

Measure

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



The minority situation "is really a people problem, not a race problem . . . people have to learn to respect each other." Roy Clay, left, makes this point concerning equal employment opportunity programs during HP panel discussion with Ray Wilbur, Jean Kimes, and Swede Wild.

The inequality loop: How we can help break it...

*What is the company doing to provide
equal opportunities for minority people?
What can you do as an individual
to further the cause of non-discrimination
on and off the job?*

To answer some of the important questions about equal employment opportunity programs within the company, MEASURE brought together a panel of four concerned HP people. In the order of discussion they are: Ray Wilbur, vice president for personnel; Swede Wild, corporate equal opportunities manager; Roy Clay, computer software development manager for Palo Alto Division and a founder and director of EPA Electronics, Inc., recently established in East Palo Alto; and Jean Kimes, Microwave Division employee now on leave to work in "hard-core" adult training programs in San Francisco.



"It's obvious these problems have become much more evident to all of us in the last few years . . ."



"We've asked each division to appoint an equal opportunity manager . . ."

MEASURE: Anyone who can read, see, or hear knows the United States is in trouble in relations between the white majority and the black and other minority peoples. Some of the symptoms are minority unemployment, slums and ghettos, urban and rural poverty, insecurity and social unrest. What can industry do about it? And particularly what can Hewlett-Packard and its people do about it?

WILBUR: You know, that's an awfully broad question. Historically we have had a non-discrimination policy, but it's obvious that these problems have become much more evident to all of us in the last few years, and we're now making much stronger efforts to do something about them, recognizing our responsibility as a corporation and a community to do something to better the community in which we're living.

For example, we have always required that our applicants, to be successful as employees, meet our requirements. Now we've had to take a severe look at our qualification requirements and make some adjustment in them to find qualified people and not just those who are qualified.

We aren't satisfied that we have done all that we should by any means.

We recently assigned Swede Wild to be full time on the equal employment program. Among many of the things we are doing or should do is the matter of upgrading the people we now have with us as well as the ones we will bring in. We are not just trying to hire people. We want to be sure they have the same opportunity to advance as everyone else.

Swede can tell you something about our activities.

WILD: We happen to be in a group of companies that are going together in what is called a "consortium" with Lockheed as the prime contractor for the pre-on-the-job training of "hard core" unemployed minority people. This lasts from four to eight weeks. The companies have all agreed to pay an equal rate, which is \$1.75 an hour, while they're being trained. At the end of four, six, eight weeks—whatever they feel is necessary—they will visit the company with their advisor or counselor (and they have one counselor for four to six people) and meet their supervisor. He'll go out to their place, and they will spend probably two or three hours with

him so that when they come in, they will know the supervisor, they'll see the plant, and know the ground rules a little bit. And hopefully this will relieve some of the tensions that are inherent in coming out of a ghetto environment into a sophisticated company.

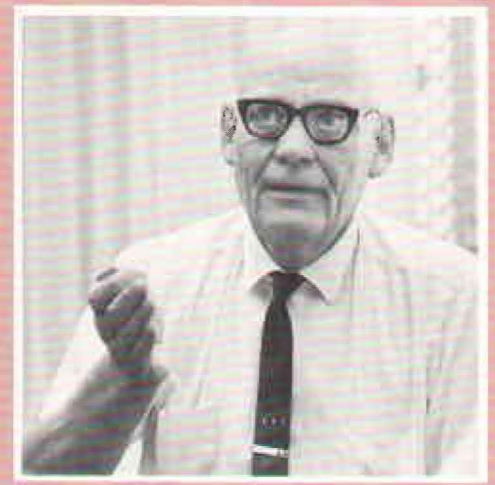
Beside the Palo Alto program, which will take in some 55 young summer workers and 50 hard-core people from local minorities, we've also asked each division to appoint an equal opportunity manager, and we're feeding them information as fast as we can. All the divisions—as much as possible—are doing the same types of things for their summer program, and other consortiums are being generated in different areas of the United States in combination with the National Alliance of Businessmen.

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"Managers often don't really recognize that they have biases . . ."



"Get acquainted . . . tutor them . . . be very sympathetic to the problem they have!"

the inequality loop

I feel the consortiums represent one of the biggest concerted attempts by industry to really have an impact on minority unemployment. The goal is 100,000 jobs by June of 1969 and 500,000 by 1971, and there are now well over 100,000 pledged.

CLAY: Who are you aiming at in the unemployment lines, and have you established any priorities?

WILD: The consortium will get most of its people out of opportunity centers, skills centers, and through organizations such as the Urban League. They're not having any trouble finding these people. They're just flocking in. After that we go to the State Employment Service to make sure we're getting the right people, that we are getting the hard-core unemployed, and they are the ones being trained.

CLAY: Now, under what conditions or for what set of circumstances would you give up on an individual?

WILD: The same question has been asked: How many times are you going to let a guy be late? And all we're asking is that HP people be a little more patient with this type of person, knowing the circumstances he came from. I just have all the faith in the world that our supervisors at HP know the problem.

MEASURE: Newspaper reports have mentioned Hewlett-Packard in connection with EPA Electronics, a firm now operating in the largely negro community of East Palo Alto just five miles from here. To what extent is HP involved?

CLAY: Let me talk about how this got started. In January, at a management meeting here in Palo Alto, Ray Wilbur suggested two alternatives for doing something about the minority situation. One was bring people to work here at the plant. The other was to help establish some function in East Palo Alto, and then have HP work with that establishment in whatever way it was best to do so. The latter alternative was chosen after a number of meetings with various people, including Tom Turner, who I had known for some time. Tom is now general manager of EPA Electronics.

The objectives of the new company were — one — to hire local people — two — to give heads of households first priority, and — three — to establish EPA Electronics as a profit-making venture. When people come to work for EPA Electronics many of them will be untrained. In fact, most of them will be untrained initially, but we are willing to go along with that and to try constantly to raise the levels of skills and, where necessary, change the attitudes of people toward their general responsibilities. The young company, because of the ambitious personalities involved, would like eventually to develop its own products, and this hopefully would be done after it got on a sound financial basis. At that time, EPA Electronics would be really standing on its own. From my observation, the people who are working there now feel independent. They feel they carry their own weight, and yet they recognize the support they're getting from Hewlett-Packard.

WILBUR: Due to the newspaper publicity, it probably would help to explain the structure of EPA Electronics and how it is set up as an independent corporation. Many people think Hewlett-Packard owns and runs it.

CLAY: O.K. The company is owned and run by seven individuals who are the directors, and one of the people, Tom Turner, is general manager of the plant. We directors have chosen to invest some money of our own in this operation, and Dave Packard assisted us in getting a loan from one of the local lending institutions. We have two people there now from Hewlett-Packard, one of whom is on the payroll of EPA Electronics named Morris Graves, and there's another person — Nadine Boldt — handling training. Microwave is giving them certain help. It's kind of a "Heath kit" deal where HP sends a job down, they put it together and send it back and HP runs it through final inspection and test. It turns out that the bigger HP divisions have quite a few established products that get only occasional short-run orders that just fit an application of this kind. It's good for HP. It's ideal for EPA — it helps them. The remainder of jobs they hope to get from other contracts with other com-



"We've had to take a severe look at our qualification requirements. . ."

"Before a person makes any contribution, he has to know something about himself. He has to take pride . . ."

panies. From what you've told me, Swede, isn't the quality of the work they're doing very outstanding?

WILD: It's very good. Nadine and Morris have those people fired up to where they're really going, and in fact on some PC boards they've already beaten some times that we held here, I think this is going to be a winner even though they're running into all the problems you'd expect starting from scratch.

MEASURE: The nation's half-million hard-core unemployed people have been described compositely as having a sixth-grade education, health problems, a police record, difficulties in relating to other people and society, and low motivation in seeking employment. Miss Kimes, what has been your experience with minority youths and adults in San Francisco?

KIMES: Right now I'm busy working with a group of San Francisco men. They need help, kind of a brush-up course in English and math and reading. Since San Francisco doesn't have that much heavy industry, most of these people will be going to city jobs which would require civil service examination, and these people just freeze. They don't feel comfortable because a lot of them have never had a testing experience before. So it's my job to try and help them relax a little. They know math and they know English and they can read, but their mind just shuts down the minute you say "test." So about two-thirds of the time is spent running them through any test we can get our hands on. Right now they're going through a 17-week program where they're with me two days a week, four hours a day. They report to my class every morning at a given time. They must be on time. They're run through the general things — the testing, the English, and then the afternoon they report to a job. Now in all cases it's been a job for the city, with the water, zoo, or park department, and they work on each of these assignments a minimum of two weeks so that they have an opportunity to adjust to the different personalities of the people they'll be working with — the supervisors.

We spend a lot of time talking about their individual problems because they can't function on a job until the things that are uppermost in their minds are settled or they have a chance to talk about them. Their general communications problems, once they are removed from their own little neighborhood, are tremendous. Right away they freeze up. This shouldn't be held against them, you know — you have to allow room for a person until he feels comfortable enough to come out on his own. Role playing is part of the program — sometimes it's the only way you can build up their confidence. And we're hoping, through the counseling process, to establish some kind of rapport with them so that if they do have problems, they can call one of the people they've become familiar with over the months and just unburden themselves. Well, you know, most of the problems are very, very minor, and once they say it out to somebody, it takes on a whole different color and isn't as gray as it seemed originally. It's a very challenging job.

We had originally 81 persons who were coming, and out of the 81, 38 are now employed. Seven of the fellows got jobs on their own, but I like to think it's because of the training they got from the class, the attention they got from the counselors and supervisors that they were able to go out on their own and seek employment. Many of them don't know where to go, they don't know where to begin. A lot of them have never read a want ad in the Sunday paper. So they don't know where to begin.

Another program is teaching youth groups personal grooming for on the job. All I try to do in helping them, since they're fresh out of high school, is to give them a little reassurance and dress them up.

CLAY: Do you find that they follow your advice?

KIMES: They do. It's amazing. We have a problem now with a potential employer because he wants to hire the man who comes closest to being made in his own image. You know, clean-cut, well-dressed. My problem was with having the fellows cut their hair. For one group I explained how I felt about it, and one fellow I thought was hopeless, I was ready to write him off on the job evaluation because he

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"The quality of work (at EPA Electronics) is outstanding . . . they feel they carry their own weight . . ."



"You have to give him time to make the adjustment . . ."

the inequality loop

wasn't cooperative. The following Monday he came in, his hair was cut, all spruced up. He's willing to do it if you give him the proper kind of incentive.

CLAY: What kind of incentives do you give them?

KIMES: I think first before a person can make any contribution he has to know something about himself. He has to take pride in himself as a person, and we spend many, many hours talking about ourselves and our relationship to our neighbors — you know, our community. And society as a whole. I think one of the things I feel has been most helpful is the fact that these people after nine weeks, some of them eleven weeks, have gotten to know themselves, take pride in themselves, and recognize that being either a janitor or a gardener is worthwhile and everybody isn't cut out to be a Ph.D. They'll accept this now. They'll take such jobs. The only thing they expect is a salary that will allow them to be self-supporting, that will allow them to take care of their wives and children. And even if it's in a low-cost housing development, at least they're paying the rent.

Of course, we have to go through this budgeting thing, too, because most of them never have seen large quantities of money. One of the students is working in construction. He's in a tunnel, and as a trainee he makes \$44 a day. This kid is 23 years old, and \$44 a day is like a million and a half. And he doesn't know how to manage it. He came to see me, and we made out a budget, and he's going to keep in touch and let me know if things are going well.

MEASURE: Tell me, are all the people Negroes — blacks?

KIMES: No. Because of what happened in San Francisco's Chinatown very recently — with the little garment shops being shut down — we now have a large number of Chinese. We also have Mexican-Americans. The Chinese, for instance, have a good educational background, but they can't converse in English. The ones from Chinatown speak Chinese, they associate with Chinese, and they cannot qualify for a job. They can understand what you're saying in English, but they have trouble putting together a complete sentence.

Originally when the poverty program started, it was started in the Negro area, and initially we had more Negroes than anything else. Now the three groups are pretty close to being even in size.

MEASURE: The responsibilities of HP supervisors have been discussed. What can the average HP employee do — the production, office, and field people?

WILD: I've had many people at HP call because they feel they'd like to be doing something. It's not easy to find anything specific for them to do at the moment, really. This kind of problem gets broad. One of our engineers asked, "What can we do?" And I said, "What I think you could do is get well acquainted with one of these people. What they need is tutoring really; they need someone who is vitally interested in them — not from a sense of guilt or that sort of thing. But what better thing could you do than take two young men and get them to finish their high school education, tutor them at night, noon hour, whenever you could find the time on your own. Get a group. We've got enough talent in this company to start a college, you know, and tutor these guys and see they get through school. See them become a full-fledged tool and die maker, or come out with an AA degree. These types of things I think we can do, and I think we can be very, very sympathetic to the problem they have. That's about all we can do individually."

CLAY: I think your statement that it is our problem is true. In the end you'll find this is really a people problem, not a race problem, that people have to learn to respect each other. You may dislike the other person, but you must respect him and give him the opportunity to become whatever he can.

KIMES: One thing I've made a point of stressing in my classes: when they go to work on a job, find a person — the first person who smiles at you — and become his friend or get to know him. In that way you can get to understand him, and in time you build up this tremendous entourage of friends or people you might never see socially — people you work with — and this will give you a little more insight

into the problems we're all having adjusting to each other. There was one young man who would fight at the drop of a hat, just because he felt so terribly insecure. And now he's got a temporary job and everybody loves him, and they want to hire him on a permanent basis. He's so friendly, yet he did absolutely nothing but cause trouble in class!

CLAY: We've got to break this loop that minorities find themselves in. Not being trained, not having the education, and not being accepted, and not being able to get into places where they can be trained. I can remember that Negroes who graduated from college in 1951 in the technical fields or in the hard sciences could not find a job except teaching school or in civil service, which was down at the post office. There are still biases in industry with respect to opportunities — growth opportunities for minorities. And I think probably white people don't realize this. Managers often don't really recognize they have biases — they may tend to look over an employee possibly because of what other white employers would think about a promotion given a Negro. Now I don't think, on the other hand, that you should lean over backwards to make some special dispensation for Negroes, because that's recognized too.

WILD: When Dave Packard talked to groups of HP supervisors recently, he said we had always been equal opportunity employees, and we had done a good job, we did have minorities in the plant. But he added that evidently we haven't done the job we should have done because, looking around the room of 150 supervisors, he saw very few minority people.

CLAY: One thing you have to realize is that minorities have been so systematically excluded from society that they will accept the statement they're "not qualified" as a fact without really trying to do anything about it or finding out why. Some people break through these barriers. Other people don't. One of the reasons I think they don't is they don't sell



themselves. They're not as competitive, and they would more readily give up when things get tough. Other people take advantage of this competitive or underdog situation.

WILD: Along this line we have some highly qualified, highly respected minority people who have made it, and I've gone to each of them that I know personally and said, "I'm going to need your help. Now when we bring these new people in, be sure and talk to them so they can see that here's a guy who made it, and explain to them there's nothing to it." And there really isn't when you come right down to it. The more they can see of this type of thing — that it's possible to reach a higher level, and that we have many, many minority people who have — I think this is going to help. I think we should use every avenue we possibly have to help these people change into this new environment they're coming into. And it is new and frightening to them.

KIMES: Yes, it is. And if you happen to be a minority person who has succeeded to some extent, they can't even begin to comprehend that you had the same beginning they did. You have to make this clear because right away all of us, I think, have a tendency when we achieve a certain goal, we feel proud of our accomplishments, and in the attitude that we assume out of this pride, we give the little man down there the impression we're just not going to bend over. And I think one way of breaking this down is to sit down and talk it over on a friendly basis if you have to. Let him know you came from the same environment, and that he can get out of it.

MEASURE: Could the panel evaluate the impact of some of the programs that have been mentioned here? Are they having a major effect? Is there really a change taking place?

CLAY: With respect to EPA Electronics, I think it's too early to make an assessment.

KIMES: We really can't. They're busy now compiling some statistics, but I feel it's too early because you cannot justly evaluate an employee when he's only been on the job six or eight weeks. You have to give him time to make the adjustment. You have to give the company or the group of people he's working with time to make an adjustment, and I think to be fair, the only way in our program that we can say that it's been good, bad, fair or indifferent is to wait six months or a year before we know if it's going to work.

WILD: I think we probably won't know for several years, but we will then have to evaluate the impact of the Kerner report, the impact of the social awakening of the white community, and the impact of the black community. Then we will be able to know what happened to the unemployment rate over what it is now. What happened to people who now are on a poverty level. What happened to the schools and educational levels. These types of things — how are conditions getting better year by year? I think such answers will provide the best measure of all our efforts.

WILBUR: We have our own HP goals, but we also need to evaluate ourselves against what other leading industries are doing. But there is progress — and it is measurable. □



Keeping ahea

"There is no substitute for the highly change. But more and more we have recognized the greater depth in representing our expanding

On-site service is a major feature of Eastern Sales Region. Some 55 men out of 135 service and repair people perform customer calls. Medical customers in particular require "round-the-clock" service. Here, Mel Daniels, HP medical field service engineer, calls on ECG department of North Shore Hospital, New York, to check Visicorder.

□ Carl Cottrell, general manager of HP's Eastern Sales Region, is attuned to change. It has been the order of his day almost every day for the past three years or more—ever since he was assigned the task of converting a group of independent sales companies into an HP operation. That job has been pretty well completed, resulting in a unified structure that includes 15 field sales offices linked to five area offices covering the Washington, Philadelphia, New York, New England, and Syracuse areas served by new regional headquarters at Paramus, New Jersey, and a total staff of some 600 people.

Today's job is new and different. For the past seven months, Cottrell and regional sales manager Bob MacVeety and the area managers have concentrated on what is known as the "account manager" concept of field sales organization. In simple terms, it recognizes the need for categorized representation by creating teams able to provide customers with varying combinations of field engineering skills, under the direction of an account manager.

"Traditionally, one salesman has represented the entire HP line to any one customer," said MacVeety. "It was one of our strongest selling points. It kept life simple for the customers and for us.

"The additions of the chemical and medical lines made it obvious that something needed to be done. Also the growth of the HP electronic lines insured the need for categorizing our own electronic field sales force.

"Moreover, in looking ahead we foresaw that more and more of our sales would involve equipment of increasing complexity, requiring greater specialist skills, more on-site service, more intensive training, and closer relationships between customers and field engineers.

"We could see a need for field engineers concentrating in one of seven possible categories: computer, analog, digital, microwave, and desk-top calculator, plus medical and analytical. This is in addition to the specialists in microwave, nuclear products, and computer applications.

"One factor favoring our approach is the high degree of market concentration throughout the region. Each of our area offices is close to major customers who require a variety of specialized sales assistance."

In spite of the categorizing within an account manager's team, there will be little restriction placed on the individual field engineer in making all possible sales to his customer contacts. In most cases he will be "broadband" enough to sell the whole line, and will be encouraged to do so. It's just that, by emphasis in training and assignment, he

ad of change

trained, highly motivated salesman. That will never need for a new approach that provides product lines to our customers . . ."

Eastern Sales Region serves a highly concentrated market, with large and sophisticated customers near each area office. At right, Vic Rodriguez, HP field engineer from Roslyn office, confers with Kollsman Instrument engineer regarding Apollo "star track" optical navigation telescope units being assembled in clean room at Long Island facility.



will be calling for the most part on customer representatives similarly specialized. The account manager will be responsible for creating those assignments and should be the man the customer looks to for overall leadership and direction. There should seldom be more than one HP man calling regularly on any one customer representative.

On-site service is unquestionably another major plank in the Eastern Sales Region's platform. Again, the change in the nature of the market demanded such an approach.

"We have located our offices as close to our customers as possible, and make the service calls and repairs right in his plant when he needs it," said Ernie Matlock, regional service manager.

"Out of a total service force of 135 people we now have 55 men for on-site service compared with less than a dozen in 1965. Medical customers expect on-site service. Life-support systems can't be shut down overnight or for the weekend, so we make our service available to them around the clock every day of the year."

Obviously, some of the newer instruments in the HP line are impractical to move: gas chromatographs, patient monitoring units, computers, and various instrumentation systems.

"But when we can't make on-site repairs," said Mat-

lock, "we back up the local office with a shuttle system that can make same-day delivery of an instrument to the Repair Center at Paramus. Crews under Marshall Hiner, who manages the center, can work on it through the night shift, and send it on its way back by shuttle the next morning."

According to Cottrell, "The transformation of the original group of independent sales companies into the present regional organization provided some very interesting times for all of us.

"These companies were characterized generally by the strong leadership of one man. The companies were also limited in size by their markets, so opportunities for individual advancement were also limited. Nevertheless, when we absorbed the firms, we worried that their people might not like the idea of working for a big outfit, even though they had been very close to it for years. Actually, we lost very few people in the transfer."

What the new region management did was create the "Golden GO" program — growth and opportunity — and sell it hard. They showed there were more opportunities, more places to go than ever before — 27 promotions the very first month. They were able to show the field engineers how HP service and business backup would mean more selling time and fewer distractions.

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Training session in new desk-top calculator for HP service representatives is conducted in new Paramus building. Shown with Bob Foster, Loveland instructor, are, from left: John Macey, Rockville, Md.; Andy Moynihan, Lexington, Mass.; Benny Garcia, repair center; and Ernie Kosmecki, Norwalk, Conn.

Management planning brings together, from left: Ernie Matlock, service; Bob MacVeety, sales; Carl Cottrell, general manager; Herb Rauch, finance; Larry Motzkus, personnel.



Keeping ahead of change

In addition to the changeover there were the new lines of medical and analytical instrumentation to complicate the region's early days. Cottrell, fortunately, had had some experience with the problem of integrating Sanborn products into the HP organization during his years as manager of HPSA in Geneva.

Another complication arose when the region was asked to take on the former corporate task of collecting receivables. Herb Rauch, finance and administration manager, said the job was magnified by the composition of the customers: "On the one hand," Rauch said, "were some very large agencies where things moved slowly. On the other was a huge number of miscellaneous accounts—an incredible number of doctors in the New York area buying a roll of recorder paper here and a roll there."

Today, with a great deal of basic reorganization accomplished in the past few years, the Eastern Sales Region—one of four domestic HP sales regions—sees no letup in the need to adapt to change.

"One thing we don't have control over," said Cottrell, "and that is the customers themselves. They change, and it's apparent that their changes in the next few years will be most significant for HP. We need to be flexible, and keep ahead of those changes." □



Repair center, above, is linked quickly to area sales offices by daily shuttle runs. If necessary, instruments can be brought in by the shuttle vehicles, repaired overnight, and returned to customer by shuttle next day. Below, staff engineer Jim Brockmeier, left, and field engineer Walt Benedetto catch up on some customer calling.





TARGET FOR '68

**Improve
decision-making
processes**

A major task for management

□ Throughout the ages, organizations of all kinds have tried every possible form of decision-making process in attempting to maintain or improve productivity. At one extreme was the master of the galley slaves: each beat of his drum symbolized a management decision to the effect that all hands must keep rowing. Without its goad and threat, not a finger would be lifted.

At the other end of the spectrum is today's "management by objective" which also has been described as "management by exception." Either way, it asks that each individual of an organization make his own plans within certain limits toward the fulfillment of the organization's goals, and that the other levels of management step in only as needed to help communicate those goals or help solve problems beyond the reach of the individual.

This, of course, is the HP approach—corporate objective number 6. The effectiveness of this approach was put to a pretty solid test in recent months in the company-wide task of restoring cost and profit performances to better alignment with stated targets.

That employees at all levels of responsibility responded to that task was reflected in Dave Packard's message in the June issue of *MEASURE*: "Everyone has pitched in during the past few months, and as a result we did substantially better during the second quarter."

At the same time, there has been an intensification in the continuing search for new and better ways of organizing the company's efforts, and this has brought emphasis to a number of functions that primarily are the responsibilities of management. These include such areas as inventory control, deciding which products are obsolete, reviewing targets, scheduling production changes, developing R&D priorities, and assigning products among the various divisions.

The following provides an inside look at specific decisions involving two such areas—product assignment and manufacturing control.

Take a look at any HP manufacturing operation. Count the many people making decisions. Count the many decisions each has to make. Consider that all of these large and small decisions are interrelated, that each has a bearing on the division's and company's success. Is it any wonder, then, that manufacturing managers spend much of their

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task for management

time seeking ways to speed and simplify the decision-making process?

At Rockaway, Manufacturing Manager Paul Bastow said, "A little more than a year ago we realized that—if we were to reduce inventories and general work level while improving shipments to customers—we would have to develop a better controlling system. It should not only guide our activities but also help us evaluate our performance.

"The obvious solution seemed to lie in an ability to expand our data processing to include the many functions that we were then doing manually."

The goal was to tighten up the processes of inventory posting, work-order scheduling, purchasing and parts issuing, and integrate them—without losing the flexibility to change at any time and without adding costs. Each phase was to stand on its own merits yet be part of a total system.

"Our first step," said Bastow, "was to develop a process that enabled us to pull parts from stock by the use of IBM cards with a saving in the time required for Kardex posting. A tape-controlled typewriter combined with a key-punch machine serves as an input for work orders to the plant. Each fabricated part and work operation is keyed to a master plan and to each other, with the result that the parts move through the plant much as cars in a freight train. As the in-process inventory was reduced, the number of back orders declined.

"With the work-order process under way, automation of the purchase-order process through the use of the same tape-controlled equipment was a natural."

The system, considered most applicable in smaller divisions, now reaches far into Rockaway's total operations. It provides schedulers and buyers with an almost instant pic-



New tab-card system of manufacturing control at Rockaway has streamlined every operation involved at reduced costs. At left, Emma Whitehead, parts scheduler, reviews with Manufacturing Manager Paul Bastow how system covers more parts now than possible before.



Grace Thoresen sorts a group of the many tab cards used each day in the new Rockaway system. At right, Tony Piotrkowski, EDP supervisor, places program panel in calculator.



ture of the needs of the entire division for any one part at any one time. Plans now are to employ more rapid equipment and extend the program further to other functions—in no way substituting for individual decision making but, rather, improving it with better and faster information interchange.

Right from the start, some two years ago, the new 3370A electronic integrator was an interdivisional project.

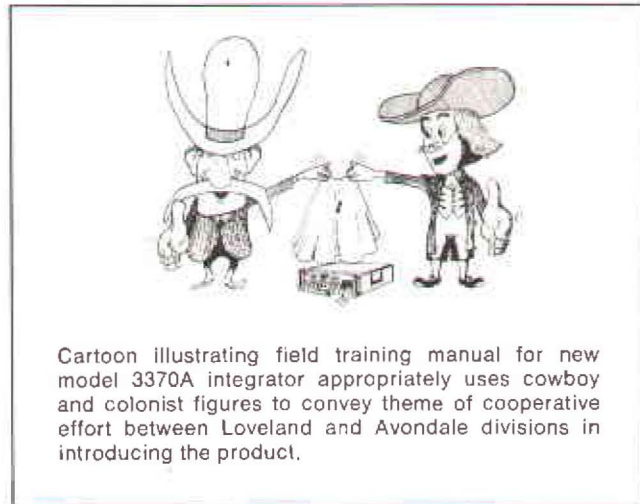
Engineers at Loveland Division were to design and develop the instrument. Chemists from Avondale Division were to help define the marketing needs and assist in setting preliminary design specifications. Loveland was to manufacture it. Avondale would market it to the chemical industry, where it would set a new standard in quantitative measurement important to gas chromatographers in both research and quality control applications. Given a favorable reception, it was an arrangement that should benefit both divisions.

But then, with engineering, tooling, and marketing programs well underway, the situation changed.

For its part, Loveland had meanwhile been selected to produce and market the hot new desk-top calculator that HP Labs had developed.

Avondale, on the other hand, was both looking and working hard to add new instruments to its analytical line, and to build up its production. The integrator was a perfect match to these requirements. In addition, the quartz crystal thermometer had been transferred to Avondale from the Palo Alto Division for similar reasons of consolidating analytical instrument manufacturing.

The decision—made at the corporate level and announced early this year—to transfer the integrator to Avon-



Cartoon illustrating field training manual for new model 3370A integrator appropriately uses cowboy and colonist figures to convey theme of cooperative effort between Loveland and Avondale divisions in introducing the product.

dale was not an easy one. For one, engineers take a strong personal and professional interest in their creations. This was very true of the Loveland team members. They would like to have seen the integrator roll off their own production lines for years to come, and follow its progress first hand. Then, there was the complexity and cost of a transfer, which would have to take place some time after the start of production at Loveland.

But a decision was made. The long-term logic of the situation prevailed. As of October full responsibility for the integrator will rest with Avondale. Already it has sent along a sincere "thank you" to the Loveland team. □

The movement of parts into stock can be readily spotted on the schedule, being examined here by George Sanford, prefab supervisor, and Cappie Caplinger, group leader.



The new system automatically produces a "requirements" report which guides the HP buyers in making purchases. At left, buyers Gary Hallingse and Mel Hubbard review the report with Don Terp at right.



Start of the data process system takes place here where Dottie Thompson initiates work orders and purchase orders. Dottie helped develop the combination Flexowriter and keypunch operation.

News in brief

New York—HP has advanced further in *Fortune's* 500, the magazine's annual ranking of the nation's 500 largest industrial firms. With 1967 sales of \$243-million, HP is 319th on the list. The company rose to 221st in net income and continued to be 20th in annual growth rate of earnings per share.

Palo Alto—This year, 33 scholarships have been awarded to HP sons and daughters through the HP Employees' Scholarship Fund. This brings to 169 the number of \$500 college scholarships awarded since the program began in 1951.

North Hollywood, California—Neely Sales Region will build a sales office in Fullerton to better serve customers in Orange County and southeastern Los Angeles County. Construction will begin later this

year and will be completed in early 1969 on the 10,000-square-foot office, which will be located on a 2.9-acre site at East Orangethorpe Avenue and South Manhattan Street, Fullerton. Manager Phil Scalzo and a staff of 35 will transfer from Neely headquarters in North Hollywood.

Palo Alto—This year's campaign to encourage employees to participate in HP's payroll deduction program for investing in U.S. savings bonds and freedom shares has been the most successful ever. New enrollments brought participation to 24 percent of the company's employee force.

Pointe Claire, Quebec—HP Canada has assumed primary responsibility for marketing HP's medical prod-

ucts to hospitals and research organizations in Canada. X-Ray and Radium, Ltd., which has distributed HP's medical line in Canada, will continue to sell HP electrocardiographs to Canadian doctors.

Palo Alto—HP's annual influx of summer employees is again providing relief help during this peak vacation period. Companywide, this year HP has 366 summer hires. Reflecting the company's policy of seeking out members of minority groups to employ, 108 of the summer employees are from minorities.

St. James, Manitoba—HP Canada has opened its seventh sales office, at 511 Bradford Street in this Winnipeg suburb. The office, headed by David Gibbs, serves electronic and medical customers in the provinces of Manitoba and Saskatchewan.

People on the move

Corporate—Larry LaBarre, to HP Labs, Physical Electronics, from corporate process engineering; Dennis Silva, to HP Labs, Physical Electronics, from manufacturing engineering, Microwave; John Vaught, to HP Labs, Physical Electronics, from corporate process engineering.

F&T—Vernon Barber, to R&D (counters #1), from product engineer, electronic tooling; Roger Lee, to industrial design, from corporate industrial design.

HP Associates—Arnold Lieman, to marketing staff, from HP Systems.

HP Systems—Roger Williams, to R&D staff, from development engineer, Loveland.

International—John Lark, to management staff, YHP, from precision components manager, Loveland.

Loveland—LaMar Goates, to process engineering, from corporate process engineering; Hudson Grotzinger, to R&D staff, from materials engineering, Microwave; Ken Howell, to marketing staff, from corporate process engineering.

Microwave—Dick Blackwell, to R&D staff, from engineering staff, Rockaway; Erdem Epengin, to accounting staff, from finance, Mountain View; Jim Haynes, to circuit lab, from tool engineering; Charles King, to video tape training coordinator, from manual writer, marketing staff; David

Lyons, to marketing staff, from R&D; Bob Pace, to materials engineering, from R&D; Fred Riley, to machine shop from production engineering.

Paeco—Don Braman, to purchasing agent, from manufacturing supervisor.

Rockaway—Tony Piotrkowski to EDP supervisor, from tab operator.

Eastern Sales—Bill Beers, contract coordinator, to West Conshohocken, from Rockville; Stroud Custer, to calculator sales engineer from field engineer (West Conshohocken); Jim Fitzpatrick, to account manager, from field engineer (Paramus); Lee Frank, to computer sales engineer, from staff engineer (Cherry Hill); Carl Schultz, sales rep, chemical instrumentation, to Cherry Hill from Paramus; Ron Sturmer, to field engineer, from staff engineer (Paramus); Howard Volin, staff engineer, to Cherry Hill, from West Conshohocken.



from the chairman's desk

Last month we had a two-day meeting in Palo Alto of the managers of all our manufacturing divisions and marketing regions. The purpose was to review our performance for the first half of the fiscal year, to set targets and objectives for the second half, and to exchange ideas on a number of different subjects affecting our operations, both short and long term.

As our company grows larger, these semiannual management meetings are especially useful in improving communications, in generating fresh approaches to problems, and in developing common goals and objectives for all our divisions.

We covered a broad range of subjects at the June meeting, including an analysis of warranty costs, a review of our instrument leasing policy and an evaluation of our recruiting plans and programs. We discussed, at some length, the nation's long-term economic outlook, with particular emphasis on growth trends within the industries we serve. We also spent considerable time reviewing our various programs to provide more extensive and effective training for minority groups, and to broaden their employment opportunities.

A good part of the meeting was necessarily devoted to immediate, short-term considerations, such as the establishment of second-half targets and quotas. But some of the most important and interesting discussions related to the long-term objectives and direction of the company.

We talked about our overall product and marketing strategy, and the development of a corporate organizational structure that would enable us to guide and manage our growth more effectively and be fully responsive to the expanding needs of our customers. Although the existing structure has worked quite well, there was a feeling among the group that we need to improve our communications, particularly the direct line communication between our manufacturing divisions, our field sales groups and our customers.

With the rapid expansion of our product line and markets has come the need for more specialization in our marketing effort. We have already moved in this direction by adding several sales engineers, especially in highly concentrated markets, who specialize in medical instruments, analytical instruments, computers or calculators. It was agreed that we continue this effort, although at a planned and reasonable pace that is attuned to customer needs and desires.

It may also become desirable, as our manufacturing divisions increase the scope and diversity of their activity, that some of them be brought together, organizationally speaking, into groups. Several of our divisions have products and markets that are closely related. By grouping these divisions under a group executive concept, their people can work together more effectively in attaining common goals and objectives.

Over the next several months we will be discussing these ideas in more detail and implementing those that seem particularly applicable to our long-term needs and growth.

Throughout the meeting I sensed a strong feeling of confidence and optimism among all our managers. Although our company has grown considerably over the years, it is apparent that there are still ample opportunities for future growth. Inherent in this prospect is the opportunity for each individual in the company to develop and broaden his own capabilities, and thereby make an increasingly important contribution to our continuing progress.

David Packard

