

MEASURE

For the people of Hewlett-Packard

July-August 1980

Is "Silicon Valley" attracting more than it can handle?



MEASURE

"Man is the measure of all things."

—Protagoras (circa 481-411 BC)

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COVER: Santa Clara County's famed "Silicon Valley" continues to attract people, technologies and businesses seeking a stake in the "electronics gold rush" of the '80s. But there are signs that the mother lode is running out of claimable space, as reported on pages 4-9.

UP FRONT

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

People who participated in—or who have heard—the story about Charles Canale well might wonder about the role of coincidence in the events that unfolded.

A student of X-ray technology and a part-time employee in HP Labs' Deer Creek cafeteria, Chuck was riding his motorcycle home on June 2 when he was struck by a van while crossing an intersection. In addition to many broken bones, Chuck suffered brain injury (in spite of wearing a crash helmet).

At the Good Samaritan Hospital in San Jose, Calif. in whose X-ray department Chuck had once worked, the medical team detected a breathing problem, prompting them to use a respirator to control the air going into Chuck's lungs. It's a procedure that requires careful monitoring to insure proper oxygen intake, and traditionally has been checked by testing blood samples drawn hourly from the patient's veins. Almost two weeks after the accident Chuck's veins began to collapse.

Kay Canale, Chuck's mother and a former practicing registered nurse, became very upset by this complication, knowing the dangers

it represented. Kay now works for HP Labs and, as a buyer of materials and equipment, keeps informed on new product developments. She happened to check a Labs' bulletin board where she read a news release about a new HP product from Waltham Division, a capnometer, introduced on June 2, the day of the accident. The significance of the capnometer in her son's case was immediately apparent to Kay: among other things it monitors carbon dioxide without the need for blood sampling and sounds an alarm if breathing fails.

On June 12 Kay phoned Debbie Demske, writer of the news release in Corporate Public Relations, to inquire about the capnometer. Were any available? Sensing the urgency of the case, Debbie quickly called Morris White at Waltham Division who alerted Division Manager Ben Holmes. The call triggered an all-out effort to assemble, test and ship a special unit, as no others were available then. Late on Monday, June 16, a plane delivered the capnometer to San Francisco Airport where Neely Sales Region's Bryan Bjorndal picked it up and rushed it to Good Samaritan.

Given the extent of his injuries, Chuck Canale is doing well. He has recovered the ability to breathe voluntarily, and is beginning to see and speak again.

Almost simultaneously, another HP family was plunged into a similar crisis. Karen Eby, 15-year-old daughter of Norm Eby, medical systems specialist at the Richmond, Virginia, office, suffered severe head injuries in a bicycle accident. Norm had just read about the capnometer in **Medicom**, and later recognized its possible value to Karen. His call, too, resulted in a rush production order and delivery to the Medical College of Virginia on June 16. At press time Karen still remained under intensive care.

In spite of their ordeals, Kay Canale and Norm Eby both feel most grateful to the HP people who pitched in so responsively on behalf of their children, and proud of the organization that fosters such spirit.



Medical team uses new HP capnometer (HP 47210A) to monitor patient's breathing.

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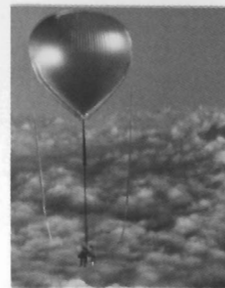
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MARIN COUNTY

BERKELEY

OAKLAND

SAN FRANCISCO

SAN FRANCISCO BAY

PALO ALTO
Corporate headquarters
Stanford Park Division
Manufacturing Division

MOUNTAIN VIEW
Customer Parts Center
Delcon Division
Instrument Repair Center

SUNNYVALE
Data Terminals Division

SANTA CLARA
Santa Clara Division
Neely Sales office

SAN JOSE
Microwave Semiconductor Division
Airport hangar

PALO ALTO
Optoelectronics Division
Scientific Instruments Division
HP Labs
Intercon headquarters
Neely Sales office

CUPERTINO
Data Systems Division
General Systems Division
Cupertino IC Operation
Computer Support Division

COMING OF AGE IN SILICON VALLEY

Through its technological momentum, HP's home-base community on the southern shores of San Francisco Bay will lead the world into the "Golden Age of Electronics." But problems of space, housing, transportation and energy confront its residents and planners...

Silicon Valley doesn't show as a name on any official map. It's really California's Santa Clara Valley, or that 25-mile swath of it stretching from north of Palo Alto to its present terminus just south of San Jose. Its principal features are the industrial parks—scores of campus-like clusters of one- and two-story industrial buildings that serve as home for more than 1,000 high-technology firms, many of them spun off of larger organizations in the valley. Almost all of them depend in one way or another on the silicon-based integrated circuit. Hence the name.

Describing this scene, writers are likely to remind you that only 25 years ago this was largely a tranquil expanse of orchards. In fact, the scientific origins of Silicon Valley go back to 1909 when the world's first company to engage in electronics research was formed in Palo Alto. Federal Telegraph Co., as it was named, hired a team of inventors led by Lee De Forest to help advance the technology of wireless communications.

In 1912, using a vacuum tube, they succeeded in amplifying signals electronically—the first radio tube! The age of electronics—radio, television, telecommunications, radar, computers and electronic instrumentation—was at hand long



Sunshine and blue skies attract employees outdoors for lunch at HP's Cupertino complex.

before the word "electronics" was invented.

Federal Telegraph also set an example followed by the industry that grew up in its backyard 50 and 60 years later—that of a group of local investors cooperating in a venture aimed at advancing a particular area of technology. Today the valley is filled with such ventures.

Other people and events were needed to bring that about, though. Most notable was Professor Fred Terman of Stanford University. His vision and energy encouraged many of the young pioneers of electronics, in-

cluding Dave Packard and Bill Hewlett, to set up shop in the valley even though the area was not yet a major market for their wares. In time, thousands of talented and venturesome people flowed into the area, attracted by the opportunities offered in this exciting center of scientific and technological development.

As an important side effect, the boom in high technology has helped trigger high rates of growth in population and urbanization throughout the valley and beyond. Overall, the population of Santa Clara County soared from 300,000 people in 1950 to some 1.5 million today. In that same period the city of San Jose has bounded from about 100,000 persons to more than 610,000—among the fastest growth rates on record for a large city.

Today, among individuals, industry and local governments there is a very real sense that the valley is running out of space, at least the kind of space that the early Siliconians grew up with. They also sense that time to solve those space and related environmental challenges is in short supply.

A report by a Santa Clara County task force on industry and housing in November 1979 supported that view and recommended a series of actions to limit

growth and preserve the environment. Among other things, it urged that local governments improve the balance between jobs and housing in their communities, that governments and industry bring future job growth in line with the region's ability to accommodate such growth, and encourage greater use of public transportation.

Hewlett-Packard has certainly been aware for more than two decades of the need not to put all its industrial eggs in one Santa Clara basket. As early as 1957, plans were underway to establish manufacturing facilities in Germany and Colo-

rado. Today, about two-thirds of the company's manufacturing work force is located outside of Silicon Valley.

That still leaves some 15,000 people—manufacturing, corporate and local sales—on HP's Silicon Valley payroll. Moreover, many of the HP organizations in the valley have been among the fastest growing in the company.

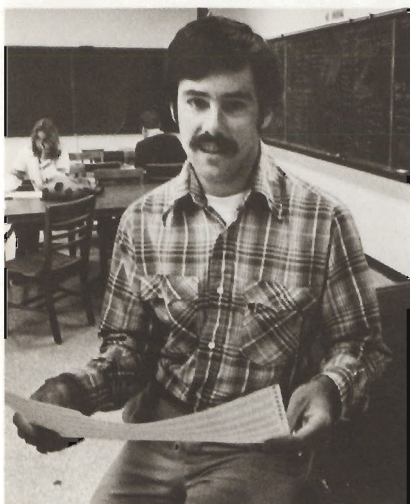
How is HP facing such fast growth while recognizing the valley's limited ability to accommodate it?

In a series of speeches and forums, President John Young has described the problems industry faces

in Silicon Valley. He advocates measures similar in a number of cases to the task-force report. In the long run, he and other chief executive officers in the valley see a gradual change in character coming over the area—from a predominant manufacturing orientation to a research orientation. The valley's electronics industry will be run by highly skilled professionals—who can afford to live there.

Meanwhile, HP divisions in the fabled valley cope as best they can while planning for continued growth elsewhere. Data Terminals Division presents an illuminating ex-

HOW FIVE EMPLOYEES LOOK AT SILICON VALLEY...

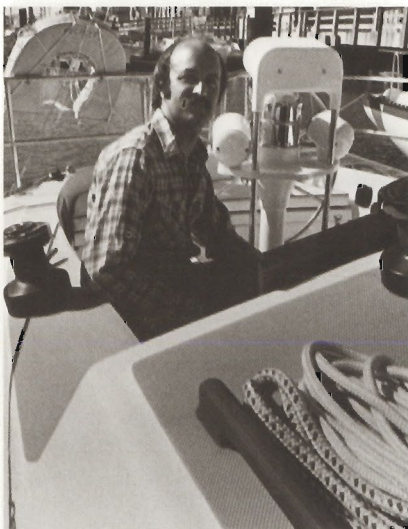


Rob Shurtleff teaches at DeAnza College at night to help pay for his new home in San Jose.

"I grew up with the prices around here and didn't have to be convinced that finding a home under \$100,000 within easy commuting distance was a massive undertaking," says Rob Shurtleff, an engineer who develops software for HP's high-performance terminals in Sunnyvale. After graduating from the University of California at Berkeley in 1977 he accepted a job with Digital Equipment Corporation in Boston. When it came time for a career change two years later, Rob and his wife, Diane Malven, decided to return to the Bay Area. HP's Data Terminals Division was picked because of its tremendous growth and Rob had grown up in HP's backyard.

Looking for a house was hectic. "We were making major financial decisions in periods as short as 10 minutes. If you didn't move fast enough, the house was gone," says Rob. Both Rob and Diane work two jobs to help pay for their new place, and they've got a student who rents a room from them.

"Buying a house is the biggest challenge a young engineer coming to this area will face," says Rob, "and it's a problem the company may have to face in the future."



Dale Dell'Ario combines his hobby with his home: this 36-foot sloop is almost home for the Data Terminals development engineer.

Buying a house in the Bay Area is "a scary thing to do," says Dale Dell'Ario, a six-year HP veteran who's working on product design. Dale recently returned to Silicon

Valley after working for more than two years with Hewlett-Packard in Boise, Idaho. "I don't see how people can afford to live here. I owned a home here before I moved to Idaho. I owned one there, but there's no way I could afford a comparable place today on my own."

Dale's feelings are mirrored in a recent study done by the research firm SRI International: there are almost no homes valued at under \$100,000 within 10 miles of any job center in the Bay Area.

"I may buy sometime," says Dale, "but now I rent and spend a good chunk of time on my boat."

Ironically, Dale acquired his love for sailing when he was working in Boise. Now he spends his hours after work cruising San Francisco Bay two or three days each week. Thanks to flexitime, Dale works from early morning to mid-afternoon and then jumps on his motorcycle for the hour-long drive to the San Francisco waterfront. Then it's time to cast off for an early evening cruise as the sun goes down.

ample. Since its introduction in 1974, HP's line of computer terminals has experienced soaring growth rates in sales sometimes exceeding 50 percent a year. To accommodate such growth, Data Terminals Division has established manufacturing operations in Roseville, Calif., Puerto Rico, and at the Grenoble Division in France. It is moving itself bag and baggage from its original Cupertino base into HP's facilities in Sunnyvale.

The game plan under General Manager Bob Watson initially is to develop, manufacture and market all new terminal products at Sunnyvale. When proven in the

marketplace they then may be manufactured in parallel at Roseville, Puerto Rico and Grenoble. In this way terminal product lines can be expanded without overloading the Sunnyvale facility (Roseville eventually will also develop its own product lines as a full division).

Jim Ferrell, manufacturing manager for DTD in Roseville, offers a number of reasons why the new site looks so good to HP, in addition to the relief it affords Sunnyvale. "It's a large site set near agricultural country. It's convenient to the metropolitan Sacramento area and to recreation in the mountains. Flight

time to Silicon Valley is less than one hour. Housing costs are quite moderate compared with the San Francisco Bay Area. Most of all, there are lots of skilled people in the area. We've had more than 11,000 job applicants during the past year, many of them unemployed. For them our presence is good news, and we'll transfer very few people from Sunnyvale."

Polly Johnson, DTD personnel manager, finds that the Sunnyvale facility has not had too much difficulty in hiring people it needs, even those in job categories that are in special demand. On the other hand,



Tillie Tinker likes living in a rural community, but faces a 40-minute daily ride to her job in Cupertino.

Tillie Tinker lives in the Santa Cruz Mountains south of the Silicon Valley and her mountain home is "the only thing that keeps me in this part of California. I can remember when the area was nothing but beautiful fruit orchards in bloom, but I guess you can't stop progress.

Tillie started working on a printed circuit production line at Data Terminals two years ago following a divorce. "I hadn't worked for 18 years, but I needed additional income. So I followed the advice of friends who told me to look at the electronics industry for better-than-average salaries and good chance for advancement," says Tillie. She is now doing less soldering and more production paperwork.

As gas prices started to skyrocket a year ago, Tillie looked hard at her driving habits. "I wondered if I really could afford to work." She's now part of a Vanpool which holds commuting costs under \$40 a month.

"I'm glad HP is moving to places outside Silicon Valley. I'd like to see all the companies stop development here, but that's a selfish attitude. In fact, if I were younger and without children, I'd look to relocate to an outlying division," says Tillie.



HP newcomers Dianne Beckman and Diane Arnold call their new apartment "a step up from dorm living."

"We found an apartment in just one day. It was expensive, but we expected it to be," says Diane Arnold. She and her roommate Dianne Beckman joined Data Terminals in

June as development engineers after graduating from Michigan Technological University. Each had job offers from both HP and Bell Labs in New Jersey.

"If somebody had told me a year ago that I'd be living in California, I'd have called them crazy," says Diane. "I guess I had in my mind the kind of California you see on television, which is a slanted picture." Roommate Dianne agrees. "You hear things on the national news that make you think all the nuts live here, but it really isn't that much different from anywhere else."

Silicon Valley's famous traffic congestion has been a challenge, though. "You have to be a little more aggressive in driving if you want to get there," says Diane. The engineers' new apartment is halfway between the two DTD sites. (Diane works in Sunnyvale and Dianne works in Cupertino.) "I like the people, the company and my job, and it's a bonus for me to be living in the heart of the valley," says Diane.

she notes that the shortage of affordable housing already has affected the valley's ability to compete for top-rated college graduates, and definitely is having a dampening effect on transfers of people.

Those experiences and others are all quite common among the 15 larger HP entities clustered in six Silicon Valley cities. Most obvious and recent was the announcement that Delcon Division would shift its operation from Mountain View to Colorado Springs within a year. To grow, the division said, it needed space not readily available today in Silicon Valley. Again, only a cadre of key people will be transferred to Colorado. Before reaching a final decision on the move, the division sent a delegation to the Springs to be sure in advance that housing was available there at reasonable cost.

How are Hewlett-Packard—the second-largest employer in Silicon Valley—and HP people working with the community to face up to the problems of growth?

Jack Beckett, director of Corporate Government Relations, had a front-seat view of the gathering transportation crush which is one of the key problems of the area today. For eight years he represented the county on the Metropolitan Transportation Commission which is concerned with movement of traffic throughout the Bay Area. In addition, he served with Dave Packard as spokesmen for the company on a variety of issues before various government bodies.

The need for local industry as a whole to become involved in the public policy-making process seemed obvious. With Dave Packard and Robert Wilson of Memorex taking the lead, the Santa Clara County Manufacturing Group was formed in 1978 to address such major issues as transportation, the imbalance between jobs and available housing, ensuring a reliable supply of electricity, and helping local governments to improve their public services and to control costs. Bob Kirkwood, government affairs manager, served with Dave Packard during the formation and was the charter chairman of the working council.

The organization now has 65 member companies with 150,000

employees, more than two-thirds of all the people who work in manufacturing firms in the county.

Under the direction of Peter B. Giles, the manufacturing group has served as a focal point for providing data and a flow of industry experts to county and city governments.

"Our premise is that the amount of leadership, coalition and momentum needed to solve the present problems here simply cannot be expected of government alone," says Giles. "What government has to offer in resources, direction and a legitimate countywide vehicle for action has to be augmented by the leadership efforts of industry."

Here are ways in which some Hewlett-Packard people are helping to be part of the solution rather than merely part of the problem:

Liaison. Dave Packard continues his active interest in the manufacturing group as a member of the board of directors. LaJune Bush, now with Corporate Government Relations, originally helped organize the group and continues to serve on the executive committee of its working council. She also chairs its public officials committee.

Transportation. As *Measure* pointed out in the last issue, congested roads at peak hours and gasoline woes have accelerated an interest in improved public transportation and ridesharing.

One of the first HP people to look closely at the county transportation picture was Dave Barram, now Cupertino IC Operations controller, who served on the manufacturing group's first transportation task force several years ago. An early assignment was to look at a study of the "Guadalupe Corridor," a natural possibility for development of a light-rail system.

"Our study and our comments were a help in defining the next phase of developing half a dozen alternatives," says Dave. "It started a good, positive partnership between the group and the county."

The manufacturing group's newest approach is a task force which breaks out eight industry zones, each with a lead company to oversee gathering and distributing information on local transportation alternatives. General Manager Ed McCracken of General Systems Divi-

sion has agreed to serve as zone manager for Cupertino.

Jobs/housing. Several years ago R&D Section Manager Harley Halverson, while recruiting engineers for the Stanford Park Division, began to worry that housing realities would make it difficult to persuade some prospective hires to come to the area. On his own, he organized a meeting at company headquarters between HP general managers and county authorities to discuss present and future housing problems.

Not surprisingly, he was tapped to serve on the manufacturing group's housing and industrial growth task force and drafted its response to a county-sponsored industry and housing management task force report. While not supporting all the latter's proposals, the group went on record in favor of shifting future industrial growth to parts of the county where new housing can be built nearby. It also recommended voluntary efforts by local companies to locate future expansion outside the county. The San Jose **Mercury-News** termed the industry response "creative and candid."

Reliable energy. Sacramento, the capital of California, is the arena for action in the critical area of ensuring the adequate and uninterrupted supply of electricity essential for electronics processes. A manufacturing group task force has been giving industry inputs to the California Energy Commission forecast which is the authority for any new electrical capacity built in the state. Task force chairman is HP's Beckett, with Glenn Affleck and Mike Fondiller of Corporate Construction as technical advisers.

After a poll of group members last summer indicated that state projections of reserve capacity for reliable electric power supplies were far too low, Dave Packard spoke forcefully before the energy commission about the critical need for the electronics industry to have adequate electric power reserves to guard against damaging power outages.

Good neighbors. With cutbacks in public funding squeezing both county and city budgets, the manufacturing group has helped locate industry volunteers to serve as consultants or loaned executives.

In San Jose, a special manage-

ment task force is finding ways to help the city reduce expenses and operate more effectively. Among the first HP employees serving on rotating teams of experts for month-long assignments are Mary Etta Port and Bea Smith of General Systems Division and Jim Herbst of Corporate Employment.

Corporate's Mike Talbert and Bill Ashton have advised the county on efficient fleet management and computer operations respectively.

In addition, a number of Hewlett-Packard divisions have developed their own contacts with local public officials:

Data Terminals Division, now resettling in Sunnyvale, is lending that city the services of engineer Geoff Ainscow for 60 percent of his time for a year to address local energy and transportation problems.

Soon after moving to a new site in San Jose, the Microwave Semiconductor Division held an open house for public officials at all levels of government, and has since maintained regular contact with city officials. Marketing Manager Bill Kampe has just been named to a working committee to advise on renewal of blighted downtown areas.

Delcon Division General Manager Al Steiner and Personnel Man-

ager Ed Ilgen are working with the Mountain View Community Coalition on a variety of issues, including a proposed shuttle service between the train depot and industrial locations.

At Santa Clara Division, General Manager John Blokker and Personnel Manager Bill Higgins meet regularly with the mayor, city manager and city staff of Santa Clara to discuss traffic patterns and community concerns.

Division goal. Recognizing that its employees are drawn from widely scattered points, General Systems Division has embraced the entire county in one of its six goals for 1980: "Participate actively in the Santa Clara County community issues and concerns that have direct impact on the 'quality of life' for GSD employees."

Noon forums have already brought Congressman Norman Mineta, County Supervisor Geraldine Steinberg, and Giles to the division to discuss key problems and possible solutions. Audiences heard that the county is proposing planning limits for "worst case" industry growth while industry itself believes that development will be self-limited due to high costs of land and housing in the area.

To bring its goal to life, the division has sponsored noon fairs on volunteer opportunities in the community and on commuting alternatives. To help make the GSD community goal a success, members of the HP 3000 program-management team decided that every Wednesday they will get to work by some means of transportation other than driving alone.

All these diverse efforts on the part of the company and individual employees underline Hewlett-Packard's determination to help Silicon Valley mature gracefully. In the view of President John Young, only logical well-planned programs designed to benefit all, with the financial burden shared by all, will solve the complications created by growth.

Says Young, "It's essential that there be increasingly open dialogue between business and government, government and government, business and business." Silicon Valley is everyone's problem to tackle together. **M**

A large slice of Silicon Valley is compressed into this view looking eastward from the foothills above Cupertino. HP's Cupertino complex of computer divisions is seen just below midpoint at left.





Ralph Lee

for thirty-five years he's been getting the day's work done

From a historical perspective, a unique combination of people, timing and products enabled HP to grow into the multinational corporation it is today.

Bill Hewlett and Dave Packard certainly were the two basic ingredients in the company, but there were a handful of other people whose talents and personalities were very nearly as essential.

Ralph Lee, who retires August 31 after 35 years at HP, is widely acknowledged as the company's basic "can do" guy, the man whose manufacturing know-how had a profound influence on the early HP.

Ralph isn't very comfortable talking about himself, and he quickly sluffs off such praise, preferring to share whatever tributes he is given with a number of HP's early employees.

"In those days," he now reflects, "our primary concern was to get the day's work done."

Getting the day's work done was no mean task. When he came to HP in 1945 after a couple of years of "job hopping" (his phrase), he and other employees worked a relentless six-day week, nine hours a day.

A mechanical engineering graduate of the University of Washington, Ralph's first priority after finishing college was to "work wherever I could get more money," he chuckles. "I worked two months at a chemical company, three or four in the shipyards, a few months at a paint company, then two years at the MIT Radiation Lab in Boston."

On the rather flimsy excuse of taking a survey of job opportunities, he followed Horace Greeley's advice to "go west" and arrived in the Bay Area. One of the opportunities he checked out was HP, and he literally walked in off the street one December day.

As for why he accepted—and then stayed with HP so long, Ralph reflects, "I guess it was because I liked Dave Packard, who hired me, and I thought it looked like a good operation."

He has been a part of HP's manufacturing world ever since.

It's difficult to imagine that Ralph originally started college on a drama fellowship ("the technical side, not the acting side," he inserts). He worked the technical crews for all the university plays for four years, but, he now confides, "I haven't been backstage since. I just don't like the kinds of plays that are put on now."

Ralph's first official job at HP was head of the mechanical engineering "department," which meant supervising the mechanical processes used to produce HP equipment. "We made everything in-house except sheet metal and components," he recalls.

People like Bud Eldon, Stan Selby and Jack Petrak, who early on worked with Ralph, say he is most responsible for introducing many innovative manufacturing technologies into HP.

That's a plaudit he refuses, but his admirers are equally adamant.

"He kept up on the latest technological processes and tried them out here," says Bud, who worked with

Ralph in production engineering in the early '50s and is now in the Corporate Materials Department.

"At one time nearly all HP products were built with Kingman circuit boards (named after Rufus Kingman, an HP employee now deceased, who designed the footed Bakelite boards). Ralph was instrumental in weaning us away from using Kingman boards because he found there were faster ways of manufacturing boards."

Both Bud and Jack ascribe to Ralph the introduction of molding, diecasting, punch presses, spotwelding and PC boards to HP. All of which makes Ralph grimace and demur gracefully.

"I'm given credit for a lot of things I didn't do," he counters. He prefers, instead, to acknowledge people like Ed Hilton, Al Bagley, Bill Girdner and Ruf Kingman for those deeds.

"I would take some credit for getting us into the diecasting business, and I did set up the first plating shop—for a total expenditure of about \$750," he allows.

His long-time friends point out that Ralph was very productive both at HP and at home. He and his late wife, Barbara, produced nine children, and Ralph now has an equal number of grandchildren.

"We ran a factory, so we had to be organized," he says. "One of the first houses we bought had just two large bedrooms for the children—one for the boys, and one for the girls."

Although there are no Lee offspring working at HP, a great many



Ralph Lee getting the day's work done in earlier years.

chose technical careers. Two are electrical engineers, one is a chemical engineer, another, a food technologist, and the youngest, Jim, 19, is studying to become a mechanical engineer like his dad.

Stan Selby remembers a particularly good year for HP when employees were awarded a Christmas bonus. "I'll never forget the look on Ralph's face when he opened his check and smiled, 'Oh boy, now we can get the Bendix' (a washing machine)."

Stan also recounts how Ralph frequently played the devil's advocate in management meetings. "He did it to get people thinking," agrees Jack Petrak, now Corporate Marketing's sales manager. "He often took the opposite side just to get a discussion going. He's an original thinker."

Ralph's comment: "I don't collapse very easily, especially when I feel strongly about something, but I didn't ever do it on purpose."

Not the least of his attributes is his ability to supervise others. His former workers are unanimous in saying Ralph gave people room to grow.

"He knew the best way to manage was to let a person do a job. I appreciated that," emphasizes Stan. Stan is a good example of Ralph's self-development philosophy. He started in production engineering, graduated to a series of key management jobs, and is now Corporate safety and health and hazardous materials manager.

Then, there's Doreen Morris, who was Ralph's secretary for 19 years. "He is such a unique person," she says. "He let me do as much as I could do. My job changed as his did through the years."

"One day he told me I ought to think about what I wanted to do with

the rest of my working years. I decided I wanted to become a real-estate salesperson, so I took a leave of absence from HP, and that's what I'm studying now."

There's another Lee quality that is much admired: willingness to work until the job is done. Stan remembers a project he worked on with Ralph that finally wound up at 4 a.m. Even Ralph admits he spent many long days at HP, then took an hour or two's worth of reading home with him at night to "keep up in my field."

Perhaps the most oft-told (and changed) story about Ralph concerns his apparent disinterest in wearing a tie. There are those who say he never wore one until he became a vice president. One version of the story is that the day he became executive vice president in 1969 he was given a box of ties by Noel Porter (an HP vice president who died in 1976).

Asked about the anecdote, Ralph quickly produces the box of ties—he keeps them in his desk drawer! But as for wearing ties, he says, "The story is a bit exaggerated. I wore one the day I was interviewed by Dave Packard." Nonetheless, to this day Ralph's usual attire is tieless.

Flying is one of Ralph's most earnest passions, and he happily accepts the unofficial title of patron of the company airplane fleet.

"I've been interested in flying ever since I worked at MIT adapting a radar set to a Link trainer," he professes. "After I learned to fly the trainer, I took flying lessons and have been hooked ever since. For me it's a better way to relax than playing the piano or taking photographs."

As the company spread out, Ralph foresaw the need to get into aviation for business purposes. "Actually," he recalls, "Dave Packard came back from a trip one time and said we should get an airplane. I said, 'OK, let's get one,' so we did."

People have a lot of mixed emotions about Ralph's retirement.

"I really hate to see Ralph leave," says Stan Selby, "but he sure has earned it. He'll be much missed."

It's typical, though, that Ralph isn't going to plan too far ahead into his retirement days.

"I want to be available to do whatever comes up" is the way he puts it. "I look on retiring as a new adventure. As a matter of fact," he muses, "these past 35 years have all been pretty adventurous."

Looking ahead...

On the eve of his retirement, it's characteristic of Ralph Lee to say that he has never worried about the future and that his retirement plan will be to just let things happen, one day at a time.

Which is not to say that he doesn't think and act to influence the future; in his 35 years with HP, much of Ralph Lee's time was spent making decisions affecting major areas of the company's business. He has some strong beliefs about that business, especially the ways we organize ourselves to work together.

Ralph sees, for example, a much stronger role for the product group organizations in coordinating the direction and interrelated activities of the divisions.

"The typical HP divisions used to have lots of model numbers, and produce each in small volume," says Ralph. "Now in our newer lines of products we develop many fewer models, but we produce them in large numbers. And most of them operate as parts of a system or systems drawing on products from a number of other divisions. I expect we'll see lots of changes in the way we organize for the future."

"However, I don't see HP ever making any fundamental change in the basic structure of the product divisions. We tried that once—splitting manufacturing away from R&D—and it didn't work."

Regarding the HP effort to encourage the development of quality teams, Ralph says he is an admirer of the way Japanese companies involve all their people in doing a better job. "We used to do a lot more of that sort of thing years ago. Then we got away from it. But there's strong evidence that we can come back fast. I think HP people rightly have much higher expectations than ever about their ability to improve productivity as well as the company's working philosophy."

Finally, Ralph says there seems to be no end in sight to potential new products and new markets: "We're limited only by our own imagination—and we've got lots of that." M



Joe Hameed (left) and associate inspect microwave tower in Saudi Arabia.

WANTED: Microwave communications technicians to work in Saudi Arabia."

When Joe Hameed, an instrument technician for HP Canada, saw

the ad in the *Toronto Globe and Mail*, he answered it for a lark. But the ad was serious, and Joe was so tantalized by the opportunity that he took a leave of absence from HP Canada and went to Saudi Arabia.

He turned out to be a valuable commodity in that land of endless desert.

"The recruiters didn't even ask me to interview," he notes. "When they found out I was from HP, they didn't ask any other questions. It turned out that almost 90 percent of the test equipment I worked on was HP's."

Joe lived in a trailer and worked along the seacoast and later in the central region of the country. He supervised a crew of 25 technicians.

"It was a pretty good life," he grins. "They brought in food for us from America. We were given eight steaks a week and whatever else we asked for. They also did our laundry and, in general, tried to keep us happy."

The salary also was most attractive. While Joe declined to give exact dollar amounts, he did mention that he saved enough during his 11-month stay to buy a new home, automobile and other items when he returned.

The adventure also afforded Joe, who is a Muslim, the opportunity to make the pilgrimage to Mecca and say his prayers at Prophet Mohammed's mosque.

Then, too, there was the rewarding feeling of bringing new technology to a developing nation.

"The people were very receptive to us everywhere we went because they knew we were bringing telephones and television to their towns," he said.

The 500 microwave stations that now dot the perimeter of the country have wrought great changes in Saudi Arabian life.

"Before, with a satellite, only six or eight telephone channels were possible from any two points, and there was a long wait for calls to go through," explains Joe. "With microwave stations there are now 3,600 channels and direct calls can be made quickly. And, of course, television is a welcome addition."

Did Joe see evidence of the Saudi Arabian wealth emanating from that land's rich oil reserves?

"Well," he muses, "the project I was working on involved about \$500 million in microwave stations. One day someone showed me an oil pipeline in a town we passed through and told me that the oil that flowed through that line in one day had paid for the entire project."

Gas is cheap in Saudi Arabia, says Joe—about 25 cents per gallon and motor bikes always get free fill-ups.

"But water is a dollar a bottle," he adds, "and there's the irony." **M**

MISSION TO ARABIA



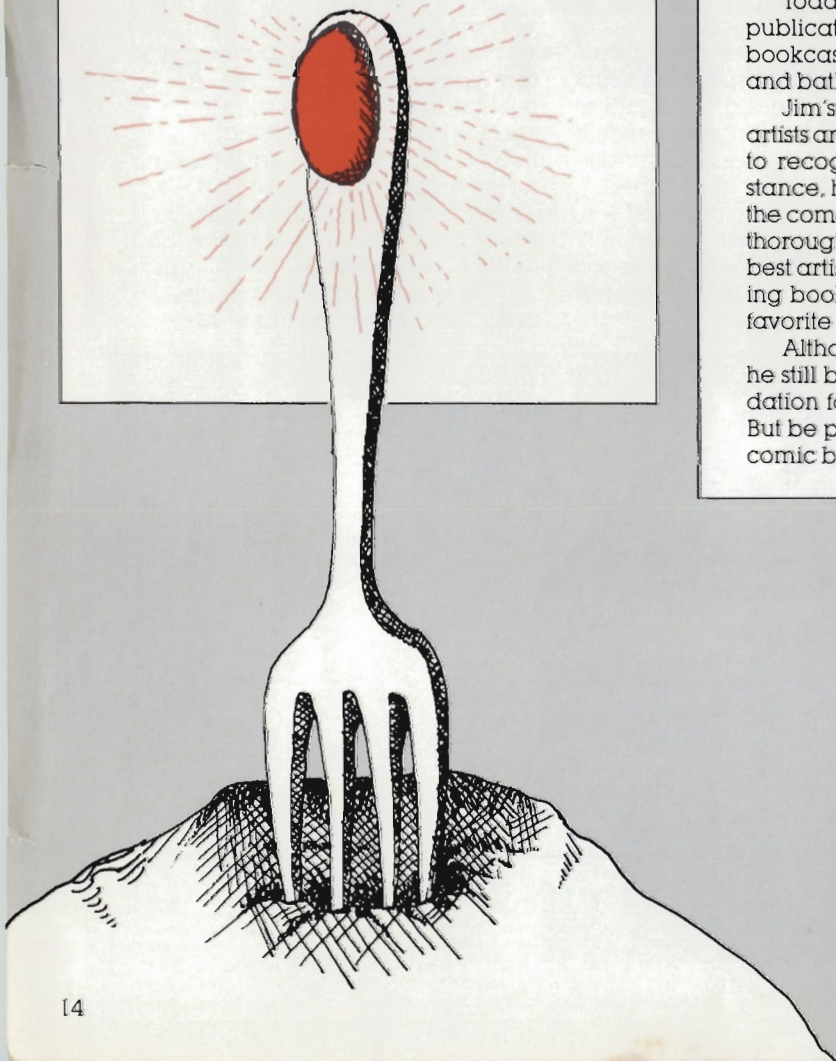
CLOSE UP

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

If you're plagued with the problem of over-eating or eating too fast at meals, a new British invention may someday be the answer to your problem. If not, it should at least make mealtime more fun.

It's a dietary fork that gives you the go-ahead to put another bite of food in your mouth. When your mouth is full, a red light comes on and stays lit for 26 chews. Then the light turns green and you can take another bite. The theory behind this invention is that the longer you chew, the less you want to eat.

The fork is one of many new tools and toys that are made with light-emitting diodes (LEDs) manufactured by the Optoelectronics Division in Palo Alto. LEDs can be found today in cameras, electronic games, stereos and calculators. One imaginative manufacturer of dolls and teddy bears has approached HP for an LED to build into dolls' eyes which will flash when the dolls cry "Mama!"



When Jim Vadebonceur picked up a Marvel comic book in a drug store 16 years ago, he had no idea what he was starting.

Today the technical illustrator in Stanford Park Division's technical publication department owns close to 20,000 comic books. There are bookcases in every room of his Palo Alto home (except in the kitchen and bath).

Jim's fascination with the pulpy publications centers around the artists and their styles. He has developed the rare talent of being able to recognize the style and mannerisms of different artists. For instance, he researched, catalogued and published a compilation of the comic art of Al Williamson, a listing that amazed the artist with its thoroughness. One comic book fan magazine even dubbed Jim "the best artist-identifier of them all." Now Jim is concentrating on collecting books and turn-of-the-century magazines which influenced his favorite comic book artists.

Although Jim's fascination focuses on comics from the 1947-55 era, he still buys and reads some of the newest releases. His recommendation for one of the best: **The X-Men**, published today by Marvel. But be prepared for a shock at the cash register. Yesterday's 10-cent comic book is now selling for a half-dollar.

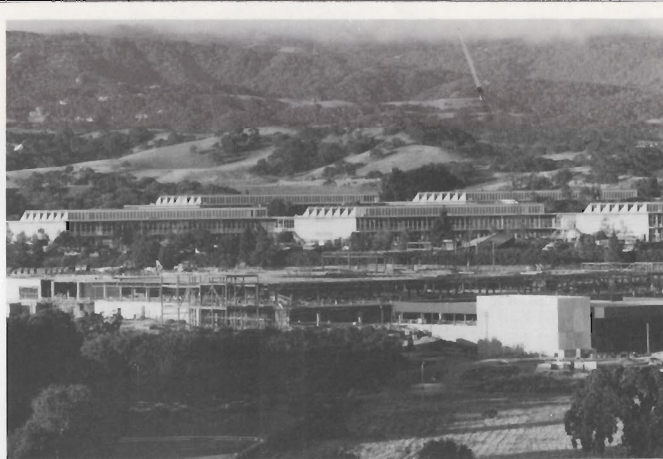
For these undergraduate women engineering students crowded around Santa Rosa Division R&D engineer Giovannae Anderson (left), careers in industry lie ahead in the near future.

Giovannae, who holds a Ph.D. in electrical engineering, and other HP women engineers were on hand last June to answer questions during the company's reception at Princeton University for 200 attendees at the student conference of the Society of Women Engineers (SWE). HP was also highly visible at the SWE convention which followed in Cherry Hill, N.J.

Altogether, three dozen women engineers from HP divisions throughout the U.S. gave technical papers, served as panelists, staffed exhibit booths, participated in recruitment day—and answered a lot of interested questions about the type of work going on at HP.



You lace up your sneakers, put on your sweat shirt, grab your broom and take to the ice. Once a year the women from HP's Montreal and Toronto offices meet at center ice for the face-off of the annual broomball match. The object of the game is to smack the 6-inch broomball into the goal with your broom—without falling down too many times. The yearly interoffice rivalry also involves the men who compete in a more familiar winter sport: ice hockey.



Hewlett-Packard's Building 20 continues its skyward climb in the hills of Palo Alto's industrial park. The new corporate headquarters' support columns and steel roof are now in place as the building approaches its mid-1981 opening date.



Perhaps the high cost of housing has begun to affect the rodent population, forcing some to look to HP instruments for living quarters. Imagine the surprise of repair technician John Gusman of the Instrument Service Center in Mountain View, Calif., when he opened an 8690B sweep oscillator and found a mouse had moved into the instrument and done some redecorating. In addition to a nest of shredded newspaper, the resident rodent chewed up the wiring harness ... a total of \$741 in damage. The landlord was a bit irritated because he'd just had the sweeper calibrated and cleaned the month before.



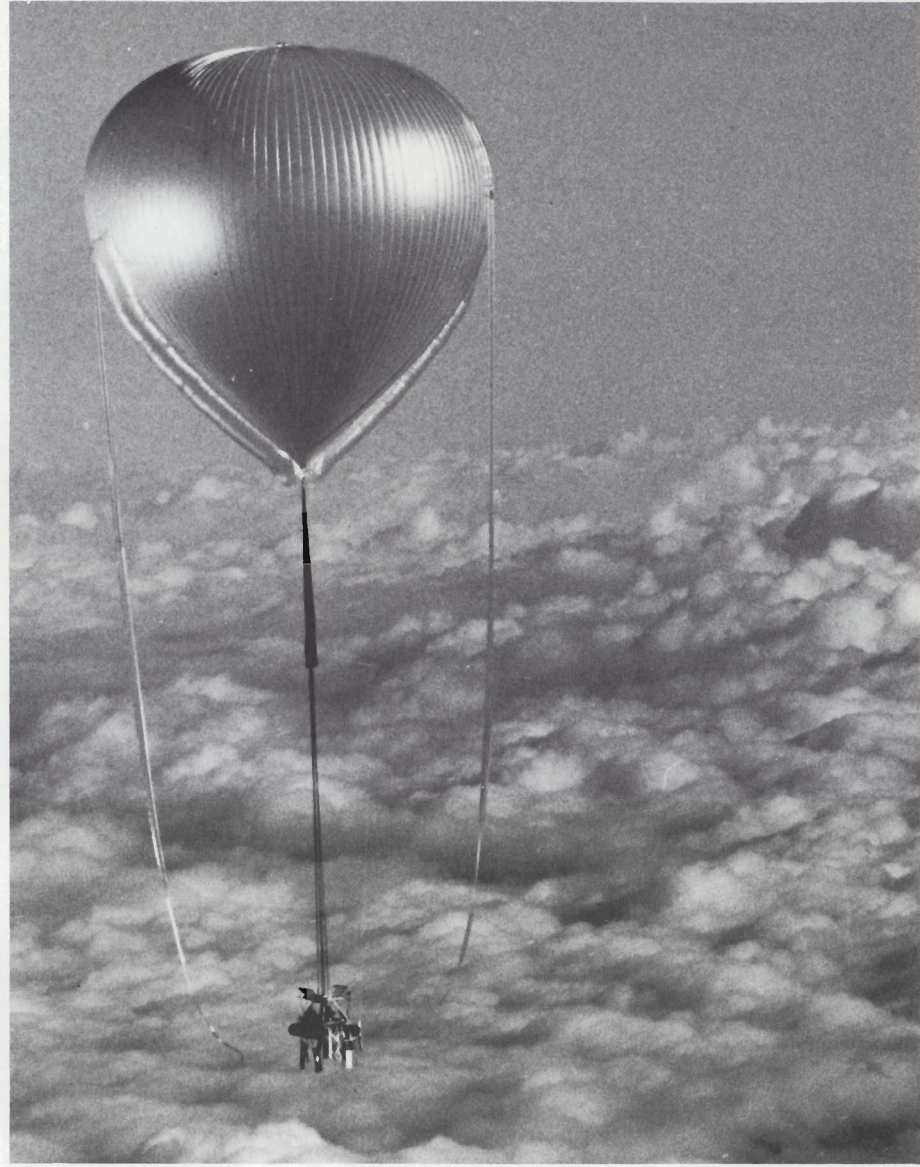
What do Barbara Packard, Dana Packard, Phylis Packard, Jack Packard and Michael Packard have in common? All of them work for Hewlett-Packard, but none of them are related to the company's founder, Dave Packard, although they're asked the question all the time.

Because seven-year veteran Jack deals with customers through the Bellevue, Washington sales office, he says he is asked about his name "at least once a day. It's always a good way to start a conversation," he grins.

Although none of the five are related to Dave, two are related—to each other. Barbara B. Packard came to HP seven years ago and now works at General Systems Division in Cupertino, Calif. She persuaded daughter Dana to join the company two years ago, and she now works at the Computer Support Division.

Just for the record, neither Bill Hewlett or Dave Packard have any relatives working for the company, and there are no other Hewletts currently at HP.

Balloonist Maxie Anderson carried along an HP-67 programmable pocket calculator to help navigate the Kitty Hawk's historic transcontinental crossing of North America—just as he did earlier in the 1978 balloon crossing of the Atlantic Ocean in his Double Eagle II. This time son Kris, 23, accompanied his dad on the flight from San Francisco to St. Felicite, Quebec, Canada, and used his own HP-41 to calculate ballast control.



The HP Grenoble facility was honored for providing employees the best sports program in France. The award has been presented every year since 1950 by the daily publication **L'Equipe**.

Some of the Grenoble program's highlights include: one soccer field, an indoor athletic room for gymnastics, karate and ping pong and plans for two more tennis courts and a new volleyball court. Between Christmas and Easter 60 employee's children are bused to the local ski slopes for classes. Year-round gymnastics classes are offered to employees everyday between noon and 2 p.m. The men's soccer teams have played 47 games without a loss.

The median age of Grenoble's sporting 561 employees is 32 years. P.S.: The Grenoble plant is located on the site of the 10th Winter Olympic Games in 1968.

These canoe races getting underway at Fallen Leaf Lake in California's High Sierras may look like another HP picnic, but they're really the unwinding part of three days of high-technology interchange.

This year's 12th annual HP semiconductor technical conference, with 195 attendees representing all 11 semiconductor operations and HP Labs, was the largest yet. The agenda was marked "company private" as 65 state-of-the-art technical papers were presented.

The traditional canoe races, on the other hand, were very much out in the open and sometimes even involved a dunking.



Talk about unfriendly environments! An HP 3000 Series 33 computer system was loaned by General Systems Division to San Francisco public television station KQED to keep track of the annual auction—and wound up in the brig.

Fort Mason's Pier 3, where the money-raising event was staged this year, is built right over the waters of San Francisco Bay. That's a natural environment for piers but not so great for computers. Far from providing the usual dust-free atmosphere, the room's barred windows and cement floor won it the nickname of the dungeon.

But things could have been worse: the room next door had a manhole in the floor that popped up and down with the swelling of the water.

Neely's John Bria who helped KQED program their borrowed HP computer reports that despite the setting it still performed like a million. And that's just the record-breaking amount raised by this year's auction.



The computer's role in boosting productivity was the theme of three recent trade shows staged by the Computer Groups in Los Angeles, Dallas and New York City. Twenty free workshops and seminars on improving productivity were supplemented by a product exhibit of the entire HP computer line. At all three shows Hollywood special effects expert Colin Cantwell (known for his work on "Star Wars," "Buck Rogers in the 25th Century" and "2001: A Space Odyssey") explained the use of computers in the movie industry today.

More than 6,000 participants attended the three shows—the first ever sponsored by an HP product group.



One of six 15,000-gallon fuel-oil storage tanks is lowered into a special containment vault at HP's New Jersey Division. The vault is designed to prevent possible contamination of ground water. When completed, the vault area will become a landscaped patio protected by a sprinkler and ventilation system. Another local conservation feature: a drainage system in the plant parking lot that catches and separates accumulated oil before rain can wash it into the storm sewer.

TOKYO ROAD TEST

As is common elsewhere in the world, drivers in Japan take the main rap—jail, fines or loss of license—for serious driving offenses. However, where employees are involved, Japanese companies also have some obligations to fulfill in promoting safe driving among their people.

It's all part of the Japanese concept of a lifelong agreement between employer and employee that takes many forms, all of them expressing strong mutual loyalty and concern, both on and off the job. In the case of auto safety, the law underwrites the agreement by requiring private companies operating more than five vehicles to take important measures of responsibility for the performance of employees as drivers.

For example, YHP, the company's joint venture sales organization in Japan, has a general affairs manager, Tadao Nishimoto, whose duties include being the "safe-driving" manager. Handling day-to-day responsibility for driving is Shogo Shinozaki, co-manager. In turn he is supported by a "drive safely" committee.

Shogo seems ideally suited to his role. An ex-police officer, he served in the traffic division of the Tokyo Police Department for 15 years before joining YHP in 1964.

Shogo checks out all new YHP drivers, and may give them road tests before they take the wheel of a company car. However, most of his safe-driving activity involves following up on accidents. Because of his experience he is able to counsel accident-involved employees about police statements, insurance matters, and legal liabilities. If personal injury occurs Shogo generally visits the site, analyzes the situation to determine fault and makes sketches or takes photographs. Later he tracks the case as it develops.

When an employee is fined by the courts, company insurance may be used to help defray the cost. However, Shogo is regarded as such a good negotiator that most YHP problems never reach the courts. **M.**



Bird's eye view of a section of metropolitan Tokyo, showing heavily travelled expressways. Companies such as YHP have an obligation to help not only drivers of company cars but also other employee drivers who may become involved in auto accidents and traffic violations.

Shogo Shinozaki pursues safe-driving investigation at YHP.

YOUR TURN

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

JOBS EXPORTED?

How does the company justify expanding its manufacturing operations overseas at a time when our U.S. economy is in such big trouble?

We see more and more people here losing jobs while the government runs up a huge debt. Sending more jobs out of the country doesn't seem to make sense. Couldn't the work be done here just as well?

(NAME WITHHELD
ON REQUEST)

Your concern for improving employment and the economic picture in the U.S. is shared by a great many people, including the many international friends and trading partners of the U.S. who benefit from a healthy American economy. There are many possible responses to your specific point about "exporting" jobs.

When HP establishes an international manufacturing operation it does so for a variety of reasons, of which labor cost is but one consideration. More important in most cases is the marketing impact: how will this facility enhance our presence in the local market? How does it fit into our overall marketing strategy? Of course it should be profitable, able to support itself and contribute to corporate objectives.

What does that mean in specific terms? If you have taken note of our sales figures over the last decade you will have seen how important our international business has become. Today more than 50 percent of sales are rung up outside the U.S. A very large part of those sales are based on exports from the U.S. product divisions.

Bill Doolittle, vice president-International, has estimated that at least one out of every four jobs in HP's U.S. organizations exists to support our international activities. In turn, he noted, those activities have grown so fast only because of the investments we have made in marketing and manufacturing facilities abroad.

EDITOR

MEASURE DRAWS PRAISE, FIRE

The "new look" of *Measure* as seen in the recent May-June issue brought us quite a few notes and comments.

Most people thought the change was headed in the right direction—livelier, more contemporary, great-

er variety of material. But some thought we had gone too far—too much of this, not enough of that, or too heavy on the graphics. We found these criticisms to be quite fair—and useful. Others liked the new *Measure* because it was attention getting and therefore likely to be read more thoroughly by more readers.

We would like to think that this current issue reflects a position somewhere about midpoint of those views. Meanwhile, we would appreciate any information on the whereabouts of an infallible, auto-adjusting, consensus-sensitive editorial calibration system.

EDITOR

TOO MUCH OF A GOOD THING?

Both my husband and I work for HP, and your *Measure*, along with a lot of other HP information, comes to both of us. We read one and immediately throw the other away. For years we've been talking about what a waste it is for the company to send us duplicate mail. It seems like such an expensive, time-consuming and very inefficient way of doing things.

VICKI TINDEL
Santa Clara Division

Measure is mailed to the homes of all HP people on the computerized U.S. payroll list. To develop a program that would screen out one or the other spouse or maintain a separate list doing that would be much more costly than the present method. Looked at another way, we're sure you'd much rather receive an extra measure of *Measure* than find your name missing from the payroll.

EDITOR

TURNING ON COMMUTERS

What about reserved parking places for vans used in vanpools and for electric cars? Seems like this would help provide more incentive to alternate commuting methods.

BILL WILLIAMS
General Systems Division

Most divisions already provide preferential parking for Vanpoolers, and have special parking areas for bikes, mopeds, motorcycles and, in some cases, carpools. The San Diego Division is now sponsoring a contest to attract more people to

YOUR TURN

carpooling. There'll probably be the same advantages offered to drivers of electric cars as they become more popular.

Right after our electric auto story (May-June issue) went to press, Gulf & Western Industries announced the first "practical" power source for electric vehicles—a zinc-chloride battery system that has powered a Rabbit-sized experimental car 150 miles at 55 miles per hour. Those figures beat conventional lead-acid battery-powered cars with a range that is five times as large. At G&W's estimated price of \$3,500 for the system, a new electric car would probably cost about \$8,000. Don't hold your breath, though. It won't be available before 1984.

EDITOR

TRAVELING IN STYLE

In the May-June issue of *Measure* you published an article about alternate means of transportation. Nowhere was the Messerschmitt mentioned.

True, there aren't many of these three-wheeled sports cars available in the U.S., but they are certainly economical. Insurance for my two-passenger car has just been raised—to \$20 a year.

I see no reason to drive a gas hog or limit myself to side streets within a 30-mile range of my home while being passed by mopeds. My 200cc engine has four forward speeds and four reverse speeds. Top speed either way is about 70 miles per hour. My car gets between 60 and 80 miles per gallon, although some go as high as 120 m.p.g.

Until somebody comes up with a sensible alternative to the family car, my Messerschmitt and I will continue commuting together.

RANDY KAAZ
Stanford Park Division

JULET PECKERT???

When a company grows as large and diverse as Hewlett-Packard, it's easy to assume that everyone's heard of you, and everyone knows how to spell your name.

Not so. Everyday, somewhere in the world, Hewlett-Packard's name is misspelled in a newspaper article, on a purchase order or in a letter.


Here are some of the many errors that have surfaced through the years:

Hamlett-Packard	Hewlett-Pakard
Havlet + Packard	Hewlett & Packaro
Hawlett-Bagger	Hewlett-Palard
Hawlett-Pachard	Hewlett Parkard
Hawlett-Packard	Hewlett-Parkart
Hefflett-Packard	Hewlett-Pazkard
Heirolett & Packard	Hewlett-Pckard
Helett-Packard	Hewlitt-Packard
Hemlett & Packard	Hewlwt-Pachard
Heslett-Packard	Hewlwt-Packard
Haulett-Packard	Hewumtt-Pacuard
Hewelett-Packard	Howlett-Packard
Hewleard-Pockard	Hulett-Packard
Hewleit-Packard	Hwlett-Packard
Hewleth-Packard	Julet Peckert
Hew Lett Packard	Julett & Parkert
Hewlett-Packan	Julius Hewlett Pakard
Hewlett & Pack	Newlett-Packard
Hewlett & Packark	Paul Hewett-Packard

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.



Randy Kaaz with Messerschmitt



The Great St. Helens Scrubdown

The dust has settled at HP's divisions in Washington state after three eruptions of Mount St. Helens, but for a while nobody moved around outside without donning a protective face mask.

Spokane, the first HP location affected, received more than one-half inch of powdery volcanic ash after the first eruption on Sunday, May 18. As Spokane Division Manufacturing Manager Mac McGrath described the situation, "The color and consistency was like cement powder and the landscape looked as if we had been transported to the moon."

Fifteen HP people, including the entire facilities engineering staff, worked all day on Tuesday with brooms, snowshovels, wheelbarrows, a firehose—and face masks—to clean the parking lot and roof so the plant could reopen Wednesday. The division made

up the lost time from the two-day shutdown and even exceeded the month's shipment target.

Vancouver Division was in the southward path of fallout from volcanic eruptions on May 25 and June 12, when the heaviest deposit was received. No production time was lost, but for several days HP folks passing between the facility's two buildings or crossing the parking lot put on masks as protection against the free-flying dust.

Across the Columbia River, the HP sales and service office in Wilsonville, Oregon, escaped the layer of volcanic ash which hit Portland some 12 miles north. No face masks were issued, but the company fleet had an unscheduled trip to the car-wash to scrub off a dusting of volcanic ash—as fine as face powder when dry but like cement when wet. **M**

NEWS CLIPS

RECAP THE NEWSWORTHY EVENTS, CHANGES AND ACHIEVEMENTS WITHIN HP.



Terry



Ely

TOP MANAGEMENT CHANGES

Executive Vice President Ralph Lee will retire as an officer and director of Hewlett-Packard on August 31. Lee, who will be 65 in August, has been with HP for more than 34 years, and has been an executive vice president and director since 1969. (See story this issue, pages 10-12.)

HP vice presidents Paul Ely and Bill Terry have been elected directors, effective September 1, and promoted to executive vice presidents. In addition, Craig Nordlund of the Corporate General Legal department has been elected an assistant secretary and officer.

Ely, formerly vice president and general manager of HP's Computer Groups, will continue to oversee computer operations in his new position. Terry, formerly vice president and general manager of the Instrument Groups, will continue to be responsible for instrument operations in his new position. Both men will become members of the Executive Committee.

Continuing as executive vice presidents are Dean Morton and Bob Boniface. Morton will oversee Medical, Analytical and Components groups as well as the Corvallis Division and Corporate Manufacturing Services. He also serves as chairman of the Operations Council. Boniface is executive vice president in charge of Corporate administrative functions.

Since joining HP in 1962, Ely has served as general manager of the former Microwave Division and of the Data Systems Division, and headed the Computer Systems Group which preceded the present Computer Groups organization formed last year. He was named vice president in 1976.

Terry joined HP in 1957. He has been general manager of the Colorado Springs Division and of the former Data Products Group. In 1971 he was elected a vice president. Three years later he became general manager of the Instrument Group, which was reorganized this February.

MOVING AHEAD

Plans are progressing for establishment of a Greeley Division by November 1, 1980, with Tom Kelley to serve as general manager. The Board of Weld County Commissioners has approved the company's request for scientific zoning for a proposed site near Greeley, Colorado.... The company announced that, given the current level of volcanic activity at Mount St. Helens in

Washington, it will not change its plans to develop several sites in the Pacific Northwest. HP will go ahead with plans to build permanent plants on land in Vancouver and Spokane, Washington, where divisions are now operating in temporary facilities, and to purchase the land under option in Lake Stevens, Washington. The Optoelectronics Division in Palo Alto will build an additional facility in San Jose, Calif., with completion expected by the second half of 1982.

NAMES TO KNOW

Doug Spreng has been named to the newly created position of operating manager of the Disc Memory Division, taking over responsibility for day-to-day operation from Dick Hackborn, now Computer Peripherals Group general manager. Hackborn remains responsible for longer-term evolution of the division and several functional areas.... Gordon Olson has been named manager of a newly established Corporate Materials Management department incorporating the former Corporate Materials Services department.... Stu Pearce is the new marketing manager at Waltham.

AMONG NEW PRODUCTS

New from the Loveland Instrument Division in June: the 3850A Industrial Measurement System that uses a beam of light to position objects as distant as 8 km away and measure their speed with great accuracy, and the 3054A Data Acquisition System which used in conjunction with the HP-85 personal computer provides a low-cost way to gather complex data for test purposes. A June product from the Corvallis Division based on technology developed by the Optoelectronics Division: the 82153A Optical Wand that reads programs and data encoded as barcode and loads them into the HP-41 calculator.

FY '80 MIDPOINT

At an annual meeting with financial analysts in New York City in June, President John Young reported that the company is continuing to grow but the rate of order increase has leveled out. "We're continuing to put in place the professionals to build for our future while watching very carefully our overhead and our correct rate of hiring," Young said.... More than \$35 million was distributed in May to nearly 47,600 eligible employees worldwide under HP's cash profit-sharing plan. **M**



President John Young announcing profit sharing last May 20.

The Open Line survey evaluations are proceeding on schedule with considerable activity occurring at nearly every U.S. location (the survey has been conducted initially only in the U.S.). In this message, I'll give you a status report on where we stand and then follow up in coming *Measure* letters on some of the central issues that have been identified. First, let's review the process.

The Open Line survey results for each HP entity, together with national norm data, have been available for the past few months. Several hundred analysis teams involving thousands of people were assembled in the divisions and regions to examine thoroughly the results, to identify significant areas of strength and concerns and, most importantly, to recommend specific actions to be taken.

Corporate Personnel is the coordinating office for this analysis group activity. It has received copies of some 3,000 recommendations from these teams as reported to local management. Although there were variations in wording and emphasis in these problem statements and recommended actions, a number of common themes emerge from this record. One of Corporate Personnel's initial tasks has been to codify these themes into a manageable number of subject categories (about 100) and then index them by reference to the 17 original survey categories. As a result, we have identified 22 issues which are common to about one-half of the problem statements. The other half are

widely varied and primarily local in nature.

The common issues fall into the survey categories of pay, benefits, management, training and development. Over the next few months the whole range of problems and suggested solutions will be carefully evaluated both in the regions and divisions, as well as by the corporate staff functions directly concerned. In this next stage we'll develop action programs to resolve problem areas. Later this year we'll give everyone in the U.S. a comprehensive report on these actions.

In my review of these 22 issues, it's clear that some arise from basic misunderstandings of just what our policies are or how they work. Despite major efforts in our training courses and published information on pay and benefits, these areas are not well understood and new approaches are called for. Other issues of concern may well require a re-evaluation or modification of existing practices and policies. Whatever the case, there is a firm commitment by all of us to evaluate thoroughly each recommendation, to initiate improvement where indicated, and to communicate these responses to all employees.

I sense that one overall theme connects a great many of the specific issues, reflecting concern for the effect that growth and change will have on the HP way of doing things. This concern reminds me of an informal survey conducted by Ray Wilbur (now retired vice president of Personnel) over 20 years ago—just

A MESSAGE FROM JOHN YOUNG

when I came to work at HP, a company of \$30M in sales and 1,500 total employees in two plants in Palo Alto. Although this survey lacked the statistical rigor of Open Line, there were several questions about the kind of company HP was that were similar to Open Line's questions. Employees then, as well as now, expressed the identical feelings and concerns about the special relationships we now call the "HP Way."

In looking back over the past 20 years, the HP Way has not only survived remarkably well but our people feel even better about some aspects of our company today than they did then. I believe the main reason behind this durability is that we do worry about it and we channel those concerns constructively into evolving the attitudes, organization and policies that maintain the spirit, even under the strain of growth.

I feel it's important to look at the Open Line survey results in the same positive light. The fact that we had such enthusiastic and thoughtful participation in the analysis of the Open Line data reaffirms to me that the HP Way is important, that the vast majority of us at HP are well aware of this, and most importantly that we personally are willing to work hard to see that it perseveres. One of our employees summed it up well in an analysis group report: "After the completion of all possible problem statements, it was the consensus of my group that Hewlett-Packard is a good company to work for and although it has its problems, there is no other company they would rather work for." I have no doubt that with everyone's participation and support these very special qualities that characterize our company will fare just as well over the next 20 years.

John

STAMP OF APPROVAL



The honor of appearing on a country's postage stamp is usually reserved for kings, queens, presidents and other celebrities like Santa Claus or the national bird. An HP 2000 computer recently joined that distinguished group on a 55-cent stamp from Christmas Island. It's the top-priced stamp in a set of four depicting aspects of the island's phosphate industry.

The HP 2000 is owned by the British Phosphate Commission on the Australian dependency, where it handles mine planning, payroll, accounting and production reporting. The commission is not only the island's major employer, but also provides most of the community services to the 3,000 residents.

The reliability and minimal maintenance requirements of the HP system were key selling points since the hot and humid island lies 1,500 miles northwest of Perth, Australia, in the Indian Ocean. Dust from the mining operation and the salty ocean air team up to make a hostile environment for any computer system, but the HP 2000 has weathered them all. **M**

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