

MR JOHN WARMINGTON
SAMPLE ELECTRONICS -VIC- PTY. LTD.
9-11 CREMORNE STREET
RICHMOND E. 1
VICTORIA, AUSTRALIA

August 1966



M e a s u r e

In this issue

Getting the news to HP employees
College days--how papa pays



SYN COMMUNICATE, IMPART mean to convey intangible. COMMUNICATE implies making co presently possesses; IMPART suggests causin have what is primarily one's own
com.mu.ni.ca.tion \kə-'myü-nə-'kā-shən\
 of transmitting 2 a : information commun written message 3 : an exchange of inform (as of telephones) for communicating b : moving troops, supplies, and vehicles c : communicating 5 : a process by which a between individuals through a common syst
sing or pl in constr a : a technique for expres speech or writing or through the arts b : transmission of information
com.mu.ni.ca.tive \kə-'myü-nə-,kāt-iv, -ni- to communicate : TALKATIVE 2 : of or rela

A look at the

More than half the cost of maintaining the American economy goes for communications in one form or another, according to a study sponsored by the Department of Labor. As a people, we put "early-bird" satellites in orbit, string cables under the ocean, erect transmitters on mountain tops, cobweb our cities with telephone wires, bombard each other with notes and mail, and discuss, watch, read, and listen to an endless stream of news, advertising, conjecture, and gossip.

In spite of it all, some pretty smart people think that much of the world's troubles can be traced to faulty communications—the failure of nations, races, groups, and individuals to understand one another.

Industry is constantly confronted with problems of communication, and seeks means of inter-communicating that are regular, reliable, and reasonably frequent.

It has found that magazines generally can meet these requirements. As a result, company magazines have become the most widespread form of industrial communication in the United States. A directory of such company publications recently estimated the figure could run as high as 50,000—if all miscellaneous newsletters and bulletins were included. A more realistic figure, the study said, was about 7,000 real magazines, with a lion's share devoted to employee interests and activities.

Employee publications, in one form or another, have an important function at all HP operations. They supplement the basic person-to-person communications so important at all levels of organization. They help build bridges of understanding and acceptance between groups, introduce people to each other, provide recognition for achievement, promote employee activities, bring news from other divisions of the company, and give each of us a better perspective of the company and our role in it. The following is a report on HP's internal "communicators"—the publications and editorial staffs serving the company throughout the world.

Different in appearance, similar in purpose

editor's side of HP employee publications

IF ALL HP EMPLOYEE PUBLICATIONS were placed end to end, you wouldn't believe it. That is, you would have some difficulty in accepting the fact that they originated within the same corporate organization. There's little "family" resemblance.

This is not grounds for criticism. On the contrary, the 10 main HP plant publications have very diverse origins, meet varying needs, and thrive under the highly individualistic efforts of their editorial staffs.

Here's how Dan Mirich, Loveland Division personnel manager and editor, put it: "The philosophy behind HI-POINTS is that this magazine belongs to HP-ites of the Loveland Division. It is written by and for them. Maybe this is why it is a popular means of communication."

The same viewpoint is expressed somewhat differently by Kitty Laucks, editor of Sanborn Division's magazine: "THE STANDARD is truly an employee publication since

we have our own photographer; all of the typing, layout, art work is done in our Technical Publications Department; Printing does their share; and copies are distributed by our Office Services Department."

Only one HP employee publication has a full-time editor: Palo Alto's WATT'S CURRENT, handled by Bill Bigler. The others originate in the various offices, usually in the personnel department. The part-time role of their editors in combination with volunteer reporters lends a real challenge in meeting deadlines.

"Our biggest problem," said one editor, "is getting the issue out before the month the issue represents turns into the next one. No matter how early we start, or how far in advance we try to get copy and pictures, something always seems to hold us up. Usually it's a matter of waiting until some event happens so that it can be included." (cont.)



PLANNING AND EDITORIAL ASSIGNMENTS: Selection of story ideas and pictures is the first step for each issue of the HP employee publication. At Colorado Springs, SCOPE Editor Dee Rupp (center) holds briefing sessions with reporters each month to get ideas and make assignments.

HP employee publications *(continued)*



REPORTING: Gathering news is handled in many ways. Q's & NEWS, Rockaway Division, uses a reporting team. Asst. Editor Dottie Thompson and Photographer Ed Hatem check photo with Editor Chris Franks, while reporter Judy Harrington interviews Fred Mortimer.

The HP editors encounter other interesting obstacles: Editors Roland Ekert and Ann Patricia Häupler of PULS magazine, published for HP GmbH employees of Böblingen, West Germany, recall that "once the whole material for an issue got lost in the post between us and the printer."

Another editor shudders at the memory of an "In Memoriam" photograph which somehow got switched by the printer, but was caught at the very last moment. The man in the mixed-up picture is still very much alive.

The company's internal magazines provide an outlet for a wide range of talent and creativity. Employee photographers, graphic artists, writers, editors, and reporters all have vital roles.

In Japan, Editor Yosuke Ishikawa of Yokogawa-Hewlett-Packard's BRIDGE magazine, is a man whose hobby is "to



PHOTOGRAPHY: "Smile" (or words to that effect) asks Bob Reade, editor of Neely's LA PRENSA, of Ellen Reece in order department. Bob, who studied photography just for the job, has been editor of the magazine since its inception in 1962.



WRITING: The heart of the employee publication is the written word. HP editors, such as Paul Caulfield of the F&M Scientific Division SPOTLIGHT, spend hours each month collecting, organizing, and writing. The ever-present problem is too much news, too little space.

climb mountains and to take pictures." Nearly all the photos in the publication have come from his camera. At F&M Scientific Division, SPOTLIGHT Editor Paul Caulfield contributes a background as college sports publicity director, writing experience in Marine Corps press information work, and high school English teaching.

Lack of special background is no hindrance in the employee editorial field. Bob Reade came to Neely Sales Division in 1954 with a background as Navy radioman and history graduate from USC. From his job as manager of the Literature Department he grew in experience, took on the editorship of LA PRENSA in 1962. As a product of his enthusiasm for this extra job, Bob attended Art Center School in Los Angeles where he studied photography, magazine layout, and production techniques. Today he handles this handsome publication right up to the point where it is completely "pasted-up" for the lithographer.



EDITORIAL PLANNING: Sanborn Division Editor Kitty Laucks tries to feature a different department in each issue of THE STANDARD. Here, she and John Brady (engineering department and STANDARD staffer) plan story with Jim Desmond, right.



EDITING: As with most publications, proof-reading and copy fitting is one of the final tasks before HP Ltd.'s READOUT goes off to the printer. Jane Campbell, shown above, shares this responsibility with Editor Eileen McLeod and Judy Farren.

Getting the employee story told, and telling it well, is a primary concern of HP editors. At Colorado Springs, Editor Dee Rupp meets with her SCOPE reporting staff three to four weeks in advance of deadline to insure dependable coverage. Rockaway Division gives employees the chance to speak their views in a special "What's your opinion" feature presented in each issue of Q's & NEWS.

In the United Kingdom, READOUT Editor Eileen McLeod gets her stories by asking key people involved to write them under their own byline signature.

In addition to employee media that qualify as magazines, HP also has evolved other types of publications, best described as newsletters or bulletins. Dorothy Clink of the New York sales office writes: "SIGNAL SOURCE has been published on an irregular regular basis since 1959 for the purpose of keeping our people informed on what's going on in the area." HP Associates' one-page WEEKLY WORD pub-



ART & LAYOUT: Loveland's HI POINTS staff works as a team at the important stage of publication layout. Planning story and picture placement are (l. to r.) Váalt Skowron, Malcom Harris, Alan Howe, Sue Bunton, Jerry Farm, Editor Dan Mirich.

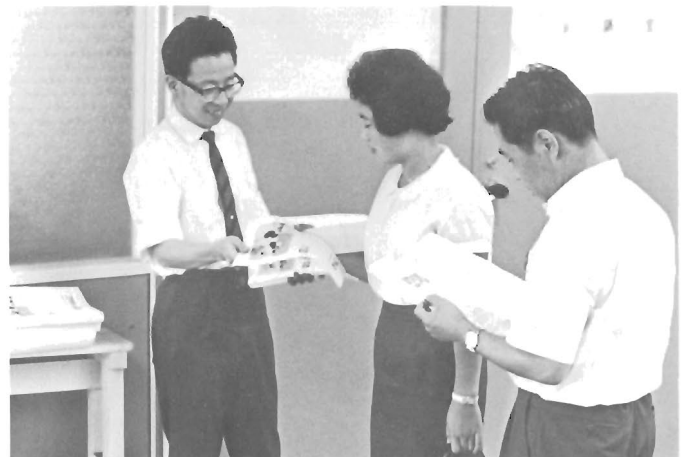
lishes short items about HPA people and activities, along with a brief report from the general manager.

Whatever their format, the important questions are: Do they communicate? Do they help foster better understanding of the work environment, the company objectives and policies, and fellow workers?

No special studies have been made of HP employee publications (other than MEASURE, which is more at the overall corporate level). However, they do meet the basic test. Employees read them, and react to their content. They present solid news about plant, division, and company activities, as well as reports on the progress and achievement of fellow employees. By these yardsticks, the HP publications and their staffs are true communicators. Mention that to your editor. You just might get your story in the next issue.



PRINTING: Working with printer is an important task for every editor. Bill Bigler (standing, center), WATT'S CURRENT editor since 1944, checks production at local printing plant. WATT'S CURRENT serves seven HP divisions and corporate headquarters in Palo Alto area.



DISTRIBUTION: Editor Yosuke Ishikawa of Yokogawa-Hewlett-Packard's BRIDGE sees to it that all Y-HP employees receive a copy. Now, he hopes they will read it—with interest plus pleasure. The day after distribution, the planning starts for the next issue.



NEXT MONTH, scores of HP parents—possibly even hundreds—will share a common experience: the departure from home for the first time of sons and daughters bound for distant campuses. Like the parents of more than one million college freshmen registering this fall, these HP families also will share in the concern over the increasing cost of college.

According to figures furnished to the U.S. Department of Health, Education and Welfare by 2,200 of the nation's institutions of higher learning, the average total cost of attending college has risen almost 60 percent in the past 15 years. Average tuition costs at private universities have gone up over 90 percent, 14 percent at tax-supported institutions. Room, board, and books are also on the rise—five percent per year. And, of course, many students need their own car—a big status symbol on the campus—and *someone* has to pay.

Estimates of actual costs vary widely. However, most seem to indicate that a student attending a state college will require in the neighborhood of \$2,000 per year to cover basic living and academic expenses. For the top private universities that figure just about doubles, largely due to tuition fees which run to about \$1,750 per year at Harvard or Stanford.

So, what's to do about it?

Most parents can wish that their children will become Grade A scholars, and qualify themselves for the many scholarship programs that are now available (the HP Employees' Scholarship Fund is among them, this year providing \$500 each to 22 deserving high school graduating seniors). But the competition here is strong, too, and obviously not everyone is going to win.

Some answers to the rising cost of college

Part-time work for the student is another traditional answer to college financing. But apart from summer jobs, this approach is not as appropriate as it once was. Competition for academic standing is more vigorous than ever, and the student who must support himself by work is often handicapped in this race.

One approach gaining in favor is the student loan program. Basically there are seven such programs offering a wide range in amounts and terms of loans. They include loans from colleges, non-profit corporations, private sources with college affiliations, banks, finance companies, national programs, and state programs.

The bank and finance company loans are, of course, directly financial in nature, with repayments beginning immediately after a loan is made. Under special tuition plans, however, loan payments can often be extended from one to four years after graduation. A major advantage of these loans is the relatively high amount that can be borrowed—enough usually to finance a full four years in college.

Some loans, such as many of the college and private source programs, take on a philanthropic character: Zero or minimum interest, with payment beginning after graduation. Loan sizes, however, are fairly limited—from \$100 to \$500 per year on the average.

Probably the most generally interesting and useful programs are those found somewhere in between the commercially financed tuition plans on the one hand and the private sources on the other. United Student Aid Fund, Inc., is among the leaders in this middle ground. A non-profit corporation, it offers loans up to \$1,000 per year at six percent simple interest, with first payments starting four months after graduation.

Government is another big factor in college financing. The National Defense Education Act of 1965 grants loans of up to \$1,000 per year for five years at only three percent simple interest. Intended in part to encourage interest in teaching careers, NDEA will cancel up to 50 percent of a loan to borrowers who become full-time teachers. Even greater incentive is provided in some state programs which may cancel entire loans—from \$1,500 to \$7,500—if a graduate in teaching, medicine, or other vital profession instructs or practices in that state for a certain time period.

Special advice is also available from the Federal government on financing the costs of vocational and technical studies suited to the interests and aptitudes of many young people. (Write to the Office of Education, Federal Office Building 6, Washington, D.C. 20202—ask for new free pamphlet).

In addition, junior or two-year colleges are increasingly important in vocational education and offer excellent guidance to interested parents and students.

In almost all cases where the student needs financial aid, whether from loans or scholarships, the place to start is with the high school counselor or college financial aid officer.

Prudence is obviously called for. Money is not suddenly being given away. Scholarships entail effort and achievement, often are tied to special requirements. Educational loans must be repaid or the obligation discharged under specific terms of service in a profession or state.

Is the college try worth the investment?

According to figures compiled by the Tax Foundation, the cost of a post-high school education will be returned at a rate of from 10 to 12 percent per year over a lifetime. The value of personal achievements and satisfaction must also be considered. Pretty good dividends!



HP moves up the ladder of FORTUNE

In its annual survey of the 500 leading U.S. industrial corporations, FORTUNE magazine recently noted that 1965 was the "biggest year ever." If this was true of industry it was particularly true of HP. The magazine's listing showed a 50-place leap in standings for the company—from 415th place in 1964 to 365th at the end of the past year on the basis of total sales. It was a significant sign of progress—but HP rankings in other categories of FORTUNE's financial status report were even higher.

In the category of profit as a percentage of invested capital, for example, HP at 18.3 percent was rated 65th among the top 500—up from 119th position in 1964. This ratio is often cited by financial analysts as the best gauge of success of an enterprise.

Equally important, at least in the minds of shareholders, is earnings per share. Here, HP's growth rate of 21.47 percent per year in earnings per share from 1955 to 1965 won it the 21st position among FORTUNE's 500.

Five other important financial factors were presented in the survey. With assets of \$106,146,000 in 1965, HP ranked 392nd. Net profits of \$13,907,000 in 1965 moved the company up to 260th place. In invested capital, the HP ranking was 349th. Its position as employer of more than 9,000

people in 1965 was given as 297th. Finally, for profit as a percentage of sales, HP's 8.5 percent in 1965 gained 94th place.

No new names appeared among the top ten U.S. firms which included General Motors, Ford, Standard Oil (N.J.), General Electric, Chrysler, Socony Mobil, U.S. Steel, Texaco, I.B.M., and Gulf Oil. Sixty of the 500 firms were members of the "billion-dollar club," while 26 companies were replaced in the listing by newcomers.

Hewlett-Packard made its first appearance in the FORTUNE 500 in 1962 when it was ranked 460th for the previous year's sales. Last year, every firm among the 500 had sales in excess of \$100 million.

In a special feature of its July survey issue, FORTUNE profiled Chairman Dave Packard as one of nineteen corporate directors who are widely regarded as "professionals." It noted that HP "has been so successful that its chairman and chief executive, David Packard, 53, is welcomed as a director by U.S. Steel, which is more than thirty times larger." The item also pointed out that he is a member of the boards of Pacific Gas & Electric, General Dynamics, and Crocker-Citizens National Bank.

HP's chemical Lecture Lab on wheels

Evidence of HP's increasing interest and capability in serving the chemical industry is seen in the busy schedule of the Eastern Sales Region's new chemical Lecture Lab. The one-man vehicle has been demonstrating HP chemical instrumentation to scores of firms and research institutions throughout New Jersey and Pennsylvania. The Lab has proved of such value that the HP chemical field engineers make special use of it during unscheduled periods to assist

in demonstrations that would otherwise be impractical.

According to the Lecture Lab's log book for April-May, visitors were interested in the HP gas chromatograph, membrane osmometer, quartz thermometer, vapor pressure osmometer, auto-viscometer, and pyrolysis unit. Guests included chemists from large chemical companies, the Pennsylvania State Department of Highways, Federal agencies, Temple University, and Campbell Soup Company.

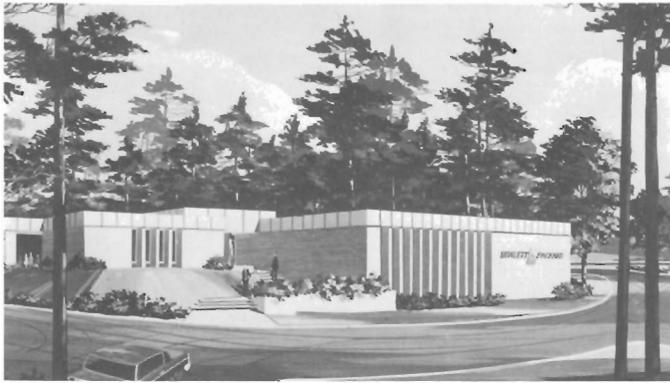


Chemical Lecture Lab is relatively compact, permits product demonstrations five minutes after arrival at customer plants.



Joe Kelly, chemical field representative at center, welcomes visitors to Eastern Sales Region's new Lecture Lab.

Atlanta, Colorado Springs construction announced



The newly formed Southern Sales Region, temporarily located at High Point, N.C., is getting a new headquarters facility near Atlanta, Ga.

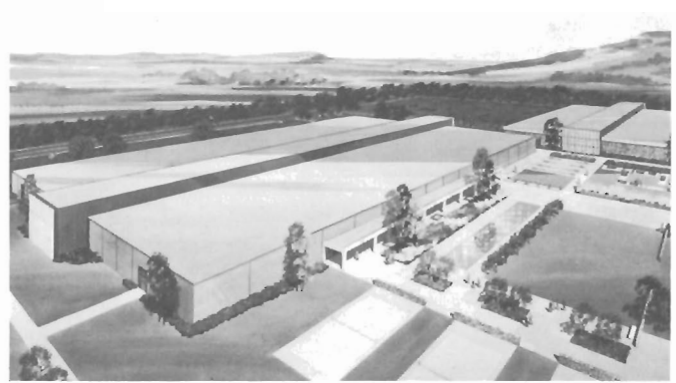
A 19,000-square-foot building there will house both the regional office and the region's Atlanta sales area office. Completion is scheduled for mid-February, 1967, at a cost of about \$500,000, including site and landscaping.

The two sales organizations' offices and a central service facility will be on the 15,000-square-foot main floor, with 4,000 square feet of storage space in the basement. The seven-acre site provides space for future expansion.

The air-conditioned building will be of contemporary design. It will be built of concrete, concrete block, and steel, and will have a brick facade.

It will be located about six miles northwest of downtown Atlanta at the junction of Interstate highways 75 and 285.

Marthame Sanders & Co. of Atlanta has been awarded the construction contract. Architects for the project are Wise, Simpson, Aiken and Associates of Atlanta.



The Colorado Springs Division's plant space will be more than doubled in a major expansion.

Plans have been announced for a 154,000-square-foot building to provide additional engineering and manufacturing capacity, and a cafeteria for division employees. The new, air-conditioned structure will be built of reinforced concrete and steel with a brick and glass exterior. Surrounding grounds will be landscaped.

Bids have been invited and construction is scheduled to begin later this month. The \$2 million facility will be completed in about a year. Architects are Moore & Bush of Denver, who designed the original structure.

The expansion was brought about by an increasing demand for the division's oscilloscopes, pulse generators, and related instrumentation.

The new plant and the present 137,000-square-foot plant, which was completed in 1964, are on an 88-acre site in Pikes Peak Industrial Park.

Long-range projections for the division foresee a further doubling of the plant to 600,000 square feet.

Design awards to three HP products

Out of 18 products selected for the Industrial Design Award Exhibition at the 1966 Wescon Show, three represent the efforts of HP designers. They were chosen from among more than 160 entries, and will be eligible for the special "trend setting" Pacesetter award at Wescon, or one of the show's awards of excellence.

First winning HP entry was the new meter system case

designed to meet the varying needs of 17 HP divisions. Microwave's 874A Susceptance Standard also was judged worthy of a design award, as was the new 197A Oscilloscope Camera developed at Colorado Springs.

Wescon, which will be held in Los Angeles August 23 through 26, will provide a showplace for a variety of other new HP instruments and systems.

HP Design Award winners: meter case; susceptance standard; scope camera.



PEOPLE ON THE MOVE

COLORADO SPRINGS

Dave Bylund, manufacturing spec assistant—to manager, manufacturing specs.

Elmer DeBacker, tool engineering staff, Frequency & Time Division—to tool engineering, Colorado Springs.

Rodger Earley, materials manager—to manufacturing engineering manager.

Norm Glaeser, manufacturing engineering—to in-plant engineer for storage tubes, CRT.

Bob Patterson, environmental testing staff—to head of environmental engineering.

Allen Smith, manufacturing engineering—to production supervisor, CRT.

EASTERN SALES REGION

Phil Davis, Eastern Travelab—to promotions manager, Eastern Sales Region.

Al Walcek, field engineer, Washington area—to field data system manager, Eastern Sales Region.

EASTERN SERVICE CENTER

Dan Terpack, corporate Customer Service (Marketing)—to staff planner, Eastern Service Center.

HP LABORATORIES

John Gulbenk, HP Associates staff—to physical electronics, HP Laboratories.

Stu Krakauer, HP Associates staff—to electronics research, HP Laboratories.

Louis Lardenois, HP Associates staff—to medical and chemical instrumentation research, HP Laboratories.

HP - PALO ALTO

Wayne Danielson, corporate manufacturing engineering—to plant engineering staff.

Sy Ramey, product training manager, Y-HP—to product training, corporate Marketing.

INTERNATIONAL

Michel Heimoz, financial staff, HPSA—to European finance manager, HPSA.

Paul Warnock, European finance manager, HPSA—to International finance manager, International Operations.

MICROWAVE

Bob Johnston, accounting staff—to production engineering staff.

FREQUENCY & TIME

From HP Laboratories to F&T engineering staff: **George Enslow**, **Jim Pruett**, **Harry Taylor**, and **Reese Turner**.

ROCKAWAY

Richard Barg, Eclipse-Pioneer (Div. of Bendix)—to product design engineer, Rockaway.

Jim Brockmeier, promotion support, marketing staff, Colorado Springs—to sales engineer, Rockaway marketing.

Dick Love, parts manager, Eastern Service Center—to manager, Eastern Commercial Services Office.

Cleve Brooks, scheduler (parts), Eastern Service Center—to order processing supervisor, Eastern Commercial Services Office.

Bob Masur, PRD Electronics (Westbury, L.I.)—to senior development engineer, Rockaway.

SANBORN

Edward Bodmer, test technician—to technical writer.

John Boteler, corporate Marketing (medical)—to staff engineer, marketing, Sanborn Division.

Dick Dormitzer, QC technician—to packaging technician.

David Link, sales engineer—to process engineer.

SOUTHERN SALES REGION

Skip Langley, medical service representative, Yewell (Middletown office)—to medical sales representative, Southern Sales (Orlando office).

WESTERN SERVICE CENTER

Stig Hertze, product training, corporate Marketing—to Western Service Center staff.

NEELY SALES

Art Dauer, staff engineer—to field engineer, Palo Alto office.

Ray Fenton, technical specialist, engineering lab, Waste-King Corp.—to staff engineer, North Hollywood office.

George Phillips, components sales, Palo Alto office—to district manager, Salt Lake City.

Bill Richion, staff engineer—to field engineer, North Hollywood office.

Bill Shellooe, staff engineer, Palo Alto—to staff engineer, North Hollywood.

MEASURE is published monthly for the employees of Hewlett-Packard and affiliated companies.

Volume 4 August, 1966 Number 8

EDITORIAL DIRECTOR, Dave Kirby

EDITOR, Merle Mass

ART DIRECTOR, Tom Martin



CONTRIBUTING EDITORS—COLORADO SPRINGS, Dolores Rapp • CROSSLEY SALES, Fred Harney • GASKREC, Mickey Chase • DYMEC, Bill Dallenbach • EASTERN SALES REGION: New York City area, Dorothy Zink • Philadelphia area, Barrie Wilmarth • Syracuse area, Ann Ash • Washington, D.C., area, Colleen Noline • F&M SCIENTIFIC, Charles Butler • FREQUENCY & TIME, Nancy Jones • HARRISON, Dorothy McMahon • HP ASSOCIATES, Joni Winer • HP BENELUX: Amsterdam, Danny Koedam • Brussels, Helene Weytemans • HP (CANADA), Bob Russell • HP GmbH, Heike Koget • HP LTD., Dennis Taylor • HP S.A., Doug Herdt • HP Ymbh, Hans Hubmann • LOVELAND, Walter Skovron • MICROWAVE, Dean Abramson • MOSELEY, Frank Hicks, Jr. • NEELY SALES, Mike Talbert, N. Hollywood • Pat's Cooper, Englewood • ROCKAWAY, John Ricci • SANBORN, Kilty Laucks • SOUTHERN SALES, N.C. area, Virginia Thornton • Florida area, Gene Cline • Texas area, Helen Hobson • YEWELL SALES, Gunter Young • YOKOGAWA-HP, Yosuke Isibikawa •



from the chairman's desk

THE THIRD QUARTER of our fiscal year, covering the period from May 1 to July 31, historically brings a high level of business. I am happy to report that this year was no exception. Incoming orders maintained the strong pace established earlier in the year, and were up some 30 percent over the third quarter of 1965.

Looking to the immediate future, we expect business to continue at a relatively high level during the fourth quarter, and are hopeful of winding up the year with orders of well over \$200 million.

As for the longer term outlook, it is difficult to predict with any reasonable accuracy what the general business climate will be in 1967. Some economists expect the present upward trend to continue well into next year; others have noted "soft spots" in the economy and predict a slowing up in the demand for consumer and industrial goods.

Whatever the climate, our success in 1967—as in past years—depends on our ability to develop new and improved instruments. We've said this many times before but it bears repeating: Despite varying economic conditions, there is always a market for a well-designed, useful product, one that is clearly superior to anything produced by competitors. This is particularly true of electronic instrumentation.

In the past few weeks, Bill Hewlett and I have had an opportunity to review the new product programs of a half-dozen HP divisions. These review meetings are held periodically at all our locations to evaluate the work being done in the laboratories and to analyze specific products and their market potential.

I wish all of you had been able to sit in on the recent meetings. For I'm sure you would have been as impressed as Bill and I with the general high level of our engineering effort and the number of new, truly advanced products that are being generated by that effort.

Many of these new instruments and systems will be introduced at the annual Wescon Show in Los Angeles this month. I am confident they will be well received by our customers, and once again testify to the importance of innovation and quality as a way of life within our company.

David Packard



Now is the time to come to the aid of the computer

DAY BY DAY, computers seem to be getting smarter and smarter. Certainly, they are becoming more complex, as well as much faster with the answers. In fact, testing of computers and other numerically controlled devices in the field has become a greater challenge due to these very improvements. This month, at the 1966 Wescon Show in Los Angeles, HP will introduce two new oscilloscope products designed to give computer field engineers much improved means of examining their machines. First is a new sampling plug-in system, shown above, for the 140A and 141A Oscilloscopes, which permits measurement of phenomena occurring at more than 12 billion cycles per second. Next is the 180A Oscilloscope. With it, computer field engineers for the first time can employ a truly portable scope (only 30 lbs. in weight) that has "big picture" display of data and that retains versatility of plug-in design. These products, together with others the company is developing, place HP solidly in the vanguard of data processing technology.