

# the grapevine



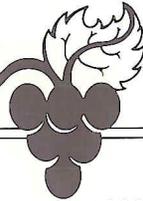
Hewlett-Packard Company Santa Rosa/Rohnert Park

May 1989



**Hewlett-Packard**  
**in Sonoma County**  
**1972 – 1989**

# the grapevine



MAY

1989

## FEATURES

### Seventeen years of working hard and playing hard 3

In May of 1972, Hewlett-Packard had one leased building and four employees in Sonoma County. Today, the company has 3,700 employees at three different sites. Ever watchful for an opportunity to flesh this information out, *the grapevine* staff has finally found an appropriate occasion: HP's 50th anniversary celebration this month. After pouring over old publications, dusting off yellowed photographs and interviewing employees both past and present to compile this special historical edition, it's safe to bet that it'll be another 17 years before this is attempted again.



### A management team for the ages 9

Old managers never die, they just keep getting promoted. And deservedly so, at least in the case of the first Santa Rosa management team. Ever wonder whatever happened to Cyril Yansouni? Ever wonder who Cyril Yansouni is? Learn more about one of HP Santa Rosa's first R&D managers and other early managers who took risks, succeeded and rode off into the sunset.



### Analyzing the impact of Network's product line 20

Thanks to HP, engineers were able to emerge from the dark ages of microwave and radio frequency electronic measurement. Here's more historical information than you dreamed possible on network analyzers. Those who think "network" refers to volleyball practice can skip this section.



### The full spectrum of SAD instruments 22

In a never-ending quest to elevate trivia to an art form, the editor submits this item for consideration: Allied forces used antecedents of modern-day spectrum analyzers to test radar systems during World War II. Not exactly Guinness Book material, perhaps, but what other source regularly provides definitions for acronyms like EMI? "Editor's maniacal ideas" is close, but no cigar.



Editor/photographer ..... Jeff Weber  
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 Ellie McGovern

**The grapevine is published for the employees of the Hewlett-Packard Company in Santa Rosa and Rohnert Park, California.**

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## LETTER FROM THE EDITOR



It was embarrassing. During interviews for this special edition, several former HP Sonoma County employees waxed nostalgic about their time here. They wistfully described the local assignment as the best time of their careers, and heaped praise on the people they left behind to accept other challenges with Hewlett-Packard.

They didn't seem to see me fidget as I searched for a response. The possibilities varied only in their levels of inappropriateness. "Yes indeed, it's sure a great place," and, "We miss you, too," were my best efforts, so I ended up nodding my head a lot.

What can you say to someone who regrets having to leave the place where you are lucky enough to live and work? Not much. Fortunately, there were lots of other things to discuss with the people selected to enliven this historical issue of *the grapevine*.

Doug Chance took an hour away from work as an HP executive vice president to talk about the time he bounced around the Fountaingrove Site in a Jeep to see if it was suitable for a new company plant. Santa Rosa HP's first general manager also mentioned that the baby son he had while working here is now 6-3 and wears size 13-1/2 shoes. Doug Carnahan, currently general manager of HP's Publishing Products Business Unit, recalled spending many hours working out planning details on the Fountaingrove Site with city officials. In addition, the former Santa Rosa HP project and fabrication manager reminisced about commandeering a large bus at the picnic site during a boisterous early beer bust.

Byron Anderson, the MWTD general manager who left to head HP's division in Spokane, spoke of one individual's courage during a debate on whether HP should be allowed to build a facility in Rohnert Park. Pride swelled in Anderson as he recounted the eloquent tribute from an HP admirer who rose to voice his opinion amid a sea of skeptics.

Besides shooting the breeze with a handful of folks who've moved onward and upward within the company, this assignment provided a chance to visit a few legendary ex-HP types still in the area. The conversation with former Signal Analysis Division general manager Rit Keiter was so entertaining that I'm willing to forgive him for nearly asphyxiating me with second-hand cigarette smoke. Shay Rogers, formerly "Lobby Shay" at the Valley, Fountaingrove and Rohnert Park sites, has lost none of the effervescence that made checking out company cars such a memorable experience. And marketing guru Dean Abramson is still cantankerous in a charming sort of way, although retirement and a few weekday trips to his Tahoe cabin have softened the edges a bit.

Like those who have left because of promotions, the former employees still say "we" when referring to HP in Sonoma County. During this 50th anniversary year for Hewlett-Packard, that simple testimonial to a special place takes on added meaning.

— Jeff Weber

# HP in Sonoma County — instrument of change

## A site for sore eyes

The story goes that one day in early 1970, three Hewlett-Packard officials climbed into a car and started driving north from Palo Alto. Unlike most business travelers, this HP crew didn't have a fixed destination.

They were just browsing for a nice place to locate a new HP facility. Site-seeing.

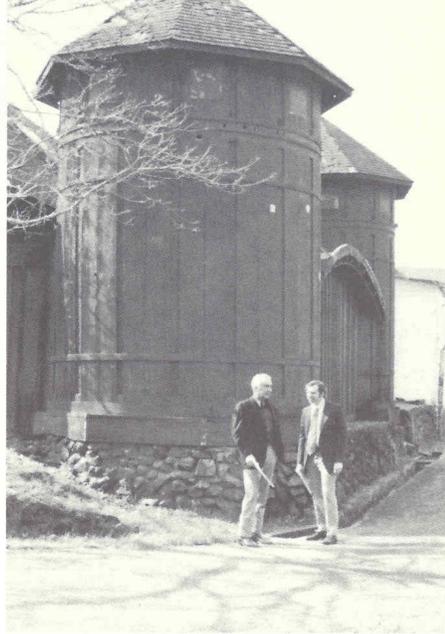
After motoring across the Peninsula, through San Francisco and into Marin County, they stopped at the pointy-roofed McGraw-Hill complex in Novato. An informal chat with the McGraw-Hill manager produced a promising real estate tip.

"I live in Santa Rosa," volunteered the manager. "That's where you should look."

And so they did. With the help of Harold Peterson, executive director of Sonoma County's economic development board, the HP trio visited a number of potential plant locations. None was exactly right until they came upon a site for sore eyes: the old Fountaingrove Ranch property.

"It looked like a beautiful area, similar to the Stanford University land on Page Mill Road," says Doug Chance, a member of the expedition to search for a site on which the expanding Microwave Division could grow.

Chance, the division's marketing manager, was accompanied on that early trip by general manager Paul Ely and manufacturing manager Dave Weibel. All three were impressed with



Bob Walter, left, and Doug Carnahan at the old Fountaingrove winery

the scenic Fountaingrove area, especially after touring the property with owner Bob Walter.

"Bob took us out in his Jeep," Chance says, "and drove us over every rock and near every tree. He clearly loved the property."

And he was prepared to sell to buyers who shared his vision of balanced development in the Fountaingrove area, including industrial, hotel, residential, office and retail uses.

Walter, an impressive figure with silver hair and cowboy boots, extended some Sonoma County hospitality to the South Bay visitors by giving them keepsakes from the old Fountaingrove winery.

"We walked downstairs in the winery and Bob pulled out some 1942 Fountaingrove wine," says Chance, who would become HP Santa Rosa's first general manager and, eventually, an executive vice president. "I still have two bottles as mementos of early Santa Rosa."

"Early," at least, in relation to HP's presence. Santa Rosa was a quiet city of around 50,000 in 1970. The community had strong ties with the local agricultural industry, although little in the way of manufacturing. Optical Coating Laboratories was already on the scene, but the "city of roses" had never been hand-picked by a company the size of Hewlett-Packard.

Even though the three-member site search party left with good feelings, there was no guarantee HP would locate a facility in Santa Rosa. An official company committee, reportedly operating under instructions to look anywhere west of the Mississippi, considered a number of potential sites. Other con-

## HISTORY AT A GLANCE

April 28, 1971

Hewlett-Packard's intention to acquire property north of Santa Rosa for an electronics research and manufacturing facility is first disclosed publicly in a statement released by Paul Ely, general manager of the Microwave Division in Palo Alto.

Oct. 7, 1971

News of HP's official purchase of 190 acres of the Fountaingrove property from Bob Walter is published in the Press Democrat.

April, 1972

Bev Johnson is the first local resident to apply for a job at HP in Santa Rosa. She is later hired and attends the company's first Sonoma County training class with about a dozen other new employees.

May, 1972

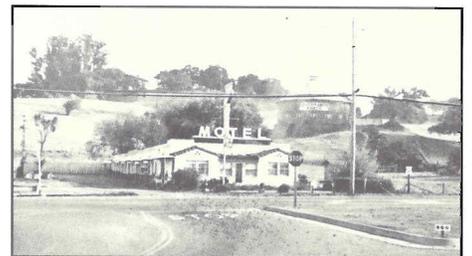
The "start-up" crew from Palo Alto, including Jack Grout, Doug Scribner, Ed Ulrich, Bill Keilig, Duane Hartley, Jim Porsche, Pat McPherson and Karen Fuller, arrives at the Valley Site on Airway Drive to conduct job interviews. Among the first locally hired Santa Rosa employees are Ernie May, Sue Bailey and Judy Day.

Feb. 1, 1973

The first fabricated part is produced at the Valley Site.

May, 1973

Construction starts on Buildings 1 and 2 at the Fountaingrove Site.



Early Fountaingrove setting

tenders included Monterey, Albuquerque, N.M., Reno, Nev., Corvallis, Ore., and Spokane, Wash.

The search produced two finalists: Albuquerque and Santa Rosa. Committee members traveled to both cities and rated each on a list of criteria. In the end, Santa Rosa emerged as the top choice primarily due to two factors: quality of life and proximity to Palo Alto.

Equally important as the area's attractive environment was the fact that 400 Microwave Division employees would have to transfer 100 miles north instead of 1,000 miles southeast. And the enthusiastic response to HP's plans by Santa Rosa officials helped the company make up its corporate mind.

"Community leaders felt HP was the type of company they were saving Santa Rosa for," Chance says. "They wouldn't have been happy with just any company."

With unemployment hovering around 12 percent, the prospect of getting a large employer was especially appealing to Santa Rosa in 1970. But a recession that year forced HP to tighten its belt and postpone any expansion plans.

After weathering a "nine-day fortnight" — in which HP employees took every other Friday off until business improved — the company announced its intention to acquire acreage on the northern boundary of Santa Rosa. In a company statement issued during the spring of 1971, Ely indicated HP favored the Fountaingrove site over 10 other potential Santa Rosa locations. Included among the sites not selected was land later developed as Annadel State Park.

While most local business and political leaders supported HP's plan, a vocal minority in the community worried about the loss of open space. "Some people were concerned that the hills would be covered with asphalt and buildings," says Doug Carnahan, HP's Santa Rosa project manager and company representative at numerous public hearings on the Fountaingrove proposal. "Many of them wanted HP in town, but didn't want to see Fountaingrove fully developed."

Environmental concerns were mitigated in part by HP's pledge to develop its property slowly. When the company officially purchased the 190-acre chunk of Fountaingrove Ranch in October of 1971, Bill Hewlett was quoted in the Press Democrat as saying HP would "develop the property gradually over a period of 10 years."

## Buildings fit to a 'T'

"Gradual" would certainly describe the way construction took place at Fountaingrove. Following a long approval process involving several public agencies, work on Buildings 1 and 2 began in May of 1973. The project moved ahead sporadically, however, due to unusually heavy winter rains, wind storms and construction company labor problems.

In the meantime, a group of adventurous Palo Alto transferees was busily transforming a leased building on Airway Drive into a makeshift HP manufacturing facility. Leading the wave of Microwave Division employees into Santa Rosa were plant manager Doug Scribner and personnel manager Jack Grout. Realizing their start-up operation lacked a couple of vital ingredients, the managers immediately hired two secretaries, Ernie May and Judy Day, and a receptionist, Sue Bailey.

Then, almost exactly one year before construction began at Fountaingrove, "we turned on the lights and put an ad in the paper," recalls Grout.

That small item in the help-wanted section opened a floodgate. Applications poured into Building 1T, illustrating the huge pent-up demand for local jobs.

"We had thousands and thousands of

applications in the first few months," Scribner says. "With that number of candidates to choose from — and many of them super-qualified — I felt like I'd died and gone to heaven."

Between 1972 and 1974, 12,000 applications were processed in the tiny 1T personnel department. With such a glut of potential employees, managers enjoyed the luxury of picking the cream-of-the-crop from a 40-hour pre-employment training class. Applicants gladly gave a week's worth of their own time for a chance to work at HP.

For the most part, those recruited from the training class found HP's history of job security more compelling than the entry level assembly or administrative wages. Some even made less than their previous jobs, although that situation was rectified quickly.

"We gathered evidence indicating our pay scale was low," says Grout, who had conducted a standard wage survey among other local manufacturing firms before setting HP's entry level salaries in Santa Rosa. Curious and more than a little concerned, he did another survey — this time covering non-manufacturing companies.

"We discovered manufacturing wages were much lower than non-manufacturing in Sonoma County," Grout says. So, the \$2.35 per hour starting salary was revised accordingly and Grout picked HP's first-ever Christmas season in Santa Rosa to announce the change.

Wearing festive bright red plaid pants, Grout addressed the 60 or 70 employees gathered in the cafeteria. "I said it was our belief to pay among the leaders in the local area, and we learned we were not on track. Therefore, effective



Doug Chance



**Building 1T at the Valley Site**

immediately, we were raising pay curves 40 cents an hour across-the-board."

The audience was stunned. No one had complained about pay. Yet in a unilateral decision based on fairness, the company had increased wages by 20 percent. "For the first time," Grout says, "I could see in their eyes that this company was unusual."

News of the gesture spread throughout Santa Rosa, giving HP's reputation a boost in its new community. The unexpected holiday gift also fostered camaraderie in the small group of Building 1T employees.

The togetherness routine was taken to new heights when HP contracted Poodle Bus Lines to shuttle managers back and forth between Santa Rosa and the South Bay until their families could move to Sonoma County. Traveling to Santa Rosa with the vagabond managers on buses emblazoned with big poodles were parts and materials, since the company hadn't yet acquired local sources. Assembled instruments for testing in Palo Alto would fill the poodles' bellies on return trips.

The well-worn buses performed admirably for two or three months, although not without incident. In one case, a manager spent part of the trip locked in the bathroom.

Materials and parts weren't the only things hard to come by during the start-up. HP learned even standard appliances could be difficult to acquire.

"We needed a small refrigerator for the lab," says Kit Tuveson, a product line manager in microelectronics when he transferred to Santa Rosa in 1973. "So Kathy George went down to Sears to buy one with an HP purchase order. She came back with a credit application form that had questions like, 'What is your net worth?' The company's name

wasn't magic like it was in the Bay Area. Up here it was, 'Who's HP?'"

Instead of being discouraged by the difficulties of a start-up operation, team members grew closer. Laughter and good spirits were never in short supply.

"We were a close-knit bunch in those days," says Shay Rogers, HP's second Santa Rosa receptionist. "We worked hard and we played hard."

Shay was good at both. Always professional and uncanny at knowing who was where and what was happening in the office, Shay was known to have fun with her legendary people skills on occasion. She once popped out of a giant cake to enliven a birthday celebration. Another time, she wore a stylishly "mod" '70s outfit to greet Corporate VIP's. Her dress was so memorable, in fact, that one high-ranking HP official reportedly remarked: "Did you see that receptionist?"

### Shay Rogers



### July 26, 1973

The first issue of what will later evolve into **the grapevine** magazine is published. Titled, "Santa Rosa News," it is written by Jack Grout, HP Sonoma County's first personnel manager. The most newsworthy item in the first edition is the announcement of a visit by Bill Hewlett to the Valley Site.

### Nov. 1, 1973

The Microwave Division's satellite group in Santa Rosa officially becomes the Santa Rosa Division.

### Jan. 1, 1974

The Santa Rosa Technology Center, later to become the Microwave Technology Division, begins production in the northwest corner of Building 1T.

### May 15, 1974

Bill Hewlett and Dave Packard, along with a number of HP vice presidents, including John Young, visit the Valley Site as part of an annual division review.

### June 11, 1975

Employment at the Valley Site — Buildings 1T, 2T, 3T and 4T (the marketing enclave across the street known as "Meatball") — reaches 850 and parking spaces are hard to find.

### July 18, 1975

With construction on Buildings 1 and 2 completed, the first groups move to the Fountaingrove Site, including R&D, product assurance, fabrication engineering and finance. The model shop and plant engineering move into the new facility the following weekend. The move of Tech Center from Palo Alto takes place starting in August, and marketing transfers up from "Meatball 4" in September.

### Nov. 22, 1975

Bill Hewlett, Dave Packard and other high-ranking HP officials greet more than 6,000 community guests at the Fountaingrove Site's open house. Visitors take 130 tours of the facility and consume some 14,000 cookies.



**Bingo at the 1973 picnic**

It was during the era of mini-skirts, bell-bottom pants and long sideburns that HP's Technology Center moved from Palo Alto to the newly designated division in Santa Rosa. In late 1973, the Santa Rosa management team turned its full attention to the Tech Center relocation. It was a logical move from a business standpoint, since most of the sophisticated components made by Tech Center were used in the Santa Rosa Division's network analyzers, spectrum analyzers and sweepers.

But moving out of the Silicon Valley was an emotionally difficult decision for many Tech Center employees, and some were dead-set against it. In keeping with the work-hard, play-hard theme, the fledgling Santa Rosa Division invited all the Tech Center workers to a product fair and strategy presentation. Oh yes, and a beer bust.

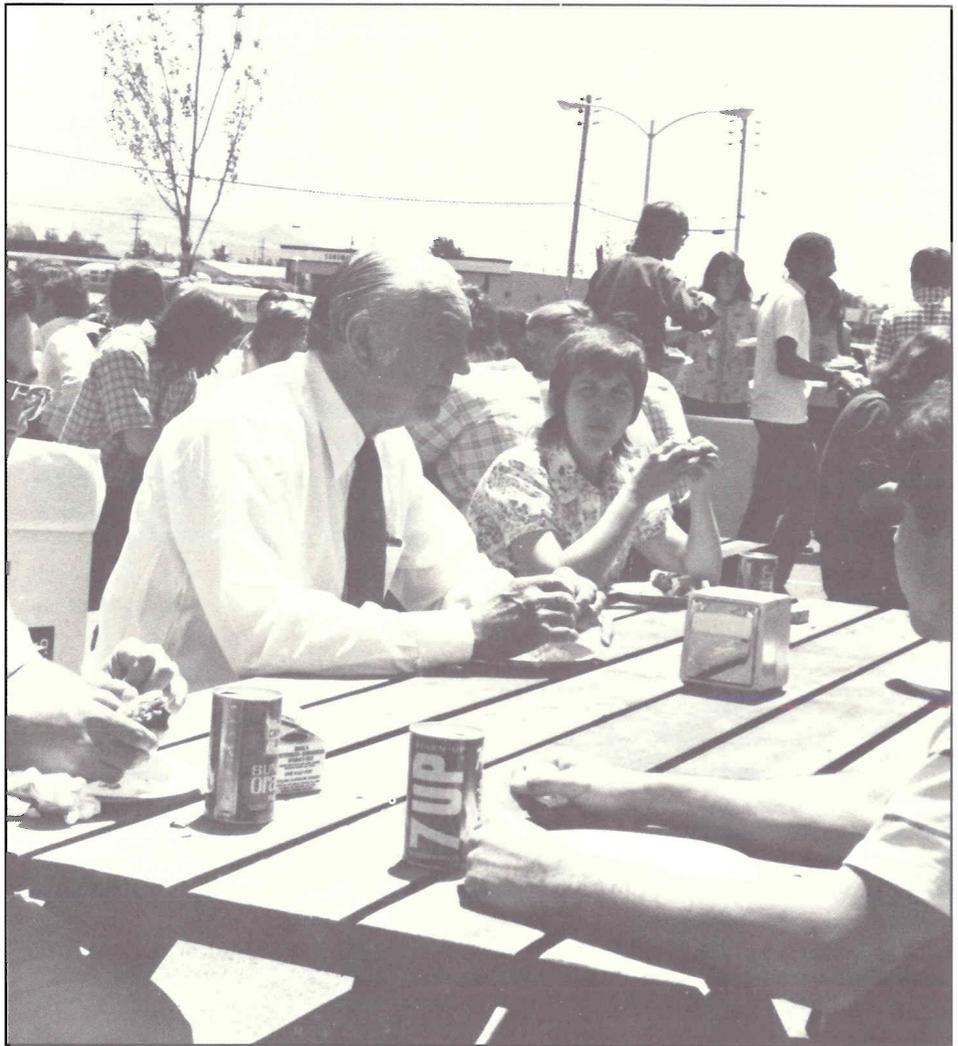
This massive exercise in internal head-hunting was a qualified success. After attending the impressive product fair and strategy session, any Tech Center employees still on the fence about moving were pushed one way or the other at the beer bust.

"Much beer flowed and half the people decided this was the greatest place in the world," Chance says. "The other half wanted nothing to do with this wild bunch. But a lot who'd earlier said 'no way' went home that night and said, 'we're moving — this is a great team and it's going somewhere.'"

Indeed. The list of early Santa Rosa Division managers reads like a page out of an electronics industry "Who's Who" (see story on page 9.) George Bodway, for instance, has held several upper-level management jobs at HP since he was general manager of the Technology Center. Bodway coordinated the Tech Center's move to Santa Rosa, which was staggered over several years to ensure that production never halted.

The Technology Center relocation occurred during a period of rapid expansion at Santa Rosa HP. From November of 1972 to April of 1973, division employment grew from 95 to 230. By May of 1974, there were 706 employees. Many were transferees, but the majority were locally hired.

"The increase in employment was fairly hefty," says Bodway. "I don't recall



**Valley Site lunch with Dave Packard**

a time when we weren't constructing a building."

More space was needed even before the division could move into its permanent facility at Fountaingrove. After running out of room in Building 1T (the "T" stood for "Temporary"), HP constructed Building 2T on adjacent property. A warehouse down the block became — what else — Building 3T.

In an illustration of the unconventional thinking that would later become its hallmark, the marketing department eschewed tradition in naming its nearby office. Situated next to a small restaurant named after an Italian specialty, marketing's temporary enclave became known as "The Meatball."

Alas, that was a bit too spicy for the die-hard analytical types who insisted on calling it 4T. The four buildings became known collectively as the Valley Site.

Creativity seemed to blossom along with the company's steady growth in the mid-'70s. Development work on some of HP's most innovative network

and spectrum analyzers began in Santa Rosa during this period. Products such as the HP 8566 and HP 8568 spectrum analyzers and the HP 8510 network analyzer became the foundation for a several hundred million dollar business.

But the road to success had a few bumps in it, including a recession in late 1974 that prompted an imaginative personnel strategy. In keeping with HP's no-layoff philosophy, the local management team coped with slow business conditions by having some production employees work as security guards. Machinists without work loaded printed circuit boards. And the buildings were painted at least three times a month until economic conditions improved and orders picked up.

By the middle of 1975 business was booming again and, finally, there was good news from the Fountaingrove Site. Buildings 1 and 2 were ready to be occupied. The move to "heaven on the hill," as some locals called it, was a bittersweet experience for many employees.



**Jack Grout**



**Doug Scribner**

**March, 1976**

A rare late-season cold snap produces snow that sticks to the ground at the Fountaingrove Site.

**April, 1976**

With space running out in Buildings 1 and 2, HP begins initial plans for Building 3.

**November, 1976**

Access to the Fountaingrove Site via Parker Hill Road is completed.

**March, 1977**

Doug Chance, general manager of the Santa Rosa Division since it was created in 1973, announces he will leave to become marketing manager for HP's Computer Systems Group.

**April, 1977**

Hal Edmondson succeeds Doug Chance as the Santa Rosa Division general manager.

**May, 1977**

Construction starts on Building 3 at the Fountaingrove Site.

**June 22, 1978**

HP's plans to construct a fourth building at the Fountaingrove Site are given a go-ahead by the Santa Rosa city council.

**December, 1978**

Industrial Research/Development magazine names the Santa Rosa Division's HP 8568A spectrum analyzer as one of the year's most significant technical products.

**February, 1979**

Building 3 at the Fountaingrove Site is completed. Also completed is a new parking lot, easing parking problems.

**March, 1979**

General manager Hal Edmondson announces the establishment of two instrument operations at the Santa Rosa Division: spectrum analyzers, headed by Rit Keiter; and network analyzers, headed by Bill Wurst.



**Fountaingrove Site grading**

# Ascending 'heaven on the hill'

HP gained something and lost something when it opened the Fountaingrove Site. Recognized by many as the company's most beautiful facility, Fountaingrove had everything the Valley Site lacked. Constructed specifically for high-technology manufacturing, Buildings 1 and 2 seemed cavernous to those who transferred in July, 1975. Besides gaining plenty of elbow room, employees also enjoyed built-in amenities such as recreation areas and a full-service cafeteria.

While saying ta-ta to the "T" buildings didn't exactly elicit an outpouring of grief, some recognized the move as the end of an era.

"There was a feeling that it had been nice to be a little entity," Grout says. "It was a significant change going up to Fountaingrove. Everyone knew this was just the beginning of our growth."

The move generated a certain wistfulness among those who valued the family atmosphere in Buildings 1T and 2T.

"Aesthetically, everyone liked Foun-

taingrove," says Duane Hartley, a microelectronics section manager at the time. "But many missed the smallness of the Valley Site."

This wave of nostalgia was short-lived. Sentimentality took a back seat to the hard work involved in relocating tons of equipment and hundreds of people. Thanks to some detailed advance planning, the complex job went off without a hitch.

"We were so organized," says Hartley, "that every power cord and tool in our section was labeled so it could be moved and set back up fast."

With the emphasis on "fast." One work area, for instance, was shut down in the morning, transported and set up again in time for the HP movers to celebrate their accomplishment at a typically spirited party that evening.

The success of such a massive undertaking sometimes hinged on the ability of leaders to think on their feet. It was more the way a manager landed on his feet in the case of one department's move to the Fountaingrove Site.

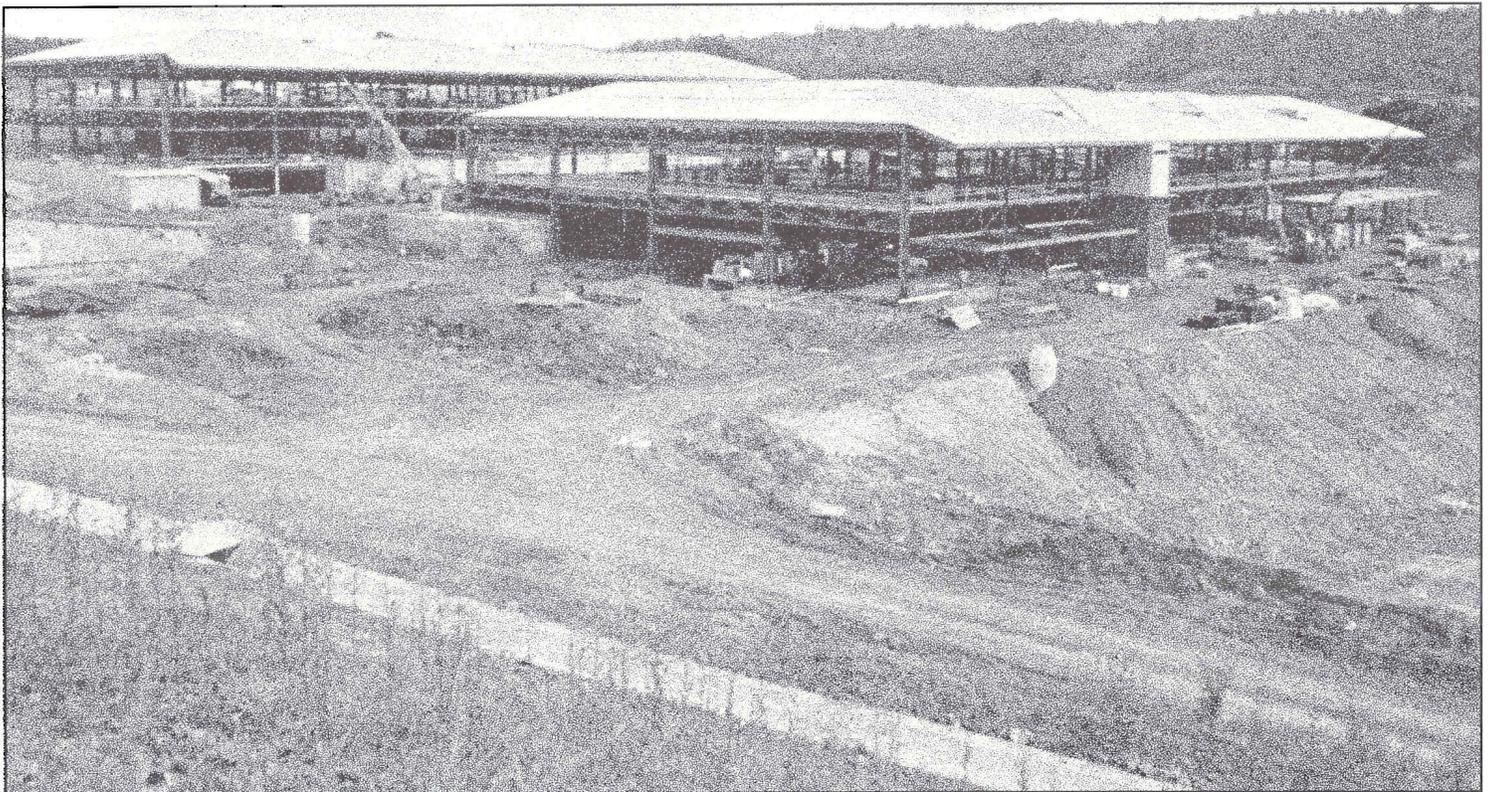
Sitting on a lab bench in Building 1 Upper, Hartley dangled his legs while discussing microelectronics' planned relocation on that floor. When he slid off the bench and landed, the floor vibrated.

"At that point I knew we had a big problem," Hartley says. "If the floor vibrates, you can't work under a microscope."

An ensuing investigation supported Hartley's observation better than Building 1 Upper had supported him. After receiving anti-vibration reinforcement, Building 2 Lower became micro's new home. And Hartley earned a reputation as a manager who can make weighty decisions.

"Who knows?" he smiles. "If someone else had jumped from that bench, maybe we wouldn't have known about the problem."

Toward the end of 1975 most of the relocation was complete, including the Tech Center transfer. With everyone situated and production running smoothly, the management team decided to hold an open house.



Fountaingrove Site Buildings 1 and 2 in June, 1974

# Adventurous group of early managers

When plans were made to relocate a large chunk of the Microwave Division from Palo Alto to Santa Rosa, general manager Paul Ely enlisted a group of energetic managers to help with the project. Nearly 20 years later, it's clear that Ely had created a special management team.

"Those who transferred were generally young and adventuresome," says George Bodway, current director of HP's Systems Program Planning organization in Cupertino and former general manager of the Santa Rosa Technology Center. Bodway characterizes the first group of Santa Rosa managers as "risk-takers."

Without exception, those trail-blazers have been rewarded for their risky behavior.

The charismatic Ely, for example, had planned to move to Santa Rosa and serve as general manager of the soon-to-be new division. But he accepted an assignment in HP's new computer group after masterminding the Microwave Division split and never joined his hand-picked team in Sonoma County. He would later ascend the company's corporate ladder before becoming one of the world's highest paid chief executive officers at another Silicon Valley company.

Only 29 when he was named Santa Rosa HP's first general manager, Doug Chance served approximately five years in that job before joining the computer group as marketing manager. Chance moved steadily up the management ranks, holding several top group level positions before being promoted to executive vice president. As head of HP's Network Systems Sector, he is a carpeted aisle away from John Young and Dean Morton in the executive offices at Corporate.

One of the Santa Rosa Division's

initial two R&D managers, Cyril Yansouni, enjoyed a similarly luminescent HP career prior to his current position as president of the same outfit that recruited Ely. The other R&D manager, Rit Keiter, helped coordinate development of several highly profitable products and served as general manager of the Signal Analysis Division before leaving HP in 1984 to concentrate on his own avionics company.

Doug Carnahan, the Santa Rosa project manager and later fabrication manager, is presently general manager of HP's Publishing Products Business Unit. Doug Spreng, who managed Santa Rosa HP's first microelectronics group, is now general manager of the Manufacturing Applications Group.

The division's first personnel manager, Jack Grout, is now coordinating Corporate policy administration and serves on a number of Corporate personnel task forces. Manufacturing manager Doug Scribner, who also held the title of plant manager in the early days at the Valley Site, currently is Microwave and Communications Group manufacturing manager with an office at the Fountain-grove Site.

Signal Analysis Division general manager Duane Hartley was a microelectronics production section manager and Network Measurements Division general manager Bill Wurst was marketing manager when they transferred to Santa Rosa in 1972.

"I remember everyone being very enthusiastic," says Hartley of the early Santa Rosa management team. "The relocation was a huge job, but I don't recall any complaints. All I remember is everyone talking about how enjoyable it was."

Who said risky business can't be fun?

September, 1979

Construction starts on Building 4 at the Fountaingrove Site.

September, 1979

The Santa Rosa Division participates in HP's first-ever "Open Line" survey on employees' attitudes about the company.

October, 1979

Construction begins on the par course in the hills west of the Fountaingrove Site.

April, 1980

The possibility of HP expanding to another Sonoma County site is officially mentioned for the first time to employees by general manager Hal Edmondson. In his column in **the grapevine**, Edmondson says the company expects to fully occupy the Fountaingrove Site by the end of the decade. He also predicts the new site's first building will be ready in the mid- to late-'80s, and that it will be situated relatively close to the Fountaingrove Site.

May, 1980

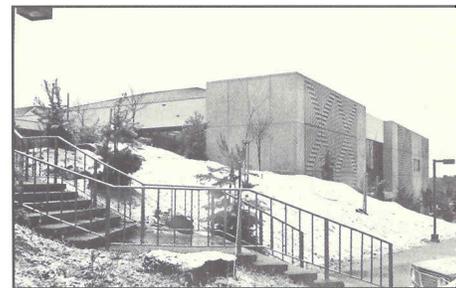
Hal Edmondson is named general manager of the new Microwave and Communication Instrument Group, which includes the Santa Rosa Division and five other divisions. With Edmondson's departure, the Fountaingrove Site is under the direction of operations managers George Bodway, Rit Keiter, Jim Thomason and Bill Wurst.

Sept. 15, 1980

In response to "Open Line" suggestions regarding employee communication, the weekly **Update** newsletter debuts with Carol MacRae as editor.

Oct. 14, 1980

HP announces it has entered into a conditional purchase agreement to acquire 264 acres in Rohnert Park for an electronics plant.



Fountaingrove Site snow

Besides inviting the public to visit HP's newest facility, top company officials hosted Sonoma County VIPs at a special evening ceremony. Bill and Dave, along with a large group of vice presidents, joined the local management team in entertaining many of the community leaders who had supported HP's move to Santa Rosa.

Before it was over, more than 6,000 received tours as part of the open house activities. Even Bill was offered a guided walk through the plant, although he declined.

"I'm going on my own tour," Bill reportedly replied. He was later spotted strolling down the utilities tunnel, asking employees how things were going.

During the first few years at Fountaingrove, HP struggled with the issue



**Rit Keiter**

of growth. Paradoxically, a dramatic increase in orders for the Santa Rosa Division created both internal and external problems.

From a community relations standpoint, the company had to prove its interest in being a good neighbor and corporate citizen. "Initially, there was some suspicion about this large employer," Grout says. "People were concerned about the bad things it might bring in the way of transportation problems and hiring people outside the community."

There were also misconceptions about what HP was making behind those security-guarded fences. "They thought we were making weapons or television sets," Grout says.

In an early example of "take the offensive," Grout coordinated a community relations campaign in which he and other Santa Rosa managers sought and accepted invitations to speak at various organizations. They talked about HP, its products and its future plans. They also pointed out that all new-hires at the Fountaingrove Site were Sonoma County residents.

"It was an opportunity to tell people about our practices, beliefs and culture," says Grout, who helped establish HP's long tradition of local community involvement by serving on the Santa Rosa City Schools Board of Education.

In the meantime, the growing employee population was spreading the word about HP. Mostly, the message was positive, and Santa Rosa slowly became more accepting of the curious manufacturing facility that looked more like a college campus.

The company's community-oriented approach was evident in the push for a Parker Hill entrance to the Fountaingrove Site. Upon learning that an adjacent neighborhood was worried about a big increase in traffic, HP invited the nearby residents on-site.

After airing their concerns, then hearing HP's analysis on traffic speed and volume, the neighbors chose not to press city council members to reject the plans.

Such lessons in trust-building were gratifying to local employees trying to establish the kind of reputation HP enjoyed in the South Bay. The foundation of community confidence was in place when the Santa Rosa Division's first general manager left in March of 1977.

Upon replacing Chance that spring, Hal Edmondson inherited a division still experiencing growing pains. Construction plans for Building 3 were being readied, and employment continued to increase at a steady clip.

It was a challenging time for manager and employee alike.

"Our main problem was figuring out how to grow with style and grace," says Edmondson, who is now HP's vice president of manufacturing. "In adding new managers, we had to make sure our quality systems and the HP way were intact as we grew."

The large majority of individuals promoted during the late '70s became excellent supervisors or managers. But as might be expected, some of those experiments were more successful than others. As a new facilities engineering supervisor during that period, Tuveson remembers facing difficult management decisions on a regular basis. "The big challenge was in hiring and selection," says Tuveson. "We spent a great deal of time looking at applications, screening, interviewing and training. The question was not 'are we growing,' but 'how fast?'"

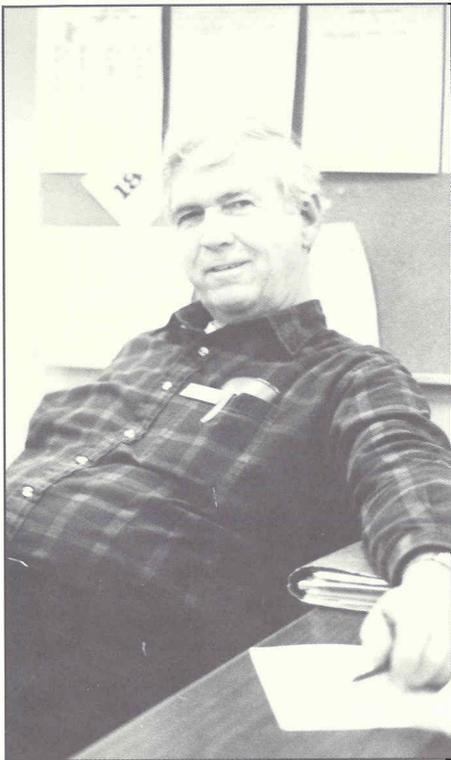
Business was booming to such an extent that excavation on Building 4 was started before Building 3 was ready to be occupied. A flurry of hiring actually made a small dent in the backlog of 30,000 job applications filed during the company's first five years in Santa Rosa.

Despite the personnel problems inherent in such rapid growth, it was an exciting time to work for HP.

"The team was very action-oriented," Edmondson says. "We felt we could do anything, and marched off and did it when we had to. Esprit de corps was high."



**Visitors at the Fountaingrove Site open house on Nov. 22, 1975**



**Bruce Jones**

The sweet smell of success was never more fragrant than in the late '70s and early '80s. With orders climbing "up and to the right," HP enjoyed the fruits of its labor by scheduling bigger and better retreats, seminars, employee recognition ceremonies and social activities.

"It was easy living high-on-the-hog," Tuveson says, "but that wasn't unique to Santa Rosa. Other HP divisions were doing the same thing."

HP's work-hard, play-hard reputation earned greater visibility as healthy business on the hill trickled down to local restaurants and hotels, where the special events were held. With only a few exceptions — including one incident that precipitated a brief divisionwide alcohol moratorium — the experiences were positive for both HP and the business community.

"It felt good to be part of a winning team," says Bruce Jones, who transferred to Santa Rosa in 1975 and has become a sort of resident philosopher in manufacturing engineering since then. The dynamism of that period "opened up many opportunities for people," he says.

In the spring of 1979, Edmondson seized an opportunity to further expand the growing markets for network and spectrum analyzers by forming two separate instrument operations. This reorganization set the stage for his decision a year later to give the two operations full division status.

The Network Measurements and Signal Analysis divisions were officially "born" on Nov. 1, 1980. NWD was — and still is — headed by former marketing manager Bill Wurst. Rit Keiter, previously an R&D manager, was named general manager of SAD. Bodway, general manager of the Technology Center, was given additional responsibilities as site manager.

When asked what role he would play in the newly aligned Fountaingrove Site organization, Edmondson jokingly referred to himself as "emperor."

His reign was brief. In May of 1980, Edmondson was named general manager of the Microwave and Communication Instrument Group, a forerunner of the current MCG. He received a good-natured roasting in a Santa Rosa HP farewell tribute, "The Empire Strikes Back."

During Edmondson's tenure, the employee population grew from around 1,000 to approximately 3,000. This remarkable expansion raised concerns about future space problems. When company officials determined that the seven master-planned Fountaingrove Site buildings would not accommodate anticipated growth, steps were taken to locate and acquire another site.

Shortly before leaving to take his new group level job, Edmondson used his customary column in *the grapevine* to explain HP's decision to establish another facility. He wrote that the company expected to fully occupy the Fountaingrove Site by 1990. And he abandoned the emperor's throne in favor of a crystal ball, predicting the new plant would be ready by the mid-'80s and that it would be situated relatively close to the Fountaingrove Site.

Edmondson turned out to be a pretty fair soothsayer, although the accuracy of his vision remained in doubt far longer than anyone could have imagined.

**Hal Edmondson**



**Nov. 1, 1980**

*The Santa Rosa Division splits into three separate entities: the Network Measurements Division, the Signal Analysis Division and the Technology Center. Bill Wurst is named general manager of NMD, Rit Keiter becomes general manager of SAD and George Bodway assumes responsibility as general manager of the Technology Center and as Santa Rosa facilities manager.*

**August, 1981**

*Construction is completed on Building 4 at the Fountaingrove Site.*

**Aug. 10, 1981**

*The Rohnert Park city council holds a hearing to receive comments on the proposed HP development.*

**Nov. 1, 1981**

*George Bodway is named general manager of the Computer Integrated Circuits Division in Cupertino and Byron Anderson succeeds him as general manager of the Technology Center and Santa Rosa facilities manager.*

**Nov. 23, 1981**

*The Rohnert Park city council unanimously certifies the environmental impact report for the proposed HP plant and approves changes in the city's general plan and zoning to accommodate the new facility. Shortly after the council's action, a citizens' group files a petition and forces an election on the proposed development. Also, three separate lawsuits, including one by the city of Cotati, are filed against the city of Rohnert Park for certifying the EIR.*

**March 27, 1982**

*More than 3,000 visitors attend an open house at the Fountaingrove Site marking HP's 10th anniversary in Santa Rosa.*



**Bill Hewlett and Doug Chance**

Nearly a decade after the casual car trip that resulted in HP's purchase of the 190-acre Fountaingrove Site, the company was at it again. Site-seeing.

A management team, headed first by Edmondson and then by Bodway, studied several possibilities in Sonoma County and along Highway 80 toward Sacramento. The idea was to identify the best choice, buy it, and have the facility ready before overcrowding forced an accelerated construction schedule at the Fountaingrove Site. That appeared to be the only way HP could live up to Bill's pledge of gradual development in Santa Rosa.

Using the same nearer-is-better rationale that guided HP's decision 10 years earlier, the list of potential sites was eventually pared to two: Petaluma and Rohnert Park. The former chicken capital was favored over the "friendly city" in early deliberations, but several factors finally led company officials to award HP's golden egg to Rohnert Park.

"The Rohnert Park city management team was very pro-business and pro-HP," Bodway says. "We were impressed with its planned community approach."

Being located 10 miles closer to Santa Rosa than Petaluma didn't hurt Rohnert Park's chances, either. Although rush hour on Highway 101 wasn't yet a bumper-car experience, few employees relished the thought of driving any farther to work. And most lived in or around Santa Rosa.

"We knew traffic on 101 would get worse," says Keiter, whose informal poll indicated overwhelming support to locate the facility in Rohnert Park. "People wanted the shortest commute possible."

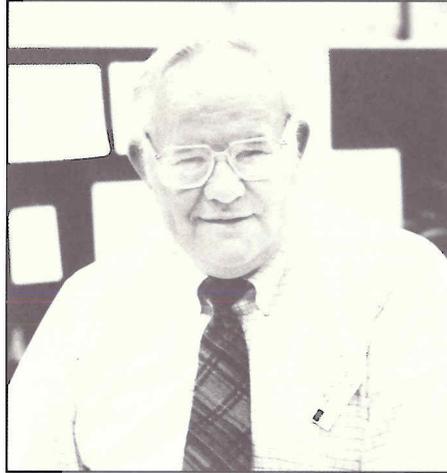
Besides its proximity to Santa Rosa, Rohnert Park also had a superior set of sites from which to choose. So, when HP announced it had entered into a conditional purchase agreement in October of 1980, most employees weren't surprised to learn the 264-acre site was in southeast Rohnert Park.

It was big news, however, to citizens of Rohnert Park and surrounding communities. HP's plan to develop part of an old seed farm became somewhat of a media event, with newspapers, radio stations and even local television covering numerous public hearings on the required zoning and general plan changes.

In a coincidence underscoring the need for another Sonoma County facility, Building 4 in Santa Rosa was nearing completion as the Rohnert Park city council heard the first public comments on HP's proposed new site.

Reaction was mixed at that meeting

## *'Friendly city' lives up to its name*



**George Bodway**

in August of 1981, and conflicting testimony was heard at succeeding council sessions until city lawmakers unanimously certified the environmental impact report for the proposed HP plant three months later.

After overseeing the site selection process, Bodway accepted an offer to become general manager of HP's Computer Integrated Circuits Division in

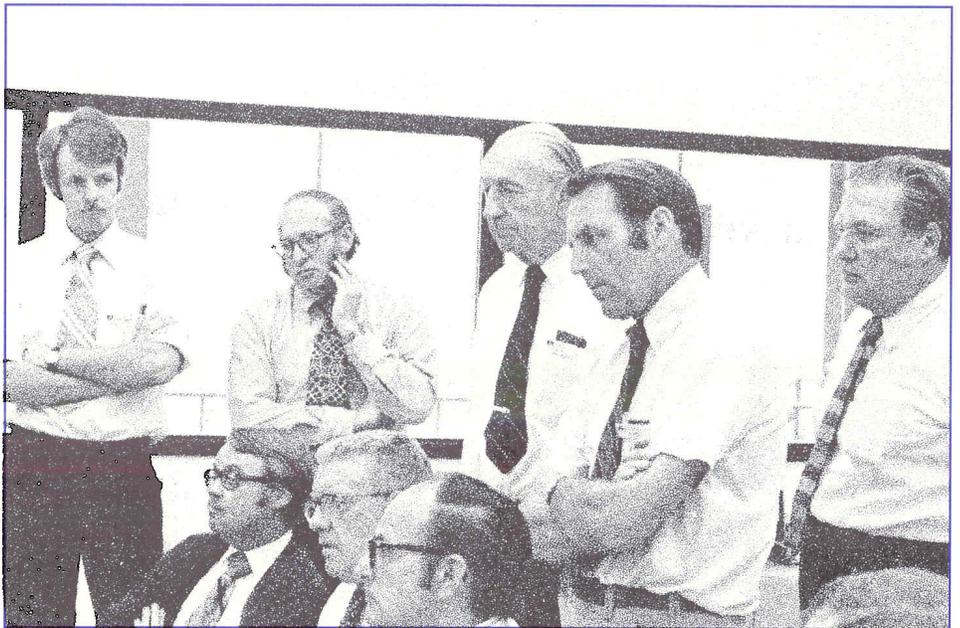
Cupertino. Replacing him as general manager of the Technology Center was Byron Anderson, who couldn't have known what was in store for HP and himself as the company's "front man" in Rohnert Park.

Shortly following the city council's EIR approval, a coalition of area farmers, environmentalists and activists filed a petition and forced an election on HP's move to Rohnert Park. The city was also slapped with three lawsuits — including one by neighboring Cotati — challenging its EIR decision.

Against this backdrop of dissent and legal maneuvering, Anderson pulled together a team of key employees to run the company's first referendum campaign. Joining the new general manager in the effort to generate community support were Tuveson, Dan Condron and Leslie Farrell of the central personnel department (which evolved into the public affairs department), Katie Nutter of Corporate public relations and Prue Draper, the campaign office manager. Keiter and Wurst kept abreast of campaign activities but concentrated on day-to-day division business.

With help from the late Jerry Russom, a professional public relations consultant, the team developed a relatively simple, straightforward strategy.

"We ran the campaign around the basic values of our company," Anderson says. "We listened to our opposition, tried to understand their objections, and attempted to find ways for them to understand our program. We tried to keep the campaign upbeat and focused on the facts."



**Some familiar faces at 1979 Santa Rosa Division review**

Upbeat? No problem.

"We spoke on every rubber chicken circuit there was, from the chamber of commerce to the flower club," says Anderson.

Community volunteers of all ages worked with employees in going door-to-door throughout Rohnert Park, handing out leaflets and explaining HP's strongest argument: growth is inevitable, so let's make sure it is well-planned and includes quality companies like Hewlett-Packard.

"The message was to get a firm like HP in town to provide all the good things the company had come to stand for, such as caring for employees and well-paid jobs," Anderson says.

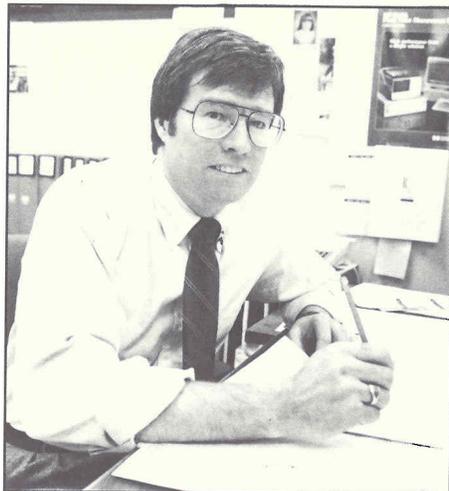
Focused on the facts? Well, HP did its part.

"A lot of our people walked the precincts with information to refute assorted distortions," says Draper, a former newspaper reporter who was hired on a temporary basis to run the "Have Pride in Rohnert Park" (HP in RP) campaign office. "The opposition even said the site was on an earthquake fault and that it could be dangerous."

Such faulty logic kept Draper and the HP team busy trying to set the record straight for much of the campaign office's two-month lifespan. Staffers learned that underlying the lively debate were concerns of a more fundamental nature than a proposed electronics plant.

"It wasn't HP they didn't want," Anderson says. "We just got tangled up in broader issues."

The give-and-take of the campaign encouraged a thorough examination of important considerations such as the city's tax base, land use policy and job availability, among others. As the only



Byron Anderson

item on a special election ballot, the HP proposal became Measure A. Voting "yes" translated into "welcome, HP." A "no" vote meant "stay out."

Some Rohnert Park citizens, still undecided on Measure A, joined approximately 3,000 other Sonoma County residents in attending the Fountaingrove Site's 10th anniversary open house less than a month before the election. Most of the Rohnert Park visitors left the event feeling better about the prospect of having HP as a neighbor.

"They saw what HP really looks like: a clean, modern place with cheerful people in it," Draper says.

Cheer spread to campaign central on the evening of April 13, 1982. After the dust had cleared, HP emerged with a ringing endorsement, 65 to 35 percent. Some were surprised at the large margin of victory, but those closely involved with the campaign knew what spelled the difference.

April 13, 1982

By a greater than two-to-one margin, Rohnert Park voters approve Measure A, the initiative authorizing a zoning change for property on which the company plans to construct a new facility.

April 26, 1982

A Sonoma County Superior Court judge consolidates the three lawsuits against the city of Rohnert Park.

May 6, 1982

HP announces that the Signal Analysis Division will move to the new Rohnert Park facility.

June 29, 1982

The city of Cotati withdraws its lawsuit against Rohnert Park's certification of the Hewlett-Packard EIR after reaching an agreement with the company. In the settlement, HP promises to contribute \$350,000 to improve East Cotati Avenue and another \$50,000 to signalize the intersection of Gravenstein Highway, Highway 101 and South Santa Rosa Avenue.

Sept. 21, 1982

A Sonoma County Superior Court judge upholds the adequacy of an environmental impact report on HP's proposed Rohnert Park Site, removing the last legal obstacle to construction.

Sept. 29, 1982

HP exercises its option to purchase 264 acres in Rohnert Park.

Oct. 15, 1982

The official ground-breaking ceremony for the Rohnert Park Site is held.

January, 1983

David Packard visits the Fountaingrove Site to speak at the Santa Rosa Division's new engineer's orientation dinner.

# H-P VICTORY: 4,677 to 2,013

## Yes on A backers rack up 70-30 percent margin

**30-40 PERCENT**  
News Editor  
Propelled by an astonishingly heavy 56 percent voter turnout, Rohnert Park residents approved the construction of a Hewlett-Packard electronics plant by a vote of 4,677 to 2,013 yesterday. The victory margin for backers of Proposition A was nearly 70 to 30 percent: 69.6 to 30.4 percent. The voting trend was set early in the evening when absentee ballots gave H-P the lead by 215 to 97, or 69

percent. When the first of 20 precincts were tabulated at 10 p.m., Tuesday it was 895 to 522 in favor of Measure A, or 63 to 37 percent. That was the closest margin for H-P foes all night long.  
At 10:10 p.m., with 8 out of 20 precincts counted it was 1009 to 723 (69 to 31 percent). Five minutes later 16 out of the 20 precincts were tallied and it was 1728 to 1026, or 69.68 to 30.31 percent. The final count was registered at 10:25. Despite periods of rain showers

and breaking skies all day, voters didn't hesitate to make it to the polls. Expected snafus due to challenges of voter addresses and eligibility didn't materialize.  
"We're very pleased with the turnout," said Byron Anderson of Hewlett-Packard who was on the scene when votes were counted in the Sonoma County Elections Office in Santa Rosa. "In the last few weeks of walking the neighborhoods, we thought a 70-30 margin was possible."

"It makes us feel really good," continued Anderson. "It was really a representative vote - a good cross-section of the city. It was a neat experience working with the people of Rohnert Park...we made a lot of friends."  
Rob Carpenter, who has been working with Citizens for Community Choice - the group organized to fight Measure A, said "I'm not at all surprised. I predicted a 90-10 margin for Hewlett-Packard. I'm very pleased

to see the American process work. I feel very good, very happy that we made an impact on the city council."  
"We made them more deliberate on the project," continued Carpenter. "The site was scaled down and we pointed out the dangers. It proves the minority can influence the majority."  
"I'm very pleased that the people sustained the council," said city manager Pete Gallinan.  
"I'm very gratified as I always

knew if you represented the people in what they want they will support you," said Rohnert Park city councilman Ari Roberts.  
Judge Bart of Citizens for Community Choice said "we expected about 2 to 1, to tell the truth."  
"We don't think they'll ever build the plant," she added. "There's no more state or federal money to build the infrastructure, no more 'pork barrel.' We're going to expose the inadequacies of the EIR."

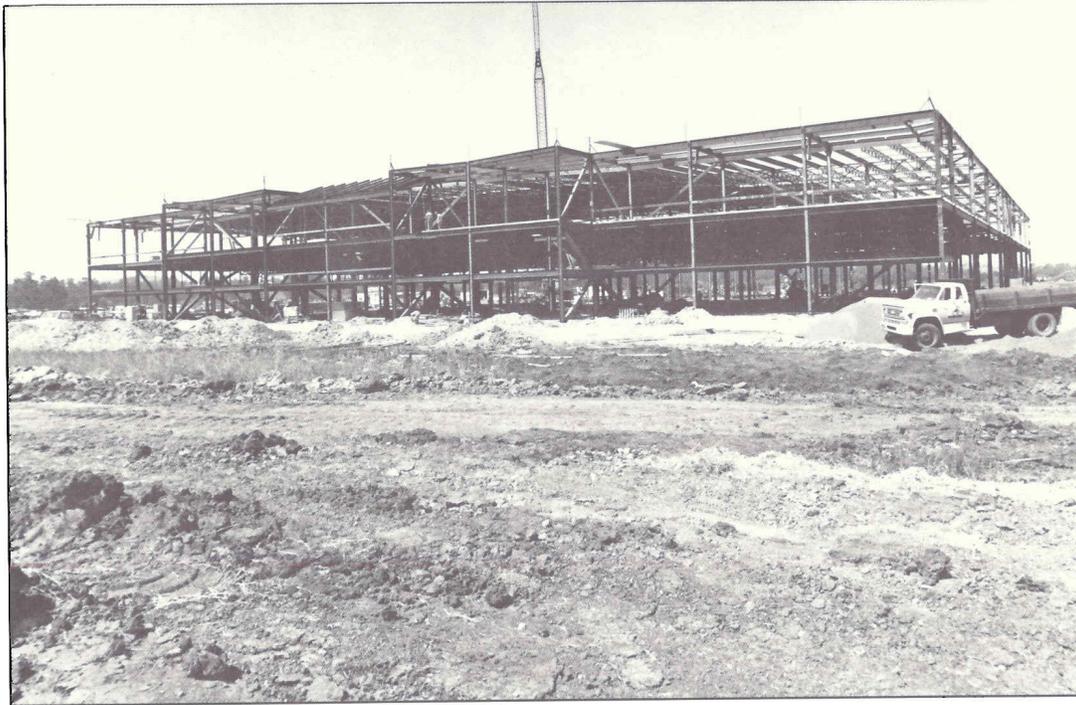
# ROHNERT PARK - COTATI CLARION

VOL 38 NO 30 TWICE WEEKLY - WEDNESDAY AND FRIDAY 795-5451 544-1753 20" X COPY 112 PER YEAR WED. APRIL 14 1982



Building 4 construction

Coverage of HP's referendum victory in Rohnert Park's local paper



**Rohnert Park Site  
Building 1**

“It was the grassroots involvement by citizens of Rohnert Park who appreciated what HP would bring to the community,” Tuveson says. “And the willingness of our employees and managers to roll up their sleeves and engage the community in an open, honest fashion.”

Events related to the move occurred in rapid-fire succession during the six-month period following HP’s victory. In May of 1982, the company announced that the Signal Analysis Division would relocate from Santa Rosa to the new Rohnert Park Site. The decision was based primarily on the assumption that SAD — the more profitable Sonoma County division at the time — could absorb the depreciation of a new facility easier than the Network Measurements Division.

In June, Cotati withdrew its lawsuit against Rohnert Park after HP offered to contribute \$400,000 in local road improvements. Three months later, a Sonoma County Superior Court judge upheld the adequacy of Rohnert Park’s EIR, eliminating the remaining legal entanglements. The company exercised its option to purchase the 264-acre site in late September, 1982, and the official ground-breaking ceremony took place the following month.

The key players in the campaign all eventually accepted new assignments.

Anderson continued as Technology Center general manager, guiding it through the transition to a full-fledged division in 1984. He accepted an offer to become general manager of the Spokane Division in 1985 and was replaced by John Shanahan, MWTD’s present general manager.

Tuveson was named facilities manager at the new site, a position he still holds, and Draper is the Rohnert Park facilities department secretary. Condron is now Sonoma County HP’s public affairs department manager, and Farrell served

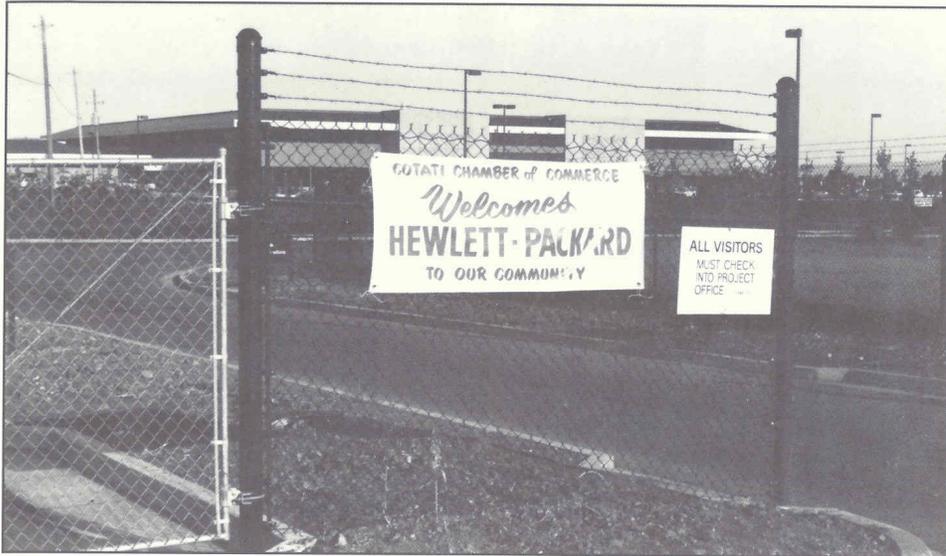
**Kit Tuveson with Rohnert Park Site ground-breaking shovel**



as community relations coordinator until she got married and became Leslie Lightfoot, had a baby and left the company. Nutter has moved on to become speech writer for HP president and chief executive officer John Young.

Keiter managed SAD through the division’s monumental move from Fountaingrove in mid-1984 until February of 1985, when he resigned to devote full attention to an avionics company he founded in 1972 before moving to Sonoma County. He stays busy these days developing new products for his small business, Airborne Electronics.

Before leaving HP, Keiter helped the new facility host its own community open house. Visitors at that happy occasion in the fall of 1984 might have noticed initial construction work on Rohnert Park’s Building 2. None of the celebrants, including Keiter and his successor, Hartley, knew then that the building would come to symbolize a new era for HP in Sonoma County.



**Rohnert Park Site main entrance in June, 1984**



**Prue Draper**



**Construction on Rohnert Park Site Building 1**

**May, 1983**

Construction begins on Building 1 at the Rohnert Park Site.

**July, 1983**

The access road to the new Rohnert Park facility is officially named Valley House Drive.

**May 30, 1984**

Approximately 1,000 Signal Analysis Division employees begin moving to the company's new site in Rohnert Park. Hundreds of tons of equipment are loaded onto 150 moving vans and transported to the new facility, which is actually finished the following month.

**August, 1984**

The Santa Rosa Technology Center is elevated to division status, becoming the Microwave Technology Division with Byron Anderson as general manager.

**September, 1984**

Construction starts on Building 2 at the Rohnert Park Site.

**Oct. 13, 1984**

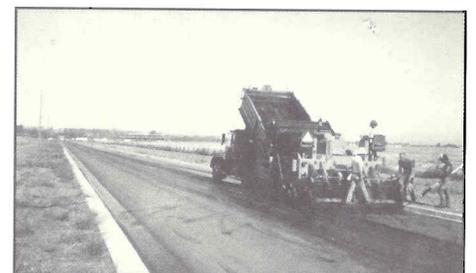
The Signal Analysis Division hosts a community open house at the new Rohnert Park Site.

**Nov. 8, 1984**

Fab shop employees are officially welcomed at the Fountaingrove Site after becoming the last Network Measurements Division group to transfer "up the hill" from the Valley Site.

**January, 1985**

HP Sonoma County employees participate in the company's second "Open Line" survey.



**Valley House Drive paving**

## Meeting the challenges of a new era

HP was just beginning to feel comfortable with its new two-community arrangement in the summer of 1985.

Signal Analysis Division employees had settled into Rohnert Park's spacious Building 1, while Network Measurements and Microwave Technology Division workers were enjoying a little more elbow room at the Fountaingrove Site. To encourage communication between the now-remote sites, a company van added a Rohnert Park Site destination to its regular schedule of shuttle trips between Fountaingrove and SAD's fabrication shop at the Valley Site.

Everything was in place to continue the annual 20 to 30 percent growth rate that had required such aggressive plant construction and hiring programs. But several factors combined to change those expectations.

Starting in June of 1985, an electronics industry slump forced HP to place a tight rein on expenses. Hiring slowed to a virtual standstill throughout the company, and several time-off programs were implemented over a nine-month period to reduce operating costs. Shortly after all Sonoma County employees returned to full-time, full-pay status, HP announced plans to correct a company-wide workforce imbalance.

True to its no-layoff philosophy, the company trimmed down by offering voluntary severance and early retirement programs. The three Sonoma County divisions decided not to participate in the severance program, but 29 local employees took advantage of the opportunity to retire early. The departure of these long-time workers, including early Valley Site secretary Ernie May, brought visibility to a strange new phenomenon: the employee population was declining.

From a peak of around 4,200 in 1985, HP's Sonoma County work force has gradually shrunk through attrition to its present level of approximately 3,700. There are several reasons for this trend, most notably the introduction of more efficient manufacturing processes.

"Productivity has improved substantially since we stopped growing so rapidly," says Scribner. "Employees are generally better-trained to do their jobs, and we're using methods such as total quality control and continuous process improvement. All these things have allowed us to increase shipments but decrease people."

In all probability, the days of rapid employment growth won't be repeated. Nor will there likely be a recurrence of the high level of defense-related business that helped fuel the dynamic expansion

developing reliable electronic defense systems.

As defense spending leveled off over the past few years, demand for certain HP products lagged a bit. Thus the Pentagon's heightened sense of frugality, combined with greater global competition, resulted in more moderate annual growth for Sonoma County HP since the mid-'80s.

It was during the pivotal year of 1985 that Building 2 in Rohnert Park was finished. Designed as a printed circuit facility, Building 2 came to epitomize an emerging company theme: flexibility. To remain competitive, HP products needed flexibility to attract new customers and address their evolving needs. The company, in turn, required maximum flexibility in making important business decisions.

In the case of Building 2, the decision was to locate the printed circuit facility at an out-of-state HP site and abandon the Rohnert Park plans. After recovering from the news, SAD put its most flexible foot forward by turning the half-completed pc building into an office complex housing manufacturing, marketing and R&D groups. Meanwhile, work on Building 3 in Rohnert Park was halted in the spring of 1986 and has yet to resume.

While progress was being made in developing a new generation of products to fend off domestic and international competitors, the company encountered a threat in its own backyard. Nuclear free zone ballot initiatives in 1986 and again in 1988 contained elements HP believed were detrimental to itself, other local companies and the community in general.



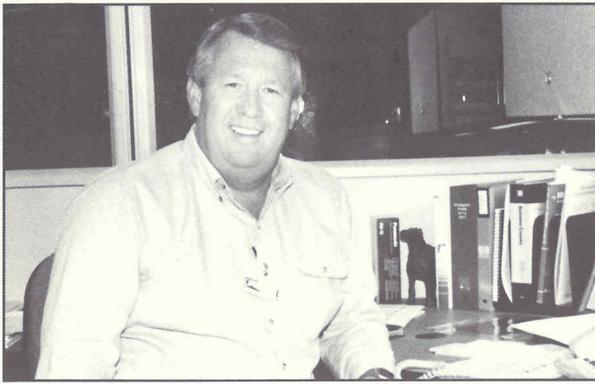
Rohnert Park Site Building 3 before construction was halted

of HP's two Sonoma County commercial product divisions, NMD and SAD.

Through the first half of the 1980s, U.S. government spending on defense contracts was unparalleled in the country's history. The general purpose test and measurement instruments manufactured by NMD and SAD were — and still are — available "off-the-shelf" to anyone, but government contractors in particular found them indispensable in



Bill Wurst



**Duane Hartley**

Following the Corporate government affairs department lead in stepping up political activism on issues that affect the company, HP Sonoma County's public affairs department played a role in campaigns opposing the two local nuclear free zones. Although it's difficult to pinpoint reasons for success in politics, some observers maintain HP's involvement was a key factor in defeating both measures.

Unfettered by anti-business ordinances at the local level, HP leaders are looking to build orders back to their historically robust levels. As Hewlett-Packard celebrates its 17th anniversary in Sonoma County this month, those efforts appear promising.

"We are meeting the challenges of the competitive marketplace," Shanahan says. "And we're doing it with fewer employees. To respond the way we have is a testament to our people."

Future success hinges on the ability to "develop products that attract new customers and open new markets for us," says Shanahan, who identifies emerging third world nations as "potentially the largest market" for HP technology.

Much of the ongoing new product development at HP Sonoma County is focused on consumer markets such as direct satellite broadcasting, cellular radio, private business networks and computer data processing. "We're concentrating on areas that are growing," Hartley says.

Meanwhile, the issue of facility growth continues to receive attention from the three Sonoma County general managers. Building 3 in Rohnert Park will likely be the next construction project, with finishing work on the 250,000-square-foot structure completed perhaps within the next 36 months. No decision has been made on who will occupy Sonoma County HP's newest two-story "bigfoot" building, but the conventional wisdom is that several different organizations will call it home.

"I don't anticipate any traditional-style divisions being formed in Sonoma County in the immediate future," says Wurst.

One group that could grow is the consolidated Microwave Test Accessories (MTA) operation, which is currently based in Building 4 Lower at the Fountaingrove Site. One option is to move MTA "south" from the Stanford Park Division in Palo Alto to MTA "north" over a lengthy period. If that happens, Wurst estimates annual employment growth could be around 50 until the transfer is complete.

In today's business environment, growth requires such adaptability. But as much as some things must change, other things must remain the same. At HP in Santa Rosa and Rohnert Park, certain aspects of business life are much the way they were when the lights were first flipped on in Building 1T.

"Although we haven't grown as fast the past few years, and there have been some threats on the horizon, no one's expressed any real concern about the stability of HP or our Sonoma County organizations," says Jones, who's been with the company since the days when all engineers wore white shirts. "The HP way created by Bill and Dave is fundamentally the same as it's always been. Our philosophy of trust and respect for employees, the community and customers hasn't changed at all."

**John Shanahan**



**January, 1985**

Byron Anderson is named general manager of the Spokane Division in Washington. John Shanahan succeeds him as general manager of the Microwave Technology Division.

**February, 1985**

Signal Analysis Division general manager Rit Keiter leaves HP to operate his own business in Sonoma County. Duane Hartley succeeds Keiter.

**May, 1985**

The Signal Analysis Division receives the California United States Senate Productivity Award, a contest sponsored by U.S. Senator Alan Cranston that spotlights outstanding productivity and quality improvements.

**June, 1985**

In response to a downturn in the electronics industry, HP Sonoma County joins other company facilities throughout the U.S. in requiring employees to take three days of FTO or non-paid VTO (voluntary time off) during the Fourth of July week.

**July, 1985**

Citing continuing sluggishness in business conditions, HP announces most U.S. manufacturing facilities — including Sonoma County plants — will shut down two days a month. Under the program, employees take two days per month off without pay as well as an extended Christmas holiday.

**August, 1985**

Construction starts on Building 3 at the Rohnert Park Site.

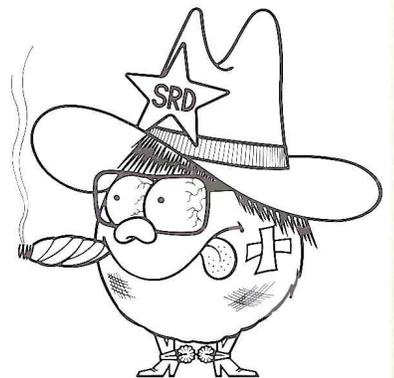
**November, 1985**

Construction of Building 2 at the Rohnert Park Site is completed. Originally designed as a printed circuit facility, the building is instead used for much-needed office space when HP decides to locate the printed circuit facility elsewhere. Meanwhile, construction on Building 3 in Rohnert Park is halted in the spring of 1986.



**Early Rohnert Park lunch spot**

# HP Sonoma County



# scrapbook

Jan. 1, 1986

Improvements in orders lead to the resumption of full-time, full-pay status for all HP non-exempt employees. Exempt employees return to full-time status but take a 5 percent pay reduction through March, 1986.

June, 1986

HP announces the implementation of voluntary early retirement and severance programs. At HP Sonoma County, only the voluntary early retirement program is offered and 29 long-time employees take advantage of it by the end of October, 1986.

September, 1986

Hewlett-Packard joins a broad-based coalition opposing the Sonoma County Nuclear Free Zone Act on the November 1986 ballot.

Nov. 4, 1986

Voters decisively reject the Sonoma County Nuclear Free Zone Act.

May, 1987

Doug Scribner, HP's first Santa Rosa manufacturing manager, is named manufacturing manager for the Microwave and Communications Group and locates his office at the Fountaingrove Site.

Nov. 2, 1987

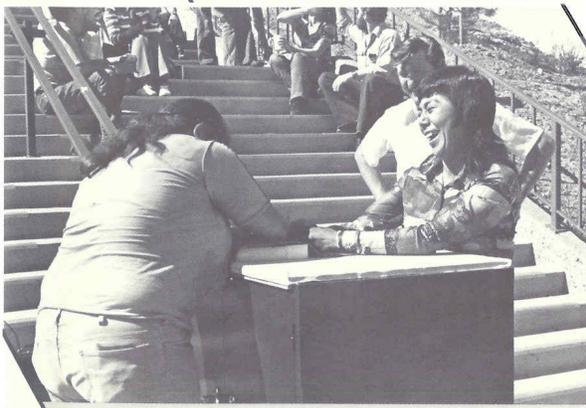
Virtually identical organizations at the Fountaingrove Site and the Stanford Park Site in Palo Alto are consolidated and become the Microwave Test Accessories (MTA) Operation.

Aug. 15, 1988

For the second time in two years, HP announces its opposition to a Sonoma County nuclear free zone initiative on the November ballot.

Nov. 8, 1988

Measure C, the 1988 nuclear free zone initiative, is voted down by Sonoma County residents, 55 to 45 percent.



## Nuke-free zone trails sharply

By CLARK MASON  
Staff Writer

Measure C, the ballot initiative that proposed to make Sonoma County a "nuclear free zone," appeared headed toward defeat Tuesday night.

With about three-fourths of precincts reporting, the vote was 43,075

yes votes, or 44 percent in favor of a nuclear free zone, and 55,110 no votes, or 56 percent against.

Joe Johnson, campaign manager for Citizens Against the Nuclear Free Zone, said he was pleasantly surprised the measure was being defeated so resoundingly. He credited the victory to hard work and the perceptiveness of voters who seemed to agree that a nuclear free zone isn't necessary in order to keep the county nuclear free, or to make a statement for peace.

He acknowledged that a last-minute barrage of advertising and mailers against Measure C was crucial.

This was the second time in two years that an initiative to make

See Nuclear, Page A11

## Nuclear free zone defeated

# A measured account of network analyzers

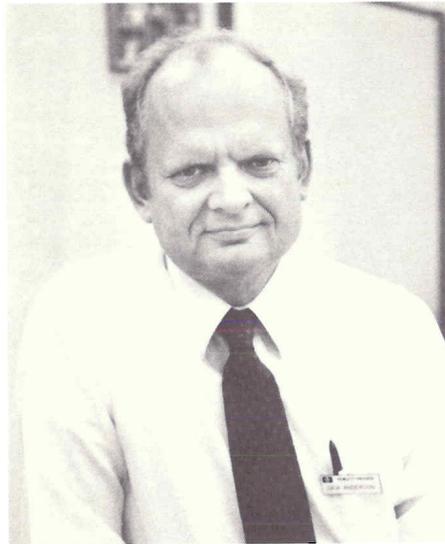
The young Hewlett-Packard section manager didn't realize it at the time, but his group's search for a better engineering tool would result in a revolutionary measurement instrument that opened a profitable market for HP.

The manager was Dick Anderson. The place was the old Microwave Division in Palo Alto, forefather of the Microwave Technology, Network Measurements and Signal Analysis divisions in Sonoma County. And the instrument was the HP 8410, the first broad band microwave network analyzer.

The HP 8410, introduced in 1967, was preceded a year earlier by the HP 8405 vector voltmeter, which covered the radio frequency (RF) range. Before the HP 8405 and the HP 8410, engineers had toiled in the dark ages of RF and microwave electronic measurement. Using pencils and a device called a slotted line, they would manually take data and plot the results on a Smith chart.

It was cumbersome and time-consuming.

"It was a painfully slow process," says Anderson, now manager of HP's Microwave and Communications Group. "The company felt if there was an economical and efficient way to make



**Dick Anderson**

measurements automatically, it would improve the effectiveness of engineers who were designing electronic components and equipment."

The HP 8405, a vector voltmeter, made life easier for engineers by measuring the voltage of two responses and their phase difference. This magnitude and phase capability distinguished the HP 8405 as the company's first network analyzer, and it has enjoyed a

remarkable 23-year lifespan. The latest-generation vector voltmeter, the HP 8508, was introduced in 1988.

Twelve months after unveiling the HP 8405, HP made microwave engineers throughout the world happy by introducing the HP 8410. It was embraced by the engineering community almost immediately.

"The HP 8410 turned out to be the start of a rather successful program for Hewlett-Packard," says an understated Anderson. In fact, according to knowledgeable insiders, the HP 8410 launched HP's profitable venture in microwave network analysis.

"The HP 8410 was a milestone product," says Dean Abramson, former division advertising manager in Palo Alto and later in Santa Rosa. "Because of it, network analysis became an everyday tool for design engineers."

Engineers liked the HP 8410 for a number of reasons. It measured accurately and fast. It was easy to use. It covered a large frequency range. And it was economical. But it was just the opening act for a second-generation microwave instrument that became one of the Network Measurements Division's most successful productions: the HP 8510A.



**HP 8405**



**HP 8410**

frequency range, speed and affordability. Known for its "champagne measurements on a beer budget," the HP 8753 has made more than a few competitors cry in their beer.

Such innovative, technically superior products will continue to be crucial to the success of NMD. And because business with the defense industry and the U.S. government seems to be waning, the division must be nimble enough to take advantage of new market opportunities.

"We have to think about growth," says NMD general manager Bill Wurst, "and that might require us to concentrate more on solutions to customers' problems than on developing individual products."

Abramson, who's retired but keeps abreast of the latest industry developments, says there is good reason to be optimistic about the future of network analysis.

"NMD instruments are already used by the advanced labs of computer companies and semiconductor manufacturers," he says. "The long-term trend in society is toward a greater reliance on high technology. And this

division is providing the tools to expand high technology."

The "father" of microwave network analyzers agrees, although he envisions many new applications for descendants of the HP 8410.

"We may be reaching a time in history when our government and defense business takes a second seat to commercial opportunities," says Anderson. He anticipates increased emphasis in the area of communications, including direct satellite broadcasting, various forms of cellular radio and private networks for business.

"But we must be fast on our feet," Anderson continues. "That goes for getting new products to market as well as identifying customer needs and providing imaginative responses."

By staying a step ahead of the competition, NMD's future may outshine its luminous past. "There are more opportunities ahead than behind," says Anderson.

And who would know better than the former young section manager who helped lead engineers out of the dark ages?



**HP 8510A**

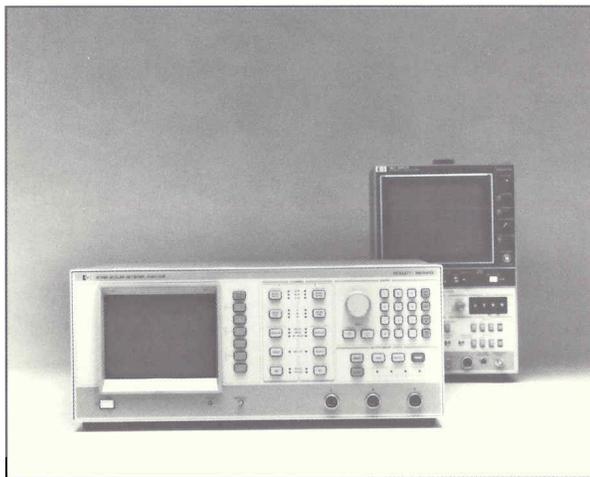
"The impact of the HP 8510A was enormous," Abramson says. "With its built-in microprocessor, the HP 8510A provided 10 times the performance of its predecessor with less than half the hardware."

First marketed in early 1984, the HP 8510A was improved three years later when the HP 8510B was introduced. And just last year, NMD turned heads in the industry once more by unleashing "JAWS," a microwave network analyzer designed for the production floor. That instrument — the HP 8720 — has shocked the competition by offering top notch measurement performance and an economical price tag.

Customers reacted in a similarly favorable fashion 17 years ago when Hewlett-Packard introduced its first scalar network analyzer, the HP 8755. Generally used in production settings, scalar network analyzers are more economical than their higher performance cousins, vector network analyzers.

In 1983 the company responded to heightened competition in the scalar market by introducing the HP 8756, which featured automated measurements when connected to an external computer. Further evolutions occurred in 1984 and 1988. The latest-generation scalar network analyzer, the HP 8757C, is a high-performance instrument with a color display.

HP's offerings in the field of RF network analysis have undergone a similar metamorphosis. From the model HP 8407 in 1969, to the HP 8505 in 1975, and through the HP 8753C introduced earlier this month, significant advancements have been made in accuracy,



**HP 8755 and HP 8756**



**Dean Abramson**

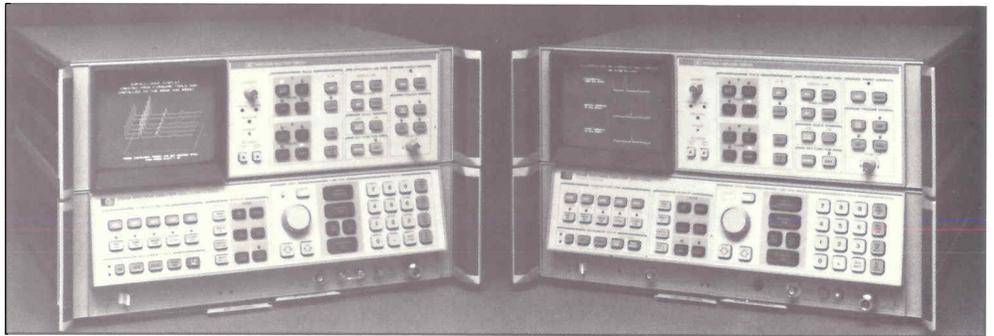
# Scanning the history of spectrum analyzers

It would be hard to imagine a higher calling than the cause for which the first spectrum analyzers were used: defending the free world. With the advent of radar during World War II, the U.S. and other Allied forces became dependent on this remarkable device's ability to pinpoint enemy targets far beyond normal visual range. Such reliance on technology could backfire, however, if the machinery was not accurate.

The critical job of designing those early radar systems was done with instruments distantly related to the spectrum analyzers made today by HP's Signal Analysis Division in Rohnert Park.

Nearly two decades after the end of World War II, Hewlett-Packard made its first contribution in the field of spectrum analysis by introducing the HP 8551 spectrum analyzer. This instrument could scan much wider spectrums than its predecessors, a revolutionary capability that earned the HP8551 a place in electronics history as the first-ever broad band spectrum analyzer.

HP expected applications for its new



HP 8566B, left, and HP 8568B

spectrum analyzer would probably be limited to the radar industry. But when sales of the HP 8551 exceeded expectations by more than tenfold, it became clear that the instrument was being used in many other areas.

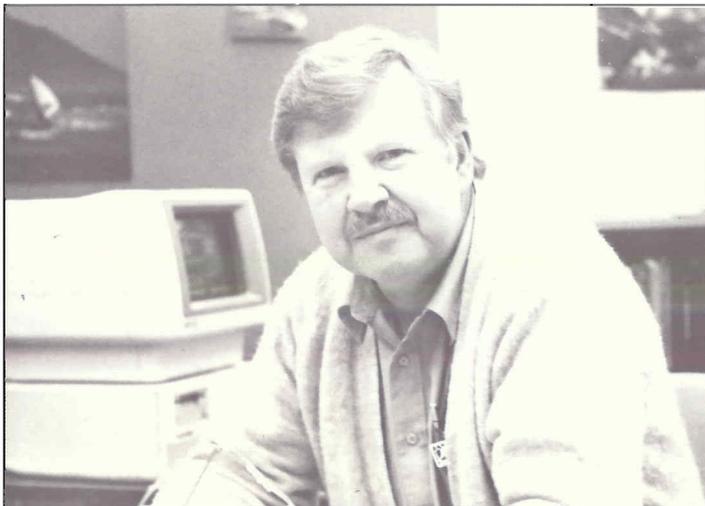
"This was the beginning of one of the biggest, most profitable product lines in HP history," says Rit Keiter, former SAD general manager and an engineering section manager when the company first asserted itself as the world leader in spectrum analysis.

The HP 8551 was followed by a series of spectrum analyzers based on similar technology but featuring improved

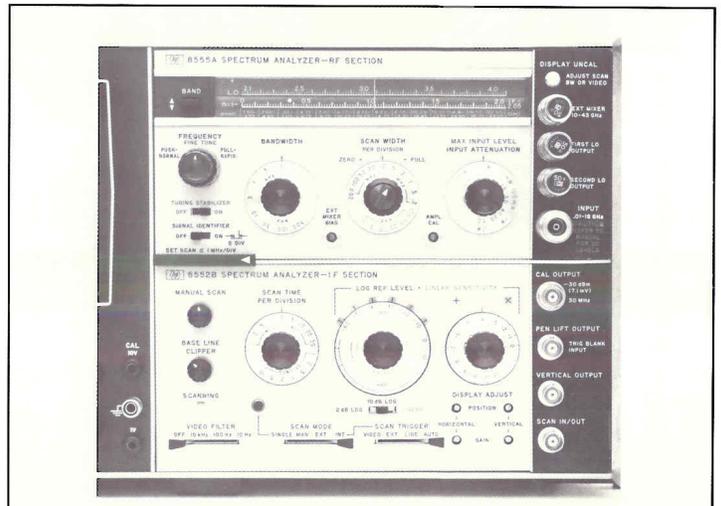
measurement capabilities. All these first-generation spectrum analyzers were manufactured at the old Microwave Division in Palo Alto. And all were popular. In fact, the HP 8555 developed under Keiter's direction was the company's most successful product until HP introduced the first hand-held calculator.

"The 55 hit like a ton of bricks," recalls Keiter, "but the 68 and 66 set the world on fire."

That would be the HP 8568 and HP 8566 spectrum analyzers, both widely recognized as instruments that set new measurement standards when they were introduced in the '70s. The lower



Siegfried Linkwitz



HP 8555

frequency HP 8568 came first, around 1976, and the HP 8566 followed in 1978. Together they set the industry on its ear.

"The 68 and 66 shocked everyone," says Keiter. "People couldn't believe what we'd done." Siegfried Linkwitz, the HP 8566 engineering project manager, says the marketing department coined a nickname to describe the instrument's affect on competition: "the doomsday machine."

A key to the two analyzers' enduring success was their extensive use of microprocessors. "For the first time," says Linkwitz, "everything could be run by computer. They had digital storage displays and very high frequency accuracy standards."

In other words, the HP 8568 and HP 8566 redefined the state-of-the-art. Succeeding spectrum analyzers developed at the Signal Analysis Division — including the popular HP 8590 series and the HP 70000 modular measurement system — have refined the technology and made the instruments more portable, rugged and adaptable.

Now it is possible to determine frequency levels with staggering speed and accuracy. Automated testing can be done under computer control. High frequency microwave measurement has improved, as has the sensitivity to pick up low-level signals. And improvements have been made in frequency range as well as amplitude accuracy for microwave measurements.

Additionally, advancements in R&D and manufacturing productivity have resulted in faster new product introduction cycles, higher quality and lower price tags for many models.

Non-technical types may have trouble appreciating the beauty of this progress. But higher performance, usefulness and economy are of great interest to the scientists, engineers and technicians who work with HP spectrum analyzers.

"We're giving customers more performance at less cost with portable analyzers, plus greater flexibility with systems such as modular spectrum analyzers," says Linkwitz, who is playing a key role in SAD's pioneering effort to capitalize on the growing electro-magnetic interference (EMI) market.

Besides EMI, the division is also branching out into the promising light-wave market. According to SAD general manager Duane Hartley, the division's continued success depends on its ability to identify new business opportunities and aggressively pursue them. The future of spectrum analysis, he says, may only remotely resemble its storied

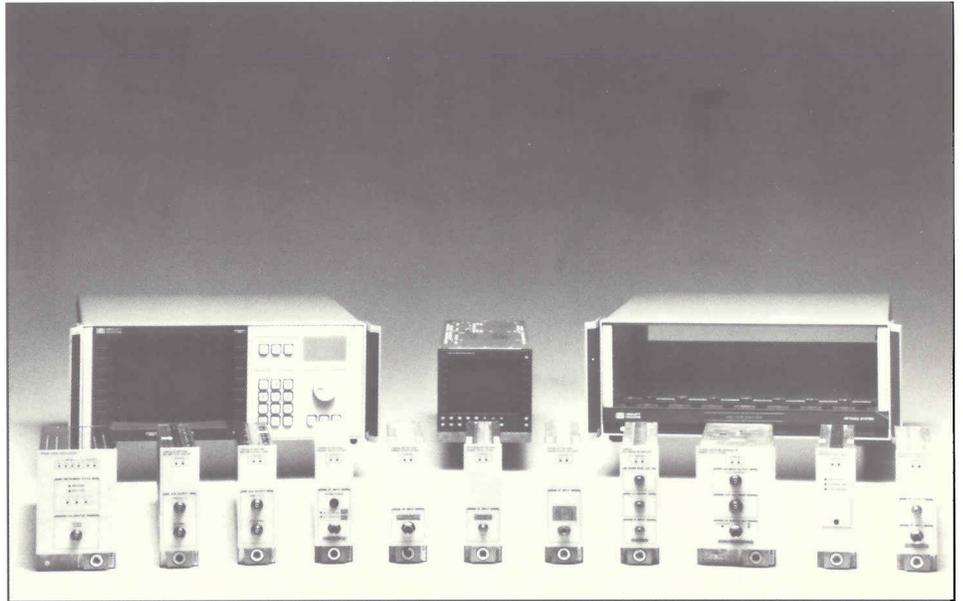
past.

Tightened defense spending and increasingly tenacious international competition have impacted SAD's traditional markets. While the division's major product lines still capture the lion's share of business, growth will depend on the ability to adapt and innovate in a timely manner.

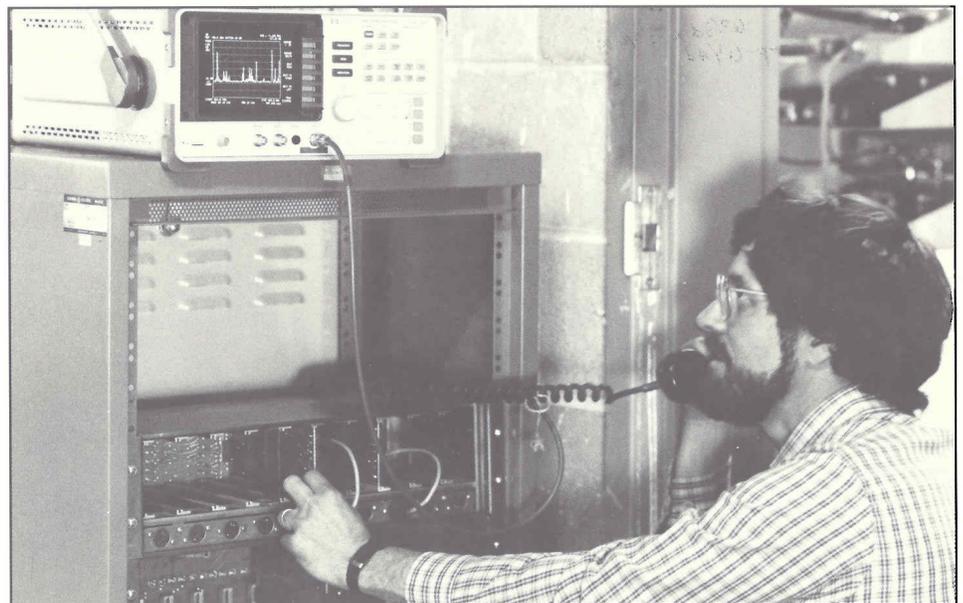
"We must focus our efforts on growing markets like communications, computer data processing and consumer electronics," Hartley says. "We'll need to build more flexibility into products to meet

customers' specific needs." SAD must also improve customers' productivity by developing easy-to-use solutions that provide the highest technical performance available. And, according to Hartley, the division's continued push to reduce time-to-market "will become even more important."

The basis for future success, then, is to provide complete solutions to customers in the shortest time possible. Just the kind of challenge to motivate folks with a history of setting the industry on its ear.



**HP 70000 modular measurement system**



**HP 8590A**



