in a way that isn't disruptive to the workplace.

Diane says Kobi and his predecessors have been a soothing stress antidote at work. “My co-workers were delighted when I began bringing my trainee. Some even feel the dog's presence has reduced their stress level.

“By training these dogs, I can positively improve the life of a blind or hearing-impaired person, fulfill my passion for dogs and still do my HP job—all at the same time!” **M**



Advice from Jerry Cashman

Jerry Cashman, HP's Corporate work/life strategies manager, says “Our day-to-day decisions and choices influence how satisfied we are in life.”

Although there isn't an easy, quick solution to addressing work/life issues, Jerry adds, HP continues to build an environment that helps allow employees to make various work/life choices. “It's key for employees and managers to work together on achieving common company objectives for business success, while creating opportunities for handling work and other life activities.”

For more information, see <http://persweb.corp.hp.com/worklife> and <http://www.grenoble.hp.com/worklife>.



Kobi with Diane Bassett

“By training these dogs, I can positively improve the life of a blind or hearing-impaired person, fulfill my passion for dogs and still do my HP job—all at the same time!”

YOUR TURN

MEASURE readers share their views on matters of importance.

It's up to China

Thank you for the article on the changeover of Hong Kong to China (July-August 1997). The long-awaited day is now part of history. I watched the ceremony on TV and felt both joy and sorrow.

I grew up in Hong Kong under the British rule; it was sad to see the British leave. On the other hand, I am happy that Hong Kong is finally returned to the motherland. The people of Hong Kong now can have a sense of belonging; there is no more British/Chinese identity confusion.

We will all wait and see if China holds to its promises of "one country, two systems" and how they handle human-rights issues. Hong Kong is a major economic center in the world; a lot of money flows through there. It is in China's best interest to keep it that way.

KAY HSU
San Diego, California

Failing the test

The examples given for open-ended questions in the MBWA article (July-August) fail the test for open-endedness. They could be answered with yes/no or "plastic" responses like "fine."

Better examples would have been: What makes you happy here? What do you like/dislike most about your job? What's new with your family? What would you recommend about your vacation?

The ability to ask open-ended questions is, indeed, invaluable to MBWA.

Thanks for this article on this important topic.

BETTY CANT
Mountain View, California



The July-August cover photo by J. Craig Sweat was mistakenly credited to Steve Welsh. **MEASURE** regrets the error.

A wonderful snapshot

I always look forward to receiving **MEASURE**. Your team presents a wonderful snapshot of people and activities at Hewlett-Packard that make a difference in the lives of others. The illumination of these contributions is an inspiration to all of us.

I also enjoy the Letter from Lew Platt, which helps us from a distance keep a clear focus on core objectives and visions.

Great job.

BILL UHL
Boise, Idaho

Out of balance?

An article in the July-August **MEASURE** states that HP donated more than \$71 million in fiscal year 1996—76 percent of it in the United States, 17 percent in Europe and 7 percent in Asia Pacific, Latin America and Canada. Yet, only 48 percent of our revenue comes from the United States.

In terms of education level and hospital coverage, Asia Pacific and Latin America are far behind the United States. Should we do more in these areas? Is there a trend that we increase our donations for countries in these regions?

YUE QIAN
Beijing, China

While the statistics that Yue cites are accurate, says Roy Verley, director of Corporate Communications and Philanthropy, they're somewhat misleading.

Compared with other large U.S.-based companies, HP's giving outside the United States is quite high, Roy points out. "Nonetheless, we have been actively working in recent years to increase the percentage of grants made outside the United States, reflecting our growing global presence and commitment to good citizenship. In FY97, we allocated 38 percent of our surcharge-based philanthropic budget for non-U.S. recipients, compared with just 20 percent three years ago."

Employee distribution (57 percent U.S.), local giving customs, tax laws and other factors also affect HP's philanthropic practices. "It's unlikely we'll ever have a balance of giving that exactly matches our global sources of revenue," Roy says, "but we're moving in the right direction."—Editor

Correction

MEASURE regrets misspelling Mary Lou Goulart's name in the July-August edition.

Please send mail

Do you have comments about something in **MEASURE**? If we publish your letter, you'll receive a Dr. Cyberspace **MEASURE** T-shirt (one size fits most).

Send your comments to Editor Jay Coleman. The fax number and addresses are on page 3. Please limit your letter to 150 words, sign your name and give your location. We reserve the right to edit letters.



Light the candles

By Betty Gerard

1997 marks the 25th birthday of the durable HP 3000, which continues to compete successfully in the changing world of computers. Its thousands of loyal users love it.

The HP 3000, the company's premier business processing machine, turns 25 this year.

That's a remarkable milestone in the dynamic computer industry. The loyal users of the HP 3000 are legion—and many helped celebrate its birthday at an HP World '97 reception in Chicago in August and a party in Stuttgart, Germany, in September.

Consider the world of computing when the HP 3000 came out in 1972. The first microprocessor and first floppy disk had appeared the previous year. Local-area-network technology

would emerge in 1973. Microsoft (1975), Apple Computer (1976), Oracle (1977) and a host of other industry powers were still unborn.

HP already had introduced the 2116A, its first computer model designed to automate instrumentation systems. The HP 3000 was intended to provide a low-cost, general-purpose computer system that could handle batch, online terminal and real-time processing at the same time.

During the four years that went into developing the HP 3000, an ambitious project for a 32-bit computer, code-named Omega, was scrapped. Some of its advanced features were adapted for the Alpha project that became the HP 3000, which had its own proprietary operating system called MPE (Multi-Programming Executive).

But the HP 3000 was off to a rocky start. First sold in November 1972, it was withdrawn from the market because it didn't live up to HP's advance word about its capabilities. Dave Packard, chairman of the board, signaled his displeasure in a terse two-line memo to the HP 3000 team,



A workhorse for a quarter-century, the HP 3000 business computer was a pretty flashy system when the company introduced it in 1972.

HP PHOTO

saying that HP never again would announce a product that didn't meet all specifications.

Hank Cureton, who holds the record for continuous involvement with the HP 3000, remembers vividly that early glitch. After joining HP in 1972, he was the liaison between marketing and the highly secretive R&D lab. He had the uncomfortable job of telling the field realistically "what the HP 3000 was going to be and what it was not going to be."

The HP 3000 was re-released in October 1973 after massive redesign. It had a new version of the MPE operating system, was 30 percent faster and cost 20 percent less than the original version. The database management system IMAGE was bundled at no charge the next year—a first for minicomputers. The revamped HP 3000 also was the first 16-bit machine to have a stack and virtual memory, and the first minicomputer to implement COBOL.

An immediate hit, the new HP 3000 began the sales climb to today's worldwide installed base.

Now a mature product, the HP 3000 has continued to evolve through the years, keeping pace with technology changes such as RISC architecture, interoperability with HP-UX and Windows NT, and the Internet.

Harry Sterling is the general manager of the Commercial Systems Division (CSY), which is responsible for the HP 3000. CSY continues to refresh the product line, always maintaining forward compatibility.

"Over time, we've replaced virtually everything," Harry says, "yet a customer can easily incorporate new features while retaining the old. No one else has this degree of compatibility and investment protection."

The division itself also continues to evolve. Manufacturing is done in Roseville, California. Most sales now move through third-party channels rather than a dedicated HP sales force, except for a few mega-customers such as Hertz, La Camif and Southwest Airlines, which have special HP teams.

Will the HP 3000 continue to endure? Harry reassures its many loyalists that CSY has active plans for HP 3000

enhancements throughout the next five years (the horizon of HP's planning cycle). Based on the HP 3000's history, any future evolution from MPE to a UNIX operating system would be done gracefully, driven by customers' changing needs. **M**

(Betty Gerard, a recent HP retiree and longtime MEASURE associate editor, is a Palo Alto, California-based freelance writer.—Editor)

In the pocket

In 1972, another notable product made its debut: the HP-35, the world's first scientific pocket calculator, which was developed in HP Labs.

The HP-35 was an instant hit with engineers and scientists because it could process complex calculations. It was small enough to tuck into a shirt pocket—a specification set by co-founder Bill Hewlett—and weighed only 9 ounces. Within its small frame, however, were some hefty features.

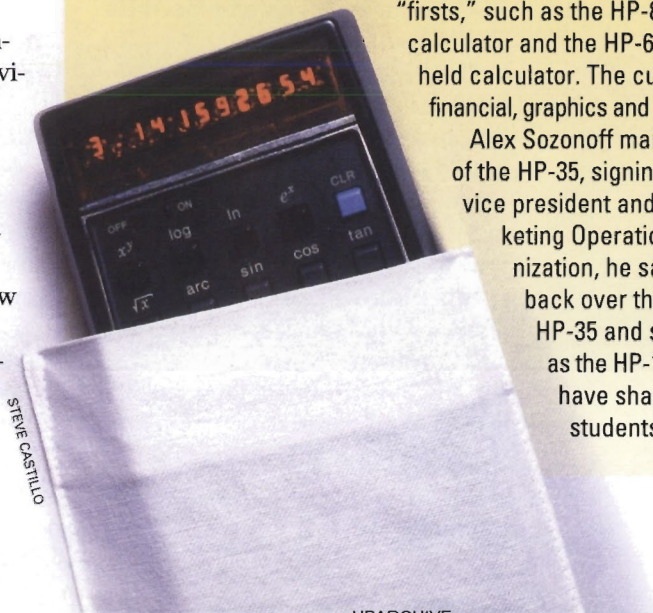
The newcomer went beyond the simple add-subtract-multiply-divide capabilities of other calculators. It could perform trigonometric, logarithmic, exponential and square-root functions; handle a dazzling range of numbers; and had an operations stack that stored constants and results. It also was the first calculator with the Reverse Polish Notation (RPN) logic method.

Bill pushed for rapid development, telling the several teams working on the product, "Go for it." The project was completed within a year.

More than 300,000 HP-35 pocket calculators were sold in the first three years, displacing many a slide rule. As HP retiree John Minck recalls, "The \$395 price was easily within the reach of every engineer. It was not only a prestigious possession, but a drudgery beater. It made better, faster engineers."

The HP-35 was retired in July 1995. Its successors include many calculator "firsts," such as the HP-80 pocket-sized business calculator and the HP-65 fully programmable handheld calculator. The current product line offers financial, graphics and scientific calculators.

Alex Sozonoff managed the worldwide launch of the HP-35, signing up its first dealers. Now vice president and general manager of Marketing Operations for the Computer Organization, he says, "It's exciting to look back over the years and see how the HP-35 and subsequent calculators, such as the HP-12C financial calculator, have shaped the way generations of students learn math and finance."



Life in the fast lane

When HP acquired VeriFone, it got more than a carpool mate on the information superhighway; it got a bona fide speed demon.



VeriFone holds about 65 percent of the U.S. market for retail electronic card-swipe terminals and has more than 6 million devices in place worldwide.

By Jay Coleman

REDWOOD CITY, California—To gain some insight into VeriFone, Inc., the largest acquisition in HP history, just take a look at one day in the life of VeriFone's frenetic President and CEO Hatim Tyabji (pronounced Ha TEEM Tee AHB gee).

"Hatim arrives at San Francisco International Airport at 9:30 a.m. from Singapore, comes directly to his office in Redwood City for a 10 o'clock teleconference with customers, then has meetings here at 11, noon, most of the afternoon and until early that evening," says Sharon Schwartz, who manages VeriFone's executive office and Corporate events.

"The flight from Singapore usually is on time," Sharon says, "so the rest of the day should work out OK."

There's no time for jet lag, rest or idle conversation. Time is money, and that's what VeriFone is all about: Moving money instantaneously.

VeriFone revolutionized the delivery of electronic payment when it was founded in 1981. If you've ever paid for groceries or a restaurant meal with a card-swipe device, you've probably used a VeriFone product.

Today, VeriFone's focus is (1) electronic commerce, whether it's point-of-sale at a physical store or in virtual space over the Internet; and (2) providing new, innovative solutions for consumers, such as smart-card-enabled products for homes. Considering that the Internet portion of the electronic-commerce market is expected to reach \$95 billion by the year 2000, it's no wonder that HP saw

VeriFone as an ideal mate when it officially acquired the 3,200-employee company on June 25 for a whopping \$1.29 billion.

"VeriFone personifies the perfect complement for our financial-services, electronic-commerce and Internet strategies," says Glenn Osaka, general manager of HP's Extended Enterprise Business Unit, who manages the HP/VeriFone integration. "That's a powerhouse marriage."

Unlike other large HP acquisitions, including Apollo Computer and Convex Computer Corporation, which were integrated into HP's Computer Organization, VeriFone operates as a wholly owned subsidiary of HP. That will enable VeriFone to maintain its sense of urgency and small-company feeling.

"VeriFone is an aggressive, vibrant organization with superior products and high loyalty, and brand identity in its markets," Glenn says. "We don't want to tamper with any of that."

No one represents VeriFone's breakneck pace and total customer obsession better than Hatim, who logs about 500,000 air miles each year. One recent trip took him to Hong Kong on Monday; Bangalore, India, on



STEPHEN MARLEY

Using a personal ATM, customers can receive digital cash electronically.

Tuesday; Marseilles, France, on Thursday; Copenhagen, Denmark, on Sunday; and Washington, D.C., the following Tuesday.

"There is my office," he says, pointing to a laptop computer.

One person who knows VeriFone and HP well is Joe Zaelit, a 20-year HP employee, who left the company in

"There is my office," (Hatim) says, pointing to a laptop computer.

1993 to become VeriFone's senior vice president and chief financial officer.

"I love both companies," Joe says, "They're both leaders in their industries, they empower their employees, they're very results-oriented and they care for their people."

"These are two very successful companies—both winners—who combined to profit within the financial services and banking industries. Perhaps VeriFone can act quicker because of our smaller size, but HP's reputation and stability are real strengths, too. It's a good fit."

Although HP announced a hands-off stance when the acquisition first was announced, Glenn encourages HP employees to "respond positively to VeriFone requests and initiatives that are mutually beneficial." In short, don't smother VeriFone employees with offers of assistance, but be available to help if they ask for it.

And be ready for life in the fast lane. For example, in VeriFone's first 11 years, it sold 5 million payment terminals. In the past year, that figure

sped to 6 million. Two of VeriFone's brightest products are:

- **OmniHost** client-server software. This software integrates payment options such as credit and debit cards with virtual payment options such as smart cards, and can store digital money (see personal ATMs). OmniHost software runs on the HP 9000 enterprise server platform.

- **Personal ATMs** (automated teller machines). With a personal ATM attached to a PC in the home, users can insert a smart card into the device, connect electronically to a bank and add money to the card on a built-in chip. No more going to the bank down the block or across town.

In 1996, HP and VeriFone began working together to provide complete software, hardware and integration support services to financial institutions implementing SET (Secure Electronic Transaction) pilots. MasterCard and Visa are developing the SET protocol as a security standard for Internet transactions.

For more information about VeriFone, check these Web sites: <http://hpweb.cup.hp.com/verifone> and <http://www.verifone.com>. **M**



VeriFone CEO Hatim Tyabji (left) confers with Rick Belluzzo, head of HP's Computer Organization, during the initial acquisition announcement in April.



STEVE CASTILLO

Lloyd Mahaffey, VeriFone senior V.P. and G.M. of the Global Marketing and Software Systems Division, chats with Glenn Osaka outside VeriFone's offices.

For the children's sake

An HP employee takes a six-month leave to work with Mother Teresa at the Missionaries of Charity orphanage in Calcutta, India.

(Sadly, MEASURE learned of Mother Teresa's death, just as we were about to print this September–October edition.
— Editor)

By Glenda Dasmalchi

Celine Landes' memory of her first days at a famous Calcutta, India, orphanage are vivid: Children are everywhere and into everything. They are being bathed, clothed, fed and hugged. Squeals, cries and laughter float through the two-room orphanage, filled with more than 100 children.

The children, from newborns to 6-year-olds, fill Mother Teresa's orphanage. Here, needy children never are turned away. There are often four to a bed. Meals are frugal. It's rice and lentils for breakfast, and again for lunch and dinner.

It's a typical day for the children, but not for Celine, a 28-year-old Hewlett-Packard employee. In 1996, she worked as a volunteer at the

orphanage during a six-month leave-of-absence from HP.

Celine, then a receptionist at the HP site in Isle

d'Abeau, France, had worked for HP for eight years.

"When Celine came to me with her leave request, how could I refuse?" says Philippe Stolbowsky, her then manager. "I approved it and then hired a temp, so her job would be available when she returned." (Celine did return to the position, but recently took a new job in the order-processing department at HP's Böblingen, Germany, site.)

Philippe was not surprised that Celine chose to go to Calcutta. "She was used to traveling, and this type of mission would appeal to her," he says.

Celine says she was motivated to seek out this experience after a chance conversation with friends



Celine, from France, enjoys new friends and surroundings while working in Germany. "Traveling, meeting people and learning languages adds quality to my life," she says.



At the orphanage, volunteers coach the children in songs as they prepare for upcoming holidays. Mother Teresa (right) is the preview audience, along with Celine (third from the right).

while vacationing in Kenya. “You know, sometimes you get to talking with new people and they spark new ideas and new thoughts in you,” she says. “That time a small seed was planted.”

“I love people,” Celine says, “and I wanted to do something peaceful and positive, especially if it had to do with caring for children.”

Celine has a lot in common with children: She can’t sit still either. She’s been on safari in Kenya, hiked in Nepal and played tennis in Morocco. Someday she hopes to bicycle to Finland and view the midnight sun. She’s been an *au pair* in Spain, and a scout leader trained by firefighters in southern France. She’s attended boarding school in England and an international hostess school in Lyon. Besides her native French, she speaks English and Spanish and is studying German.

She’s learned to maneuver quickly and easily in new places and situations. But finding her way to a volunteer position in India was difficult. She wrote more than 80 letters to organizations, such as the Red Cross and Children of the World, describing her desire to volunteer. “But I wasn’t accepted,” she says. “They were looking for nurses and MBAs.”

Then she heard about Mother Teresa’s charities. She heard that the desire to serve was the most important criterion. *The Book of Giving: A Tribute to Mother Teresa*, written by Simon Weinstock, lists the necessary

stipulations for a young person to join or volunteer to work with Mother Teresa. “They must be of a cheerful disposition, healthy in mind and body, have an ability to acquire knowledge and possess an abundance of common sense.”

Celine felt sure she’d found the right place. Unannounced, she went to Calcutta.

Unannounced to Mother Teresa’s charity group, but not to the HP network. Shikharesh Das, district manager for the Medical Products Group in south and eastern India, was ready to help. “When I received her e-mail, I was a bit surprised,”

“(Celine) adapted quickly and became a ‘Calcuttan’ faster than anyone we knew.”

Shikharesh wrote. “This unique mission of hers—to work for the poor in India—was novel.”

First, he saw to her safe arrival by picking her up at the airport. “I was so happy to see him,” Celine says. “The

airport was intimidating. I’d never seen such a teeming mass of people.”

Calcutta is known as the cultural capital of India, catering to a cosmopolitan population that speaks Bengali, English, Hindi and Urdu. The population is close to 12 million. In the city area, the population density is about 85,000 people per square mile—a density that exceeds the top two megacities of the world, Tokyo and New York.

Shikharesh, his family and the HP Calcutta eight-person office staff helped Celine acclimate to these new, crowded surroundings. They provided her with the special tips

that she needed to know about the city. “The things you don’t find in a book,” Shikharesh says.

“She adapted quickly and became a ‘Calcuttan’ faster than anyone we knew.”

Celine visited with Shikharesh and his family occasionally during her stay.

However, her primary residence during her six-month volunteer experience was a 100-bed Salvation Army dormi-

“Mother Teresa is there every morning, unless she is traveling.”

tory; a facility that accommodated a steady stream of world travelers.

There she met others who had come to volunteer. Together they took the 15-minute walk to the orphanage. She looked up at the building, which in simple, white, block letters read, “LET US DO SOMETHING BEAUTIFUL FOR GOD—Mother.”

She was interviewed and accepted. For the next four months, Celine adjusted to her new schedule. She was up at 6 a.m. so she could attend Mass at 6:30 a.m. Celine is quick to explain that this is not an obligation, but up to the individual. “Mother Teresa is there every morning, unless she is traveling. She sat on the floor, as we all did, in a corner of the little room,” Celine says. “I went for days before I ever knew she was there.”

Then Celine would have breakfast with the Sisters, work mornings in the orphanage caring for the children, and in the afternoons teach English to children of families living in the streets. “They were just basic English lessons, but the children loved having a regular routine with someone definite to go.

“I’ve never seen so many smiling, laughing faces. There, every small thing is a party,” she says. “Since they expect nothing, everything is a gift.

They expect nothing because poverty—including the common occurrence of children’s deaths—is an accepted fact of life.”

Celine warns that there is a danger of becoming too involved with the children.

They, on the other hand, accept what they’re given without much individual bonding. “The truth is, you get more attached to them than they do to you,” she says.

In the future, Celine plans to adopt a child from the orphanage. Today, she says, 80 percent of the children are adopted by Europeans, mostly Germans, Italians, French and Swiss.

“This volunteering experience has been life-enhancing for me,” Celine says. “I think that if life is too easy, it’s hard to understand the big picture. You really miss out.” **M**

(Glenda Dasmalchi is an executive speech writer in HP’s Corporate Communications department. —Editor)

*God bless you
be Teresa me*

Day by day with Mother Teresa

Mother Teresa, 87, was awarded the Nobel Peace Prize in 1979 for the work of her religious order, The Missionaries of Charity. More than 4,500 men and women of every nationality have joined her order. There are now 568 homes in 120 countries around the world providing sustenance for the dying and destitute, homeless children, the mentally ill, drug addicts, AIDS sufferers, alcoholics and lepers.

Her philosophy is to share every-

thing. Nothing is held back or saved for a rainy day. If lines are long and people are hungry, everyone just receives a little less. “She lives day-by-day,” says Celine, “and it was remarkable to see. Every day, gifts would arrive.”

People of all beliefs are attracted to the Catholic mission. When asked why she thinks this happens, Mother Teresa replied, “...It is the work of God’s love in action....there are no politics, no color, no religion mixed up in it. That’s why.”

This year, Mother Teresa, troubled by health problems, was succeeded by Sister Nirmala, who now leads the organization. Mother Teresa will remain and continue her work.



Mother Teresa draws millions of volunteers.

A profitable lesson from a non-profit

FORT MYERS, Florida—Hawley Botchford is proud of how he can turn a \$1 donation into \$9 worth of food for the hungry and homeless of south-west Florida.

But Hawley knows he needs to stretch that dollar further. As executive director of the Harry Chapin Food Bank, he has seen demand for the food bank's services grow 600 per-cent over the past six years.

Enter HP's Software and Services Group (SSG) with a proposal to provide the latest computer equip-ment and services to streamline the food bank's distribution of grocery products to homeless shelters, soup kitchens and emergency shelters. In exchange, the food bank staff offers a continuous stream of recommen-dations on how HP products and services can be improved for small businesses and offices.

"This is a rare opportunity for HP to monitor how our products are used day-in and day-out and what types of HP support a typical office finds valuable," says Bill Bechtold, HP channel development manager for SSG's Software Services Division.

Much of the analysis focuses on HP SupportPack, a growing set of services to help consumers and end-users install and support their soft-ware and HP computer systems and peripherals. The services are popular with small businesses because they



SUSAN GREENWOOD PHOTOS

Hawley Botchford, executive director of the Harry Chapin Food Bank, and volunteer Lori Ann Courson use an HP OmniBook PC to track donations in the warehouse sorting room.

can purchase an appropriate level of support for a set price and then relax, knowing that help will be available from HP should a problem arise.

"The way we'll be able to keep up with the demand is through technol-ogy," Hawley says. "If I can simplify and automate many of our manual processes, I can maintain a low

pounds of food that the food bank will distribute this year.

The food bank's growing computer experience soon may be tapped as a test site directed by Second Harvest, a U.S. organization of food banks. Second Harvest plans to network its 200-member food banks in 1998. The network will improve coordination

of large food donations that often must be distributed quickly to facilities across the United States.

Hawley also is making plans to invite small busi-nesses in the area to see how the HP test center has helped the food bank run a tighter operation.

"We'll first intrigue our busi-ness friends with how HP technol-

ogy can help them, like it has helped us. Then I'll ask them for a donation," Hawley says, grinning. **M**

—Bill Hornung

(Bill Hornung is the public relations manager for HP's Software and Services Group.—Editor



Warehouse Manager Don Sulkers helps load Food Bank donations into Reinhold Diehm's car.

overhead; that savings is going to the bottom line to help more people."

The food bank is named after the popular U.S. singer/songwriter, who was active in hunger issues. It is out-fitted with a variety of HP PCs and peripherals that are connected by a Microsoft Windows NT network. A bar-code system will be installed soon to track the inventory of 1.3 million

ASK

Dr. Cyberspace

While most of us are struggling to cope with everything that the Web throws at us today, there are people out there who spend their days and nights designing tomorrow's info superhighway. It's called the next-generation Internet, or NGI. "Why are they doing it now?" you might ask.

"If it ain't broke, don't fix it," was one of Gramps Cyberspace's favorite expressions. And most days, today's Internet behaves just fine. Granted, it's painfully slow on some days, but it delivers a ton of information to the estimated 50 million users around the world. But there are two key symptoms I've spotted that prove that things aren't perfect in hyperspace and that a replacement for today's Internet will be needed in the next couple of years.

Symptom No. 1: A year ago a major power outage at Stanford University halted or delayed Internet access for tens of thousands of users in the western United States. Seems a couple of rats (the four-legged variety) crawled inside a 12,000-volt electrical switch on the campus, causing an explosion. The power outage knocked out the university's computer network.

That, in turn, clobbered BARRNet, the Internet service provider whose PoP (Point of Presence) is at the university and that serves about 400 organizations, including Stanford, HP, Genentech, the University of California at Berkeley, the *Los Angeles Times*, the *San Francisco Examiner*

and the *San Francisco Chronicle* newspapers. You could send messages within those firms, just not "out" onto the Net.

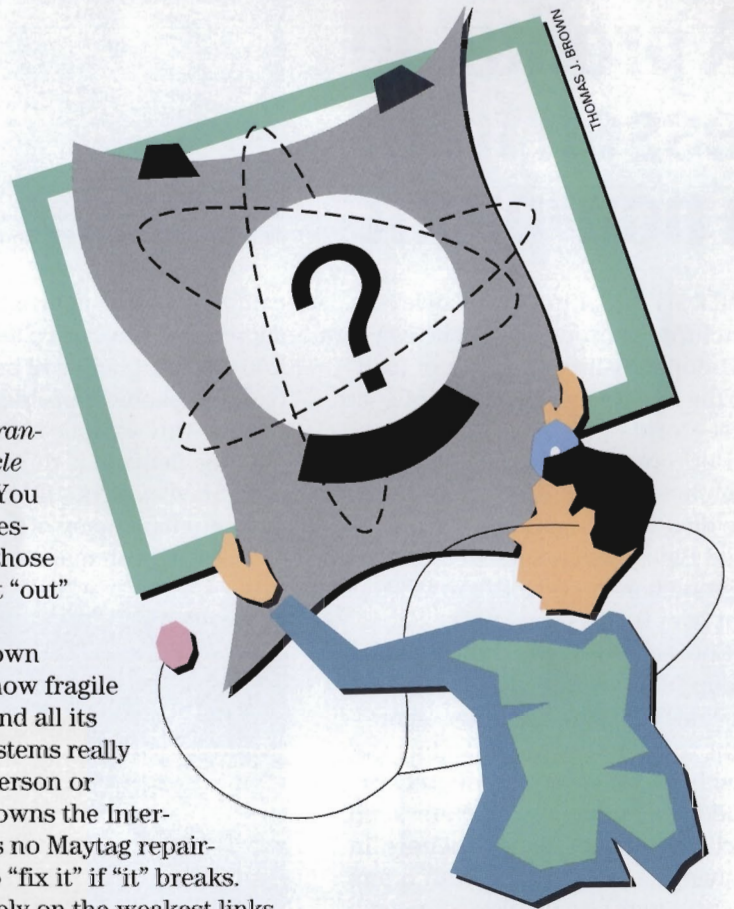
The shutdown showed just how fragile the Internet and all its interlinked systems really are. No one person or organization owns the Internet, so there's no Maytag repairman to call to "fix it" if "it" breaks. We all must rely on the weakest links in the electronic chain holding fast.

Realize this fragility exists at a time when the number of companies and individuals using the worldwide network continues to grow exponentially. The academicians who helped create and use the Internet (before Mosaic and Netscape brought us the graphically enhanced Web) are looking for a speedy, reliable network that isn't being used to deliver video clips, magazines, radio broadcasts, advertising, sports scores, pornography and useless e-mail solicitations. And companies (like HP) are looking to the Inter-

net for security and reliability so they can conduct business 24 hours a day, seven days a week.

Symptom No. 2: We're running out of Internet addresses.

I'm not talking about the cute www.clevername.com type addresses. I'm talking about the numerical Internet Protocol (IP) addresses that are hidden behind the clever names. For example: 123.456.789.016



For the last 14 years we've been using IPv4, Internet Protocol Version 4 with addresses that are 32 bits long. Theoretically, IPv4 will allow 4.3 billion of those numerical addresses. When Version 4 came along in the early '80s, the idea of one address for each person on the face of the planet seemed adequate.

But the practice of assigning them in large blocks to Internet Service Providers (ISPs) has led to a shortage, even though there are just 50 million users online today. Sometime in the next few years, we'll be making the switch to IPv6 with 128-bit addresses.

But as the world switches to Version 6—a two-year process, not an overnight event—experts say the Internet will be particularly fragile. On occasion, e-mail won't arrive at its hoped-for destination, and bookmarked Web pages may not appear (like this doesn't happen already?).

After the switch, we shouldn't run out of addresses. Version 6 will provide a huge number: 300,000,000,000,000,000,000,000,000,000,000,000,000,000,000—which will provide “roughly 3,000 addresses for each atom on the Earth's surface,” says Mark Weiser, chief technologist at Xerox's Palo Alto Research Center.

So, while the Internet is still working “OK,” check out a few sites that I've visited in the past month (see box). And when you find a new one you think is worth sharing with your HP co-workers, drop me a note at doctorc@corp.hp.com. And don't forget to visit my clinic to see some of your best ideas from the first Cybie awards program at <http://hpweb.corp.hp.com/publish/hpnow/use/drcyber/index.htm>. **M**

Places to go, things to do

Inside the HP firewall

<http://persweb.corp.hp.com/staffing/rmsrchr.htm>

A slick use of the intranet, but only for HP hiring managers in the United States at this time. This researcher has access to more than 10,000 online resumes. What a great way to sort through all the available talent pool to fill external job reqs.

<http://hpweb.corp.hp.com/publish/infhub>

A new central location for HP's U.S. employees to find out about discounts, on-site fitness centers, employee clubs, education opportunities across the country. This site is rich with worthwhile links.

<http://marketing.corp.hp.com/cpm>

The spot to meet if you're part of HP's worldwide marketing community. You'll find schedules of upcoming meetings, classes, minutes of council meetings and much, much more.

Outside the HP firewall

<http://www.hp.com/go/tmeducation>

French- and English-speaking HP customers can find classes about their TMO products. This is a super example of how to implement a centralized database that shares lots of information, but presents the data in multiple languages.

<http://indy.radiology.uiowa.edu>

Your body—from cholesterol levels to a 3-D view of the brain—in the virtual hospital. Great graphics and crammed with valuable information about diseases you never want to catch. (Hey, I wouldn't be a doctor without giving out some medical advice!)

<http://www.dddesign.com/3dbydan/linksc.htm> and
<http://www.3d-web.com>

Remember those 3-D glasses, the ones with the red lens and blue lens? They're useful at these two sites to see anaglyphs (that's one type of 3-D image) of the surface of Mars, dinosaurs and a Stonehenge of cars.

Just for fun

<http://mmm.mbhs.edu/%7Ebconnell/anagrams.html>

You can have fun rearranging the letters in your favorite words using this clever site for anagrams. For example, Robert Dole can become Elder Robot (have you seen his TV commercials?). Hewlett-Packard becomes Pedal that Wreck.

<http://www.audiocard.com>

Send a singing birthday card (for free!) to your wired friends.

HP's chairman, president and CEO discusses the importance of growth for Hewlett-Packard.



In July, Lew met with telecom managers from developing countries who were attending the United States Telecommunications Training Institute, which HP helped sponsor and host.

One of my favorite HP stories dates back to 1950, when the company was 11 years old. The employee population had grown to 200, HP had more than 100 items in its product line, revenue was approaching \$5 million a year and the Quonset hut in which the company operated no longer was large enough.

So co-founders Bill Hewlett and Dave Packard decided to build a general-purpose plant next to their existing facilities. In his 1995 book *The HP Way*, Dave explained, "I remember thinking that if we couldn't keep the company going, we could lease out the building as a supermarket."

Clearly, Bill and Dave were as pragmatic as they were modest.

Today, with more than 120,000 employees, more than 20,000 products, revenue set to top \$40 billion this year

and a global presence, our growth has been nothing short of phenomenal.

But growth isn't a guarantee; it's a byproduct of a tremendous amount of planning and hard work.

We grow in three ways: by the natural extension of our current product lines, by acquiring other companies, and by penetrating new geographic markets. Let me expand on all three aspects.

- **New products.** Our Corporate Objective on growth summarizes this point well: To let our growth be limited only by our profits and our ability to develop and produce innovative products that satisfy real customer needs.

One key to product growth is HP Labs—our internal research-and-development organization. Labs has an incredible record of developing innovative new products and transferring them to our manufacturing divisions for production.

Two impressive technologies illustrate this point. We continue to build on our acceSS7 network-monitoring platform with innovative software applications such as fraud detection, which reduces from days and weeks to seconds the time it takes for telephone carriers to identify illegal calls. Given that phone fraud is a \$12 billion problem worldwide, this provides our customers with significant savings. And our new HP PhotoSmart digital photography system fundamentally will change the way people think about photography in that \$46 billion market.

• **Acquisitions.** HP made its first acquisition in 1958, when it purchased the F.L. Moseley Company, a producer of high-quality graphic recorders. Nearly 40 years later, acquisitions have been an ideal way to complement and expand our technical portfolio.

Some of the key acquisitions have been the Sanborn Company (1961) for medical products; F&M Scientific Corporation (1965), which propelled HP into the analytical-instrumentation field; Apollo Computer (1989), which dramatically expanded our workstation capabilities; Convex Computer Corporation (1995), supplier of high-performance computing solutions; and, in June, VeriFone, Inc., one of the world's foremost electronic-commerce companies.

• **Geographic markets.** Another obvious way in which we have grown is by establishing a presence in countries where we didn't previously operate. This expansion began in 1959, when HP set up a European marketing organization in Geneva, Switzerland,

and our first manufacturing plant outside of Palo Alto, California, in Böblingen, Germany. Today, HP has sales, manufacturing or distribution facilities in more than 100 countries.

Although entering new markets has had substantial rewards, it carries several risks and obstacles. Sometimes local business practices aren't consistent with HP's values and our

"We've demonstrated that you can maintain your values and have financial success."

Standards of Business Conduct. And many developing countries don't have well-developed infrastructures. So our challenges include growing our business without wavering from our standards, building teams of local employees and making long-term commitments to do business in those countries.

Our increasing presence in Vietnam, featured in this issue of *MEASURE* (see pages 4-8), is a good example. We expect that Vietnam will be a major growth market for HP. The economy looks good, but as with most developing countries, it will experience its ups and downs.

The same thing can be said for other HP ventures, including Indonesia, many countries in Latin America and on the African continent. Long-term success will depend largely on their economic development.

Fortunately, HP has a great deal of experience with entering new markets early, investing in their future and sustaining our pledge to ride out the difficult times. For example, we have a reputation for staying in Russia—for

29 years now—when other companies pulled out. And we've become one of the top 10 companies in China because of our long-term resolve there.

I would argue that our presence in Russia, China and even South Africa has meant a positive force for social change in those countries. We've demonstrated that you can maintain your values and have financial success.

Will HP continue to grow? Yes, but perhaps not at the same pace we've enjoyed in the past. The data suggest that companies our

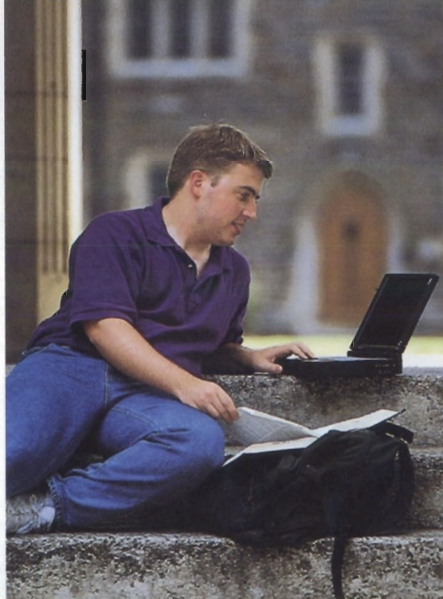
size historically don't sustain a high level of growth—a somewhat troubling fact.

New products, acquisitions and new geographic markets definitely will continue to fuel our growth. HP's management team is actively exploring steps we can take to be different from other companies our size whose growth has stalled. As always, I expect many employees will recognize opportunities for HP growth and help to seize them effectively.

This is a chance for HP to distinguish itself from most other large companies. Our potential for growth today is greater than at any time in the past. We have a wonderful opportunity to achieve something only a handful of other companies have been able to do.



An HP employee and alumnus forges a new relationship between the company and Duke University's law school.



CHARLES GUPTON

Duke University law students, including Matthew Keck, use HP OmniBook notebook PCs to pursue their degrees.

It's the law

DURHAM, North Carolina—Weary-eyed law students study in libraries into the wee hours of the night using books heavy with the letter of the law. Diligently, they jot notes the old-fashioned way—with a pen and a pad of paper. All the while, their non-law-studying colleagues surf the Internet from the comfort of their dorms.

The printer steadily cranks out selected text with just a click of the mouse. As technology has become a part of mainstream education, the study of law is sometimes thought of as being behind the times.

The law school at Duke University in Durham, North Carolina, is changing this perception by forming a relationship between the school, its students and HP. Though this may seem an unlikely match, HP equipment—a fixture in schools of engineering and the sciences—is finding its way into traditionally less technical studies.

All law students at Duke are required to own a PC. Starting this semester, the HP OmniBook notebook PC is the

recommended laptop. The law school also will replace many of the older computers in its library with HP desktops.

Duke's recommendation and buying decisions are the result of the efforts of HP employee and Duke law school alumnus Ross Katchman, senior attorney in Corporate Legal in Palo Alto, California.

After reading about the success of the OmniBook at the Anderson Graduate School of Management at the University of California, Los Angeles (UCLA), Ross took the first step to starting a program at Duke similar to UCLA's by contacting HP's sales office in Greensboro, North Carolina. Ross was referred to Lynn McNair, corporate account representative.

With Ross' help, Lynn connected with Richard Danner, associate dean for library and computing services at Duke. The two worked to find a computing solution that would work for the students and the school, both functionally and financially. The OmniBook 2000—introduced in June 1997—was a practical choice.

The OmniBook 2000, CS model 1440, is now available to Duke students for purchase, preloaded with

Windows 95, Duke dial-in software, Netscape Communicator, Pegasus e-mail, and Lexis and Westlaw legal research software—all the software that law students will need for their next three years of study. HP also has trained and certified the Duke Computer Store to service the OmniBooks.

Competing in the college market is not easy, but, according to Lynn, it's definitely a good market. "When people have positive experiences with our products, they are very pro-HP, and if Duke has a successful year, next year will be even better." **M**

—Lila Kakuk

(Lila Kakuk, a public relations student at San Jose State University, was a 1997 MEASURE intern.—Editor)

What can you do?

HP sponsors several programs that can make your financial contribution to your alma mater or other educational organization even more significant. For more information, check out the philanthropy Web site at: <http://www.corp.hp.com/Publish/UG/>.

News from around the HP world

By Lila Kakuk

Lights, camera, action!

If you saw the movie "Speed 2: Cruise Control" this summer, you may have caught a glimpse of HP employee Bruce Jones, technical consultant in HP's Fort Lauderdale, Florida, sales office.

Bruce attended an open-call audition in Miami last September and was "totally surprised" when he was selected as an extra in the film. He was even more thrilled when he was upgraded to a small speaking part as a cruise boat officer.

Working on a movie set with movie stars Sandra

Bullock and Jason Patric was a once-in-a-lifetime experience for Bruce. The film shoot containing Bruce's 20 seconds of fame—later



Bruce and his wife Nancy (left) attended a Speed 2 party with star Sandra Bullock's bodyguard "Little Skip" and his wife.

cut down to three seconds—required Bruce to take a day off from work. Even on his day off, Bruce couldn't resist trying to sell HP products to the production company. "I tried to get them to use HP monitors on the set, but I got in a little late in the deal," he says.

Rollin' on the rover

Hewlett-Packard has landed in more than 120 countries, and now on two planets. HP hardware helped land the Sojourner rover on Mars. The navigation applications for the Pathfinder lander are running exclusively on an HP UNIX platform, con-



The Sojourner rover makes contact with the rock Yogi on the Mars flood plain.

sisting of HP 9000 J-class and Series 700 Model 735 workstations.

3-2-1...HP blasts off!

Will human beings someday live and work on the moon? HP is a member of the Lockheed Martin team that will bring people a giant leap closer to answering this long-standing question with the launch of Lunar Prospector.

The spacecraft is tentatively scheduled to launch no earlier than October 24, 1997, from Cape Canaveral, Florida, aboard a Lockheed Martin LMLV2 rocket.

During its one-year lunar-orbiting mission, Lunar Prospector will gather information on the moon's structure, origins and natural resources. The information will influence future

exploration of the moon itself and future use of its resources.

HP plays a significant role in this project by providing Lockheed Martin with a complete system for integrating and testing the spacecraft bus and payload. The HP LPETS (Lunar Prospector Electrical Test Set) system is used to power and test the satellite during manufacturing and immediately prior to launch.

For more information about Lunar Prospector, check out the Lockheed Martin Missiles & Space Web site at <http://juggler.lmsc.lockheed.com/lunar/>.



"Speed 2: Cruise Control," starring Sandra Bullock and Jason Patric, has made a big splash with moviegoers.



DANIELLE SPATRISANO

Color printing on track

What does HP have in common with Team Rahal, Indy car racing champion co-sponsored by HP's Software and Services Group?

HP's "Color of Business" tour has enlisted Team Rahal's support to show HP customers how color printing helps give them a competitive edge in the racing business.

The tour features an eye-catching 18-wheel semi-

trailer, sporting a full range of office-technology solutions—from scanning and printing to copying and photo imaging.

Color printing isn't the only show on the road. The Computer Organization has the "Empowered Engineer Truck." Loaded with workstation equipment, it can be spotted in both Europe and the United States, making stops at customer sites, channel partner events and trade shows.



GARY GOLD

HP's Mary Marks of Boise, Idaho, shows Team Rahal driver Bryan Herta through the "Color of Business" truck during a stop.

An around-the-world commute

Talk about dedicated commuters. Phyllis Rogers, TMO sales associate, and Dale Cassidy, administrative assistant, both live 40 miles from HP's Huntsville, Alabama, branch office. Their commutes to and from HP average 80 miles per day. For the last 19 years of their HP careers, each has accumulated more than 370,000 miles.

As you may remember from geography class, the distance around the earth is about 25,000 miles at the equator. Therefore, Phyllis and Dale have driven around the world 15 times, just to come to work every day at HP. Too bad they can't collect frequent-driver miles.

THIRD QUARTER EARNINGS

HP reported a 45 percent increase in net earnings, 15 percent growth in net revenue and a 19 percent increase in orders for Q3 of FY97.

Net earnings were \$617 million or 58 cents per share on approximately 1.06 billion shares of common stock outstanding. Net revenue was \$10.5 billion and orders were \$10.4 billion.

HP 60TH IN GLOBAL 500

HP has become the 60th largest company in the world, according to *Fortune* magazine's latest Global 500 listing. HP's FY96 revenue of \$38.42 billion was a 21.9 percent increase over FY95, moving the company up from 84th place last year.

CELESTICA ACQUIRES EXETER

Celestica International Holdings Inc. will acquire HP's Exeter Manufacturing and Distribution Operation in Exeter, New Hampshire. About 50 of the 350 regular employees at Exeter will stay with HP; the 300 others will receive offers to remain in the area and work for Celestica.

ROSE NAMED CIO

Mike Rose, who served as controller for the former Computer Systems Organization for the past four years, has been named HP's chief information officer.

CONSUMER PRODUCTS CHANGES

The Consumer Products Group led by **Antonio Perez**, HP V.P. and G.M., has reorganized. The new format creates two new business units:

- the Office Business Unit, led by **Jim Langley**, formerly G.M. of the Vancouver Printer Division; and
- the Home Business Unit, led by **Vyomesh Joshi**, formerly G.M. of the Home Imaging Division.

Continuing in their same roles are:

- the Consumer Sales and Marketing Organization, led by **Pradeep Jotwani**, HP V.P. and G.M.;
- the Asia Pacific Business Unit, led by **Tommy Lau**, G.M.; and
- the Inkjet Supplies Business Unit (IJBU), led by **Dana Seccombe**, G.M.

Show me the "digital" money!

For a college kid studying abroad, handling money can be serious business. By the year 2002, things will have gotten a whole lot easier.

Take the case of the Randolph family from the United States. Their financial institution, First Global, has just set them up with a foreign student advisor at their Paris office. In a video call with the Randolphs, the advisor helps arrange for a special student account for their daughter, Lisa. The Randolphs are then able to transfer money from their U.S. account directly to Lisa's Paris account right from their PC. And they can electronically exchange dollars into francs, Euros or any currency that Lisa may need.

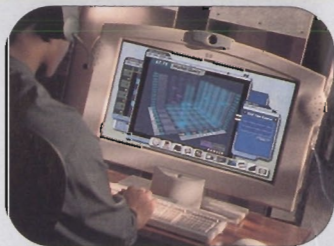
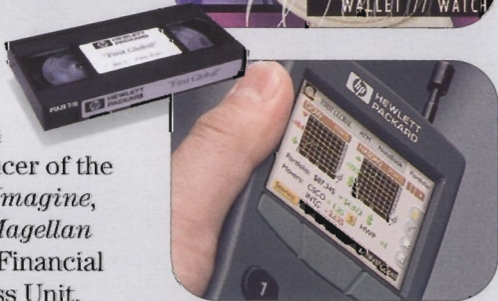
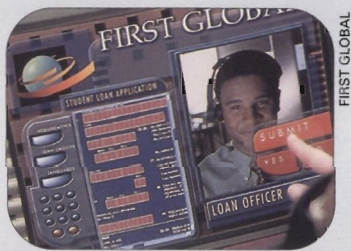
First Global is HP's newest vision video, produced by Jan S. Smith—producer of the award-winning *Imagine*, *Synergies* and *Magellan* videos—for the Financial Services Business Unit.

Designed to be viewed by high-level customers, *First Global* dramatically highlights some exciting future implications of HP's commitment to the financial industry, including highly advanced innovations in integrated network and system management, data warehousing, customer contact solutions,

security and portable information appliances.

For more information about the video, including how to order, send an e-mail message to amanda_barnes@hp.com.

—Tena Lessor



The *First Global* video envisions the world of financial services as it might look a few years from now.

BLUE MOOD FROM OED

The Optoelectronics Division has introduced its first indium gallium nitride (InGaN) blue light-emitting diode lamps. The lamps can be used in consumer applications where there is a need for soft backlighting or indicators.

SINGAPORE SERVICE CENTER

HP has launched a new Customer Service Center in Singapore to provide one-stop service for the entire range of HP personal computer products.

HP FORMS AT&T ALLIANCE

HP and AT&T will collaborate on products and services that make it easier for companies to conduct business over the Internet. With the alliance, AT&T will provide networking and secure-purchasing capabilities, while HP will provide enterprise computing technology.

13 NEW VICE PRESIDENTS

CEO **Low Platt** and his Management Staff have named 13 new vice presidents—the first time V.P.s have been appointed by company management rather than

elected by the board of directors. They are:

- **Cynthia Danaher**, V.P. and G.M., Medical Products Group;
- **Rick Kniss**, V.P. and G.M., Chemical Analysis Group;
- **Mike Matson**, V.P. and G.M., Information Storage Group;
- **Dick Warmington**, V.P. and managing director of Asia Pacific;
- **Jacques Clay**, V.P. and G.M., Extended Desktop Business Unit;
- **Glenn Osaka**, V.P. and G.M., Extended Enterprise Business Unit;
- **Bill Russell**, V.P. and G.M., Enterprise Servers Group;
- **Pradeep Jotwani**, V.P. and G.M., Worldwide Consumer Sales and Marketing;
- **Lane Nonnenberg**, V.P. and sales and marketing manager, Software and Services Group;
- **Keith Watson**, V.P. and G.M., Worldwide Commercial Sales and Marketing;
- **Susan Bowick**, V.P., Human Resources;
- **Tom White**, V.P. and G.M., Communication Test Solutions Group; and
- **Mike Rose**, V.P. and chief information officer.

Explainable mystery

MOJAVE DESERT, California —UFO landing? No, just the work of Tom Berto, a mechanical engineer in the Lightwave Measurement Division in Santa Rosa, California. Tom composed this shot in early March 1996.

The glowing spiral is a long-time exposure of a road flare. The idea came to Tom while observing road flares along the highway on his daily commute home.

"I found myself admiring the intense, pure red light," he says. "At that moment, I resolved to one day take a picture using road flares."

A camping trip to the Mojave Desert provided the perfect opportunity to create the pictures he had in mind. With the help of a friend, a set of walkie-talkies and a little ingenuity, Tom accomplished his goal.

"This picture was taken on a moonlit night, with a road flare attached to a bicycle," Tom says. "The bicycle was attached to a rope that wrapped around five stakes, causing the bicycle to spiral in as it was



TOM BERTO

pedaled in a circle around the stakes."

The resultant spiral was 505 feet across.

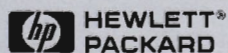
In the background, star trails of the constellation Orion are visible. The red

trail on the upper middle left is from the Orion nebula.

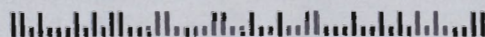
Tom used a Nikon FM2 with a 28mm wide-angle lens and Kodachrome 200 slide film. The exposure took approximately 10 minutes at f2.8

"I have many more patterns in mind for a future trip," Tom says. "This trip merely whetted my appetite." **M**

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