

MEASURE

For the people of Hewlett-Packard

November-December 1981



WHEN A HORSE
IS MORE THAN A HOBBY

UP FRONT

Comments on
the changing HP scene —
and the people behind it.

There are many ways of illustrating how HP works at being a good corporate citizen. A few of them are described in this issue's lead article called "The Foundation of Giving." But the old cliché that a picture is worth a thousand words is proven by our cover photo which says it very sufficiently. David Forderer (in the wheelchair) and Nyal Bennett are two of the fortunate disabled youngsters who are part of a special horseback riding program run by the Westwind 4-H Club of Los Altos Hills (near Palo Alto). Once a week children like David and Nyle—some in wheelchairs, some in walkers and some walking with considerable difficulty—saddle up and learn basic riding exercises and gymnastics on horseback. It's proven to be excellent therapy for the youngsters, according to Nancy Couperus, who has been a volunteer director of the program since it got underway in 1978.

Right now there are about 30 children in the program, 80 percent of whom are cerebral palsied. Each child is supervised by two or three adults and 4-H members during the lessons.

Last year a local grant of \$2,000 helped construct a barn for the horses that are used in the Westwind riding program. Nancy says the group is about ready to make another request for funds: those horses, like hungry Montana on *Measure's* cover, eat a lot of hay.

Twenty years ago, as the first step in a long-range plan to establish its own sales organization, Hewlett-Packard purchased a Texas sales representative firm



Bo Byers (left) accepts custody of a 200A oscillator, HP's first instrument, from Mr. C.S. Robertson, a retired Texas pipeline communications superintendent.

known as Earl Lipscomb Associates (ELA). Later, nine more "rep" firms were also acquired as the basis for what were to become the four U.S. sales regions.

In formalizing the ELA agreement on November 1, 1961, HP did so with pretty high confidence in the people who came with the deal. Today that view more than holds up: Of the entire staff of eight sales engineer associates who simultaneously became HP employees on that day, six are still with the company. (The other two have died, while Earl himself retired in 1966.)

Bob Shuffler and E.G. "Bo" Byers were among the first Lipscomb field engineers, joining ELA in 1951 and 1952, respectively, after forsaking the broadcasting business they undertook upon graduation from Texas A&M. Bob is Loveland's public relations manager, and is remembered as the developer of the "Travelab" road shows of HP products in Texas. Bo now is general manager of the fast-growing Houston branch office (which he established in 1952).

Two others of the six are zone managers for the Southern Sales Region: Boyd Orr for the east zone headquartered in Atlanta, and PenDell Pittman for the Dallas-based west zone.

Also still in Dallas are Bob Sander, as the area manager for Instruments, and George Tahu as an Instruments field engineer.

Of course, the story of these people is repeated almost across the board in the other sales organizations by others who also recognized a winning combination.

Meanwhile, back in the Houston office, Bo Byers likes to show visitors a model 200A audio oscillator, HP's first product, now on display in the lobby. On behalf of HP, Bo was given custody of the instrument by a retired Texas Pipeline communications superintendent named C.S. Robertson. He used the 200A throughout his career, moving it about in the field from New Mexico to Louisiana until 1971. Its serial number is 40, meaning that this 200A was manufactured during 1940 in the one-time HP building that now houses Polly and Jake's antique store at the corner of Page Mill Road and El Camino in Palo Alto. Like those former rep associates, it still works. **M**

THE FOUNDATION OF GIVING

Philanthropy: The word doesn't evoke any strong images, but it should. The word's Greek roots signify its true essence — *philein*, meaning love, and *anthropos*, meaning man. Philanthropy, then, refers to the wide range of activities we engage in because we care about other people.

HP's philanthropic activities stem from a citizenship objective which stresses the importance of being an economic, intellectual, and social asset to each community and nation in which we operate. Included in those activities are gifts of time, expertise, equipment and cash. It would be impossible to adequately summarize all the gifts of time and expertise by HP employees. In every community where HP is located, its people can be found involved in an amazing variety of activities, from working with the handicapped, to tutoring disadvantaged children, to visiting jail inmates. The list could go on forever, and the value of such contributions cannot be quantified.

Somewhat easier to describe is the range of HP's giving of cash and equipment. Like so many of HP's activities, corporate giving takes place in a number of locales and on a number of levels. Coordination of HP's cash and equipment grants is provided by Emery Rogers, executive director of the Hewlett-Packard Company Foundation, and a small corporate staff located in Palo Alto.

High Visibility

HP's corporate giving program is most definitely growing, both in terms of the total dollar value given and the percentage of the company's revenues that represents, says Emery. "The reasons for the increase are quite simple. We're becoming a highly visible company, and our reputation for citizenship is well known. Then, too, there's the recent trend away from seeing government as the source of all solutions to all problems. The result has been an avalanche of requests in the private sector.

"I think we can be rather proud of our record, although, of course, there is always the hope that we can do more. Last year, HP ranked



If you think you know all there is to know about how you walk, just ask David Bohnet, 12, shown here being optoelectronically tested to measure his gait. HP's 1809A vertical amplifier, a contribution to Children's Hospital at Stanford by the company, is used for this special study in the hospital's motion analysis lab.

120th in the Fortune 500 in sales among U.S. companies. Yet we ranked something like 50th in regard to the dollar amount of our corporate giving. Our corporate giving for 1981 will be \$5.2 million worldwide in cash and equipment. If we counted the market value of our equipment grants, the 1981 total would be closer to \$10 million."

HP's corporate grants are divided between cash and equipment. Some cash grants are made directly from the company and some through the Hewlett-Packard Company Foundation, a separately incorporated, tax-exempt organization created in 1979 by the Executive Committee with an initial grant of \$925,000.

"In forming the HP Foundation, we really created a win-win situation for everyone," says Rogers. "The Foundation allows the company to store cash earned in good years for philanthropic distribution



On loan to a pilot project at a Menlo Park, Calif., high school this year is Brenda Mapp from the Computer Systems Division. She is giving youngsters a strong boost toward an eventual career in computer technology. The company has also donated 10 HP 85s, software and peripherals to give students hands-on experience. Half of their day is spent in the school-within-a-school, which began in September as part of the Peninsula Academies program. (Training in electronics technology is similarly offered at another local high school.) Co-sponsors are the Stanford Mid-Peninsula Urban Coalition and the school district, with local industry supplying trainers, funds for equipment and advice on the curriculum for both courses.

in subsequent years—the company gets the tax deduction for the charitable contribution, and the Foundation is able to invest the funds to earn more money. This year, for example, two-thirds of the \$180,000 in national cash grants made by the Foundation represented interest we had earned on the funds granted us by the Executive Committee back in 1979.”

Cash grants made by the HP Foundation, direct company grants to national causes, and some national equipment gifts are considered by HP's National Grants Review Board. The Board's 21 members represent all the product groups, HP Labs, Personnel, Affirmative Action, Government Relations and Public Relations.

The National Grants Review Board meets four times a year to consider requests that fall within its area. In its day-long meeting, the Board will consider as many as 16 different grant applications that Emery and his staff have forwarded for consideration. Those grant applications considered by the Board represent a small fraction of those received. The HP Foundation/Contributions Office in Palo Alto alone receives a dozen requests a day, and many more pour in through other HP channels. The decision-making process is painstaking and ways are always sought for a creative approach. Examples: a grant to Public Broadcasting Service to fund captioning of PBS nationwide programming for the hearing-impaired, and a grant made in conjunction with the National Science Foundation for science reporting on National Public Radio.

HP's cash contributions on the local level dwarf its cash activities on the national level. The biggest chunk—approximately \$1.3 million in 1981—goes towards matching on a one-to-one basis all employee contributions to United Way. This sizable commitment stems from the conviction that United Way is in an excellent position to respond to the particular needs of a community, whether they be in the field of health, child care, family counseling or programs for aged, disabled and disadvantaged persons.

At the local level

HP's more than 20 community contributions committees are another example of the emphasis on identifying and responding to local needs. Everywhere in the world



Pulling together on a raft expedition are adult volunteers and their junior partners in Partners, a program which helps young people stay out of trouble. Northern Colorado divisions give a \$3,000 grant each year and more than 20 HP people volunteer. At right is Scott Sampl, Civil Engineering Division marketing engineer, whose junior partner, Brad, is second from left.

that HP has a facility, the company permits an appropriation of \$14 per employee to fund a local contribution committee, representing a total HP commitment of \$800,000 in 1981. Community contributions committees represent a microcosm of HP philanthropy at its best, with decisions about funding of local projects made by the HP employees who live there.

If designing, producing, and marketing HP equipment is exciting, giving it away is even more so. Part of the excitement is due to the fact that the gift of HP equipment has a greater value to the recipient than appears on the contribution ledgers, because to HP the equipment's value (for tax purposes) can only be its cost, while to the receiver the value represents its list price. Thus, explains Emery Rogers, the \$2.6 million HP deducts on its taxes for equipment gifts really represents \$7 million worth of equipment. (U.S. tax laws will soon allow for a deduction of more than the manufacturer's cost for some equipment and HP plans to use any resulting tax savings to finance greater equipment giving.)

More exciting, equipment gifts involve a lot of interaction between HP people with technical expertise and the receiver of the gift. What are the requesting agency's needs? How can HP equipment be of assistance? Does the recipient have the resources to use and maintain the equipment? These and a lot of other questions must be answered, involving a lot of time and communication.

Hospitals receive a large portion of equipment grants, and the trend is toward making such gifts easier to initiate. Now community con-

tributions committees may make modest grants of equipment out of their allocation, and one or two local committees will be able to combine resources with a limited allocation from the national cash grant fund to initiate HP medical equipment grants to nearby community hospitals.

Employees, too, can combine resources with the company. Any U.S. employee can contribute 35 percent of the list price of any HP product up to the maximum value of \$10,000 and designate what four-year college it should go to. Several HP employees may pool their funds for the same purpose. The equipment-matching program has now been expanded to include gifts of HP Series 80 Personal Computers and peripherals to any U.S. school from junior high up.

Anyone can contribute

Employees are encouraged to participate: Many an organization involved in philanthropy on the scale of HP's giving would have a staff of 20 to 30 people, says Emery Rogers. HP's corporate staff is lean—5 persons. HP multiplies the effectiveness of its giving by involving its employees. It is, as Emery likes to say, a “win-win” situation. The company's philanthropic efforts benefit from the expertise and enthusiasm of its employees, who have the technical know-how and community awareness to make their efforts a real contribution, too. And HP employees get the satisfaction of knowing that in addition to the easily quantifiable contribution of HP equipment or cash, there's also that unquantifiable but essential human



At the Waltham Division, HP will give more than \$60,000 in matching United Way contributions this year. Employees who pledged at least one hour's pay per month for 12 months were in a drawing to have GM Ben Holmes (left) do their work for half a day. The surprised winner is Al LeGraw, machine operator in the sheet metal shop.



At the Foundation Center in New York City, Peter Procino from HP's Manhattan office consults with Jeanette Penkar about the computer system which the company has contributed. The HP 250 serves as a model for other non-profit groups considering computerization for their record-keeping needs.

ingredient. And the human ingredient is what philanthropy is all about.

Who decides where HP money should go?

In Northern Colorado, that decision is made during monthly meetings of a contributions committee representing the four divisions in Loveland and Fort Collins. The regional committee was formed in 1976 at the suggestion of Don Schulz, Desktop Computer Division general manager who serves as "Mr. HP" for the region. It reports back monthly to the Northern Colorado top management.

Last year the committee allocated more than \$52,000 in cash, along with overseeing the donation of matching funds to four United Way campaigns.

Says Bob Shuffler Sr., who chairs the group, "We decided to give priority, in order, to educational, human services and cultural requests." (The same areas of interest were later designated for company-wide philanthropy.)

The tie with HP people is important. In evaluating requests, the committee looks at the relative number of HP people who live in a community, and gives special consideration to activities in which company employees are active.

While Loveland, Fort Collins, Greeley, and Longmont claim the most HP employees as residents, little towns like Estes Park are still in the running for help—the latter has received assistance for its volunteer fire department and the community hospital.

"We do try to reach out beyond fixed boundaries," Bob explains. "We have supported a Denver educational TV station that beams to this area, for instance."

The committee doesn't give money for operating funds to agencies on an annual basis, but prefers to refer them to the United Way. It may agree to give seed money for a new program such as an out-reach effort, however.

For geographical or other reasons, not all non-profit agencies that ask for help fit the United Way pattern. The Northern Colorado Contributions Committee gives \$3,000 each year to Partners, which matches adult volunteers with young people in conflict.

The committee summarizes donations in an annual report to employees, and posts photos showing some of the activities funded by HP. However, it prefers not to publicize

such gifts to the outside press although recipients are free to do so.

(Since HP is one of the largest employers in Colorado, a special allocation is now set aside by all HP divisions in the state to fund activities of statewide interest. Last year about \$16,000 in grants went to community and vocational schools, a summer program for potential engineering students, the Children's Hospital in Denver, and the Denver Symphony Orchestra, among others. The fund is administered by a separate committee.)

Because the committee has an accurate sense of the needs of the Northern Colorado area, it is asked to give input when requests come in for assistance beyond its own scope. Applications for major cash gifts or equipment are passed along to Emery Rogers for consideration at the corporate level.

"We might point out that a local college that's asking for a computer has just received a cash donation from our committee," says Bob, "or strongly endorse the donation of specialized HP equipment to a community hospital.

"We try to help keep the lines of philanthropic communication clear within HP."

Walking and talking get an assist

Giving away money and equipment sounds very altruistic, but does it really do any good to those who are most in need? The Children's Hospital at Stanford has been the recipient of several HP equipment grants.

In the motion analysis lab, for instance, an HP 184A oscilloscope and an 1809A four-channel vertical amplifier are used to study gait, meaning the way a person walks.

In another part of the lab a 2640B computer terminal is linked to a plotter for researching the effects of balance on scoliosis patients.

Another HP donation, an ECG telemetry system, is used in the lab for medical studies.

In another building, electronic engineer Peggy Barker uses an array of HP-contributed equipment in the communication and control department of the Rehabilitation Engineering Center.

This past summer an HP 85 plotter and other accessories were added to the equipment Peggy uses to assist patients who are non-oral or "are so physically limited that they can't communicate." **M**



GRAND OPENING OF HP'S CHINA OFFICE

A unique business relationship was formalized on November 9 with the opening of the China Hewlett-Packard Representative Office in Beijing. The office is a separate, government-sponsored entity created to facilitate the sale, service and distribution of HP products in the People's Republic of China.

Specific sponsor of the representative organization is the China Electronic Import-Export Corporation operated by the country's Fourth Ministry of Machine Building. It represents the first time such a facility has been formed by the PRC for a foreign company. The facility will be under day-to-day supervision of CEIEC's Li Deguang as deputy general manager; HP's Chi-Ning Liu provides overall coordination as general manager of HP activities in the PRC, working out of Intercon headquarters in Palo Alto.

Twenty-two technical and administrative people—all Chinese nationals—have so far been recruited and trained by HP to staff the office. Part of that training in-

cludes English language classes.

Speaking at the banquet in celebration of the office opening, Senior Vice President Bill Doolittle noted that it had been nine years since he and other HP representatives had first been invited to Beijing to establish business relations there. "For many years we have worked very closely with your (PRC) foreign trade organizations and supplied a wide range of products to your universities, factories and institutes. More recently with the start of your modernization effort, there has been increasing interest among your industries in applying modern electronic tools to solve increasingly complicated problems in technology and management. This office is in keeping with our philosophy of bringing such support close to customers."

In addition to the many representatives from government and industry who attended the opening, two Chinese television crews were on hand. One represented the local Beijing station, the other the national network which telecast the event one day later. Someone estimated—only half in jest—that this showing reached a potential audience of a billion people. What a tremendous addition to HP's customer base! **M**

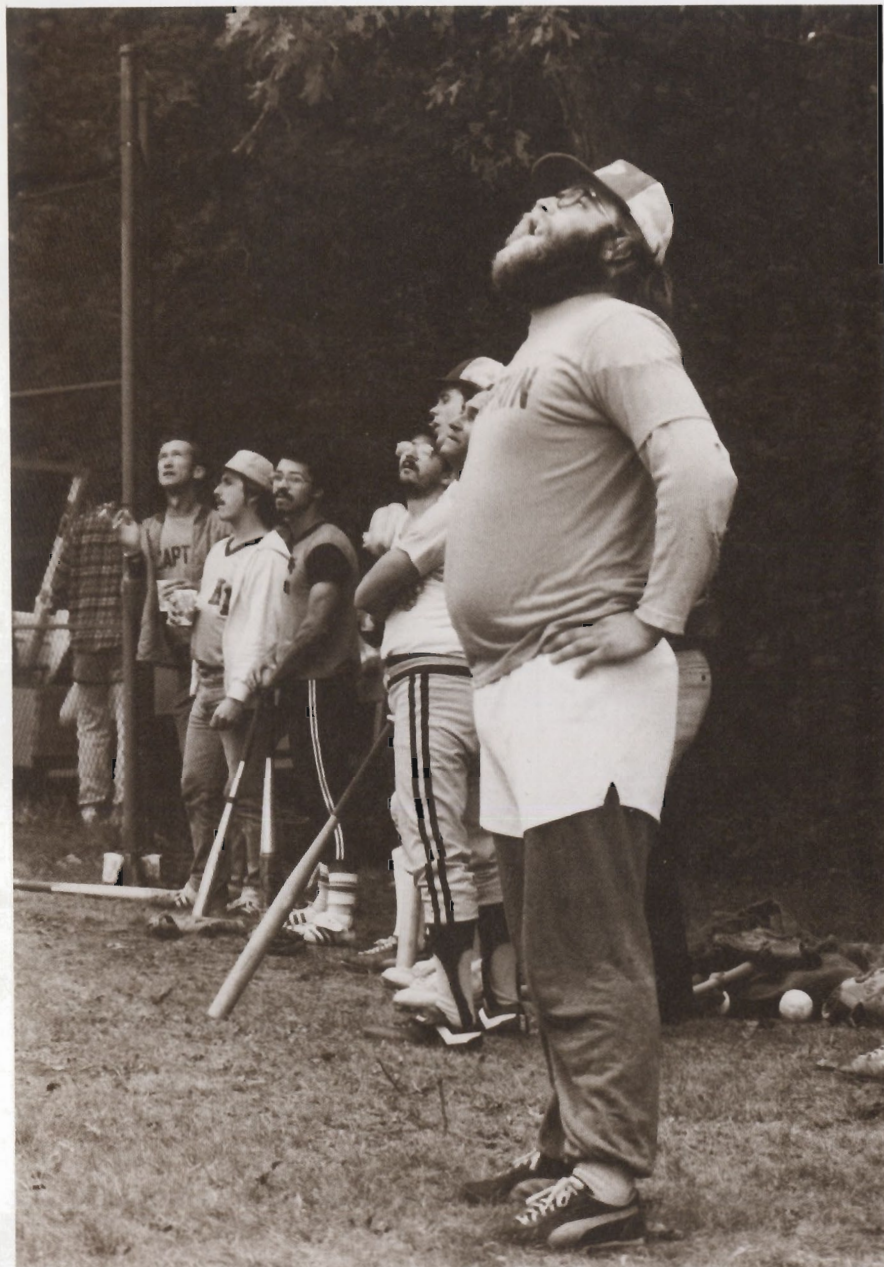
New Beijing representative office serves as a product demo area for opening-day visitors. From left are: Cui Wei, the official interpreter, HP Senior Vice President Bill Doolittle, Vice Minister Liu Yin of the Fourth Ministry of Machine Building, CEIEC President Li Zhengang, Li Hua, vice chairman of China Leasing Company Limited, and Chi-Ning Liu, general manager of Intercon's activities in China. Partially obscured in photo is Zhou Jia Hua, vice president of Xinshidai Company, who was very instrumental in forwarding HP's presence in the PRC.

At first everyone was shouting, "C'mon HP!" Then they remembered that all the competitors were HP, so they got it straight: "Go New Jersey!" "Atta-way Avondale!"

In this manner the 1981 Olympic Games between the New Jersey and Avondale divisions at the Camp Akenac recreation area came down last September to the final event, the men's tug 'o war. At stake was the championship of the third games held between the two manufacturing organizations. At that point the score was 43-45 favoring NJD. An Avondale win would mean a tie requiring a tie-breaking replay. It was not to be. Once again the Mosquitos of New Jersey had bitten the Mushrooms of Pennsylvania.

No one got much worked up over that. In proper Olympic spirit, they congratulated each other, had a good time together, and promised to return next year and show those people how good we really are. **M**





A Balloons for sale? No, Willie Carmona of NJD holds aloft the blazing symbol of the spirit of Camp Akenac Olympics, while Bob Muggleston, NJD personnel manager, exhorts the crowd: "Ya'll cheer, hear!"

B Judy Decker delivers a pitch that few – in fact none – of the Avondale opponents could handle (NJD 17, Avondale 0).

C In this next-to-last event, Avondale women in the tug-'o-war brought their team's total within range of a possible tie. But alas, at Akenac, the mushroom men from Pennsylvania got dunked in the creek.

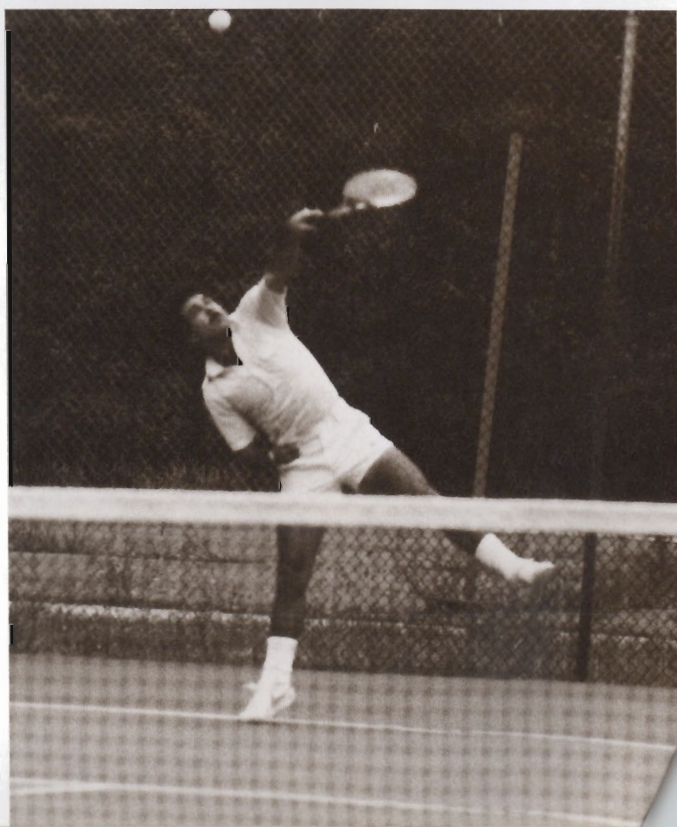


D
E
F

D New Jersey softballers express pain and wonderment as they strike out to Avondale. Brenda Tharp and Art McEvoy had fun capturing such moments on film.

E Despite the apparent grace of their opponents (note the pas de deux at right), the Avondale volleyball teams – men's, women's, coed – made a clean sweep of events.

F With this kind of left-handed power on serve, NJD's Mickey Leta helped his team to a clear-cut victory on the court.



YOUR TURN

Invites you to question or comment on matters of importance to the readers of *Measure*.

COMPARING PLANS

I recently read a newsletter from a CPA firm that pointed out some interesting facts about "tax qualified profit sharing plans." In particular, it noted how the maximum amount a company may contribute, tax free, is 15 percent of an employee's compensation. It also notes that if less than 15 percent is contributed in any one year, it can be made up in subsequent years.

Since HP has two profit sharing plans—cash profit sharing at 12 percent of profits, and deferred profit sharing at 10 percent—it would be interesting to know how this 22 percent of profits compares with the allowed 15 percent of eligible employee's compensation which the government allows as tax free.

MARSHALL JOHNSON
Product Assurance
Santa Rosa

Tax laws and profit sharing plans are confusing, at best. I hope this simplified explanation will answer your question about the basic differences between HP's two U.S. profit sharing plans and the level of contribution.

The 15 percent rule applies only to HP's deferred profit sharing plan; a program where money is set aside by the company in a trust fund. Each year the company contributes out of current fiscal year profits 10 percent of "adjusted net income"—which is just about equal to 10 percent of pretax earnings.

From a tax standpoint, HP's cash profit sharing is considered a bonus and does not fall under the same 15 percent rule. The cash profit sharing monies, distributed twice a year, come from 12 percent of company profits before retirement plan and income tax payments. Over the years, cash profit sharing has represented an additional income of 5 to 7 percent of an employee's salary.

Don't forget that in addition to the monies put into the deferred profit sharing fund, HP also is putting money into trust for the supplemental pension plan—a retirement program that integrates with social security and deferred profit sharing.

If you were to combine HP's contributions to cash profit sharing, deferred profit sharing and the supplemental pension program, they total nearly 18 percent of annual payroll expenses.

ART YOUNG
Corporate Personnel
Palo Alto

BAH, HUMBUG!

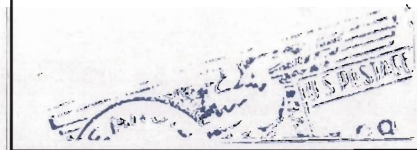
How long was the "Humbug" article (July-August *Measure*) in your files? The Humbug, now known as the Model 8880A AC Interference Filter, is an Andover product, developed and built by Andover people. Humbug and its inventor, Dick Regan (and a lot more of us) became part of the Andover Division more than four years ago.

C'mon, now, give credit where credit is due!

VIRGINIA CARBONE
Publications Department
Andover

Yes, Virginia, there is an Andover Division. For having incorrectly credited the Humbug to Waltham Division, we apologize. —Ed.

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, 3000 Hanover Street—20BR, Palo Alto, CA 94304. Try to limit your letter to 200 words. Please sign your letter and give your location. Names will be withheld on request. Where a response is indicated, the best available company source will be sought.



THE BIRD MAN OF BÖBLINGEN



For his living as a numeric control programmer, Roland Ebner employs very contemporary skills in making precision tools and parts at HP's Boeblingen factory in West Germany.

Away from work Roland becomes a falconer, one who trains and hunts with hawks, a role that goes back to at least 2000 B.C. Yet, for all its ancient lineage—or perhaps because of it—his practice of falconry is just as precise as his profession.

Roland became fascinated with hawks and hawking some 20 years ago while attending a falconry training class in the Black Forest near Boeblingen. The challenge, he discovered, is to keep a bird in top health yet always hungry enough to hunt, not to stray in flight beyond sight of the falconer, and to return at a given whistle.

Hunting is done mainly through the invitation of farmers whose land is being overrun by rabbits. Released from its hood and unleashed from Roland's gloved wrist, the hawk casts off for flights ranging in distance about 500 feet and altitudes of up to 300 feet.

The bird's actions soon make the whereabouts of a quarry known to Roland. He must hurry toward the site of the pending attack because of the bird's great speed (some estimates put its first headlong plunge at velocities reaching 200 mph) and what its powerful talons can do to its prey if the falcon is left on its own.

To distract the bird after the initial attack, Roland waves a piece of beefsteak before it with one hand while the other removes the rabbit and hides it. Roland, by the way, must pay the farmers for any rabbits he takes home.

If one is inclined to lament the fate of the quarry taken in this manner, think how the falcons must feel: 4,000 years of rabbit-disappearing tricks performed right under their beaks. **M**



Roland Ebner readies a hawk for the upcoming hunt.

HOME ON THE HILLSIDE

Moving into the new Corporate office building in Palo Alto is not unlike being fitted for a new suit of clothes: it looks great, but obviously needs a few alterations before it feels just right.

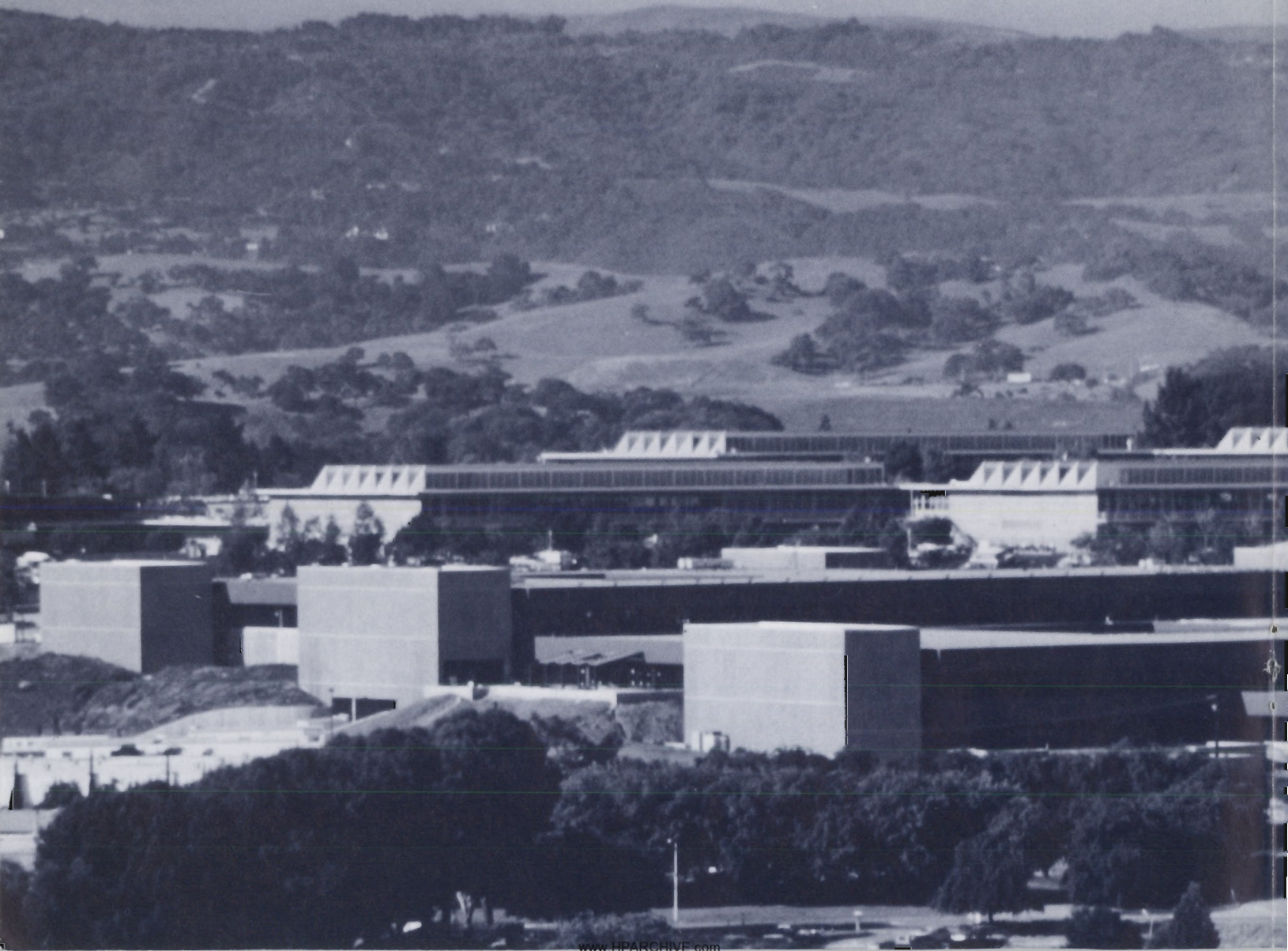
For the 1,400 Corporate people who have moved into the 478,000-square-foot building, a common first impression was one of awe: "It's so B-I-G!" Now, however, everyone appears to be settling in nicely.

The building—not high but quite wide—has four levels contoured on a hillside at overlapping stages. Three courtyards provide interior views and exterior lounge areas. A rolling, grassy hill to one side is surrounded by a running path that in-

cludes par course stations for noon-time athletes.

It may take awhile before the place looks and feels like home; even now plans are underway to make some of those essential alterations. But already there is a real feeling of pride among the staff at physically being together as a part of the administrative center of the company—at long last. More practically, it's now much easier to communicate with one another—without having to walk or drive from building to building.

The new building is the first HP has constructed to serve solely as the home for Corporate departments. With a few finishing touches, Building 20 should soon feel as comfortable as a well-tailored suit. **M**





With the fitness fad in full swing in Palo Alto, plans for the new corporate center included a par course and running paths. Here, several runners use their lunch hour to work off calories.



On the outside looking into one of the work areas of Building 20 there are abundant lighting and casual stopping spots for Corporate employees Chuck Nelson, Nina Oliver and Judy Bileck. The foliage in the foreground is part of the second-floor courtyard garden.



making a big impact

**...behind the scenes of HP's entry
into the office-automation market.**



Among the tools in HP's Interactive Office is a new word processing system which runs on a secretarial workstation.

The world press is still reverberating with stories about Hewlett-Packard's impressive entrance into the office automation marketplace in recent weeks.

Official release date for the simultaneous introduction of 27 hardware and software products was October 29, when 60 journalists from seven countries attended a press conference in Cupertino, Calif. Press conferences were also held in Tokyo, Japan, and Boeblingen, West Germany.

The brand-new products are all enhancements of the HP 3000 family. Combined with other recent introductions such as the HP 125 and HP 250 office computers, they signal that the company indeed means business in the office environment.

Some of those offices will most certainly be located in manufacturing companies, a traditional customer base for HP instruments and computation equipment. HP is now developing a wide range of computerized solutions for other areas in addition to the factory floor: offices, engineering, and operational planning and control. Known as the Manufacturer's Productivity Network, it will be a major thrust for HP in the next decade.

Among the new products:

- Two new HP 3000s from the Computer Systems Division: the Series 64, the new top performer, and the Series 40, the new price leader.
- A new family of four disc products from Disc Memory Division (one introduced in August) replaces the entire earlier HP disc line for all HP computers. The high-capacity 7935 provides 404M bytes of storage for less than one half the cost per Mb compared with existing HP storage devices. It is the lowest cost per Mb of storage in the industry. Other new models are 7911 and 7912.
- For "The Interactive Office," new tools are offered: easy-to-use HP-WORD word processing that runs



Journalists took note of HP's new hardware and software products for the automated office marketplace during Cupertino, Calif., press conference.

on a new HP 2626W terminal, and HP SLATE text processing. Inform/3000 (part of the Rapid/3000, below) makes it easy for business professionals to format summary reports quickly from data bases and files.

- Rapid/3000, an integrated family of software tools, includes Transact/3000, Report/3000 and Dictionary/3000 for simplifying the interaction of professional programmers and analysts with computers. Improvements of two to 10 times in

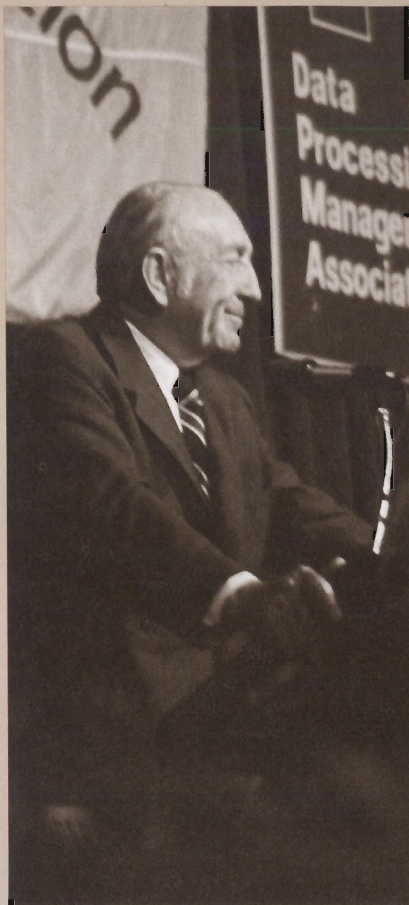
the speed of writing software systems have been demonstrated with the package. Pascal/3000 is a powerful, new high-level programming language. (Most software listed above is from the Information Networks Division.)

- IND is also moving in the direction of compatibility with a proposed international network architecture to interconnect all computer systems. It has introduced an X.25 packet-switching interface option for all HP 3000 processors, as well as X.21 circuit-switching capability, among other data communications offerings. Also introduced was the HP 39301A multiplexer from the Optoelectronics Division which makes it possible to interconnect devices at distances up to

1,000m (3,280 ft.)

Preparation for promoting the event, code-named "Impact" within the company, began months in advance.

A double-purpose teleconference was held on October 27 to train field people on the new products in the morning, with customers then joining them for joint viewing of an hour-long introductory film produced by the Business Computer Group. In the opening sequence, President John Young narrated a tour through a number of HP locations where computers are manufactured or used to conduct the company's own business. More than 2,000 people in 47 sales offices saw the videotape, which is now receiving additional



Dave Packard accepts DPMA award.

showings in sales offices throughout the world.

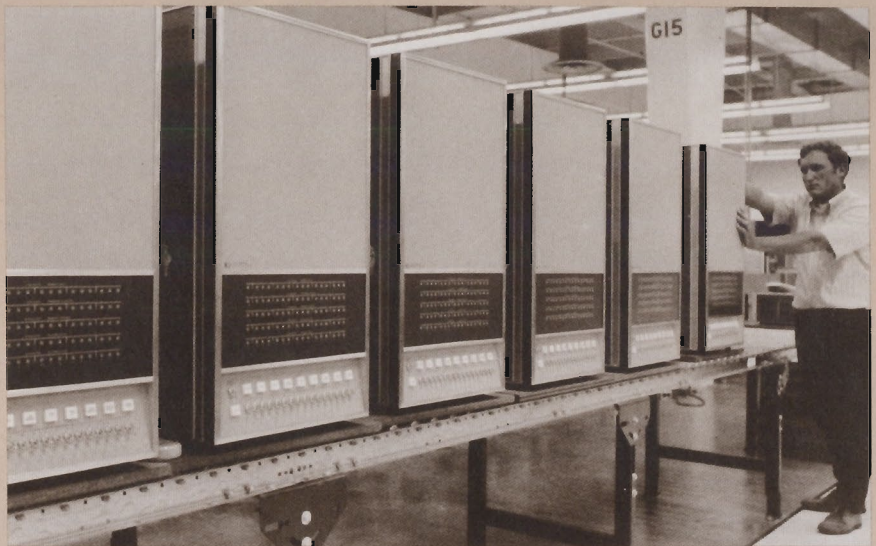
While the film was in production, the Business Computer Group was also preparing a thick packet of overall and individual press releases on the various new products, which went to hundreds of newspapers and magazines.

An ambitious ad campaign featuring two-page spreads on the Interactive Office and a three-page ad on Rapid/3000 were readied for such major national publications as the *Wall Street Journal*, *Business Week*, *Fortune*, *Computer World*, and *Datamation*, among others. The ad campaign, which broke in November, will continue into 1982.

Result: a riveting of press attention on an HP combined introduction that John Young has said "reveals HP's business computer strategy for the 1980s."

The path to computation

HP's entry into a new marketplace for computer products can be viewed in the light of two events that took place in San Francisco—one recent, the other 15 years ago. In November 1966, Hewlett-



HP's first computer, the 2116A.

Packard introduced its first computer at the Fall Joint Computer Conference.

This November 4, Chairman of the Board and co-founder Dave Packard was named the 1981 recipient of the Distinguished Information Sciences Award given annually by the Data Processing Management Association for outstanding contribution to the advance of computer technology.

That's fast-track recognition of HP's performance in a mere 15 years, during which computation products have grown to represent about half of the company's \$3.58 billion business in 1981.

By the early 1960s HP was finding that customers were interested in using a "brain" to tie together the company's instrument products to make more sophisticated measurements.

The company's then-subsi-dary, Dymec, had already acquired expertise in assembling instruments into systems and had developed a voltage-to-frequency conversion technique that led to the 2010 series of Data Acquisition Systems. Data output was available in computer compatible form and additional features were being added to increase the control of the measurement process.

Work at HP Labs had begun on a minicomputer, with particular emphasis on a flexible input/output system, to allow easy interfacing with stimulus and measurement instruments and other peripherals.

Co-founders Bill Hewlett and Dave Packard were both active in exploring new directions in technology, with Bill taking the lead on electronic calculators and Dave

Packard interested in computers. Dave, in fact, visited several small computer companies with the thought of possible acquisition. In the spring of 1965 he made the decision to acquire from Union Carbide the assets of Data Systems Inc. of Detroit, Mich., including the rights to the design of a computer. Four engineers from that firm subsequently joined HP.

The combination of the HP Labs' efforts and inputs from Dymec and ex-DSI people led to the architecture of the very first HP computer, the 2116A.

Dave Packard took great personal interest in the development of this product, and by Christmas 1965 it was operable. The project involved several firsts for HP: the largest single mechanical package it had ever built, its first use of integrated circuits, and development of a FORTRAN compiler and associated software.

The first four pilot-run models were shipped to the four U.S. sales regions. Each had a factory-trained computer specialist who used a station wagon to transport the 2116A for on-site demonstrations to customers—a novel idea at the time.

Six months later, the 2116A computer was incorporated into the HP 2018A Computing Data Acquisition System (which had the first HP-developed data acquisition software) and the HP 8542A Microwave Network Analyzer System for sophisticated measurements of microwave components. These were the forerunners of many computer-controlled instrumentation systems and the HP 1000 systems—and the rest is history. **M**

WHERE - AND WHY - IN THE WORLD ARE WE?

About one out of every two HP sales dollars comes from outside the U.S. One out of every four HP jobs in the U.S. is dependent on exports. More than ever, the company's long-term success rests on our ability to do business on a global basis—and to be seen as important participants in the economic life of the markets we serve.

Where things should be manufactured—your country or mine—continues to be part of a never-ending debate among the people of Earth. The big question: "How should nations trade among themselves for their mutual benefit?"

The question gets asked in a great many ways: Should we raise or lower trade barriers? Establish free trade or protectionism? Create preferential versus exclusionary tariffs? What about common markets? Free-trade zones? Subsidized development of non-industrial countries? A gold standard or free-floating currencies? Multinationalism or home-grown industry? Private ownership or nationalization of the means of production?

Minor variations on such themes often confront Hewlett-Packard when it ventures into world markets. This is particularly likely when the purchase of a new international manufacturing site is being considered or a product is transferred out of a U.S. division. U.S. labor organizations, in particular, make quite pointed challenges with such questions as "Aren't we exporting jobs? Aren't we going abroad just to exploit lower-cost labor? And isn't it all being done for tax advantages?"

Well, in fact, there can be tax and labor-cost advantages to be

gained by shifting operations to certain areas of the world. These are incentives that any business has to consider if it hopes to stay healthy and competitive. Yet, at least in HP's case, they are by no means the primary reasons for choosing to "go international" with manufacturing, or for selecting one country over another.

Measure asked Bill Doolittle, senior vice president-International, and Dick Love, director-International manufacturing, to review some of the key points—the "whys"—involved in building our manufacturing capabilities on a global basis.

THE IMPORTANCE OF PRESENCE

The word "presence" was suggested by Doolittle as the biggest of the whys. "For example," said Bill, "to participate fully in the world's fastest growing market—Asia—we need to be seen and known as a contributor to its economic base. That's one thing our factories in Singapore and Malaysia (Penang) give us. That presence is assurance that HP means long-term business in the area. We're not there just selling products but also contributing to the economy and the community through our manufacturing payroll, our

purchases and our people policies."

Reviewing development of our presence in Southeast Asia, Bill recalled that the company's first production at Singapore began just over 11 years ago. The principal activity was stringing core-memory beads for computer products. The company had tried producing them in the U.S., but found that few Americans were temperamentally suited for the extremely delicate work of looking through microscopes for long, undistracted periods of time.

Core memory is now almost phased out—a thing of memory in the computer industry. Nevertheless, the people of HP Singapore and Malaysia continue to excel at the tasks of assembling or packaging high-technology items such as integrated circuits that demand delicate touch and steady concentration. It is a very important contribution to the company's ability to manufacture competitively and to market HP products successfully around the world.

GROWING TECHNOLOGY

Meanwhile, HP people in Singapore and Malaysia have gone on to acquire important technical and professional skills that accord well with their country's desire and

determination to become centers of technology. In fact, HPSG recently accepted full product responsibility, including R&D and worldwide marketing, for a line of small, low-cost oscilloscopes. HPSG also was the first HP organization to undertake a program of robotics for improved productivity.

What this kind of progressive presence accomplishes can be seen at other international locations where HP has been longer in residence. Plants in West Germany, United Kingdom, Japan and France have all developed important product lines of their own on top of supporting or producing lines originating in the U.S.

The net effect has been a dramatic rise in international orders for all products, Doolittle observed, including exports from U.S. divisions as well as those produced in the International organizations.

That rise is explained in part by elimination of local tariffs on locally produced products, allowing

them to become more competitive with those of other local manufacturers. However, the growing identification of Hewlett-Packard as a local supplier—also employer, purchaser, community member—has had the greatest impact. This is clearly indicated by the sharp rise in HP's U.S. exports. Overall exports grew at an average of 28 percent annually during the years 1960 to 1980—significantly higher than the 18 percent annual growth rate for the company as a whole.

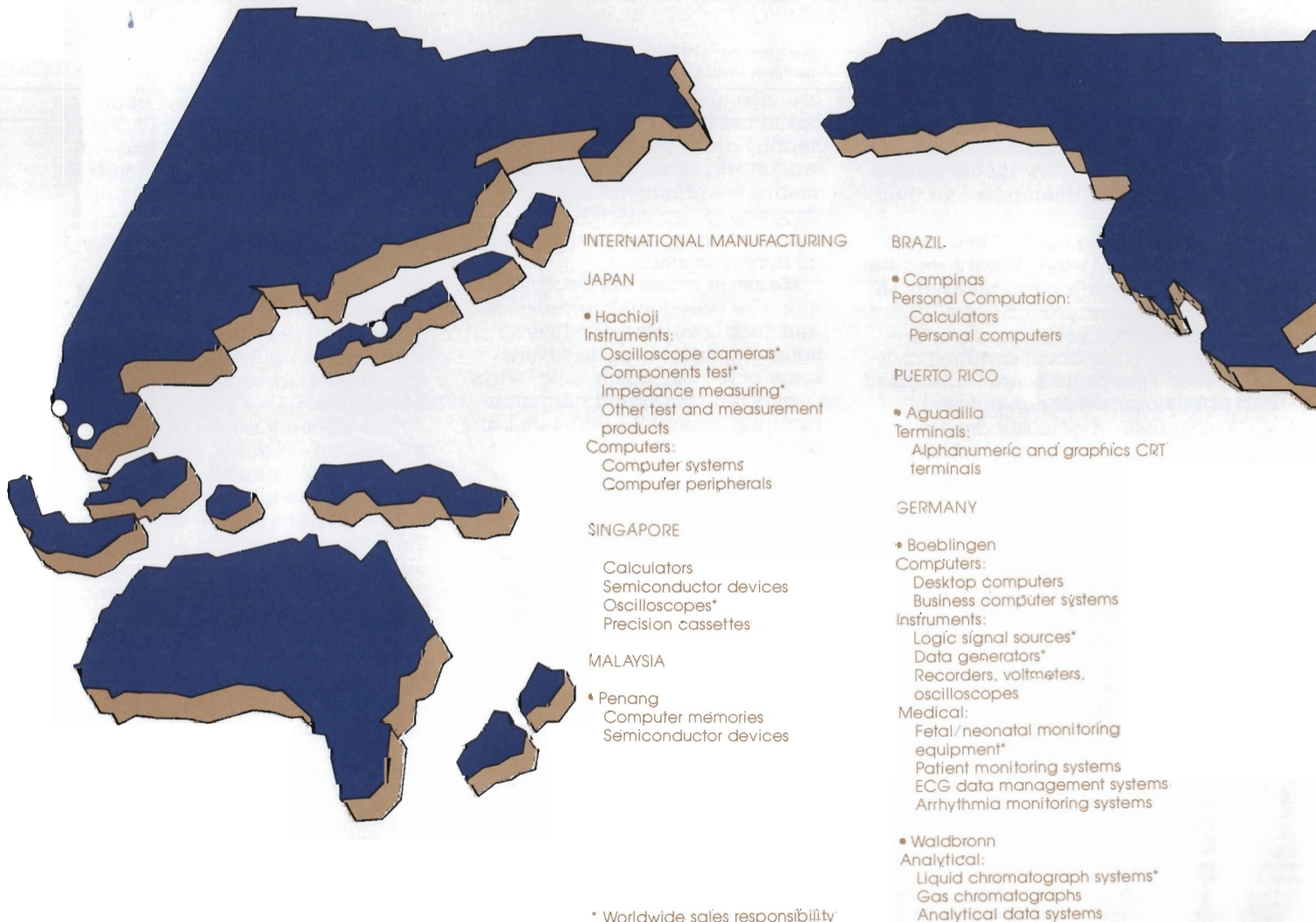
According to *Fortune* magazine (Aug. 24, 1981), Hewlett-Packard ranked 19th among U.S. exporters during 1980, and 6th in terms of exports as a percentage of sales. This is clearly a contribution to the balance-of-payments problem experienced most acutely by the United States and to the stability of world trade which thrives best under conditions of balance.

What exactly do we mean by exports? Included are all finished HP products that leave the U.S. for sale, all parts and components that are

shipped in support of products that have been transferred to international factories, along with royalty payments returned for those transferred products.

THE BILLION-DOLLAR COMPUTER CLUB

In 1979 HP joined the ranks of companies with more than one-billion dollars in sales of information-processing products. Now, more than any other HP products, computers and computer systems need a whole new level of support tailored to international markets. Success in these markets requires an understanding of customers' applications and local business customs—often quite different from those "at home." Products may have to be adapted, and factory support and service made available in their language and time zone. This is precisely the kind of support being offered by the rela-



tively new "software factory" at Pinewood, England.

HP has compelling reasons for international manufacturing other than local presence and identity. One powerful motivator, according to Dick Love, is the need to enlist technical talent.

"Projections for the U.S. show demand for technically trained people outstripping a rather steady supply of engineering and computer science graduates over the decade ahead," said Dick. "Some countries such as Japan and Germany graduate much higher percentages of their student populations in technical fields."

Such people and the technologies they've developed locally have been of importance to HP from the start of international manufacturing at Boeblingen, West Germany, 22 years ago. The access provided by that location led HP directly to two technologies emerging in that area—neo-natal monitoring and liquid chromatography. Each is now a base for important

product lines in the Medical and Analytical groups, respectively.

Some 20 years ago HP started its first program of manufacturing in the United Kingdom. For a start it was based entirely on transferred products—products produced there in parallel with production at a U.S. factory. To find a full place in the HP sun the U.K. organization began to develop its own R&D and marketing plans. In time there emerged a team whose key members brought a strong background in telecommunications. They were able to identify opportunities for a microwave link analyzer (MLA) that would serve world markets at a time when this need was not apparent in the U.S. communications industry.

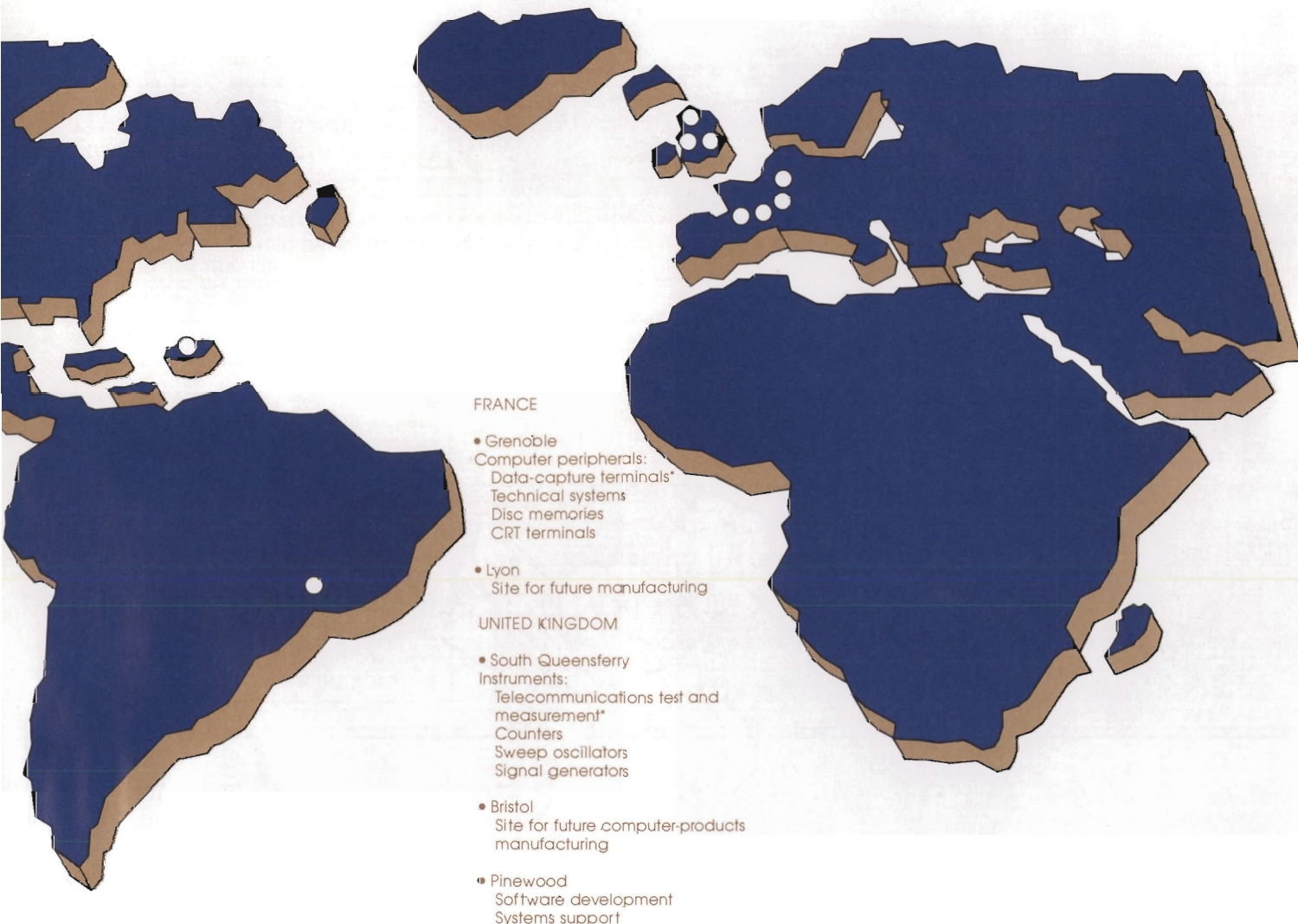
Today in Scotland, the Queensferry Telecom Division has the HP charter for a very successful line of MLAs and other test equipment used by communications companies in testing and maintaining their links around the world. At present, some 72 percent of the division's production is based on

its own inventions.

International plants also can serve as living examples of HP products and systems in action. The Grenoble factory of HP France offers an excellent case in point. Its program of bringing in potential customers from all over Europe to learn about HP factory-management systems and products being used in daily operation and management of the division—including Grenoble's own line of data-capture products—has been highly successful.

It seems clear, in fact, that a high degree of interaction and interdependence exists between HP's domestic and international organizations. Almost any way you want to look at it—factory to field, factory to factory, field to factory, job to job—there's a supporting relationship.

"Yes," said Bill Doolittle, "the correlation between our ability to compete, grow and succeed both in the U.S. and abroad is very direct. We need each other." **M**



CLOSE UP

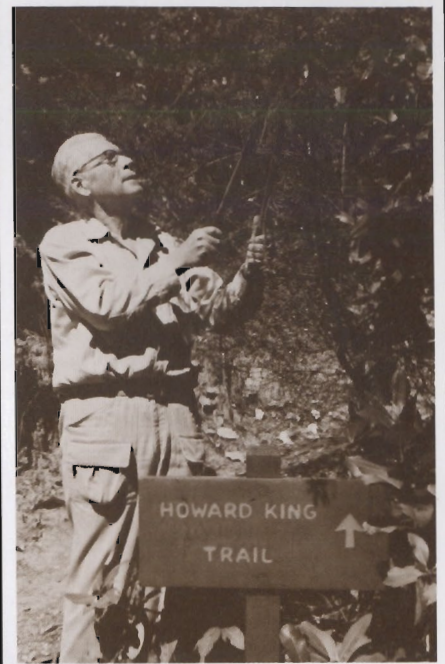
Zooms in on the ever-changing world of HP people, products and places.



What has 10 legs, four wheels and rolls through the streets of Vancouver, Washington? HP's state-of-the-art bed for the 1981 Bed Race for Muscular Dystrophy, of course.

The unique design of one-inch steel tubing, racing wheels and a low-slung, foam mattress was powered by runners who practiced six weeks for the final races.

HP's bed team caught the competition napping in Vancouver and then went on to represent the local area in the Northwest Bed Race Championship in the Seattle Kingdome stadium. There, running on artificial turf against a dozen teams, HP finished first and took home the gold to Vancouver.



After 22 years of volunteer work in Big Basin State Park, HP retiree Howard King was "disgusted" when the State Park Commission named a trail after him.

"I thought you should be dead before they name anything in your honor," he chuckles, "but now I've gotten used to it."

That isn't all Howard will have to get used to. Just last month the Parks Commission presented him with its "Golden Bear Award," and a national retirees' magazine plans to run a story about him.

Howard doesn't know what the fuss is all about—"I'm just doing what I want to do." That may mean cutting down exotic pampas grass one day, laying out a trail the next, mapping, surveying and even cutting down fallen trees another day.

He says he uses an HP 41CV when doing his surveying work. "It's quite important," he assures.

Howard worked in the Microwave Standards Lab in Palo Alto from 1957 until he retired at 65 in 1971.

Despite spending much of his time and retirement income at Big Basin, Howard says he still doesn't understand why his volunteer efforts are so newsworthy. Being an honorary park ranger is all the glory he needs.

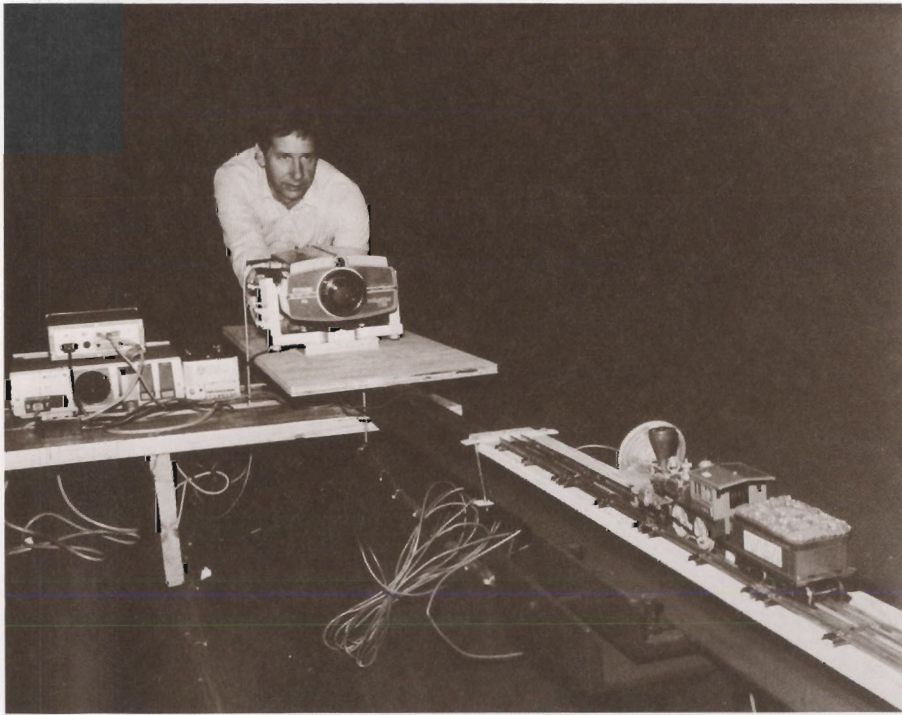


Toy trains are just the ticket when you want to set up an experiment with a laser system to measure accurately the speed and distance of a moving target.

Engineers at the Civil Engineering Division, which makes the HP 3850 Industrial Distance Meter, use several toy trains for research at their own plant. And now microwave experts at the National Aeronautics and Space Administration in Houston, Texas, are on the same track.

To figure out how to guide a future space shuttle to a soft docking with a satellite, NASA researchers laid 300 feet of electric train track in a darkened tunnel. The HP 3850's invisible laser beam is aimed at a bicycle reflector mounted on the smoke stack of the moving train engine. The light energy bounces off the reflector back to the laser's receiver, then the HP 9825B Desktop Computer calculates and displays exactly how far away the engine is and how fast it is moving. The same accurate readings can be made between two objects that are both moving—essential information to have during future shuttle dockings.

The national ABC-TV show "Good Morning, America" featured the experiment on Oct. 23 as part of its coverage of the most recent launch.



For Corporate personnel trainer Rob Eidson (standing), the "Working at HP" class which he taught in Palo Alto in October to 16 hearing-impaired employees was a real learning experience.

Communication was in American Sign Language, which Rob doesn't know! Interpreters Bobbie McGee (kneeling, left) and Sue Eadie were on hand to translate the presentations and relay questions and answers about the company, personnel policies and career development. To allow ample time, an extra day was added to the usual two-day class.

Rob, who likes to move freely around a classroom, learned to stay behind a tape mark on the floor in order not to block interpreters from view. (Here he's explaining a written exercise to students Kim Baker and Virginia Enyart.) He talked at a normal rate of speed but slowed down for proper names (which the interpreters must spell out) and didn't expect to make the usual eye contact with class members—who were intent on following the signing. He reports happily that the language difference didn't get in the way of free-flowing interchange.

NEWS CLIPS

Recaps the newsworthy events, changes and achievements within HP.

FY81 YEAR-END RESULTS

Hewlett-Packard reported a 15 percent increase in sales and a 16 percent increase in net earnings for its fiscal year ended Oct. 31, based on unaudited results. Sales for FY81 totaled \$3.58 billion, up from \$3.10 billion in FY80. Net earnings amounted to \$312 million, or \$2.55 per share, on approximately 123 million shares of common stock outstanding. This compares with net earnings last year of \$269 million, equal to \$2.23 per share on approximately 120 million shares (after restatement for the 2-for-1 stock split on June 17, 1981).

Incoming orders for the year totaled \$3.71 billion, an increase of 18 percent from orders of \$3.14 billion in FY80. Domestic orders accounted for 52 percent of all orders for the year and totaled \$1.92 billion, compared with 48 percent and \$1.52 billion for FY80.

In the fourth quarter, sales totaled \$1 billion, up from \$871 million in the year-ago quarter, an increase of 15 percent. Fourth-quarter net earnings were \$94 million, up 19 percent from \$80 million in FY80. Incoming orders amounted to \$877 million, an increase of 13 percent from \$775 million in the fourth quarter of FY80. Domestic orders were \$475 million, up 19 percent from the same period the previous year, with international orders at \$402 million, up seven percent. Fourth-quarter FY81 net earnings reflected a \$14 million reduction in accrued pension expense for the year which increased net earnings by \$7 million (or six cents per share), and an \$8 million reduction in income taxes (accounting for seven cents per share) as a result of the Economic Recovery Tax Act of 1981.

NEW PRODUCTS

In late October the Data Systems Division brought out two new models of the HP 1000 and added high-performance graphics to its existing Model 5 microsystem. The top-of-the-line Model 65 features a new RTE-6/VM operating system with large program and virtual memory for data capabilities (believed to be the first for a 16-bit computer). It offers a choice of one or two megabytes of main memory and five software packages, with the entire package bundled as the Value/65 system.

INSTRUMENT GROUPS

Bill Parzybok has been named GM of a new Electronic Measurements Group within the Instrument Groups. It is the second group to be created within that organization and comprises nine divisions: Loveland Instrument, Civil Engineering, Colorado Springs, Santa Clara, San Diego, Lake Stevens Instrument, New Jersey, Boeblingen Instrument and YHP Instrument. Headquarters are in Loveland, Colo. ... A new Instrument Support Division under Roger Costa as GM includes bench service, on-site service and Instrument systems engineering. Headquarters are in Mountain View, Calif.

OTHER GROUPS

In a further definition of product line activities within the Personal Computation Group, the Corvallis Division will now focus on handheld calculator product lines and a new Personal Computer Division has been formed to handle the popular HP-85 and its peripherals. General managers for the two divisions are Fred Hanson and Dan Terpack, respectively ... A new Systems Remarketing Operation has been established by the Computer

Marketing Group to resell HP computers, with initial activity focused on the HP 3000 product line and its peripherals. Dave Sanders is operations manager ... Jean-Marie Kauffman has been named to the newly created position of operations manager for Computer Support Europe.

HIGH VISIBILITY

Movement in general managers' chairs has resulted in these new appointments: Byron Anderson to GM, Santa Rosa Technology Center; Karl Grund to GM, Boeblingen Desktop Computer Division, with Menno Harms succeeding him as GM, Boeblingen Medical Division. Finlay MacKenzie will become GM of the Queensferry Telecommunications Division on February 1, replacing Peter Carmichael who will leave HP to become director of the Scottish Development Agency's Small Business and Electronics Division. Named to marketing manager posts: Al Kyle to Boeblingen Medical Division, Peter Linden to Instrument Support Division, Deme Clainos to Personal Computer Division, Chuck Comiso to Corvallis Division.

NEW TERRITORY

In September HP obtained an option to purchase approximately 57 hectares (about 140 acres) outside Lyon, France, as the site for a future plant. (No product line has been designated.) HP acquired the software firm of Information Resources, Ltd., of Denver, Colo., in October. It becomes the Information Resources Operation within the Business Computer Group, with former IRL president Ray Stover, Jr. as manager. **M**

A MESSAGE FROM JOHN YOUNG

tax laws also helped reduce taxes after applying the newly enacted R&D tax credit and additional incentives for capital investments. So the final results came out OK, but with quite a bit of help from outside factors.

Our fourth quarter results showed more than cost and expense problems. The order rate was \$35 million below the third quarter and \$110 million below the second quarter, a clear slowing trend that led to a backlog reduction of \$130 million in the fourth quarter when we recorded our first \$1 billion shipping quarter.

We start FY82 with our work cut out for us and clear priorities for short-term action. We must control our expenses and hiring to get operations in balance with the weak short-term order outlook. We should continue the pressure on new products; get them developed and then solidly established in production. New products can have a major influence on orders and are by far our best way to counter a down economic cycle.

We are not looking for any upswing in basic business conditions until well into 1982. It's important to again rebalance for a flat period and make sure we stay right on top of changes in order patterns. Many competitors, for whom reduced work hours and personnel reductions are commonplace, are not faring as well as we are. It's taking aggressive action to deal with problems as they develop that makes the difference, and the time for that action is now.

While we may have short-term problems to deal with, we remain optimistic about the future. We have a great product position, a very strong technology base, and an outstanding worldwide team. We have a great deal to be thankful for as we approach year-end.

I'd like to wish each of you and your families a healthy and happy holiday season.



At Cupertino press conference, President John Young discusses Impact introduction with Sharon Jacobs of Business Computer Group.

HP's 1981 fiscal year is history, and it goes into the records with distinction, at least as far as growth rates. It was a difficult year in many ways. We were affected by extraordinary swings in the values of major countries' currencies vs. the dollar over much of the period. For example, our prices in Germany increased by nearly 40 percent in the first eight months of the fiscal year.

Europe continued to suffer the economic consequences of the doubling of oil prices in 79-80. The U.S. economy had a growth spurt early in 1981, but the continuing erosion caused by very high interest rates managed to drag down the economy. As the year ends, we're about to enter the second recession within a 12-month period. There were some bright spots such as Pacific Basin countries, Mexico and Australia, but the volumes are small compared to the HP total.

Against this economic backdrop our order growth totaled 18 percent, well down from the 30 percent average of the preceding three years. U.S. orders were up 26 percent—a little higher than target—which was a very good performance, and many new products were well received. International orders, particularly from Europe, were weak and ended with about a 10 percent growth as measured in dollars, but local cur-

rency growth rates were, of course, much higher.

Shipments essentially tracked orders and grew 15 percent. This is a big decline from the 36 percent and 31 percent rates of the two preceding years. Accommodating a substantial change in growth rate is a management challenge for any organization. All of the norms for hiring, expenditures, space planning and the myriad of day-to-day activities have to be reset. In many ways we did this quite well—at least for the first nine months.

At the end of three quarters, although our shipments had slowed and were under target, we had adjusted expenses and cost structures so that profits were pretty much in line. However, we did not stay on top of these areas in the fourth quarter and both the costs of our products and expenses, particularly R&D and factory marketing, were well over target. Thus with fourth quarter shipments increasing 15 percent from a year ago, pre-tax profits stayed about level, which resulted in an after-tax shortfall of 13 cents per share.

Two special factors I mentioned in the profit-sharing announcement just happened to make up for this shortfall. A five-year scheduled review of our supplemental pension plan revealed that funding levels were too high and our annual contribution should be reduced. Of course, this has nothing to do with benefits payable under the plan which remain unchanged. The U.S.

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MEASURE

"Man is the measure of all things."
—Protagoras (circa 481-411 B.C.)

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