

Measure

For the men and women of Hewlett-Packard/JANUARY 1969

Soft landing in San Diego



"This is the place." San Diego Division management—including, from left, Ken Capen (personnel), Floyd Siegel (engineering), Ed Morgan (manufacturing), and John Brown (general manager)—tour the Rancho Bernardo property near San Diego that was ultimate choice for a new plant site after a search of over two years. Cover photograph is an aerial view of the region, with the asterisk marking location of the 71-acre HP property.

**Selecting a new HP plant site
is an art and a science
and a lot of leg work . . .**

□ Why Rancho Bernardo, California? Why not Santa Barbara? Or Phoenix, for that matter? Why Colorado Springs and Loveland, Colorado? Rather than Salt Lake City, Utah, or Lincoln, Nebraska, or Saskatoon, Saskatchewan? How, in fact, does the company go about selecting a site for a new manufacturing plant?

A tour of the San Diego area and the Rancho Bernardo property, where HP recently purchased 71 acres as a future headquarters plant location for the San Diego Division, makes the selection problem seem clear and simple. How could you miss when all around you are a superb, sun-swept living environment, excellent transportation facilities with good access to international jet service, and any number of other chamber of commerce et ceteras.

But, then, so has Santa Barbara, and so has Phoenix. So how was a final choice made?

First, the basic responsibility for locating a new facility belongs to the division concerned. John Brown, the husky, congenial general manager of the San Diego Division, knew at least two years ago that additional work space in a new location was going to be needed. The Pasadena buildings were approaching full capacity, and there was no more land for expansion at that site. The need was for a new location that could accommodate foreseeable production growth by the division, that would be attractive to the engineering talent, and that would relieve congestion at the Pasadena plant.

Early last year the hunt began. The hunting team was made up of Brown and Stan Selby, assistant to the vice president for western operations, with assistance from Ralph Lee, vice president of western operations, and Phil Towle, corporate plant engineering head.

The geographical scope of the hunt was limited by the division's desire to stay within reasonable range of Pasadena so that interchange of people and materials would not become a problem. So, even though places such as Phoenix were rated high by the team, and even though in theory the entire country was open to consideration, as it had been in previous investigations by the company, the hunters soon found themselves concentrating their efforts in Southern California.

Preliminary searches were made further out in San Gabriel Valley, and south to Orange County — busy, booming places with all kinds of incentives for industry. But Brown and Selby were cautious. Smog was becoming more and more widespread over the greater Los Angeles basin. Areas that had been free of smog only eight years ago were now well inside the belt. So why buy problems?



Site selection is part science, part economics, and something of an art, too. Basic responsibility belongs to division manager. At left, John Brown, San Diego Division manager, and Stan Selby, assistant to the vice president, Operations-West, rack up more mileage reviewing possible sites.



Numerous site possibilities ranging from Santa Barbara to Arizona were considered and inspected by the selection team. Here, Selby (left) and Brown check on some choice Santa Barbara property—but obviously those 17 acres don't meet HP's minimum size requirement for a major plant location.

(continued)

soft landing



Key requirements for HP site selectors is availability of technical educational programs and environment attractive to engineering talent. At San Diego State, Placement Director Will Kidwell (left) discusses programs with HP's Ken Capen.



Rancho Bernardo has been called a "New Town," a self-contained, totally planned, 5,400-acre community designed for 50,000 residents. Just a few years ago it was a working cattle ranch. HP's property is part of the Rancho's industrial park.

To the northwest was Santa Barbara, one of the world's beauty spots, with good weather, an excellent university, available open land and good connecting transportation—a place where people liked to live.

To the south, the attractions of the San Diego area were obvious: a desirable living environment, fine university and college facilities offering the professional engineering and technical educational opportunities that HP must have at hand, a choice of well-qualified sites within city limits, good freeway connections, and closeness of a jet airport. There were other pluses, too. The welcome mat was out to industry, people could easily move to and from Pasadena, and smog was far, far away. As these advantages became better known to the HP team, the area definitely began to look like "it."

So now it was getting close. Several sites in the San Diego area were in final contention: An area presently zoned to research and, although not really large enough, excellently located; city-owned land that was already pretty well surrounded by industry; a large and desirable property that was in the process of engineering development and therefore a bit of a risk; and finally, the Rancho Bernardo Industrial Park which, in addition to its many natural advantages and location, was fully master-planned for roads, utilities and zoning. The 71-acre site available would be ample for growth.

By now the San Diego area was clearly the choice—so clear that the company had arranged to lease a building at Rancho Bernardo. This would temporarily house the

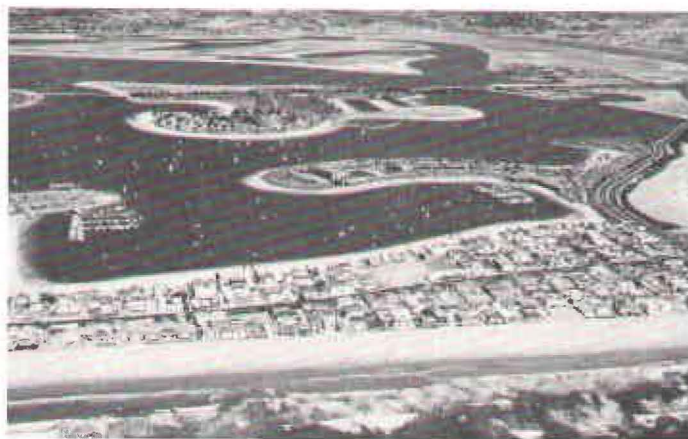
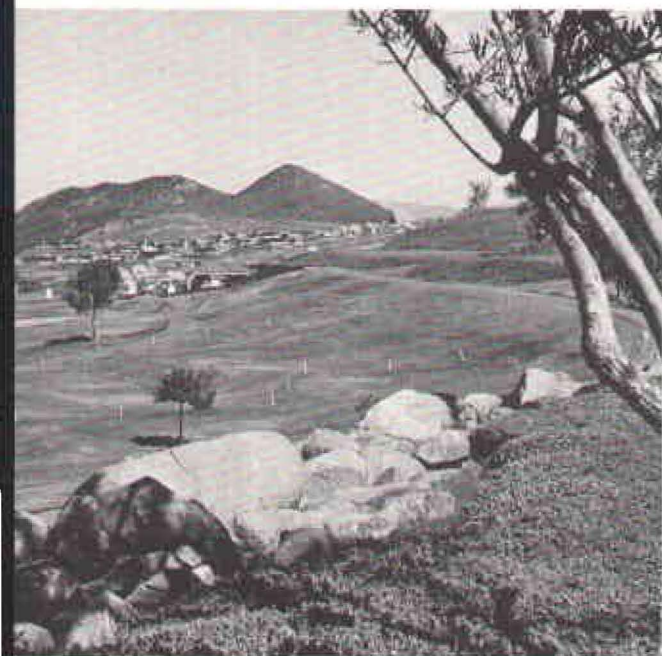
manufacture of strip-chart recorders as well as the division's engineering, marketing, and some administrative operations and would give the Pasadena plant some much needed breathing room until a permanent site was chosen and buildings erected.

Meanwhile, back at the Rancho Bernardo, the only remaining question was price. But through its negotiations at the other sites and its association with the Rancho Bernardo management in the matter of the leased property, the HP team had in mind what it considered a fair price. The bid was made—and accepted. The long hunt was at an end.

The process, however, never really stops. The five-year plans submitted by the division managers last month for corporate review and consideration are already being recast into a five-year construction forecast by the plant engineers. These forecasts are revised twice each year to insure the greatest possible accuracy—a necessity in view of the two- or three-year cycle generally required to select, buy, build on, and move into a major plant site.

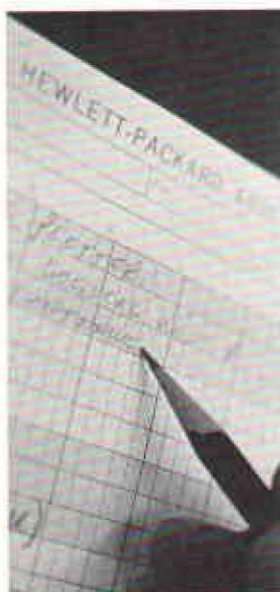
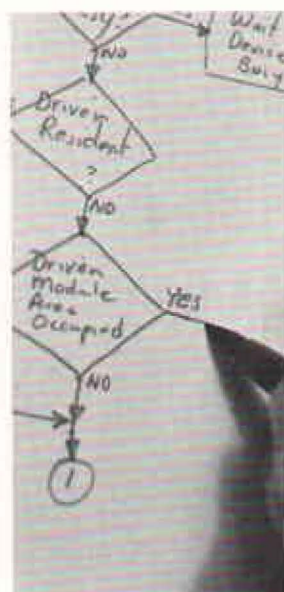
Sometimes there is a surprise, as in the rapid and unexpected upsurge in data products sales that led to the recent purchase of an existing plant and 46-acre site at Vallco Park, some 13 miles south of company headquarters in Palo Alto. But the normal course of acquisition is through long-range planning. Based upon present sales forecasts, the corporate engineering staff is projecting the need for a variety of new facilities. Some of these will represent expansions on existing sites, but a few new sites are also indicated.

The hunt will be on again. □



Some of the well-publicized features that have helped make the San Diego area an attractive living environment: Clockwise from right above are—Mission Bay aquatic park; National Shakespeare Festival at Old Globe Theatre; Palomar Observatory with world's largest optical telescope; San Diego Zoo; Sea World; Balboa Park. Other key elements in the San Diego area selection were technical education opportunities, smog-free climate, and good transportation facilities, including major jet airport.

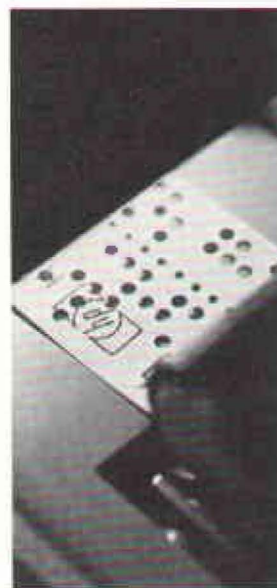




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“Lord, what’s a software?”

3



□ After long and attentive listening to commands from On High, comedian Bill Cosby, in his recorded role as Noah, still has real hang-ups concerning what he is supposed to do about the Flood: "Lord," he asks, "what's an ark?" and "Lord, what's a cubit?" Well, that same sort of puzzlement comes over many people when they hear experts discussing computers. "What," they want to know, "is software?"

Actually, software does to a computer what the Lord was doing to Noah: it instructs it. And if the software has errors in it, the computer may respond unintelligibly—or perhaps erroneously like loading the ark with an all-female cargo.

Physically, software is often represented by a roll of magnetic tape, punched tape, or punched cards. On these may be encoded the instructions developed by a programmer that tell the computer how to work. Or it may carry raw data, compiled by a computer user, that in turn will be processed according to those instructions. Software can be described as an ordered set of instructions which causes the computer to carry out a given task. Depending on the nature of the task, the job of writing the instructions may be quite simple or quite complex. For example, to develop instructions to read 10 numbers from punched tape and compute the sum is quite simple, whereas to develop instructions to supervise the execution of programs from 16 teletype terminals on a time-shared basis is quite complex.

The demand for software and the complexity of it is such that software costs can account for as much as two-thirds of the annual budget of a given computer installation. By far the largest item in those software costs is labor—the long hours of coding and programming by highly trained people.

Roy Clay, computer software development manager at Palo Alto Division, which manufactures the HP line of computers, defines the role of the computer as that of "a tool to be used for problem solving. It acts as an humble servant, with the user, through software, as its master."

"As a manufacturer of computers, we must supply the related software to our customers. Software is considered a product—a product in much the same sense as the computer is a product. It involves marketing strategy, development planning and control, labor, and material. I might say that analogous to general purpose and special purpose hardware, we develop general purpose and special purpose software. In the general purpose category we develop software described generically as assemblers, compilers, operating systems, input/output routines and other utility programs. Our special purpose, or applications, products consist of software for the logic module tester and various diagnostics (for hardware fault detection). We are currently developing and investigating PC board layout, back-plane wiring and numerical control software. Other divisions are also developing special purpose software such as the network analyzer at Microwave, and gas chromatograph at Avondale."

Programming managers throughout the industry feel that software should be handled more and more as a product and less and less as a peripheral item or as a concession to customers. In particular, they are concerned that the software development cycle be given early and serious consid-

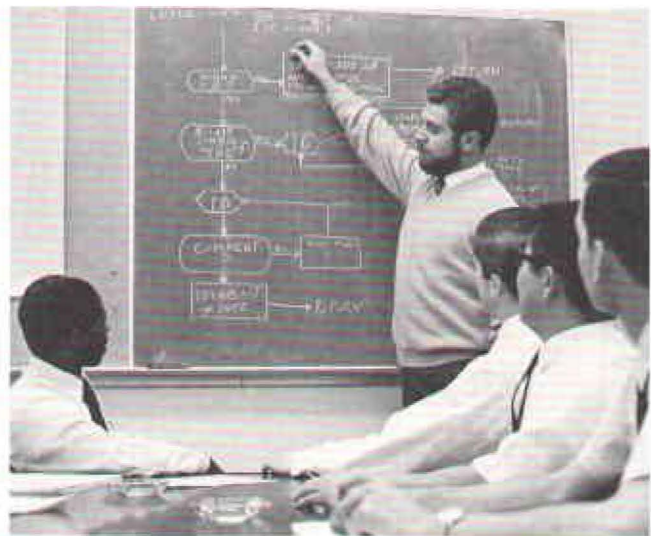
eration by manufacturers. At Hewlett-Packard software development was planned at the very outset of the computer development program.

Why this has not always been so in the past, Clay suggests, is because of the peculiar differences in the way hardware and software are produced. For its part, software is essentially completed when engineering development—programming—is completed; almost no manufacturing as such takes place. As a result, manufacturing-oriented organizations tend not to evaluate their software products in the same way they do their hardware. Yet as far as the customer is concerned, the hardware is virtually useless without software. Further, software delivered by the manufacturer may carry warranty and require a significant amount of customer support. Lack of understanding about the use of software, or a software malfunction, may be more troublesome and costly than lack of understanding about the use of hardware or a component failure.

Let's see how a software product is developed—and what steps are taken to insure its quality. A good example might be the Real-Time Executive System developed recently by Lee Johnson, project engineer, Ron Matsumoto and Russell Martin of the Palo Alto Division software department. The following were the steps involved in developing the system:

- A "Design Objectives" document was written for the proposed product. The document started with a statement of the system's purpose (to permit more efficient use of computers by providing users with the capability of scheduling "simultaneous" execution of programs in a single computer in real time, while doing non-real-time programming, such as compiling and debugging, in the "background," that

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Software development begins on a blackboard. Here the exact goals of a computer program are worked out prior to writing the program. From left, Palo Alto Division programming project team including Roy Clay, software development manager, and programmers Jim Yanik, Emry Radvany, Ron Matsumoto, and John Wolff discuss new program.

software

is, during time unused by the real-time programs. This concept is called "multiprogramming.") Also written was a general statement of the proposed system's architecture and proposed hardware configuration.

- An "External Design" document was written to describe all the external features of the product. Included were precise descriptions of acceptable program instruction, what the product would do, and what computer hardware would be needed.

- Now the programmers were ready to implement their concept. Internal design began—flow charts were drawn, memory layout was planned, data structures were defined.

- Then coding started—instructions were written in the language of the computer.

- Debugging began—program modules were checked out individually.

- System integration took place—the various program modules were put together with the final hardware for a complete system checkout.

- The final product was debugged . . . the integration process was found to be successful, with no known bugs in the system.

- Finally, software evaluation began. A special sup-

port group of programmers evaluated the system by running it through its paces to verify that it performed according to the external design specifications. Meanwhile, two manuals were in preparation, one a "how-to-use-it" document, the other a very detailed maintenance guide that should enable a user to make any necessary modifications on his own.

Approximately three man-years were invested in the Real-Time Executive System by the time it was ready for shipment to customers.

Although software may properly be defined as a product because it involves planning, labor, and a selling price, a big controversy has swirled around its legal status. The question is whether or not patent protection should be granted for a computer program. The Federal government's position is that a patent cannot be granted unless the software is part of a physical system—a machine or tool. It has suggested that protection be arranged through a modified form of the copyright laws. The industry itself is divided on the subject, between those who think of software as a "mental process" and those, on the other hand, who contend it is "instant hardware." At that point the arguments become very complex. But they all bear out what programmers have been saying for years—that software is, in fact, the brain and soul of the computer. □

After objectives have been written, next phase in software cycle is development of actual computer operating instructions. Using flow chart, programmer Ron Matsumoto codes the program which will then be punched out on a roll of paper tape that can be fed into the computer. In turn the computer will execute the coded instructions.



Checking out a software program—"debugging"—is an important phase for the programmers. John Wolff observes as an HP 2116B computer handles one of Palo Alto Division's new Real-Time Executive programs. Such software programs are becoming increasingly important HP products.

The seven most frequent workday injuries...

If you were to look up from work some morning and see hundreds of your fellow employees jumping around in pain, lying unconscious, being treated for burned and bleeding hands and heads, binding up broken bones, and clutching sore backs and sprains, you might properly conclude that disaster had struck. Well, those kinds of misfortune did befall nearly 800 HP people last year, and to them it made little difference that the disaster didn't happen all at once.

Indeed, 1968 was a record year at Hewlett-Packard for lost-time accidents, as was 1967. Managers and supervisors — conscious of the personal losses experienced by the people who were hurt as well as the cost to the company in lost productivity and workmen's compensation insurance costs — are determined to reverse the trends evident in those statistics. It is most likely, therefore, that programs of accident prevention and safety education will be on the upswing in 1969.

But safety is not just a corporate goal: it's something you owe yourself, your dependents, and your fellow employees. Fortunately, there are plenty of things you can do about it — most of them involving common-sense actions and attitudes. The following illustrate ways of avoiding the seven types of on-the-job injury that recently have been causing most of the grief around HP:



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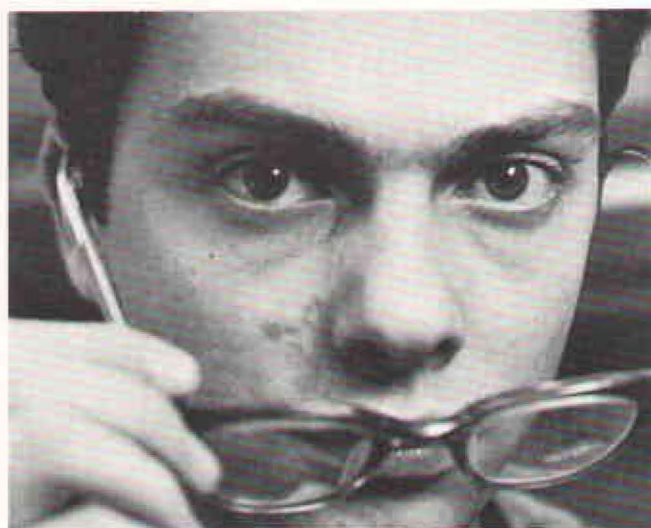
Back injuries are getting a bad name around HP, they're becoming so common. "Continuous trauma" is the biggest cause—repeated strain almost invariably caused by bad lifting methods. Proper lifting technique, demonstrated here by Dan Vinciguerra of materials management-stores, makes use of the back as a column, not as a lever. The actual main lifting is done with the legs. Poor posture in sitting and walking can also bring on back troubles. Also—don't lift and twist, get help with heavy loads, keep the load close to your body, and take advantage of mechanical lifting devices.

the seven most frequent

"Hand traps" are anything that can cut, crush, puncture, lacerate, bruise or break the hands—generally machine tools and moving devices. A good many people have been hurt when trying shortcuts in work methods—leaving out protective barriers and other precautions. A small slip is all it takes. Here, Paeco's Ruth Killian uses tongs rather than hands to position blanks in PC board press.



People slip, trip, are squeezed, struck, and go boom on the job for all kinds of reasons. Poor or indifferent housekeeping seems to be the root cause, though, with spilled substances and clutter in passageways the most frequent villains. Here, Dan Vinciguerra of materials management-stores, acts out the problem which he compounds by blocking his view. Next are rushing, getting heels and clothes snagged, and not paying attention to the lines and signs indicating wheeled traffic. Then there are people who fall down for no apparent reason. Very interesting!



Safety glasses prevented uncounted injuries last year. Still, 76 HP people managed to get their eyes hurt, and in almost every case glasses were available but not used. Microwave's Ken Lemas recently was splashed by heat-transfer salt. His face was scorched, but safety glasses prevented almost certain, serious eye damage.

Protective clothing is important where certain hazards are difficult to control—chemical splashes, hot surfaces, noxious fumes, and other irritants. The point is—use the equipment that is available. A little time spent following directions and wearing protective gear—as shown here by Harry Melikian in Paeco copper plating area—may save a lot of time lost from the job. Where emergency showers and eye washes are provided, don't clutter them up with storage. You may be the one that needs to use them in a hurry.



ent workday injuries



Dear as noontime recreation is to the hearts and souls of most of us, the fact remains that it has become a source of some of our more serious injuries. A number of overexuberant volleyball players have had arm bones and ankles sundered. A table tennis player recently flew through a plate-glass window, but miraculously escaped serious hurt. Midday athletes, therefore, are being asked to locate such games well away from hazards and to use floors that offer good footing. Play it cool.

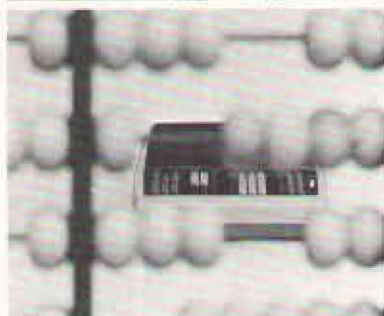


Whenever you attempt a mechanical repair or inspection inside an HP instrument, be sure the plug is pulled first. Even when the power switch is OFF, and even when the instrument is transistorized, the switch still is receiving 115 volts AC, with enough amperage to be fatal.

Then there are the "non-traumatic" injuries—that just seem to creep up on you. These happen when parts of the body structure are overloaded. For example, the blood supplies oxygen to muscle tissues where it is used in converting food to energy. When an arm, a hand, or even a back is placed under repeated stress, the oxygen requirements may exceed the supply, causing undue fatigue. New employees often overspeed and thus subject themselves to such strain. This type of injury can be avoided by spreading the workload to more muscles. Correct posture and proper use of tools are important methods. Here, Microwave's Pam Robinson exhibits wrong posture (seat should be lowered so she doesn't have to strain to reach work).



1968: HP highlights of



January

HP GmbH completed a 65,000-square-foot building, the third on its 10-acre Boeblingen site . . . HP Associates introduced a new high-performance electronic diode with multi-million-dollar sales potential . . . Full-scale distribution under way on the 1968 all-products Hewlett-Packard catalog, with 652 printed pages . . . The Eastern Sales Region completed its move into the new headquarters facility in Paramus, New Jersey.

February

For the first quarter of fiscal 1968, HP reported a seven percent increase in sales, a 10 percent drop in earnings, and record orders — up eight percent . . . Plans were announced for a major new plant in Santa Clara on a 55-acre site, with initial construction of three buildings totaling 300,000 square feet . . . John J. B. Fulenwider, a retired vice president of Hercules, Inc., was elected a director of HP . . . Mori Katakami was elected managing director of YHP, under president Shozo Yokogawa.

March

At a New York press conference, HP introduced the 9100A electronic calculator. The instrument subsequently has met with wide acceptance, becoming one of the most significant new products ever offered by the company. . . . Several dozen new instruments, systems and components were shown by 11 HP divisions at the annual IEEE show in New York City . . . Kypnics was appointed distributor of HP products in Cyprus.

April

HP marketers occupied new sales and service offices in Richardson, Texas; Rockville, Maryland; Bellevue, Washington; and Lexington, Massachusetts . . . Telectra, HP distributor in Portugal, was given the added responsibility of marketing HP's electronic and analytical in-

struments in Angola . . . Palo Alto Division introduced the low-priced 2114A instrumentation computer at the Spring Joint Computer Conference in Atlantic City, New Jersey.

May

The Moseley (now San Diego) Division announced plans to move its headquarters to a leased building in the Rancho Bernardo Industrial Park, San Diego, in September . . . The year's first profit-sharing disbursement gave more than 10,000 employees a total of \$2,325,000 . . . Second quarter sales and earnings made the quarter the best in the company's history . . . Time Share Corporation ordered five of HP's new 2000A computer time sharing systems, a half-million-dollar order . . . HP Systems Division was established to engineer and manufacture custom systems to meet customers' unique requirements . . . HP Canada opened a sales office, its seventh, in Winnipeg, Manitoba.

June

Cash scholarships of \$500 each were awarded to 33 HP sons and daughters by the HP Employees' Scholarship Fund, funded by employees and the company . . . HP placed 319th in the annual "Fortune's 500," the magazine's well known listing of the nation's largest firms . . . HP created the position of corporate equal opportunities manager . . . YHP and HP Canada began direct marketing of the company's medical products . . . Neely (Western) Sales Region announced plans for a new marketing office in Fullerton, California, to serve southern Los Angeles County and Orange County, both rapidly growing sales areas.

July

HP directors elected Edmund W. Littlefield, president and general manager of Utah Construction & Mining Co., San Francisco, to the company's board of directors, and declared the year's second semi-annual dividend, 10 cents a share

the year that now was...

on outstanding common stock... Palo Alto Division divided its operating activities into Instruments and Instrument Systems, and Data Products... Gordon Eding, Mountain View Division general manager, added the responsibility of managing Delcon Division as well.

August

For the third quarter of fiscal 1968, HP's earnings rose slightly, sales gained 12 percent and orders rose 20 percent... Two new distributors were appointed, Bah Bolon Trading Coy., N.V., in Indonesia and Electromex, Inc., in the Philippines... HP France moved into its new headquarters near Paris... At Wescon, the annual Western Electronic Show and Convention, HP exhibited a number of new products. Two products—Microwave's 11600A transistor fixture, and Palo Alto Division's 2760A optical mark reader—were among 20 products receiving industrial design awards.

September

HP employees began occupying the new San Diego Division leased plant building in Rancho Bernardo Industrial Park... Functions of the corporate standards group were decentralized, with staff members being reassigned to appropriate divisions... HP and its distributors in Singapore and Kuala Lumpur held a series of demonstrations, open houses and seminars, the first of the kind there, for customers.

October

HP announced plans to restructure the corporate organization by combining some operating divisions into groups, each responsible for related products and activities. The first group to be formed, under Vice President John Young, is the Palo Alto Electronic Products Group. Data Products are to be similarly grouped... HP instrumentation played an important role, via Mexico's new microwave communica-

tions network, in bringing the 1968 Olympics to the world from Mexico City... HP Director Luis Alvarez, a professor of physics at the University of California, was awarded the Nobel Prize for Physics... Under Dean Morton, a new team was formed at Waltham Division to coordinate the company's medical products activity.

November

HP reported record sales and earnings for fiscal 1968, with sales up 10 percent to \$266.5-million, earnings up two percent to \$20.6-million (\$1.64 a share) and orders up 10 percent to \$280-million... The company bought a new, 150,000-square-foot plant on a 46-acre site in Cupertino, California, from Varian Associates to provide a new home for HP's burgeoning data products manufacturing activities... HP announced plans to purchase a 71-acre site in San Diego's Rancho Bernardo Industrial Park for future expansion of the San Diego Division... HP Systems Division delivered its first computer-controlled custom test system to Magnavox Corporation... A new sales subsidiary was established in South Africa... The New Jersey Division was formed, combining the former Harrison and Rockaway divisions, with Don Tighe appointed general manager.

December

Profit-sharing for the second half of the year brought \$2,898,000 to eligible employees, raising the year's profit-sharing total to \$5,226,000... Dave Packard, HP board chairman, was elected a director of the Equitable Life Assurance Society of the United States... Initial distribution made of the 1969 HP catalog, the job representing more than 1 million pounds of printing paper, with 675 printed pages per copy... The contract marketing organization in San Antonio, Texas, formerly a part of Corporate Marketing, was assimilated by the Southern Sales Region.



News in brief

Palo Alto—A total of \$5,226,000 was distributed to more than 10,000 HP employees eligible under the company's cash profit-sharing plan in 1968. This compares with \$4,639,000 disbursed in 1967. Cash profit sharing has been a policy of Hewlett-Packard since its founding in 1939 and the present plan was formulated in 1962. Locations outside the U.S. have their own programs, or the equivalent, reflecting local requirements and customs.

New York—Three Hewlett-Packard products are among the 100 most significant new technical products developed by industry during 1968, according to the editorial advisory board of Industrial Research magazine. The board's selections included the 9100A desk-top calculator, HPA's strip-line PIN diode, and the 204C oscillator developed at Loveland.

Fullerton, California—Construction of a new 12,500-square-foot district

sales office is well under way here, with completion scheduled for March. The office, located near the intersection of the Riverside and Santa Ana freeways, will provide headquarters for a new Orange County sales district of Neely-Western Sales Region.

South Queensferry, U.K.—Dennis Taylor has been appointed managing director of Hewlett-Packard Ltd., the company's manufacturing and marketing subsidiary in the United Kingdom. He succeeds David Simpson, managing director since 1962, who is resigning to accept a position with the Industrial Reorganization Corporation, effective February 1. Taylor is presently Northern European sales manager with offices in Slough, England. Dick Alberding, managing director of HPSA in Geneva, will assume Taylor's European marketing functions for the time being. Simpson will serve as group manufacturing

director for a government-sponsored body whose aim will be to increase the United Kingdom's competitive effectiveness in world instrumentation markets. "His experience and dedication will be greatly missed by all of us at Hewlett-Packard," said President Bill Hewlett in announcing the change.

Palo Alto—The company has established a Far East area marketing office in Singapore. Albert W. Hannmann has been appointed Far East area manager, transferring to Singapore from the company's International headquarters in Palo Alto, California. The office will enable HP to provide closer liaison with the company's 17 distributor organizations and their customers throughout the Far East, excluding Japan. Singapore is centrally located in the new office's territory, which reaches from India to the Pacific islands and from Indonesia to Korea.

People on the move

Corporate—George DeLannoy, to corporate finance, from finance staff, HP Labs; Neils Tonnesen, to corporate exhibits manager, from exhibits coordinator; Pete Wyatt, to inventory control, parts inventory scheduler, from government packaging, Customer Service Center.

Colorado Springs—Mike Wilson, to process engineering, from corporate process engineering.

International—Franz Nawratil, to sales promotion manager, HP VGmbH, from marketing engineer, Loveland; Jack Summers, to sales manager, AAA sales region, Palo Alto, from marketing staff, Microwave; Don Andrushko, to sales engineer, AAA sales, Palo Alto, from training program, F&T.

Palo Alto Electronics Products Group:

F&T—Dominick DeSimone, to frequency standards development, from physical electronics lab, HP Labs; Al Linder, to service engineer, marketing, F&T Nuclear, from engineering, F&T Nuclear; Don Newport, to expediter-scheduler, materials management, from production control.

Microwave—Jim Fleming, to R&D, from in-plant engineering, F&T; Dick Hackborn, to section manager, systems R&D, from marketing staff; Irv Hawley, to signal analysis lab, from production engineering; Orland Hugill, to microcircuits, from QA maintenance; Dennis King, to systems R&D, from marketing; Cal Logan, to in-plant tool engineering, from tool engineering; Jim Meyer, to microcircuits services, from solid state lab, HP Labs; Ken Nishikawa, to microcircuits, from solid state lab, HP Labs; Frank Wilcock, to production engineering, from tool engineering.

Waltham—Jim Aldrich, to promotions manager, from trade show coordinator; John Allen, to engineering section leader from engineering leader; Byron Atwood, to staff engineer, from order processing coordinator; Al Baltazar, to finance manager, from manager of general accounting; Tom Curran, to marketing services manager, from technical publications manager; Burt Dole, to manufacturing manager, from fabrication manager; Al Curtiss, to engineering section leader, from engineer-

ing leader; Ron Gosk, to sales engineer, from service engineer; Dick Hanson, to regional sales manager, from sales engineer; John Black, to fabrication manager, from fabrication section manager; Tom Myette, to order processing manager, from master scheduling manager; John Flaherty, to personnel manager, from personnel training supervisor; Wes Draper, to personnel training supervisor, from order processing manager; Mort Levin, to medical engineering manager, from engineering section leader; Stan McCarthy, to recorder engineering manager, from engineering section leader; Lew Platt, to recorder marketing manager, from marketing services manager; Ken Patton, to engineering section leader, from engineering leader; Jim Peterson, to regional sales manager, from sales engineer; Dennis Terazawa, to trade show coordinator, from test leader; Don Webster, to technical publications supervisor (recorder), from graphic arts supervisor; John Sullivan, to line supervisor, from line leader; Joe White, to recorder section manager, from production engineer; Joe Brown, to recorder manufacturing engineering manager, from production manager.



from the chairman's desk

Tuesday, December 31, 1968

Monday, January 6 will be my last day on the job at the company because I will have to begin to prepare for my new job with the Department of Defense. Although this assignment with the government is subject to confirmation by the Senate, and does not start until after January 20, there is much to learn and much to do before then. I will spend most of my time from now on in Washington, but Bill Hewlett and I will be in close touch for the next two or three weeks.

I could not have considered leaving the company at this time unless I was quite sure we had a strong management team to carry on. With Bill Hewlett at the helm, with Noel Eldred and Ralph Lee working closely with him on the overall problems, and with the many very able people in all of the key management jobs throughout the company, I have no doubt you will all do just as well, perhaps even better, without me here.

The changes we have been discussing in depth over the last six months to move to a group structure in the company organization anticipated that sooner or later there would be changes in the top management. The groups that are now being established give more responsibility to more people and make the company less dependent in the long run on both Bill and me, and that is how it should be.

While I have no doubt about the future of the company, it does not follow that my decision was an easy one to reach. Leaving Bill Hewlett and all of my wonderful friends throughout the company for the complexities of government service will be difficult. But, it is also difficult for the thousands of young men who are drafted away from their educations and their business careers for service in

Vietnam. Thinking of it in those terms, I could hardly refuse.

Looking at it more broadly, I am also mindful and concerned that our great country is under constant attack by a ruthless enemy. The enemy is difficult to identify and confront because it takes many forms. Internationally, it is communism, commonly identified with Russia, China, and North Vietnam. But it also includes the communists who operate in all of those countries that are friendly to us throughout the world.

Here at home, the enemy is not just communists but the extremists found in the new left, in some of the student organizations, in the black power movement, and in various other groups. These people have the false notion that socialism, communism, or some other ism, will provide a better life than does the open, democratic, free enterprise society of America.

Our experience here over the past 30 years in working together to build the Hewlett-Packard Company is a living and proud example of the fact that the American society, the democratic concept of government, and the free enterprise of an economy provide the best system this troubled world has been able to devise. It may not be perfect, but it is the best that has yet been demonstrated. It is the responsibility of all of us to keep it that way.

Hewlett-Packard will record many achievements in the years ahead. As it has always been in the past, these will come about because of the enthusiasm and dedication of HP men and women everywhere. As you move into what I know is going to be one of the most exciting periods in the history of the company, I wish you well.

David Packard



The call to service...

As most people in the company must now know, Dave Packard has accepted appointment, subject to Senate confirmation, as Deputy Secretary of Defense in the incoming Federal administration. At press conferences in Washington, D.C., and Palo Alto (pictured above), he outlined some of the reasons for his acceptance of the assignment. Then, over the New Year holiday, amid the complexities of disengaging from his many business and civic roles and preparing himself for the burdens of Pentagon duty, Packard took time to write out for HP people (see page 15) a summary of those reasons. They reflect a decision that no one in the company welcomes, but that all can understand and respect. Further, there is the definite knowledge that the Department of Defense is getting what a San Francisco Chronicle editorial described as "an uncommon man, with uncommonly sound judgment . . ." The nation will be well served.

1501 Page Mill Road, Palo Alto, California 94304

CONTRIBUTING EDITORS — ANNUAL
 Dave Packard • COLLEGE SPRINGFIELD, ILL.
 Allen • EASTERN BELL, BIRMINGHAM, ALA.
 FREQUENCY & TIME, KATY, MINN. • HARRIS
 RICH • DOROTHY MCKAY, SAN FRANCISCO
 CARL • JERRY RAY, SAN FRANCISCO
 AMERICAN, SAN FRANCISCO • BRUCE
 YOUNG AND • HP (CANADA), DOUGLAS, MASS.
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 • WATKINS, JOHN DOW • V&P,
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EDITOR
 Gordon Brown

ART DIRECTOR
 Tom Martin

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