

Measure

For the men and women of Hewlett-Packard/NOVEMBER 1968



Two magnificent cities dominate the Australian scene. Sydney, with more than 2.5-million people, tends to be modern, aggressive and lively; Melbourne, with just over 2-million population, is more conservative and quiet, but still a center of dynamic growth.



AUSTRALIA:



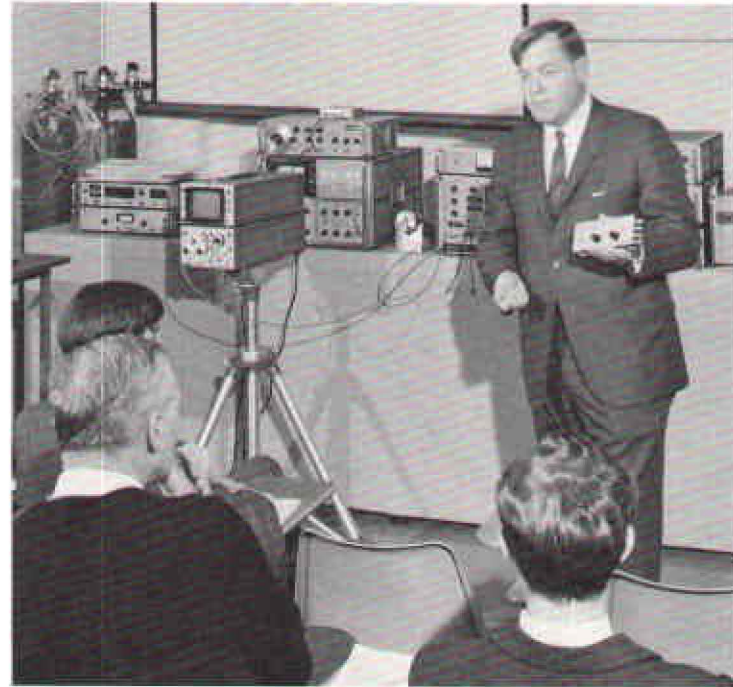
the new

New World





Keeping up technically and in salesmanship receives special emphasis on training and exchange. Efforts include seminars by such visitors as F & T's Jack Klinger, photo at right, concerning nuclear products; also missions such as Derek Barlow, sales manager, recently made to other parts of HP organizations. Barlow, above right, confers with Walt Robson, Corporate Training TV production chief, on the use of videotape unit.



□ A is for Australia. That's as good a way as any to begin describing this land, the only country that's also a continent, the oldest geological expanse that is also one of the world's newest industrial centers, a living museum of prehistoric men and animals that is fast becoming a frontier for science and technology.

Contrasts seem to come naturally to Australia. A huge country equal in size to the 48 states of the U. S. mainland, it supports a population of under 12-million people who congregate in areas representing only about five percent of the land. Yet Australia is among the top 12 trading nations of the world. Along with the world's largest sheep population at 157-million head, it also is the largest producer of lead, and one of the big four wheat exporters. The Australians and their New Zealand neighbors are among the most fully protected people in terms of life-long social security, yet they are noted individualists with a capacity for adventure and challenge that far exceeds their numbers.

On the economic and industrial frontiers in particular, great changes have become suddenly visible in almost all directions. The Outback, for example, once the haunt of the lonely prospector, is being scoured intensively by modern geophysical teams seeking more of the iron ore, bauxite,

lead, copper, natural gas and oil that have been uncovered in vast quantities. Major sections in a "round Australia" telecommunications system will be completed during the next two years, linking the continent's widely scattered settlements in one network some 20,000 route-miles long. A population surge, greatly accelerated by a massive immigration program, has fostered a building boom in housing, schools, universities, factories, hospitals, research programs, offices, government projects, and recreational facilities.

To meet these needs, Australia has more and more had to call in modern technological methods. One result is that the area, including neighboring New Zealand, has become one of Hewlett-Packard's fastest growing markets. In fact, the sprinter's pace of sales growth experienced there in the past few years has left HP Australia Pty. Ltd. just a little breathless trying to keep up. John Warmington, general manager of HP Australia, took note of some of that experience for MEASURE:

"We've had a number of challenges to face since the HP portion of the Sample distributing organization was acquired in July last year to become the nucleus of HP Australia. There was first the problem of covering this huge continent out of offices in Melbourne and Sydney.

(continued)



AUSTRALIA



Strong emphasis on development of natural resources, such as petroleum project at left and, above, the Snowy Mountains hydroelectric scheme, is helping transform Australia from a largely agricultural producer into a diversified economy with a high degree of sophistication. That change underlies the rapid growth of HP Australia.

"Since then we've established new offices in Adelaide and Wellington, New Zealand. Early next year we will be opening an office at Perth, and later we expect to open branches in Brisbane and Canberra.

"The biggest challenge has been in the recruiting and training of people. Some of the original staff, which numbered 27 people, had experience in the electronics field. But entry into the medical, chemical and data handling disciplines has been an entirely new venture. Meanwhile sales have gone up more than four times their 1964 level. As a result, we now have 44 people and probably will reach 60 by the end of 1969."

Some of the problems of selling in a boom market were described by Derek Barlow, sales manager, who came to the organization from New Zealand two years ago:

"Just the problem of stock can be difficult — it's practically sold immediately. Or, take salesmanship. Although we are now completely oriented to the HP corporate approach of doing business, when we became an HP operation there was naturally some lingering heritage of the 'agent' — of non-technical sales representation. On the other hand, some of the technical people we brought in to counter this were not sales oriented. So we've had to work it out from both directions by emphasizing the selling approach and intensifying our technical capabilities."

The need to do this sort of thing, even when the market seems to be on the boil, becomes clear when certain other factors are examined. For one, there is no shortage of

competition from both imported and domestically produced instruments. For many sales, HP Australia has to bid against local products protected by tariffs and duties that raise the price of importation more than 45 percent over list price. In addition, most of the corporation's traditional competitors from the U. S. and Europe are represented in the Australian market.

Still, there is solid ground for optimism, even though it is unreasonable to expect that the spectacular sales growth rate of the past decade will continue indefinitely. During his recent visit to Palo Alto, Barlow stated that "Australia is ready for the scientific computer and the calculator. Our major customers are becoming very systems oriented, and that's what we have to be alert to in our planning for the future. Our growth record to date has been based on being there with the right instrument — many new instruments — at the right time.

"At the moment we are participating in a proposal to computerize highway lighting controls. We have other prospects for these instruments among both our traditional and non-traditional customers — including a big pipeline engineering concern. We will also be installing some very sophisticated patient monitoring systems. At Royal Adelaide Hospital a special building will contain our most advanced equipment linked to a computer."

Although the marketing responsibility of HP Australia extends from Melbourne headquarters some 3,000 miles west to Perth, 3,000 miles north to New Guinea, and



International and local manufacturers provide stiff competition for HP products in Australia. But by meeting needs for new instruments, such as calculator indicated here by Malcom Kerr, and instruments such as 180A scope under Don Simmons' hand, sales have soared for past ten years. Both men are field engineers.



More room to accommodate fast growth of HP Australia occupies Barrie Sutton, business manager, John Springhall, service, and John Warmington, general manager.

another 3,000 miles east beyond New Zealand to the Fiji Islands, there is no feeling in the organization that distance is any particular problem. Air service is good, and taken for granted. Highways in the heavily settled east are up to international standards. Sales offices are being located strategically with respect to population and market centers.

Indeed, Australia in its major metropolitan areas bears a striking resemblance to cities of North America or Europe. Traffic and parking are the same pain in the neck but — so far — no smog. Urban congestion and suburban sprawl are prevalent. High-rise construction dominates the horizons. And an evening in Sydney or Melbourne now can be quite cosmopolitan and complete, thanks in part to the recent relaxation of pub licensing hours and to the very evident influence of New Australians — the hundreds of thousands of Britons and Europeans who have made Australia their home in recent years.

Some of that influence is seen in the HP organization which contains people from at least eight countries outside of Australia and New Zealand. They are there for the same reasons that more than 100,000 people from almost all parts of the world each year pack up their dreams and head down under.

And in its own quiet and constructive way, Australasia is providing these people with all the challenge — the chance to grow, the new life, the freedom from traditional barriers, the almost horizonless frontiers — that any modern pioneer could hope for. □



Hewlett-Packard New Zealand, Ltd., a subsidiary of the Australian company, exhibits here at the annual electronic convention. Don Watson of Wellington office discusses 180A scope with visitors.



With data processing, medical and analytical markets growing rapidly on top of traditional electronic market, service responsibilities have mushroomed in Australia as elsewhere. Data acquisition system is tested by Graeme Brown, below; other instruments are checked at Melbourne office by Bruce Marsh, left, and Walter Buturlin.



Last month's announcement that Hewlett-Packard was restructuring its corporate organization by combining some of the operating divisions into groups didn't impact very heavily in the daily newspapers. They saw it generally as an inside story, not of wide public interest though no doubt of great importance to those immediately concerned. And indeed there was no mistaking the interest and importance attached to it by the 3,000 people in Microwave, F&T, Paeco and HP Associates. They were to become members of the first new group, tentatively named the Palo Alto Electronic Products Group, on November 1. There were also several hundred people who would form the nucleus of a Data Products Group next year.

But the whole company — 13,000 people — took notice because, obviously, the group structure was going to become the architecture of the corporation's future. What are the reasons behind it? What are the expectations held for it? And what might it look like? Answers to these primary questions were forthcoming from John Young, newly appointed vice president, former general manager of the Microwave Division, a principal in designing the group concept, and the man who now has the responsibility for leading the new electronic products team:

The group: a new kind of team, a

Why the change?

"Consideration of change has been going on for some time. However, the emphasis for forming a group structure began about four months ago. In a presentation to the June general managers' meeting on the division's view of marketing, Al Bagley and I concluded that many of the marketing problems being considered were in fact symptoms—symptoms of a fundamental nature that related directly to the HP organizational framework.

"We suggested in our presentation that we needed to contemplate moving toward a group structure as the company grew larger and operations became more complicated. A number of things began falling into place as we discussed with the field sales managers the idea of segmentation in electronic markets. It was clear that a complementary organization was needed if we were going to match up activities between factory and field.

"Further, I think that Dave Packard and Bill Hewlett feel that this move, with a decentralization of some of the top management load, is quite important for the future. It

will be increasingly important to maintain flexibility in decision making as we increase in absolute size and the diversity of product areas.

"The group concept is a genuine thrust in that direction. The responsibilities that we expect to have, along with the freedom to carry them out, are consistent with that idea.

"So what we are really trying to do here, I think, is provide a structure with which we can move ahead from the point we now have reached — that is, an organization of divisions having a reasonable degree of independence. These units serve well while we are a medium-sized company. But as Hewlett-Packard approaches the time of becoming a billion-dollar company, we need a structure that maximizes the return on all of our resources — from technical investments to physical facilities — yet retains the key elements of flexibility and individual freedom and initiative.

"We are basically a large company made up of many small businesses, and we want to provide a structure that continues to emphasize this freedom."

How about people?

What can they expect?

"There is no question the change will open up a wider range of opportunities and alternatives both for the company and individuals within the company, even though the day-to-day activities of most of our 3,000 people in the group will continue much as they have.

"There unquestionably will be greater opportunities for new job assignments and exposure to new experience and technical challenges.

"We can look forward to greater cross utilization of talent as well as technology and facilities. The group structure, therefore, should enable our people to contribute on a broader basis, and receive recognition and reward on the basis of group performance. This should help offset the factors that have, to some extent, tended to restrict interchange between divisions under the old structure."

What will the group's basic structure look like?

"The number one objective of the group is growth — business growth

At briefing session for management people in the new electronic products group, John Young emphasized growth as the team's foremost goal.



blueprint for growth

and personal growth of its people. Basically, the new group management team is made up of the group manager who reports to the president, then accounting, personnel, manufacturing and marketing departments. These departments will take on a number of the service and administrative functions previously handled by corporate departments. At the operating level we will have three product marketing divisions—Frequency & Time, Microwave, Hewlett-Packard Associates—plus a new manufacturing division. This latter division represents a consolidation of the various fabrication, component production, and materials handling functions. Paeco is included in this consolidation.’

How will it function?

“The way to look at the group structure, I feel, is to invert the organizational pyramid and give recognition to the fact that the project or product areas of the divisions are the growth points. In doing this it puts the key project people, who are our business builders, in closest contact with top management which can then serve them better. These

project areas are, in fact, small businesses in themselves, and our group is composed of a number of such businesses that must have the freedom to grow as businesses.

“This point of view, I think, will enable us to ask questions about problems and opportunities that weren’t asked previously because of the partitioning between the divisions. Some product changes have already been made with a view of strengthening and unifying their activity as a result of this approach.

“In manufacturing, for example, we now can see our way more clearly in proposing an investment that will greatly improve the productive capability of our equipment.

“We will be able to work directly on a number of ways of creating greater interaction of ideas between engineering groups, especially in instrument data systems and more fully exploiting our technology through sales of components.

“In marketing we will be working very closely with the field organizations where important tests are underway concerning the way our products will interface with their markets. This is a key question for

the company at this time. There are now too many products and too many market segments for us to send out an all-purpose ‘answer’ man. Our customers for the most part are looking to us for help in solving problems that are increasingly complex in terms of the instrumentation and technologies involved. In becoming structured to this kind of market-problem orientation, the sales regions will be creating the need for a home organization that relates clearly with the field marketing structure. That is one of the principal assignments of this group.

“These are among the many opportunities we will have to better our performance and improve the return on our investments. A number of details, including names of some key people and specific organizational changes, are still to be solved. We have not even settled on a particular name for the group.

“But we are a team—a new kind of team as far as Hewlett-Packard is concerned—and I think it is going to add greatly to the adventure and opportunity all of us want in our work.”

CHARTER CONSTRUCTION

THE CHEMICAL COMPANY

METROPOLITAN SANITARY DISTRICT
OF WASHINGTON (MSD) 1910

GENERAL ELECTRIC



The Firestone Tire & Rubber Company

PARKE-DAVIS

HIGHWAY SAFETY RESEARCH INSTITUTE

Monsanto

ANACONDA AMERICAN BRASS COMPANY

“Sir,” the writer wrote,
“I am shy.
Please send, quietly,
Bulletin No. 2370A.”

NATIONAL TANK COMPANY

The Quaker Oats Company

KOPPERS

MEMO

U.S. TREASURY DEPARTMENT

THE NEW BEDFORD GUNBOAT

The Goodyear Tire & Rubber Company

PHILADELPHIA QUARTZ COMPANY



FMC CORPORATION

CONTINENTAL TIRE COMPANY

THE NEW YORK BLOOD CENTER

Vanderbilt University

INSUREX

THE ROCKEFELLER UNIVERSITY

L

□ That letter, received recently by Hewlett-Packard, stands in spite of its brevity as the perfect model of reader response to industrial advertising. First, the reference to "shy" is the sly playback of a thought expressed in the ad's text concerning "the electronics-shy analyst," clearly establishing that the letter writer really had read the ad thoroughly. Second, the note was on an impressive letterhead—one of the world's leading drug manufacturing firms. Third, the signature revealed the writer to be a scientist, an excellent prospect for the digital integrator discussed in the ad. Finally, his request was specific—something that could be acted on and followed up by the HP analytical marketing and sales people.

It happens that the same ad also drew many requests for a brochure on the new desk top calculator, for data on the HP multichannel analyzer, and for copies of HP JOURNAL. Such a multiplicity of response might seem alien to general advertising practices, with ads dealing most often with one subject or product at one time.

But there's no disputing the effectiveness of the new-style ads HP has been running in such prestigious publications as SCIENTIFIC AMERICAN, SCIENCE & TECHNOLOGY, SCIENCE, and CHEMICAL & ENGINEERING NEWS.

What's new and different about them? Primarily, these new HP corporate ads consist of groupings of up to five different product stories in the same ad. To some extent the stories are modular, that is, interchangeable so that special ads can be assembled to emphasize certain product capabilities. But, by and large, each ad reflects the fact that Hewlett-Packard is a multi-faceted technical company. The advertisement reproduced on this page, for example, talks about our new light-emitting diodes, computing and calculator capabilities, about the atomic absorption photometer, about medical uses of the ultrasonic diagnostic sounder, and about atomic clocks.

In other ads, such subjects as neurology, spectrum analysis, gas chromatography, computing, recording, signal averaging, neutron activation, and patient monitoring are discussed. Still other product stories are in preparation for ads that will appear in 1969.

The language of the product stories is calm and conversational. It doesn't announce or introduce: that's the job of the divisional advertisements that appear in magazines circulated among readers representing particularized market segments. The corporate ads must appeal to the worldwide

technical community that reads the broad circulation scientific publications—or to readers with an interest in analytical techniques and medicine, fields in which HP is developing a major position.

The hope and expectation, according to Russ Berg, corporate advertising manager, is that scientific and engineering managers among that multi-million community of readers will find the ads informative and worth their while reading. They need not actually reply in writing to the various offers in the ad, although that is desired. If only such men—so influential in many areas of interest to the company—will acquire a product-centered awareness of HP's great depth of capability in measurement, analysis, and computation. If it delivers such an impression, they and their organizations will become more receptive to the other promotions and sales approaches the company makes in marketing its products.

That's the objective and, as far as can be determined, it is being achieved. Certainly, the written responses have been voluminous and significant, and have provided some new insights into market areas. Consider these unusual sources: a county sheriff's department, a watermelon and grape investigations lab, a highway safety researcher, a textile mill, a metropolitan sanitation district, a zoologist, an orange growers' association, a psychologist and an architect. And there were some revealing expressions of interest, such as: the dentist who wrote "there may be a use for the diagnostic sounder in dentistry"; the businessman who said "my father is attached to two of your units in the coronary section of the York (Pa.) Hospital, thank you for developing and marketing them"; the lady who asked "What provision is made for the patient who is obviously unable to read your booklet and regains consciousness 'plugged in'"; and many others.

But for the most part the letterheads have indicated real customer-type respondents—research labs, university departments, corporation technical men, hospital heads, school administrators, purchasing agents, government departments, and engineering consultants—letters signed by men of real stature in their fields.

In time, many of those same names may show up on requisitions or purchase orders for the items advertised, or for others they subsequently discover, or may influence a name that will appear. And that's what it's all about. □



Systematized, Lineal, Optional Phrase Selection System

If you're one of the many people who must prepare, present or listen to plans, then the Systematized, Lineal, Optional Phrase Selection System — SLOPSS for short — is for you. At this season particularly, it can be a real help in the rush to firm up next year's planning. It can help make vague ideas sound solid. It can give old ideas a real warmed-up glow. Basically simple programs can be elevated to large new status. And thoughts you would rather not talk about — but must — can be phrased out, so to speak.

SLOPSS is quite easy to use. Any ABC combination of words numbered below should result in a phrase that has a meaningful ring to it. In using SLOPSS, the secret is to employ plenty of phrases and say them fast in order to disguise their probable lack of A3-B7-C6 (see below).

| A | B | C |
|-----------------|------------------|----------------|
| 1. Optional | Standardized | Sophistication |
| 2. Functional | Management | Flexibility |
| 3. Viable | Systematized | Dialogue |
| 4. Logistical | Environmental | Projection |
| 5. Transitional | Balanced | Programming |
| 6. Variable | Synchronized | Concepts |
| 7. Responsive | Structured | Orientation |
| 8. Total | Monitored | Mobility |
| 9. Compatible | Automated | Capability |
| 10. Auxiliary | Digitalized | Parameters |
| 11. Vertical | Third generation | Motivation |
| 12. Reciprocal | Organizational | Interaction |
| 13. Meaningful | Policy | Matrix |

Try stringing a few combinations together. For example, how about: “An auxiliary policy projection based on total, systematized capability and compatible, environmental parameters leading to vertical management mobility coupled with responsive organizational interaction!”

That almost makes sense. With a little practice, you, too, should be able to come up with something equally SLOPSSy.

NIGHT and DAY



Twenty or more of these containers full of trash emerge each night from the HP Stanford plants. Quite a few items mistakenly dumped or overlooked are salvaged. Wheeling the big "Dempsey Dumpster" here is Albert Inur. Maintaining good lighting level in main Stanford plants requires the replacement of some 250 fluorescent tubes each month. It's a function that helps keep Gilbert Dellamaggiore on the move.

here's a look at the HP men

**who take round-the-clock care
of cleaning, coffee, furniture,
repairs, lights, etc., etc., etc.,**



□ With the sole exception of the HIPPIE HOMEMAKER & GROOMING GUIDE, publications dealing with the topic of living and working conditions stress the importance of cleanliness and orderly arrangements. It's not a matter of moral judgment, either. It's just that most people are happier when things are neat and tidy. In fact, the people who handle the housekeeping chores in the various HP organizations have found that employees respond positively to well-kept working environments.

"You'd be surprised at the difference a little extra attention in housekeeping makes," said Dick Ely, manager of the building services group in the Stanford-Palo Alto area.

"If we do our job right then the people who work there will also make the effort to maintain a standard. They'll use the ashtrays and wastebaskets instead of the floors. And they'll straighten away their benches and desks at the end of the day.

"It makes life easier for everyone!"

The big job of cleanup takes place at night between

(continued)

NIGHT and DAY

All through the night Luis Morcillo's buffing machine brings restored lustre to Palo Alto Division floors. He's one of several hundred men on the job throughout the company from 10:00 P.M. to 6:00 A.M. A native of Madrid, Spain, Luis has been with the company four years.



Building Services men such as Bill Donahue, left, and Ted Pawlak take pride in doing a good job even if it is done in the obscurity of the night. Studies show that good cleanup contributes to work performance.

The nightly cleanup starts with ashtrays and wastebaskets — thousands and thousands of them filled with all kinds of debris. Here Barney Barnes tends to those tasks in F&T manufacturing area.



10:00 P.M. and 6:00 A.M. In the Stanford-Palo Alto area, approximately 100 building services men — all of them HP employees — swarm through the various plants and offices with polishing machines, mops, brooms, dust rags, and trash containers. Floors are polished every week and swept or mopped nightly. The accumulated daily trash fills twenty or more large containers.

Daytimes, the eight or so maintenance men take over. A day's assignments may include replacing lights, moving desks and work benches, driving the local shuttle service, assembling partitions, repairing broken furniture, erecting drafting tables, and responding to a dozen minor emergencies requiring special manpower services. Complex jobs



After this complete refinishing job, floors can go for years without major attention, thanks to daily cleaning and polishing. From left are Ernie Gonzales, Bart Castorena, Howard Sharboneau, Tony Mendoza, and Cal England.

such as electrical wiring or plumbing are referred to the technical maintenance group.

The building services team has one further responsibility that definitely involves morale—the coffee and doughnut service. Each day the coffee makers use 150 pounds of coffee to brew 700 gallons for distribution along with 370 dozen doughnuts.

Similar services and activities take place at company locations outside the Palo Alto area. In a number of cases, however, the custodial service is handled by outside contractors, while coffee (or tea) is a sideline to cafeteria service. The goal and end result are the same: good housekeeping that all can approve. □



Piping-hot coffee from 90-gallon brewing vats is pumped into 1½-gallon pots for Palo Alto-Stanford area plants by Tony Pascual, left, and Ray Mierendorf. Quality is very carefully watched as is in-time distribution: Who wants 4,500 instant critics?



Heavy engineering bench is an easy move for special dolly and Building Services crew. From left are Al Felt and Stan Martinez. They handle movement of furniture for cleanup and for departmental relocations.

Palo Alto—John Young has been appointed a vice president of the company and placed in charge of the newly formed Electronic Products Group in Palo Alto. John Doyle, former manufacturing manager of Microwave Division, will serve as manufacturing manager for the group, and Bill Johnston, Microwave finance, will head up the accounting function. Still to be named are managers for personnel and marketing. Succeeding Young as general manager of Microwave is Paul Ely, formerly the division's engineering manager. Microwave, F&T, and HPA are the three divisions making up the new group, along with a new manufacturing division that includes Paeco. Doyle, in addition to his group responsibilities, will head this new manufacturing division that will provide various

fabrication and component production services to the product marketing division. Other new assignments within the divisions resulting from the change are summarized below in People On The Move. Objectives for the new group structure are reviewed on pages 6-7.

Waltham, Mass.—A new team to coordinate all medical products activity for the company has been formed at Waltham Division. Dean Morton, formerly engineering manager, has been named medical products manager with responsibility for development and marketing of medical products at Waltham and for policy and coordination of all corporate medical products, including field and laboratory activity. Development and marketing of industrial products at Waltham, including

recorders and recording systems, will be headed by Bob Hungate.

Rockaway, New Jersey—Rockaway and Harrison divisions have been merged into a single operating entity named the New Jersey Division, effective November 1. Approximately 360 people are included in the new division, to be managed by Don Tighe. Bill Myers will be operating head at Rockaway. Other management assignments include: John Blokker, engineering; Art Darbie, marketing; Charles Horvath, finance; John Ricci, personnel; manufacturing will be headed at Rockaway by Paul Bastow and at Berkeley Heights by Charles Whitesell; Sales managers are Glenn Green for Rockaway products and Marsh Johnson for Harrison.

People on the move

Corporate—Don Hendrickson, to inventory information, parts inventory scheduler, from receiving department staff, Customer Service Center; Bob Lowery, to inventory information (scheduler), from open order processing, Customer Service Center; Vincent Nicholson, to HP Labs, electronics research, from software consultant, HP Australia; Gary Ruppel, to Palo Alto personnel staff, from order processing, Customer Service Center.

Harrison—George Kremer, to contract administrator, marketing department, from quality control manager; Jerry Virzi, to quality control manager, from design engineering.

International—Cleve Brooks, to asst. manager, ICSE, from order processing supervisor; Gil DeVries, to staff engineer, HP France, from training, International; Olaf Meyer, to field sales engineer, HP Denmark, from product training, corporate Marketing; Kyo (Gi) Nakatsukasa, to manufacturing, YHP, from International training; Tom Talbott, to manager, systems and statistics, International, from accounting staff, Neely Sales (Palo Alto); Tony Vossen, to managing director, HP Benelux, from manager, Amsterdam,

Mountain View—Earl Garthwait, to in-plant production engineer, Mountain View, from tape heads staff, Paeco; Bill Sayre, to finance staff, Mountain View, from corporate finance.

Palo Alto—Tracey Storer, to lab director, Data Products, from nuclear instruments, F&T.

Palo Alto **Electronic Products Group:**

F&T Division—Dick Anderson, to R&D lab director, F&T, from network analyzers, Microwave R&D; Wayne Danielson, to plant engineering, F&T, from corporate plant engineering; Jim Stinehelfer, to production engineer, from in-plant engineering, environmental test; George Wertz, to plant engineering, F&T, from corporate plant engineering.

Manufacturing Division—Don Borthwick, to materials specifications, from corporate manufacturing engineering; Pete Brink, to manufacturing systems manager, from marketing services manager, Microwave; Bob Cornell, to materials management, from same position, Microwave; Jim Ferrell, to engineering manager, from manufacturing engineering manager, Microwave; Rod Harris, to materials management, from warranty systems,

corporate Management Services; Don Thompson, to process shop, engineering services, from corporate process engineering; Doug Wright and Dick Yokota, to manufacturing engineering, from corporate process engineering.

Microwave Division—Bill Ashton, to finance manager, from cost accounting supervisor; Jerry Bender, to production engineer, from production QA manager; George Bodway, to microwave components manager, from section manager; Rod Carlson, to engineering manager—signal analysis instruments, from section manager; Ron Church, to manufacturing manager, from signal analysis production manager; Harley Halverson, to engineering manager—RF and microwave instruments, from section manager; Al Harber, to stores coordinator, from shop control, tool crib supervisor; John Hearn, to analytical instrument program manager, from project leader; Charley Price, to marketing staff, Microwave, from HP Labs, solid state; Gordon Scott, to production engineer, from technician; Dick Shores, to manufacturing supervisor, from production engineering; George Springer, to marketing staff, from environmental test; Dick Vrzal, to computer systems production, Microwave, from inventory control, Customer Service Center.



from the chairman's desk

November 1 is an important date for our company because it is the beginning of a new fiscal year and thus a time to both evaluate our past progress and to rechart our course for the future. The year 1968 has been a period of change. This change is in part the result of a changing environment, a changing economic climate. More importantly, this change is a considered redirecting of our course for the future.

When we set our targets for 1968 we did not give sufficient recognition to the changing environment. Because of this, our performance both in terms of orders and shipments fell short of our original goal. Fortunately, we recognized early in the year that our original targets were unrealistic, and we were able to readjust our operations to achieve a reasonably satisfactory result for the year.

As a result of this readjusting of our targets during the year, we have also been redirecting our course for the future in some very significant ways. Most important, we have come to recognize that the trend toward more complex instruments, toward measuring systems instead of measuring instruments, and toward the increasing importance of computer technology, will have a very large impact on our future as a company.

This trend is clearly apparent in the operating results for 1968. Our older product lines—counters in the F&T Division, audio video products at Loveland, industrial products at Waltham, among others—generated little growth and were under increasing competitive pressure. This trend is certain to continue into 1969 and beyond.

On the other hand, our computers, our new calculator, and our computerized systems grew very rapidly and it was our success in these newer areas of interest which made 1968 a reasonably satisfactory year in total.

Our targets for 1969 reflect a continuing trend in this direction. Markets for our traditional electronic instruments will be soft, opportunities for our newer products will continue to expand.

As we move into these newer areas and have to face the prospect of a leveling off in our older markets, it is very important that we adopt an appropriate strategy. We must provide reasonable support for our older areas while making increasing investments into new areas. The problem is how to strike a balance between these two demands on our resources.

We have faced this same problem many times in the past. Our decision has always been controlled by the objective of keeping our profit at an acceptable level. This provides the best overall guide for management decisions, and at the same time assures that we will generate the resources to build for the future. We do not intend to change this basic policy.

This means for everyone that our entire operations will have to be under a very tight rein over the next few years. It is the job of all of us to keep the day-to-day activities at the highest level of efficiency so we can remain as competitive as possible in our traditional areas and at the same time build strength in new areas for future expansion and growth.

The job will not be easy but it will be challenging and exciting. If we are successful, as I am sure we will be, there will be great rewards for everyone as we move ahead into the future.

David Packard



Luis Alvarez, HP director

Wins Nobel Prize

For his "decisive contributions to elementary particle physics, particularly his discovery of a large number of resonance states, made possible through his development of the technique of using hydrogen bubble chamber and data analysis," Luis Alvarez last month was selected by the Swedish Academy of Science to receive the world's top honor in science. The prize, created by Alfred Nobel and first awarded in 1901, this year is valued at a record \$70,000. Alvarez' work on which the 1968 award is based, was performed at the University of California, Berkeley, where he is a professor of physics at the Radiation Laboratory. Dr. Alvarez has been a director of Hewlett-Packard since 1957.

RETURN REQUESTED

1501 Page Mill Road, Palo Alto, California 94304



ART DIRECTOR
Tom Martin

EDITOR
Gordon Brown

Measure

CONTRIBUTING EDITORS—AVONDALE, CHARLES BRADY, DOLCOUR, SPANZIO, ED. LIGHT, EASTMAN, SALES, BIRNBAUM, DAN. FERGUSON & THE, KERRY, JAMES, HAN. RICHON, GUY, KIMBLE, HP ASSO. CLATES, SUZANNE GARRIT, HP BENLUX. AMSTERDAM, CONNY KOEDAM, BRUSSELS. YVELLE ANDRÉ, HP (CANADA), DOUG RIDGEC. HP GENEVA, RUS-DIEZEL, LAUD, HP FRANCE, JACQUES BRUNER, HP LTD, SOUTH. QUEENSFERRY, ISOBEL PATRICKSON, SLOUGH, MAU. ROAN PHILIPPO, HP S.A. SID MANN, HP MORGAN, HANNOVER, ENGLAND. NANCY BURBANK, MCDONALD, FARM WIL. GORDON, HANNOVER, ENGLAND. IRENE, MIDWEST SALES, JOHN LINDHARD. MONTAINE, VIERI, DOUG MANNEN, NERLY. ALICE, VAN TIGHE, HP, PALO ALTO, CALIF. SAUL. BAKER, MCCORMACK, JOHN HIGGS, SAN DIEGO, GARY RIVERA, SOUTHERN SALES. BRIGGS/ALLEN, STEVE, MORTON-FERGUSON. FORTNA, WIL, DAVIS, JAMES DICK. A-HP, YONKERS (NY).

HEWLETT-PACKARD COMPANY
1501 Page Mill Road
Palo Alto, California 94304

BULK RATE
U.S. POSTAGE
PAID
PALO ALTO, CALIF.
PERMIT 137