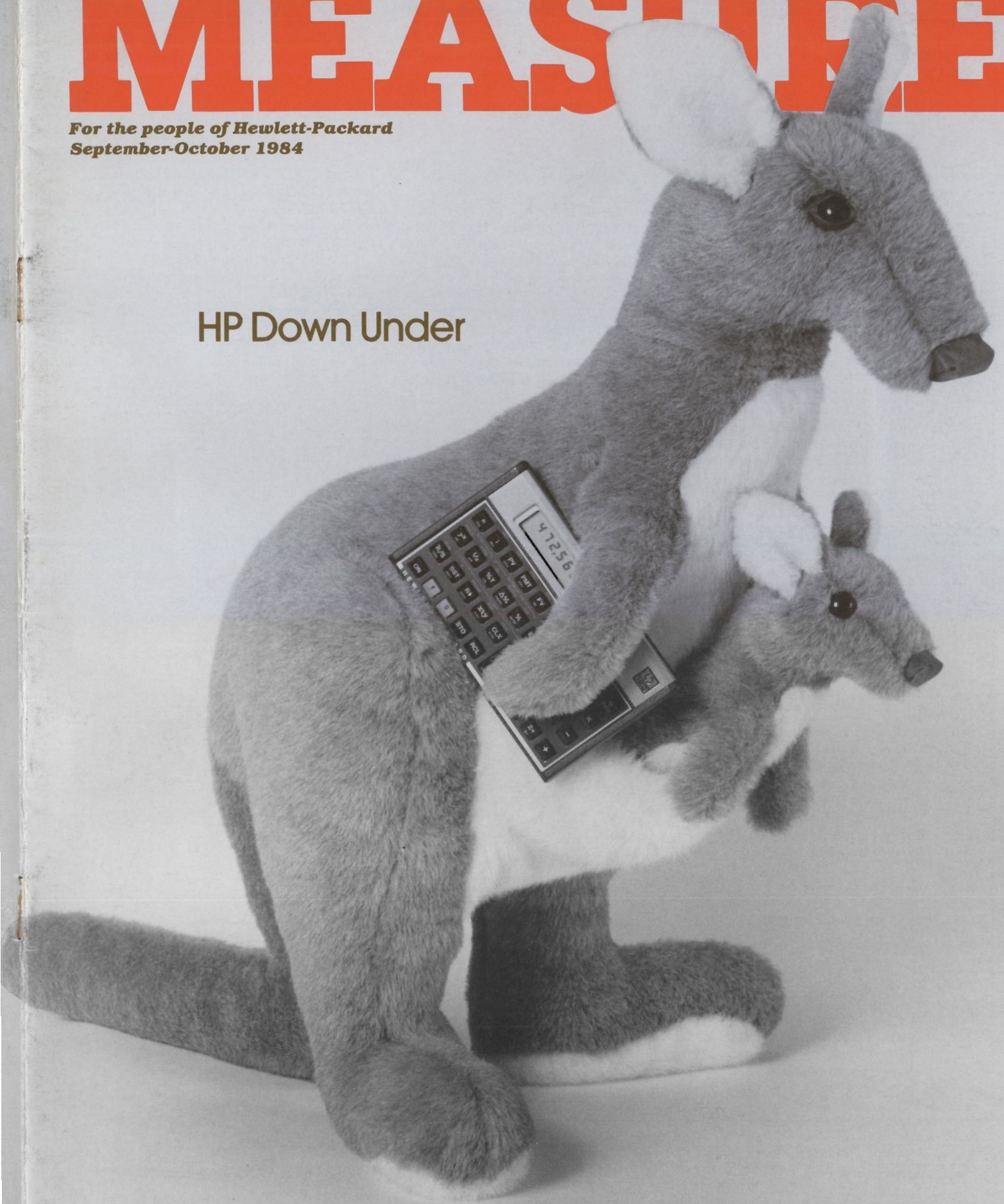


MEASTIDE

*For the people of Hewlett-Packard
September-October 1984*

HP Down Under



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MEASURE

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Hewlett-Packard Company designs and manufactures computers, electronic test equipment, handheld calculators, electronic components, medical electronic equipment and instrumentation for chemical analysis. Manufacturing facilities are located in 23 U.S. cities in eight states and in 10 cities in nine countries in the rest of the world. HP sales and service offices can be found in more than 80 U.S. cities and (including distributorships) in approximately 200 cities in 70 countries around the world. HP employs more than 79,000 people.

ON THE COVER

Our cover story on HP's activities in Australia and New Zealand takes staff writer Gordon Brown back to some familiar territory—New Zealand, where he spent some school years, and Sydney, where he worked as a journalist in the early '50s. His story on *HP Down Under* starts on page 3. Cover photo by Tom Upton.

Hewlett-Packard rescues a young woman from a fate worse than death.

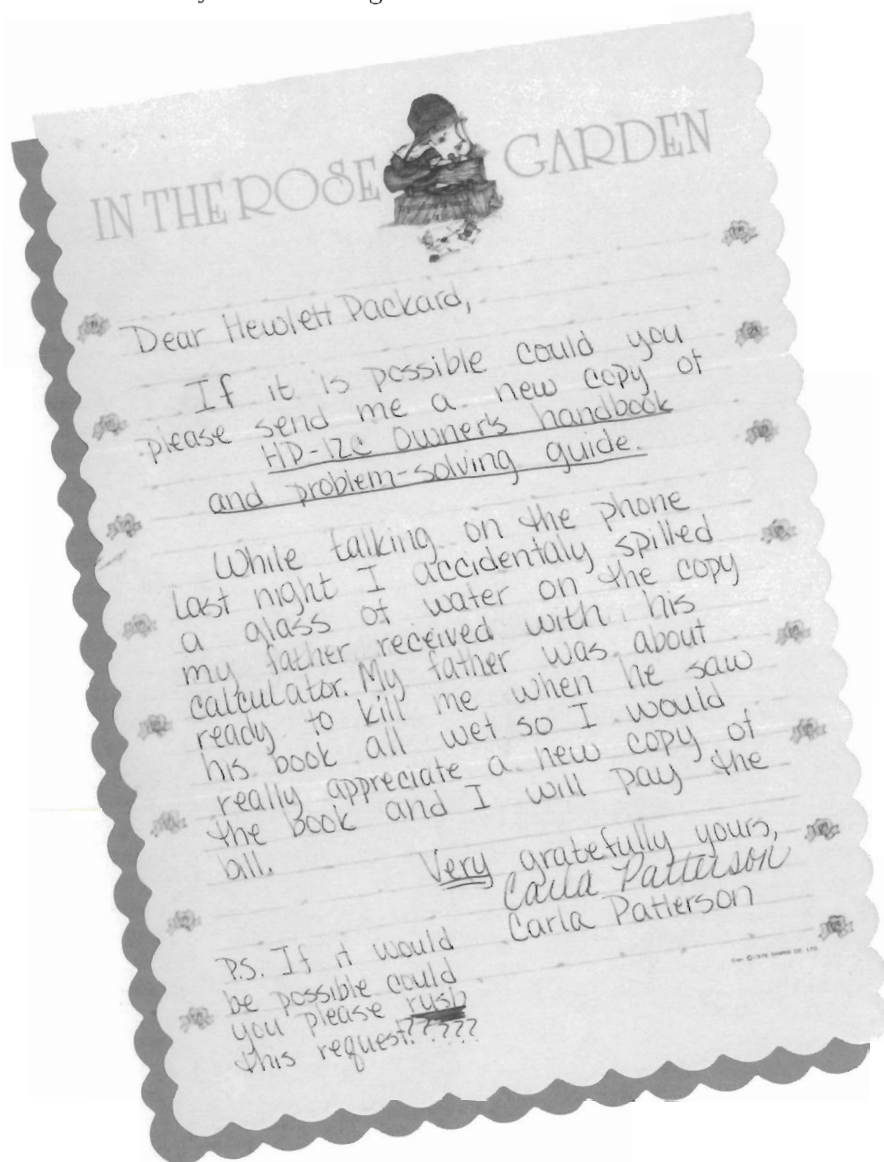
Carla Patterson of Sacramento, California, won't forget the help she got from the Personal Computer Group's Sharon Beisley for a long time.

Carla's troubles began when she spilled a glass of water on the instruction manual for her father's HP calculator. (She describes her dilemma in intimate detail in the letter below.)

Sharon, in PCG's customer-support area, came to the rescue. "We are pleased to learn of your father's high

regard for his 12C calculator," Sharon wrote. "Therefore, I am enclosing a complimentary copy of the owner's handbook and I hope this will help you get back in your father's good graces."

If Carla's ever in the market for another calculator, a personal computer or, perhaps some day, a business computer for her own company, chances are pretty good she'll remember Hewlett-Packard. **M**





GAF PHOTO

The great size of Australia itself, as well as distances from many world markets, offers a special challenge to HP. Some interesting opportunities exist, too—such as participating in development of the government's Nomad commuter aircraft, now sold worldwide.

Flying above the dawn-lit interior of Queensland and the coastlands of New South Wales, you begin to gain some real sense of the immensity, contrast, remoteness and attraction of Australia. You've crossed straits, islands, seas, deserts, ranges of mountains, billabongs, ranches and farmlands. It's been an all-night flight from Singapore, shortened by passage through three time zones. You welcome the sprawl and sparkle of Sydney—first

stop on a visit to some of the activities of HP in Australia and New Zealand.

So there you are—first in Sydney, then Melbourne headquarters, and finally the NZ offices in Auckland and Wellington—almost half a world away from home, being introduced to various HP staff members. And what is it they want to talk about? The business climate? Competition? Sales of computers? The exchange rate? International relations? No—not at first, anyhow. They want to talk about people and things going on inside HP.

They want to tell you about recent HP

Things are looking up **DOWN UNDER**

visitors, about their contacts in other HP organizations, the social club (70 percent participation!), and about the dozens of congratulatory Comgrams from all over the company when Australia II won the 1983 America's Cup. They also want to tell you—you in particular—that they could sure make use of more copies of the annual report, and *Measure* magazine for that matter (make a note of that).

Listening to these comments and questions, you don't get any sense that these people feel isolated or remote from the Hewlett-Packard mainstream.

Except for differences in accent, you could be in any of scores of HP offices around the world. Almost universally, the climate is informal, friendly, professional and busy.

Yet, there are definite differences in doing business in HP Australasia—mainly because of the many hours and miles that separate it from other HP centers and markets, as well as its own great geographic sprawl embracing Australia, New Zealand, New

Guinea, Pacific islands such as the Fijis and Tahiti, and even installations in Antarctica. It also has the unique distinction of being bound to Western heritage and Northern traditions—in an Oriental setting south of the equator.

Looked at another way, the HP organizations in Australia and New Zealand are just about identical in size to the combined sales forces of Norway, Sweden and Denmark, serve almost the same number of people (about 18 million), but cover a territory with more than 10 times their land mass.

So, how does the Australasian



AUSTRALIAN INFORMATION SERVICE

team deal with such dimensional challenges?

Well—with a good deal of necessary self-reliance, a considerable amount of travel for some people, a higher-than-usual investment in demo equipment and parts, plus a few frustrations.

Roger Kane, region manager for instruments, says that remoteness tends to build strength in the organization. It does so by requiring the local HP people to create solutions themselves rather than always turning to Palo Alto or elsewhere for the answers to customer problems. “Besides,” Roger notes, “it’s more fun that way.”

Bruce Thompson, admin manager for the region, affirms that distance from other world centers is not a major problem. “It’s a way of life for us here,” he says. “Fortunately, there’s been an awakening recently that country organizations can stand alone in many respects. But it’s going to require less dependence on the Intercontinental organization and stronger ties and more communication with the product groups. We also see a need for closer informal ties with our neighbor HP regions in Asia.

“It comes down to this: Australia has

AUSTRALIAN INFORMATION SERVICE



Abundant raw materials are the key to Australia's economic development.

huge natural resources while the Far East is becoming a huge factory and, in fact, is already our country’s biggest market. So HP has a tremendous opportunity in helping to advance the development and overall economy of the Pacific Basin. But we will need to approach it in a strategic way—not just country by country.”

Still, as you dig into the questions of time and distance with a number of HP people Down Under, you gather that there really are some problems—

“special circumstances” is probably a better way of describing it.

There is, for example, the circumstance of the considerable internal distances. In Australia, all of the half dozen or so main business centers are located near the coast, most of them in the more temperate southeastern states. Meanwhile, many of the mineral resource centers lie inland or at remote sites around the island continent. There are no Chicagos or Winnipegs or Frankfurts to provide convenient, centralized distribution and service.

What this means for the HP organization is a set of extra costs for doing business. John Daley, southern zone administration manager, notes that the region operates its own complete parts center to meet customers’ needs quickly. Also, at any one time there are some 600 service kits in motion, as well as a large number of demo units, and the travel requirement is well above HP average. Yet, in spite of these extraordinary costs, the HP Australasia region has a single price list for all customers no matter how near or far they are from home base.

The cost problem is further compounded by partial shipments, which



MCKENZIE GRAY

Australasia general manager David Booker at right leads member of parliament John Cain on a tour following dedication of new HP facilities in Melbourne, Australia, region headquarters.

THE SYDNEY BEAT

Among his many short stories, O. Henry once wrote about a New York reporter who spent much of his time looking for the mythical "man about town." He never did find the character he sought, but was himself described that way in his obituary.

Had the locale been Sydney, Australia, O. Henry might have settled for HP's Bob O'Brien. Bob heads the computer sales team serving downtown Sydney, a job that takes him into scores of offices, factories and stores, as well as many meetings with customers and colleagues. He is, moreover, a native-born Aussie and all-around enthusiast—family, sports, HP and life in general.

"I came to HP in 1979 from a customer who was a large user of the HP 3000—a great machine!" says Bob. "So I got a head start in HP which, as far as I'm concerned, is by far the best company anyone could work for, especially in the way it treats employees and customers."

HP PHOTO



Sydney office's Bob O'Brien lands a big one—130 pounds of brown-spotted cod.

The O'Brien enthusiasm shows strongly at such times as the office picnic—a Christmas-time event down under. As the several hundred employees and family guests gather on a beach, Bob plays the role of sea-going Santa Claus, arriving with a boatload of presents for all. Bushels of oysters are consumed. And if inspired by need or whatever, he may return to the water as a skin diver and bring back a fresh fish or two.

Living close to the HP office in the Sydney suburb of North Ryde places Bob and Jan O'Brien in a community that bears a striking resemblance to many areas of the U.S. Sunbelt. Low-slung houses are set in landscaped lots on spacious streets (the traffic, however, is all left-sided.) Their children are both activists: Son Sean, 15, sells and delivers newspapers in the neighborhood. Meagen, going on 12, has become a good cook.

But there's more international connection than meets the eye. A few years ago Bob asked his sister, Vincent, to join him for dinner with a visiting HP colleague, Eric Grandjean, a native of Switzerland and now a member of the Personal Computer Group in Sunnyvale. Eric and Vincent later were married in California where—still later—they introduced Bob to skiing during a weekend in the Sierra. It's been a passion ever since. His life would be almost perfect, Bob believes, if only the Snowy Mountains of Australia got a bit more snow.



AUSTRALIAN INFORMATION SERVICE

In spite of all their land, Australians tend to concentrate in a few coastal cities. Highly acclaimed Sydney Opera House, overlooking a superb harbor scene, has become virtually a symbol of the country's confident style and world outlook.

customers are reluctant to accept until consolidated, and by having to carry inventories for extra days "in the pipeline," especially when divisions push large shipments out of the door at month endings.

Concerned as the HP region people are with such problems, their hard focus is on the marketplace itself. It seems that Australasia is an almost ideal testing ground for high-technology hardware: Backed by a solid education system and a strong tradition of science, the people take readily to technological innovation and exhibit a high level of computer competence. Yet local manufacture of high-tech equipment is not a major industry, due mostly to the high cost of labor relative to other parts of the world. The result is that overseas producers—just about all of them—bring their products into Australia for a competitive go-around. And they can do so without the heavy financial commitment that would be required in attempting to penetrate the U.S. or European markets.

HP's answer to this has been to signal its firm commitment to becoming a partner in economic development. David Booker, general manager of HP

AUSTRALIAN INFORMATION SERVICE



It's said that Aussies manage to turn life into sport and vice versa—in this case surf lifesaving into team competition.

Australasia, put this in perspective recently for the Australian edition of *Computerworld*; "I suspect many people in this country see high technology primarily in terms of hardware. This view overlooks the fact that technology transfer is increasingly about software—the intellectual input required to make the hardware perform useful tasks. I believe there is no doubt that Australia has the ability to develop and market its own software—for computers, electronic instrumentation, tele-

communications, office automation and productivity, and other forms of digital technology."

David strongly suggested that HP will become increasingly active in these areas. Meanwhile, he said, the company is investigating various interim measures, such as subcontracting manufacture of some components for export to HP Asia and HP Europe. Such activities, described as "value added," increasingly constitute the passport and visa for doing business with governments and government-aligned organizations around the world.

The more you listen to people of the HP Australasia organization the more it seems their situation is the same as—or similar to—their peers in Canada, the United Kingdom or the U.S.:

- ☐ Customers now want much more complete solutions. This represents a strong HP opportunity—doing things that many competitors do only with great difficulty, says Roger Kane.
- ☐ Quality of products and services is a growing factor in competitive selling. The traditional easy-going attitude expressed by "She'll be right, mate" is less and less acceptable—at least in industry, says Peter Martin, admin manager

DISCOVERING NEW ZEALAND

When Polynesian voyagers first sighted their future homeland they named it "Aotearoa" — "Land of the Long White Cloud." Beneath those clouds they discovered a marvelously pristine landscape: mountains, fjords, glaciers, volcanoes, rivers, forests, lakes and plains—inhabited by some of nature's most shy and benign creatures including the night-hunting kiwi and flightless giant moa birds.

You can still "get away from it all" rather quickly in New Zealand, even though the moa has given way to sheep, and the kiwi is more a symbol than an everyday presence. Somewhat surprisingly, though, this Colorado-sized country, with an economy based largely on agriculture, is quite highly computerized—fourth in the world on a per-capita basis, it's claimed. HP products are operated at almost 60 locations ranging from the northern cape to the southernmost settlement—plus offshore sites such as Tahiti and Antarctica.



TOM UPTON

Unlike their symbolic bird, the kiwi, New Zealanders are outgoing and sociable—and rank high in computer literacy.

This gives the 68-person HP organization there plenty to do. Operating out of two main offices (Wellington headquarters and Auckland) plus several detached sites, the team makes versatility its watchword.

Bob Cattell, computer sales manager for HPNZ, notes that "We are all generalists. It doesn't make sense here to be a mirror image of corporate, with everything neatly structured by product type and function.

We have to blur the lines a good deal to get the job done."

In the Wellington office, for example, Debbie Whalen doubles (or triples) as department secretary, training coordinator and word-processing demonstrator for customers. In the Christchurch branch office, on the east coast of the South Island, Paul Turner is a one-man band though nominally assigned to computers. "I'll have a go at servicing most machines. There's so much to do—and so few of us to do it."

In no way is that a complaint. Paul and his co-workers all seem to recognize that HP New Zealand is in an excellent position to take advantage of the uptake in technology, even as the new Labour government prescribes a program of economic belt-tightening to bring overseas debt and trade more into balance. Brightening the overall picture is the prospect of a large measure of energy self-sufficiency based on development of huge reserves of natural gas. And HP itself is taking steps—such as a new headquarters building in downtown Wellington—to enhance its presence.

in the Sydney (northern zone) office.

□ Corporate visibility—through advertising, publicity, promotion and participation—is increasingly important. Says John Bieske, general manager for computers, "We need to become more visible—and in a distinguished way—as we push forward into the business market."

□ Developing people with technical expertise and entrepreneurial spirit is both a corporate and a national challenge. Says Geoff Windsor, region personnel manager: "We know what we want to be and do as an organization. The question is whether we will have the people able to do the job."

The Australasian organization is hard at work on all of these and other concerns. The past year has seen a solid turnaround in economic performance. The growing ability to develop value-added products is opening new doors. And the company's ability to bring innovative new products to their market is a great source of incentive and excitement.

But above all, as Wayne Squires, the New Zealand general manager, says: "Aussies and New Zealanders are very determined people. They've had to be

because not too many years ago they were far from the mainstream. Now the world has become much more interdependent and interactive—and we're right in the thick of it." **M**



HP PHOTO

In the outback of Western Australia, David Chambers, HP's Perth branch manager, is dwarfed by a diesel-electric locomotive used to haul iron ore from Hamersley Iron's huge mountain of ore. HP 1000s help in managing the massive operation in a desert that's beset by intense heat and cyclones.

If your computer problem is
too hot
to handle
by yourself,

HELP IS JUST A PHONE CALL AWAY



It's Monday morning, and time for you to run your company's payroll. But something's not working quite the way it should with your HP 3000 software and you've got to get the company's paychecks out today.

You grab the phone and dial a toll-free number. Your call is automatically routed to one of HP's two North American Response Centers—in Atlanta, Georgia, or Santa Clara, California. A coordinator listens to your problem, enters the information in a tracking system and dispatches your impending crisis to an appropriate team of experienced HP engineers.

In this case, a software engineer returns your call a few minutes later, consults the terminal on her desk and offers you the solution you need. You're able to print the checks and keep hundreds of your co-workers happy.

While no one knows how many such telephone hotlines exist, market analysts figure that more than half of the 200 hardware and 1,500 software firms in the U.S. offer dial-in help to their customers.

"We've always had some form of telephone assistance at HP," says Dave Carver, marketing manager in the Computer Support Division. "Customers could always call their local software engineering organization and get help. What we've done is put together a data base with all the software questions known to HP along with their solutions. We've put that data base in the hands of senior support engineers who staff our response centers. It's like sharing the experiences of all HP engineers, so we don't duplicate efforts in identifying and resolving the same problems."

"The response centers are organized and staffed to use technology to deliver high-quality help to our customers," explains Terry Pelfrey, manager of the Atlanta center.

"While the technology provides many of the tools to improve productivity, it's the people at the centers who are the key," says Terry. For example, the Atlanta management team was picked from the ranks of experienced field managers. Terry expects to complete his permanent staffing with engineers with similar experience.

WHEN YOU'RE HOT, YOU'RE HOT

Hotlines are by no means used exclusively by the response centers in Atlanta, Santa Clara and Pinewood. In the U.S. alone, HP has almost 350 toll-free "800" lines, handling nearly 150,000 phone calls each month. Here's a partial list of other HP customer phone-in services.

(800) 367-4772

Probably the company's most publicized hotline is 800-FOR-HP-PC. It appears in print and television ads for all HP personal computers and calculators. More than 1,000 calls a day generate sales leads that are sent to field offices overnight via electronic mail for follow-up by sales people the next morning.

(800) 952-2212

The quickest way for customers to learn about HP's line of defibrillators is to call McMinnville Division's response line. The telephone number appears on direct-mail literature and in print ads.

(800) 538-8787

Computer Supplies Operation's direct order telephone lets customers order everything from flexible discs to ergonomic chairs on the phone. Purchases can be charged to VISA, MasterCard or American Express.

(800) 227-8164

(800) 982-5810 in California
Biomedical engineers in hospitals appreciate Corporate Parts Center's 24-hour-a-day, 365-day-a-year hotline. If a critical piece of medical equipment goes down and needs a replacement part, help is just a phone call away.

(800) 472-6224

Owners of HP personal computers can get answers to their software and hardware questions from one of 75 experts in Santa Clara's HP COACH customer center. These former computer programmers, secretaries, personnel reps and master schedulers field more than 12,000 calls a month.

(800) 447-3282

Potential customers who want to learn more about HP's logic systems can dial a Colorado Springs hotline that will send them a packet of HP 64000 information. The appropriate HP sales person gets an electronic mail message so a follow-up phone call can be made. The toll-free number started appearing in logic systems product ads in June of this year.

Since the start-up of the two North American response centers in February 1984 and a similar European center at Pinewood, England, in May, more than 95 percent of the incoming software problems are being handled over the phone without going on site. In addition, one-fifth of customers' hardware problems are solved over the phone. The three centers focus on HP's business and technical computers and engineering workstations (see box on this page for some other company hotlines).

Besides the computerized pool of knowledge, the centers are equipped with more than a dozen different HP systems. "There's one of just about every model of HP computer we make," says Dave. Support analysts, sitting at desktop terminals, can reproduce a customer's difficult problem on a duplicate machine.

Those same terminals are linked to a state-of-the-art telephone system that can dial a customer's computer. HP engineers can then do even more sophisticated troubleshooting from afar.

"By looking at error logs, for example, we can tell a lot about a system," says Jeff Meyer, a hardware specialist for the HP 3000 at the Santa Clara response center. "HP's peripherals are intelligent in that respect."

To solve some problems, engineers send software "patches" from the response center computer to the customer's computer over the telephone line.

Such remote repair work is not a new concept. In a pilot program in France, almost all HP 3000 customers participate in a remote-support program. The need for on-site hardware repair calls has dropped by more than 18 percent.

The centers in the U.S. are open from 7 a.m. to 6 p.m. local time, and the incoming phone lines are programmed to take advantage of the three-hour time difference between Atlanta and Santa Clara. "A customer can reach HP 14 hours a day, five days a week," says Dave Fullerton, manager of the Santa Clara center. "Of course, for hardware problems, HP has CEs (customer engineers) in the field to cover the remaining time."

Employee "turnover" in the centers is higher than at most HP operations—

but by design. Twenty percent of the engineers on duty at the centers are senior support engineers from HP's field operations. They are asked to serve two-week stints on a rotating basis. Marnie Rowat, an SE from the Toronto, Canada, office, welcomes the change. "I feel I learn things in the California center I can take back to my customers in Ontario. And many of the problems I'm asked on the phone are things I've solved firsthand in the field."

The response centers won't replace the local customer and systems engineers. "Local account teams will continue to be the focal point for local help," says Dave Carver. "But this new approach provides a good balance between local and central support for maximum customer satisfaction."

The centers can cope with just about every problem, including their own emergencies and disasters. There's even an uninterruptible power supply at each location. In the Santa Clara data center which supports both North American centers, batteries will keep vital computer and phone systems alive for 20 minutes until a diesel generator takes over. The generator is designed to

keep things humming for a long time.

When a tornado hit the Atlanta center in June, customer service continued without interruption. Atlanta engineers worked in a darkened facility using battery-powered communications equipment until phone lines switched incoming calls to Santa Clara. That center's engineers volunteered to work double shifts to cover for their Georgia counterparts. Fortunately, Atlanta was back in business the next morning.

Today the two North American centers field almost 3,000 phone calls each week. Country response centers also serve HP customers in Europe and in most Intercontinental countries, including Australia, Mexico, Venezuela, Japan, Hong Kong and Singapore. In the future, their role will become even more important. "We're working on projects that will let our centers' computers regularly check the functions of customers' machines," says Dave Carver. "With the constant increase in the cost of providing on-site service calls, this is one of the best ways to save money for our customers and for HP."

And it all starts with a phone call. **M**

Invites *Measure* readers to comment on matters of importance to HP employees.

ROTTEN TIMING

It was with great interest that I opened and read my July-August *Measure* magazine. But in my opinion, the timing could not have been worse for "Our Entrepreneurial Alumni," the article describing in detail the various start-ups that have been established by ex-HP employees.

As recognized elsewhere in the magazine, we were in the process of dealing with an unsettling reorganization. Some of the very employees you describe—"the brightest people in the world"—are faced with not knowing to whom they will report or what their charter and objectives will be. As a result, they are vulnerable and open to alternatives (HP or others).

By printing your article that names names, lists locales and highlights the success of these individuals, we are leaving ourselves open to even more attrition than usual. Having worked closely with these employees during my past six years with HP, I have come to understand that opportunities to leave HP are offered on almost a daily basis by headhunters and former colleagues. For us to condone and encourage people to "make a run for it on their own," especially at a time which is unsettling, is inappropriate.

REBECCA GUERRA
Cupertino

We agree that the uncertainty accompanying any reorganization can be unsettling to employees. But we disagree that an article about alumni start-ups will encourage more employees to start their own firms.

*During our interviews we learned that people who leave HP to start their own companies do so regardless of salary increases, company cars, stock options, promotions or *Measure* articles.*

And for someone considering trading an HP career for a position on the staff of a start-up, we think that reading about 80-hour work weeks, intense job pressures, an uncertain financial future and more top-down management styles might be food for thought.—Ed.

KEEP IT COMING

I have always enjoyed *Measure* over the years, but especially since I retired from HP over two years ago after 26 years with Neely Sales Region.

We recently moved and wanted to give you our new address so we won't miss an issue. Keep up the good work.

AUDREY STEFANKO
Pleasant Hill, California

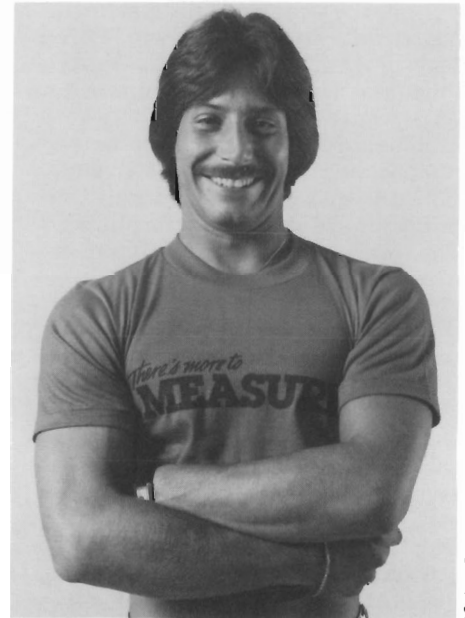
*We're glad to note Audrey's new address as well as those of any other retirees. Any current HP employees should tell their local personnel representative of a new address: *Measure* gets its U.S. mailing list from the same data base used to prepare paychecks. Check your next direct-deposit statement or paycheck stub to make sure we've got your correct address. If not, tell your personnel rep. We wouldn't want you or Audrey to miss an issue.—Ed.*

THE BALL'S IN YOUR COURT

Your July–August article "Nothing Short of Excellence" about HP's operations in the British Isles included a picture of a squash game at an HP facility. But the write-up for an adjacent photo referred to the Pinewood Division as having racquetball courts nearby.

I'm sure *Measure* readers in general, and squash enthusiasts in particular, would be relieved to know that there are no racquetball courts near HP facilities in the U.K.—just dartboards and squash courts.

AZMAT SIDDIQI
Santa Clara



Kevin Alford sports a *Measure* T-shirt.

WE'LL SEND YOU THE SHIRT OFF OUR BACKS

What public issues affect HP people and their jobs? Are there questions you have about company operations? Do you disagree with something you've read in a *Measure* article?

Write to us! We want to share your opinions and comments with more than 79,000 other employees in Your Turn.

If your letter is selected for publication, you'll receive this bright red T-shirt with the slogan "There's more to *Measure*" silk-screened across the chest. (Be sure to send us a return mailing address and indicate your T-shirt size—men's small, medium, large or extra-large—on your letter.)

Address letters via company mail to: Editor, *Measure*, Public Relations Department, Building 20BR, Palo Alto. Via regular postal service, the address is *Measure*, Hewlett-Packard Company 20BR, PO Box 10301, Palo Alto, CA 94303-0890 USA. Try to limit your letter to 200 words. Please sign your letter and give your location (anonymous letters are welcomed, but you won't get a T-shirt!). Names will be withheld on request. Where a response is indicated, the best available company source will be sought.

EVERYBODY'S DOING IT

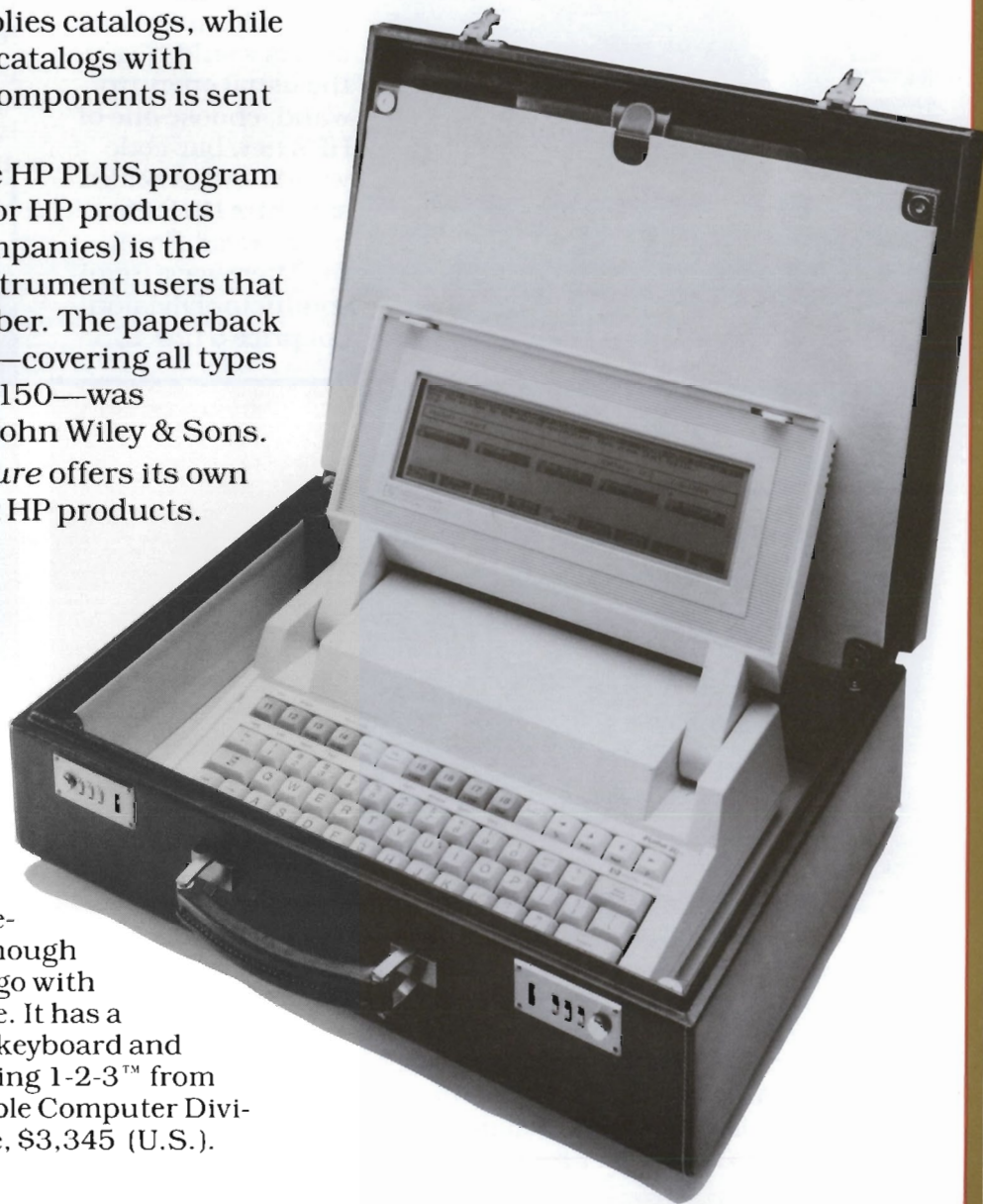
Open the mailbox these days and you might find an invitation to buy just about anything straight from a catalog. Sears-Roebuck popularized the concept of mail-order back in the 1800s and today you can buy everything from frozen meat to safari equipment from a catalog. Even HP is in the business.

The granddaddy of HP catalogs, of course, is *Measurement/Computation/Systems*, which dates back to the 1940s. The 1985 edition, out November 1, will have 704 pages with products—primarily instruments and systems—from 42 divisions.

A splashy *Computer Users Catalog* is printed in five languages (English, French, German, Italian and Japanese). It includes personal computers and computer-related software, furniture and supplies. Medical and analytical customers each receive their own supplies catalogs, while a series of guides and catalogs with specifications on HP components is sent to designers.

Newest addition to the HP PLUS program (catalogs of software for HP products from independent companies) is the selection guide for instrument users that came out this September. The paperback *HP Software Catalog*—covering all types of software for the HP 150—was published in July by John Wiley & Sons. To keep in step, *Measure* offers its own catalog of some recent HP products.

Travel in style with your Portable HP 110 by adding this elegant attaché case with its calfskin exterior and storage compartments. The Portable itself is small enough (about the size of a three-ring binder) and light enough (under nine pounds) to go with you just about anywhere. It has a flip-up display, full-size keyboard and built-in software including 1-2-3™ from Lotus.™ From the Portable Computer Division. With carrying case, \$3,345 (U.S.).





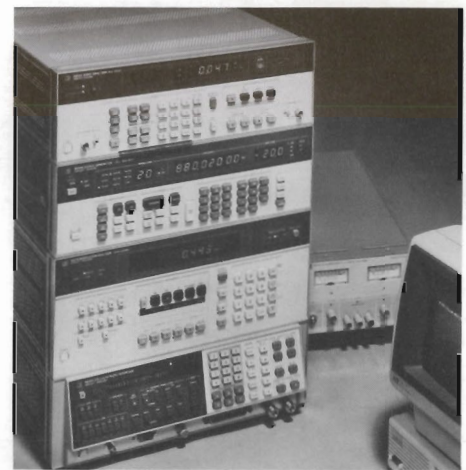
When you need to read bar code in a place where dirt and debris would clog the usual open-tip wand, choose one of HP's new bar-code wands with a sealed sapphire tip for superior wear. From the Microwave Semiconductor Division. Lot price \$120-135.



Need to monitor data transmission or to simulate network components in your datacomm testing? Newest member of HP's family of protocol analyzers is the new high-speed HP 4953A (which fits between the HP 4955A for R&D use and the HP 4951A for field service). From the Colorado Telecommunications Division. \$12,000 (U.S.).



Back up that precious information on your small- to mid-range computer system with the compact new HP 9144A 1/4-inch cartridge tape drive—which fills about the same space on your desk as an in-basket. Quick and reliable, it's designed to back up HP fixed discs with capacities up to 132 Mb, using one or two cartridges. And it sells at less than one-third the price of a 1/2-inch tape drive. Buy yourself peace of mind by eliminating erratic backup methods. From the Greeley Division. \$3,500.



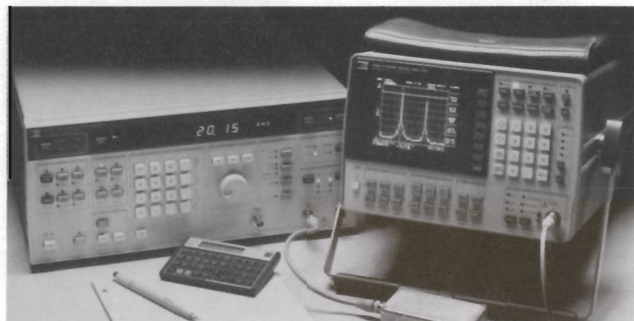
Testing cellular radios (the hot new form of telephone for cars and trucks) has been an expensive manual task until now. A new cellular-radio test system, based on these HP transceiver-test instruments, automates and speeds up the job and helps lower the cost of owning a mobile phone. From the Spokane Division. HP 8958A cellular-radio interface, \$10,000 (U.S.).



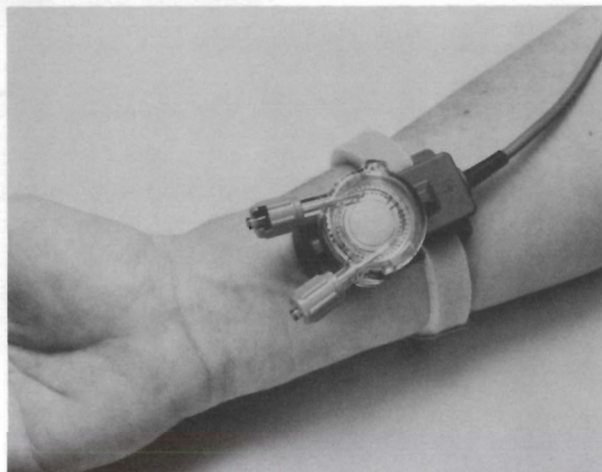
A discreet companion on your desktop, the new LaserJet printer for personal computers has fast, letter-quality output with virtually no noise. It's eight times faster than a typical daisy-wheel printer. Just snap in the disposable cartridge, good for about 3,000 sheets of printing. It's designed to operate with the HP 150 (shown here at left) or the IBM-PC, and has built-in graphics capability. From the Boise Division. \$3,495 (U.S.) Internal: HP 2686A.



Now you can fit a powerful HP 3000 right next to your desk, bringing new possibilities to office computing. The new low-priced HP 3000 Series 37 has the same features and runs the same software as the largest HP 3000. Scaled down in size, it has all the power of the top-of-the-line model of 1980 but sells at about half the price of any earlier entry-level HP 3000. From CSY Roseville Operation. Basic system, \$19,950 (U.S.).



Having problems generating complex test signals with several instruments? Your solution: the HP 3326A two-channel synthesizer that includes two separate, pure sources in a single instrument. From the Lake Stevens Instrument Division. \$9,200 (U.S.).



If you're in the business of measuring physiological fluid pressures—such as blood or spinal pressure—the HP 1290C universal quartz pressure transducer will work with almost any monitor or pressure amplifier. Here it's worn on a wrist strap. From the Medical Supplies Center. \$525-\$700 (U.S.) in lots.



PHOTOS BY BILL SAUNDERS

Personal Office Computer Division's Andrew Young shares an idea with Delia Ordonez on a just-in-time production line for HP computers.

By adapting a popular Japanese manufacturing technique, HP discovers that the best way to put products together is

JUST IN TIME



Renée Minnis describes a quality problem during a meeting at the end of the work day.



Production people meet at the end of the shift to voice problems and vote on solutions. The meetings are an important part of JIT style.

I used to wake up in a sweat at night with the nightmare that my final assembly and test line shut down and my employees were standing around doing nothing," says a supervisor at HP's Personal Office Computer Division in Sunnyvale, California. "One day my nightmare became a reality. The red light went on. Our line stopped. Employees were nervously standing around fidgeting and wondering what to do next. All at once, there were managers, engineers, all of us solving a problem on the line together. It was scary, but it was great, too. I remember one of my employees asking 'What's happening here?' And I said, 'It's the new just-in-time.' Then she came back with, 'Well, it's come just in time.'"

Just-in-time (JIT), a new way of looking at material, quality, the manufacturing process and the work place, has come just in time, say its supporters, to help make U.S.-based companies more competitive in a race for world markets. This new style of producing products and handling material, practiced widely for 20 years in Japan, is being adapted by some of the U.S.'s largest companies. The concept is sweeping through HP—it's now in place in 11 of the company's 40 manufacturing divisions and gaining new proponents every day.

It's changing expectations, the way people think about their jobs... even the look and feel of the workplace. "What we're talking about," says JIT expert and Indiana University business professor Robert W. Hall, "is excellence in manufacturing."

Just-in-time, on the surface, is a system for handling material. But it ends

up being much more comprehensive. The rules are almost childishly simple:

- Bring just enough material directly from the supplier to the production line "just in time" for a product to be manufactured.
- Make one product at a time, pulling it through the manufacturing process to completion instead of pushing batches of material and products through each stage.
- Stop the line or process when *anything* goes wrong so you don't produce piles of scrap and flawed products.

"What JIT does," says Gary Flack, former manufacturing manager of the Greeley (Colorado) Division (one of the first spots where JIT appeared in HP), "is make quality problems very visible by reducing inventory and space. Inventory tends to hide flaws in your process. Once you eliminate it, you're forced to see the problems, address and solve them."

When you remove the boxes and shelves and warehouses full of material from an operation, you save money in inventory. You make more products in less space. You also make them in less time since producing products one at a time and checking them at every stage in the process means less time reworking them. Without a lot of material, employees can work closer together so they communicate more effectively. But best of all, you end up with a much higher quality product.

Bringing JIT to HP's Fort Collins, Colorado, site was no easy task, according to Fort Collins Systems Division's production manager Bill Sandras. The division makes the HP 9000 desktop computer, which can be ordered in six

million hardware configurations. Most experts maintain that JIT works easiest in a process that features high volume and repetitive manufacturing but Bill can tell you from experience that it works as well where many different products are made in low volume. "It's a little more difficult in such a job-shop—and 75 percent of HP does job-shop manufacturing—but the benefits are just as dramatic."

In a paper entitled *About Face To JIT*,

WHERE DID JIT COME FROM?

In his book, *Japanese Manufacturing Techniques*, Richard J. Schonberger, U.S. JIT guru and University of Nebraska professor, writes that the words came into vogue in the Japanese shipbuilding industry more than 20 years ago. When Japanese steelmakers had excess factory capacity, shipbuilders dropped their supply of steel from one month to three days. The shipbuilders referred to their steel coming "just in time" to use in making their ships.

A Toyota executive claims the idea and words came from the U.S. A Toyota manager saw supermarket employees in the U.S. restocking bins with fruits and vegetables "just in time" for people to reach in and buy them. He was so taken with the idea of such a last-minute delivery system, that he had Toyota incorporate the concept in its factories and with its vendors.



Ellen Duenas, a production worker at HP's Sunnyvale, California, facility, closes one eye to more effectively check the raster alignment of a Touchscreen personal computer.

Bill contends that JIT will have an impact far beyond the manufacturing department. "Initially," he writes, "materials, production, quality control and accounting are most affected by a shift to just-in-time manufacturing. Later, personnel, information systems, engineering and even facilities become involved. Essentially no one is spared from the changes."

Perry Gluckman, quality consultant to several HP divisions, also believes JIT is more than a manufacturing and materials system. It will work anywhere and everywhere. "JIT will work in running your household. If you buy food shortly before you make and eat it, you'll get the best quality and freshest food. Of course, if you like four-day-old corn, then you can shop once a week, but you sacrifice quality."

What makes JIT so exciting is how the system translates to bottom-line figures. Here are some HP results:

- Personal Office Computer Division production manager Lee Rhodes says HP 150s that took three weeks to build now go through the factory in two days. The product is now produced in half as much space as before.

- Fort Collins Systems' Bill Sandras says his division enjoys a 50 percent reduction in floor space thanks to JIT and that employees now produce 29 percent more HP 9000s with 82 percent less work-in-process (unfinished goods going through the system).

- Gary Flack says Greeley shipped seven times more dollar volume in the same space it used in pre-JIT days and that products that took 22 days of work-in-process in the manufacturing operation now take 1.3 days.

- Bruce Harvey, materials manager at the Vancouver (Washington) Division which makes printers, claims that two years of JIT have resulted in one-fifth less work-in-process and 25 percent less scrap.

- Tom Neal, power and noise production section manager at Stanford Park Division, reports inventory was reduced from three weeks to three days, the warranty rate dropped from 7 to 0 percent and floor space was cut from 80 to 50 square-feet-per-person.

What makes JIT so scary for many employees and managers is that it requires a whole new way of working and thinking. Jobs, expectations and the environment all change when JIT comes on the scene. In many ways, these changes improve the quality of work and products. But first, say the people who have gone through the transformation, it can be unsettling and frightening.

Bob Frank, Fort Collins Systems Division material handler, says, "I told everyone it wouldn't fly. Now I have to admit I'm pretty impressed. My job has become much easier. Our stock is way down and it's easier to keep track of."

Gloria Reyna, production worker at Greeley Division, wasn't sure she'd enjoy the teamwork necessary to make JIT work. "Before, we didn't work much in teams so I wasn't used to it. Now I like it. It's helped me communicate better with others."

"Before we went to JIT," says supervisor Gayle Skoglund, also at Greeley, "I was a material chaser. I'd spend most of my day running down missing parts and doing paperwork." Now that material is looked after by material handlers



Victor Conchado brings raw printed circuit boards to the just-in-time production line as they're needed for new computers.

and the purchasing department. Gayle spends more time working with people on the line. "I talk to people much more now. I try to get them working as a team; solving the problems on the line. Now I feel like a real supervisor. I'm in charge of my area, working directly with people and improving the process."

Gayle and many other just-in-time supervisors are discovering the new system forces them to evaluate employees' performance differently. The traditional method of measuring production workers has been to concentrate heavily on the number of things people produce in a day and the individual quality of that output.

Bev Hemstreet, Fort Collins Systems Division production supervisor, describes some of the new ways to evaluate employees: "Do the employees work well in a team? Do they willingly help others? Do they offer suggestions for improving the process? Have they learned a variety of operations? The old quality and quantity measures alone won't work with this new system."

Vancouver Division materials manager Bruce Harvey feels just-in-time

forces managers to rate people on their ability to make everyone successful. "It's fine if an employee can make a large amount of things a day—say 100. But if someone can figure out how everyone can make 100 things a day—that's infinitely more valuable."

But not everyone likes the system. Those star performers who produced the most in a department often feel slighted and diminished. Working in teams sometimes means their flexible hours window is reduced. The Vancouver Division trained "floaters" to fill in for employees who had to leave their work stations for a short time. But one employee confessed that it was hard at first to ask a floater to take over. "At first it was like school. You had to raise your hand to go to the washroom. But now we're so used to the system we don't even think about it."

While the benefits of JIT have been dramatic and obvious, those working in the system have found some roadblocks to its success. For it to work efficiently and fully, outside suppliers must deliver goods in a way they've never done before—often and just in time for the product to be made. Many do not want to change the style of business they've developed over the years.

Greeley Division, practicing JIT since 1982, has been most successful with suppliers. "We knew," says Gary Flack, "that we couldn't change the world in a second so we worked with only a few suppliers at first. We've managed to get daily deliveries on many of our products. Suppliers are just like everyone else in business. They're very interested when you show them that JIT can save them money." Many adopt JIT methods for their own shops. Thanks to vendor use of JIT, Greeley was able to totally eliminate incoming inspection on parts for almost all of the division's products (with the exception of new products).

But most JIT enthusiasts admit that the biggest roadblock is the prejudice many people have against new ideas and ways of working. "The roadblocks," says Fort Collins' Bill Sandras, "are all mental. We're taught a new way to think and we have to unlearn old rules and learn new ones. Before we thought, 'it's important to have all this inven-

tory.' Now we know it's an evil."

Is JIT just a fad, the latest buzzword in manufacturing ideas? "It's definitely not a fad," says Craig Walter, corporate director of quality. "It's here to stay because it really works, because it makes so much sense. Instead of masking problems, you eliminate them. I think

once people start doing things the JIT way they won't have any reason to do them any other way." **M**

—This article was written by Shirley Gilbert, former communicator at the Personal Office Computer Division and now site communication manager for HP in Cupertino.

A SCREWY WAY TO LOOK AT INVENTORY

Traditionally, says Craig Walter, corporate director of quality, U.S. industry has looked at inventory as a way to ensure the quality of our parts.

He explains how this has come about, using the mythical widget as an example. Say you would like to make 100 widgets and need 100 screws to do that.



If you don't have much faith in the quality of the screws coming from your supplier, you order 110 just in case 10 are flawed.



Then, you think, since the plant is on the East Coast and it's winter, perhaps you should order 140 or 150 so you'll have plenty on hand.



Now, since you've been having some process problems that could damage the screws, you decide to order 160 or 170 screws just in case a few are ruined while making the widgets.



Gosh. What if the supplier has inventory problems next month? You'd better order 200 or 300 to build next month's widgets as well while you're at it.



Let's say there is a defect in your product design. You may have to cover that up by ordering another 50 screws or so.



And so it goes, says Craig.

"This philosophy would be fine," adds Craig, "if inventory and floor space were free. But they're very expensive."

The flaw in this way of thinking, says Craig, is the negative way we look at our operations. "It's all driven by the fact that we don't really understand the process. We're basing our reasoning on the philosophy that things will go wrong instead of right. We're fire-fighting instead of problem-solving."

Remove that inventory, says Craig, and suddenly you can see the problems, solve them and continually improve your process.

CLOSEUP

Zooms in on the ever-changing world of HP people, products and places.

IRISH TWOSOME

The HP 150 that Eithne McCabe won in the fifth annual Hewlett-Packard competition in the Republic of Ireland for undergraduate college students has become "almost a part of the family," she says.

She's so fond of her new personal computer that she wrote this poem to thank the sponsor, HP Ireland Limited. Thesis projects in such fields as electronics, computing and instrumentation are submitted for the award. Eithne's winning paper had the no-nonsense title, "An Off-Wire Guidance System for a Factory Robot—Inertial Navigation."

Eithne just received her B.E. degree from University College Dublin and has started doctoral studies in electronics at Oxford University. She's taken along her HP 150.



My HP 150

by Eithne McCabe

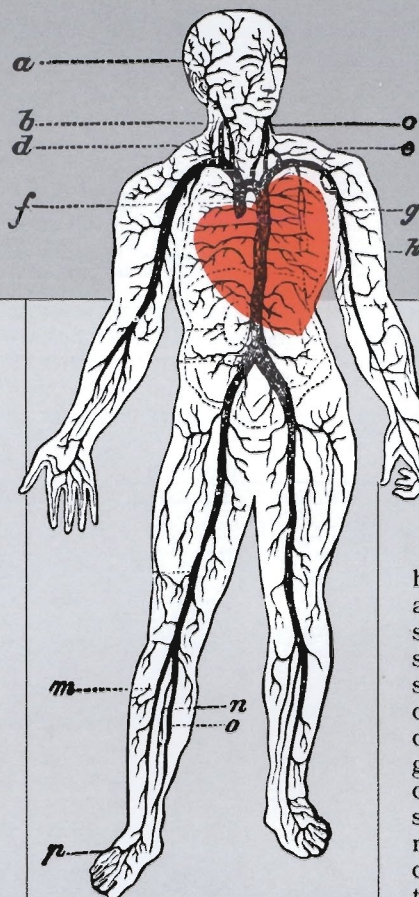
*It sits and smiles
A soft white and grey,
The screen whispers
"Watch me come alive
I shall prompt you....
Together we can dive
And plunge into a deep
green sea
Of commands and
operations.
Just watch me!*

*As a piece of furniture
You think of me?
But I have two eyes—
Feed my disc slots, I see.
Now that you know me
You call me by name,
You think "This is just a
machine,*

*Am I going insane?"
But Hewlett-Packard
built me*

*With love and care;
Now I am personally
yours."*

*It still sits and smiles
And beckons to me
I feel its lure
It is my own HP.*



California in Los Angeles.

Dr. Harry Selker programmed an HP-15C to evaluate patients who are brought to emergency rooms with possible heart conditions. Will they actually have a hospital stay? The program assigns weighted values to such variables as history of past heart attacks, chest pain, level of angina, past use of nitroglycerin to relieve angina symptoms and three readings from an electrocardiogram done there in the emergency room.

In an 11-month test at six New England hospitals, Selker's system allowed a 30 percent reduction in the number of patients admitted with no apparent increase in the number of people who had heart attacks, according to a report published in the *New England Journal of Medicine*.

AT THE HEART OF THE MATTER

A 20-second program performed on an HP handheld calculator could prevent 250,000 unnecessary admissions to hospitals' coronary care units, claims a cardiologist at the University of

POLE, PEDAL AND PADDLE

You start the race with an uphill run on snow in your ski boots, strap on your skis and from there it's all downhill—sort of. The Pole, Pedal, Paddle race is a combination of six sports and "is as much a logistic event as an athletic event," says Portable Computer Division's Mike Steed. "An entrant needs to own the better part of a sporting goods store and a car big enough to put it all in or on."

Mike was one of 15 HP employees from Corvallis, Oregon, to compete in this

year's race near Bend, 130 miles away. The six parts of the race, which can be run by one individual or by a team of up to six, include:

- the 150-yard dash in ski boots
- a downhill ski run
- a 5-mile cross-country ski jaunt
- a 20-mile bicycle ride
- a 1.5-mile canoe ride and a 4.7-mile foot race.

Here, HP's Carl Landsness, in bib number 3, starts the cross-country leg of the annual event.



MIKE STEED



PHOTOS BY JOANNE ENGELHARDT

PERSONAL BEST

It wasn't HP's year at the Corporate Cup National Championships at San Jose (California) City College in July.

First, there were injuries. A pulled muscle kept Bruce Ginn out of the running, though he flew from the Spokane Division to the meet anyway just to cheer on his HP teammates.

There were tough breaks, too. On the first day, HP missed qualifying for several final events by a second or two. And a dropped baton in the sprint-relay finals cost HP precious seconds.

Overall, HP placed ninth—two notches below its 1983 standing. After the competition, HP coach Glenn McCarthy of Information Networks Division joked, "Maybe

our college recruiters need to find us some 4.0s—not GPA (grade point average) but mile times."

One bright spot was the second-place finish (above) by San Diego Division's Tony Marshall in the men's master's 1500-meter race. Tony collapsed from exertion (below) after the finish line and later learned that his time was 4:13.06. "It's faster by far than anything I've ever run."



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CROSSWORD WINNERS

In our July-August issue we gave readers a chance to qualify for *Measure* T-shirts simply by completing a crossword puzzle about HP people, products and places. Since responses are still coming in from readers outside

the U.S., we'll announce the winners in our next issue. But here are the right answers.

In the meantime, you can still earn a *Measure* T-shirt by sending us a letter for publication on our Your Turn page. See page 10 of this issue for details.



MIKE STEINBERG

In the control room overlooking LTV Steel's mill in Cleveland, Ohio, programmer-analyst Bob Lundblad (center) shows visitors from HP's sales office how an HP system tracks orders. Involved in the sale were Randy Rudasics (left), sales financing, and Greg Graham, area sales manager.

Imagine, for just a moment, that you're an HP customer. You'd like to buy a new computer system with a price tag of \$200,000, and you're wondering how to pay for it. Can you afford to pay cash? Should you ask your banker for a loan? Or is there a better way to finance your purchase?

For many companies, leasing is the best way to pay for equipment. Leasing offers a low-cost way to use equipment, without the risk of ownership. In today's economy—where firms must be wary of buying equipment that may soon become obsolete—leasing makes good business sense.

Beginning in 1972, Hewlett-Packard's sales finance organization offered leasing to customers by arranging financing from banks. However, working with banks involved lengthy credit approval, lots of documentation and high interest rates. So

LEASING:

HP WAY TO PAY

By offering a variety of low-cost sales financing plans, HP helps customers acquire equipment and makes selling easier.

HP made the move to direct financing in November 1983 with the formation of the Finance and Remarketing Division (FRD) and the creation of the Hewlett-Packard Finance Company (HPFC).

FRD, managed by Don Schmickrath,

is responsible for the marketing and administration of Hewlett-Packard's leasing activity and HPFC, headed by Joe Barr, is a wholly-owned subsidiary set up to fund leases by borrowing on Wall Street. With FRD and HPFC working together, Hewlett-Packard now offers a variety of direct financing plans, with no middleman to raise interest rates or complicate the process.

Hewlett-Packard decided to offer direct leasing because of its value as a sales aid. It provides real advantages to the customer, says Pam Odle, district sales manager in Bellevue, Washington.

"Most of our computer

systems cost more than \$100,000, and customers don't often have that kind of cash on hand. With leasing we can provide a total sales package with competitive interest rates, flexible payments and save customers the trouble of going

to a bank for a loan."

Pam's district has leased 80 percent of its sales this year. "One of our biggest deals involved the Washington Community College Computing Consortium. There's no way we could have made the sale without leasing. The flexible payment terms we offered were the key, and let us compete with other large vendors in terms of financing.

"I think leasing is one of the greatest assets we've got for selling our products," says Pam.

While FRD coordinates the leasing process, it's the responsibility of financing representatives in HP sales offices to present leasing alternatives to customers. Randy Rudasics is the contract rep for the Cleveland and Akron, Ohio, offices.

"In Northern Ohio, where we have old-line manufacturing industry, attractive financing that can be kept 'off balance sheet' is a real necessity for closing a sale," Randy explains. "For example, LTV Steel (formerly Republic Steel), couldn't have bought as much equipment from us without our financing. We gave them low rates when no one else would. And our rates have also generated additional sales with Good-year, because they could fit more equipment into a limited budget."

Bill Fox, district sales manager in the Akron office, agrees that HP leasing is attractive to customers. "Our leases provide more flexibility than plans offered by third-party leasing companies," he notes. "Most customers prefer leasing from HP."

The Cleveland and Akron offices demonstrate the value of leasing: more than 40 percent of their computer sales are leases from Hewlett-Packard. Many other sales offices across the U.S. make similar use of leasing to find financial solutions for customers.

Hewlett-Packard's financing plans make it easier for a sales rep to sell HP equipment. But the benefits don't stop there. Suppose a company leases a computer system from HP, but soon needs greater system capacity. FRD will arrange an upgrade, where the customer trades in the old system and gets credit towards a new computer. Everybody wins: the customer is able to upgrade its system at a low cost, and HP

WHAT IS LEASING?

Leasing is a financing plan that lets a customer pay for the use of equipment without having to buy it. With an annual volume of more than \$60 billion, leasing is now the most popular way to finance new equipment in the U.S., ranking ahead of bank loans, bonds and stock issues. Fully 64 percent of the Fortune 1000 firms rely on leasing to finance capital equipment.

How does a lease work? It calls for fixed monthly payments over a term of three to five years. This lets a firm avoid a big cash outlay, and lets the equipment pay for itself over time. When the lease ends, the customer can either purchase the equipment or return it to the manufacturer. This reduces the risk of obsolescence. Finally, there are tax and accounting benefits to the customer. Many leases can be left "off balance sheet," meaning that the obligation to make lease payments does not appear as a debt on the customer's financial statements.

With a lease, Hewlett-Packard retains title to the equipment and receives tax benefits as well as interest income. And since all leases with terms of three years or more can be counted as sales, leasing does not lower HP's yearly revenue.

sells a new computer.

And what happens to the returned equipment? FRD's remarketing operation refurbishes the equipment, then sells it to a company that is looking for a high-quality computer system at a bargain price.

HP's upgrade path is unique, notes Don Schmickrath. "Other leasing companies can make it very tough for customers to upgrade their systems, by charging penalties or fees for getting out of the lease before the end of term. But HP is happy to upgrade, since we can make use of the returned equipment and sell a new, larger system."

Randy Rudasics agrees that HP financing is critical to the upgrade pro-

cess. "We can monitor a customer's lease and do an upgrade in 24 hours," he says. "This gives us excellent account control."

By making initial sales easier and encouraging upgrades, leasing is becoming an integral part of the HP sales cycle. Jack Greene, Paramus, New Jersey, district sales manager, puts it this way: "One of the first things a sales rep needs to explore is how the customer plans to pay. Is cash flow going to be a concern? If so, HP's financing provides a tremendous advantage since it lowers the monthly cost of HP equipment."

Leasing is an effective marketing tool, but it's much more than that—it's also very profitable for Hewlett-Packard. Some of the profits come in the form of tax deferrals, with HP delaying tax payments on equipment leases and spreading them out over future years. In 1983, the deferrals to HP from its leasing operations amounted to a large share of its total tax bill. When lease payments, depreciation and tax deferrals are considered, leasing is 20 to 25 percent more profitable than a straight cash sale.

What sorts of companies lease from HP? The list is long and ranges from industrial giants like AT&T and General Motors to small start-up firms. Both large and small companies find HP leasing attractive. Leasing volume, which stood at \$100 million in 1982, is expected to reach \$200 million in 1984 in the U.S. alone. The Hewlett-Packard Finance Company was set up to facilitate the flow of the increasingly larger amounts of money involved in leasing. As Joe Barr explains, HPFC's borrowing in no way conflicts with Hewlett-Packard Company's policy of self-financing.

"HPFC is borrowing to match customer receivables already in hand," he says. "It's not like borrowing against future income you hope to have. The money we borrow is paid back as the lease payments come in."

At present, one-fifth of all domestic computer sales are leased by HP, not counting sales to original equipment manufacturers (OEMs). "Instrument leasing is also growing rapidly," says Craig White, FRD marketing manager, "and we should see volume continue to



BRAD WHITWORTH

Commercial customers in Sweden charge all types of HP products with their own Direktkonto (direct account) card.

pick up as the advantages of leasing are better understood. There are good reasons for a customer to lease, regardless of the product. Our goal is to become the simplest, cheapest and fastest form of financing available to the customer."

In addition to extending across product lines, HP's leasing activity reaches around the world. While only domestic leases are funded through HPFC, sales finance offices in Europe and Intercontinental arrange leasing and financing for customers.

The European sales finance program has grown rapidly in recent years, with volume reaching \$70 million this year. Financing is offered in 16 countries, ranging from Scandinavia to the Mediterranean. Covering this diverse area has a unique advantage: HP can introduce a new financing program in one country, then implement it in other countries if it's successful.

One example of this innovation is found in Sweden, where HP has joined with Merkantil Bank to offer business cards to commercial customers. The plastic "Direktkonto" allows firms to conveniently finance any HP product, from a box of computer paper to a large computer system, on any appropriate financing plan.

Each month Merkantil Bank sends the customer a single bill that itemizes each charge. This new plan—developed by Anders Garberg, sales finance manager for Sweden—is the first of its kind in the nation and offers attractive financing for HP customers while leaving all the credit risk to the bank.

There are new and innovative programs in the U.S., too, as well as a full range of standard financing options.

So if you're a customer who needs a low-cost way to finance HP equipment, Hewlett-Packard financing is a good place to look. Increasingly, HP customers are doing just that. **M**

—This article was written by Phil Rosenzweig of FRD's marketing department.

JOHN YOUNG

HP's president describes the growing importance of marketing in the company.

On July 16, two important events took place: HP announced a major reorganization of its business, and 95 of our senior marketing managers began a week-long seminar in Monterey, California. While the coincidence in timing is somewhat accidental, the two events shared the same motivation. They both reflect HP's increasing focus on customers and the markets we serve. Recently, there's been much discussion of HP as more of a "market-driven" company, and I think these events provide an opportunity to reflect on what this means at HP.

Some people might think that if HP is becoming more of a "marketing" company, they'll see more advertising, stepped-up sales promotions and greater emphasis on new distribution channels. In some measure, this view is correct: All of these things are marketing ingredients. But the activity is broader in scope than activities aimed at selling our products—as important as those efforts are.

Marketing can be thought of as a two-way channel of communication—from HP to its potential customers and from the marketplace to us. It involves listening, as well as talking. Peter Drucker, a noted author on management subjects, probably describes it best. Marketing, he says, is "so basic it can't be considered as a separate function. . . . It is the whole business seen from the point of view of its final result, that is, from the customer's point of view."

Marketing, then—when described as keeping the perspective of the customer—is really nothing new at HP. As Dean Morton reminded attendees at our Monterey meeting, HP didn't get to be a multi-billion dollar company without considerable skill in all the areas encompassed by marketing—from the analysis of market trends and customer needs to the use of technology to meet those needs and the provision of sales and after-sales support. Customer focus is a tradition at HP.

Despite our historical success in the markets we serve, HP is taking a fresh, hard look at marketing. Why? First, because we're not content to rest on our laurels, whether it's marketing or engineering or manufacturing. We have constantly rising expectations for our



John Young shares lunch with four Stanford University graduate business students (Thor Iverson, Don O'Neal, Todd Logan and Hanif Jamal) who worked at Hewlett-Packard this past summer. John graduated from the Stanford MBA program in 1958.

BRAD WHITWORTH

own performance—the "search for excellence" that people so often use to describe us.

A second and more compelling motivation for HP's new marketing emphasis is change—change in both the customers we serve and in the ways we provide value to them. Our customer base is broadening, and we can no longer rely on an intuitive understanding of what people want and need. Further, our customers are no longer buying just a stand-alone instrument or a computational tool from us. They want more of a complete solution to a business or technical problem. The value we provide customers includes hardware, software (applications developed here at HP and at independent companies), training materials, documentation and a range of after-sales support activities.

Determining and providing for those customer needs—and measuring the effectiveness of our efforts in a systematic way—has now become a more complex challenge for us. It is certainly one that we can meet. As Paul Ely noted in his remarks to marketing managers (in a speech appropriately titled "Confessions of a Marketing Agnostic"), HP people are learning that the process of marketing can be clearly defined, systematically pursued and measured for effectiveness. Marketing is an activity which we can approach with total quality control. And that's what we intend to do.

The organizational changes we have just completed provide a structural complement to the marketing efforts just described. The focus on major market segments by the newly defined

groups (Design, Manufacturing, Information, etc.) provides the needed organizational and strategic elements to facilitate this customer focus. Likewise, the realignment of the field provides a single and unambiguous relationship between HP and the customer.

You can expect to see the results of HP's increased emphasis on marketing in the months to come. Dick Alberding will be giving the subject a lot of his attention, and in January the first modules of a training program for factory marketing staffs will be teleconferenced to the divisions. The goal of these efforts is to integrate the marketing process into all HP activities and to create within HP a level of marketing excellence that matches our engineering and manufacturing expertise.

Let me close by repeating Peter Drucker's comments on marketing. He calls it an activity "so basic that it cannot be considered a separate function." HP's marketing management will be playing a leadership role in ensuring that we have the correct focus on customers and markets. Yet we can only be successful if they have the support and encouragement of all of their colleagues in research and development, manufacturing, sales and sales support, and throughout the organization. Marketing is an integral part of all our jobs, because success in markets is basic to the success of HP and of all its employees.

NEWSCLIPS

Recaps the newsworthy events, changes and achievements within HP.

THIRD-QUARTER FY84

Hewlett-Packard Company reported a 47 percent increase in net earnings and a 35 percent increase in net sales for third quarter of its 1984 fiscal year ended July 31.

Net earnings totaled \$134 million, equal to 52 cents per share on approximately 256 million shares of common stock outstanding (compared with net earnings of \$91 million or 35 cents per share on approximately 254 million shares during the same quarter in FY83). Current-quarter earnings benefited \$6 million or 2 cents per share from a change in U.S. tax law related to the company's Domestic International Sales Corporation.

Sales totaled \$1.56 billion, compared with \$1.15 billion for the corresponding quarter of FY83.

Incoming orders for the quarter were \$1.69 billion, up 33 percent over orders during the third quarter of FY83. Domestic orders gained 26 percent from the year-ago quarter with international orders up 43 percent.

DIVIDEND INCREASE

On July 20, HP's board of directors increased the company's regular quarterly dividend from 4½ cents per share to 5½ cents per share of common stock. The amount reflects a 22 percent increase and brings the annual per-share dividend to 22 cents. Last dividend increase was in July 1983.

WEST GERMANY

In Böblingen, West Germany, some changes have been made to align manufacturing activities with the new HP organization announced in July. **Karl Grund** is general manager of the Böblingen Computer Division, part of the

Design Systems Group. It will make HP 9000 Series 200 and 500 engineering desktop computers and a future design-systems product. A new Böblingen General Systems Division under GM **Klaus-Dieter Laidig** has worldwide responsibility for HP 250 small-business computers and will make HP 3000 computer systems for Europe. It is part of the Information Systems Group.

CHART CHANGES

The Medical Supplies Center in Andover changed in July from an operation to a division within the Medical Products Group. GM is **Bob Hungate**.

In the Microwave and Communications Group, the former Santa Rosa Technology Center was raised from operation to division status in August. It has been renamed the Microwave Technology Division. The GM is **Byron Anderson**.

The Instrument Products Operation has been formed within the Corporate Marketing Group for direct marketing of low-cost instrument products, supplies, accessories and software. Operations manager is **Steve Lumm**.

NEW HATS

Hans-Guenter Hohmann has been named GM of the Waldbronn Division succeeding **Dieter Hoehn**, who has relocated from West Germany to Palo Alto, California, as Analytical Group GM.... **Chi-Ning Liu** has been named GM of China-Hewlett-Packard. Contracts forming the joint venture were signed August 8 in Palo Alto and are awaiting approval by the government of China.... **Lee Ting** has been named Intercontinental market

development manager—Asia Pacific. **Ophir Toledo** has similar responsibility for Latin America along with other duties.... New group marketing assignments: **Chuck Jepson**, Information Systems Group; **Don Schoeny**, Manufacturing Systems Group; and **Dick Watts**, Design Systems Group.

MANAGEMENT COUNCIL

Two new committees have been added to the HP Management Council, the company's principal forum for corporatewide implementation and management of various functional and administrative policies. Each of the five committees now reports to an executive vice president. New additions are the Computer Architecture and Networks Committee, under **John Doyle**, and Corporate Information Systems, under **Paul Ely**. Other committees and their chairman: Operations, **Bill Terry**; Personnel, **Bob Boniface**; and Marketing, **Dick Alberding**.

NOTEWORTHY

New entity in Europe's South East Region is HP Hellas, headquartered in Athens, Greece, to serve computer customers in that country.... Two-thirds of the Signal Analysis Division has moved from Santa Rosa to Rohnert Park, California.... Motorola, Inc. has named HP one of two winners of its first corporate quality award for suppliers worldwide.

MOVED LATELY? CHANGE OF ADDRESS SHOULD BE REPORTED TO YOUR PERSONNEL DEPARTMENT.



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