

MEASURE

For the people and associates of Hewlett-Packard Company

May/June, 1980



BREAKING AWAY
industry style (pages 4-9)

MEASURE

"Man is the measure of all things."

-Protagoras (circa 481-411 BC)

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UP FRONT

COMMENTS ON THE CHANGING HP SCENE — AND THE PEOPLE BEHIND IT.

You're looking at the first issue of the "new" *Measure*. Trying to describe it is akin to the parable about the blind man and the elephant: the first blind man touched the elephant's side and proclaimed that an elephant was like a wall; the next felt the tusk and said that an elephant was like a spear; the third grabbed the trunk and pronounced that the elephant was like a large snake. And so on.

So it may be with *Measure*. Some may see it as resembling a popular pictorial magazine. Others may think we've taken a cue from some well known news magazines. And "Your Turn," the new letters-to-the-editor section, may remind some people of the editorial pages of the daily newspaper.

The decision to change *Measure* from a monthly 16-pager to a bi-monthly 24-page publication, as well as to redesign its graphic elements and introduce some new editorial approaches, grew out of several developments.

First was the evolution of division publications; today almost all divisions and sales regions have their own magazines or newspapers, in some cases with weekly newsletters as well. More and more, they've had to take on the responsibility for communicating local developments, recognizing achievements of their own people, and explaining regional and national programs (such as health plans and benefits).

Meanwhile, *Measure* tried to keep pace with the expanding HP universe. In doing so it found itself focusing less and less on the many kinds of local activities it had once covered. Increasingly, its contents were devoted to explaining the changes going on in the company.

That is still a prime goal for *Measure*. But we also hope to show more of the people behind the news, the people who, in one way or another, make things happen around HP.

Finally, the 1978-79 survey of 3,000 *Measure* readers brought us a number of messages about changes and preferences in contents, design and frequency. Quite a few of those ideas are reflected in this issue.

On a personal note, the new graphic "look" of *Measure* is the work of Don Letta, who joined HP in

March as corporate art director. Don has a full background in graphic design and advertising, and at one time taught commercial art in the San Francisco area.

Don succeeds Tom Martin who retired on May 2 after 14 years (and 144 issues) as art director of *Measure*. Tom also has done most of the design work for HP's annual reports over the past 14 years. He plans to keep his hand in by designing and building a new home in California's Gold Country. Adios, amigo.

Sharing the HP profit-sharing and earnings message twice a year is becoming an elaborate production with all the coordination, planning and timing of a live television broadcast. President John Young's latest announcement on May 20 was heard "live" in 50 Hewlett-Packard plants and offices around the world.

For the first time since the marriage of paging systems in HP buildings was begun in the mid-'60s, the message was broadcast across the U.S. and Canada and to Winnersh, United Kingdom and Geneva, Switzerland. The timing had to be planned so European employees would have the chance to hear the news before heading home in the evening, and West Coast employees would tune-in with their first cup of coffee in the morning. The announcement was also taped for replay to swing shift and graveyard employees, and for transmission to Australia. Comsys also conveyed the report to all locations as backup.

A bank of telephones in the Palo Alto switchboard fed several San Francisco Bay area locations and key distribution points in Texas, Colorado and New Jersey which, in turn, relayed the message even farther.

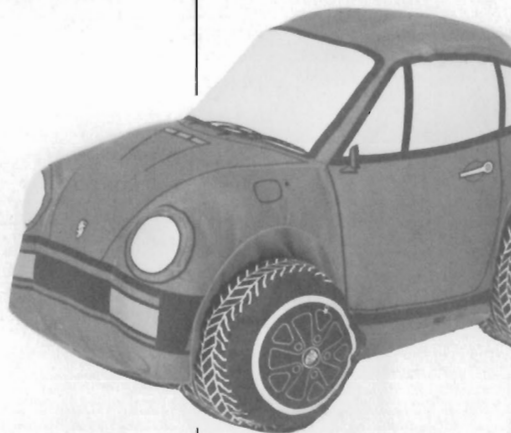
The great interest HP people take in the profit-sharing news clearly refutes the notion that it is something we take for granted. Lotteries crop up the week before the announcement, as employees try to predict the profit-sharing percentage.

Sophistication and technology have even caught up with the profit-sharing lotteries. Winners must now be accurate to two decimal places.

PREVIEW

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We are driven
 With transportation costs climbing, the cost of commuting to work is hitting record highs. There are lots of ways to get to work other than driving alone, and **Measure** investigates some of the methods HP employees use around the world.



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Charge it!
 Gas-guzzling cars may bite the dust in coming years as electric autos start to roll off assembly lines. Some HP enthusiasts already have a head start.

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Closeup
 A transatlantic airliner, a Swiss bank, a Sunnyvale basement and a Japanese beach cottage are unusual places to find HP people and equipment.



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 HP's new printed circuit operation in Sunnyvale makes boards faster and more efficiently than before, using modern technology.



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Getting the word out
 Divisional publications now reach HP people with increasing professionalism and more news than before. Read how the editors are doing it.

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Your turn
 If you've got a comment or question about company policies, public issues or a **Measure** article, it's your turn to speak up.

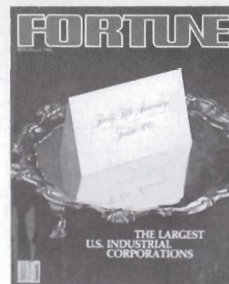


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 Though required by law, company-supported activities at HP France are done with typical HP enthusiasm and style.

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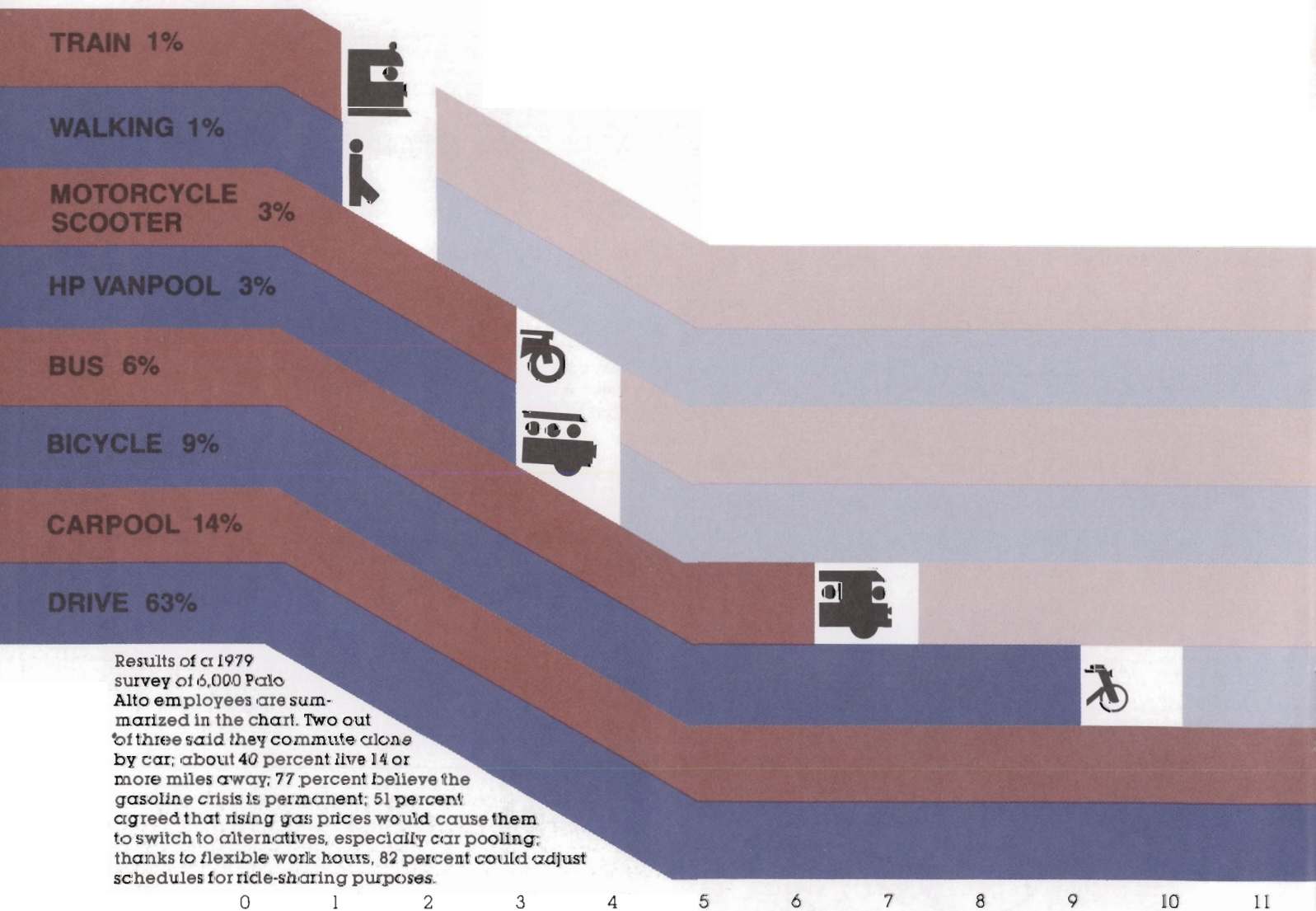
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A message from John Young

John

people in the "alternate trans W E A R E

IF YOU LOOK CLOSELY YOU MAY BE ABLE TO GLIMPSE A RAY OF LIGHT SHINING THROUGH THE GLOOM-DIPPED HEADLINES ABOUT GASOLINE PRICES, OIL-FUELED INFLATION, GAS RATIONING PLANS, TRAFFIC CONGESTION AND OTHER ISSUES



Results of a 1979 survey of 6,000 Palo Alto employees are summarized in the chart. Two out of three said they commute alone by car; about 40 percent live 14 or more miles away; 77 percent believe the gasoline crisis is permanent; 51 percent agreed that rising gas prices would cause them to switch to alternatives, especially car pooling; thanks to flexible work hours, 82 percent could adjust schedules for ride-sharing purposes.

portation" movement agree:

D R I V E N !

RELATED TO THE USES AND MISUSES OF ENERGY. IT COMES FROM EFFORTS TO ENCOURAGE COMMUTERS TO BREAK THE DRIVE-ALONE HABIT AND REPLACE IT WITH MORE ECONOMICAL AND EFFICIENT FORMS OF TRANSPORTATION.





Lynne Worsfold, a secretary in the Instrument marketing team at UK headquarters near London, enjoys the city's famed double-deck bus service. Generally, countries outside the U.S. have done a better job of maintaining and building public transportation. But U.S. interest is growing fast in response to oil shock and other problems. A number of HP people, such as Government Relations director Jack Beckett in Santa Clara County, have worked hard to make this happen.



Among a lot of dedicated energy conservationists in Desktop Computer Division at Fort Collins (Colo.), engineers Bob Welch and Fred Matthews are clearly standouts—or standups. For them the unicycle is no toy as they prove on most good-weather days by pedaling five miles to work. At other times Welch may run, ride a bicycle, or mount cross-country skis. The division has 74 registered carpools that receive parking privileges and other incentives.

Started as an HP experiment in 1976, vanpooling on the San Francisco Peninsula is now a sizable operation of 36 HP vehicles plus others owned independently. Each van hauls nine or 10 paying passengers plus driver to and from communities at least 10 miles distant from work. Alternatively, the company is investigating use of vans for a plant-to-plant shuttle system serving HP commuters as well as other inter-plant traffic.

HP WAY TO GO

There's nothing all that new about the various alternate methods of travel being promoted, with the possible exception of electric automobiles (see page 9). What is new is the alternate transportation movement itself, growing out of the realization among many individuals, business organizations and local governments that it offers probably the best option

available to them in addressing energy and traffic problems. The other options may be of a more mandatory kind—such as rationing of gas or restrictions on automobile use—that could have profound and untoward effects on industry.

Hewlett-Packard regards the alternative transportation movement very favorably and seriously. That attitude is reflected in some recent activities: establishing vanpooling, programs enhancing the use of car-



In Japan, about two-thirds of YHP's 600 employees at Hachioji use either public transportation or other alternate means — just about the reverse of U.S. commuting habits. Because of energy costs, traffic congestion and limited parking space, YHP has established "no car days" twice a month to discourage driving. People living within 1.5 km are encouraged to walk, jog, or ride bicycles and motorcycles.



Carpooling can offer more than just a sharing of fuel costs, as Margaret McDonald and Iris Poleon of Waltham Division know from cold experience. They've been riding together for 23 years (together with Iris' sister Doris who works near the HP plant), and had to dig their way out of many a snowstorm. For the first 14 years at

Waltham, Margaret did the early morning digging because she lived farther away. Seven years ago she got even by moving closer to the plant. For return trips in winter they carry two shovels. They feel that "if you're going to get stuck somewhere it's best not to be alone."

pools, creating a train-connecting bus service, surveying transportation uses and preferences among employees, appointing someone to manage HP's Peninsula transportation programs, and holding a "Commuting Alternatives Day" in April to publicize opportunities for getting to and from work in Palo Alto.

Though most intense there, the action is not confined to the Palo Alto-Peninsula area. Carpooling is a long-established practice at many HP plants and offices. Vanpooling is being considered by some divisions in Colorado and elsewhere. Bus programs of various kinds are in place or under consideration at major sites. It even looks as if many divisions will provide bus service to their annual picnic—a good idea regardless of gasoline prices.

As results of the Palo Alto survey showed, more than one employee in

every three there goes to and from work by methods other than driving alone. Not bad. But that long line of "drive alones" says that we still have much room for improvement. The potential for improvement in fact, is the real source of that bright light way down there at the end of the tunnel. A significant shift to greater use of alternative transportation, nationally and internationally, could go a long way in dispelling many of those oil-blackened headlines.



Solitary drivers found some be-guiling ideas for other ways to get to work when HP employees in Palo Alto looked at commuting alternatives.

No one was seriously proposing rickshaws or sedan chairs as a gas-saving substitute for one car/one driver commuting, but a parade of such unlikely vehicles added merriment to a noon fair on Commuting Alternatives Day at HP in Palo Alto, March 27.

More useful suggestions for energy-saving methods of transportation were offered by representatives from public agencies, and bicycle, moped and electric car shops. HP people were welcomed aboard one of the vans operated for groups by RIDES for Bay Area

Commuters. Employees pored over maps of public bus routes in two counties, and took away schedules by the thousand. Sign-ups also were brisk for the company's own vanpools and carpools.

It all started with a company survey last summer which showed most HP people were still driving alone to their jobs in Palo Alto (see graph starting on page 4) despite the increasing problems with gas supply and clogged highways.

An employee task force first produced a brochure with comparative costs on operating a private car versus carpools, vanpools and other less energy-consuming forms of commuting. Then a special day was designated to give high-visibility promotion to such alternative forms of transportation available in the area. Chairwoman was Mary Ann Austin of Corporate, who had just been named to the newly created full-time post of Bay Area transportation coordinator.

Posters, T-shirts and buttons with the theme "HP Way to Go" urged some 6,000 employees at various HP locations throughout Palo Alto to try some other way to get to work that day other than driving alone.

During an extended noon break, folks thronged the balloon-festooned parking lot outside the main HP entrance to visit various information booths, step aboard a van or public bus, admire the horses and other participants in the zany parade, and grab a bite of lunch in the sun. HP vanpool drivers shuffled back and forth between locations so employees from outlying facilities could join in the fun. Five hundred people claimed the free soft drinks offered to anyone who gave up solo driving for the day.

The whole event rolled so smoothly, in fact, that it promises to serve as a model for similar promotions at other HP sites in nearby communities. **M**



WHEN HP ELECTRIC AUTO ENTHUSIASTS TAKE THEIR CARS IN FOR SERVICE, THEY SAY ...

CHARGE IT!

They won't outperform your neighbor's Ferrari, let alone your four-door Datsun. You can't drive them more than 50 miles without stopping to "fill it up." And when you open the hood, most gas station mechanics are dumbfounded.

But for a growing cult of HP electric auto enthusiasts, their electric alternatives run circles around the gas-guzzling competition. The attraction of the silent-running cars is growing, despite the higher purchase price, reduced range and lower top speed. Electric vehicles are "more reliable and need less maintenance," according to Stan Skokan from the Instrument Research Lab in Palo Alto. Stan bought an electric motorcycle five years ago to commute to HP from his Mountain View home. Since then he's graduated to a compact electric van and has just added a sporty new model to his all-electric family. "An electric auto is relatively clean, with no oil changes, no filters to replace, no smog devices and no tune-ups. And it costs about \$9 a month to operate."

Stan's interest in electric transportation led him to "turn pro" as a dealer's representative for an electric auto company. Some of his first customers were members of the Electric Auto Association (EAA), a San Jose-based group of hobbyists.

Once a month about 15 members of the HP chapter of the association gather in a company conference room to discuss the growing field of the non-polluters. The meeting usually draws another 15 interested employees who swap ideas and collect data on electric cars.

The General System Division's auditorium and parking lot turn into the Saturday-morning meeting place for the 110-member Santa Clara EAA chapter once a month, thanks to GSD's Bill Williams, a systems programmer who's "living better electrically."

Bill is the owner of an immaculate 1972 Datsun which he converted to electricity two years ago. The \$1,200 conversion would cost about \$3,000 today, according to Bill. To share his conversion knowledge and experience with others, he's published a conversion manual on electric autos and has written an article which appeared in "Popular Mechanics."

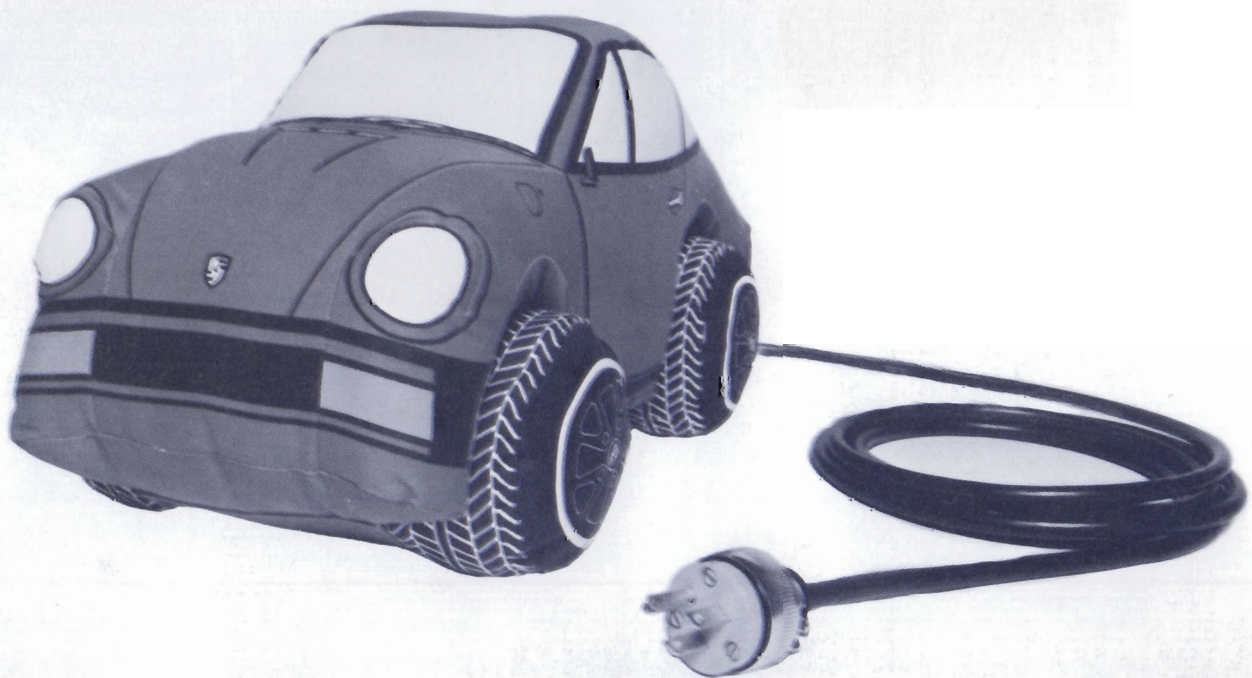
Today more than 90 percent of all transportation energy in the United States comes from petroleum products. In fact, more than half of the

petroleum in the country is used for transportation. To decrease the U.S.'s over-reliance on fossil fuels, Congress passed a law in 1976 that put the organized development of all-electric and electric-gas hybrid vehicles in the hands of the Department of Energy (DOE).

DOE reports show 1979 electric vehicle production at 2,980 road vehicles per year, which leaves a large gap between current production levels and those predicted for the year 2000. In 20 years DOE expects 90 percent of the vehicles on the road to be electric. Where will they come from? The Detroit automakers purportedly have prototypes in the works which will appear in the showrooms about 1985.

But according to Stan, there are big problems ahead for manufacturers. The companies with experience in automotive engineering don't have the important electrical system experience, and vice versa. Stan points out there is also an increasing need for electronic components, like microprocessors and integrated circuits to control the increasingly sophisticated electric systems.

Until some of those mass production problems are solved, enthusiasts like Bill and Stan may be the only ones zipping by the gas lines as prices continue to climb. **M**



CLOSE UP

ZOOMS IN ON THE
EVER-CHANGING WORLD
OF HP PEOPLE,
PRODUCTS AND PLACES.

The motion of the ocean is helping light the homes in Yura, a small fishing village in northern Japan. Anchored a mile off shore is a wave-powered generator that captures the power of the northwest wind that comes across the Sea of Japan, pushing up 30-foot waves in winter months.

A small Hewlett-Packard computer in a seaside cottage deciphers wave action and prints a minute-by-minute "mode summary report" while a recorder traces wave movements in red, blue and green on rotating charts.

Aboard the un-manned 500-ton barge waves fill hollow tanks which are open to the sea below. This forces air through nozzles and spins the blades of turbines, producing electricity which is transmitted to land for the local power system.

Unfortunately, wave generated electricity is expensive and unreliable. Estimated construction costs of wave power stations are nearly 10 times more than the standard for a fossil-fuel or nuclear station. And during the summer months, the Japan Sea is as smooth as silk, and the experimental power station sits idle.

Undaunted, scientists at the Japan Marine Science and Technology Center continue their work, hoping their energy experiments are riding a wave of the future.



Hear ye, hear ye! When the bell rings at Data Systems Division in Cupertino, people stop what they're doing to hear the good news. In a style reminiscent of town criers, "good news bells" are rung to announce strong sales months, promotions, honors and any other news of interest to everyone. Bells have been hung in the marketing and engineering areas, and there are plans to hang more bells.



About the last thing you'd expect to see in the window of a Swiss bank is a Hewlett-Packard computer going through the paces with financial analysis, statistics and graphics ... all for the benefit of passers-by.

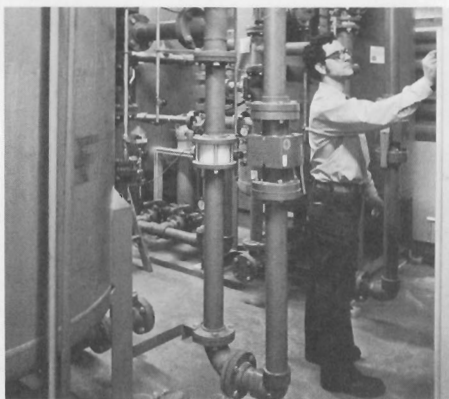
The five window displays at Credit Suisse, in the heart of Geneva's banking center, demonstrate HP instruments, computer systems, medical and analytical products. There's even a slide show that explains in detail what HP does.

The sidewalk display was arranged by HPAG, Zurich and Geneva. The street ... rue de la Monnaie, naturally.



In the basement of the new Sunnysvale printed circuit shop, Mike DiLeo adjusts the controls in part of the chemical maintenance and support area. More than a million dollars were invested in equipment for pollution control, energy conservation and other "environmental" goals (see story on page 12).

The goal is to eliminate chemical hazards in the plant, and recondition chemicals for re-use. Everything that can be recycled is recycled—chemicals, metals and even water.



A patient with a critical heart condition needs surgery which is unavailable in his native Belgium. But can heart monitoring equipment handle a 14-hour trek to a waiting hospital in Fort Lauderdale, Fla.?

The challenge was given to HP-Brussels to modify the standard HP heart monitor and defibrillator to operate for more than 14 hours on batteries ... more than double the 78620As specifications. Medical manager Karel Uytendaele checks with medical service manager Walter Stevens to see if the instrument can be modified to use power from the plane during flight and accept an auxiliary battery pack large enough to provide a 24-hour operating margin.

Stevens replaces internal batteries with external and the trip is set, with cooperation from Sabena Airlines, Belgian customs, HP-Waltham, HP-Atlanta Medical and the HP office in Fort Lauderdale.

Fourteen hours later, the critically ill patient arrives safely at the hospital, ready for immediate surgery, thanks to the modified HP defibrillator monitor which tracked the man's heartbeat during the trip.



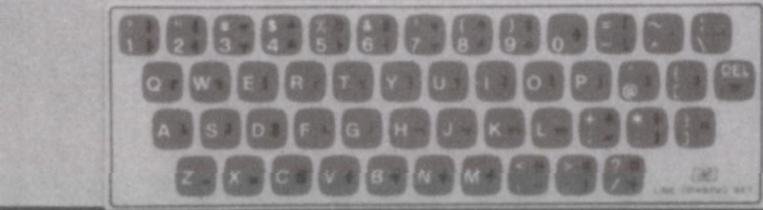
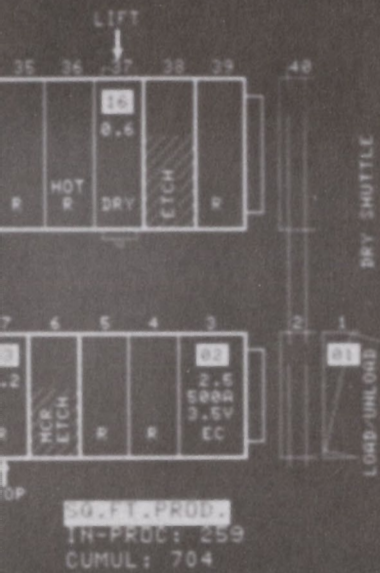
printed circuits made easy

If you're old enough to remember vacuum tubes, do you also recall the first time you peered with childish wonderment into the back of a radio? Instead of a little man talking to you from that box, there were all different sizes of tubes, arranged somewhat randomly like a glowing city skyline. But if you also had the opportunity to look beneath the chassis, there was a rat's nest of wires interconnecting the tube sockets. To those in the electronics business at the time, including HP, that arrangement was not only messy but made the product costly to mass-produce and was troublesome because of easily broken connections.

When the development of the transistor signalled the demise of the vacuum tube, a new method of "packaging" electronic circuitry also began to evolve—the printed circuit (PC) board, a thin "board" of fiberglass or similar material with conductive paths on the surface that now do the job of all those wires. Transistors, resistors, capacitors, diodes and other electronic components are then mounted and soldered onto the board. It's lightweight, easy to troubleshoot and readily adaptable to automated loading and soldering on the assembly line.

Never has the production of PC boards been so automated, as it soon will be in HP's brand new printed circuit facility in Sunnyvale, Calif. The \$16 million shop, a part of Data Terminals Division but intended to serve all three computer product divisions in the San Francisco Bay area, just delivered its first finished boards in April, and is gearing up to an eventual capacity of 20,000 square feet of PC board per week.

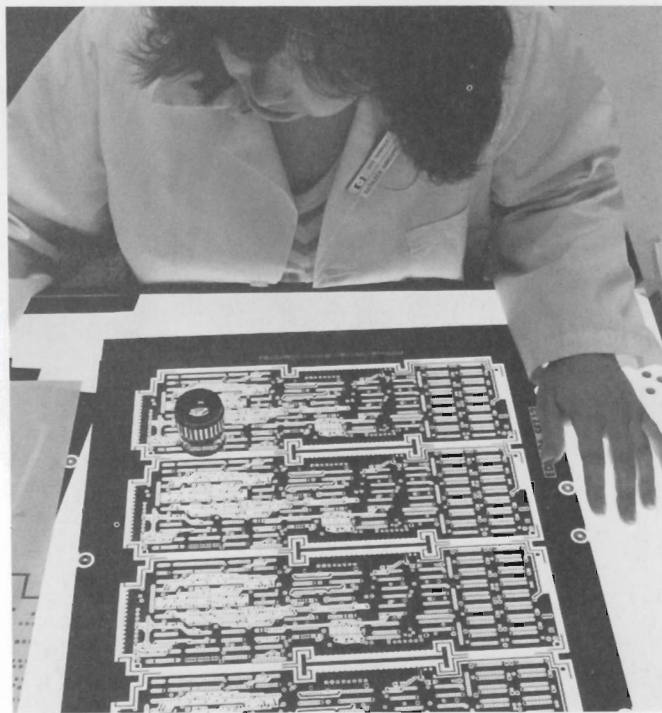
The technologies and processes have improved considerably over the years, but the basic steps in producing a PC board are relatively unchanged. Beginning with artwork—these days often designed with the aid of a computer—a film negative is made photographically. The raw





Don Valentine, photo tech assistant, loads a "step-and-repeat" camera which photographs a piece of artwork several times on a single sheet of film. The camera is controlled by an HP desktop computer.

Photo technician Kathleen Aardappel checks for flaws on a negative that has four identical printed circuit patterns. They'll be processed as one entity until the final step, when the finished board will be cut into four.



board, made outside the company, comes with a copper foil coating which must be cleansed, photo sensitized, exposed through the negative, and developed. The undesired copper is then etched (eaten away) with chemicals, leaving the pattern of circuitry. The board is drilled at selected points where components will be mounted or where wire connections will be made to off-the-board terminals. Then it's plated with gold or tin, and tested electrically.

In the case of multilayer boards, there are several conductive surfaces separated by insulating layers, permitting very complex, high-density circuit patterns. When the Sunnyvale facility is up to speed, about 60 percent of its output will consist of multilayer boards of up to 12 layers.

The most up-to-date automation, human engineering and environmental technology have been built into the Sunnyvale facility. Among other things, it's a showcase for HP's own technical and business computers working together in a distributed system. Several HP 1000s used for process control are tied to a 3000 system for management reporting.

The most impressive example of computer-aided manufacturing is on the plating lines, where racks of boards slip in and out of the churning tanks seemingly unassisted. On a raised platform at one end, a journeyman electroplater and his assistants monitor the operation on CRT terminals. The equipment is all under computer control, and at the touch of a key the terminals display a diagram of each line and show the status of work in process.

No handling of chemicals is required of the operators. Instead it's done by trained technicians working on the floor below. A highly automated and — you guessed it — computerized system controls the piping of chemicals to where they're needed. An HP analytical instrument monitors and corrects the chemical balances in "real" time. All of the wet chemical processes, incidentally, are "aqueous" — that is, water-based rather than containing solvents — and every drop of water is recycled.

Some other aspects of the operation are also unique — or at least unusual — and Sunnyvale PC has the flexibility to adapt readily to new technologies. Although most boards are plated with gold, non-gold processes are used as well, and the high cost of gold will undoubtedly lead to new developments aimed at saving on gold usage. Whatever new processes come along, putting them into

practice here will require little more than reprogramming a computer.

The wet chemical processes are not the only operations benefiting from computer automation. The film negatives are created automatically by a photo plotter and a step-and-repeat camera, both under computer control. Six NC (numeric control) drilling machines will eventually be used for the very precise placement of holes on the boards. NC routers swallow up the 18-by-24-inch boards after they've been processed with, perhaps, four identical circuit patterns, and cut them into fours with rapid precision. And every board gets a complex electrical test, performed in the wink of an eye by a computer.

As you might imagine, this computerized factory also smooths out such mundane chores as materials handling and production control by giving them over to the HP 3000 system. Accurate inventory information will allow materials from vendors to be delivered directly to the shop floor with very little lead time, keeping inventories low.

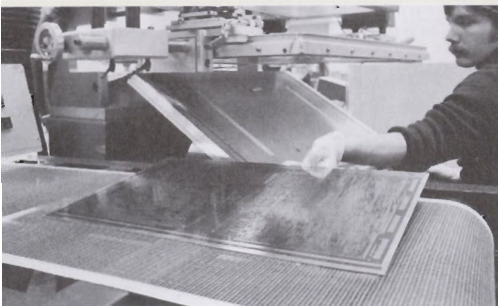
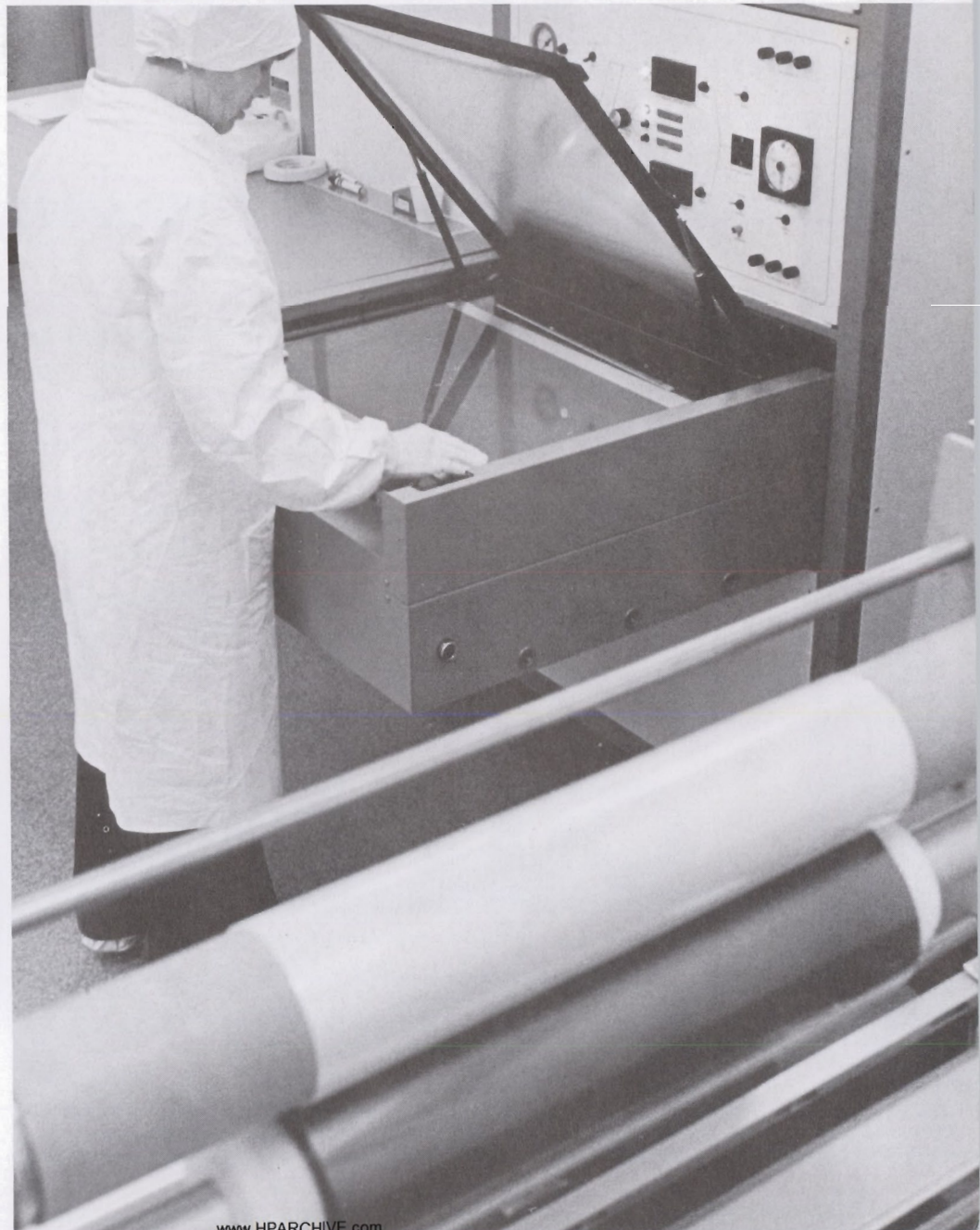
The shop will also be unsurpassed in terms of the volume of output for the amount of floor space, which totals only 100,000 square feet. And though it's geared for high volume, it has the capability to do prototypes or low-volume, quick-turnaround runs.

Lest you think the whole place is run by machines and computers, we should point out that 400 or more people will eventually work here. And, like other HP plants, it'll be a nice place to work, because the human engineering that has gone into it has made it one of the safest and most pleasant shops of its kind. The relative handful of people already working in this state-of-the-art printed circuit facility, getting the bugs out of the systems and steadily increasing the production volume, are proud of what they've done up to now. And justifiably so. **M**

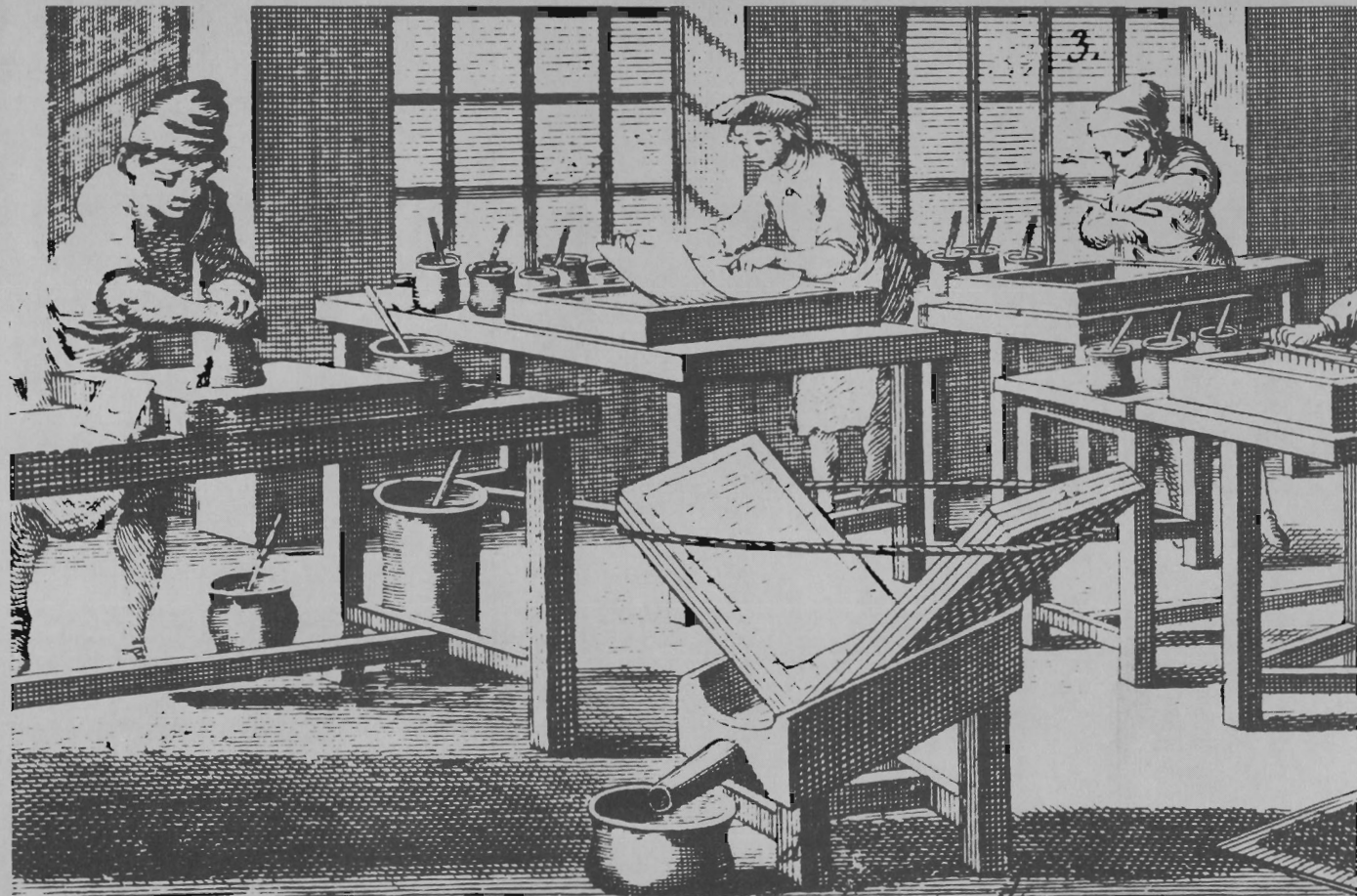


A numeric control programmer, under the direction of Steve Parish, locates the places on a circuit design where holes are to be drilled on the PC board, and records a program on tape to guide the drilling machine.

Under clean-room conditions, Claudia Daw takes a PC board that's just been laminated with a photo-resist material (foreground) and loads it for exposure through a negative — something like making a contact print in a photo darkroom.

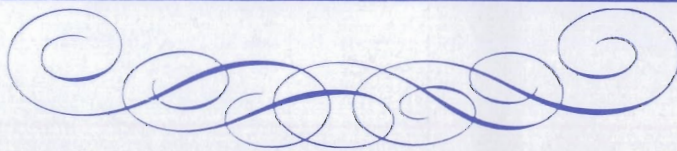


HP's Paul Hathaway operates a machine that forces ink through a stainless steel mesh, and he puts the inked board on a conveyor to be dried by ultraviolet light.



GETTING THE WORD OUT

HP editors
face new
challenges



In the beginning, communicating at HP meant turning around to the person next to you and talking about what you did over the weekend.

That kind of communication is still around, but there are umpteen other levels of communication that have evolved in the 40 years since the company was started.

Recalling how information was disseminated in those early years, Dave Packard once said, "Whenever there was something important to talk about, we just got everybody together and talked about it."

That's still how it is at Spokane, at Roseville, a sales office, or at Vancouver ... wherever the group is small enough that everyone can get together in one place.

But for many other HP locations, spreading the word is not that simple. It takes line meetings and supervisor meetings, department meetings, management meetings and meeting meetings. There are also bulletin boards, loudspeaker announcements, memos — and there are employee publications.



The evolution of HP employee publications is a roundabout story. In 1943, when there were a scant 45 people working for the company, several decided that a written newsletter was needed. Though they worked a grueling six-day week during the war years, they still found time to write up the "local news." Looking back, those first printed efforts seem disarmingly quaint:

HOOTS FROM THE NIGHT OWLS

The W.L.W.'s (Wiring Line Wolfesses) really had a reason to howl one evening last week when they spotted a tall, dark, and handsome soldier awaiting them outside the front door. He was Benny, the Loomis's son-in-law, who has just recently returned home after two years in Alaska.

THE BACK LOT GANG

Sunshine and warmth remind us to plant our victory gardens now, and almost any day you can see various Hew-Packers at work in the back lot on their tomatoes, corn, carrots, and all the other luscious foods that can be grown here.

Editorship of the paper appeared to rotate weekly: Nancy Burbank, Helen Culver, Grace Pingree, Henry

Meadows were a few of the first editors. A contest to name the fledgling publication was won by George Blanchard, now retired, who submitted the clever title that stuck with HP for 27 years: **Watt's Current**. Finally, in September of 1944, a young man named Bill Bigler who worked in the punch press department became "permanent" editor.

Bill continued as editor of **Watt's Current** for 322 monthly issues, by which time HP had become an international corporation. In 1963, with employment topping 6,000, management recognized the need for more sophisticated communication. **Measure** magazine was "born" in August of that year "to serve," wrote Dave Packard, "as a regular, effective medium of communication among all our people." The name **Measure**, incidentally, was selected because measurement was (and still is) an important word in HP's business.

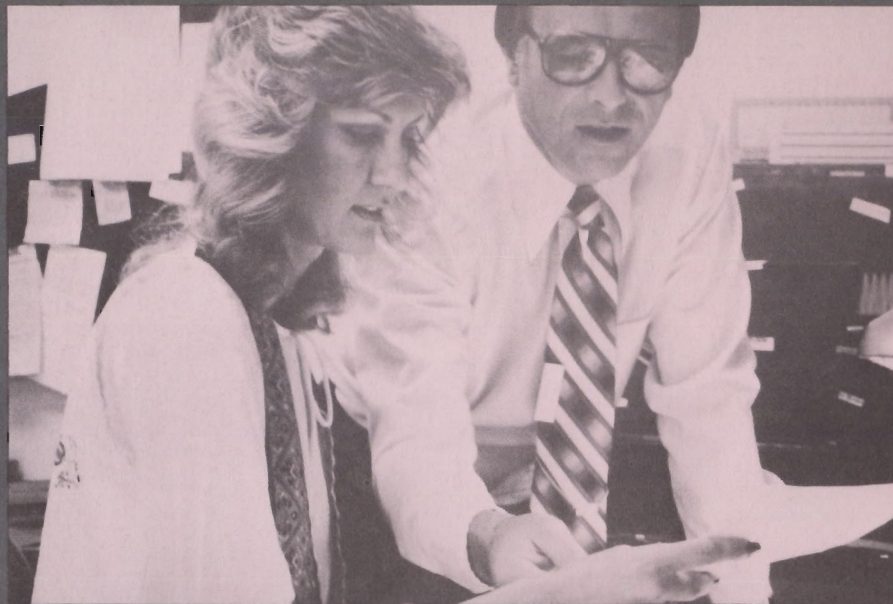
Soon various divisions and subsidiaries were starting their own employee publications in several parts of the world: **La Prensa** at the Neely

Sales Region; **hi points** at Loveland, Colorado; **Readout** from South Queensferry (England); **Bridge** at YHP (Japan) and **PULS** at GmbH (Germany). **Spotlight** was the publication at the F & M Scientific Division (which has since had both a division and a publication name change (**Avondale Analyzer**)). Santa Clara Division's paper is now appropriately called the **Santa Clarion**. HP Associates (now part of the Components Group) put out a weekly one-pager called the **Weekly Word**. Its present-day counterpart: **The Illuminator**.

Such publications were eagerly read by employees, but they were a far cry from the modern, purposeful employee publications that are now distributed in many divisions and sales regions.

THE NEW COMMUNICATORS

What has caused the change? Gordon Brown, manager of internal communications in Corporate Public Relations, attributes much of the improvement to the increasing professionalism of the people who are now editing employee publications. "It used to be that the personnel man-



LaPrensa editor Roseanne Peters is a jill-of-all-trades, combining the skills of reporting and photography with layout and paste-up expertise. Neely Western Region general manager Phil Scalzo takes an interest in his region's publication and frequently offers suggestions to Roseanne during the monthly publication process.

You have to be part contortionist to get the best photo of an employee on the job, acknowledges Loveland Division's editor Jackie Peake. She takes a shot here of Janine Allen, milling machine operator in the LID Machine Shop.



ager would assign someone in the department to "write the company newspaper," he explains. "What happened was that a lot of these publications came out very irregularly and reflected a lack of editorial experience and time. That still happens, but less frequently."

Janet Dale at Waltham Division is one of HP's full-time communicators. She edits the **Monitor**, a long-established HP publication. "Janet knows her territory," credits Gordon. "She has the pulse of what's going on at Waltham and Andover, and makes a real effort to communicate it."

Perhaps typifying the new trend in communicators is Mark McDonagh, the employee communication specialist at Boise Division. Although he has been with HP just one year he has done a lot to beef up the communication program at Boise. A communications graduate of Boise State University, Mark also edits a weekly newsletter, sets up communication sessions where supervisors receive briefings on current activities and concerns, and writes releases for the local outside press. Of the monthly **Tumbleweed**, Mark notes, "It's not the work of a single person. I have a formal network of correspondents who provide me with news tips and information for stories; usually I take it from there, although sometimes managers and other employees write articles."

At HP GmbH, editor Robert Renz (right) talks over his plans for the next issue of PULS with Raimund Unnerstall, who is chairman of the employee committee. Raimund writes a column for most issues of the employee publication.



An HP editor with wide outside experience is Shirley Gilbert, who edits publications for two Peninsula divisions, MSD and Data Terminals. Shirley has a strong journalistic background both on a Canadian daily newspaper and as a foreign correspondent living in Japan before joining HP.

There are other qualified communicators putting out newspapers and magazines that keep HP people informed about the happenings in their divisions. A number have also recently revived some form of weekly newsletter to get important news and announcements to employees quickly. Corporate's own **Good Morning!** is an example.

INDIVIDUAL STYLES

Probably the most startling fact about HP's publications is that no two are alike, even though they work with common guidelines and editorial objectives. No doubt that reflects the company's philosophy of allowing divisions to develop their own "personalities" and division editors to interpret them.

The number of editors has grown steadily at HP, not only as each division grows to a size where a publication is warranted, but also for groups of employees with similar interests spread across the company. For instance there is an **Information Systems Newsletter** for data processing people; **The Recruiter** for, not surprisingly, people involved in college recruiting activities; **Financial Notes** for employees in finance departments throughout the world, and **In-Serve** for instrument group service employees.



Because of such growth, HP now has more than 50 people whose primary responsibility is to edit an internal (employee) publication. Frequently these employee communication specialists also do related jobs like community relations, recreation activities, training, local press relations, brochures, bulletin boards and other employee services.

Over the past several years the Corporate Public Relations Department in Palo Alto has provided a number of services to assist editors and communicators in their jobs. The corporate group offers consultation

and evaluation of division publications on request, in addition to distributing important news via the swift **Newsgram** network.

Editors keep in touch with each other through the monthly **HP Communicator**, a newsletter for editors, and they also are sent feature stories each month which they can use "as is" or localize. About once a year editors are invited to attend an HP-sponsored workshop which offers them opportunities for updating editorial skills as well as personally meeting other HP editors.

As these refinements and improvements continue, so too do the division publications. Just like in the movies, HP's employee newspapers and magazines are getting "better than ever." **M**



YOUR TURN

INVITES YOU TO
QUESTION OR
COMMENT
ON MATTERS
OF IMPORTANCE
TO THE READERS
OF MEASURE.

From time to time since joining HP seven years ago, I've wondered if the president's message in *Measure* is actually written by the president. He must have a very tight schedule, yet the message always treats important matters in a thoughtful and serious way.

Jean Schubach
Waltham Division

Without doubt the question most often asked of *Measure* is whether John Young really puts the ink to the paper when writing the president's message. The answer is **yes**, just as it was in the times of Dave Packard and Bill Hewlett. A degree of help is provided by the Public Relations department, as well as other corporate departments from time to time, in developing a finished statement. However, the choice of subject matter, and the general structure, tone and language of the letter are mostly the president's own doing.

In the past, *Measure's* monthly deadline together with the very heavy work and travel schedules of the HP presidents have given the letter-writing process a drama of its own. Several of Dave Packard's letters, for example, were written on the back of envelopes at 32,000 feet altitude, and mailed from distant outposts of HP (you may notice that we no longer call it "From the President's desk"). And many's the time the message has gone from final draft to the printing press in a matter of one or two hours. It's hoped the new *Measure* schedule will help ease this particular trauma.

Whatever the effort required, it seems well spent. Every study of *Measure* readership clearly ranks the president's report as the best-read feature in the magazine. Ed.

As an electronics company, we are being buffeted by serious conflicting forces in the area of payroll administration. Our growth and the tight supply of technical graduates is forcing entry level salaries to high levels. At the same time, inflation is eroding the buying power of established employees, and the recession will inevitably restrict our ability to give increases. The result will be even more salary compression between new and experienced engineers than we've seen in recent years.

It's a difficult conflict for which no entirely satisfactory solution seems to be available. How do we prevent or control the perception of inequity that can result within our experienced staff? The inequity will be a real, if frequently unstated perception for many in the future.

Wayne Eskridge
Boise Division

Your questions are certainly relevant; they raise factors that affect and concern all of us. All of your issues have also been brought out through the Open Line Survey.

The Compensation and Benefit groups have been continuously measuring the pulse of all the outside forces, including our competitive relationship. This is done in order to provide management with the best current information available in order to enhance the decision-making process.

The answers to your questions are complicated and, in typical HP way, will involve a broader group than just one opinion. Therefore, all of the issues you have raised will be addressed and responded to through the Open Line Survey analysis which is currently in process. The benefits and compensation portions of the survey will be completed in a couple of months.

Ed Truitt, Corporate Compensation & Benefits Manager

There is a question that has been bothering me. How does one determine experience equivalent to a B.S. degree?

I have seen some good HPites, who have many years of experience with the company go to other firms to take jobs they were not "qualified" for within HP.

We're losing a lot of well-trained people, and I'd like to know if there is a company policy that states what equivalent experience is.

Len Jordan
Lexington, Mass. sales office

Most candidates for promotion to exempt positions in HP's management, professional and administrative ranks first demonstrate their skill and interest through formal education. Job descriptions take this into account by first stating the requirement of a BSEE, for instance, followed by the phrase "or equivalent experience."

A good definition of equivalent experience is knowledge of both the "how" and the "why" of a particular job, along with the ability to compete and contribute at the level needed for the position. In short, it's the ability to do the job as demonstrated by actual experience, plus an educational background keyed to success in that field.

If, for example, most competitors for a job have their degrees, a candidate without degree will have to be at least as knowledgeable to be promoted. This is usually demonstrated by solid, above-average work experience in the field (the how) plus interest in added education in the field (the why).

In addition to a written job description, hiring supervisors generally have a mental picture of their ideal candidate. All applicants are compared to this model. I recommend to all candidates that they talk with a successful person in their field to see how close they come to that ideal model.

HP wants everyone to advance through the organization as far as their ability will take them. However, the high standards that HP sets in its recruitment means there will almost always be solid competition for jobs. While that offers outside companies opportunities to attract some HP people, it also provides the foundation for the company's continued success.

Marshall Hiner, U.S. Marketing
Personnel Manager

Address letters via company mail to Editor, *Measure*, Public Relations Dept., Building 28A, Palo Alto; via regular postal service to *Measure*, Hewlett-Packard Company, 1501 Page Mill Road, Palo Alto, CA 94304. Try to keep letters under 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.



THIS COMMITTEE IS A REAL PIQUE-NIQUE

as well as a Christmas party, a tennis match, an electronics club, a bank...



What if you wanted to take a week-long canal trip? Send your kids to a seashore camp in the summer? Or play tennis on top-quality courts?

Most places around the world you'd work it out yourself or see your travel agent. But in HP France you can call the Comité d'Entreprise and find a surprising range of recreational and cultural options available.

It's the outgrowth of a French law that requires all companies with more than 50 employees to have a comité — or committee — which, in effect, is a company within the company. Elected by the workforce, such committees serve not only as organizers of social events, but also as a channel for settling any grievances that arise. As such, they operate as legal entities, with funding provided by the parent company based on earnings and taking into account any special benefits such as profit sharing. Other countries have similar requirements.

By far the major emphasis of HP's Comité d'Entreprise is recreational. It organizes all of the regularly scheduled social occasions — the annual picnic, a Christmas party for youngsters, ski trips and barge trips on canals. The Comité also operates seashore and mountain resorts where employees' children can spend summer vacations swimming, sailing or riding horses. Recently it purchased a boat for canal voyaging — but you have to be a certified boat operator.

Closer to base, the Comité manages and maintains the HP tennis courts behind the Orsay (Paris) sales office, sponsors a photo club, movie club, and an electronics club. Also, employees experiencing serious financial emergencies can receive low-interest loans from the Comité. **M**

Michel Dupuits (kneeling) records the weight of each fish caught at an HP-Orsay fishing contest, organized by the Comité d'Entreprise. The Comité has nearly 50 elected employee representatives and an extensive sub-committee structure.

NEWS CLIPS

RECAP THE NEWSWORTHY EVENTS, CHANGES AND ACHIEVEMENTS WITHIN HP.

CHART CHANGES: New general managers took over at both Waltham and Andover divisions in May. Ben Holmes, formerly Medical Products Group marketing manager, became g.m. at Waltham, replacing Lew Platt, now Analytical Group general manager. At Andover, Dave Perozek moved up from R&D manager to g.m. to replace Burt Dole, who resigned to become president and chief executive officer of Puritan-Bennett Corporation.... A new Northern European Region under manager André Breukels was established March 1 within the HPSA sales organization, making it the fifth region created since December 1 of last year. It comprises sales activities in the Nordic countries, Belgium, and Holland; present headquarters: Amstelveen. ...In Geneva, European corporate functions have been regrouped: Lloyd Taylor becomes director, financial services Europe, and Jean Baillod is director, administrative services Europe.

NEW GROUND: Reading, Berkshire, is the new headquarters for the U.K. management team and all disciplines except for Medical and Analytical (which remain at Winnersh). ...The St. Paul, Minnesota, office has moved to a newly constructed HP facility on property adjacent to the University of Minnesota's agricultural campus.... Grading has started for construction of a permanent building at the Roseville, California, site.... Data Terminals Division has just moved into two newly constructed HP-owned buildings in Sunnyvale, California.... Delcon Division has started the process of moving from Mountain View, California, to Colorado Springs, Colorado.... Bob Kadarauich of General Systems Division will manage the start-up this summer of Commercial Systems Pinewood, a new U.K. software development center in Wokingham, England. It will function as an operation of GSD within the Hewlett-Packard Ltd. organization.... Ground was broken April 15 for a new headquarters building of Hewlett-Packard South Africa (Pty) Ltd. in Sandton, a suburb of Johannesburg.

HIGH VISIBILITY: Hewlett-Packard was in 150th place in *Fortune* magazine's ranking of the 500 largest U.S. industrial corporations, based on fiscal 1979 sales figures. The company moved up from 167th place last year.... Desktop Computer Division's newly introduced 9800 System 45C, the first desktop computer with color graphics, appears on the front cover of *Electronic Design* for May.... The International Television Assn. voted HP's Corporate TV a Golden Reel Award of Excellence for the best

entry in the sales and marketing category: a video tape introducing Corvallis Division's HP-85 in a science-fiction setting.... Bill Hewlett received an honorary doctor of engineering degree from the University of Notre Dame on May 18.

NAMES TO KNOW: New names in marketing posts: Ed McDonald to marketing manager of the Medical Products Group; Jim Rundle to Spokane Division marketing manager; Fred Gibbons to Business Systems Program marketing manager at General Systems Division; Larry Potter to instrument marketing manager and Duncan MacVicar to DSA/lasers marketing manager, both at the Santa Clara Division.... At Corporate, Del Fillmore is now Corporate Credit manager in the Treasury department.

Healthy first-half performance. Hewlett-Packard sales were up 36 percent and net earnings up 29 percent for the second quarter ended April 30, contributing to overall first-half gains of 34 percent in sales and 26 percent in earnings, employees learned on May 20.

At the same time, incoming orders of \$803 million for the second quarter were equally healthy, showing a gain of 26 percent over orders of \$640 million booked for the same period in fiscal 1979. Leading the way were international orders totaling \$434 million, a 36 percent increase over the corresponding quarter a year before. Domestic orders also rose 15 percent to \$369 million for the quarter. For the six-month period, orders totaled \$1.6 billion, up 31 percent from \$1.2 billion a year ago.

Sales for the second quarter totaled \$754 million, compared with \$555 million in the same quarter in FY79. Net earnings were \$65 million, compared with \$50 million in the previous year's second quarter.

First-half results showed sales of \$1.42 billion (compared with \$1.06 billion for the same period in the previous year) and net earnings of \$119 million (up from \$95 million).

President John Young also announced a cash profit-sharing percentage of 8.52 percent for the first half. The company's worldwide profit-sharing base earnings used in the calculation of profit-sharing increased 12 percent during the half year just ended, while eligible employee earnings increased 16 percent in the same period. **M**

A MESSAGE FROM JOHN YOUNG



OUR FIRST-HALF PERFORMANCE WAS HEALTHY, BUT...

President John Young visits HP's transportation fair in Palo Alto (see page 8).

Our operating results for the first half of 1980 showed continued strong shipment and incoming-order growth trends. Shipments increased 34 percent, and orders 31 percent, compared to last year. Our data-products segment was the leader in shipments with a 45 percent increase followed by test and measurement (up 27 percent), analytical (up 25 percent) and medical (up 15 percent).

Looking a little more closely at the incoming order figures, however, we can see the beginning of a slowdown in our U.S. growth rate. In the first quarter we recorded a 33 percent growth in orders over the same period a year ago from domestic customers, but this dropped to 15 percent in the second quarter. While it's true that the electronics business is not nearly as sensitive to business-cycle forces as the automobile industry or retail trade, we are affected, and it's evident in these figures.

International orders, on the other hand, were very strong, increasing 41 percent in the first quarter and 36 percent in the second quarter. This comparison illustrates very clearly

the value of geographic diversification in achieving a more stable overall business.

The order outlook requires close watching for two reasons. A U.S. recession is clearly underway, and may well have further impact on HP orders in the months ahead. We do have areas of strength in our new products, and in government research, development and program expenditure plans, but general-business confidence is on the wane.

The second concern is international orders. To the extent that HP order history is a guide, international order patterns follow the U.S. with about a nine- to twelve-month lag. This means that we might anticipate a slowing in the international order growth rate at about the end of the calendar year. While there is considerable variability in this relationship, the need to be alert for turning points is clear.

We have made considerable progress in managing our assets more effectively, particularly in the second quarter. We asked everyone for a special effort in the areas of inventory and accounts receivable, and the results are evident. Inventories actually have declined in dollars for the last two months while supporting higher shipments. Collections and days receivables have been kept in line despite all-time record interest rates in the U.S. Let's keep the pressure on, as our net cash balance is still just slightly positive.

The one area where we need improvement is in the cost of our products. Beginning last fall, prices of many cost elements such as the gold we use, semiconductors, printed circuits and other materials, increased rapidly. Long leadtimes to obtain goods and high utilization of our production facilities added to the problem. Although we've made some improvements, our production costs are still one percent of sales higher than a year ago. This may sound small, but it is important to remember that profit is the difference between two very large numbers, and that minor variations in either number greatly affect the difference. To illustrate, if we had been able to reduce our costs by that one percentage point, the first-half profit sharing percentage would have been about 8.9 percent rather than the recently announced 8.5 percent.

Let's see if we can't get our costs in line by year-end and move profit sharing back up to last year's level.

Blight of fancy



MOST PEOPLE DREAM OF A MARRIAGE "MADE IN HEAVEN." ARTIE CHRISTENSEN AND CHRIS ANDREW HAVE ONE. THE PAIR OF HEWLETT-PACKARD EMPLOYEES TOOK THEIR WEDDING VOWS IN A TWIN-ENGINE AIRPLANE 2,000 FEET OVER THE CASCADE MOUNTAINS IN OREGON.

THE IDEA OF THE AIRBORNE CEREMONY STARTED AS SOMETHING OF A JOKE FOR THE BRIDE AND GROOM, BOTH PILOTS. "I ORIGINALLY MENTIONED IT TO ARTIE AS A JOKE," SAID CHRIS. "SHE WAS THE ONE WHO PICKED IT UP AND THOUGHT IT WAS A GOOD IDEA." ORIGINALLY THEY THOUGHT IT WOULD BE FUN TO BE MARRIED OVER THE PACIFIC OCEAN. BUT CHRIS SAID HE WASN'T SURE IT WOULD BE A VALID CEREMONY SINCE IT WOULD TAKE PLACE OUT OF THE STATE.

THE CEREMONY, FROM TAKEOFF TO LANDING, TOOK ABOUT 45 MINUTES. THE COUPLE MET AT HP'S CORVALLIS PLANT WHERE CHRIS IS A PRODUCTION SUPERVISOR AND ARTIE WORKS IN THE SERVICE DEPARTMENT. THE YOUNG COUPLE JUST MOVED INTO THEIR NEW HOME — NEAR CORVALLIS MUNICIPAL AIRPORT. M

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