

### FROM THE EDITOR

Although belated, Fairchild wishes you a most

#### HAPPY AND PROSPEROUS NEW YEAR!

Before proceeding to lighter subjects, I'd like to preface this column with the following letter.

#### "TO WHOM IT MAY CONCERN:

Miss Harriett West underwent emergency surgery on October 12, 1965, and has been under my care for followup treatment since that time.

I believe the patient has recovered from her operation and she has my permission to return to full-time work and to resume her normal activities as of the First of January."

#### /s/ Ed's Doctor

This is not meant to be an "excuse" for the sudden lack of *Leadwire*. But rather, the fact that an October-November Anniversary issue came out is proof that no one is indispensable. All FS employees have Manny Robles (former Editor) to thank for picking up the unfinished pieces and turning out your magazine.

Admittedly, the above is of slight interest to YOU, as employees; it is our sincere desire to publish what you want to see in YOUR magazine. Never hesitate to call on me (Ext. 2569 - MV, or via interoffice mail — Marketing Services). Better · yet, you have reporters handy whose sole purpose is to assure that you are represented in the *Leadwire*.

Enough of this! Let's get to some "action"! Innumerable company parties took place throughout our division in December (which kept our scant supply of photographers hopping). This issue features the FS celebrations we were able to catch. All I can say is: Each must have been fun, thanks to the support of the various plant Recreation Councils and to the employees who headed arrangements for these affairs.

Not covered elsewhere: Our newest addition to the Fairchild family — Shiprock — also had in-plant Christmas parties for each shift. They have much to celebrate. The plant is "growing like Topsy"

The plant is "growing like Topsy". More "action"! The 1965 company picnic from Hong Kong — our Far Eastern affiliate — demonstrates the same spontaneous enthusiasm that our U.S. picnics (in prior issues) so aptly revealed.

In sports, Fairchild also has seen "action". The MV Ski Club took a most eventful trip to Heavenly Valley over New Year's, with more weekends on the agenda. At latest reports, the basketball team is representing us well and the various bowling leagues are rolling on.

Our apologies to John Archer at R&D. In the last issue, he was referred to as a new technician, when — actually — he is a member of the technical staff in Device Development.

#### CREDIT UNION'S ANNUAL MEETING INCLUDES GALA DINNER-DANCE

MOUNTAIN VIEW, PALO ALTO — On January 22, Fairchild's Federal Credit Union has slated its annual meeting at 7:30 p.m., followed by a dinner-dance at Rickey's Hyatt House in Palo Alto.

For a N.Y. steak dinner, the cost per person is only \$5.00 (including tax and tip). Also, attendees have a chance to win a season pass for two to the Circle Star Theater.

According to Bob Maydeck, manager, our Credit Union has much to be proud of in 1965, with the outlook for this year even brighter. Last year, it recorded a gain of around \$188,000 in assets. And as of December 31, the statement of condition makes healthy reading:

### RESOURCES

(What we own)	
Loans to Members (Your savings help your fellow workers)	\$882,015.54
Cash in Bank and on Hand (Always ready to service your needs for money)	73,034.29
Office Equipment (Cost of equipment, less accumulated depreciation)	19,508.47
Other Assets (Prepaid insurance and prepaid supplies, etc.)	2,684.28
	\$977,242.58

#### LIABILITIES AND MEMBERS' EQUITY

(What we owe, reserve and	members' equity)
Notes Payable	\$70,000.00
Accounts Payable	60.00
Payroll Deductions Received	112,273.68
Reserves (Earnings set aside to protect your savings)	27,747.89
Shares Owned (Indicates Our Members Are Thrifty)	745,188.52
Undivided Earnings (Available for dividends)	21,972.49
	\$977,242.58

#### DIODE CELEBRATES WITH BUFFET AND DANCE

SAN RAFAEL — Approximately 800 Diode employees and guests attended their annual Christmas party, held at the Veterans' Memorial Building in Petaluma on December 18.

A delectable buffet of turkey, ham, finger sandwiches and hot hors d'oeuvres was provided by Los Robles Catering of Santa Rosa. The wide variety of dance music included Willie Gitry's combo, "The Happinin's" and songs by Larry and Clementine.

In addition to a beautifully decorated 15-foot tree and table arrangements, the scenery was considerably enhanced by the lovely gowns and cocktail dresses the ladies donned for this special occasion.

### DIODE EMPLOYEES DO IT AGAIN; TOP GOAL SET FOR UBAC DRIVE

SAN RAFAEL—Diode's goal for the 1965 United Bay Area Crusade was \$12,500; with outstanding solicitors, payroll deductions totaled \$12,734.60. "I want to thank all those who helped to make this Crusade a success", said Chairman Gary Brandenburg. "Also, an extra special word of thanks and appreciation to those outstanding solicitors with better than 80% participation."

Specifically, through the efforts of Rose Lucas and Omie Turner, one department — Special Assembly — had 100% participation. The group was followed by Administration, Marketing, Accounting and Process Engineering — 74% and Production Control — 71% participation.

Individually, the solicitors for the drive ranked as follows: Audrie Graxiola, Classification (day shift) — 100%, Mattie Johnson, Classification (swing shift) — 100%, Bobbie Jackson, Standard Products (swing shift) — 91%, Ann (Ruby) Patterson, Test & Finish (swing shift) — 87%, and Barbara Visceto, Quality Assurance Lab (day shift) — 84% participation. In addition, Ruby Patterson had the highest rate of Fair Share givers.

The "Fair Share" is a pledge of one hour's pay a month from the hourly employees, or 1% of one's salary for management and supervisory personnel. For the Diode Crusade, over 200 employees were Fair Share givers — double the number the year previous.

As is traditional, the company will match employee contributions dollar-fordollar, producing a total gift from Diode of \$25,469.20.

### HIGHER SOCIAL SECURITY TAX REFLECTS IMPROVED BENEFITS

MOUNTAIN VIEW — Notice a slight decrease in your take-home pay this month? This is because the cost of supporting the Social Security program has risen in line with improved benefits and growth of our older population. As such — effective in January — the Social Security tax rate for you as an employee and for FS as your employer moved from 3.625% on the first \$4,800 in annual earnings to 4.2% on the first \$6.600.

On a yearly basis, this means a maximum increase of \$103.20 over the \$174 withheld from paychecks in 1965 (if you are earning \$6,600 per annum or more). In turn, Fairchild must match the taxes paid by each employee.

The Amendments to the Social Security Act passed by Congress last summer also allow for further tax increases in years to come: To 4.4% in 1967, and progressively to 5.65% by 1987.

#### 1966 KICKOFF FOR EASTERN REGION CONSUMER SALES

L.I., NEW YORK — In December, King's Grant Motor Inn in Plainview, Long Island, New York was the site for a gathering of Semiconductor's Eastern Consumer Regional sales team. The theme was: Boost already high sales to an even higher level during the New Year.

During the session, Dave Conway, Eastern Regional Sales Manager for the Consumer Market, awarded a plaque for "Salesman of the Month" (September) to Ron Hammer. Incidentally, Ron recently moved up to the post of Consumer Product Marketing Manager following the promotion of Chris Coburn to Director of Marketing.

#### DR. NOYCE RECEIVES AWARD FROM NATL. ASSOCIATION OF MFRS.

MOUNTAIN VIEW — In December, Dr. Robert N. Noyce, group vice president of Fairchild Camera and Instrument Corporation, became one out of 24 recipients of 1965's "Modern Pioneers in Creative Industry" medals, awarded by the National Association of Manufacturers. This presentation was made at the NAM's 70th annual Congress of American Industry in New York City.

As one of the eight founders of Fairchild Semiconductor, Dr. Noyce's citation reads: "This physicist and mathematician has been responsible for fundamental technological advances in the development of many different types of semiconductors and integrated circuitry. His technical innovations, creative leadership and managerial ability contributed greatly to lowering the costs of semiconductors, permitting wide usefulness in consumer products such as radio and television sets, as well as in medical instruments, military electronics equipment and research tools."

Others cited for this same NAM award in the past have included Orville Wright, Henry Ford, Charles Kettering and Lee De Forest.



LAURELS — Dr. Robert N. Noyce holds a medal for "Modern Pioneers in Creative Industry", awarded to him by Dr. Frederick L. Hovde (president of Purdue University) at the 70th annual Congress of American Industry, sponsored by the National Association of Manufacturers.



SALES RALLY — Attending the recent meeting of Eastern Consumer Regional Sales in Long Island, New York were (I. to r.) Bernie Marren, Herb Richman, John MacDougall, Jim Martin, Bill Seifert, Ron Hammer (accepting plaque), Paul Bartlett, Dave Conway, Paul Kauffman, Bob Simko and Don O'Rourke.



"DOESN'T HURT A BIT" — South Portland's Jim Frasier, production foreman in QA, smiles as he receives a flu injection from Dr. Gisela Davidson (front I.), while to the right, Suzanne Beaulieu bares her arm for Dr. David Davidson. In the background (I. to r.), the plant nurses — Kay Robinson and Phyllis Pelosi — ready other employees for their immunization.

#### SOUTH PORTLAND COUNTERS FLU BUG WITH FREE IMMUNIZATION

SOUTH PORTLAND — With a predicted upturn in flu anticipated this winter, the Maine facility took precautionary measures to guard against this enemy of virtually all industry. The first in a series of a two-shot program took place shortly before Thanksgiving.

Nearly 60% of the plant population took advantage of the company-sponsored immunization, administered by Drs. David and Gisela Davidson during regular working hours.

Injections were given at an estimated rate of 100 per hour in the smaller cafeteria, which had been temporarily transformed into a clinic.













### ANOTHER ROUND OF CHRISTMAS PARTIES FOR TRANSISTOR, R&D

MOUNTAIN VIEW, PALO ALTO — December was the month of parties on the peninsula. Several groups took the Yuletide Season as a perfect opportunity for FS employees and guests to celebrate together.

Much to the dismay of our two photographers, four large affairs all took place on December 17. The Special Products-H.I.C.-Production Control party was held at the S.E.S. Hall in Santa Clara; NPN, PNP, LIC and Process Development gathered at the S.F.V. Hall in Mountain View; and Marketing celebrated in the Executive Conference Hall at Rickey's Hyatt House in Palo Alto.

Perhaps the largest get-together on the 17th was R&D's dinner-dance at Lou's Village in San Jose. Around 425 employees and guests attended.

Earlier in the month on December 10, Applications held its party in the Executive Conference Hall at Rickey's. This was followed by Entertainment Devices' blast at the Chiefs' Club (Moffett Field) on the 15th and High Reliability at Rickey's on the 16th.

The Finance celebration rounded out the season with its affair on December 20. Rickey's Rose Room was the site of their event.

All in all, these departmental fetes had many things in common: Live dance music, holiday decor, festive attire, door prizes and plenty of good food and Christmas "Cheer".



















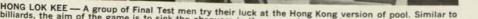
CHOWTIME AND CHOP STICKS - Part of the group gathers to sample the bill of fare.

PICNIC TIME -HONG KONG STYLE

HONG KONG — It is a rare opportunity when we are able to present news from our sister plant in the Far East. However, like other FS facilities, the employees got together for a rip-roaring time last year.

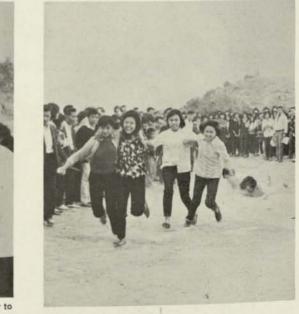
'Action" - which served to whet the appetites of the throng - included tugsof-war (complete with cheering sections), three-legged races, as well as some Hong Lok Kee (a form of pool). Prizes were awarded to winners of the various events by Ed Pausa, plant manager.

All told, the turnout was spectacular and the food, befitting the occasion.



"HEAVE HO" — The members of the workshop mechanics' team display their champion form. They were later declared winners of the men's tug-of-war.

HONG LOK KEE — A group of Final Test men try their luck at the Hong Kong version of pool. Similar to billiards, the aim of the game is to sink the chequers in the corner holes of the board.











"DID YOU HEAR THE ONE ABOUT . . ." Charlie Chiu, maintenance engineer, gathers the fellows around for a joke session.







WINNERS — H. U. Chiu accepts the prizes for the women's tug-of-war from Ed Pausa, plant manager, while Dr. Law (section head in product engineering) looks on. She represented the winning gals' team—Diode Production.



DELICIOUS ORANGE OR BUBBLE UP? - Anyway, we're thirsty!



#### SOUTH PORTLAND SCORES RECORD YULE GATHERING

SOUTH PORTLAND — On December 11, it required the Portland Exposition Building to house the plant's fourth annual Christmas event. Some 1,400 employees and their escorts attended.

Dancing was to the sounds of Sid Lerman and his ten-piece orchestra, while Grant and Grant Caterers of Lewiston, Maine spread an elegant smorgasbord for the hungry.

Overseeing the whole affair was South Portland's Recreation Council. Its president, Stan Rothstein, was general chairman, assisted by Jane Watts — decorations chairman and Fred Arehart — arrangements chairman.

The highlight of the evening's festivities was presentation of a G.E. portable color television to Mary Ross, an assembler, and her husband (pictured right). Other door prizes included a Polaroid 104 camera and Remington cordless knives.









### DIODE EMPLOYEES TREK TO LAKE TAHOE

SAN RAFAEL — Early in December, 41 employees and guests boarded two Greyhound buses for an overnight stay at South Shore. The group was furnished deluxe rooms in the Lakeview Arms Motel.

In addition to skiing and gambling, everyone was treated to a free champagne party, provided by the South Tahoe Club. But the highlight of the trip was a gigantic snowball fight (with no casualties) in front of the motel on Sunday morning.

A similar tour is in the planning stages. Interested parties may contact Jack Brewer for details.

### DIODE'S JIM PERRY PRESENTS PAPER AT JANUARY SYMPOSIUM

SAN RAFAEL — At the Annual Symposium on Reliability at the Sheraton-Palace in San Francisco January 25-27, Jim Perry — quality control manager, Devices and Reliability Testing — will represent Fairchild Semiconductor.

His paper, entitled "Semiconductor Costs, Yields and Reliability", will be submitted for publication in the Proceedings of the Symposium.



### DIODE'S THIRD ANNUAL ART EXHIBIT SLATED FEBRUARY 18

SAN RAFAEL — Fairchild's Annual Art Exhibit, sponsored by the Diode Recreation Council, will take place on February 18.

There will be two divisions (adults and children), with ribbons awarded in the following classes: Oil painting, water color, pastel work, ink drawings, sculpture (metal and other), ceramics, photography and wood carving.

For further information and entry blanks, those interested may contact George Miller or Janet Swinghammer at Diode.



### SKIERS SPEND HOLIDAY AT HEAVENLY VALLEY

MOUNTAIN VIEW — Over the long New Year's weekend, the Fairchild Ski Club took to the slopes at Heavenly Valley. Some fifty employees and friends departed and returned via chartered Greyhound, stayed at the Holiday Lodge, plus indulged in the night life available on Tahoe's South Shore. All in all, it was a fantastic way to herald in 1966.

In February and March, other trips are planned to Squaw Valley, Alpine Meadows and Yosemite. All those interested in being placed on the mailing list, just send your name, department number and extension number to Fairchild Ski Club, Mountain View.

### FLEDGING CLUB AT DIODE NOW MINING COUNCIL CHAPTER

SAN RAFAEL — A few months ago, the groundwork was laid by Diode employees for what has now become the Redwood Chapter of the Western Mining Council. Chapter meetings are being held the second Thursday of each month in the Chamber of Commerce Board Room in Novato.

Thus far, programs have included a movie on quick-silver mining, a metal detector demonstration and a black light demonstration. Future plans are to cover all phases of mining and prospecting, as well as occasional field trips for first-hand experience.

Officers of the organization are: Casey Collins, president; Al Mitchell, vice president; Ron Timm, secretary-treasurer; George Miller, ways and means officer; and Earl Head, executive vice president. Earl is in charge of all communications with the National organization of the Mining Council.

REFRESHING PAUSE — (r.to l.) Bob Killermann, Rosemary Farley, Irmgard Haller and John Farley stop to take in the view at Heavenly Valley before starting down the slopes. They were part of a group who took advantage of the Fairchild-sponsored ski trip over New Year's.



Buy U.S. Savings Bonds through payroll savings

### FIVE YEARS SERVICE

Estelle Stephan, Mountain View D. James Martin, Field Sales George J. Santos, R&D Marion Meinecke, Mountain View Carl A. Dalton, R&D Dorothy Fink, Diode Jim Watson, R&D E. Dale Cook, Mountain View Etsuko Flannum, Mountain View Etta M. Merdia, Diode James G. Heard, Mountain View Ed Porter, R&D Dan Gentile, R&D Corinne N. Maston, Controls George W. Chiu, Mountain View William Kramer, Controls Robert E. Miller, Diode Robert Fuchs, Mountain View John A. MacIntosh, Field Sales Robert F. Robinson, Diode Albert Mitchell, Diode Clarence Medeiros, Diode Les T. Wise, R&D Ardith R. Wiseheart, Diode William S. Phy, R&D John Lambros, Mountain View Virginia Bunn, Mountain View Murlin Vellequette, Mountain View Rita Cleveland, Mountain View Dean C. Haire, Mountain View Arnold Riemer, R&D Michael Bromham, Diode Carolyn Gothard, Mountain View John P. Brown, Jr., Diode Reyes Castaneda, Mountain View Alberta Acosta, Mountain View Loralee Dunlap, Diode Cleo G. Collin, Diode Vickie Agenbroad, Diode William J. Morinville, Diode George Daughters, R&D Alain Flower, Diode Robert L. Fike, Diode Alice Packard, Mountain View Alice Murphy, Mountain View

### FOUR TECHNICAL PERIODICALS FEATURE FAIRCHILD ARTICLES

MOUNTAIN VIEW, PALO ALTO — In November, three Applications engineers scored publication of their articles in three trade magazines. Specifically, Bill Richmond's "Integrated Circuits in Commercial Computers" appeared in Datamation; Bernie Barranger's "FET Samples Microvolt Signals" was featured in EDN (Electrical Design News). In addition, Jack Irwin's "Using the J-K Flip-Flop in Small Modulus Counters" appeared in the November issue of EEE.

The fourth periodical to carry Fairchild works was the December Electro-Technology. Two articles — "Stable MOS Transistors" by Andy Grove, Ed Snow and Bruce Deal (R&D) and "Reliability and Failure Modes in MOS Transistors" by Pierre Lamond (MV), James Kelley and Max Papkoff (R&D)— were highlighted.

### NEW FACES

BILL FAISS joins Fairchild as quality assurance engineer in Standard Products (MV). Formerly associated with General Electric, Bill holds a Bachelor's degree in Electrical Engineering from Federal Engineering College in Esslingen, West Germany.

CHARLES J. MCSWIGIN, JR. is a new foreman at South Portland. A Maine native, he has served four years in the Air Force and holds a BS degree from the University of Maine.

FREDERICK H. JOHNSON comes aboard as foreman at South Portland. Born in New Haven, Connecticut, he was awarded a BS degree from Quinnipiac College (Hamden, Conn.) in 1965. Formerly employed by Custom Products Corporation.

ROY B. MARTIN is a new foreman at Shiprock, Born in Westville, Oklahoma, he served 20 years in the Air Force, retiring as a Lt. Colonel, Prior to joining Fairchild, he was associated with C. G. Electronics.

ROBERT E. HURLSTON has been added to R&D as an engineer. An England native, he received his BS degree from Imperial College, London University.

JOSEPH M. DARLING came aboard at South Portland as foreman from Jay Corporation. A Maine native, he received his further education at the Maritime Academy in that state.

E. MARSHALL WILDER is a new engineer at R&D. A graduate of the University of New Mexico with a BSEE, his former employment includes Honeywell, Inc. (Minneapolis) and the Los Alamos Scientific Laboratory (New Mexico). PHILLIP H. LEVINE came aboard at South Portland as an engineer from Green Shoe Mfg. in Boston. Born in New Haven, Connecticut, he received his BSIE degree from Northeastern University (Mass.). Member: AIIE.

KURT K. GOHRING recently joined R&D as a senior engineer in Device Development, A native of Breslan, Germany, he graduated from the University Erlangen in Nurnberg.

DAVID Y. HOLDEN is a new industrial engineer at South Portland. Prior to joining Fairchild, he was associated with Raytheon.

DAN DAVIS joined R&D as an engineer, following association with Texas Instruments. He received his BS degree in Chemical Engineering from the University of Texas in his native state. Member: AICE.

S. S. JACKMAN comes to MV as a systems analyst in Finance. Formerly associated with IBM, Jack holds a BS degree, plus completed additional graduate work, at San Jose State.

MARGO SABLE is a new programmer in Finance at MV. Prior to joining Fairchild, she held a similar position at A. C. Nielsen in Chicago.

GARY SHAMLEY joins Finance (MV) as senior financial analyst from Sun Chemical Corporation. A graduate of the University of Sofia in Bulgaria, he also holds a A.C.W.A. degree from the Institute of Cost and Works Accountants in London, England, Member: ICWA (London); NAA (New York).



TEN-YEAR MAN — In October, Gerry Matz of Transducer (Fairchild Controls) was honored with his ten-year service award. Although under an-

other division of Fairchild Camera, he is one out of just a few employees on the West Coast to have attained this status.



10011 N. Foothill Blvd. **Building** 113 Cupertino, CA 95014 TEL: (408) 973-8800 FAX: (408) 973-8877

Edwin J. Turney President

55 Idle Day Drive Centerport, Long Island, NY 11721 TEL: (516) 757-1519

### ON THE COVER



MR EDWIN J TURNEY 23690 RAVENSBURY AVE LOS ALTOS HILLS, CA 94022

A pastoral glimpse of the beauties of winter, as captured by Dick Steinheimer's camera in the South Portland, Maine area.

## LEADWIRE

PUBLISHED BY AND FOR EMPLOYEES OF FAIRCHILD SEMICONDUCTOR

MOUNTAIN VIEW - PALO ALTO - SAN RAFAEL - HONG KONG SOUTH PORTLAND, MAINE - SHIPROCK, N. M.

VOL. 8, NO. 1

EDITOR: HARRIETT L. WEST

JANUARY, 1966

ART DIRECTION: GAYLORD LINEAWEAVER

MOUNTAIN VIEW—Marion Cornwell, Wes Cox, Lois Eagleston, Nellie Covington, Vince Fulginiti, Ginger Tygret, Val Gale, Keith Thomson, Judy Dunkelberger, Paul Brasseur, John Walsh, Phil Lenihan, Claudia Storfold.

DIODE PLANT—Cleatus Dunkley, Bobbie Fox, Audrie Graxiola, Ethel Heredia, Dorothy Jones, Janet Marz, Clarence Medeiros, Mickey O'Don-nell, Margaret Queen, Barbara Visceto, Eleanor Wallin, Charles Etta

RESEARCH & DEVELOPMENT—George Daughters, Peggy Vorse, Donna SOUTH PORTLAND-Don Loring, John Carter.

µL is a trademark of Fairchild Semiconductor, a Division of Fairchild Camera and Instrument Corporation.

# LEADWIRE

REAL

### From the Editor ...

May 31 is the deadline for entries in the Amateur Photo Contest, sponsored by *Leadwire*. Photos must be in my office (Marketing Services—MV) on that date no later! The details again appear in this issue.

While on the subject of deadlines, I might as well hit upon that for *Leadwire* news: The last day of each month. As much as possible I rely upon my staff of Reporters at the various facilities. Contact them if you have something that is news-worthy from your area.

Welcome to three new Reporters—Bobbie Talley and Anne Parfitt from San Rafael: Katie Guida from Fairchild Controls (MV). I am sure you will contribute greatly to our magazine.

What else is "new" around Fairchild? Would you believe a plant "way down under" . . . in Australia? Yep, this time we've put kangaroos to work assembling semiconductor devices. All joking aside, Grand Opening festivities took place on May 10. The plant's employment currently totals 100; it represents the continual efforts of Fairchild Semiconductor to exnand worldwide operations.

pand worldwide operations. Turning to MV sports (not covered elsewhere), the Fairchild Tennis Club will start its weekly practice sessions in June. Several tournaments are scheduled during the season, with arrangements in process for lessons at a reduced rate. Contact Pat Barringer, John Hermann, Sue Rathbun, Carol Wollesen, or Zen Zubrycky for further details.

A new employee of Instrumentation, Walt Skruch, has taken over the gals' softball team in MV. Any ladies from Semicon/Instr. in Mountain View may try out. The team, which will see action in the Women's Industrial Softball League, started practice sessions this month, with its season opener in June. Contact Walt at Ext. 5293 for more information.

On May 3, Station KREP (105.7 FM) in Santa Clara, California featured a "Salute to Fairchild," with facts about our company and employees during the day. Being a multiplex fan, I listened. They did an excellent job—even *Leadwire* was pronounced correctly!

With the following, I will "sign off." My thanks to Herb Henderson and Dr. J. Trevor Law (Materials) and to Uli Hegel (Hi-Rel) for their technical assistance in certain articles that appear in this issue.

Coming next month . . . Announcement of the winners in the Amateur Photo Contest; a look at the work being done by Production Services (MV); and — perhaps — some news from Shiprock (am going to New Mexico, my native state). Hasta la vista!

#### HI-FI RIDDLE:

Amp and Power Amp were walking through the spectrum. The Load went short. Which one blew?

#### ANSWER:

Neither — they were using Fairchild short circuit protection. Application Note No. 84. D.S.

### record peninsula turn-out for blood bank donors' drive



MOUNTAIN VIEW, PALO ALTO — Approximately 178 employees from facilities located all over the Peninsula came to Mountain View on April 19 to donate 158 units of blood. These units are held in reserve for Fairchild personnel at the Peninsula Memorial Blood Bank.

The annual drive, with doctors and nurses provided by the Blood Bank, took place in a temporary set-up at the Whisman Road cafeteria. Car pools from outlying plants and refreshments were arranged by the Insurance office.

Through donations of co-workers, Fairchild employees and their dependents on the Peninsula can draw whole blood units as needed from the company reserve at the Peninsula Memorial Blood Bank.

Any requests for blood may be directed to Irene Schuler, chairman of the Fairchild Blood Bank Committee, at Ext. 2843 (MV).

### INSTRUMENTATION GETS TOGETHER FOR SPRING DANCE

MOUNTAIN VIEW — More than 250 Instrumentation employees and their guests feted spring with a gala dance on April 16. The affair was held at the Little New Yorker in Santa Clara, California, with dance music provided by Herb Napoleon. All told, the division's first social function of the year was a resounding success.

### new withholding system affects pay check may 1

MOUNTAIN VIEW — Notice a slight decrease in your take-home pay this month? Effective May 1, Payroll is deducting more from your pay checks, in line with a new system for withholding Federal Income Tax.

This is not an increase in the taxation rate. It is merely a rise in the amount withheld to more closely approximate your total annual tax liability and thus, decrease taxes payable at year-end.

The new tax system takes into consideration: Whether you are single or married; the number of exemptions you claim; the amount you earn.

Employees who have not returned the new W-4 "Employees Exemption Certificate" are encouraged to do so. If your W-4 is not on file in the Payroll department, you will be considered a single person and correspondingly more tax will be withheld. Any questions regarding the new system may be directed to Payroll in Mountain View.



HEADING THE LIST of Semiconductor division officials attending South Portland's annual meeting at the Purpoodock Country Club in April are (I. to r.): Dr. Robert N. Noyce (Group Vice President – FCI), John J. Magarian (Plant Manager – Maine), Charles E. Sporck (General Manager), Donald T. Valentin (Director of Marketing), Carl H. Steffens (Marketing Manager – Maine) and Donald E. Yost (Director of Operations). Visiting speakers from MV headquarters outlined the past, present and future of the FS division for a group of 100 from the Maine facility.



NEW SALESMEN—Attending rigorous training sessions in California for one week in April are new additions to the field sales force. They are: Front row (l. to r.) George Flynn—Boston, Dick Davies —Los Angeles, Jim Honsberger—Jenkintown, and Bert Piaser—Jericho, Back row (l. to r.) Dennis

Brockway—Palo Alto, Rhodes Messick—Jericho, Mel Brewer—College Park, Ted Brown—Indianapolis, Joe Phelan—Boston, and Bill Brennan —Huntsville office. During the week, the fellows were briefed on all of Semiconductor's capabilities and toured West Coast operations.

### FIVE-YEARS SERVICE

Joe Obot, Mountain View George Vashel, Mountain View Heinz Ruegg, R&D Harold (Hal) Grutchfield, Mountain View Niksa Svoboda, San Rafael

> Instrumentation holds Seminar for Users of Series '500'

MOUNTAIN VIEW — A two-week training seminar on Fairchild Instrumentation's Series '500' semiconductor test system was held April 4 through 15 at the Caravan Inn in Palo Alto. The '500' seminar, conducted by William Sauder of Instrumentation, was part of a continuing program of training sessions on the Fairchild Series '500' and Series '4000M' test systems.

During the past year, around 200 engineers and technicians from all over the world have attended these seminars. Instruction is given on programming, theory of operation and maintenance of the systems, as well as on principles involved in automatic semiconductor testing.

These seminars are open to current and prospective users of the Series '500' and '4000M' systems. For further information, contact Lloyd Smith at Ext. 2484 (MV). items of interest

### fairchild reduces prices on broad line of dtl microcircuits

MOUNTAIN VIEW—Last month, distributor quantity prices for standard DTL microcircuit devices were adjusted by Fairchild Semiconductor for the first time in two years. Reductions in "low quantity" O.E.M. prices will bring savings —formerly limited to large-volume buyers—to all users of the industrial dual in-line package, the standard TO-5 and the "Cerpak" miniature package.

In making the announcement of new price structures, Donald T. Valentine, Director of Marketing, pointed out that Fairchild has always followed the policy of passing on internal cost savings to the customer via corresponding price reductions.

### microwave products develops new uhf, vhf tuning varactors

MOUNTAIN VIEW — Two new high Q silicon Planar epitaxial tuning varactors, suitable for UHF and VHF frequencies, were put on the market by the Microwave Products department of Semiconductor division this month.

Developed and manufactured by the department, the varactors carry the Fairchild type numbers MC301 and MC302. This new product line allows a circuit designer to specify any capacitance value in the 6 to 25 pf range for the MC301 and in the 26 to 47 pf range for the MC302 — the first time such has been available.



'500' SEMINAR — Representing companies throughout the U.S. at Instrumentation's two-week training session are: Seated (I. to r.) Troy T. Jones (Aeroneutronics division of Ford Motor), David Silva (FS), Dwight Dart (Lockheed Missiles), and Gary C. Meyer (Honeywell, Inc.); back row — Robert M. Nichols (Intl. Tel. & Tel.), Carl Roberts (Vector division of United Aircraft), and Hugh Smith (Texas Instruments); not pictured — John Firestone (Intl. Tel. & Tel.)

### Carol Reports ...



SOUTH PORTLAND — Two classmates from Cheng Kung University were reunited recently at a Fairchild gathering in Maine. After ten years, Po Shiu (Jim) Poon, left, and Chee Kong Lee, right, met again — this time, as Fairchild employees.

Jim Poon received his B.S. degree in Electrical Engineering in 1956; Chee graduated from the same university in Taiwan in 1955 with a B.S. in Mechanical Engineering.

Both men are natives of Hong Kong and have earned M.S. degrees in their respective fields from U. S. universities. Jim joined the South Portland staff in March as sales liaison engineer. Chee will report to Semiconductor, Ltd. in Hong Kong upon completion of his orientation program.

#### MAINE "SWINGS INTO SPRING" WITH EMPLOYEE DANCE

South Portland personnel bid farewell to winter with a "Swing into Spring" dance, sponsored by the Fairchild Recreation Council in late March. The function, held at the South Portland Armory, was complete with decorative spring flowers, crepe paper, candles and music by Al Realto's combo. Door prizes highlighted the evening's festivities.



TAKING A WHIRL are two employees of Fairchild, Andrea and Richard Childress. Andrea is an assembler in QA, while husband Richard is a mechanic.



CANDIDATES circled around smiling Stan Rothstein, president of the South Portland Recreation Council, is a sampling of the many employees who vied for election in April. Contenders kneel-

#### RECREATION ELECTION RESULTS

Following fervent campaigning, sixteen Recreation Council members were voted into office at South Portland: From Assembly — Ellen Browne, Dolly Fernandez and Arlene Dery; from Test & Finish — Jetta Denbow, Claudette Meehan and Barbara Nye; Final Seal — Sheila Sawyer and Claire Agger; Die Fab — Sheila Proctor and Eunice Wallace; QA — Cynthia Heal; Micrologic Test — Rachel Cormier; Mechanical Maintenance — Al Francoeur; Electrical Maintenance — Bob Fish; and from the Office staff—Shirley MacDonald and Kathy Bernard.

Those "who also ran" from Assembly included: Lucille Jacques, Annette Trempe, Eleanor Leyko, Irene Walker, Fran Harris, Dot Verrill, Ramona McAllister, Suzanne LeBlond, Betty Roberts, Claire Talbot, Bette Maxwell, Louise McLean, Elaine Poitras, Ruth Lawson, Frankie Baade, Sally Woods, Ann Hamilton and Joyce Sirpis.

Competing from Test & Finish and the Cage were: Mary Malley, Dorothy Johnson, Bernice Daniels, Rosiland Morris, Beatrice Flaherty, Pauline Sturgeon, Mary Erskine, Babe Villinger, Barbara Young, ing (l. to r.) are Betty Roberts and Annette Trempe; standing—Ellen Browne, Lucille Jacques, Sheila Proctor and Marie Grover.

Linda Allen, Helen Connolly, Gwen Tatro, Audrey Edgerton, Donna Perry, Patricia Goodwin and Violet Pettengill.

Other candidates from Die Fab were Maureen St. Pierre, Marie Grover, Pat Levesque, Kathleen Demarino, Linda Irving, Doris Falk, Marlene Luke, Rita Casey, Helen Wakefield, Lynn Loring, Pauline Morin and Jean Clavette.

Sandy Cyr, Mena Smith, Jane Watts, Agnes Roy and Gale Pomeroy represented QA/QC. Vying for Final Seal were Pat Henkel, Jean Bourgault, Irene Hayward, Linda Robinson, and Louise Levesque. Stan Whitney and Fred Arehart were other contenders from Mechanical Maintenance.

Finally, in the running from the Office crew were JoAnn Gerry, Sheila Phinney, Sally Robbins, Don Blodgett, Alice Leighton, Noella Maehl, Muriel Hall and Connie Beaudoin.

Company-sponsored activities on the agenda thus far are dances aboard a Casco Bay cruiser on June 18 and June 25, as well as weekly Sunday afternoon boat trips during the summer months. Plans are already under way for the annual company picnic.



A friendly gathering around the table.



A TAPE RECORDER was won by Lloyd Lapierre (ctr.), husband of Annette Lapierre — department assistant in Transistor Assembly. Dance committee member Fred Arehart (left) presents the prize to Lloyd, while Jane Watts, chairman, holds the winning ticket and Pauline Sturgeon announces the winner over the mike.



1. As mentioned previously, the wafers are waxed down on grinding discs before being sent to Lapping or Polishing.



3. Dorothy Brown's face is reflected in wafers which have been polished. One micron diamond paste has been used as the abrasive agent.



6. If destined for the Epitaxial Growth area, large reactors utilize distilled silicon tetrachloride to grow another layer of silicon on the polished slices,



2. In Lapping, Virginia Reyes places the discs on a revolving grinder table. The difference between the Lapping and Polishing processes is merely the grid (or abrasive). Here, a 12.5 micron aluminum oxide paste is used for 20 minutes on the slices.



4. After polishing and demounting from the discs, Rita Ramirez carefully cleans each wafer with alcohol-soaked cotton. Depending upon their classification, the slices are now ready for either Oxidation or Epitaxial Growth.



7. Donna Smith peers down at wafers in an epitaxial reactor. The original "substrates" (wafers) possess high conductivity, while the silicon layer that is grown during the process, has low conductivity.

# A FAIRCHILD FOUNDATION

# Materials, Mtn. View

DEPARTMENTAL FEATURE — The April issue of *Leadwire* covered the Crystal Growing and Slicing areas of the huge Materials department. Subsequently, the silicon wafers that are produced travel to Lapping or to Polishing and then, either to Oxidation or to Epitaxial Growth. These processes are explained pictorially here.



5. If sent to Oxidation, quartz boats full of wafers are placed in an oxidation furnace, as performed by Gloria Blondin. At a given temperature, silicon dioxide is transformed into an oxide layer on the polished surface of each silicon wafer.

After final check-out in Quality Assurance (which operates at each level of Wafer Production), the oxidized or epitaxial wafers are ready for shipment to R&D, San Rafael, South Portland, Hong Kong, or Wafer Fab in the MV plant.

Next Month: Part III — Header Manufacturing.

### fairchild hi-rel parts to earn bonus awards from motorola; advance delivery for apollo II



GRAVY — George Korpontinos, Customer Services Manager (left), and Jerry Sanders, Military Marketing Manager, smile over three \$1.000 checks

FS hopes to earn from Motorola for advance delivery of Hi-Rel parts used in the Apollo II spacecraft.

MOUNTAIN VIEW — Fairchild successfully passed its first milestone last month toward earning three \$1,000 bonus awards from Motorola's Military Electronics division for delivering three orders of Hi-Rel parts ahead of schedule.

of Hi-Rel parts ahead of schedule. Two low-noise, high frequency transistors and general purpose diodes that were shipped last month had undergone required Screen and Group "A" tests in the High Reliability department. They will be used in Motorola's Apollo S-Band Block II Program for NASA.

Although the checks from Motorola were issued in advance of actual performance, final shipment of remaining units in the three lots (through 1,000-hour Life test) must be completed by July 8 to earn the \$3,000 bonus money. It will mark the first such incentive award received by FS. Jerry Sanders, Military Marketing Man-

Jerry Sanders, Military Marketing Manager, is quite optimistic about the final delivery date. "The creation of John Ready's High Reliability department has made possible this achievement and improvement in meeting Motorola's proposed schedules through better visibility and control."

### INSIDE HIGH RELIABILITY - PERFORMANCE TO PERFECTION

It has been said that there's a pound of data for every half-ounce of product shipped to military customers from Mountain View. Such projects as the upcoming Saturn-Apollo manned space flight require perfection from the prime contractor, subcontractor and each individual American who contributes.

To meet both stringent demands for quality assurance and delivery dates as rigidly scheduled, the High Reliability department (MV), headed by John Ready, was created last fall.

In the hands of its personnel lie not only responsibility for Fairchild's device performance, but ultimately the prestige of the nation, the lives of our astronauts and the U. S. success in space.

The work shown here, as performed by Hi-Rel employees to fulfill the accelerated delivery program of Motorola, serves as a prime example.





1. Gladys Zwemke in the Control Cage is responsible for controlling and expediting the flow of parts through Hi-Rel. Here, she tracks Motorola's order to compare the deadline for shipment with product testing completed to date.



2. Carol Lujan loads transistors in sockets for stabilization burn-in. The units are operated at a uniform power voltage specified by Motorola.



3. According to a multitude of Motorola parameters, the devices are tested on Instrumentation's 500B system by Karen Valdespino. The tests performed are then punched on EDP cards.



### END OF THE ROAD FOR A HI-REL PART -- OUTER SPACE



4. In Data Check, (l. to r.) Marci Park, Donna Stidham and Hilda Amaral review the final data package to ensure its complete accuracy. The cards have been processed by the Mtn. View Data Center of FS to compute the limits specified by the customer's drawing. The data will accompany the product shipment to Motorola.



Hi-Rel and Fairchild Controls personnel took particular interest in an exhibit of the NASA Saturn-Apollo Manned Flight Program last month. Hi-Rel completed tests on a number of components used in the Apollo capsule, while Controls manufactured the transducers for measuring system pressures in the Saturn missile. The exhibit van, belonging to Douglas Aircraft, was visited by countless MV employees.

# the sports scene



MATERIALS ATTACK — Team captain Buzz Sawyer (with ball) starts Materials' vaunted fast-break with teammates Randy Hain (left foreground) and Mike Walton (center foreground) leading

### materials declared 1966 m.v. intramural basketball champs

MOUNTAIN VIEW—Materials rolled through a six-game schedule undefeated to capture the 1966 Intramural Basketball championship last month.

The champions' 6-0 mark was one game better than that of Integrated Circuits (5-1), two-time defending champs, who had to settle for second place despite a five-game winning streak. Materials beat IC in the season opening game on March 16. That eventually proved to be the deciding battle — neither team lost a game after that.

The champions are: Buzz Sawyer (captain), Randy Hain, Ted Salazar, Herb Henderson, Dave Culley, John Reichert, Rodger Likens, Terry Hayes, Mike Walton, Dan Martin, Bob Zinn and Gene Pantiga. Sawyer and Salazar are veterans of last year's top Integrated Circuits team.

Members of second place Integrated Circuits team. Members of second place Integrated Circuits are: Bob Bickers (captain), Dick Hoff, Roger Smullen, Larry Stenger, Don Taylor, Steve Rowles, Skip Rice, Jerry Wishes, Nick Silver, Manny Robles and Art Stabenow.

Individually, Randy Hain — Materials nonpareil sharpshooter — was the only one in the race for top scorer all season long. Despite missing a game, Randy poured through 121 points, a whopping 42 better than his nearest competitor, Don Taylor of IC. the way. Action took place in the team's championship clinching win over Power. Materials' Herb Henderson is behind Sawyer. Power defenders are Chuck Clemens (No. 4) and Joe Holbert.

#### REGULAR SEASON STANDINGS (final)

	won	lost
Materials	6	0
Integrated Circuits	5	ĩ
Power	4	2
R&D	3	3
Applications	2	4
Special Products	ĩ	5
Instrumentation	ò	6

#### TOP SCORERS

	pts.	ave.
Randy Hain (Mat.)	121	24.1
Don Taylor (Int. Crts.)	79	16.0
Dick Hoff (Int. Crts.)	78	13.0
Jim Kubinec (App.)	73	12.0
Bill Leffler (Instr.)	63	12.6
Gary Bishop (Power)	62	10.3
Bob Bickers (Int. Crts.)	61	10.0
Dave Heck (Sp. Pds)	61	12.0
Larry Phillips (Sp. Pds)	55	9.0
Bill Hokeness (R&D)	54	10.8
Ted Hollinger (App.)	48	8.0

### R&D RECREATION COUNCIL TO SPONSOR NOON SWIMMING

PALO ALTO — The R&D Recreation Council has applied for the use of the swimming pool at Terman Junior High School (Arastradero Road), near the facility. Swimming will be open to R&D employees one day a week (tentatively on Wednesdays) during the summer months from 12 to 1 p.m.

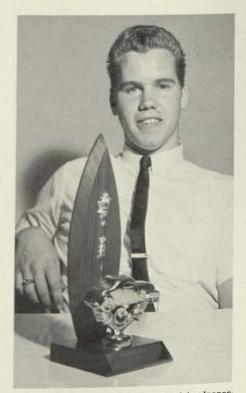


### R&D'S SUMMER GOLF LEAGUE MEETS AT CHERRY CHASE COURSE

PALO ALTO — Fairchild's R&D Summer Golf League began tournament play this month, with weekly matches at the Cherry Chase Country Club course in Sunnyvale.

Around 58 persons signed up at an April meeting to give the league its largest membership since its inception. The group plans to carry the season into September, awarding both individual and team prizes.

Officers for the 1966 season are: Jack Jones, president; Sonia Caudillo, secretary; John Lawrence and Joe Flood, handicap committee.



MANUAL DEXTERITY—AI Aldor, Receiving Inspection at Transducer, took First Place in "slot" car racing on March 29. He won, "hands down", over four other contestants at the Checkered Flag Raceway in Santa Clara.

### rollerdome sees weekly action of gals in maine

SOUTH PORTLAND — Approximately fifty ladies in a Fairchild Skating Club take to the roller rink every Tuesday night in Maine not only for fun, but also for instruction in the rules and form of skating. Financed, in part, by local Recreation Council, dues are only 40 cents a week for each member.

On March 17, the Roller Skating Club held a St. Patrick's Day banquet at a nearby restaurant. Following dinner, members and guests joined in a songfest around the piano.



OFFICERS — Heading spring season activities of the Roller Skating Club are: (l. to r.) Loretta Coughlin, treasurer; Charlotte Althenn, president, and Judy Harris, secretary.



WHOOPS! — Rena Barter in her usual skating position.



Dance formation anyone?

### HOME GAME SCHEDULE FAIRCHILD FALCONS

Wed., June 1	Food Machinery
Sat., June 4	Santa Cruz
Mon., June 6	Pyramid Homes
Wed., June 8	Village Green Hawks
Sat., June 11	Hayward
Wed., June 22	Rykiwaert Masonry
Wed., June 29	B & Z Manufacturing

SEASON OPENER—Ready for their first game in AAA League play against Sacramento on April 23 are the Fairchild Falcons. Front row (I. to r.): Chip Nasta, Eddie Loveless, Chuck Camuso, Frank Aquino, Sonny Fernandez and Ed deMartini; back row: Al Johnson, Mike Haruff, Ray Phillips, Bob Harrison, Bill Leffler, Pat Campagna (mgr.) and Vince Fulginiti. Not pictured: Dennis Murphy and Jack Gifford.



DIGGIN' IN around the table at the Skating Club banquet held March 17 are (I. to r.) Janice Savoy, Jackie Parker, Judy Harris, Judy Swanson and guest.

### FALCONS RUNNER-UP IN FRESNO TOURNEY; PLAY KYA DISC JOCKEYS ON JUNE 30

MOUNTAIN VIEW — Out of 30-team competition in a pre-season AAA softball tournament in Fresno recently, the Fairchild Falcons went 13 innings against Manteca in the finals to take runner-up with a 2-to-1 loss. After a marathon nine innings on the mound, Al Johnson was relieved by Bob Harrison.

With one trophy in tow, Pat Campagna, manager, says, "The team looks really great." Captain Ray Phillips adds that team spirit is high, with each player giving his 1<sup>1</sup>/<sub>2</sub> hours in hard work and hustle.

On June 30, the Falcons will meet the well known KYA Disc Jockeys of San Francisco in two slow pitch exhibition games. Such players as "Emperor" Gene Nelson, Johnnie Holliday and Rick Berry will come to Fairchild's home field (McKelvey Park in MV) for some sensational action. Details on admission, time, etc., will appears in the June Leadwire.





HIGH SERIES, HIGH GAME winners of the Fairchild Swingers are (I. to r.) Bob Bauer, Norma Lias, Don DeBrouwer and Jim Hill.



FIRST PLACE trophies were awarded to Darlene Dusan (representing Anna Duval), Pauline Dean, Bob Bauer and Vince Goskey.

### ROLL OFFS IN SAN RAFAEL BOWLING THIS MONTH

SAN RAFAEL — Regular bowling for the day shift league at the Marin facility comes to a close with roll offs on May 16. At this writing, leading the second half is the team of Hal Clement, Jan Marz, Mack and Mickey O'Donnell.

The winning team for the first half included: Paul and Flossie Newkirk, and Jerry and Karen Calloway.

The league's Bowling Banquet is slated for May 21. There will be dining, dancing and trophies awarded.

### SAN RAFAEL GOLF TOURNEY SLATED FOR JUNE 12

SAN RAFAEL — Golf competition for employees of the Marin facility has been scheduled for June 12, 1966 at the Oakmont Golf Course in Santa Rosa. Starting time will be at 10:00 a.m., with scores calculated on a handicap system.

Interested players should contact Jim Bell, Ext. 376 (SR) for further details on green fees, prizes to be awarded, etc.

### fairchild swingers bowling held trophy banquet april 6

MOUNTAIN VIEW — To close their Winter League, the Fairchild Swingers (swing shift) held a bowling awards banquet on April 6 at Walker's Wagon Wheel in MV. The bowlers enjoyed a steak dinner following presentation of the trophies.

Individual trophies (male and female, respectively) were won by: Bob Bauer — 613 and Mary Stewart — 557 (high series scratch); Don De Brouwer — 237 and Norma Lias/Josie Williams — (tie) 213 (high game scratch); Vince Fulginiti—676 and Sheryl Estes—694 (high series handicap); Jim Hill — 260 (high game handicap); Jim Hill — 13 pins and Bea Dusan — 18 pins (most improved players).

Other trophy recipients not mentioned heretofore included: Vince Goskey, Anna Duval, Pauline Dean, Ken Stevens, Jerry Brehm, Joan Connally, Eddie Williams, Dick Hanna, Rita Callihan and Audrey Hoach.

The Swingers began their Summer League on May 3 at Fiesta Lanes in Palo Alto.

### FLYING CLUB IN FORMATIVE STAGES AT SAN RAFAEL

SAN RAFAEL—A Flying Club for San Rafael employees is being organized by Frank Proenza. Various companies have been contacted to get bids for the lowest cost per club member.

Although a firm price has not been determined, it should run around \$400 to \$500 for 50 hours. There are several banks or loan companies who offer credit arrangements. For further information, contact Frank Proenza at Ext, 244 (SR).



R. E. Collomy

R. A. Staffiery

#### MOVING UP

**ROLAND E. COLLOMY** from electronics technician "A" to production control (South Portland). Roland joined the Maine facility in 1963, following employ with Raytheon. He has studied at both the University of Maine and Southern Maine Vocational Technical Institute in his native state. A veteran of the Marine Corps.

RICHARD A. STAFFIERY from production control engineer, Materials (MV) to quality control engineer, QA (South Portland). Dick, who came aboard at the MV facility in 1962, holds an Associate degree in Electronics from Wentworth Institute. He has also completed Engineering courses at Northeastern University. Born in Massachusetts, Dick was formerly associated with Lab for Electronics.

DAVID MARRIOTT to product manager, Standard Products, from supervising engineer, Special Products (San Rafael). Dave, a native of England, was awarded his degree in Chemistry from Northampton College of Advanced Technology. He has served three years in the Royal Air Force, joining Fairchild in 1965 from General Instrument.

GEORGE COMPTON to supervising reliability engineer from supervising process engineer, Standard Products (San Rafael). A native of Oklahoma City, George graduated from the U.S. Naval Academy, Prior to employment with FS in 1959, he served as a Naval pilot in the 1958 Quemoy-Matsu crisis. Recently selected for promotion to L1. Commander in the Naval Reserve. JAMES M. MOSER from account manager to section head, Marketing Services (MV). Jim came to FS in 1964, following earlier marketing experience with Shell Oil Company. He received his BS degree from the University of Florida in his native state. Served in the Army.

HARRY STERN from general foreman, Hi-Rel, to senior systems analyst, Mgmt. Information (MV). Harry holds a BBA degree in Production Management from the City College of New York. He is currently completing work toward an MBA from San Jose State. Joined Fairchild in 1963.

GEORGE MILLER from Chem Mix to foreman, Standard Products (SR). George has attended Sierra Junior College and College of Marin. He came aboard FS in 1964 and has served as chairman of the Plant's Recreation Council.

**PAUL A. FILAROSKI** from production scheduler "A" to production control (South Portland). Formerly employed by Sprague Electric, Paul joined the Maine facility in 1965. A New Hampshire native, he received electronic technician training while serving in the Navy.

W. R. (CHIC) DRAPER to foreman, Photo Diode, from electronic technican (San Rafael). A native of Santa Maria, California, Chic has attended several junior colleges, holding State of California teaching credentials. Following 23 years' service in the Navy, he joined the company in 1964. A retired Chief Petty Officer.

GENE ROSS to foreman, Line Maintenance, from senior mechanic (SR). Gene has studied Engineering and Optical Physics at Glendale College (his native city) and Santa Rosa Junior College. He came to FS in 1965 from Optical Coating Laboratories, Inc.

#### NEW FACES



M. A. Klyszeiko

X

E. L. Farrell

MICHAEL A. KLYSZEIKO has come aboard South Portland as foreman, Micrologics. A graduate of the University of Vermont in his native state, Mike recently was honorably discharged from the Navy as a Lt. j.g.

EDWARD L. FARRELL has been named national distributor sales manager for the FS division (MV). Formerly associated with G. S. Marshall Company, Ed holds a BS degree from St. Peters College (Jersey City, New Jersey) and has completed gradaute studies at the Fordham Univ. School of Law and New York University Business School.

ANTON (TONY) P. BAYER is a recent addition to San Rafael as supervisor in QA. Born in Cleveland, Ohio, Tony has finished courses at Cleveland State College, Phoenix College and Mt. San Antonio College (Walnut, California). Formerly associated with Standard Rectifier Corporation.

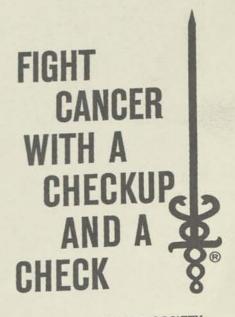
FREDERICK W. SNYDER joins South Portland as foreman in Die Fab. A Maine native, Fred holds BS and MS degrees from Gorham State College. Served in the Coast Guard.

**ROBERT G. ROCKWELL** is a new member of the technical staff in Transducers at R&D. Born in La Junta, Colorado, Bob holds his BS degree from the University of Colorado and has done further work at Stanford University. Prior employ: Varian Associates. Member: IEEE.

JAMES C. JOHNSON comes to San Rafael from Atlas Powder Co. as a sales liaison engineer. Jim has his BS degree from the Missouri School of Mines and his MBA from Golden Gate College, San Francisco. Served as an officer in the Navy.

**RICHARD KOEBLER** joins the Minneapolis office as a new salesman, Computer accounts. A graduate of Coe College (Cedar Rapids, Iowa), Dick has two years' sales experience in the Minneapolis area, dealing chiefly with electronics firms.

THOMAS KLEIN comes aboard at R&D in Device Development. Tom holds a BS degree in Physics from Aberdeen University, Scotland, and was formerly associated with Mullard Research Laboratories in Redhill, England. Born in Budapest, Hungary.



AMERICAN CANCER SOCIETY

### Amateur Photo Contest

sponsored by Leadwire

their families.\*

Who's Eligible:

What Kind:

Categories:

Deadline:

Prizes:

Black & White-prints any size. Color (transparencies, prints)—any size. Please—No Negatives! 1. Sports/Action 2. Human Interest (people, etc.) 3. Scenics 4. Still Life May 31, 1966 One 1st Place-Kodak Instamatic Mark IV Super 8 Movie Camera Three 2nd Places-Polaroid "Swingers" Eight Honorable Mentions (2 per each category)

All Semiconductor/Instrumentation employees and

Pictures judged on basis of Content and Originality, rather than Technical Quality. Prints will not be returned without a self-addressed envelope. Contest ends May 31, 1966; judging by Staff photographers on June 1. Winning entries featured on cover and in center section of June Leadwire.

Remember the deadline. Entries must be received by Harriett West (Marketing Services-MV) no later than May 31, 1966. Please print legibly name, dept./section and plant location on a separate piece of paper and include with photo. (For family members, also indicate relationship to you, as an employee.) Only one entry per photographer.

\* Professional photographers will be disqualified.

### LEADWIRE

Published by and for Employees of Fairchild Semiconductor/ Instrumentation

Mountain View - Palo Alto - San Rafael Hong Kong - South Portland, Maine Shiprock, N.M.

May, 1966 Vol. 8, No. 5 Editor: Harriett L. West

Art Direction: Robert Chan

Reporters:

Reporters: MOUNTAIN VIEW—Wes Cox, Lois Eagle-ston, Nellie Covington, Ginger Tygret, Keith Thomson, Judy Dunkelberger, Paul Bras-seur, John Walsh, Phil Lenihan, Marshall Smith, Katie Guida. DIODE PLANT—Cleatus Dunkley, Audrie Graxiola, Janet Marz, Clarence Medeiros, Mickey O'Donnell, Margaret Queen, Bobbie Talley, Anne Parfitt. DESEAPCH & DEVELOPMENT—Peggy

RESEARCH & DEVELOPMENT — Peggy Vorse, Donna Parris.

SOUTH PORTLAND-Carol Hebold. INSTRUMENTATION — Jack Ramon, Joan Appleman, Pat Campagna.

 $\mu L$  is a registered trademark of Fairchild Semiconductor, a Division of Fairchild Camera and Instrument Corporation.

Copyright Fairchild Semiconductor 2310-143-56 5M Printed in USA

May, 1966

Juger Jenlius



### To the Reader

You're going to be pretty busy these next few days. If you are registered to vote, you'll have to get to the polls on November 8th and vote your candidates into office.

And as if that wasn't enough, another group of people need your assistance, the United Fund. Be sure to read the feature in the Leadwire to see just how far your United Fund Dollars go.

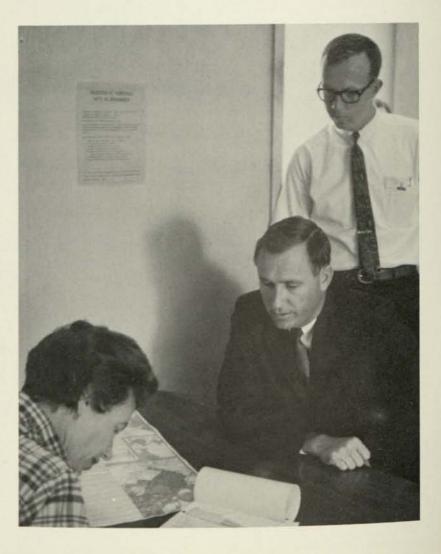
Then there's the Leadwire. I still need your help with story ideas and photos. The only thing I can promise in return is a better Leadwire talking about folks you know and behind the scene happenings at Fairchild. More news is coming in but there never seems to be enough ... I hope to hear from you soon.

jh



November elections are fast approaching. Thanks to a three-day voter registration drive, sponsored by the League of Women Voters of Los Altos Hills, 212 more Mountain View employees will be eligible to vote in the coming elections.

Taking time to register so that they can vote November 8th are Hal Wright (Government Contracts) and Cloyd Marvin (Complex Arrays).





## WORKING MANY WONDERS

It's time once again for the United Fund Campaign, and your "fair share" contribution will, indeed work many wonders for many persons.

Fair share contributions equal only one hour's pay per month, or an amount equal to three minutes per day. This is very little when you realize that a gift of \$12 provides three dental visits for a child or two home calls by a visiting nurse so that a sick or injured person can stay at home instead of requiring more expensive care.

A gift of \$36 provides a wrist support or brace for an arthritic so that he may help himself and \$60 provides two and a half weeks' care at a United Fund day nursery for a child whose mother is sick or must work.

Last year Fairchild employees at Palo Alto and Mountain View locations pledged more than \$34,-000 — more than doubling their 1964 pledge total. The average gift was over \$23 and many gifts were greater than \$100. This year Fairchild hopes to improve the excellent showing of last year.

Contributions made by employees go even farther because it's Fairchild's practice to donate a sum based on pledges received in the employee campaign.

The total employee gift goes directly to United Fund agencies, but the company contribution is put to other charitable uses. At Mountain View it is placed in a fund managed by the Employee Charity Committee. Quite regularly during the year, this group of 23 men and women meet to decide how the corporate gift should be distributed. It is used to boost local projects and charities as well as the United Fund.

Over the past year the company's donations were well spent, providing local youth groups and Scout Troops with weeks at camp, enrichment trips, tents and other equipment for summer projects. Mountain View's Community Council received a typewriter and duplicating machine enabling the council to continue a job program. Support was also given to a summer employment project and a YWCA "Fun in the Sun" program that served underprivileged residents of Mountain View and Palo Alto by providing a Volkswagen bus, 12 tricycles, and woodworking equipment.

Awaiting final approval are such projects as the completion of a nursery school project by providing one entire classroom, a Volkswagen bus for "Friends Outside," 100 pair of shoes to be distributed by the Mountain View Community Council, and a weekend enrichment program to benefit farm workers' children.

There are many good reasons why you should give to the United Fund. Only a few have been stated here. A very small payroll deduction is convenient for you and so beneficial to others. It truly works many wonders.



### DON O'ROURKE NAMED TOP SALESMAN FOR AUGUST



"Salesman of the Month" honors for August went to Donald O'Rourke of the Wakefield office. Don wrote an order for 400,000  $\mu$ A 703 Linear Circuits designed for the H. H. Scott Company to be used in their Hi-Fi Stereo units. But this was not Don's only big sale.

"Don's had a very good year," commented Dave Conway, Regional Sales Manager. "Earlier he landed an order for 5 million UHF devices from the F. W. Sickles Division of General Instrument. He also wrote the first order in the country for 0019 Epoxies — 300,000 from H. H. Scott, and he obtained the first large power commitment — 100,000 TCU 5206's from Symphonic Electronics."

Don joined Fairchild Semiconductor in October of 1965 as sales engineer working out of the Wakefield office. He is responsible for the sale of Fairchild's complete line of silicon semiconductor products to all consumer customers in the New England region.

A native of Boston, Don graduated from Boston College and obtained an associate degree in electrical engineering from Northeastern University. He and his wife and three children live in Westwood, Massachusetts.



### South Portland Gal Uses Leadwire Cover As Inspiration For Painting

Eleanor Leyko, a first shift Fairchilder in hermet assembly began painting five or six years ago. She finds it both pleasurable and profitable. To those two adjectives should be added "practical," as she applies the money she receives for her paintings toward a college education for her daughter, Linda, now a second year student at Simmons College, Boston.

Inspired by last January's Leadwire cover photo (a Maine winter scene photographed by Dick Steinheimer), Eleanor realistically interpreted the icy scene in very cool colors. She captured the brilliant white glare of sun and snow skimming the cold deep blue waters using acrylic paints on an 18 x 24 inch canvas board. Acrylics are waterbase paints that give the effect of oils.

To complete the picture (which took "three months, off and on") Eleanor chose a soft wood frame that she finished in blue-gray tones to complement the colors in her painting.



One of the features at the Western Electronics Convention held in Los Angeles in late August was an Integrated Circuits Symposium. That's Floyd Kvamme, Microcircuits Products Manager (second from the right), speaking for Fairchild.

### R&D MAN SPEAKS TO ELECTROCHEMISTS

AT WESCON

### FAIRCHILD AND TI AGREE ON SEMICONDUCTOR CROSS-LICENSE

Fairchild Camera and Instrument Corporation, S. G. S. (Fairchild's European affiliate) and Texas Instruments entered into a cross-license agreement for the patents belonging to each other in the field of semiconductor devices and related manufacturing equipment.

# hong kong a-go-go

Not quite three years ago, the Epoxy Entertainment Section (Hong Kong) was struggling to ship 50,000 transistors a week. On August 15th of this year that group completed the largest single shipment ever made to a customer and sent by Fairchild in a single day. The combined shipment of transistors and diodes went to Atlas Electronics of Hong Kong. It consisted of 3,355,000 units . . . enough to make up a whole truckload. Dr. Bruce E. Deal was the featured speaker at the San Francisco Section of the Electrochemical Society meeting held September 28th. Speaking on "Passivation of Semiconductors," Dr. Deal explained the use of dielectric layers on semiconductor surfaces as well as the vari-

The agreement, extending for ten years, covers patents throughout the world except Japan. Included in the grants are licenses under the Fairchild patents on the Planar process and under Texas Instruments' patents covering integrated circuits.

This marks the 10th licensing agreement involving Fairchild's Planar process which has been negotiated. Other firms, previously announced, include RCA, Raytheon, IBM, ITT, Sperry Rand, Philco, Siliconix, Nippon Electric and Elliott-Automation, Ltd. ous methods of producing them.

Dr. Deal, who has been with Fairchild Semiconductor's Research and Development Laboratories for the past three and a half years, has been quite active in the local section of the Society and has served on its various national committees.

### It's Almost Ski Season Again

Circle New Year's weekend on the calendar. The Fairchild Ski Club (MV) has planned four weekend trips starting with the New Year's weekend jaunt to Heavenly Valley. Most of the trips will be by bus. Once again arrangements will be handled by Argo Ski Holiday. Complete details will be finalized and then mailed to all departments.



Sending the record shipment on its way were S. L. Kwok, C. Wong, C. S. Low, David Fung (Superintendent, Final Test), C. Smith, C. S. Moh (Head of Transistor Storage and Shipment), K. V. Chan, T. K. Tung, and H. W. Wong.

### WITH JOHN CARTER Man on the Move



### DESTINATION: FAIRCHILD AUSTRALIA, PTY. LTD.

John Carter, Chairman of the Board and Chief Executive Officer of Fairchild Camera and Instrument Corporation, paid a flying visit to Kilsyth, Australia, at the end of August to look over the Fairchild Australia laboratories. The blend of ideal working conditions and employee enthusiasm left him quite pleased with all he saw.

Since its beginnings some 2½ years ago, Fairchild Australia has experienced the same kind of fantastic growth felt throughout the world-wide system of Fairchild. Now in brand new \$2 million laboratories and employing some 200 people, the future looks even better. Plans are now in the making to employ over 600 persons by the middle of 1968.

Official tour leaders for Carter's visit were John Baldwin, General Manager, and Robert L. Major, Director of Marketing. Both were forced to admit that Mr. Carter showed the interest of the average tourist, wishing to see a kangaroo and other Australian wildlife before he winged his way to another Fairchild port of call.

During his lightning tour of Fairchild Australia, the camera caught John Carter in the laboratories, on the production line, and with John Baldwin, General Manager (center) and Robert Major, Director of Marketing.





### MEET ROBERT ALLEN, DIRECTOR OF FINANCE

Robert M. Allen joined Fairchild Semiconductor as Director of Finance, replacing Lawrence S. Lanset, who is now Assistant Comptroller for Fairchild Camera and Instrument.

In his new position, Bob will be responsible for foreign and domestic financial operations while supervising profit planning functions and cost accounting operations and analysis. As his title indicates, he will be directing financial planning.

A graduate of UCLA, Bob completed his masters at USC. At 36, he brings to Fairchild Semiconductor a varied background of practical experience. Before joining Fairchild, he was controller for Lilli Ann Corporation and also served as president of Custom Aire Products and Vice President of the Rubber Corporation of California. He also spent 6 years with Pacific Semiconductor in various operating and financial capacities.

After his long workday, Bob leaves Mountain View for Mill Valley — one of the longest commutes in the Bay area. There he and his wife, Marlene, and their two children, Bill, 11 years old, and Lori, soon to be 10, make their home.

Slightly more than a year ago Chris Coburn won the ultimate in classic car competition. His 1927 Bentley captured the overall 1st place trophy at the Concours d'Elegance at Pebble Beach in Carmel, California. This is the largest classic car competition in the world. Before that, Chris' Bentley had won the Virginia City Hill Climb, and numerous other prizes. It was time to retire the classic beauty from competition — or so he thought.

But late in September Chris and his wife couldn't resist entering a "His and Hers" combination that literally stole the show at the Concours d'Elegance held at Peacock Gap Country Club just north of San Francisco. Margaret's 1930 "boat-tail" Rolls Royce sat there looking pretty for Playboy Magazine photographers while the famed 1927 Bentley captured 1st place in its class. (Naturally.)

Chris, Director of Marketing at Instrumentation, claims his interest in classic cars began during his childhood. "I used to admire all the big cars that passed through Blackhall. That's the small village in northern England where I lived. We could never afford a car, so I suppose that had something to do with my wanting to own the cars of that era."

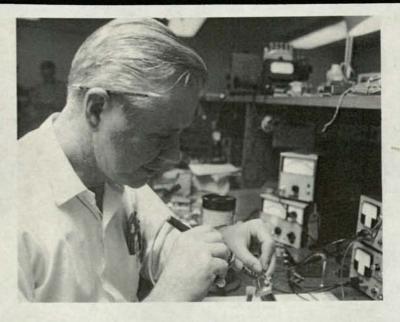
Chris was not able to see his dream realized until about five or six years ago. Now the Coburns own four classic cars. Besides the Rolls Royce and the Bentley, they have acquired a 1926 Bentley and a 1931 Aston-Martin/LeMans.

As Chris puts it, "I think of them as a link with the past—of things done more lavishly and in a more craftsmanlike way." He sees all of his cars as beautifully functional and they are that.

One look at Chris' calloused hands shows the care he takes to bring out their beauty. He's polished and cleaned his cars to perfection. And that his cars are functional is very obvious. The people in Instrumentation will attest to that, for Chris drives the 1927 Bentley and the Rolls to work two or three times a week.

The Bentley will do 90 mph on the freeway according to Chris, but he keeps it well under that just to give fellow motorists a longer look at elegant craftsmanship from out of the past. Coburn's Classics









Three years ago Fairchild entered the microwave business — with four people and an idea. Today it is no longer just an idea. Microwave Products now employs well over 100 people and has moved into large quarters at 2513 Charleston Road in Mountain View.

This group of people has become the largest supplier of solid state microwave signal sources to telecommunications manufacturers and is supplying numerous components to the radar industry. Fairchild also has met the rigid commercial airline altimeter requirements.

For a point of clarification, microwave signals are high-frequency signals that are transmitted for short distances (about 100 miles) through space. As "micro" suggests, microwaves are tinier than radio signals.

The microwave method of transmitting does the same job that conventional communications techniques (such as the telephone wires) perform, but does it better. For example, microwave frequencies offer tremendous traffic-handling capacity. A single telephone relay installation operating at microwave frequencies is able to handle more than 1000 simultaneous conversations. It would take numerous telephone lines to do the same thing. To top that, using microwave frequencies requires no telephone poles and no lines — only simple relay stations.

# A LOOK AT







Microwave theory is not new. It has been known to scientists and students of advanced electronics for many years, and microwave equipment is no stranger to most people. Airports use microwave radar to keep a visual check on aircraft; telephone companies use microwaves to handle thousands of cross-country conversations; microwaves are used in television and radio communications; law enforcement agencies use radar to monitor auto speeds; and microwaves are used in precise distance measurements. Microwaves are even being used to cook foods — in radar ovens.

In the future, people in remote sections of the world will be brought closer to their neighbors by the expansion of mass communication facilities using tiny microwaves.

A basic principle of microwave construction is the use of Fairchild-produced microwave transistors and diodes that operate at high frequencies. Production activity is currently geared to the development and delivery of solid state signal sources and fundamental oscillators.

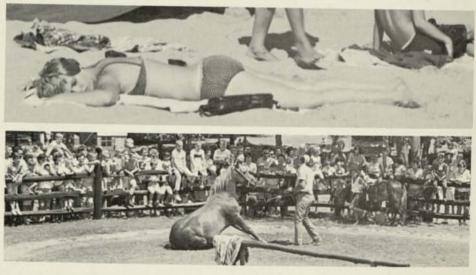
Microwave telecommunications is a fast growing industry and competition is growing just as rapidly. This will require continued research and marketing efforts if Fairchild is to remain the leader in the field. And it probably suggests that the microwave group will be forced to expand facilities and capability — proving that from little microwaves big things happen.

### Enjoying the Last Days of Summer

From Maine to California Fairchild employees flocked to the beaches, swimming pools, and picnic grounds to give summer a final farewell.



Nearly 3000 South Portland employees and their families converged at Thomas Point Beach, Brunswick, Maine. Hot dogs and soft drinks were available to snack on until dinner time when Chicken Barbecue Caterers of Wells served their specialty, complete with watermelon for desert. Activities for the youngsters included free pony rides, scavenger hunts and swimming. The older group was kept busy competing in water bag throwing contests, dance contests, and other races. Door prizes given away included portable television sets, transistor radios, a Polaroid camera, and a cordless carving knife.







Frontier Village in San Jose was once again the scene for a Fairchild employee invasion. A few stouthearted employees manned the cooking and serving details for the rest of the 1100 R & D employees. As always, there were great stage coach rides, volleyball games, burro rides, canoeing, and other rides and games; not to mention the good food, particularly steak and corn on the cob. Highlight of the picnic was a long-distance balloon launch contest. Balloons were found as far as 90 miles away from the Frontier Village launching site.













Nearly 1700 Diode employees and their families joined forces at Vichy Springs at Napa, California, for the company's annual picnic held September 11th. Thanks to Jim Williams and his committee chairmen, Jean Wickliff, George Miller, Karen Calloway, Joan Fugina, and Wayne Snodgrass the children enjoyed games and free rides in Kiddie Land, and everyone enjoyed swimming, live music for dancing, door prizes, plenty of beer and soft drinks, and a good fried chicken menu.



That same day, down the road about one hour's drive southwest of Mountain View and deep in the heart of the Santa Cruz Mountains the Marketing Department outing was going on. Cowell Redwood State Park gave nearly 350 Mountain View employees a chance to "get away from it all." The group enjoyed a steak dinner menu and then moved on to more strenuous activities: hikes through the giant Redwoods, horseback riding, volleyball, and scrimmage football. For the children there were games and pony rides.







Memory Product's picnic at Swift Park in Fremont, California, gave more than 100 employees and their families a chance to get to know one another. This fast growing department's late August picnic was a combination of good food and fun for all who attended. Children were given lollypops and balloons and competed for prizes in various games. The adults, meanwhile, were trying to best one another in novelty relay races and contests. The prizes were transistor radios and good California wine, so you can bet the competition was stiff.





















### INSTRUMENTATION ELECTS NEW RECREATION COUNCIL

Employees at Instrumentation recently cast their votes for representatives to their newly established recreation council. The council will coordinate all recreational activities for both Palo Alto and Mountain View Instrumentation groups.

Members of the new council are: David Anderson, Mimi Emory, Charlie Gibbs, Marcia Humphrey, Jerry Pillsbury, Dottie Ray, Joe Rodriguez, Walt Skruch, and Barbara Sleeth.

# SPORTS

### DIODE'S BATMEN BREAK EVEN



Top row (l. to r.) — G. Tremoureux, G. Brandenburg, A.Danks, F. Rittiman, M. Feldtman, H. Spence, B. Faiss, J. Harris

Seated (I. to r.) — H. Knopp, B. Mack, T. Branch, A. Frugletti, J. Bell. Hal Clausen was not available for the picture.

As the softball season draws to another close, San Rafael's entry in the Marin County Softball League finished in the middle of the league with an 8-8 record. But next year should be a good one if the last game of the season is any indication. The team rallied for a staggering 22-8 victory over Independent Journal.

Leading team hitter for the team in League contests was Jack Harris (Marketing) who carried a .500 batting average. For all games played this season Tom Branch (Fab) hit .562 and Hal Knopp (QA) averaged .455. Bruce Mack (QA) got the most hits during the season, collecting 23, and Al Frugletti (Marketing) led the team in runs scored, crossing the plate 18 times.

Playing amid injuries, errors, and often times very poor officiating (of course), the team's hitting carried them through the season remarkably well, and many games were lost by only one run. Yes, next year should be much better.

# skin divers of the world . . unite!

Diode's new skin diving club, the "Kelp Explorers," don't promise to provide underwater maidens and mermaids for members but are urging people interested in skin diving activities to join them. They would like to share their combined knowledge of the sport with beginners and encourage novices to put on a pair of flippers and join them on some of the upcoming diving trips.

The club already numbers 15. Charter members are: Jack Brewer, chairman; Al Grisemer, co-chairman; Jene Annis, secretary-treasurer; Dieter Bartels; Tony Bachman; Russell Browning; Tom Graham; Cliff Heberlein; Bill Irons; Tom Mc-Guire; Max Moore; Chuck Self; Mel Snyder; Wayne Snodgrass; Karel Svoboda.

At the club's first meeting Bill Irons and Karel Svoboda showed slides of their recent diving trip to Catalina. Many meetings and trips are planned for the months ahead.

### **TENNIS TOURNAMENT DECIDES '66 CHAMPS**



WINNERS OF THE YEAR (I. to r.) — Barry Fidelman, Marv Rudin, Dave Oberlin, Lowell Goetze, Herb Woo, and Gunther Haller.

The Tennis Club officially closed its 1966 season September 24th and 25th crowning its champions in a tournament held at Foothill Junior College.

Out of 25 participants, the top singles winner was Gunther Haller (Reliability). Second place went to Herb Woo (Applications), third to Lowell Goetze (Management Information), and fourth place to Henry Blume (Applications).

Hank Blume, missing from the picture must have been chasing tennis balls.

Doubles winners were Marv Rudin and Dave Oberlin (both from R &D), and the team of Lowell Goetze and Barry Fidelman (Marketing) took second place.

Though the season is over, the club challenged the Kani Kai Tennis and Racquet Club of Sunnyvale to a round of matches on October 15th. Tennis Club members, their families and friends also had an opportunity to enjoy the swimming facilities.

# FALCONS TAKE 4TH PLACE IN NATIONAL TOURNEY

Fairchild's flyin' Falcons closed out their second season recognized as one of the top softball teams in the nation as a result of their fourth-place finish in the National Fast Pitch Softball Tournament, recently completed in Indianapolis, Indiana.

Disappointed that they didn't come home World Champions, the team got a boost when it was announced that Ray Phillips, leading hitter for the team, was named All-American Second Baseman. Ray picked up 9 hits in 16 times at bat during the tourney which made him a leading hitter for the tournament.

The Falcons swept their first game 10-0 from Portales, New Mexico, when Al Johnson pitched a 3-hitter and Phillips collected 4 hits including a homerun. In the second test, this time against Springfield, Missouri, Rich Balswick pitched a nohitter to give the Falcons a 2-0 victory. Unfortunately Rich walked a man in the sixth to spoil his perfect game, but Ray Phillips kept his hitting streak going, batting 2 for 3.

The going got tougher for the team, and the Falcons lost 2-0 to Clearwater, Florida, champions at one time for eight straight years and the eventual winner of this year's tourney. With Clearwater leading 2-0 in the seventh, the Falcons gave the Bombers a real scare when, with one out, they loaded the bases. But the threat was short-lived, and the side was retired.

That loss pitted the Fairchild team against the Texas Instruments team from Dallas, and the Falcons stayed in the tournament edging TI by a 1-0 score. The run came in the seventh on a single by Phillips, a Dallas error, and Mike Haruff's base hit. Not to be overlooked was Al Johnson's 3-hitter that beat one of the five best softball pitchers in the world, Bill Massey.

The Falcons had played flawless ball until now but literally fell apart against the heavy-hitting Providence, Rhode Island, team, losing 8-0. Two losses and the Falcons were out of the tourney.

"We were glad to take fourth, but we could have done better," commented Manager Pat Campagna. "Rain delayed our second game and the pressure really built up. From then on we were playing a pretty rugged schedule — sometimes two games a day, but the team held together very well. Playing in the tournament this year was the best experience we could have gained. Just wait until 1967 and it will definitely be a different story."



The Fairchild Falcons were able to wing their way to Indianapolis thanks to assistance they received from many Falcon rooters. Employee attendance at a benefit All-Star game (which the Falcons won 6-0) and at a booster dinner and generous contributions made by the R & D, Instrumentation, and Mountain View Recreation Councils netted nearly \$1000 toward Falcon trip expenses. Probably the greatest victory of the whole tournament, in the eyes of Bob Noyce, Group Vice President, F.C.I., was the 1-0 defeat the Falcons handed Texas Instruments. As a result, Bob received the following telegram which he passed on to Pat Campagna and Falcon team members.

#### FCHLD MTV

9-24-66 214-231-1492 TO 910-379-6435 FAIRCHILD SEMICONDUCTOR ATTN BOB NOYCE MTVIEW CAL

I - O. CONGRATULATIONS. JUST DON'T THINK ALL THE GAMES ARE GOING TO COME OUT THIS WAY.

PAT HAGGERTY, MARK SHEPHERD AND CECIL DOTSON TEXAS INSTRUMENTS INCORPORATED DALLAS TEX

FCHLD MTV

co: Pat Campagna Vince Fulque etti

TEXINS DAL

# GH- b moving up

RICK BLUE advanced from Director of Microwave Product Components Marketing to Product Marketing Manager at Microwave, Mountain View. He joined Fairchild just a year ago as Senior Sales Liaison Engineer.

DAVE CULLEY has been appointed Manager of the Long Range Planning Group of the Operations Planning and Distribution Department (MV).

SANDI KILE recently moved from the Personnel Department in the Semiconductor Division (MV) to the Personnel Staff at Instrumentation. With Fairchild for over two years, she held positions in recruitment, employee records, and employee relations activities.

MARTIN OUDEWALL was promoted from Product Manager of Power and S.C.R. Section to Plant Manager of the Tijuana facility.

ROBERT REBER advanced to Product Manager at Tijuana. He was formerly Supervising Engineer (Power and S.C.R. Section).

ROBERT L. SOUTHWICK has been assigned the new responsibility of developing and implementing a standardized drawing number system for the Fairchild Instrumentation Division. Bob was formerly Supervising, Material Control.



JAMES ADAMS, from Fife, Scotland, joined Fairchild (San Rafael) as a Mechanical Design Engineer. He was formerly Chief Production Engineer for B.S.R., Ltd., East Kilbride, Scotland. James received his education at Newton Heath Technical College in Manchester and did graduate work at Dundee Technical College, Dundee. HERBERT ALBER recently joined the Profit Planning Staff in Mt. View. He will be responsible for Long Range Planning. Herb comes to Fairchild from the Burroughs Corporation. He holds both an MBA degree and a BA degree from the University of Michigan.

WILLIAM J. BANKS recently joined Fairchild, South Portland, as personnel assistant to the Supervisor of the Credit Union. He previously served as a special agent for the Patrons Mutual Insurance Co. He received his B.A. degree from the University of New Hampshire and served as a Lieutenant in the U. S. Air Force.

ROBERT L. BENJAMIN recently joined the General Accounting Staff as Payroll Supervisor. Bob has had 10 years experience with the Carrier Corp. in New York. He attended Syracuse University, New York, and is a member of the National Association of Accountants.

SANDY D'ARCY, a graduate of the University of Missouri at Kansas City, is the new Customer Liaison man for the Military Market (MV). In this capacity, Sandy will arrange visits to the factory and see that customers are supplied with necessary information. His wife, Judy, is Colin Kidd's (SGS Liaison) secretary.

LEON LERMAN was recently named Manager, Microwave Manufacturing. Before joining Fairchild he was with EIMAC Division of Varian Associates. Leon was born in Argentina. He graduated from Alfred University, Alfred, New York, and has done advanced work at Northeastern University, Boston University, Newark College of Engineering, and the University of California. He is also past president of the Northern California section of the American Ceramic Society.

FLOYD H. STOUTAMORE, newly assigned training foreman at R&D, comes to Fairchild from Lawrence Radiation Laboratory in Livermore, California. He received his B.A. degree from the University of Wyoming.

## LEADWIRE

#### Vol. 8, No. 9

Published by and for Employees of Fairchild Semiconductor/ Instrumentation

Mountain View-Palo Alto-San Rafael Hong Kong-South Portland, Maine Shiprock, N.M.-Australia-Canada Tijuana, Mexico

Editor: Judy Horst

Art Direction: Gaylord Lineaweaver

Cover Photo: Ron Turner

A microwave relay tower stands against the sky — one of many stations sending a broad band of frequencies over long distances to insure continued communication.

#### Reporters:

MOUNTAIN VIEW—Wes Cox, Lois Eagleston, Neilie Covington, Ginger Tygret, Keith Thomson, Judy Dunkelberger, Paul Brasseur, John Walsh, Phil Lenihan, Iantha Adams, Katie Guida.

SAN RAFAEL — Cleatus Dunkley, Audrie Graxiola, Janet Marz, Clarence Medeiros, Mickey O'Donnell, Margaret Queen, Bobble Talley, Anne Parlitt.

RESEARCH & DEVELOPMENT --- Peggy Vorse, Donna Parris.

SOUTH PORTLAND - Carol Hebold.

INSTRUMENTATION — Jack Ramon, Pat Campagna, Anna Ackerson, Walt Skruch.

 $\mu L$  is a registered trademark of Fairchild Semiconductor, a Division of Fairchild Camera and Instrument Corporation.

Copyright Fairchild Semiconductor 1966 Printed in USA 2310-296-106 6M

### 5 Year Anniversaries Don't Go By Unnoticed

Nearly 55 members of the mask manufacturing group (MV) secretly planned a celebration for ANGIE STAITI as she marked her fifth anniversary with Fairchild. Hazer Dughman, foreman, gave Angie the traditional five-year pin, and then the group shared a huge cake ordered especially for the occasion.

When DAVID ANDERSON, Drafting Supervisor at Instrumentation, passed the five-year mark in August, drafting room buddies joined forces to throw a dinner party for him. In addition to receiving his five-year pin, Dave was given a cartoon symbolizing the "rocky road to success." Reports have it that in spite of the group assembled, an orderly affair was maintained.

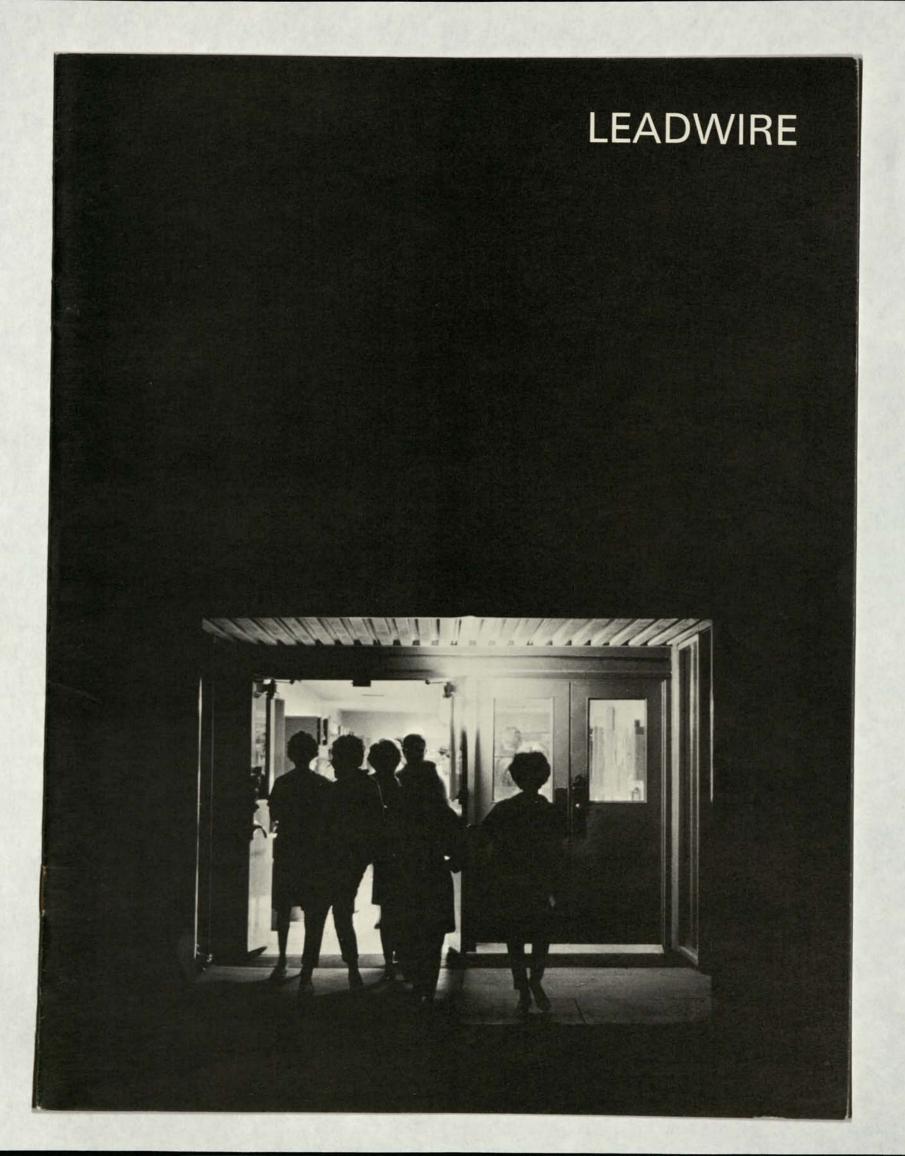
DICK McSHEFFREY'S five years with Fairchild earned him five candles on a huge cake. The inscription on it read, "Five years? Poor Fairchild." Though he might have worried about it, he needn't have concerned himself. The people at DYT, S. A., Mexico City hosted a party that proved they think quite a lot of him.

# **Five Years Service**

**Dorothy Bertram Raymond Bortner** Marjorie Bowen **Claud Childress David Corbin James Doherty** George Dowdy Petrus Ebbing **Robert Foglesong** Mary Ann Johnson Marion Killeen Jerome Larkin Olga Miller Jose Mora Nicholas Phillon **Robert Reinecke** Tyler Rockhold Toshiko Sasaki Joseph Short **Frances Staiti** Natalie Toll Virginia Tygret **Charles Watson** Jean Worden

**Mountain View Mountain View** Diode Instrumentation R&D Mountain View Instrumentation R&D Mountain View" Mountain View **Mountain View** Mountain View **Mountain View Mountain View** Mountain View **Mountain View Mountain View Mountain View Mountain View** Mountain View **Mountain View Mountain View Mountain View** 

**Mountain View** 



### To the Reader

Leadwire reporters everywhere have gathered information and stories for this month's Leadwire. And it sure makes an editor's job easier. Additionally it has enabled this issue to contain expanded coverage of almost every location. Just check out the special sections devoted to individual locations.

You might be wondering just who are these reporters who have done this wonderful, marvelous thing for you. Well, they are some of your fellow workers. Here's the group from San Rafael. They were determined to get Diode in print, and they did.

That's the kind of enthusiasm an editor likes.



Cleatus Dunkley







jh

Anne Parfitt



Clancy Medeiros



Janet Marz



Eleanor Wallin



Margaret Queen



Bobbie Talley



Mickey O'Donnell

LEADWIRE

Vol. 8, No.10

Published by and for Employees of Fairchild Semiconductor/ Instrumentation

Mountain View-Palo Alto-San Rafael Hong Kong-South Portland, Maine Shiprock, N.M.-Australia-Canada Tijuana, Mexico

Editor: Judy Horst

Art Direction: Gaylord Lineaweaver

Cover Photo: Ron Turner

The time's 1:00 a.m. The Diode swing shift is calling it quits for the night. The graveyard shift's been there for two hours and won't leave until morning.

#### Reporters:

MOUNTAIN VIEW — Wes Cox, Lois Eagleston, Nellie Covington, Ginger Tygret, Keith Thom-son, Judy Dunkelberger, Paul Brasseur, John Walsh, Phil Lenihan, Iantha Adams, Katle Guida

SAN RAFAEL — Cleatus Dunkley, Audrie Grax-iola, Janet Marz, Clarence Medeiros, Mickey O'Donnell, Margaret Queen, Bobbie Talley, Anne Parlitt, Eleanor Wallin.

RESEARCH & DEVELOPMENT --- Peggy Vorse, Donna Parris, Dianne Cotton, Janet Jones. SOUTH PORTLAND - Carol Hebold.

INSTRUMENTATION — Jack Ramon, Pat Cam-pagna, Anna Ackerson, Walt Skruch. L is a registered trademark of Fairchild Semiconductor, a Division of Fairchild Camera and Instrument Corporation.

Copyright Fairchild Semiconductor 6M 2310-326-106 Printed in USA

# Howie Sharek Top Salesman For 1966



Howard "Howie" Sharek, "Super Salesman" of the Eastern Computer Sales Region, was selected 1965/1966 Fairchild Semiconductor Salesman of the

### Joseph R. Spaziani Named Director of New Business



Joseph R. Spaziani has been named Director of New Business for Fairchild Semiconductor. Already in his new post. Mr. Spaziani is responsible for the full evaluation and operation of new business areas developed or acquired by Fairchild Semiconductor. The company presently has two such areas — Microwave Products and Memory Products.

Mr. Spaziani has held executive posts with several corporations in the San Francisco Bay Area, including Ampex, General Electric, and most recently Lockheed. He earned a B.S. degree in mechanical engineering and administrative engineering at Lafayette College, Easton, Pennsylvania, and holds a masters in management engineering from Rensselaer Polytechnic Institute, Troy, New York. He is a member of the American Management Association, the American Society of Mechanical Engineers, the National Management Association, Tau Beta Pi, and Sigma Xi.

The position of Director of New Business is a new one created in August as part of a new management organization at Fairchild Semiconductor in which an executive group of ten directors, all reporting to the general manager, have responsibility for managing critical functional areas. Year. This award is presented annually to that Field Salesman who has made the most outstanding singular contribution to the continuing growth and success of Fairchild Semiconductor during the previous award year.

"Howie has done an unbelievably outstanding job as Sales Engineer in the New England area for the Computer Market," commented Marshall Cox, Computer Marketing Manager. "He was personally responsible for the fantastic increase in sales in this area from one million dollars to five million—a feat he accomplished in only 18 months."

For his outstanding effort and achievement, Howie was presented with a beautiful silver plaque and a gorgeous Color Television Set (loaded, of course, with Fairchild Epoxy transistors). He was also promoted to the newly created position, Manager of Headquarters Sales, reporting to Carl Steffens. He will be responsible for SGS, Direct Government Bidding, Licenses, Name Brands, and Excess Inventory.

### Dave Haun: A Fairchild Type of Salesman



Dave Haun of the Palo Alto office quadrupled the business in his territory in just one year. He just won the Salesman of the Month award for September. Is it little wonder!

According to Jim Martin, Industrial Department Manager, "Dave has by diligently applying himself become one of the most knowledgeable salesmen in the company. Dave's will to succeed, his desire for business accomplishment, and his willingness to sacrifice has made him not only Fairchild's salesman of the month but an outstanding example of the 'Fairchild type of salesman'."

Dave joined Fairchild in December 1963 as a member of the Distributor Sales staff. Before that he worked for Shell Oil Company in Menlo Park as a credit man. Dave is a graduate of Gonzaga University, Spokane, Washington. November is Night Owl Month at Fairchild-the Leadwire salutes those unsung heroes and heroines of the swing and graveyard shifts . . . the night people.

More than 2750 people keep the lights burning all through the night at Fairchild Semiconductor. That's almost 1/3 of the whole Semiconductor population.

Why do they want to work at night? There are many reasons. Reporter Donna Parris, a swing shift gal at R & D who used to work days, captured a few reasons in her article, "Fairchild's Night People".

# Fairchild's Night People

Working at night doesn't fit into the normal pattern of most people's life, but it suits us just fine. We like the atmosphere. It's casual, a little more informal, and a great deal quieter than during the day. There are less interruptions in our work. Other than that, swing and graveyard shifts don't differ much from the day shift we just come a little later and while the rest of the world's at home, we're at work.

The main reason we work evening shifts is that it fits our pattern of life much better. Many of the girls prefer working evenings because their days are free to spend with their children or to do all the housework. One girl simply said that she and her husband wanted a larger family income. Rather than turn over her paycheck to a babysitter, she decided to work nights. That way the children could stay at home and so could the paycheck.

Another woman whose children were grown, didn't want to change her daytime routine, but wanted to get back to work. The most logical answer was to work at night.

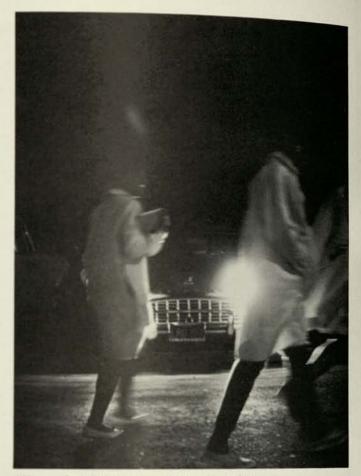
Another pointed out that there's less traffic coming to work and hardly any going home. One girl's husband works swing and for her to work nights gives them a better family life.

While there aren't as many organized recreational activities for us, I've heard the San Rafael swing shifters have their own bowling league, and we get to participate in company picnics and dances. And, at least one night a week some R & D swing shift girls get together for an old-fashioned pot-luck dinner during the "lunch" break.

Adjusting to a night schedule is hard if you're not used to it, but we all are and we wouldn't have it any other way. Besides while the rest of the world works, we can play.



12:30 . . . nearing the end of a "hard day's night" at San Rafael.



1:00 . . . San Rafael swing shifters hurry home.



7:30 . . . getting ready for a pot-luck dinner at R & D.



12:00 . . . swing shift calls it a night at Mountain View.

10:45 . . . Diode swing shift girls hard at work.



11:45-12:45 . . . Mountain View shift change. Graveyard begins another "day"; swing pulls out of the parking lot.



Europe on \$5 a day—a plan that has sold many books and pleased many tourists, but it was still too much money for Dave Hadden.

Dave, an engineer at Instrumentation (formerly a part-time technician there while in school at San Jose State), had only \$700 to spend but had ten weeks to enjoy. \$450 of that amount went for transportation costs over and back, so his expenditure had to be more like \$3 a day.

Possible? Sure, if you bicycle through Europe and are able to enjoy the people and just being there.

"We planned to see the world when we started out, but found we couldn't," Dave said. Dave and roommate, Jerry Bacon did cover, however, nearly 1200 kilometers (that's about 720 miles) by bicycle and many more kilometers by other means of transportation. Their trip spanned seven countries (England, Scotland, the northern part of France, Belgium, the Netherlands, northern Germany, and Denmark). And in all but 16 of their 72 days they were housed by hospitable Europeans who fed them as well. Ten nights were spent in youth hostels that usually charge no more than 40¢ a night, and six nights were spent outdoors in fields. "It was very difficult riding a bicycle again; we really out of practice," commented Dave. "The firs we covered only 15 miles, but later we were able more than 60 miles a day—usually on winding roads. People often looked at us peculiarly; Amer traveling by bicycles in Europe are a rarity. But e one was friendly and most helpful."

Helpful and friendly are understatements!

"We were lost approaching Amsterdam," Dave tinued. "It was late at night and Jan Belt came to rescue. He was bicycling to the KLM airport when worked, so we went with him and in the morning h us to the city as he returned home. He also invite to stay with his family as long as we remained Amsterdam."

"Staying with Jan and his wife, Allie, and thei daughters was like being part of a Dutch family, family. They showed us their city and were able t us so much about their country and the peop was just great."

In Copenhagen the manager of the KFUM Voll YMCA-type youth hostel) took Dave and Jerry L



Jerry, the Belt family, and Dave.

his wing. "We helped him repair some appliances and it gave us a chance to talk with him at great length about his homeland. He was pleased we were interested. As a result, he and his wife showed us their city and when we left they didn't charge us a thing for the three wonderful weeks we spent with them."

Dave also got to Haddington, Scotland—the home of his ancestors and the origin of his last name. He met an aunt he had never seen before and she filled him in on the Hadden clan . . . a highlight of his trip.

There were also visits to a cheese factory run by a woman who used old family processing methods, a co-op bakery, a wurst factory, the breweries of Amsterdam and Copenhagen, and their lost bicycles that police found and forwarded to them. There was the German innkeeper who gave them shelter on a rainy night and traded songs on a guitar with them; the English barrister they met in Amsterdam who invited them to stay with him and his wife should they get to London, an invitation they accepted. And there was Fairchild field rep Joe Deetz who gave Dave the reference he needed to cash a personal check while in London.

And so it went. The two fellas met many people, more than willing to give them a first-hand insight into the real Europe, the Europe so often unseen by most tourists. Dave and Jerry still have lots more to see—the rest of Europe and that big world they set out to see originally. And they will probably do it, but for much less than \$5 a day.

# There's An Easier Way

Now if you can't afford 10 weeks in Europe—your boss wouldn't like it, or you'd miss the children, or you'd rather not see Europe by bicycle, but you'd still like to go, the Mountain View Recreation Council has just the deal for you . . . and such a deal it is!

The Rec Council and KLM Royal Dutch Airlines have arranged a tailor-made tour of Europe. 21 days, 6 countries, jet transportation all the way—for only \$795. That price tag includes all air and land transportation, sightseeing, hotels, most meals, excursions, tips, and taxes. And at \$795 you will be staying at first class hotels. You can hardly afford to stay home.

You can save \$45 by staying at Standard Class hotels with private bath. The total package cost that way is only \$750. If you stay at Standard Class hotels without bath but with hot and cold running water the package cost is \$710, and staying at Tourist Class hotels with hot and cold running water lowers the cost to only \$676. Take your pick.

Ports of call include Amsterdam, Cologne, Wiesbaden, Lucerne, Innsbruck, Gardone, Florence, Rome, Rapallo, Nice, Lyon, Paris, London, and New York.

Guaranteed departure dates in 1967 are:

March 16 and 30	
April 13 and 27	
May 11 and 25	
June 8	

July 13, 20, and 27 September 7 and 21 October 5 and 19

All you have to do is pick the date you want to depart on and let Lucky Scott of the Mountain View Industrial Relations Office or Marie Hochman of the Mountain View Personnel Office know you are interested. They will send you further details.

For folks in South Portland arrangements have been made for you to join the Royal Dutch Tour of Europe by simply picking up any one of the flights in New York. Of course your air fare will cost considerably less. But you must make arrangements through either Lucky or Marie.

And for all of you who do go, be sure to take lots of pictures for the *Leadwire*.



### From Mountain View

### **Bowling Leaders**

Marian Oswald reports that the Stockouts are continuing to lead the Fairchild Mixed Bowling League. 20 and 8 for the season, team members are Agnes Myreholt, Ada Perez, Joe Perez, Jim Pulliam, Sammie Hatfield, and Bryce Herbst.

The highest game this season is Ty Rockhold's 234, and for the women, Juanita Warrick's 232. High series so far is a 589 bowled by Charlie Kuhlmann and a 539 by Carol Arena leads the ladies.

### A Deal on Golf Lessons

Ginger Tygret announces that the Rec Council is sponsoring group golf lessons for employees at a special rate of \$10 for six lessons. The place is Cherry Chase Golf Club. Balls and clubs are furnished and classes are held during the mornings and afternoons.

#### One For Skiers, Too

The Ski Club will be skiing Heavenly Valley over the New Year's weekend. The bus leaves Fairchild at 6 p.m. December 30th and returns January 1st about 11 p.m. Three nights lodging will cost \$26-28 for adults. Rooms will be for two or four persons. Special arrangements will be made for children. Arrangements are being handled by Jim O'Donnell of Mohun International Travels (342-5594). Reservation blanks will be mailed to all Mountain View Departments. Space will be limited so make your plans early.

### Falcons Collect Honors



Falcon team members were honored for their fourth-place finish in the national tourney at a banquet held October 20th. Movies of the tournament were shown and a presentation of awards and trophies rounded out the evening. Sitting at the head table with their wives—Harry Eser (Industrial Relations), Pat Campagna (team manager), and Bob Noyce (Group Vice President); and Vince Fulginiti (team member from Incoming Inspection).

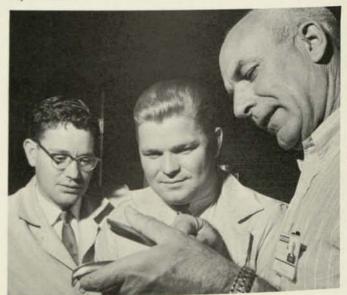
### Now Here's A Fish Story

Paul Pronos, Traffic Supervisor, caught a 23 lb. 30-inch salmon, and it didn't get away. It won him first prize in the 6th annual deep sea fishing excursion sponsored by Lufthansa German Airlines for traffic personnel of the bay area. Besides being a winner it was the first fish Paul had ever caught deep sea fishing. Handing Paul a bottle of French champagne—his trophy for the catch—is Lufthansa District Manager Peter Piery.



### Graduation Time

Brushing up for their final exam at Safety School, swing shift supervisors George Staudacher (Classification) and Robert Zinn (Header manufacturing) get some final pointers from John Arthur, Safety Engineer. 137 supervisors from all shifts received diplomas.



### Applications Plans Christmas Party

Christmas is coming a little early this year. The annual Applications Christmas Party will be held December 3rd at the Los Altos Hills Country Club. Cocktails begin at 7:30 p.m., dinner is set fashionably for 8:00 p.m. and dancing follows until 1:00 a.m. Members of I.C. Engineering, Transistor Engineering, Industrial Applications, and Consumer Applications can get tickets after November 15th from section secretaries.

### Coffee, Tea, Or Milk?

How to feed 3700 persons a day:

Order 850 sweet rolls and doughnuts, 200 pounds of coffee (that's approximately 3500 cups), 50 gallons of milk, 500 cold sandwiches, 500 hamburgers, 1000 entrees, 120 pounds of vegetables, 600 pounds of French fries, 70 pies, and just pray you have enough. Then start worrying about the next day's menu.

Easier than that, just call ARA to the rescue. They've been planning menus at Mountain View since June and have it down to a fool-proof formula.

ARA is Automatic Retailers of America—one of the nation's largest food service management companies, experienced in serving hospitals, schools, and meeting vending needs. At Mountain View District Supervisor Jack Carey; Ron Todd, Manager of the two Mountain View Cafeterias; and more than 30 persons are preparing and serving food around the clock. Additionally, ARA operates more than 50 vending machines supplementing the cafeteria program.

Running a dining service is something special to these people. When ARA first came to Semiconductor in June, their debut was an outdoor steak barbecue. That has been followed by a Mexican fiesta (complete with costume, decoration, singing material and an authentic Mexican menu), a superb Italian dinner and some Halloween treats to brighten noontime meals.

According to Ron, "More is planned. We hope to have at least two special dinners a month. Coming up are a seafood special and a Thanksgiving dinner. We think we should offer a very special service like that old coffee, tea, or milk philosophy airlines have that signifies a sincere effort to give the ultimate in service."



# From Fairchild Australia



Three flags fly over the new home of Fairchild Australia—the Australian flag, the United States flag, and waving wildly on the left side, the Fairchild flag. Fairchild Australia's own innovation, the flag is white with two green bars (very much like the Fairchild logo).

### Recreation in All Shapes and Sizes

Recreation can be relaxation, an opportunity for self-expression, release of tension, or attainment of a sense of achievement. At Fairchild recreation takes many shapes from ping pong to Christmas Dances. And there's one group responsible for answering the recreation needs of Fairchild employees. That's the Recreation Council.

Each Rec Council is a group of men and women from almost every phase of work at Fairchild. It's their responsibility to balance requests for bowling shirts, tennis trophies, or company picnics with company funds donated for recreational activities for the year. Council members also plan recreational activities, publicize special events, and in general provide employees with a sounding board for developing new activities.

Here's how the council works. An employee wishing to start a new activity, submits his cost estimates for uniforms, league fees, equipment, or trophies to the council. The council votes on accepting the activity, may make modifications in the request for funds, and often will recommend improvements in the program.

Most of the Council's money is generally spent for Christmas parties and picnics. Nearly 2/3 of the year's funds is designated for these two activities. The remainder has gone for such activities as ping pong, bowling, softball, intramural basketball, golf, tennis, skiing, skin diving, and insurance to cover all participants in Rec Council sponsored events.

Quite a lot for Rec Council members to handle, and meetings are often held on lunch hours. But they give up the time willingly for your benefit.

### Items From Instrumentation

### Christmas Extravaganza

The new Rec Council is busy planning the upcoming Christmas Dance. The dance will be held December 9th, from 9:00 p.m. until 1:00 a.m., at the Thunderbolt Hotel. Chairman of the dance is Jerry Pillsbury, and Mimi Emory and Dottie Ray are assisting him. Chairman of entertainment, Charlie Gibbs, has imported a Las Vegas extravaganza for the dance. The 10-piece band, dancing girls, comedian, and vocalists will give a 50-minute show during the evening that should prove to make the evening quite a night. On tap, too, is a special party for employees' children at a later date.

#### **Volleyball Anyone?**



Some folks have time for other things than planning dances such as the group of regulars that cut short their lunches for some noontime volleyball every day behind the Instrumentation building. Scrub teams just choose sides and go to it. Anyone's invited.

### Or How About Softball?

And long past but worthy of recognition is the Bleague softball team which placed third in Mountain View's Park and Recreation "B" Softball League this summer. The team won 9 games and lost 7 during the season. Sam Coale was a top batter in the league. Dale Hill was named all-star first baseman; Bill Strang, all-star second baseman; Sam Hatfield, all-star third baseman; and Bill Coale, all-star left fielder. Dale Hill was also named all-star manager.

### An Emergency Birthday Party



The date, October 14th; the time, mid-afternoon; the call, "Come quick, you're needed in the Cafeteria". As nurse Ann Albert ran down the hall, she noticed it was very empty; no one was in the few offices she passed. Something big had happened.

When she reached the cafeteria, she noticed it was packed with people. She made her way to what seemed to be the center of activity. She faintly heard people talking or was it chanting something that sounded vaguely like "Happy Birthday"?

Then it dawned on her, and tears welled up in her eyes. It was "Happy Birthday", and it was her birthday. The center of attraction was a huge birthday cake and a beautiful white sweater.

Ann has been with Instrumentation only since April, but she's nurse, comforter, mother, and friend to everyone there. And what was a surprise to Ann was just their way of saying, "thank you" to her.

When she first came to Instrumentation she was treating around 25 cases a day, but now she's seeing more than 40 people a day. In September she recorded 816 dispensary visits.

"It's not that we have so many accidents," Ann said, "but the foremen don't want their girls to take chances with even the tiniest scratch. Their cooperation is marvelous."

Ann is also responsible for maintaining group insurance records, checking attendance records, and she even posts safety records throughout the plant.

Ann's married to John Albert, the Southern Pacific Agent in Redwood City and she's kept quite busy keeping up with her son, 17 year old Thomas. She's also a director of the Western Association of Industrial Nurses and has just been selected to become a member of the Democratic State Central Committee.

In all, she still seems to have time for everything and everybody. Maybe that's why the people at Instrumentation think so much of her.

### Taking Pot-Luck



John Shiffer's the lucky one.





Chief cook, Barbara Redd.

Eleanor Greenly organizes the pot-luck.

Potlucks are a regular occurrence throughout Fairchild. Birthdays, special occasions, a desire to try or trade new recipes, or just to get together is a good excuse for one.

Once a month the girls on John Shiffer's chassis line at Instrumentation get together for a pot-luck. The food's all home cooked and Barbara Redd usually acts as chief cook, warming up the dishes in the cafeteria's radar oven.

The menu is quite varied . . . beef stroganoff, lasagne, enchiladas, shrimp salad, jello salad, cakes, pies, assorted relishes. "The girls just sign up for what they want to make," said Eleanor Greenly. "It usually works out perfectly." The lucky people the girls invite to join them usually think so too.



Your Credit Union has just declared a big 5¼% annual dividend for the period from July 1, 1966 through December 31, 1966.

### New Developments at R&D

The big news at R & D in October was the opening of the new addition to the Palo Alto facility. Here, Process Engineer Don Henderson (right) shows Art Lewis, member of the technical staff, the soon-to-be diffusion room for Digital Integrated Electronics. What is now wide open space will be filled with diffusion furnaces, laminar-flow hoods, and reagent sinks. And there are similar plans to fill every square inch of the new wing, begun early in 1966, which doubled R & D facilities to 200,000 square feet.



And A New Cafeteria, Too



Moving into the new quarters also marked the opening of the new, larger employee cafeteria. Dr. Gordon E. Moore, Director of R & D snips the ribbon officially opening the new cafeteria. Catered by Coca Cola, the cafeteria led off with free coffee and cake for all on opening day and a three-piece combo provided noontime entertainment. The new cafeteria greatly expands food service facilities.

### For Christmas

Coming up—the R & D Christmas Dance. Chairman Don Henderson says this year's dinner-dance will be held at Lou's Village in San Jose. The date is December 16th and the affair starts at 7:00 p.m. The Mellow-Tones are providing the music, so mark the 16th on your calendar.

### The Great Pumpkin



A little at-home research by Charles Bittman, Physics, produced Halloween's greatest pumpkin — if not the Great Pumpkin Linus is always looking for in "Peanuts". This one weighs 68 pounds. Though she appreciates the home-grown "Great Pumpkin", the little one's more Rita Dreaden's size. Rita, from Materials and Process, is just 4'8" and weighs only slightly more than the larger pumpkin.

### All About Golf

Jack Jones, President of the Golf League, reports 1966 Summer Tournament play ended in September. Sixty players participated and trophies were won by Terri Mead, Ladies champion; Bill Shepherd, men's top golfer; Jim Bartlett, second place; and Joe Flood, third. A special award went to Bonita Barrientos as the most improved player.

Jack's Winter Golf League began where the summer players left off. At San Rafael's Peacock Gap Country Club October 9th John Michel took first place with an 85 to lead the 30 golfers. A second meet is planned November 13th at Pajaro Valley Country Club, Watsonville.

### **Balloon Contest**

Results of the Skylift Balloon Contest are in. A prize goes to Adult Class winner, Dean Aring Stites whose balloon was found at Knights Ferry, some 150 miles from the R & D Picnic launch site. Junior Class winner, Donna Zuccarro's balloon was found more than 110 miles away close to Angels Camp and Children's winners Bryan Mollat and Brian Sander launched balloons that traveled shorter distances to nearby Mount Hamilton and Los Gatos. Selfaddressed postcards were attached to the heliumfilled balloons and persons finding the balloons were asked to return the cards noting the location where the balloons were found, date, and time. Of 1000 postcards sent up, 24 were returned.

### The Word From Diode Country



### 200, 199, 198 . . .

Betty Hagedon, Diode's switchboard operator, is counting the days 'til Christmas. Christmas won't come a day sooner, but still she keeps a close watch on the calendar and does it every year. She started counting with 200 days left until Christmas, and even decorated her switchboard then. This year Karen Rich in Accounting donated some Mr. and Mrs. Santa bottle covers to the Yuletide display. Wonder if Betty has her Christmas shopping finished yet?

### Christmas Is Coming

And as Christmas is fast approaching, you'd better save December 17th for the annual Christmas Dance. According to Bobbie Talley, "A Night to Remember" is the theme chosen for the elegant affair. It's to be held at the Petaluma Memorial Building in Petaluma, and Santa will be there with dance programs and orchid corsages for the ladies and boutonnieres for the men. The "Chord Lords", a very talented group of young musicians, will provide the music. A big thanks goes to Recreation Council members, Maxine Hamilton, Jerlene Thomas, Gary Brandenburg, George Miller, Chuck Self, Jim Williams, and Bobbie Talley, and ticket and publicity chairman Jean Wickliff for their efforts in planning a night truly worth remembering.

### Lots Of Shower Gifts



A day to remember for Sue Harry was October 21st, the date of a baby shower given for her by the girls from her Plating Assembly line.

### Winter Bowling

Diode's bowling league opened its season with the election of officers. Hal Knopp is president; Tony Manino, vice president; and Jo Manino, secretarytreasurer. After four weeks of the scheduled 30-week season, the Gary and Kay Brandenburg-Tony and Jo Manino combination is locked with the Jim and Bobbie Potter-Tom Branch and Sharon Johnson group in a two-way tie for first place in the Monday night league. Top games so far include Mike Damico's 214 and Ann Parfitt's 209. Ann's also carrying the highest average for the women, a 157. Hal Knopp leads the gents with a 176 average.

In the Marin County Industrial League, Diode captured first place by two games. An outstanding 965 game (combined scores of the five team members) is an example of the great bowling being turned in by Hal Clausen, Tony Manino, Hal Knopp, Bruce Mack, and Gary Brandenburg.

#### Flu Shots



Of a more serious note is the somewhat pained expression on Jessie Lee's face as she gets her flu shot in the recent flu prevention drive. Temporary nurse, Carol Mayberry, promised it wouldn't hurt.

#### Handcrafts By Hane



Jean Hane was given an ash tray resembling a sagged bottle and she immediately went to a hobby store to find out how she could make one. She came home with a kiln, molds, and wire holders—just like a woman shopper! The result, a new hobby.

Jean gains quite a bit of satisfaction from creating attractive and useful gifts; not to mention the admiration of co-workers who would buy every ashtray she makes if she'd let them.

### New Dimensions In Training



When a new employee starts on the line at Diode, she's already toured the lines and been introduced to her foreman. She's met those things called diodes. She knows what they are used for and above all, she knows the role she plays in the production picture. She knows her job and has been taught the most efficient way to perform it. (She's also well versed in safety precautions.)

That's all part of Diode's thorough training program. It combines job training with a "welcome aboard, it's good to have you with us" feeling.

Training is performed by training operators. There are four training operators in all and each girl originally began at Diode as an asembler—making her well-qualified to teach all assembly operations and quality assurance skills.

Training isn't confined to new employees. It includes advanced training, refresher courses, and new methods to update job skills. More than enough to keep Bob Busch, Jack Brewer, Linda Williams, Clara Schiavo, Hilda Kaliczak, and Inge Filthuth really busy.



Clara Schiavo, Inge Filthuth, and Hilda Kaliczak-training's their job.

At Shiprock . . .



The winner!

The 43rd annual Northern Navajo Fair was literally a Fairchild affair.

General Chairman of this year's parade was Chee Bennallie, mechanic at Shiprock. Theme of the parade, "Preparing Tomorrow with Progress Today", was suggested by Ray Wollesen, Q.C. Manager. And as the topper, the Fairchild float captured first place in the business category.

A design submitted by Alice Simms, Q.C. employee, won the employee contest to select the Fairchild entry. Nelson Blackgoat's design took second prize.





Chee Bennallie, general chairman of the parade.

Designers Nelson Blackgoat and Alice Simms.

Alice Simms and Ray Wollesen were named cochairmen of the construction crew and received able assistance from Nelson Blackgoat, Ray Blackgoat, Virginia Lee, Elvira Carl, Marie Tony, Martha Harvey, Alice Blackgoat, Grace Begay, Marie Chee, Nellie Jim, and George Higgins.

Girls who rode on the float during the parade were Emma Joe, Shirley Vest, Rosie Wilkerson, Elvira Carl, Marylene Lee, Virginia Lee, Grace Begay, and Nellie Jim.

Approximately 80 entries featuring a colorful array of floats, bands, Indian dancers, and horsemen paraded through Shiprock to highlight the three-day affair.

### Carol Reports

### Award To South Portland

South Portland was the winner of the 1966 Industrial Achievement Award given by the Maine State Chamber of Commerce. Fairchild was cited for its expansion program now nearing completion, the subsequent creation of 400 additional job opportunities, and its contribution to the economy of the state of Maine.



Richard Hodgson, President of FCI, (left) accepts the award on behalf of the South Portland division at the Chamber's annual meeting on the Bowdoin College campus, Brunswick, October 18th. M. Herric Randall makes the presentation for the Chamber.

### New Twist In Bridal Showers



Girls in the die fabrication area may have altered history when they threw a surprise "bridal" shower for Line Mechanic Gary Breton. Gary holds the money tree he received. Evidently two can't live as cheaply as one. A few days after their marriage, the Bretons sent a thank you note to the girls which read in part, "Thank you for the lovely money tree. It seemed almost a shame to prune it."

### What It Was, Was Softball



Strike four and you're out . . .

Not every team can manage a shut-out season, but South Portland's fast-pitch softball team in their first season sure did. It lost every game it played.

One game, however, was credited to Fairchild by forfeit, and victory was near in another. But as luck would have it, the 4-2 game was rained out.

Nonetheless, the boys enjoyed the season and maintained a hearty pride in their record. As one team member commented, "Any team can get to first place, but you really have to fight to hold onto last place."

Team members include Max Rea, Don Pettengill, Phil Johnson, Bill Charleston, Roland Collomy, Tom Cote, Roger Merrow, John Philbrook, Gerry Mc-Cormick, Al Francoeur, Tom Frost, Gerry Howard, Fred Holmquist, Danny Holmquist, and Joseph Dyro. John Kitzrow was a member of the squad until he transferred to Mountain View. Wonder if the Mountain View scouts have signed him up yet?

### **Business Is Booming**



Bill Banks, Credit Union Supervisor, explains Credit Union rules to Anne Day, left.

In little more than one month, the Fairchild Semiconductor of Maine Federal Credit Union established an organization, solicited 650 members, began payroll deductions, and accepted loan applications.

Bill Banks heads up the operation as Credit Union Supervisor and treasurer of the Board of Directors. Other board members include Barbara Ross; Don Shea, president; Joe Madjerac; Bob Fowler, vice president; Bob Kenny; Hattie Whitmore; Ed Kruger; and Carol Hebold, secretary.

George Manolakis, Dave Holden and Bud Gould round out the credit committee staff.

650-327-4224

Qui Hadley

# MOVING UP

GH-4

STEPHAN K. AMMANN has been promoted to the position of Section Manager in the Instrumentation Division Research Department. Steve will head up the Display Techniques Section.

H. RAY BORTNER has been transferred to Fairchild's Mountain View facilities from the South Portland Plant. Ray has been with Fairchild for five years and in his new position as Distributor Inquiry Manager, he will be responsible for coordinating distributor sales. Originally from York, Pennsylvania, Ray was graduated from York Junior College and Michigan State University. His favorite sports activities are golfing and bowling.

AL BORDEN has recently been promoted to Production Maintenance Foreman at San Rafael. Al attended the University of California at Berkeley. He came to Fairchild in November 1965.

DEREK BRAY recently assumed the position of Manager, Consumer Applications. Derek, a native of Huddersfield, England, holds a BSC degree from Manchester University, England. Previously he was employed by Westinghouse in the U.S. and by EMI Electronics in England.

JAMES E. HURST, former Senior Mechanic, Line Maintenance, advanced to Assistant Foreman at Diode, San Rafael. He has been a Fairchild employee since 1962 and served for 4 years in the U.S. Navy.

# NEW FACES

GARY LEE ADAMS joined Fairchild as Senior Engineer, Linear Integrated Circuit Development, in the R&D Lab, Palo Alto. He received his bachelor's degree from Penn State and has done graduate work at San Jose State. Gary enjoys amateur radio and sailing.

ROBERT L. BOUGHAN joined Fairchild as Distributor Marketing Engineer (MV). He holds a B.A. degree in marketing from Monmouth College and did graduate study at Arizona State University. Bob's previous experience includes a customer sales and service position at Continental Devices.

HARRY J. (BRITT) BREITENBERG has been appointed Production Foreman in the final seal area at South Portland. Britt attended Jacksonville State University, Alabama, and the University of Maryland. He comes to Fairchild from Food-O-Mat, incorporated, where he was a field supervisor.

MARTIN S. COHEN has recently joined the Computer Field Sales staff in the Wakefield, Massachusetts office. He will be responsible for the Honeywell and CCC accounts.

KENNETH S. EULER was appointed Personnel Manager at South Portland. A native of New York, he graduated from the University of Virginia where he majored in Economics. He also obtained his LL.B. from the same institution. Ken has held positions with Curtis-Wright Corporation in New Jersey and U.S. Envelope Company, Williamsburg, Pennsylvania.

JAMES E. FELDT, a graduate of Arizona State, came to Fairchild as a Quality Assurance Engineer. He was formerly with Motorola's Semiconductor Division, in Product Engineering and Reliability Engineering.

JOHN R. GRANT joined Mountain View as a Q.C. Foreman. A recent graduate of Brigham Young University, John majored in Statistics.

MICHAEL E. HARRIS, who recently assumed responsibilities as an engineer at R&D, received his B.S. degree from Stevens Technical College in Hoboken, N.J. He did graduate work at Syracuse University and was employed by IBM before coming to Fairchild.

FRANK A. KALITA recently was named Accounts Payable Supervisor at Fairchild, MV. Frank comes to Fairchild from the Signal Oil and Gas Company where he was Accounts Payable Supervisor. He attended Pequod Business School in Meriden, Connecticut, and the University of Santa Clara. DAVIS E. LESLIE joined Fairchild's San Rafael plant as production supervisor of the assembly and plating area. He received a B.S. degree from Miami University, Oxford, Ohio. He was previously employed by MicroSemiconductor Corporation, Hoffman Electronics Corporation and National Lead Company of Ohio.

ALFRED M. MARTIN has recently joined Fairchild as an engineer (R&D). He received his B.A. from San Jose State College and was previously employed by Litton Industries.

DON MASSEY comes to Fairchild (MV) from Continental Devices. He brings extensive experience in device testing and wafer processing to his new position as NPN Product Marketing Engineer. He will be assigned to Customer accounts.

CAROLYN MATSUURA recently joined the General Accounting Staff (MV) where she will be working in the area of General Ledger and Statements. She attended the University of California at Berkeley where she received her B.S. degree.

GUY M. MORETTI was appointed Supervisor of Property Accounting on the General Accounting Staff, MV. Previously, he was with the Chevrolet Division of General Motors. Guy holds a B.S. degree from Central Michigan University.

WARREN E. POTTER recently joined Fairchild as a consumer salesman. He will be working out of the Elmwood Park, Illinois, sales office under the supervision of William A. Dresser.

MEGHA SHYAM comes to Fairchild from Chitradura, India. He is a member of the Technical Staff at R&D, having the responsibility of investigating new phenomena in semiconductors. He received his Ph.D. from Stanford University.

RUSSELL L. SMITH recently assumed the position of Production Foreman at the South Portland plant. He holds a B.S. degree in Engineering Physics from the University of Maine and also attended the University of Wyoming. Originally from Pittsfield, Mass., Russ was recently discharged from the U.S. Air Force with the rank of 1st Lieutenant.

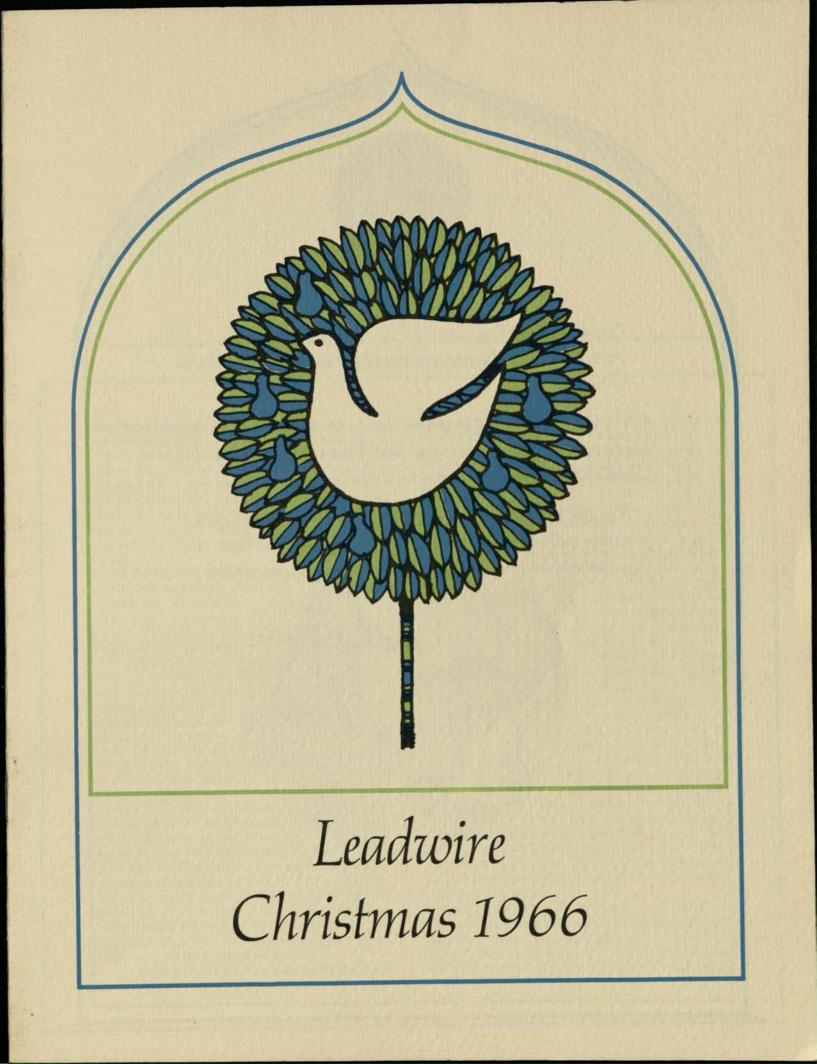
L. RONALD TREPP will assume the responsibilities of Supervisor, Systems, Planning and Inventory Control. Ron joins instrumentation from Litton Industries, Lubbock, Texas, where he managed their Production Control Department.

## **Five Years Service**

Fumiko Anderson Teruko Brisbin Eleanor Brown William Dresser Caroline Escoto Vince Fulginiti Vincent Goskey Ronald Hammer Mary Ann Landes Margaret Mattson Gertrude Reed **Cornelius Reese** Peggy Russell Janet Sturdevant Lucy Tidwell Ronald Timm

Microwave Mountain View Diode Mountain View Diode

Don't Forget the United Fund!



During this holiday season I'd like to join with Charlie Sporck and Tom Bay in wishing you a warm and wonderful Christmas season.

We'd like to extend our sincere thanks for the fine job you have done in the year just past. Your enthusiasm and contributions have made it a very good year.

It is our fondest hope that the friendship and good will of this season will prevail throughout the coming year and that Christmas will bring renewed joy to you and your family.

EN Voyce

"a partridge in a pear tree"

**Christmas Through The Ages**... This year when you're trimming the tree, filling Christmas stockings or hanging mistletoe — give a thought to where you got your favorite Christmas custom. Chances are it goes farther back in history than you realize. In fact, many historians believe that Christmas itself may have had its origins in

ancient Greek and Roman festivities to observe the midwinter change of seasons.

While the birth of Christ was celebrated on various dates as early as the third century, the observance wasn't officially sanctioned until a century later. Pope Julius I authorized an investigation to determine Christ's probable birth date which led to the selection of December 25th. On that date in 353 A.D., the feast of the Nativity was first observed in Rome.

The use of greenery at Christ-

Roman customs. Holly, for example, was a favorite decoration of the Romans who made lavish use of green boughs and garlands to honor Saturn, their god of agriculture. Mistletoe was a plant called "all heal" by the Druids who believed it had the power to miraculously cure disease and counteract poisons. To-day's more romantic meaning probably is derived from some early marriage rite.

It was in heavily-forested northern Europe that

decorating Christmas trees began. St. Boniface, an eighth century monk who converted the pagans living in what is now Germany, convinced them to stop worshipping Odin's sacred oak and instead to adorn fir trees in their homes in tribute to the Christ child.

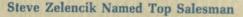
A fourth-century bishop of Turkey, Saint Nicholas was the real-life predecessor of Santa Claus. According to legend he dropped a bag of gold coins down a chimney into a stocking which a poor girl had hung by the fireplace to dry. Hence, **our** custom of hanging Christmas stockings.

Christmas carols can be traced back to the 13th century and St. Francis. Originally a "carol" signified a dance rather than a song, and it was St. Francis who led the villagers in joyous dancing around the Nativity Scene. One of our most recent customs, the exchanging of Christmas cards, began in England in the

1840's. Christmas cards were first introduced in the United States by Louis Prang, a German immigrant who printed his first "Seasons Greetings" in 1873.

This year have a very "Merry Christmas" and give a thought to where your favorite Christmas customs came from. They really give special meaning to the Christmas season. And, by the way, wonder who wished the first "Merry Christmas"?







Steve Zelencik (right) receives his award from Regional Sales Manager Ed Turney.

Steve Zelencik booked the largest single order for Semiconductors in the history of Fairchild Semiconductor (from the Burroughs Corporation) and it was also the largest single IC order ever given in the Semiconductor industry. As a result, Steve was named "Salesman of the Month" for October. "Steve's been with Fairchild for about a year. In the past twelve months, in addition to covering Burroughs, he's made several other major contributions to the growth and success of Fairchild Semiconductor," commented Computer Marketing Manager Marshall Cox.

Ed Turney, Regional Sales Manager, added, "While Steve credits the Burroughs sale to a group effort, he truly deserves the congratulations of everyone, for the sale and this award."

### Fairchild Signs Largest Circuit Agreement Ever

Twenty million silicon integrated circuits, transistors and diodes will be shipped by Fairchild Semiconductor to the Burroughs Corporation over the next two years under terms of an agreement jointly announced by the two companies. Included in the gigantic procurement is a requirement for the largest quantity of monolithic integrated circuits ever specified in a single purchase.

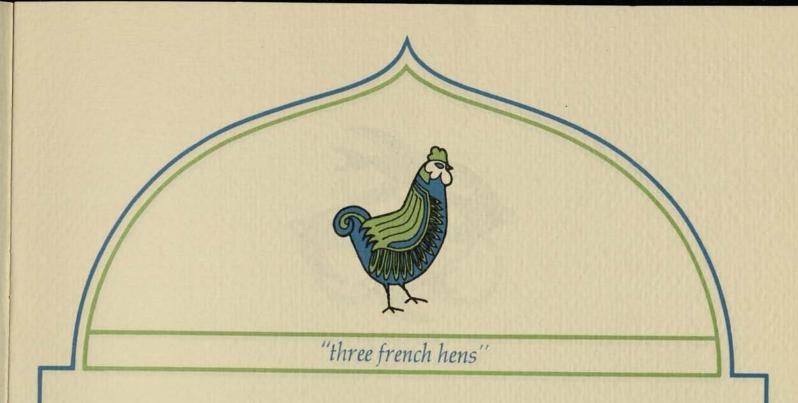
The order specified Fairchild  $CT_{\mu}L$  integrated circuits and standard line transistors and diodes to be used in four highly successful Burroughs commercial general purpose computers, the B2500, B3500, B6500 and B8500.  $CT_{\mu}L$ , which utilizes a complementary transistor logic circuit to achieve new levels of speed, reliability and economy, was developed jointly by Fairchild and Burroughs engineers in 1965.

Under terms of the agreement, Fairchild will ship components to Burroughs facilities in Detroit, Michigan; Pasadena, California; Plainfield, New Jersey; and Paoli, Pennsylvania.

### The Making of a Sale

Big sales like the recent Burroughs sale are not found in Christmas stockings. They just don't happen; they're put together by many people and urged on by a fellow called a field salesman. He's the one who keeps the orders coming in and all of us so busy.

A Fairchild field salesman knows a lot about Fairchild products and his customers' component needs. With this knowledge he sets into motion the designing-in of Fairchild products to meet his customer's needs. From this designing-in phase he must then show the customer that Fairchild can do the job.



It may mean having a pilot system built to prove feasibility or building proto-type units to prove reliability, stability, performance, or repeatability. This product development phase can take from one month to three years. Big sales don't come in a hurry.

During this product development phase, the field salesman submits to product marketing a projected six-month product forecast so that manufacturing is given time to plan for present and future business.

After Fairchild has proven its capability to build the customer's components, the salesman must obtain delivery information and price guidelines and again make sure manufacturing can meet the scheduled delivery date. Now he's ready to submit Fairchild's bid.

The customer's decision to buy is then based upon Fairchild's quality, delivery capability, history, price structure, and other competitive quotations.

If Fairchild is successful, the wheels begin to turn. The order is scheduled, parts are built, and shipments are made according to the designed schedule. And the field salesman? Well, there's always another big sale to be made just around the corner and lots of details to be worked out before it's successfully put together. His work is never done.

#### Dr. Noyce Receives Franklin Institute Award

Dr. Robert N. Noyce, group vice president of FCI, was awarded the Franklin Institute's gold Stuart Ballantine Medal for outstanding achievement in communications at ceremonies held October 19th in Philadelphia. He was recognized for his sophis-

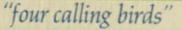


Dr. Noyce receives honors from Dr. Wynne Laurence Le Page, President of the Franklin Institute.

tication of the monolithic integrated circuit for industrial use.

Franklin Institute Awards are presented annually to "men and women who have fearlessly sought to learn and harness the secrets of the Universe." The honor roll of former medalists includes scientists and inventors from 21 different nations.

Dr. Noyce shares the award with another electronics researcher, Jack S. Kilby of Dallas, Texas, deputy director of the Texas Instrument Corporation's Semiconductor Research and Development Laboratory. Both men were recognized for scaling down and improving the reliability and performance of increasingly complex electrical circuits used for such purposes as radio and television receivers and for computers. Components of these circuits are microscopic in size and can now be mass-produced with relative ease.



Above all, Christmas is a time of giving. Many Fairchilders give their time and services to worthy causes throughout the year. One such person is Rudy Pasos.

### An Amateur Diplomat With Official Status

Rudy Pasos, Supervisor Engineer at Instrumentation in Palo Alto, is a native-born Costa Rican, now an American citizen, and father of five children. He's also newly appointed Consul of Costa Rica in San Jose, California. Routine? Certainly not. The appointment is the only one of its kind. He received his unique appointment as a result of his efforts to foster a "Sister City" program for San Jose, Costa Rica, and San Jose, California.

Sister city programs started during the Eisenhower administration when San Jose, California, adopted and was adopted by Okayama, Japan. A group of people in San Jose picked San Jose, Costa Rica, to participate in a similar sister city program, but met with little success.

In 1964 Rudy's picture appeared in a San Jose, California newspaper. Mr. Luiz Juarez, long active in the sister city campaign, saw the picture and knew of the distinguished Pasos family, and he enlisted Rudy's support.

Ironically, at this same time the volcano Irazu (Ee-rah-sue) erupted in Costa Rica. One of the worst jobs in the aftermath was keeping streets and highways free of ashes. Costa Ricans needed help. They didn't want outside interference, but they would accept a Costa Rican's help. That Costa Rican was Rudy Pasos.

Rudy rallied the support of San Jose, California. With the help of Representative Charles Gubser, a roadsweeper was found and sent to Costa Rica

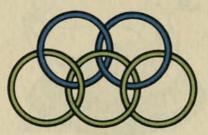


Rudy Pasos, Consul of Costa Rica, presents San Jose's Mayor Ronald R. James the flag of Costa Rica.

in the name of the sister city. Food and other aid was sent and it was gratefully accepted. A local television station made a film "Ill Wind of Irasu" which showed the volcano's damage to Californians and made many friends for both San Joses. The "ill wind" had blown some good. The sister city ideal was finally given a chance and it proved itself.

Relations between the two cities have grown ever since and currently involve many people. Rudy enlisted Rotarian support in both cities. Now Rotarians exchange visits regularly.

Rudy, a ham radio operator, also got hams into the act. His network of ham radios now is on the air regularly once a week to exchange technological



### "five golden rings"

information, to solve agricultural problems, or to discuss health needs. Additionally, this information exchange benefits countries to the south, for a ham's radio signal can literally be heard around the world.

Today professors, students, businessmen and city officials are also participating in exchange programs. Right now Rudy's working on an exchange program for the University of Costa Rica and San Jose State, and he hopes that the governor of the province of San Jose and the President of Costa Rica will come to California.

Now as consul, Rudy will be attending many diplomatic functions and can work even harder for both his countries. But even though he will have official status, official license plates, a diplomatic passport, and diplomatic privileges none of it means as much to him as what he's doing.

As Rudy puts it, "Of prime importance in a successful marriage is for my mother to love my wife and my wife to love my mother. In this case Costa Rica is my mother and the United States my wife. I'll work awfully hard for them to love one another. That's all I've tried to do." And, he's done it remarkably well for an amateur diplomat.

### New Developments at R & D

Skiing's in season and the R & D Ski Club is "off and skiing." Two group trips to the Lake Tahoe area are planned. Other activities planned include ice skating and more films like the Warren Miller filmstrip shown at this season's first meeting. President Ed Duffek says that membership numbers around 60 and that both skiers and nonskiers are coming out for what should be a very good year.... R & D hosted members of the Fall Joint Computer Conference with a mid-November



Open House designed to give them a first-hand look at Fairchild. Besides a tour of the facility, the group met with R & D personnel. Here, Dr. Gordon Moore, Director of R & D, discusses recent product developments with some FJCC visitors. . . And speaking of Dr. Moore, he was named the recipient of the 1966 award for the best tutorial paper presented at the 1965 National Electronics Conference in Chicago. He received an honorarium and a plaque for his paper, "MOS Transistor As An Individual Device And In Integrated Arrays."



"six geese a-laying"

#### **Carol Reports**

Recreation Council members are working hard these days. On South Portland's holiday agenda are two annual Christmas events — the Children's Christmas Show and the adult's Christmas Dance.

The Children's party

planned for December

11th includes a clown, a

magician, and televi-

sion's Ken MacKenzie

and his band. And what's

a Christmas party with-

out candy and gifts? So

there will be plenty of

both. . . . This year's Christmas Dance is

slated for the following

Saturday, December

17th. Plans call for hors



#### Paul Scully

and the awarding of a color television door prize. Fred Arehart is heading up the arrangements committee; Cynthia Heal, publicity; and Jo Ann Gerry, decorations.... The rec council should also take a bow for the Halloween Hop held Saturday, October 29th. Prizes went to the funniest, most original, and best costumes worn to the masquerade dance, and the prizes were well worth fighting for - an AM-FM portable radio, a portable TV, and a Polaroid camera. . . . It looks as though Foreman Paul Scully would rather fight than switch-switch sports, that is - as he approaches the 18th with a "never say die" attitude. The scene was the Men's Golf League tourney held early in the fall. First place winner was the team of Collomy, Haskell, Staggs, and Childs. Officers for the 1966 season were Roland Collomy, president; Jack

Carter, vice president; and Gordon Burger, secretary-treasurer.

A young fellow who should have been along on that outing was 11-year-old Tommy Legere, son of mark and pack foreman Jerry Legere. Tommy was one of three area boys who qualified for this



year's New England Schick Junior Golf Tournament. It was his first attempt on the rugged Purpoodock Country Club and he qualified with an 84 on the par 71 course. Tommy began his golfing career at age six, caddying for his father, and he developed his swing in the family's back yard. He swings from his heels. Tom's also a straight "A" student, president of his sixth grade class, and en-

Tommy Legere

joys football, basketball, and swimming. He's catcher for his hometown Little League baseball team, too. That's more than enough to make any father proud, and you can bet Jerry Legere sure is.

#### **Items from Instrumentation**

Instrumentation celebrated Thanksgiving with a traditional turkey dinner and all the trimmings. Appropriately, Tom Bird and his group from Point-to-Point Chassis Wiring brought mounds of food for a Thanksgiving potluck. Each girl brought her special seasonal dish and Tom carved the turkey. It is reported that both Birds did fine. The inevitable wishbone was splintered, though, but the wish was for more holidays and more potlucks.... Stanford School of Nursing sent two

"seven swans a-swimming"

of its most charming fifth-year students to Instrumentation in a program designed by Stanford and the Santa Clara County Health Department to



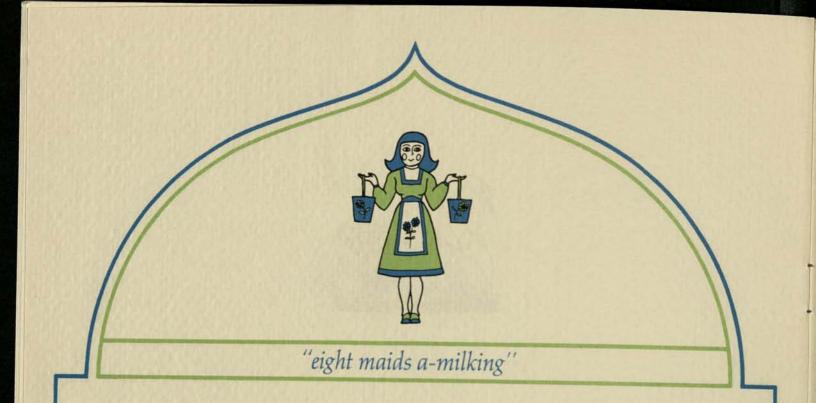
Lee Anne Farishe, Michele Meyer

acquaint senior student nurses with public health nursing and community health services. Nurse Ann Albert hosted Michele Meyer and Lee Anne Farishe and explained the advantages of industrial nursing to them. The girls also got a guided tour of both Instrumentation and nearby Transistor.... John Segenski reports that electronic technicians at Palo Alto Instrumentation know how to make the best of anything. When the techs found an old ping-pong ball in one of the bench drawers, they improvised. A plug rack served as the net, an old door was converted to a table, and lab notebooks became paddles. Harold Sargent and Mike Thompson battled for the make-shift championship. . . . Instrumentation's Recreation Council selected its first set of officers. Leader for the upcoming year is Walt Skruch, president; Barbara Sleeth is the new secretary; Maria Humphrey, treasurer; Charlie Gibbs, publicity: Dave Anderson, accommoda-

tions; Jerry Pillsbury, entertainment; and Joe Rodriguez, equipment...."The In-Laws" matched against the "Misfits"? The "Alley Oop's" against "Steve's Harem"? Holy Handicap, it's Instrumentation's bowling league, and leading the league after nine weeks of play are the "Who Knows"? Who knows how long they will stay there, for they are just one of ten tough teams. Maria Humphrey, her husband Bill, son Joe, son-in-law Mike Jorgenson, and daughter Michele compose the team rightfully called "The In-Laws." You have to enjoy bowling to be a member of their family, and they all do every Tuesday night at the Moonlite Lanes. Maria also serves as league secretary. Another Humphrey, Fran, and Michele Jorgenson are leading distaff bowlers; for the men, leaders are Ralph Coibacchini and Geneva Robertson.... Golf winners in Instrumentation's November tourney, the second time around (the first time it rained), were Walter Marks, Barry Klaas, and Dave Hall. Shirley Johnstone led the ladies. The second time it rained, too, and harder. ... And as this is the Christmas season, Instrumentation's Children's Christmas Party to be held December 17th at Mountain View High School should be a barrel of fun. There will be toys and candy canes for every child, and caroling, Christmas skits, and that grand old man himself, Santa.

#### The Word from Diode Country

"Tis the season to be jolly," and you can bet that Diode is because the ancient yuletide carol is being sung loudly and clearly by San Rafael's two Christmas choirs. Jean Wycliff organized the groups, and Faye Norvell directs the day shifters and Emma Mae Young the swing shift choir. Both choirs are singing during the lunch and dinner hours in the Cafeteria on December 22nd. Swing



shift carolers include Dolores Huggins, Sonora Armistead, Jewell Ficklin, Yvonne West, Thurlene Peerte, Carolyn Watson, Georgia Harper,



Maribeth Mullins, Gloria Williams, and Jerry Thomas. Pictured is the day shift group. Across the top are Bobbie Vason, Archie Jones, Lillian Singleton, Juanita Danner, Patsy Nach, and Faye Norvell. And in the front row are Coraletta Henry, Sandra Overstreet, and Bobbie Talley. Eloise Wright and Jean Miles must have been practicing those high notes when the picture was taken.... Jean Wycliff also reports that she, Maxine Hamilton, and Eleanor Francis plan to decorate the cafeteria and the Christmas tree again this year, and that during the Christmas week many different departments will be enjoying potlucks and gift exchanges.... And speaking of potlucks, a Thanskigiving potluck luncheon was held by the module line on the 23rd. About 35 people enjoyed the baked ham and all the trimmings.... As a reminder to any of you who might have eaten too much at the potluck or over Thanksgiving or just might put on a few pounds during the Christmas holidays, each sunny afternoon at 2:00 a group assembles in the back lot for exer-



cises. Just thought we'd mention it.... And in keeping with the physical fitness program, Diode's basketball team is working out the aches and pains of its 0-2 season. The team shows lots of promise, or so say team members Tom Branch, Al Frugletti, Bob Beaudoin, Dave Sielstad, Harry Spence, Stan Manning, Dave Edwards, Mike Feldtman, Bob Hartman, Gary Brandenburg, Bruce Mack, and Mario Scavino. But they are quick to add that they could use a few more tall players and lots of rooters. Interested players should contact Mike Feldtman. . . . Meanwhile back at the bowling lanes, two teams are tied for first place and three other teams are within five games of the top slot. Leaders with 22-11 records are the "Rejects" (Sharon Johnson, Tom Branch, and Bobbie and Jim Potter) and "The Clan" (Hilda Kaliczak, Janet Marz, Mike Damico, and Jim Smith). Leading bowlers, looking quite happy



about their high averages this season, are Janet Marz (145), Anne Parfitt (155), Evelyn Koeble (148), Hal Knopp (172), and Hal Clausen (167).



Mike Damico (172) was figuring out a way to add a few pins to his average when the picture was taken.... In the Marin County Industrial League, Fairchild remains in first place. Fairchild's Bombers are leading the league in every department except losses.... It looks as though by the New Year all of the 12,000 square foot addition will be occupied. Here, Sharon Johnson and Georgia Wenners carry on amid the normal confusion of moving.

### From Mountain View

Can you remember back to the less hectic days of Halloween, when there were no last minute gifts to buy, but the season was still swinging? Well, bet this group can. Caught at a Halloween pow-wow were Sam Guida, Cheri Zumwaldt, Liz



Peterson, Don Nicolai, Gertrude Tuchman, and Don Kitchens — all part of the Fairchild Controls group.... In the true Halloween spirit Memory Products threw open its doors for an Open House held Sunday, October 30th. Nearly 120 persons attended. Memory Products has also been busy participating in the Fall Joint Computer Confer-



ence.... Friday evening the place was completely empty. Monday morning Hi-Rel was there, lock, stock, and computer. Hi-Rel's new home is on



the corner of Whisman Road and Middlefield Road.... The "Stockouts" still lead the Fairchild Mixed Bowling League. The team is 28-12 for the



season. Right behind them is the "Number Thirteen" team (27-13). Sam Hatfield sports the highest series (606) and claims the high game, too (246). For the women, Norma Lias has the highest series (560), and Juanita Warrick the high game (232).... What happens when a Mustang meets a deer? Well, it ain't no joke — a busted bumper and a smashed grill. Just ask Don Massey of Marketing Transistors. He and Rich Barry, Marketing Microcircuits, had planned a weekend of skiing at Lake Tahoe. Rich cut his right leg skiing, went back for more and twisted his right ankle. Don got snow in his waterproof watch (which is a polite way of saying he fell a lot), and on the way home his Mustang collided with a deer. They're game guys though, and they're heading back to the slopes again soon. . . . Maybe the guys should plan to go next time with the Ski Club. After the New Year's trip, three more are planned for the Lake Tahoe area. Tentative dates are January 20-22, February 17-19, and March 10-12. Package costs for the weekends will be about \$20-25 each.

Information will be mailed to all departments soon... A farewell sendoff for two Foremen switching shifts in the Materials Slicing Area re-



sulted in a surprise potluck honoring the two fellas. Rumor has it Wayne Howard and Joe Desimone are ready to switch again just for some more of that good home-cooked food. . . . And if that wasn't enough, the girls in the Materials area (Slicing and Polishing) are planning big things again. This time it's a Christmas Luncheon at the Chief's Club at Moffett Field on the 23rd. Marty Barcroft and Ray Gale are sponsoring the group of nearly 40. . . . If you can't guess by now, all the Christmas Dance posters decorating hallways make it very clear that Christmas is here. The Recreation Council reports that every department has some plans for a Christmas get-together. So it should be a very Merry Christmas at Fairchild.

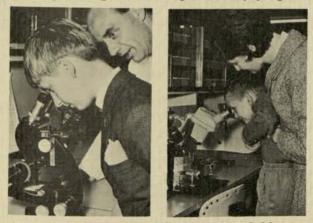


### At Shiprock

One bright and shining Christmas ornament at Fairchild is the award Shiprock received from the San Juan Business and Professional Women's Club. The plaque has a doorknob mounted on it and was awarded to Shiprock for its employment of women and particularly "opening the door to the employment of women."

#### From Fairchild Australia

It was hard to say which was more popular looking through microscopes or enjoying ice



cream and soft drinks. Either way Fairchild Australia's November 12th Open House provided a golden opportunity for budding engineers to learn all about today's world of science end electronics. Here, Plant Engineer Ken Woods explains to one young engineer the type of circuitry he may be working on one day, and a mother shows her son what she does each day at work.

### United Fund, A Great Success

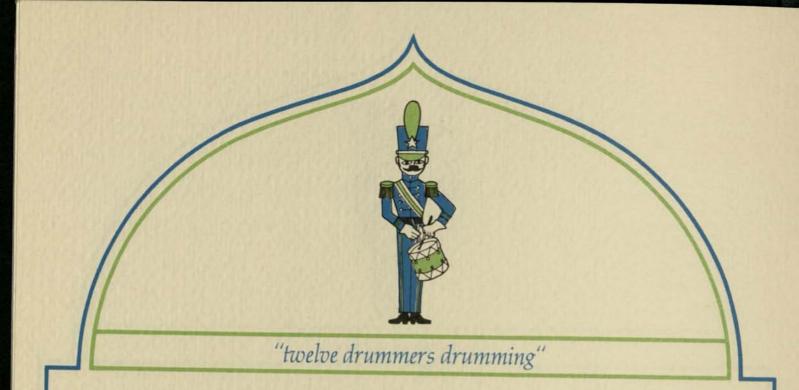
The best gift of the Christmas season was yours

to the United Fund. You made it the most successful drive ever. United Fund Chairman Jerry Haugen reports that the first estimates show that Mountain View employees pledged more than \$47,000, an amount exceeding last year's total by about 37%.

During the campaign, some of the Charity Committee members toured local United Fund Agencies to see just where your dollars go. The group visited the San Jose Day Nursery, Hope for Retarded Children, the Salvation Army, Family Service Agency, and Brandon House.



Charity Committee members who met many United Fund people that day were Anna Larson, Lillie Stein, Millie Wilkenson, Jim Newton, Missy Strebig, Val Knowles, Sue Grimmer, Midge Bowen, Paul Kent, and Tino Venson. Shown also with the group are Florence Krumpotic, Campaign Associate, and William Piehl, Director of Case Work from Family Service (third and fourth from the right).



### MOVING UP

KEE BLACKWATER advanced to Production Assistant at Shiprock. He joined Fairchild in 1965 as a Mechanic Trainee and became a Mechanic Leadman last August. Originally from Utah, he completed auto mechanics training at Okmulgee Technical Institute in Okmulgee, Oklahoma.

ROBERT C. CHAMPAGNE has been appointed Product Manager, Special Assemblies (Diode). He has been employed by Fairchild since 1959 and formerly was Section Head, Electronics Fabrication and Maintenance.

FRANK ELLIS recently advanced from Senior Electronic Technician to Assistant Engineer at Diode, San Rafael. He attended Heald Engineering College of San Francisco and before coming to Fairchild in March 1965 was employed by Lockheed.

CHARLES A. JAHRLING was promoted to Foreman at San Rafael. He has been with Fairchild since 1963 and was previously with Dumont Manufacturing Corporation.

WAYNE LAWSON (Diode) was promoted to Assistant Engineer. He completed two years of engineering study at the University of California and has been with Fairchild since 1960.

STAN MANNING was promoted to Applications Engineering Foreman at San Rafael. He attended San Francisco City College and Heald's Engineering College. His new responsibilities will include characterization of both new and standard products.

ARMANDO (CHARLIE) NILA has been promoted from Group Leader to Foreman of the Test Area in Transducer of the Controls Division. He is now responsible for all calibration and final testing of Controls devices shipped from the West Coast manufacturing facility.

### NEW FACES

RICHARD DRONKERS recently joined Fairchild as a Senior Industrial Engineer at the Diode plant. Richard is a native of Holland and attended Merchant Navy College in Amsterdam and Technical College in Haarlem. Before coming to Fairchild, he was employed by Gevato Meat Canners, Driebergen, Holland.

FRANK J. FINELLI has been appointed to the position of Intermediate Accountant at the South Portland plant. He earned his B.S. degree at Fordham University, N.Y. and did graduate work at Fairleigh Dickinson University, N.Y. Frank was previously employed by Grassy Sprain Tax, Inc., N.Y., and Allied Chemical Corp, N.J.

JOHN M. FRIER came to Fairchild as an applications engineer with the Controls Division (MV). An engineering graduate of the U.S. Naval Academy, he was formerly a research engineer with Lockheed Missiles and Space Company, Sunnyvale, and previous to that, a Navy pilot.

JIM JORDAN recently rejoined Fairchild as a sales engineer. He will be headquartered at the Hollywood sales office. He attended the Citadel in Charleston, S.C. and received a BSME degree from the University of South Carolina. Before returning to Fairchild, Jim was employed by Texas Instrument.

### 5-year Service Awards for December

Pearl Ammons Diode Marietta Bauer Virginia Chattman Janice Clark Dave Culley MV Edward Duffek Diana Garrison Joyce Hamblin Mae Hendriks MV Donald Koller MV **Betty Little** Donna McClintock **Richard Moreau** MV Jeanette Olds Margaret Osmar MV Donald Pezzolo Donald Smith MV Jonnie Tedrick Linda Williams Thelma Wilson MV

Diode Diode Diode R&D Diode Diode Diode Diode Diode Diode Microwave Diode

### LEADWIRE

Vol. 8, No. 11 Published by and for Employees of Fairchild Semiconductor/Instrumentation Mountain View • Palo Alto • San Rafael Hong Kong • South Portland, Maine • Shiprock, N.M. Croydon, Australia • Ontario, Canada Tijuana, Mexico

From all the Leadwire staff, and me, too, a big thanks for all your help this past year. We'd like to add our "Merry Christmas" to the many good wishes of the season, and may you have the best Holiday season ever.

> Judy Horst, editor Larry Bender, Gaylord Lineaweaver, art direction Ron Turner, photographer and all the reporters

MOUNTAIN VIEW—Wes Cox, Lois Eagleston, Nellie Covington, Ginger Tygret, Keith Thomson, Judy Dunkelberger, Paul Brasseur, John Walsh, Iantha Adams, Katie Guida, Edna Lockes, Missy Strebig, Wanda Smith.

SAN RAFAEL — Cleatus Dunkley, Audrie Graxiola, Janet Marz, Clarence Medeiros, Mickey O'Donnell, Margaret Queen, Bobbie Talley, Anne Parfitt, Eleanor Francis.

RESEARCH & DEVELOPMENT - Donna Parris, Dianne Cotton, Janet Jones.

SOUTH PORTLAND - Carol Hebold.

INSTRUMENTATION — Jack Ramon, Pat Campagna, Anna Ackerson, Walt Skruch, Jeanne Meyers.

 $\mu L$  is a registered trademark of Fairchild Semiconductor, a Division of Fairchild Camera and Instrument Corporation.

Copyright Fairchild Semiconductor Printed in USA 2310-349-116 7M

GH-8

Jui Hadley 650-327-4224

# The Twelve Days of Christmas

On the first day of Christmas my true love sent to me, a partridge in a pear tree. On the second day of Christmas my true love sent to me, two turtle doves. On the third day of Christmas my true love sent to me, three french hens. On the fourth day of Christmas my true love sent to me, four calling birds. On the fifth day of Christmas my true love sent to me, five golden rings. On the sixth day of Christmas my true love sent to me, six geese a-laving. On the seventh day of Christmas my true love sent to me, seven swans a-swimming. On the eighth day of Christmas my true love sent to me, eight maids a-milking. On the ninth day of Christmas my true love sent to me, nine ladies dancing. On the tenth day of Christmas my true love sent to me, ten lords a-leaping. On the eleventh day of Christmas my true love sent to me, eleven pipers piping. On the twelfth day of Christmas my true love sent to me, twelve drummers drumming, eleven pipers piping, ten lords a-leaping, nine ladies dancing. eight maids a-milking, seven swans a-swimming, six geese a-laying, five golden rings. four calling birds, three french hens, two turtle doves, and a partridge in a pear tree.

# Leadwire 4



What's New Last month I promised to outline some of our more specific goals. It is my thought to continue doing this in future issues as the subject is a very long one.

The theme in last month's *Leadwire* was the overwhelming importance of people, in that the reputation and progress of Fairchild is directly related to the kinds of people we can attract, promote, and hold. *Attracting* good people is largely a function of the record—how well we have done in the past. *Keeping* good people is, in large part, a matter of motivation —economic opportunities; the amount of responsibility given; the chance to achieve and to have that achievement noted; the degree to which a person can be challenged; the amount of "excitement" or fun that can be telegraphed from the top levels to those areas that really count, and vice-versa. The ability to communicate and "level" with one another is one that we must all work at.

In short, there are many sources of capital for our growth: dollars, new plants, equipment, and people. But, by far the most significant asset Fairchild has is its human resources. As one industrialist said, "Take away all my other assets but leave me my people; with them we can rebuild anything." Indeed, that was exactly how war-torn Europe came back. Thus, in this installment on goals, I want to once again talk "people." If all of us are to work effectively:

1. We must have a clear definition of each job.

- We must then be given the tools to do that job. This may include on-the-job training or machines or new buildings.
- 3. Outstanding performers must be recognized and have a chance to move up, to earn higher wages, to be rewarded for the job well done. Thus, one key goal will involve constant re-evaluation of job specs and wage and salary levels relative to those who are good job performers. We want our successful people, at each and

every level, to move up.

4. We must provide basic economic security through such efforts as our health, life insurance, and retirement programs. While these are as good as any I know of, it is my goal to constantly improve the benefits in each of these areas. When we began ten years ago, we had only an idea of hard work. This led to success and out of that we were able to give ourselves not only these benefits, but the only real security that exists – job opportunity.

Those of us in top management have not yet done all of the things that will make Fairchild the kind of organization we all want to work in, but we intend to constantly make further improvements in this area. Parking at Mountain View has been a keen problem. As a start in this area, our new administration building will have a two-level parking lot which will greatly relieve the congestion at Fairchild Drive and Whisman Road. Company Instructions and policy definitions have not been as accessible as they might be, but plans are in progress to specifically correct this. As outlined above, I am personally interested in our goals to promote individual recognition, enlarge job opportunities, and facilitate promotions and transfers. To the extent that organization can help these efforts, it must constantly be amended and improved. To the extent that equipment, buildings, and employee training can help people grow, they should be used.

In future issues I would like to discuss what is possible from a well-motivated group; new products; the need to see change first and thus respond first; the need to make our delivery promises; and many more specifics.

To sum it up, it is my goal to have Fairchild an exciting and satisfying place to work, as well as a place to earn a living. Only if this is true, will Fairchild prosper and remain a dominant force in the future.

Boh Nayce

Whoa! Just one minute. The *Leadwire* needs your news tips so be sure to keep the *Leadwire* staff posted on what's going on. That way we can save some space in an upcoming issue for your news. All the reporters need ideas for stories, and there's lots of

white space to fill in each month's *Leadwire*. So as they say, keep those cards and letters coming in folks, and if you'd like some publicity for your department or your sports activity, just let any one of the reporters listed in this issue know.

#### Leadwire

Vol. 9, No. 4

Published by and for Employees of Fairchild Semiconductor/ Instrumentation Mountain View - Palo Alto

San Rafael - Hong Kong - South Portland, Maine - Shiprock, N.M. Croydon, Australia - Ontario, Canada - Tijuana, Mexico

Editor: Judy Horst

Art Direction: Tom Hewitt Photographer: Ron Turner

#### Reporters:

MOUNTAIN VIEW-Wes Cox, Lois Eagleston, Nellie Covington, Ginger Tygret, Keith Thomson, Judy Dunkelberger, Paul Brasseur, John Walsh, Iantha Kochsiek, Katie Guida, Edna Lockes, Missy Strebig, Wanda Smith, Val Knowles.

SAN RAFAEL—Cleatus Dunkley, Audrie Graxiola, Janet Marz, Clarence Medeiros, Mickey O'Donnell, Margaret Queen, Mel Staley, Bobbie Talley, Anne Parfitt, Eleanor Francis.

RESEARCH & DEVELOPMENT-Dianne Cotton, Janet Jones, Terri Mead.

INSTRUMENTATION—Jack Ramon, Pat Campagna, Anna Ackerson, Walt Skruch, Jeanne Meyers.

TIJUANA - Enrique Mier y Teran.

#L is a registered trademark of Fairchild Semiconductor, a Division of Fairchild Camera and Instrument Corporation.

Copyright Fairchild Semiconductor Printed in USA 4000-127-37 8M

#### COVER PHOTO: Dick Steinheimer

Multiple exposure of a number of elements involved in R & D's development of large scale arrays. Included in the exposure are a portion of an experimental array, Digital Integrated Electronics Department employees working with the computer, and an image of an experimental mask superimposed on the tube face... which all adds up to "The Force Behind LSI," pages 8 and 9.

# Top Men on a Difficult Job

from an article by Robert J. Mehrmann, National Sales Manager-Systems, Instrumentation

**HELP WANTED:** Aggressive, self-starting young man with good knowledge of electronics. Must be willing to travel extensively, be on the road more than 50% of the time and assist customers with complex problems. Average salary, all travel expenses, and lots of overtime.

Although it doesn't sound like the most appealing job in the company, it is one of the most vital in the Instrumentation Division. Service Engineers are located throughout the U.S. and their prime job is to keep the large test systems sold by Instrumentation operating properly and making certain Instrumentation retains its reputation for fast and competent service. Not only does the Service Engineer assist the customer in keeping the system operating properly, he must also assemble the system when it arrives at the customer's plant and explain its operation to those who will be using the equipment. He may even have to prove the specifications to the user. This seemingly simple task can take from four to fourteen days.

Each field service engineer works out of a local office, but the

majority of them keep in touch only by telephone. One man stated that it was two weeks after he began work before he entered his office. The wife of a typical engineer on the east coast marks the days on the calendar her husband is away from home. During December, he was gone 21 days. Fortunately, he was able to be home for the holidays.

A field service engineer's hours are about as consistent as his days. He can't work strictly eight to five when something goes wrong with a system at 4 PM and each hour means a \$2,000 loss to a manufacturer. When a service call is received, whether at 8 AM or 8 PM and whether the customer is 10 miles or 1,000 miles away, the field service engineer must be on his way as soon as possible.

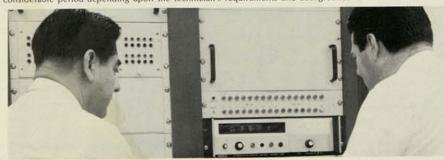
Current plans are to bolster the existing force with twenty additional engineers so that the local Field Service supervisors, Bruce Bartlett in New York, Don Morlan in Los Altos and Jim Healy in Los Angeles, can offer service commensurate with Fairchild Instrumentation's position in the industry. Anyone want to volunteer?



TROUBLE SHOOTING . . . Jim Healy (background) uses an oscilloscope test lead to trouble shoot the Series 4000M as Frank I. Rocha, electronic technician, TRW Systems, monitors the screen. Field service engineers attempt to answer each service call within 24 hours after it is received.



INSIDE THE SYSTEM . . . Frank I. Rocha gets a detailed explanation of the Series 4000M so that he can perform routine maintenance whenever it is required. These in-plant training sessions can go on for a considerable period depending upon the technician's requirements and background.



HOW TO TEST...Field Service Engineers give the customer's technicians an orientation briefing on the system's operations so that they can in turn instruct operators in the testing procedures. This and the other sessions may be carried on for a period of several months depending on the customer and the field service engineer.

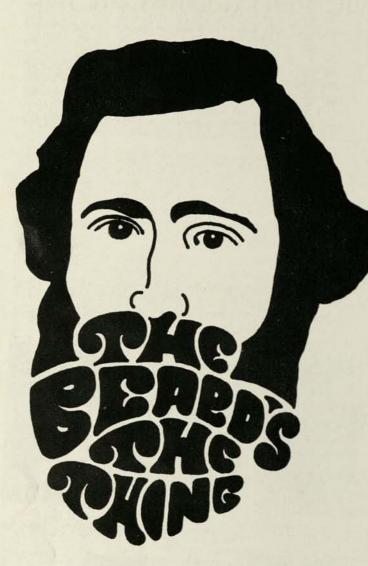
Photos courtesy TRW Incorporated, Redondo Beach, California



CHECKING IN... Chuck Goolsby, like all field service engineers, rarely sees his office but calls in throughout the day to make certain any repair call is handled quickly and efficiently.



PROGRAMING . . . Chuck Goolsby (standing), field service engineer, spends many hours with Frank I. Rocha to program the particular testing requirements needed by TRW Systems, Redondo Beach, Calif. The field service engineer must be proficient in all areas of operation and maintenance of Instrumentation's test systems.



There is something about these men that sets them apart from other men. Obviously, it's their beards.

The bearded races of mankind have commonly held the beard in high honor, the encyclopedia says. The beard is the sign of full manhood. The oath on the beard is as old as history, as when a man swears "by his beard". Adam, the primal man, and the deity and prophets of many eras have been traditionally pictured with beards as have been kings, nobles, and dignitaries. The Flemish painter Sir Anthony Vandyke (1599-1641) painted so many aristocrats with a pointed type of beard that it became known as the Vandyke beard.

Beards have assumed all shapes and lengths. They have been fad and fashion, they have been loved and despised. Peter the Great of Russia in 1705 proclaimed the beard to be a "useless embarrassment". He ordered beards cut off and levied a tax on those who refused to comply. The empress Catherine later repealed the law, which might prove that many women find bearded men quite attractive.

In today's culture bearded men dare to be different. Too often labeled "beatniks" or looked at strangely, they generally don't mind what the others think. They know what they think, and here are some of the reasons why they grew their beards.



Tim Terry from Instrumentation just grew his beard to grow it. What better reason is there !



Carl Fender, Materials and Processes, R & D, has had a beard for over a year. He grew it while in the hospital for two weeks; he finally had time to do it.



Bob Jimenez, Materials and Processes, R & D, plans to keep his beard indefinitely. He likes the attention it draws, and says that one girl he was dating told him that if he shaved it off she wouldn't go out with him anymore. That's sometimes reason enough.

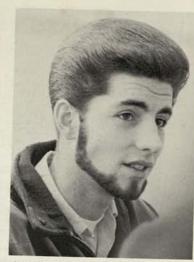


Gordon Hoobler, Instrumentation, while sipping red wine in a strange tea room, put his name down as one who was ready to protest by packing a sign, growing a beard, and whanging a guitar. When the morning dawned, he decided that sign packing and guitar whapping were not for him; so, he's limited his protesting to the beard.

Jol fel Ap Be



Jack O'Donnell, Chem Mix, Diode, grew his beard on a bet with a fellow employee, Rob Reynolds. Later he just kept it, but mainly because people asked such interesting questions about it.



The truth of the matter is, Rob Reynolds, Diode, says that he and Jack O'Donnell have another bet. Each bets he will be the last to shave off his beard.



Bill Augros, Instrumentation engineer, claims he broke his razor and delayed taking it to the repairman who ultimately had to send it to Inner Slobovia for parts. Before he got it back, his beard was so thick he had to put the removal job up for bids. Now he can't afford to get dewhiskered.







hn Nichols, Applications, MV, replaced a low with a beard when he started in plications, so he just had to grow one, sides, his children like it,



Rick Remmers, Instrumentation technician, eventually plans to join Barnum-Bailey, Ringling Brothers, Sells-Floto Giant Combined Amalgamated Consolidated Circus as a bearded lady.



Chuck Schieszer, Applications, MV, admits that he'd always wanted to grow a beard, but wanted to wait until his wife thought it would be a good idea, too.



Karel Svoboda, Diode, has had a beard since he was 19 years old, and at the time he grew it to look older. Now, it's "security against all the girls chasing him."





Bill Sievers, Applications, MV, likes his beard because people remember bearded men. He also wanted to prove that the stereotypes and prejudices associated with beards are wrong.



John Ross, Consumer Applications, MV, grew his beard just for kicks. Of course, his wife likes it and that may have something to do with it.



Dov Frohman shaved his beard off before he applied for a job at R & D. But once he had the job in Digital Integrated Electronics he started a new beard.



Lee Marley, Applications, MV, has always liked beards. This is his sixth. He always regrets having shaved the last one off, so this one's staying. It's already lasted two years.

# This One's On the House

It may be a breakfast at Instrumentation, a luncheon at South Portland, or a dinner at Hong Kong. It may be 6:30 A.M. or 6:30 P.M. or 11:00 o'clock at night. No matter where or when, the idea is the same—a chance for product manager, general foreman, section head, supervisor and the girls and guys who get the work

done to get together. It's a time for asking questions and getting answers. It's a chance for them to discuss goals, make suggestions, register complaints, or just talk about things other than work. It's also a chance to enjoy each other's company.



PIC Assembly Group (Day) (MV)



CIC Wafer Fab Masking Group (Day) (MV)



PIC Assembly Group (Grave) (MV)



Crystal Growing (Swing) (MV)



CIC Masking Diffusion (Swing) (MV)



# Pat O'Haren Talks About Baseball, Brubeck, and Business

Patrick J. O'Haren, Jr.... 36 years old; father of four; graduate in Industrial Engineering; student of jazz; sports fan; and Director of Management Information, FSC; with ten years' experience in the supervision and direction of systems for engineering, marketing, manufacturing, and financial functions.

Before we get down to the details of what you do here at Fairchild Semiconductor, what are some of your outside interests, your hobbies?

First of all, I'm a baseball fan. My loyalties go back to earlier days when I was doing graduate study in St. Louis. I've spent many a weekend cheering on Stan Musial and his teammates at Busch Field. I suppose I'll have to convert to a Giant fan now, and that may not be easy.

I suppose you know batting averages and season records?

No, I just like to go to games and cheer. I also enjoy football and since my undergraduate days at Marquette University, I've been an avid Green Bay Packer fan.

How about your other interests?

Well, one of my favorite pastimes is listening to good jazz. By jazz I mean piano and artists like Eroll Garner, Ramsey Lewis and Dave Brubeck. I can't play a note, but I'm encouraging the musical talents in my family.

What about the Management Information family? Just what is Management Information?

First of all, we're 125 people – the machines we use are secondary. The variety of jobs here includes programmers, systems analysts, keypunch operators, data processing operators, secretaries, and mailboys.

What's Management Information's function?

We're a support group. Our objective is to develop systems (ways of doing business) which operate across departmental lines. One example is setting up procedural guidelines for control of raw materials from receiving through payment of the vendor. Another might be studying and revising a cost accounting procedure. Problem solutions of a scientific or mathematical nature also fall into our area of responsibility.

What about computers? Are they smarter than man; will we all become numbers?

Well, I think computers should realistically be put in their place. Although the computer is a valuable tool, you have to talk to it in the right language, tell it what you're after, and feed it the correct information to reach a correct answer. This all takes people. Granted, the computer adds another dimension to the system's capability, but with or without it we'd still be developing systems to support management.

Do you actually produce a usable product?

We sure do. Our end products are the reports, information, policy and procedural statements. Whether they are usable or not depends upon their acceptance by our customers; that is, employees as well as management.

# Getting to the Art of the Matter

San Rafael has resembled an art museum during the month of March. More than 40 persons (employees and members of their families) submitted their best works of art in Diode's Third Annual Art Exhibit. The entries (approximately 150 in all) ranged from primitive masks to geometric designs, from collage work to pen and ink drawings, from portrait drawings to abstracts, from children's watercolors to exquisite wood carvings.

The contest has really grown from last year's display (about 70 entries) and from the idea Jeanette Schwinghammer had three years ago. Then it was just a suggestion she made to an employee to take up painting as a means of making the time pass more quickly until she could return to work. When the employee started working again, Jeanette, Diode's nurse, asked to see some of the girl's paintings. "I'll never forget how impressed I was with them. I wanted her to display them here at Diode, and then I got to thinking that other employees probably painted or sculpted and that it would be nice to see some of their works of art."

And, that's just what happened. Now it's traditional that in spring Diode's fancy turns to things of art. And, the most amazing part of all is that there are so many people pursuing these creative interests and encouraging them in their families.

Does Jeanette paint or sculpt? "Well, I didn't, but now I'm taking an oil painting class at a community center." Will she enter anything in next year's contest? "Oh no, well, maybe." Most assuredly, though, more than 40 persons are planning what they will enter next year.

Helping Jeanette run the exhibit this year were Inge Filthuth, training operator, and Pinkie MacLean, RN; and of course, the judge, Edwin Cadogan, Director of Art from the College of Marin.

#### Ribbon Winners in the Adult Class:

COLLAGE Sue Long (1st and 2nd) OPAQUE Sandra Welch (1st) WATER COLOR Lance King (2nd) (Anne King's son) TRANSPARENT Sally Spence (1st) (Harry Spence's wife) WATER COLOR OIL Mavro Coggins (1st) (Anne Coggins' husband) Dean Crump (2nd) (Barbara Crump's husband) Lance King (3rd) MOSAIC Marge Gouviea (2nd) CERAMICS Mavro Coggins (2nd) SCULPTURE Don Waple (2nd) PHOTOGRAPHY Kiyoshi Muratami (1st)

#### Ribbon Winners in the Children's Class:

WATER COLOR Tony Linthicum (3rd) (Judy Linthicum's son) (Age 6) OIL Russell Spence (1st) (Harry Spence's son)

- (Age 8)
- PLAQUE Sue Cartmill (1st) (Lucy Cartmill's daughter) (Age 14) GEOMETRIC DESIGN James Spence (2nd) (Harry Spence's son)

(Age 11) COLOR STUDY Sue Cartmill (3rd)



Art must be the thing in the Spence family. Harry Spence is surrounded by his family's winning entries ... a transparent water color by his wife Sally; a geometric design by 11-year old, Jim; and an oil painting by Russell, age 8. Although Harry's entry, "Harry's Stomach" didn't win a ribbon, it was one of Diode's most original.



Marge Gouviea proudly displays her award winning mosaic. She's quite an expert in mosaic design, having done original mosaics for many years.



Don Waple carved out a second place win in the sculpture division. His entries were hewn from pieces of driftwood he found along the beaches by Crescent City, California.



During their coffee breaks and on their lunch hours interested employees compared notes on the more than 150 entries at this year's Third Annual Art Exhibit at Diode.



Eve West's collection of portrait drawings was an outstanding entry this year, especially since many of the portraits were of Diode employees. Many orders for portraits are being placed by other employees since the show.



Sandra Welch finds she has to make time to do all the painting she does, and even that's not enough. Nevertheless, she came up with a first place ribbon in opaque water colors. That should be some inspiration for making even more time.



Sue Long was so happy she cried when she heard she'd won first and second place ribbons for her collage entries. A former art student, she now has orders for similar collages from Diode employees.



Jeanette Schwinghammer and Inge Filthuth climbed many a stair putting the exhibit together in the cafeteria.

# The Force Behind LSI



Dr. Robert B. Seeds and Dr. Wendell B. Sander caught in a lively discussion over Dr. Seed's latest paper, "Yield, Economic, and Logic Models for Complex Digital Arrays," presented at 1967 IEEE conference in New York.

Large scale integration (LSI) is potentially the most significant thing that's happened in electronics since the discovery of the transistor. It combines dozens of circuits and hundreds of transistors on a single chip of silicon. Rather randomly called a "computer on a chip", the complex array could revolutionize today's electronics industry.

Behind the development of Fairchild's LSI program is R & D's Digital Integrated Electronics Department (D.I.E.D.). Formerly a part of Device Development, this department, under the direction of Dr. Robert B. Seeds, encompasses four major sections: Circuits and Device Technology, Array Engineering, Custom Array Engineering, and Computer Aided Design. While these sections are mainly concerned with LSI, they work on many other projects, too.

#### **CIRCUITS & DEVICE TECHNOLOGY**

Circuits and Device Technology is primarily concerned with the development of product technology for Manufacturing. This includes such things as conventional physical-chemical processes associated with device, circuit, or array production, yield analysis and improvement, device modeling for circuit design, and techniques for array design and generation. A pilot line operation is set up to expose and engineer solutions for problems and check out various processes.



Lynn Sainz, Sue Brown, Marilyn Byrd, and Dr. Robert B. Seeds. The ladies are performing masking functions.

#### COMPUTER AIDED DESIGN

Computer Aided Design is developing computer programs to reduce the time and expense required to design integrated circuits and arrays. These systems will aid in the job of designing masks and functional test sequences required by Manufacturing. Without the computer, customized LSI would be highly impractical, for if this were done by conventional methods, it would take several months and tens of thousands of dollars. Programs are presently being written to simulate logic, generate test specifications, place components on an array, and design integrated circuits from circuit schematics. An IBM Model 40 computer with a 2250 graphic display unit (CRT) is being used. The results of automated design are displayed on the CRT for manual editing and modification.



Dov Frohman watches the results of Pilot Line Reporting being printed. Ed Porter, in background, issues operator commands to the computer.

#### CUSTOM ARRAY ENGINEERING

Custom Array Engineering is actively engaged in organizing and staffing an integrated engineering operation capable of transferring a custom array capability from R & D to Mountain View. A major responsibility of this section is to learn enough about all critical phases of technology (array design, artwork generation, testing, processing, packaging, etc.) so that a reasonably smooth transfer can be effected. Various cooperative development efforts are under way between this section and other R & D sections partly for the purpose of transferring technology and partly for the purpose of establishing strong communication links between Mountain View Engineering and R & D.

#### ARRAY ENGINEERING

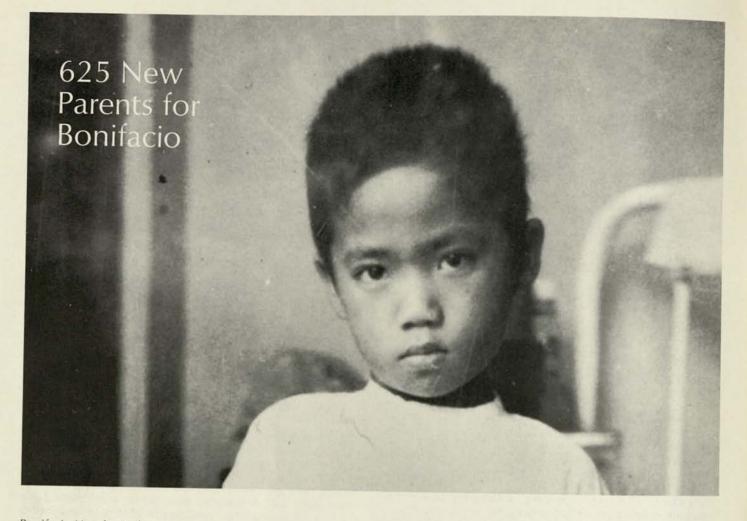
Array Engineering is involved in the development of product capability using large scale integration and in engineering procedures in support of logic array designs. One key product area this group is working on is semiconductor memories. Designs for a variety of size, function, and speed applications are under way. A family of elements for small general purpose computers is also being developed to provide very flexible and practical products for the instruments and control markets. This work is being backed up by analytical studies directed toward process line management control, logic and switching theory, and yield/economic modeling.



Bob Nevala at 8000 tester inspects array wafer.



Nghiem Phan and Dave Elrod check art-work of an array.



Bonifacio Novalta is eleven years old. He's slightly built, standing not more than 3' 10" and weighing about 40 pounds. He lives in a poor area of Makati which is on the south bank of the Pasig River about one mile east of Manila. He and his older sister and their grandmother share a home owned by his uncle. It's nothing more than a shack constructed of scrap lumber and galvanized metal sheets. The family is extremely poor, and there is very often not enough for the children to eat. When Bonifacio's parents died several years ago they were too poor to leave their children an inheritance. Since that time their survival has been due to the devotion of their grandmother who has supported the children on her meager earnings as a seasonal fruit vendor and the kindness of their uncle.

Now, thanks to the generosity of Instrumentation's employees, it will be possible for this little boy to have some of the things Americans usually take for granted. The employee's contributions through the Foster Parents Plan, Incorporated, will provide him with a cash grant of \$8 each month, food, new clothes, and supplies for school.

Filipino children, like Bonifacio, wear American-style lightweight summer clothing the year round. On the average they are one size smaller than the same aged American children, but Bonifacio is much smaller than that. Bonifacio's diet consists mainly of rice, certain native vegetables and fish. Both food and clothing will now be furnished him more plentifully by the Plan. In fact, his whole family will benefit from such items as vitamins, mosquito netting (a necessity), and soap. Additionally, the Plan's Health Clinic can now provide the family with free medical and dental treatment.

As a matter of fact, Bonifacio was in a vehicular accident

in January, and while the jitney operator has met all expenses of the accident, if additional treatment is needed the resources of the Foster Parents Plan are available. Bonifacio seems to be healing outwardly, but he is being held in the hospital for further observation.

Instrumentation's contribution will also aid Bonifacio's chances for education. Although the Philippine constitution provides free elementary education, lack of school facilities and budget shortages often prevent compliance with this provision. In some areas the cost for a semester can run as high as \$10, a very prohibitive sum for a poor family.

Many Foster Parents will want to send food or clothing, but the Plan recommends that donations be made through the Recreation Council and then forwarded to them so they can purchase the things Bonifacio and his family need at favorable local prices. Cash gifts also enable a caseworker to explore the vital needs of the entire family. However, if employees would like to send a more personal gift, the Plan will advise the best kind of gift and the most desirable price to pay. And, at Christmas or on Bonifacio's birthday (November 30th), it might be that the Rec Council will collect toys and clothing for him.

In the meantime, he'd probably like to receive some get-well cards or a letter from his new "parents." In the future many letters will be crossing the Pacific. If Bonifacio cannot write his letters in English, they will be translated in the Philippines and sent on to Instrumentation. His Foster Parents' letters will be given to him in the original and a member of his family will translate them. But regardless of the language barrier, the message will be clear... there are people who care about him now, and he'd like to care about 625 of you, too.

### In General

#### Novce named to Board of Directors

Dr. Robert Noyce was one of three men recently elected to the board of directors of Fairchild Camera and Instrument. Group vice president, Dr. Noyce heads both the Instrumentation and Semiconductor Divisions. He was one of the founders of Fairchild Semiconductor in 1957, was named general manager in 1959, and elected corporate vice president in 1962. Others named to the board were Roswell Gilpatrick, New York attorney who is general counsel for FCI, and Robert Bruce, vice president and general manager of Fairchild's Space and Defense Systems Division.

#### Semiconductor branches out in Far East

Fairchild Semiconductor stepped up its activities in the Far East, opening a new wholly owned subsidiary in South Korea and setting up a laboratory in Tokyo to increase its marketing and applications support for semiconductor devices there. Semikor, Ltd. of South Korea is already producing transistors and more than 200 people are now employed there. Tokyo Electron Laboratories, Inc. (TEL) is the agent for both Semiconductor and Instrumentation. Setting up the facility should be completed in a few months.

#### New Products Stir "New Wave" at Instrumentation

Dr. Victor Grinich, general manager of Instrumentation, announced new lines of instruments, test systems, and amplifiers, all based on the successful application of integrated circuits. By definition this means achievement of high performance specifications at significantly lower prices. Instrumentation's "new wave" of instruments is the forerunner of the next explosive growth period in the test and measurement market. Recently introduced were three new digital voltmeters joining the division's Model 7100A, a new Model 6200 B/P Programable Curve Tracer, and the industry's first and only digital readout curve tracer system. Other new products include a high quality, general purpose amplifier and two new solid state test systems-Series 5000 Integrated Circuit Automatic Test System and a Series 600 Semiconductor Test System. According to Dr. Grinich, "Instrumentation is committed to the 'new wave'"; in fact, Instrumentation's riding high on its crest.

#### Anyone for Bridge?

Fairchild's Bridge Club meets on the second and fourth Tuesdays of each month in the Cafeteria at Instrumentation on Ellis Street, and there's a Master Point game every second Tuesday. All Fairchild employees and their guests are invited to attend. Just call Felix Rosengarten, president of the group, or Liz Frisz (both at R & D) if you're interested.

#### Names in the News

In the March issue of U. S. Camera and Travel John Seginski, Applications Engineer at Instrumentation, came up with a revolutionary idea that should interest all camera buffs. He explains how to build a darkroom in an area 3<sup>1</sup>/<sub>2</sub> feet square, and for less than \$25. The article is complete with fifteen photos of the step by step process. . . . Scott Christenson of Mountain View's Purchasing Department is a model airplane enthusiast. He took a liking to a plane Ken Willard (a contributing editor of *R/C Modeler*) designed, and built one himself. After the Shearwater (an amphibious plane) was constructed, he drew some plans for it. The plans proved so good that Mr. Willard used them in the January issue of the magazine.

### Instrumentation

The word is, "IT MUST BE DONE RIGHT". Although he's not one for mottos and campaigns, Charlie Askanas, Instrumentation's Operations Manager, has started an all-out campaign to eliminate mistakes within the Division. It began with IT MUST BE DONE RIGHT posters which appeared early this month. Later, attached to an explanatory memo from Askanas, each employee in Instrumentation was given a button with the slogan IT MUST BE DONE RIGHT. The goal of the campaign is to design deficiencies out of each product before it goes to manufacturing, solve engineering problems in engineering and meet every commitment made to customers. Another objective is to foster an awareness that the effort of each individual is important to the division's success in the industry. "Doing it right is a job which can't be ignored for a minute by any of us," said Askanas. "Instrumentaton should experience outstanding growth this coming year. However, the division cannot realize this growth without reliable products, service and individual effort. The answer -IT MUST BE DONE RIGHT.'



## **Research & Development**

More than 50 employees and their guests schussed up to Lake Tahoe for a beautiful weekend of skiing March 17-19th. Skiing at Heavenly Valley was great and gambling losses were small. Who could ask for more ... A surprise baby shower was given for Gaylen Deckard, R & D's receptionist, at Irene Rollins' home on March 1st. Then the following day Gaylen was surprised again, this time by a luncheon given her by more than 40 employees. She and her husband John (who also works at R & D) were able to decorate the baby's room with all the gifts which included a baby play pen, a stroller, and a crib. .. For the very first time in golf league history Jack Jone's luck failed and some 30 golfers got rained out midway during the March tournament on the Del Monte course in Monterey. A return match is scheduled with the course.

#### Diode



Jeanette Schwinghammer, RN, is providing employees a chance to brush up on their safety awareness. She's holding school every Tuesday evening after working hours. So far ten people are attending the five-week course ... On March 7th the Processing Engineering crew initiated their new lab with a fried chicken dinner. Enjoying the "house warming" were Tom Graham, Gwen Daniels, Cleatus Dunkley, Jack Larson, Mary Amaral, Harry Spence, Wayne Lawson, and Margaret Queen...Because only 10 out of 25 ballplayers came out for the first contest of the season, the San Rafael softball team lost to last year's league leaders 8-5 in seven innings. When the rest of the team turns out, the chances for a great season should be good ... Fairchild remains in second place in the Marin County Kegler's league, only three games away from first place. Diode still owns three records, team high game (940), team high series (2571), and third high game (Hal Knopp's 244)... The San Rafael Bowling League's heavily contested battle for the second half of the season shows the "Clan" slightly ahead of the "Diode Diddlers" and the "Spoilers." Plans are under way for this year's bowling banquet which will be held in April.

#### **Diode Sponsors Junior Achievement Program**

Their company is called "Christopher Originals" and their product is a polystyrene serving tray. The designs are varied with no two alike; the latest of them being a display of diodes imbedded into the transparent serving tray. Needless to say, sales are high at Diode and in Marin County. This is Junior Achievement.

The Junior Achievement program offers youngsters of high school age an opportunity to start a miniature business and to experience first hand the problems and profits of the free enterprise system. They set up their own company, sell stock, buy materials, and lease or rent facilities and equipment. They manufacture and sell their own product, they keep books, and they pay themselves wages. Finally, at the end of 30 weeks, they must liquidate all the company's assets and pay back to stockholders part of their profit.

Advising "Christopher Originals" during the past 30 weeks has been quite a responsibility, for one night each week must be dedicated to the project. Present Diode advisors are Tony Manino (Management and Production Advisor), Bruce Mack (Accounting Advisor), and Mike Feldtman (Sales Advisor). And, since the company will be paying a dividend to stockholders, they must have done their jobs well.



Tony Manino proudly holds the Junior Achievement plaque presented Fairchild's San Rafael plant for their support of the Junior Achievement program. Tony spent one night a week for 30 weeks advising "Christopher Originals," Diode's Junior Achievement company.



Junior Achievers paid Diode a visit to see how this type of business is run. Darral Cremers, machine operator, explains Diode's latest piece of milling equipment to Janice Truinni, Cathy Lindelli, Diane Grove, Doreen Kahler, and Dorothy Durham as their "official guide," Tony Manino, watches.

### **Mountain View**

### From the Field



George Reh announces that the Intramural Golf League will open the season May 4th. Forty teams are scheduled to participate, and Alma Gay is in charge of keeping things organized. All matches will be played at Spring Valley Golf Course including the league playoff scheduled for August 20th .... With five out of seven tournaments behind them, Fairchild's Winter Golf League reports that Lee Henderson is leading the A Flight with 41 points; Bill Hansche is not far behind with 38. Ed Beers is top man in the B Flight with 35 points but Art Kitkowski and Hank Woo are putting the pressure on with 33 points each . . . The In"vince" ables captured first place in the Fairchild Mixed Bowling League, but the team is only a half game in front of the Number Thirteen team and the Stockouts. The leader's record is 33.5-14.5 for the season ... Verne Escolar is the first in Military Products to hit standard on the Sonic Bonder. She's been with Military Products just two months and her performance is pretty exceptional, especially since this is Verne's first job ... Mountain View's Purchasing Department has quite a man in Bob Curlee, Senior Buyer, Raw Materials Supervisor. Colonel Robert B. Curlee, USAF, was awarded the Legion of Merit by the United States Air Force upon his retirement from the service. The citation accompanying the medal read, in part: "Colonel Robert B. Curlee, USAF, distinguished himself by exceptionally meritorious conduct ... as Director of Procurement and Production Directorate at the Defense Industrial Supply Center in Philadelphia ... He demonstrated outstanding professional knowledge, leadership, creative ability and managerial skill ...



Oftentimes it's not the dollars booked but the significance of getting new business—business that didn't exist before that reflects an outstanding sales effort. Such was the case with Paul Kauffman of the Eastern Consumer market working out of the Long Island office.

Paul booked \$235,000 worth of business at Philco Auto Radio, enabling Fairchild Semiconductor to expand its share of their business to 50%. The remainder is shared by two other firms. Add to this another \$500,000 booked at Philco TV and \$150,000 booked at Westinghouse, and there are three very good reasons why Paul was named February's Salesman of the Month.

### **Moving Up**

*Ivan Branson* is now a Quality Assurance engineer at Mountain View. Ivan was formerly the QA test room foreman.

*Geri Hadley* was promoted to Senior Specifications Designer at Mountain View. She was previously doing hybrid spec writing.

John LaPorta has been promoted to Production Engineering Manager for instruments at Fairchild Instrumentation. He was previously Production Engineering Manager at the Clifton plant.

*Kattie Musser* has been promoted to Senior Specifications Designer at Mountain View in QA Specifications Review. Kattie was formerly doing transistor spec writing.

Jerry Oakley was named QA Document Control supervisor. He is in charge of customer specification review and of the specification file center.

*Eleanor Palermo* was named Secretary to the General Manager of Instrumentation, Dr. Victor Grinich. She was formerly Secretary to the General Manager of Semiconductor.

Wes Robbinson has been appointed the Manager of Project and Equipment Planning at Mountain View. Wes was named Manager of Manufacturing Engineering for the Packaging Group last year. He was formerly the Director of Advanced Technology for Ferroxcube.

Ari Hadley 650-327-4224

### **New Faces**

GH-15

Jerry Briggs has been appointed Division College Relations Coordinator for Fairchild Semiconductor. He was formerly the Personnel Officer with Wells Fargo Bank in San Francisco.

Robert Chalom has been named Manager of the new Public Affairs Department for Semiconductor. He will be responsible for financial and general community relations, press relations (other than product) and employee communications. He was formerly Director of Public Relations for Trailmobile, a Division of Pullman Inc., Chicago.

Harold Dosch is the new assistant national sales manager for Instrumentation's growing line of test and measurement instruments. He comes to Fairchild with ten years of experience in electronics sales and sales management.

Dale Edgar has joined the Memory Products group as a Senior Manufacturing Engineer. He was with Consolidated Electrodynamics Corp. for over 11 years.

Arnold Gordon has been named the Western Regional Sales Manager for Fairchild Semiconductor. He comes to Fairchild with seven years' experience in industry and over twelve years' military experience.

Eugene Guthrie has been appointed to the position of Plant Controller for the Shiprock plant. He was previously employed by Johnson and Johnson, Sherman, Texas, as Plant Accounting Manager.

George Horning has been appointed a Senior Engineer at Memory Products for Industrial Engineering in the area of cost control and manufacturing standards. He received his Master's degree from the University of Michigan.

Aryeh Korthamar recently joined Mountain View as a Foreman in Process quality control. He is a recent graduate of Santa Clara University with two BS degrees.

*Gil Lampner* is the new Manager of Training and Management Development for Semiconductor, responsible for supervising training and management development programs for scientific, supervisory, and administrative personnel. He has undertaken post-graduate studies at Syracuse University, the University of Southern California, and the University of California at Los Angeles.

Andy Marken has been named the head of Instrumentation's newly created public relations department. He will be responsible for handling publicity for the division's expanding line of test equipment. Previously he was in the Air Force where he worked in the public information field.

Scott Maze has been appointed a Manager in the General Accounting Department at Diode, where he will supervise accounts payable, timekeeping, and property functions. He was formerly with Price Waterhouse & Co. in Pittsburgh.

William Morton has been appointed a Section Head in the Tool Design and Fabrication Department at San Rafael. He obtained his BS degree from Purdue. Previously he worked for Development Designers in Beverly Hills.

Richard Winn has assumed responsibilities of Area Personnel Administrator covering the Materials, Packaging, Operations Services, Reliability and Planning/Distribution departments at Mountain View. His duties will encompass all employee relations which affect employee morale, communications, and training.

# April / 5yr. Service Awards



Mary Cedoline, Production Control (MV), was surprised by a party celebrating her fifth anniversary with the Semiconductor Division. Mary, a mother of three boys aged 16, 22, and 24, is in the mark and pack area.



Mary Thibodeau received her five year pin from Commercial Test and Finish Manager Jim Stangl. An outstanding operator in the mark and pack area, some readers may recognize Mary from Fairchild information movies.

Maria Archibegue MV Enzie Bange MV Hazel Bolton MV James Corzine MV Betty Curtis MV John Deckard R-D Rosemary Domer DIODE Patricia Domondon MV Gloria Duff MV Patricia Dunn MV Alma Espinoza MV Lois Garrett MV Dana Goodrich R-D Terry Hayes MV Carolyn Hollins DIODE John Hulme MV James Hurst DIODE Roland Janson DIODE James Kennedy MV Bessie Lewis DIODE Jesusa Madarang MV Peter Onstad MV William Otsuka MV McClellan Powell MV Henry Rijnhout INSTR Hester St. Clair R-D Mel Schmucker INSTR Jon Schroeder R-D Edith Scott MV Jovce Scott MV Melba Shaeffer MV Wayne Snodgrass DIODE Harold Van Winter DIODE Marie Williams DIODE Lilly Madayag M

# LEADWIRE 6

# the Fairchild woman

Women at Fauchild number almost two-thirds of the total work force. Statistics say that half of all working women are mained. The average woman works 28 years, and one of every five working women is the head of the household.

buing the day the fairchild woman is a receptionist, an artist, a key punch opulator, an assembler, a typist, a tester, an accountant, a nurse, a technician, a librarian, a programmer, or a spec designer. The may work one of three shifts, and after work one of three shifts, and after work she may be wife, mother, teacher, chief cook and bottle washer, scampties, Chauffeur, muse, student, or voluntier social worker.

The role the woman plays at Fairchild is irreplaceable; hu activities outside of work invaluable. How she fits 36 hours into a 24hour day is remarkable, and what follows are examples of the varied interests of just a few of Fairchild's Women.

 $\langle \infty \rangle$ 

1



Win Williams, Mountain View, raises, breeds, and shows Norwegian Elkhounds and Whippets. She shows at least one of her five dogs almost every weekend and plans to campaign her male Elkhound for top ten in the United States this year. In her not-too-spare time she's mother to three children and enjoys sewing, knitting, and working in mosaics.



Bessie Kennedy, Mountain View, collects rocks, driftwood and shells, and does quite a bit of camping on weekends. Camping is a family affair, and her husband and three sons also share her interest in collecting rocks.

Valerie McCown, Mountain View, lists square dancing and swimming as her two prime interests. She formerly served as an officer of a local square dancing club. Today she and her children travel to nearby recreation areas and dams where they can enjoy their favorite pastime, swimming.

the average woman works 28 years and one of every five working women is the head of the household



Frieda Bovenberg's main interest right now is raising her two children, although before coming to California she served as a member of the Dutch ambassadorial staff in England for 31/2 years. She later worked in New York with the Dutch ambassador to the U.N. Frieda is employed at Mountain View.



Hildegarde Kruechen, Mountain View, used to ski a lot in her native Bavarian mountains, so it's not surprising that she and her husband spend nearly every winter weekend sking at Lake Tahoe. Fellow employees who've seen her on the slopes vouch for her expertise.



Eleanor McMurray, Mountain View, enjoys restoring old furniture, collecting antiques, and gathering rocks, driftwood and shells for outdoor displays and rock gardens. Pride of her collection is a number of shells from Mount Shasta that date back to prehistoric times.



Elaine Hagan studied voice, drama, and dancing in New York and later landed several parts on the professional stage. Lately she's busy raising her family, but has done some work with the Comedia Theater in Palo Alto. She also used to teach ballet and hopes to return to her teaching and the theater after her family grows up. Elaine works at Mountain View.



Helen Brunelle, Mountain View, is right there in the stands cheering her sons on as they run through another season of Little League and Babe Ruth League baseball. In fact, she spends lots of her time keeping the two leagues operating successfully. She carts the teams to games and practices and works in the stands at nearly every game.



Earlene Cobb, Mountain View, picked up a camera several years ago and hasn't been able to put it down since. She prefers to take scenic shots, but has also put together collections of pictures on subjects such as the Seattle World's Fair. Another of her interests is silkscreening.



Sandy Johnson, Mountain View, is studying Graphic Arts at Foothill Junior College. In addition to working, studying, and attending classes in the evening, she plays both the piano and the guitar.



Sherry Lynn, Mountain View, spends quite a few of her weekends parti pating in gymkhana skill driving competitions. She's won a few trophie in the events which are sponsored by local sports car clubs. Sherry also enjoys water skiing and is planning to take flying lessons soon.



Liz Horner's main interest outside work and her family is camping. She camps first class in a camper fully outfitted for many weekends in the state's recreation areas. Another of her interests is dancing ... all kinds. Liz works at Mountain View.



Bobbie Talley's hobby calls for imagination and patience—floral arranging. In fact, it could be a business with her except she gives the arrangements to friends who get married, are having a house warming, or are celebrating an anniversary. Bobbie works at Diode.



Yuki Baker just became a citizen of the United States. She's spent quite a few hours in classes and studying for her citizenship. Originally from Tokyo, Yuki works at Diode.



Andrea Campbell, Diode, came to the U.S. from Chile, and she brought with her the desire to further understanding between Latin America and the U.S. To this end she's active involved in the people-to-people program for sister cities Sausalito, California, and Vina del Mar, Chile. She also submits articles about the places she has lived in the U.S. to various Latin American newspapers.

#### women number almost two-thirds of the total work force at Fairchild



Jeanette Schwinghammer, Diode, volunteered to teach a first aid course at the Red Cross to a group of people who had to have the course to get their high school diplomas. Additionally she's helping in the organization of a new program, Bay Area Big Sisters, which will serve young girls in the San Francisco Bay Area like the Big Brothers helps young boys.



Lynne Wright, R & D, attends Foothill Junior College, where she is working toward a degree in Music. She also studies modern dance and ballet and has performed in various school productions and the Comedia Theater of Palo Alto. She plays the piano, saxophone, clarinet, and alto clarinet ... just to mention a few of her talents.



Irene Rollins, R & D, prefers gardening. She specializes in container gardening and raising potted plants, and has studied flower arranging to complement her interest in gardening. Irene also loves to sew, and she makes all of her clothes.

3



Mary Durst, R & D, designs her own clothes, designing and making her own patterns as well. She has been sewing for ten years, concentrating mostly on dresses. Her most recent efforts have been directed toward creating her own wedding trousseau.



Olga Bebinin, R & D, is just a whirlwind of energy. She teaches Shorthand I and II in the Los Altos Adult Education program four evenings a week, and she gives private Russian lessons in her home. She's served as a translator (at one time she spoke seven languages), has sung light opera in the theater, and is currently editing a book on beauty. She's also the mother of two grown children.



Terri Mead has appeared in many movies and television programs. You may have seen her in the "Perry Mason" series. She began her career modeling in England; and after a lling at show business, she handled the public relations for the Miss Universe contest in Hawaii. Today she's part of R & D's Purchasing Department, and she's very much interested in golf, skiing, and knitting.



Mary Siefert, Mountain View, learned sign language two years ago, and for the last year and a half she has taught church classes to deaf adults. She claims she's continually learning the language from them, but her work with them is opening many doors to them. She also helps organize socials and pot-lucks for the group.



Virginia Azevedo took up wild boar hunting this year. It's a sport she and her new husband share. Though she's just a beginner, she's hoping to bag her first boar soon. Virginia works at Mountain View.



Eva Oberg and her husband formed ARNEVA PRODUCTIONS, their own movie making corporation, and though their movies do not compete with multi-million dollar extravaganzas, they have won several trophies from camera clubs for their efforts. Eva writes many of the scripts and the whole family usually gets in on the acting. Eva works the swing shift at Mountain View.



Frances Taffola is the mother of nine children: Jackie, 18; Tom, 15; Carol Sue, 14; René, 13; Debbie, 12; Terri, 9; Jerry, 7; Joey, 5; and Elizabeth, 2<sup>1</sup>/<sub>2</sub>. She also works the graveyard shift at Mountain View.



Sally Stang works the graveyard shift at Mountain View, she raises four young children, and she's considered an expert bridge player. A Life Master, she earned her 300 points to qualify her for one of the sport's highest honors a long time ago. She also helps run bridge tournaments, has scored tournaments, and has played against some of the best bridge players in the world. In her spare time she also plays the organ, and she and her husband enjoy almost every spectator sport in the Bay Area



Claretta Austin used to sing with a church vocal quintet, but lately her family has demanded more time and the music has had to slide temporarily. Nevertheless, music is still one of her fondest interests. She also enjoys playing softball and motorcycle riding. Claretta works the graveyard shift at Mountain View



Nora Foster wears badge 952. That's not her Fairchild badge, but rather her Reserve Deputy Sheriff's badge, and is she ever proud of it! She works regularly every Sunday with inmates in Alameda County rehabilitation centers and has been used to assist in narcotics raids or transporting women inmates to court. Becoming a Reserve Deputy Sheriff was the realization of a life-long desire, and Nora gives much more than the time demanded of her in working with the inmates. A grandmother, she works the swing shift at Mountain View.



Diana Ross has a very unique hobby, exploring ghost towns and forgotten settlements. A native of California, she's spent about eight years exploring and collecting unusual relics like old ledgers and picks and shovels from the Gold Country. Diana works the graveyard shift at Mountain View



she has traveled to Acapulco, the Mediterranean Coast, and nearby Monterey to explore the oceans' floors. She also is active in a weekly ballroom dancing group and will be attending a national square dancing convention in Southern California soon.



Ann Albert, Instrumentation's industrial nurse, is very much involved in politics. She's a member of the California Democratic State Central Committee. Her duties include pooling information for candidates. She's working on such subjects as welfare, conservation and mental health. Ann serves as Director of the National Association of Industrial Nurses, and she's helping plan their convention in San Francisco. She's also a member of the Western Association of Industrial Nurses and the local Industrial Nurses Association.



Mitzy Hoshino calls herself a "rock Mitzy Hoshino Calls herself a "roo hound," and that means she's an avid collector of rocks and minerals. She also converts them into highly polished stones and jewelry. She and her husband are members of the San Mateo Gem and Mineral Club, and in the last few years their interest has grown to the extent that they are learning silvercraft in order to make original pins and rings. Mitzy works at Mountain View. Many of the girls wear her handiwork.



Maria Sequeira, Instrumentation, loves anything connected with the sea which is reminiscent of her native Azores Islands. She collects driftwood, stains it and turns i into elegant works of art. She also raises tropical fish in a 55-gallon tank and is interested in skin diving. Maria is studying shorthand and typing at night eventually to become a secret to become a secretary



Maria Humphrey, from Instrumentation's cabling area, can claim a 181 high game -bowling, that is. She's served as secretary/reasurer of Instrumentation's bowling league for three years. Her entire family bowls (her husband, and their four children and their husbands and wives) and all but one is currently bowling in the league. Maria also served as treasurer of Instrumentation's Rec Council.



Bev King sails her double ender sloop every weekend from Santa Cruz with her husband and three children. "The Budget Breaker" journeved down the coast to Big Sur over June 4th. In her other spare moments, Bev water skis, bowls, and teaches Sunday school. She's also active supervising a number of youth groups.

is irreplaceable

the role the woman plays at Fairchild

# a man and

If you were to ask Herb Lewis about Fairchild's fair sex, he'd have nothing but good things to say. Herb's manager of Spec Control (that's short for Specifications Control), and nearly 50 girls work for him expediting the nearly 1400 documents that must be moved in and out of Spec Control each month.

The backbone of Spec Control is that category of women known as Spec Designers. These girls translate customer documents, or orders, into internal specs (a standard format the factory can use).

The average Spec Designer has been with Fairchild for about seven years, and she's generally held a variety of jobs includ-



# his women

ing assembler, inspector, department technician, and training technician. Each Spec Designer has literally come up through the ranks to her present position, and each brings with her invaluable experience she will use every day as a Spec Designer.

Herb explains Spec Control this way, "Salesmen sell to our customers, but these girls must evaluate the order to see if we can make it and at what price; then it must be translated into Fairchild terminology. For this I rely on the knowledge of these girls." And, it sounds like all of Fairchild Semiconductor does, too.



# It's A Woman's World





Myra Landolfi examines a circuit board with Rex Rice, Digital Systems Research Manager.

Number of State

That's what they say at R & D—at least as far as purchasing is concerned. And, the Purchasing Department was an all-woman department until Dick Pattisson joined the group a year ago.

Heading up the operation is Myra Landolfi, purchasing agent and the only female officer in the Purchasing Agents Association of Northern California. With her are Jo Ann Kolbo (Chemical and Special Materials Buyer), Olive Ingargiola (Laboratory and Hardware Buyer), Margaret Coulbourn (Electronic Buyer), and Dick who handles subcontract purchases. Terri Mead, Genevieve Sallander, and Lola Cuevas round out the department.

And what a department this is. It's considered one of the

most advanced in the nation for its innovations in procurement techniques and for the variety of services it offers. The girls, and Dick, are experienced in buying anything from paper clips to furnaces. Most of their time is spent trying to locate things not on the market, things that are technically unobtainable. Additionally, they pioneered the use of the IBM 1001 Data Phone, which literally broadens the scope of their already staggering capabilities.

Newcomers to R & D seem quite startled when they first come in contact with Myra's predominantly feminine buying team, but any doubts soon disappear when they see how hard the purchasing staff works to track down everything needed by R & D.



Jo Ann Kolbo checks platinum wire specs with the help of Dick Parker.



Lola Cuevas, Olive Ingargiola, and Genevieve Sallander are three good reasons Dick Pattisson doesn't mind being the only man in Purchasing.

# Try to keep up with these Girls!



Several months ago Les Haynes, swing shift supervisor of Fab 3 Masking, bet his girls they couldn't expose over 5000 wafers in one month. When they did, he paid up. He was drenched under the shower. Come March and they went one better. They exposed over 8000.

Here are the girls, all 33 of them. And, Les is betting with them from now on,







# Microwave to the rescue

On May 2nd at 10:00 a.m., Donald Koijane (Manager of Microwave Marketing) received an urgent phone call from Roger Wilson of Teleprompter Transmission, Eugene, Oregon. Mr. Wilson desperately needed an MS1130AF Fairchild Microwave Solid State Source because a receiver in the microwave link carrying a network channel in the CATV System was off the air. Viewers in the outlying communities of Eugene were frantic because their favorite programs were blacked out on Channel 6 (CBS).

Fairchild Microwave Products immediately went into action. Don notified Production to test and check an MS1130AF tuned to 6127 MHz, shipping papers were typed, the unit was packed and then hand-carried to the San Francisco Airport. The Microwave source was on its way to Eugene by 12:45 that afternoon. The Teleprompter people picked up the source at 4:00 p.m., and it was taken up the mountain to the microwave relay station and installed. Programs were back on the air by 5:45 p.m. that very day. Now that's service!

612

or Girl Behind The Scenes

Back in the late 1800's it was considered outrageous if any woman had a desire to leave her home and enter the business world. The offices at that time were kept dark and the copy work was all done with a quill pen by the light of candle. The only sound to be heard was the scratching of quill pens as the men copied each necessary word. Then, in 1874, the first practical commercial typewriting machine was manufactured and placed on the market. This started a revolution in business communications and the general appearance of business offices. The woman began to take her place in the business world, and the clattering of typewriters became an an old familiar sound.

Today's secretary is a respected, often highly educated, well paid member of the business world. She's an office assistant to a busy person; and by handling correspondence, office routine, and details, she frees him for the specialized work only he can do. Among her secretarial duties, she also finds time to think up better ways of doing her job, to make quick decisions when her boss is out of the office, or to brew a good cup of coffee to get her boss off to a good start for the day.

Secretaries also have definite opinions about their profession. In talking with several Fairchild secretaries, here's what they have to say.

"The most important quality in a secretary, besides her skills, is her natural ability to get along with people."

> "An occasional 'this looks good' or 'you handled that quite well' is one of the most rewarding things about my job."

> > "A woman in the secretarial field today is happiest when she has some responsibility and gets a chance to use her initiative."

"We secretaries could be a big help to people who call, if they'd just let us know what kind of information they need. Often times they should be calling someone else, and we could channel the call to the proper individual."

"A secretary's contribution, my contribution, depends not only on my abilities, but on what my boss will let me do, and in this case he enables me to make what I consider worthwhile contributions. Too often, though, the girls' bosses won't delegate very much responsibility."

"I like to have a job I can tackle."

"A secretary needs to feel needed and needs to please her boss."

And while she plays a role behind the scenes, the secretary is very much a part of the Fairchild scene. 12

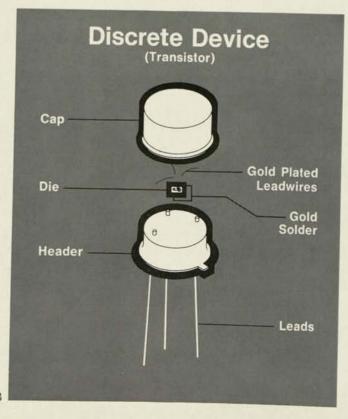
# semi.con.duc.tor

When people ask you where you work and you say Fairchild Semiconductor, do they sort of look at you shyly and say, "Oh yes, the electronics industry, isn't it?" They generally understand the Fairchild part, but aren't quite sure about that word, "semiconductor." And then you usually make a halfhearted attempt to explain what Fairchild Semiconductor does by saying, "Well, we make those things called transistors and similar devices that switch things on and off, and oh yes, these things are used in computers and TV's and rockets." Well... here at last is a complete way to explain that word, "semiconductor," and those things called "semiconductors." The following is from an article by Eunice Reithard, Technical Writer, Marketing Services, Mountain View.

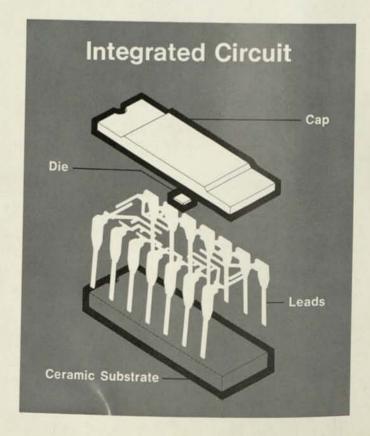
At Fairchild, semiconductors are made of a material called silicon which is prepared into thin chips or dice about onesixteenth of an inch square. Certain impurities are added to the silicon by a process called Planar\* diffusion, so that the semiconductor acts to control the flow of electrical power. It is these small amounts of impurities that cause the silicon die to resist the flow of current. And, it's this that makes it act as a *semiconductor*, rather than a *total* conductor. Additionally, because the silicon die is a crystal substance, a semiconductor is called a "solid-state" device. Fairchild makes two basic types of semiconductors – those called discrete devices and the miniature types called integrated circuits. The accompanying drawings show one example of a discrete device which is called a transistor and a second example, the integrated circuit, which is often called a microcircuit because of its small size.

Discrete devices include *diodes* (which look like the transistor pictured but can be distinguished by having only two leads, or connecting wires, instead of the three transistors have). In performance, a diode controls electrical current in one direction only. *Transistor* circuits can be used in several ways, such as for switching signals or amplifying sound. An *integrated circuit* combines many components into a single chip to give one complete electrical performance, much like musicians in a band playing a single tune.

Since the semiconductor die is so small that a speck of dust could cover it, it is always put into a protective package. These packages come in different sizes, shapes, and materials. They are used in a wide range of products such as television sets, computers, and space vehicles... and that's right where we came in; so now you can take it from there.



\*Planar is a patented Fairchild process



# ON</t Fairchild style

Latest solid state technology, guided tours, displays, refreshments, clowns, balloons, live music, doorprizes, and a great way to spend a Sunday afternoon. The Sunday is June 25th, and the occasion is Mountain View's Annual Employee Open House from 11:00 a.m. until 4:00 p.m. It's your chance to bring your family to the Mountain View Plant; show them where you work, what you do; and let them look around Fairchild Semiconductor.

More than 3000 people are expected to attend this year's Open House. Come early, come in the middle of the afternoon, but come.

No tickets are necessary; just be sure to bring your badge. It's your ticket of admission.



# MISSION ACCOMPLISHED

After a three-hour delay, Flight 846 from Tokyo landed at San Francisco's International Airport. On board was a young lady, Mija Hwang, accompanied by International's Dick McSheffrey. And this moment was the climax of a year of anxious waiting for the Richard Newton family of Los Gatos.

The 13-month old girl they had adopted was finally theirs, she was finally in the U.S., and the photograph they had treasured for nearly a year was now a live, healthy little girl.

The Newtons (Judy, Dick, and their two children, Craig, 8, and Patty, 6) had completed adoption arrangements, but for almost a year the Korean Orphanage could find no one to accompany Mija to the U.S. This was the law, and every time arrangements had been made, something happened to delay her departure.

Finally in desperation, Judy tried to find someone returning from the Orient who hopefully would bring Mija to her new home. She met with no luck until just about three months ago. A mutual friend of Judy's and Mary Lou Weis (Dr. Noyce's secretary) thought perhaps Fairchild Semiconductor held the solution to the Newtons' problem. Fairchild had just opened a new plant in Seoul, and there had to be a few people making the trip between Seoul and Mountain View.

She thought right. Dick McSheffrey had been assisting in setting up the plant there. His job was nearly completed, and he was due to return to Mountain View sometime in March or April. Mary Lou cabled Dick and he willingly volunteered for the assignment.

Within weeks the arrangements were made, but Judy Newton was used to this. She wouldn't believe Mija was in the U.S. until she saw her and held her. And at the airport that Saturday, May 6th, she would have her wish, and Mija would really become a member of the Newton family.

Today, Mija is doing just fine. Somewhat underweight when she arrived, she gained a pound and a half in two days' time. As for Dick McSheffrey, he's off on a new assignment for Fairchild, though bringing Mija to her new home was one of his most difficult assignments ever. You see, Dick's a bachelor.







### In General

#### FCI Research Fellows Visit R & D

Twelve men, all working towards advanced degrees in solid state electronics and all recipients of fellowships awarded by Fairchild Camera and Instrument, met with members of the R & D staff and toured the R & D facility recently. Exchanging ideas with the young men were Tom Bay, General Manager of Fairchild Semiconductor; Vic Grinich, General Manager of Fairchild Instrumentation; Gordon Moore, Director of Research and Development; Robert Noyce, Group Vice President FCI; and Samuel Levine, Technical Assistant to the Office of Chairman FCI. Those also participating in the two-day session from R & D included Charlie Bittmann, Ilan Blech, Rudy Dyck, Andy Grove, Jack Kabell, James Koford, Donald Palmer, Rex Rice, Wendell Sander, Robert Seeds, and Harry Sello.



#### New Look at Instrumentation

A reorganization of the Instrumentation Division along product lines went into effect May 15th. Heading up the Systems Group is Charlie Askanas and Chris Coburn was appointed Instruments Group Manager. Both groups will have the responsibility for marketing, engineering, manufacturing and service functions related to specific product lines. The formation of the product groups allows people throughout the organization to focus attention on specific areas and to respond to customer needs more readily. Other organizational changes include Sy Fader; Industrial Relations Manager for Mountain View, Skip Mattson; and General Manager of Electrometrics subsidiary, Bill Lambdin.

#### Soccer, Anyone?

The sport is soccer and it's sweeping the States by storm, but well ahead of the trend was Mountain View's own soccer team. The Fairchild United Soccer Club just completed its first season with the Peninsula Soccer Football League which includes 30 teams. Next year the team advances to a higher division due to its successful first season. It took all season for the team to win its first game, but it normally takes much longer than that to get a winning combination together in this rough and tumble sport. This photo was taken during the last match of the season, against Fortuna '66. Fairchild conceded an early goal but fought back in characteristic manner to forge on to a 4-2 victory. Two of the goals came from center-forward Lou Kauffeld's sterling play. Anyone interested in the sport is urged to contact club secretary Jan Visser, Equipment Design (MV). Regular training sessions will be held throughout the summer at 6:00 p.m. each Wednesday at Mitchell Park, East Middlefield Road, Palo Alto.



# **Research & Development**

Materials and Processes challenged Charlie Bittmann's Physics Department to a softball contest after work Wednesday, May 24th. Harry Sello spelled out the rules: a minimum of one inning and only the secretaries of each department were to pitch. After the game there was a get together at Shakey's and lots of sore muscles. The winners? Materials and Processes by a score of 23-11. Winning pitchers were Beverly Arrighi and Liz Frisz. Taking the loss was Adrienne Juliano.

Chrome masking threw a wedding shower for Mary Ann Bridgeman. The future Mrs. Dickie Durst received many gifts for the kitchen which she'll be putting to good use soon.

Jean Parry was also surprised by the housewarming this same group gave her new apartment. The pot-luck affair drew a large crowd including Fran and Lester McDonaugh, Mary and Vern Forrest, Ruth and Art Engevall, Winn and Joe Flood, Dolores and Frank King, Eleanor Gruenberg, Adrieene Shelton, Ike Neal, Bonita Barrientos, Kris Wallerstedt, Mary Bridgeman and Dickie Durst.

Winners of the R & D Lunchtime Bridge Tournament were George Powers and Ron Whittier (North-South team) and Len Bernstein and John Rushton (East-West team). That's Ron checking to see what George is going to play, and Len kicking John under the table to check to see what George is going to play. So that's how they win at bridge!



### **Mountain View**

Summer's here, and one good sign of it is all the people enjoying lunch on the patio. First outdoors pot-luck of the season was held by Packaging.



Recreation Council members elected Bryce Herbst, President of the Council. Bryce's replacing Dave Heck who is on his way to Hong Kong as Production Control Manager. Ed Tappen is new VP, replacing Bryce, and Al Sydnor was elected Alternate Officer. Serving as Secretary is Reba Clinkenbeard and Mike Walton's the new Treasurer.

Ed Tappen is starting a Fairchild Camper Club with the backing of the Rec Council. Anyone interested in joining should call Ed. The Summer Golf League's in full swing with 80 players participating, and more than 250 signed up for this year's intramural softball league. Should be a busy summer.

Final team standings for Fairchild's Intramural Basketball League showed the LIC team on top with a 6-1 record. Second place went to the Materials team (5-2). LIC team members were Steve Rowles, George Wushnig, Bob Bickers, Larry Stenger, Jack Gifford, Art Stabenow, Ken O'Connor, Ed Bunch, Vince Fulginiti, Joe Malone, John Walsh, and Dick Hoff. Leading scorers in the league were Dick Clements (CIC) with 105 points and George Wushnig (LIC) who scored 102.

Fairchild Control's team took first place in the 835 Scratch League this year. The team also won the high team series honor and Bill Chevalier high game (267) and high series (686) honors. Team members were Bill Chevalier, Perry Kerby, Mike Warren, and standing Ty Rockhold, team sponsor Don Lynam, and Jim Vinzant.



Winter Golf League winners picked up their trophies from chairman Don Lynam. Standing behind Don are Ed Beers, Art Kitowski, Pete Solly, Lee Henderson, and Hank Woo.



Inspired by last year's success, Silicon Materials Picnic Committee is organizing an even bigger and better '67 picnic. This year it will be held July 22nd at Uvas Meadows. Jerry Haugen reports that Yvonne Huhatla, Carol Mortensen, Mike Walton, Vera Higins volunteered to plan the gala affair.

In addition to the picnic, Materials employees are planning an excursion to Candlestick park July 30th to see the Giants take on the Pittsburgh Pirates. Picnics coming up soon:

July 15th Applications (	Blackberry	Farm)
--------------------------	------------	-------

Controls (Hidden Valley) July 15th

LIC (Adobe Creek Lodge) July 16th

PIC (Frontier Village) July 16th

QA, QC Production Control (Almaden Park) July 22nd

Materials (Uvas Meadows) July 22nd

- PNP (Frontier Village) July 23rd
- Planning and Distribution (Blackberry Farm) July 23rd

Product Maintenance, Plant Engineering, August 6th Manufacturing Engineering, Glass Shop, Chem Mix, Electronics Services (Uvas Meadows)

- Packaging (Blackberry Farm) August 12th
- Military Products (Frontier Village) August 13th

Get prepared for the Annual Golf Tournament. It's a one-day affair, this year to be held August 20th at Spring Valley. Watch for announcements and start practicing now.

To improve Mountain View's safety record and encourage better housekeeping, Charlie Victor has established three Safety Committees. Each group will meet monthly. The Management Committee will set policy and plan for safety education. The Supervisors Committee will act on recommendations they receive from members of the Employee Committee. By reviewing accidents and making periodical inspection tours, the committees hope to cut accidents to a minimum, but that depends on each one of you.

## Shiprock



April 6th was a great day at Shiprock; so good in fact that with eight final seal operators, the Shiprock Plant sealed 120,794 devices on one shift. From all available information this is a divisional record. Shiprock's individual record was broken three times that day by Betty Funston, Elouise James, and Ella Cowboy; each sealed over 18,500 devices. This record has since been broken by Elouise who sealed 20,844 devices and Betty who sealed 20,700 devices May 4th. What can a foreman say after a performance like that? Plenty, and Buddy Babb credits the performance to a great team effortthe line mechanic, the electrode tuner and the fine girls on both swing and day shifts. (All of them are included in the accompanying picture.) This story's still not over yet. The topper is that all the seals for that day cleared Q.C. with zero defects for overall lots.

## Diode

Working at Diode is a family affair, or so it would seem at a fast glance. Just look at these family members working at San Rafael:

Bobbie Talley, Dorothy Henderson, Rosie Proctor (Sisters) Bobbie Talley, Mittie Swanson (Sisters-in-law) Jessie Johnson, Bobbie Jones, Margaret Jones (Sisters) May Robinson, Clydia Warner (Sisters) Wilma Wells, Patsy Washington (Sisters) Emma Young, Eva Young, Dorothy Young (Sisters) Josie Ware, Victoria Bircher (Sisters) JoAnn Nelson, Gloria Harris (Sisters) Annie Tilman, Geraldine Paden (Sisters) Jellean Thomas, Isadoria Thomas (Sisters) Dora Singleton, Lois Brown (Sisters) Dora Singleton, Lil Singleton, Murdell Singleton, Willa Singleton (Sisters-in-law)

Joyce Hammel, Donna Erickson, Nancy Grafton (Sisters) Gwen Daniels, Sharon Grundy (Sisters) Clare Reynolds, mother of Bob Reynolds Barbara Gaines, mother of Linda Gaines Kenneth Jastrow, father of Daniele Jastrow LaVerne Bishop, Hazel Watson (Cousins) John Westhoff and Emily Westhoff (Husband and Wife) Al Culuris and Vickie Culuris (Husband and Wife) George Parrish and Alice Parrish (Husband and Wife) Randy Keading and Sandy Keading (Husband and Wife)

Jeanette Schwinghammer announces the Fairchild Health Education luncheons are getting great employee support. May 9th's was on Maternity and Child Health Care, May 23rd Nutrition, June 6th Mental Health, June 20th Home Safety, and July 11th Alcohol and Drug Abuse.

Members of the Sonoma Kiwanis Club learned what the Diode plant is all about from Stan Manning and Frank Ellis, guest speakers at a recent Kiwanis dinner meeting.

New Rec Council members are Hal Knopp, Emma Young, and Jerry Calloway, replacing George Miller, Bobbie Talley, and Jerri Thomas who have completed a two-year term of office. Staying on the council are Maxine Hamilton, Chuck Self, and Jim Williams.



Rec Council Events coming up:

Nee en	
June-October	Every Monday night (and other selected evenings) Diode's softball team competes with Marin County teams
July	Trip to Candlestick Park to see the San Francisco Giants in action
September	Annual Picnic at Marin Town and Country Club, September 30th
October	Trip to Kezar Stadium to see the '49ers play
November	Trip to Oakland Coliseum to watch the California Seals plays the Chicago Black Hawks in National Hockey League play

It was a great day for Emily and John Westhoff. They just became parents, adopting this cute young lady. Emily and John, natives of Germany, now U.S. citizens, have both worked at Fairchild for more than five years.



Diode employees sure do think a lot of Delores Latini. Delores is counter girl in the cafeteria for the Coca Cola Company. And, she's become a special person at Diode because of her happy disposition. Says one employee: "It's great to start the day with a cheerful 'good morning' and to have lunch served with a smile and kidding comment." Before coming to Diode 2<sup>1</sup>/<sub>2</sub> years ago Delores was a comptometer operator and typist for five years. She saw an ad in the paper for the job at Diode, liked the hours and the proximity to home (Marinwood), and thought it would enable her to spend more time with her three sons, Al, 21; Bob, 20; and Steve, 15. She's glad she got the job, and so are all the Diode employees.

Diode finished 3rd in the Marin County Bowling League. Final individual averages were: Hal Knopp (166), Jim Smith (158), Bill Morton (158), Tony Manino (152), and Jack Harris (142).

Juggling trophies at San Rafael's bowling banquet were first place winners Rich McIntyre and Evelyn Koeble.



BVL means Bowlers Victory League. This year Carol Bino (Masking) came in second in her division in the State. She rolled games of 223, 185, 193, and 179 in the A Division.

Karen Calloway, Carol Bino, and Carol Caldwell went with the Petaluma Bowling Association to the State Tournament in San Fernando Valley. Winners will be notified in August. So far, Karen's collected a 200 pin for bowling a 202.

Manager Hal Knopp's prediction of an improved softball season has come to pass. New team members, shortstop Jim Smith, center-fielder Frank Barton, right-fielder Herm Martin, second baseman Dave Zahniser and pitcher Wayne Snodgrass have given a boost to veterans left-fielder Bruce Mack, short center-fielder Al Frugoletti, third-baseman Hal Knopp, first-baseman Al Danks, and catcher Harry Spence. In League play the team is undefeated with a 3-win, 1-tie, record.

## Instrumentation

"June Is Popping Out All Over" was the title of Instrumentation's fashion show held June 8th at 7:30 p.m. in the cafeteria. Fashions by Evelyn Rogers' *Maison de Couture* of Cupertino, models from Instrumentation's finest, an original idea from Instrumentation's energetic Rec Council.

Instrumentation's new summer bowling league is off to a good start. Twenty teams are participating every Tuesday night. Bob Ahrendt is president of the league, and Michelle Jorgenson is doing all the work as the league's secretary.

"Fran Humphrey is enrolled as a life member of the Wise Owl Club and is acclaimed for his judgment and foresight in the conscientious use of eye protection which saved his vision in a work accident on August 17, 1966." That's how the certificate read when Mel Schmucker presented Fran his award from the National Society for the Prevention of Blindness. The accident occurred when a whole box die flew out of Fran's punch press shattering his safety glasses and throwing tiny pieces of metal into his face. It was Instrumentation's first Wise Owl Award, and you can bet Fran was glad he had those safety glasses on.



## June/5yr. Service Awards

This is the biggest list ever, and for the first time several South Portland employees are included.

South Fordund employ	ces are me	indicu.	
Mildred Pankratz	DIODE	Everett Highlund	MV
Catherine Christensen	R&D	Bobbie Jones	DIODE
David Symons	S. PORT	Zeta Moen	MV
Carroll Ford	MV	Osamu Uyeda	R&D
Consuelo Vasquez	MV	Jack Jones	R&D
Betty Luck	DIODE	Mitzi Isakari	MV
James Bell	DIODE	Jessie Lee	DIODE
Waltraud Noriel	DIODE	Theresa Torres	MV
Jack Ramon	INSTR	Esther Iverson	MV
Ardith Webber	MV	Julia Gonzalez	MV
James Mays	MV	Ineko Johannes	MV
Milton Gear	INSTR	Anna Ring	DIODE
Rosaline Christiansen	MV	James Marley	MV
Ofelia Anthon	MV	Joan Connally	MV
Ethel Tolefree	DIODE	Barbara Crump	DIODE
Georgia Ferguson	DIODE	Louise Arias	MV
Richard Banter	MV	Doris Davis	MV
Elvira Montes	MV	Janet Hill	MV
Margaret Coulbourn	R&D	Mary Cabello	MV
James Chunn	INSTR	Irene Mello	MV
Thomas Henderson	MV	James Carr	MV
Robert Seeds	R&D	Delois Wickliff	DIODE
Thomas Wong	MV	Bruce Bartlett	INSTR
Howard Anderson	MV	John Winding	R&D
Marcel Morrissette	S. PORT	Byron Brier	R&D
Geraldine Rice	MV	James Boyd	MV
Gordon Kiefer	DIODE	Virginia Pace	MV
June Johnson	DIODE	Max Chancellor	MV
Alan Ankerbrand	MV	Nellie Hodge	MV
Richard Steinheimer	MV	Floy Hummel	MV
Raymond Malatesta	S. PORT	Lucille Arias	MV
Hermodea Huerta	MV	Doris Youmans	MV
Kenneth Rinaldo	DIODE	Eugene Blome	R&D
Ruthie Patterson	DIODE	Martin Tiernan	S. PORT
Antoinette Warden	MV	Charles Griffin	DIODE
Patricia Maggiora	DIODE	Evelyn Lien	R&D
Mary Stewardson	DIODE	Viola Trujillo	MV
		Mary Pauwels	MV

#### **Five Year Celebrations**

Elizabeth Bergau QA (MV), was feted at a dinner with her fellow employees. Stan Brehm presented her the five-year award.





May Green received her five-year pin from General Foreman Andy Swank as her foreman, Dale Young, looks on. The corsage was from the people in QA, Integrated Circuits (MV) as was the cake all 25 of them divided.



Bonnie Pascale received her five-year necklace from Bob Swor and Dan Martin. She received several gifts from the girls in Epi (Grave shift) and they all enjoyed a pot-luck at 3:00 a.m.



Flora Vowiell celebrated her five years at Fairchild Instrumentation amid cards, flowers, and an elaborate party given her by the Chassis Wiring group.

Even the fellows get to celebrate their five years with Fairchild. Nearly 40 people in Manufacturing Engineering (MV) joined Art Dorf for dinner at Chez Yvonne. His was on them.

## Moving Up

phil Perry was named Manufacturing Manager of the South Portland plant. He will be responsible for all production, product engineering, and testing activities. Phil joined Fairchild in 1959 and most recently was Plant Manager at Shiprock. Marcia Root was named N. C. Programmer in Electronic Services.

Ed Cop was named Assistant Engineer in Electronic Services.

Dan Smith moved up to Assistant Engineer in Electronic Services.

Bill Cooke was promoted to Assistant Engineer, Electronic Services.

Ivan Pfennig is now an Engineer B in Electronic Services. He was previously an Assistant Engineer

Rudy Bartneck was named an Engineer B in Electronic Services. He was formerly an Assistant Engineer.

Bill Dunaway moved up from Assistant Engineer to Engineer B in Electronic Services

Ronald Frank was promoted to Assistant Electronic Technician from Electronic Trainee at Diode.

Gary Young was named Electronic Technician. He was previously an Assistant Electronic Technician at Diode.

Robert Olsen was promoted to Engineer from Assistant Engineer at Diode. Pete Chiappetta moved up to Foreman from Assistant Foreman at Diode. George Grier, Diode, was appointed Cost Accounting Manager. He was

previously a Senior Accountant Heinz Eggers advanced to Designer from Senior Draftsman at Diode.

Ron Timm moved up from Lab Tech to Assistant Engineer at Diode.

William Rowe was named Facilities Manager for Instrumentation. Before transferring to Mountain View, he was Plant Engineer Manager for the division's plant in Clifton, N.J.

Al Wight moved up from Electronic Technician to Senior Electronic Technician

Donald Montgomery advanced to Senior Tech from Electronic Technician at Diode

Donald Hempel was named Electronic Technician at Diode. He was formerly an Assistant Electronic Technician.

Dave Anderson was promoted to Manager of Engineering Services, Instrumentation Systems at Instrumentation. He was formerly Supervisor of the Drafting Department for Development Engineering.

Leo Steinhellner was named new Supervisor of the Drafting Department for Instruments at Instrumentation. He was previously Senior Draftsman.

DeWayne Christofferson was appointed Supervisor, Drafting Department, Systems at Instrumentation. Before his promotion he was a Senior Draftsman.

Jack Ordway, as a result of his outstanding sales performance in the Minneapolis Sales Office was named Manager of Sales, IBM Program. He will have supervisory, training, and administrative responsibility of the Poughkeepsie Sales Office.

Felix Sandry was named Technical Supervisor in Electronic Services

Karl Tampier of Electronic Services was promoted to Technical Supervisor. Lee Wetmore was named Account Executive for the RCA Military Complex in the Philadelphia area.

Lou Lyons was appointed Autonetics Programs Manager. He was formerly in Field Sales.

lim Meyer took over the new position of Marketing Analyst, reporting to the Integrated Circuits Marketing Manager, Ben Anister, He will coordinate, facilitate, and implement forecasting and statistical systems to serve the Product Marketing Statistical systems to serve the Product Marketing Managers as well.

Joe Rizzi was named CIC Product Manager. He was formerly a Supervising Engineer.

Jerry Secrest was appointed a Supervising Engineer for CIC. He was formerly an Engineer.

John Carey was promoted to Manager of Digital Integrated Circuits. He was Product Manager before his advancement.

Dave Bjornson advanced from Engineer to Supervising Engineer in CIC. David Rosprim was named Supervising Engineer. He was previously Product Engineer.

John Ronald was appointed Production Manager of Semikor, Ltd., Seoul, Korea. He was previously General Foreman NPN.

Lester Faerber, PIC, moved up to become General Foreman. He was previously a foreman in the Classification area and most recently on special project assignments in the Fab area.

Gene Flath is now PIC Product Manager. His last position was that of Supervising Engineer

George Staudacher was promoted to Product Engineer from Foreman. He previously worked in Applications.

Robert Beaudoin was promoted from Production Planner to Sales Liaison Engineer at Diode

Harry Roberts advanced from Production Scheduler to Production Planner at Diode

Kenneth McCammon is now Sales Liaison Engineer at Diode. He was formerly a Production Planner.

Al Frugletti was named Sales Liaison Engineer for Diode.

### **New Faces**

Chuck O'Brien is a new Marketing Services Account Manager. He is responsible for the Consumer and Computer markets as well as Recruitment. Chuck comes to Fairchild Semiconductor from Mason Advertising Agency in Los Angeles.

Dick Hubert is a new Account Manager in Marketing Services. He is responsible for Distributor programs and Microwave Products. Dick previously worked for Kaiser Steel in Oakland.

Jan Black is the Product Marketing Manager for Power Transistors/Thyristors. In addition to having published several papers on semiconductor components and applications, Jan's background in semiconductors dates back to the early 1950's

W. Stephen Platt heads the newly created Systems Department of Instrumentation. He will assist department managers in designing and implementing computer systems and procedures. Prior to joining Fairchild, he was manager of management information systems with TRW Semiconductor.

Robert Coultas was appointed Product Marketing Manager for Instrumentation's ine of oscilloscopes and accessories. He will direct oscilloscope product marketing efforts from the division's Clifton, N. J. plant. He worked previously for Tektronix, Incorporated as a field engineer.

Ronald Ostertag joined Diode as a supervisor in QA. He just recently completed his BIE at the Georgia Institute of Technology.

Charles Smith was named Material Supervisor at Mountain View. He was formerly with Hewlett Packard as a Material Manager.

Richard Trevisan is the new purchasing agent for Instrumentation's Mountain View facility. He will perform general purchasing activities and also be respon-sible for engineering and production purchasing. A member of the National Association of Purchasing Agents and National Contract Management Association, he formerly was subcontracts administrator for Sylvania Electrical Products

Gerry Purse joined PIC as Process Engineer. He previously worked at Ferranti, Ltd., in England.

Tom Rowe is a new Product Engineer in PIC. He just recently graduated from MIT. Jim Donald joined PIC as a Process Engineer. He formerly worked for Philco-Ford SRSD in Palo Alto.

Tom Holman joined South Portland as an Industrial Engineer. He was formerly an Account Executive with Top Value Enterprises, Inc.

Walter Long was named Cost Accountant at Diode. Before joining Fairchild, he was a regional cost accountant with The Glidden Company.

Bob Casel is Sales Liaison Engineer at Diode. Before joining the Customer Services group, he was Territory Manager for Baxter Labs.

Larry Goldfarb joined Mountain View's Management Information group as a Systems Analyst. He has had previous systems and consulting experience with Economics Research, IBM, and Honeywell.

Wayne Peacock has been appointed the Field Sales Engineer for Instrumentation's semiconductor test systems, serving the southeastern portion of the U.S. Prior to joining Fairchild, Wayne was a staff assistant with Sandia Corp. and a senior meteorologist with Honeywell Inc.

Jerry Bendinelli is now a Foreman with Semiconductor in Mountain View, supervising the test and cage area in Q.A.

Bill Whelchel has been named sales liaison engineer for Instrumentation's line of transistor curve tracers. His previous experience has been in both engineering and sales.

Nancy Walb has assumed the responsibility of traffic controller in Marketing Services. She was previously in the Advertising and Sales Promotion Department at Ampex.

### Leadwire

Vol. 9, No. 6

Published by and for Employees of Fairchild Semiconductor/ Instrumentation

Mountain View - Palo Alto San Rafael - Hong Kong - South Portland, Maine - Shiprock, N.M. Croydon, Australia - Ontario, Canada - Tijuana, Mexico

Editor: Judy Horst

Art Direction: Tom Hewitt Photographer: Ron Turner

#### Reporters:

MOUNTAIN VIEW-Carolyn Delgadillo, Marge Killian, Wes Cox, Lois Eagleston, Nellie Covington, Ginger Tygret, Keith Thomson, Judy Dunkelberger, Iantha Kochsiek, Katie Guida, John Walsh, Edna Lockes, Missy Strebig, Wanda Smith, Val Knowles.

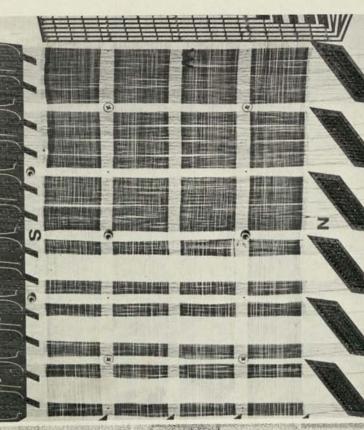
SAN RAFAEL—Cleatus Dunkley, Audrie Graxiola, Janet Marz, Clarence Medeiros, Mickey O'Donnell, Margaret Queen, Hal Knopp, Cary Barford, Bobbie Talley, Anne Parfitt, Eleanor Francis.

RESEARCH & DEVELOPMENT-Dianne Cotton, Janet Jones, Terri Mead.

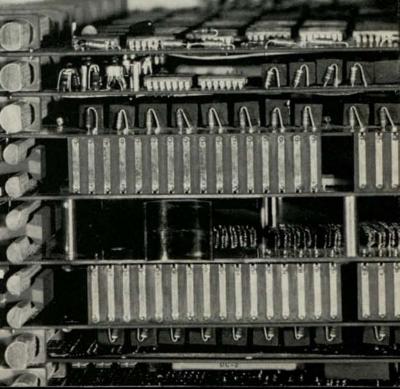
INSTRUMENTATION-Jack Ramon, Pat Campagna, Anna Ackerson, Walt Skruch, Jeanne Meyers. #L is a registered trademark of Fairchild Semiconductor, a Division of Fairchild Camera and Instrument Corporation.

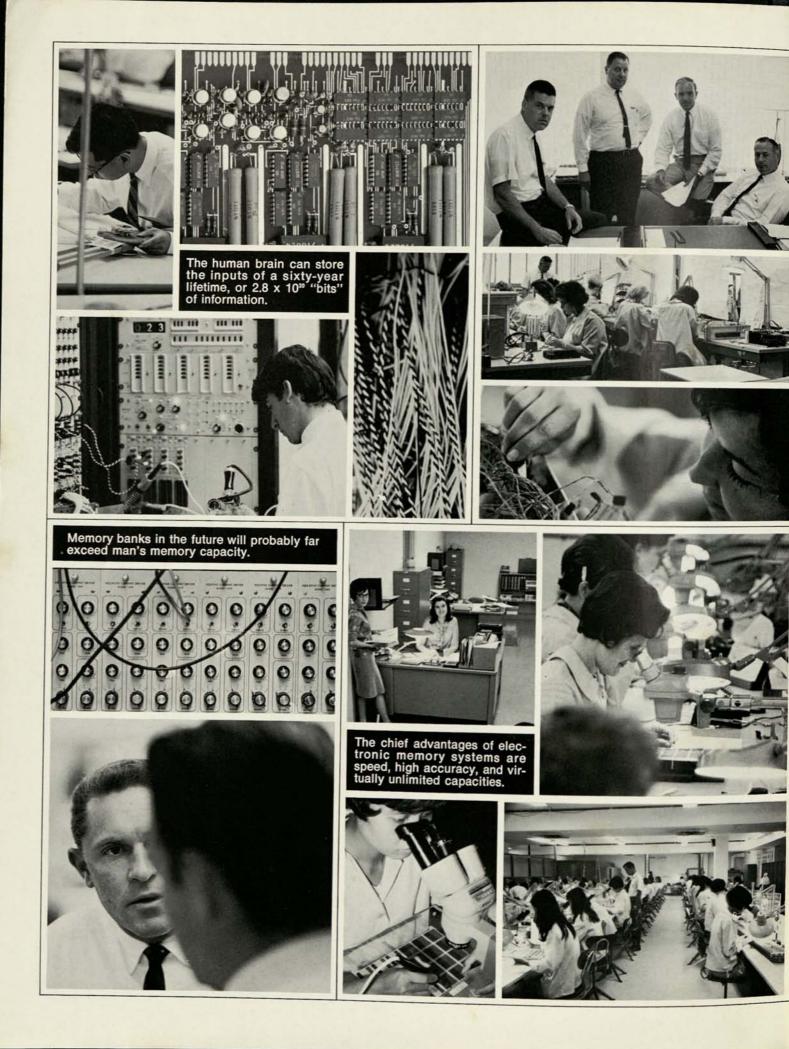
Copyright Fairchild Semiconductor Printed in USA 4000-213-57 12M

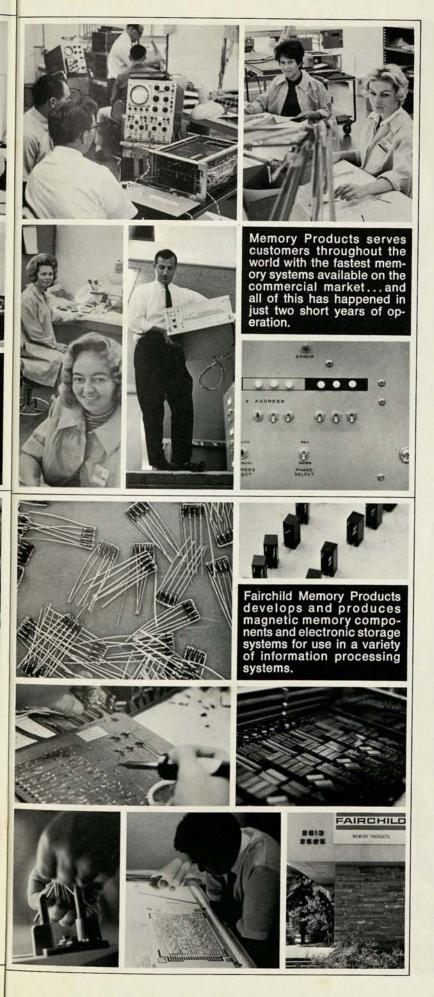
# LEADWIRE 9











## Fairchild Memory Products

Fairchild Memory Products might be a mere infant in the memory field, but no other newcomer has experienced such phenomenal success in so short a time.

Since November 1965, Fairchild Memory Products has emerged from a 13-member research and development staff to a top-notch production and marketing group of more than 350 people. Manufacturing activities are centered at Mountain View with additional support from a highly skilled staff in Hong Kong devoted to core-stringing activities.

Memory Products sales are expected to total more than \$2 million, doubling last year's record performance, and a fiveyear plan calls for an excess of \$20 million in sales during the fifth year of operation. This means Memory Product's marketing operation, both at home and abroad, will have to pile up sales records more impressive than ever before. And, part of their success rests on the advances being made in integrated circuit memory systems. IC memory systems (all semiconductor) were pioneered by Memory Products and promise to be the wave of the future. Another product line, core systems, uses ferrite cores and integrated circuits.

Memory Products manufactures cores for its own use and to meet customer specifications. Fully tested cores are strung and assembled into planes, and planes are further tested before assembly into stacks and memory systems. That, simply, is how it's done, but to look at the systems there's nothing more complicated than the maze of wiring and electronic components assembled into one of Memory Products' systems.

Three complete systems have been developed by Memory Products for the main memory, scratchpad memory, and buffer system applications. They are known as the Micro-PACER, MicroCELL, and MISER memories. Each is a state-ofthe-art product employing Fairchild integrated circuits and advanced packaging features.

Additionally, Fairchild Memory Products produces the best memory component parts in the industry. These include a line of core driver modules, BD and 2.5D core planes and stacks, and even IC board arrays of memory cells complete with drivers and memory circuits.

Customers today include those in commercial, industrial, and military markets, and their numbers are expected to increase rapidly. In fact, the memory market is expected to grow at an even faster rate than the computer market due to the increased need for memory storage per computer. Both the nature and the amount of storage is expected to change considerably over the next ten years. And, Fairchild expects to be the forerunner in the new technologies of the future. To this end Memory Products is making heavy research and development expenditures.

Early in 1967, a formal research group was started. This staff is presently working on advanced techniques which may be considered unconventional by today's standards. The first of such developments is scheduled for showing at the Spring Joint Computer Conference in 1968. The second will probably miss this decade as it is a much more complex undertaking.

Yes, Memory Products is very much a part of this burgeoning industry, and it plans to be a much bigger part each year.

Core memory stacks and systems account for the majority of those manufactured today. Tiny ferrite cores (each of which stores one "bit," of information) are the very heart of these systems. Cores are doughnut-like in shape and are strung and assembled into planes, stacks, and eventually memory systems. To make cores, special materials are precisely weighed, compounded and mixed. Then they are pressed into round shapes measuring 22 to 80 mil. After a visual check, they are fired in automated ovens, and finally 100% tested.

CORE PRODUCTION

Not all companies make their own cores, but Fairchild Memory Products' Magnetic Materials Department manufactures about a million cores a day. In operation for more than a year, the Magnetic Materials force numbers more than 50 people, and its operation provides Memory Products with a source of cores whenever cores are needed and at the high quality required. It is this dependable source that enables Memory Products to meet customer demands and continue to outpace its competitors.





## You can make good things happen

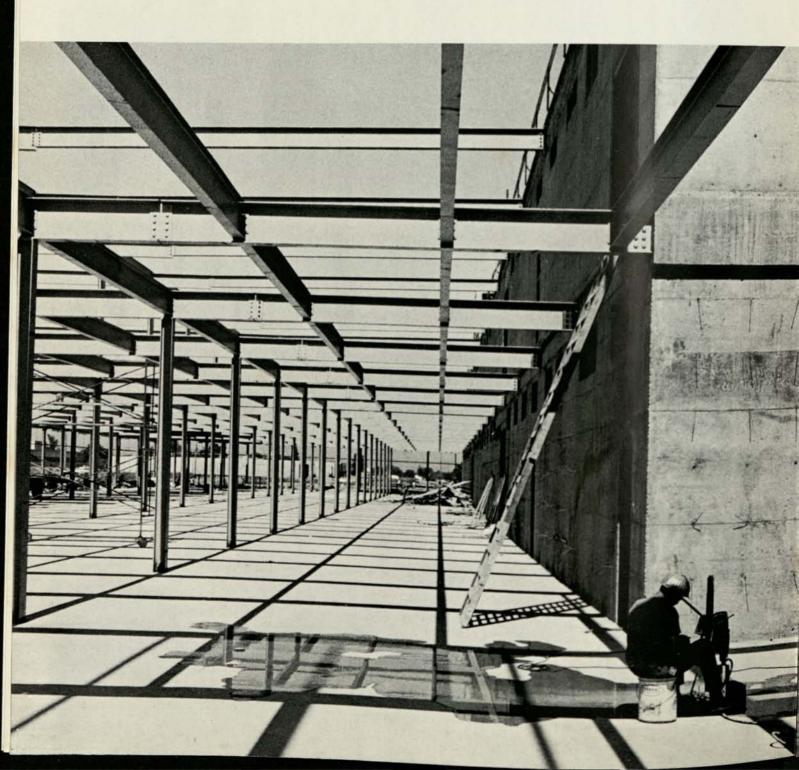
It may be called the United Fund or the United Crusade, but whichever it is, it's time to give again this year. Your donations are needed now more than ever. You and your United Fund are a team — a team working for the betterment of your community through helping thousands of people in need. Your "fair share" contribution (the equivalent of one hour's pay per month) will aid the ill, the young, the bedridden, the disaster stricken, and the aged in your area. Many people are counting on you. Won't you pledge your "fair share" when it's time to give?



How do you build a giant 342,000 square foot headquarters building? To begin with, it requires:

- 33,845 tons of concrete (that's enough for the building, parking garage, and sidewalks),
- 324 steel columns that stretch 4,536 linear feet,
- 5.9 miles of steel beams and minor beams, and someone with a plan.

And, at 464 Ellis Street, site of Semiconductor Headquarters, everything's going according to plan. The site was first stripped of existing top soil; then excavation was begun. Concrete footings (large chunks of concrete that support the entire weight of the building) were poured, and concrete walls and columns below the first floor were poured. The first floor concrete slab (called



a waffle slab) was added, and a building began to emerge from what had been a big, gaping hole.

Progress is easy to watch now. The steel frame, the second floor and the roof surround a center structure called the core. The core is a bracing structure and will house the unchangeable facilities like the elevators, restrooms, and stairways. All other walls in the building will be nonbearing; that is, they will serve strictly as space dividers.

After the exterior framework is attached to the building, workmen will start completing the interior – ceilings, flooring, air conditioning, doorways, and painting. With these finishing touches, the building will be ready for occupancy. And..... Instrumentation's just at that stage now. Its 156,000 square foot new headquarters in Sunnyvale will more than double Instrumentation's present facilities. Features include ample parking, lush landscaping, textured concrete exterior, wall panels with cast cut stone highlight panels at both lobby entrances and in the enclosed patio, concrete planter boxes at the front and side window areas, a spacious hot lunch cafeteria with meals prepared in the cafeteria, and cheerful interior color schemes throughout.

Moving begins for Instrumentation in late September. Semiconductor must wait until 1968, but that's right around the corner.





## planning and distribution







## south portland



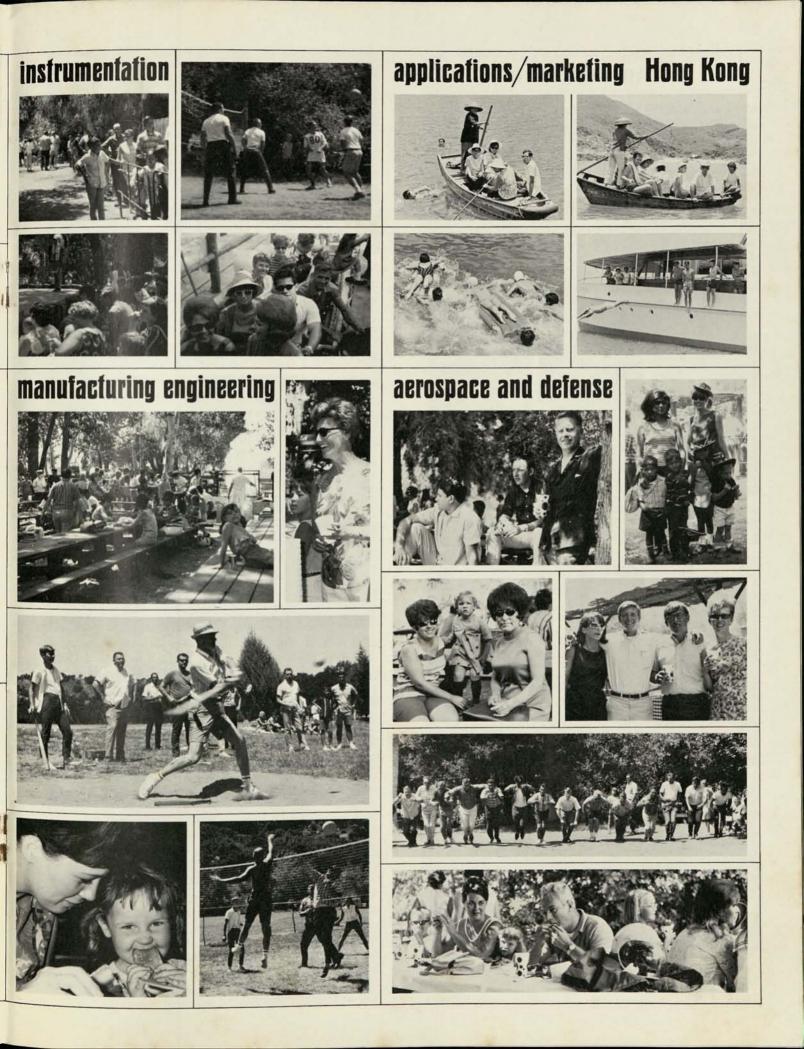






#### (continued)

From Maine to Hong Kong, from gigantic picnics like South Portland's for 3500 people to those of department size at Mountain View or the boat-picnic for forty members of Hong Kong's Applications and Marketing staff, the 1967 Picnic season is slowly drawing to a close. The following photos attest to the variety of activities and the fun had at each picnic.



## **Mountain View**

Something new at Mountain View during August – a fashion show sponsored by the Rec Council. Two showings gave all shifts an opportunity to view a collection from Macy's of California modeled by employees. Day shift models included Jimi Ussery, Reba Clinkenbeard, Connie Evans, Sue Hofenfeld, Caroline Hughes, Joycelyn Cortilla, Ruth Carlson, Bonnie Bough, Sharon Spanelli, Beverly Fierro, Betty Childers, Nancy Jo Weaver, Janice White, Sandy Simpson, Merle Martin, Bobbie Kirlin, Don Massey, Doug Usher, and Bob Fox. Swing Shift models were Nancy Swann, Shani Pere, Sandra Garald, Lois Berthaiune, Carol Downs, Joyce Gordon, Val Nelson, Rosalie Hernandez, Gloria Robinson, Fernell Tyler, Pauline Smith, Dee Tharp, Mike Walton, Frank Paone, and Dennis Key.



Another Rec Council event to keep an eye out for is the First Annual Art Show and Contest. Details will be posted later.



Fairchild Semiconductor's Golf Tourney at Spring Valley drew employees from San Rafael, R & D, and Mountain View. In fact, Jim Daniel of San Rafael won the prize for the longest drive. Low gross winner was Lee Henderson (69); the booby prize went to George Lao (132). Closest to the pin on the four par-3's were Pete Solly, Rudy Gutierrez, Ben Anixter, and Ken Dieker.



Dick Hoffman and Dale Edgar of Memory Products Manufacturing Engineering treated Ellen Chew to a steak dinner recently. The reason? A job well done! Ellen, who's just been with the department since February, completed two perfect chassis wire boards for one of Memory's prime customers.



Many visitors tour the Mountain View facilities to get a first hand look at Semiconductor operations. Many are customers or financial analysts, and many are officials from governments throughout the world. Such was the case when Bob Chalom, Manager of Public Affairs, hosted Sun Ki Lee and Man Hee Lee from the Bureau of Heavy Industry, Ministry of Commerce and Industry of the Republic of Korea. Gail Herbach, Junior Specialist Tester in Power Device Engineering, has been with Semiconductor since January 1959. Brother Mike was hired as a technician in Transistor/Diode Engineering in September 1966. Pam Bishop worked in the same department as Mike and had been there since October 1963. She met Mike and soon she was a Herbach, too. Now there's to be a little Herbach, so just before leaving her present job as secretary to Brent Knudsen, friends throughout the plant (with the help of Gail and Mike) surprised Pam with a baby shower.

## From the Field

Four men were named Salesmen of the Month for June. From the Industrial Market, Bert Piaser was selected. According to Eastern Industrial Regional Sales Manager Vince Sabella, "It is very difficult to pinpoint a particular month that Bert excelled in salesmanship since he constantly shows tenacity in this area. Many of Bert's design efforts are either shot-gunned throughout the nation or directly routed to another state causing a sole source situation for Fairchild at the buyer's level. Bert's design efforts will contribute to a fair percent of Fairchild's 1968 sales dollars."



HERB CRISCITO

Herb Criscito was named Computer Salesman of the Month for recent successful negotiations with Univac for three million circuits at a total worth of approximately \$7 million. This is the largest single order ever released by Univac. His sales efforts, authorship of a number of technical papers, and previous work on the development of high frequency planar and planar epitaxial silicon transistors as well as the design and development of digital integrated circuits make him one of Fairchild's most outstanding salesmen.

Consumer Salesman of the Month was Paul Bartlett. Paul booked the first order ever received from Kodak Apparatus and Optical Division. The order was for three million epoxy units. Through Paul's efforts, Fairchild also received an order from Mowhawk Data Sciences for over three million epoxy transistors and 80,000 integrated circuits.

Rounding out the Salesmen of the Month for June in the Military Market was Dan Hauer of the Los Angeles office.



Instrumentation

Instrumentation's Rec Council continues to keep up the great work. Coming events include:

September	Bowling begins
September 23	Golf Tournament
September 30	Fall Dance, Plaza Lanes
October 7	Octoberfest Fall Picnic, Paul Masson Mountain Vineyards
October 14	Tennis Tournament
October	Falstaff Brewery Trip scheduled
November	Christmas Gift Sale begins
December 23	Christmas Dance, Cabaña
December	Children's Christmas Party



The new Tennis Club is getting in the swing of things. Officers are Vic Marquez, President; Donna Naton, Secretary/Treasurer; and Ralph Rassmussen, Vice President.



Ken Lowe, Systems SubAssembly Foreman, doubles as Marshall at Frontier Village, or at least he was roped into it at this year's picnic.

### Canada



The Fairchild name was given a publicity boost each time the "Charlie Brown All-Stars" took the field. These "all-stars" were the Northern Electric Company team, and decked out in their "Charlie Brown" T-shirts provided by one of the team's sponsors, the Fairchild Canada marketing group, they competed in a Canadian Softball League. Northern Electric is a large OEM Fairchild customer.

## Shiprock



Paul Driscoll, Shiprock Plant Manager, received one of ten Top Hat Awards for Fairchild Semiconductor from Sarah Jane Cunningham, President of the National Federation of Business and Professional Women's Clubs. The award was presented to Fairchild Semiconductor for its significant contribution toward advancing the status of employed women. In the past year and a half, the Shiprock facility has expanded from fifty employees to roughly 550, and approximately 470 of these are Navajo women employed in clerical and administrative positions and as electronic assemblers. In addition to increasing overall numbers of women employees, the division's training and educational facilities were cited for better preparing women for work. Credit was also given Fairchild for raising the pay scales for women and for supporting legislation for equal pay. Other recipients of the award were Joseph A. Boyd, Jr., Dade County Commissioner (Fla.); Doyle Dane Bernbach (advertising firm); Margaret Hickey, Public Affairs Editor, Ladies Home Journal; John Hancock Mutual Life Insurance Company: Dr. William Edgar Park, President of Simmons College; Sylvia Porter, syndicated columnist; Javne Baker Spain, President of Alvey-Ferguson Operations of Litton Industries; Valley National Bank, Phoenix; Woodward & Lothrop, Washington, D.C.



Paul Driscoll is on the other end of the award ceremony this time as he presents a letter of commendation to Jessie M. Lee for her one year of perfect attendance at work. Jessie is a second shift material handler in the Die Fab area.

## San Rafael

San Rafael's Good Housekeeping Safety Committee has struck again, and August's winner is Standard Products. August's loser was Modules. Members of the committee which select the cleanest and messiest areas in the plant are Jack Higgins, chairman; Clara Penders, Marietta Bowman, Cleatus Dunkley, Nadia Post, and Evelyn Kim. Previous winners were Fab II (June) and Special Products (July), and winners of the "Pig Pen" award were P. C. Finish (June) and Scheduling (July).





Winners in this year's Golf Tournament played at San Geronimo were Dave Marriott (low net), Bruce Mack (2nd low gross), George Miller (2nd low net), and Buck Snyder (low gross).

After 20 of 35 scheduled games, San Rafael's softball team has five ballplayers with averages well over the .400 mark. Bruce Mack is batting .475; Hal Knopp, .471; Herm Martin, 464; Jim Smith, .457; and Al Danks, .410. This strong hitting is reflected in some scoring records the team set against the San Rafael Jaycees. The team scored 24 runs in a seven inning game and 10 runs in a single inning while limiting the Jaycees to only 6 runs for the whole game. Added to the list of recent injuries was Karel Svoboda. He received a broken collarbone in a game at San Quentin when a 300-pound inmate collided with him at home plate. The team is scheduled to play in a double elimination tourney beginning September 23rd.

The Kelp Explorers, San Rafael's skin diving club, elected Karel Svoboda its new President. Karel replaces outgoing President Jack Brewer. Jean Annis consented to serve a second term as Secretary/Treasurer. The next event planned by the club is an overnight weekend in Monterey.



Karel Svoboda's skin diving exploits have been written and told before. His latest with Bill Irons, Bert McNamara, George Parrish, and ex-Fairchilder Cliff Heberlein was to Santa Catalina... the island of "abalone and octopus." The most popular activity this time was shark hunting. Underwater shotguns designed by Bill and Karel caught several large Blue sharks. George Parrish created some excitement when he discovered some mysterious bones and a rusty old rifle which was fully loaded. The rifle apparently had been uncovered by wild boars which had been digging around the camp during the night. The divers surmised the bones may have been those of a hunter who had fallen from a nearby cliff, or they might have belonged to a victim of foul play. Needless to say, the "rifle and bone" mystery must wait until next year when the group expects to return and uncover more clues.

## **South Portland**





South Portland employees danced the night away on their second annual bay cruise. Nearly 250 persons attended each of two cruises held July 17th and 23rd.



South Portland held a double celebration marking the facility's fifth year of operation and the opening of the plant's new cafeteria. A free buffet-style luncheon was provided for all three shifts. Dignitaries visiting the plant that day were Richard Wolf and George Garrett of the Chamber of Commerce; Samual Hinds, President of South Portland's City Council; Carlton Lane, Chairman of the Area Development Commission; and Bernal Allen, South Portland's City Manager.

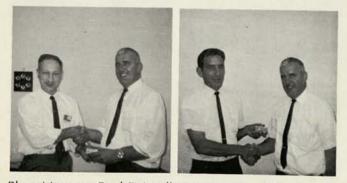


## Sept./5yr. Service Awards

Dan Martin	MV
Jean Vance	SR
Alvestine Magee	SR
Thomas Peardon	MV
Bobby Sudduth	INSTR
Thomas Mills	MV
Joseph Madjerac	SP
Edith Beem	MV
Donna Hughes	MV
Katherine Conley	SP
Zenaida De Vera	MV
Nell Gainer	SR
Jim Reynolds	MV
Len Ornik	MV
Heinz Eggers	SR
Norma Guidry	MV
Desmond Fitzgerald	R&D
Geneva Smith	SP
Ruby Oliver	MV

MV	Dave Myers	MV
SR	Sylvia Durham	SR
SR	Harold Grant	SP
MV	Edmond Beaman	MV
STR	Patricia Decker	MV
MV	Jean Balzan	SR
SP	Patricia Henckel	SP
MV	Bobbie Coleman	MV
MV	Morey Martin	R&D
SP	Steve Fierro	MV
MV	Shirley Hockstaff	MV
SR	Flavio Valiente	INSTR
MV	Marshall Cox	MV
MV	Ross Tucker	R&D
SR	Barbara Hunt	SP
٨V	Madeline Burke	MV
&D	Adriaan Melger	R&D
SP	Billie Jinter	SR

#### **FIVE-YEAR CELEBRATIONS**



Plant Manager Paul Driscoll congratulates Rich Cornellier and Joe Hulboy as both men receive their five-year service awards. These were the first five-year awards ever presented at Shiprock, though others on the staff have received five-year awards before coming to Shiprock.

James Wentworth, Marjorie Build, Anne Hagan, Rose Stephenson, David Symons, Michael Morrisette, Kenneth Taylor, Ray Malatesta, John Thompson, Donald Blanchard, and Robert Meyer are among the first employees at South Portland to receive their five-year service awards. Rose Stephenson also sports a perfect at-

tendance record in her five years. Plant Manager Jack Magarian (far left) made the presentations as he did to another five-year man, Gene LeDuc. All of those receiving the awards are employees hired when the plant located in South Portland five years ago.





Polly Mulligan was surprised by cake, coffee, and corsage the day she received her five-year service award. Polly is a member of the Small Instruments group at Instrumentation.



Dolores Cannon of IC Production Control at Mountain View cut the cake at her five-year celebration and also enjoyed her anniversary day at the luncheon given by friends.

## **New Faces**

Jack Ayre joined Fairchild Semiconductor as Information Services Writer for Marketing Services at Mountain View. He formerly was Publications Editor at California State College.

Ken Dieker was named Administrator for the Marketing Department. He was with Air Products as Western Regional Manager before joining Fairchild Semiconductor.

Sam Fajardo joins the Aerospace and Defense group as Production Supervisor. He previously worked for Signetics.

Ed Ferrell, formerly the Director of Marketing for Stewart Warner Semiconductor, joins Fairchild as Product Marketing Manager for NPN Transistors.

Jim Kemp joined Instrumentation as Production Scheduling Supervisor. He was previously with Bourns Incor-Porated of Riverside, California.

Hank Moniz joined the Systems Division at Instrumentation as Industrial Engineering Manager. He previously worked as a Senior Industrial Engineer at Lenkurt Electric.

Tom Popek is a new Operations Control Analyst in the Planning and Distribution group at Mountain View. He received his Masters degree from Sloan's School of Management at M.I.T.

Jerry Prawl joined the Semiconductor Division as Sales Liaison Engineer. He was formerly with Crocker Citizens National Bank. Doug Seitz, formerly with Bourns Incorporated as an Assistant Foreman and Production Planner, is now Material Planner at Instrumentation.

Norman Steinbach joined Instrumentation as an Industrial Engineer. Before coming to Fairchild, Norm worked for Lenkurt Electric.

## **Moving Up**

Frank Burge has been promoted to National Sales Manager for Systems Marketing at Instrumentation.

Vince DeLellis was Senior Engineer in Microwave Manufacturing before his recent promotion to Section Head for the Microwave Prototype Section.

Larry Gildea is now the Supervisor of Systems Planning at Instrumentation. He was previously Supervisor of Material Distribution Control.

Len Gilmore, formerly National Sales Manager, has been appointed Inter-Divisional Marketing Manager for Instrumentation.

Stan Goobich has been promoted to Sales Promotion Manager for Marketing Services at Mountain View. He was formerly Assistant Advertising Manager.

Pete Hepburn moved up from Production Control Engineer at Instrumentation to Supervisor of Systems Production and Material Control.

Jim Kennedy was named the newest member of the Central Computer Sales team. He will be directing Fairchild's sales efforts at the Univac complex in Roseville, Minnesota. Most recently, Jim was a Product Marketing Engineer in PNP Marketing.

Dick Martin has been promoted from Product Marketing Manager for NPN Transistors to Manager, Product Support Department, Discrete Devices.

Larry Phillips moved up to Production Supervisor at Aerospace and Defense Products at Mountain View. He was previously a technician in the Materials Section.

Lu Ross was appointed Manager of Manufacturing for Memory Products.

E. C. Watson was appointed Manager of Planning and Services for the New Products Group at Mountain View.



GH-12

Qui fladlug 650-327-4224

#### Leadwire

Vol. 9, No. 9

Published by and for Employees of Fairchild Semiconductor/Instrumentation

Mountain View - Palo Alto -San Rafael - Hong Kong -South Portland, Maine -Shiprock, N.M. - Croydon, Australia - Ontario, Canada -Tijuana, Mexico - Seoul, Korea

Editor: Judy Horst

Art Direction: Mark Gorse Photographer: Ron Turner

#### Reporters:

MOUNTAIN VIEW – Carolyn Delgadillo, Marge Killian, Wes Cox, Lois Eagleston, Nellie Covington, Ginger Tygret, Keith Thomson, Judy Dunkelberger, Iantha Kochsiek, Katie Guida, John Walsh, Edna Lockes, Missy Strebig, Val Knowles, Barbara Horst, Loann Stoats, Chris Squires.

SAN RAFAEL—Cleatus Dunkley, Audrie Graxiola, Janet Marz, Margaret Queen, Hal Knopp, Cary Barford, Bobbie Talley, Anne Parfitt, Hilda Kaliczak.

RESEARCH & DEVELOPMENT-Dianne Cotton, Janet Jones, Terri Mead, Adrienne Juliano.

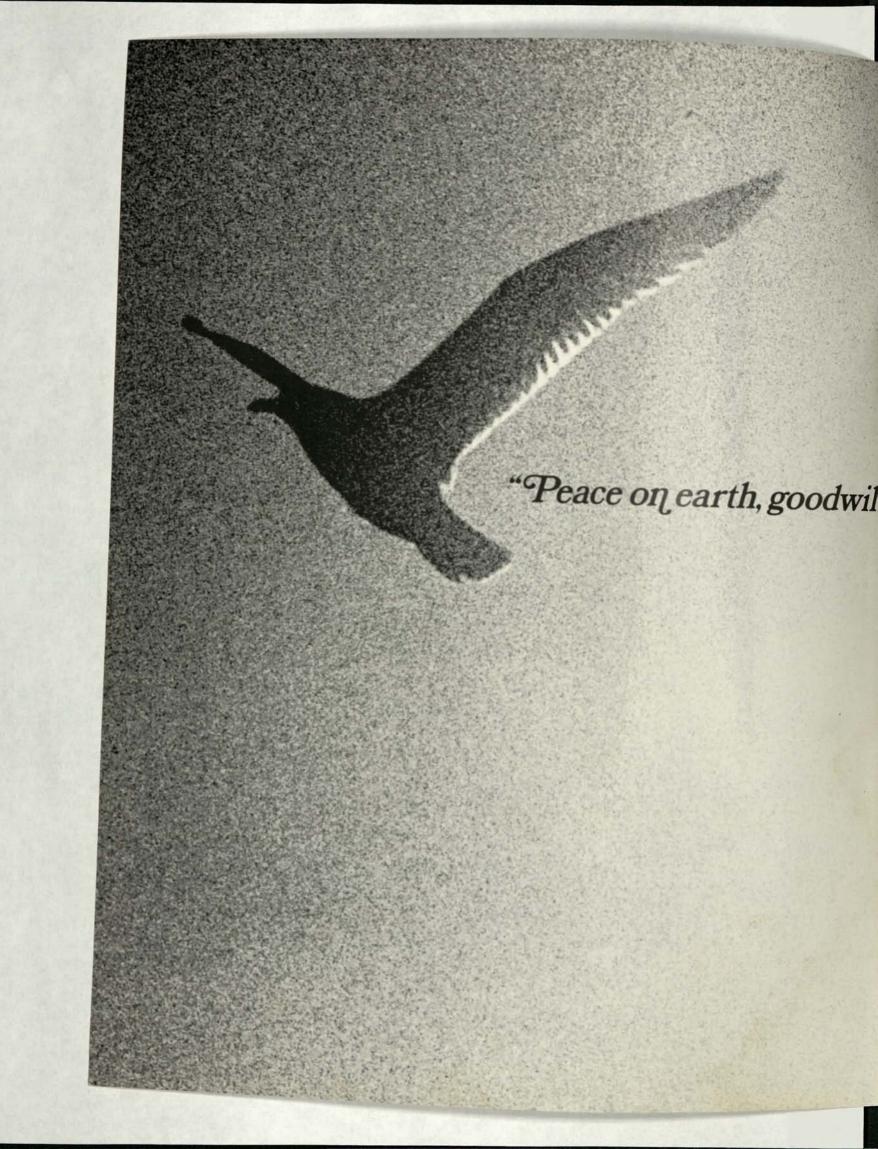
INSTRUMENTATION – Jack Ramon, Pat Campagna, Anna Ackerson, Walt Skruch, Jeanne Meyers. SOUTH PORTLAND — Linda Allen, Bob Tetrault.

μL is a registered trademark of Fairchild Semiconductor, a Division of Fairchild Camera and Instrument Corporation.

Copyright Fairchild Semiconductor Printed in U.S.A. 4000-441-87 9.5M.

The Cover: This month's cover represents the essential ingredients of Fairchild Memory Products—core production, memory component parts, completed systems (the fastest available on the commercial market), and the more than 350 people located in Hong Kong and Mountain View producing quality memory products.





## 1 toward men." Throughout the year each of us finds moments of inward satisfaction.

roughout the year each of us finds moments of inward satisfaction. moments when we are at peace with ourselves. These feelings are heightened during the Christmas season, and our thoughts not only turn contemplatively inward but extend outwardly to the whole of mankind. This is the Christmas spirit, and it is my hope that this feeling of "peace on earth, goodwill toward men" will continue to prevail throughout the coming new year.
I would like to join Tom Bay and Vic Grinich in thanking each of you for your continued efforts and enthusiasm this past year.
And, in the true Christmas spirit we would like to extend to you and your family our sincere wishes for a very Merry Christmas

and a most Happy New Year.

Joh Nayce

R. N. Noyce Group Vice President

## Fröhliche Weihnachten

is the season to be jolly, and throughout the world the Christmas season combines pagentry and merriment in tribute to the birth of Christ. Christmas customs are interwoven with ancient folklore and legends handed down through generations, but they come alive in the eyes of old and young living in many lands.

**I**n Spain and Italy, Christmas is set apart by church services which sound the keynote of the holiday. Every Italian house sets up the *preseptio*, a tiny version of the Nativity, and constructs a *ceppo*, an early Italian conception of a Christmas tree. It is a highly decorated structure with shelves filled with gifts and Nativity scenes. In some families there is a *ceppo* for every child.

Across the Mediterranean, Christmas marks Spain's busiest and most elaborate *fiesta*. After attending church on Christmas day, families spend a quiet day at home. That evening they gather in village squares for merry-making. The Twelfth-Day, traditionally the day when the Three Kings arrived to worship the Babe in the Manger, is observed in Spanish lands, and children await the coming of the Magi and the gifts they bring by stuffing shoes with straw and putting them on balconies and in doorways so the King's horses will have something to eat after their journey. In the morning, the children find the straw gone and gifts and candy stuffed in their shoes.

loser to home, our Mexican neighbors celebrate a fiesta, or series of fiestas, called the Posadas beginning on December 16 and continuing until Christmas Eve. The word posada means lodging place or inn, and Las Posadas depicts and commemorates the nine-day journey Mary and Joseph made from Nazareth to Bethlehem. To Mexican children the piñata is the best part of the Posadas. Piñatas filled with toys and favors, and some with water and confetti, are hung from ceilings. On each night of the nine ceremonial evenings the children form a circle around the piñatas and one child, blindfolded in the center, tries to break a pinata hoping it will be the good one filled with candy and toys.

In France, celebrations begin the night before Christmas when French mothers bring out little figurines and miniature Nativity scenes for the children to build a *crèche*. Church bells ring at midnight calling for celebration of the Christmas Mass, and afterward, in their homes, the French people enjoy the *Reveillon* — the most memorable meal of the year. On Christmas Eve, French children put their shoes before the fireplaces, expecting Père Noël to fill them with nuts and sweets, and New Year's Day is set aside for general gift giving.

aint Nicholas Day, December 6, is a great day for children in Belgium. They set up a tree and expect Saint Nicholas to fill it with gifts and good things to eat. He is depicted in bishop's robes and is supposed to be riding a gray horse or white donkey. The children put out water, hay, carrots, and potatoes for it to eat, and in the morning, the furniture is in general disorder which shows that Saint Nicholas has been there. In their shoes they find sweets and toys if they have been good that year.

In Switzerland, Father Christmas is depicted as having a jovial red face and white beard, and he wears a long furtrimmed robe. He marches through the villages with his wife Lucy, and while he distributes gifts to the boys, she takes care of the girls. In the French cantons of Switzerland, the Christ child, called the *Chriskindle*, makes the rounds of the villages in a sleigh drawn by reindeer, carrying a load of candy and toys and Christmas cookies that are baked in fantastic shapes.

**1** Scandinavian countries no one is ever forgotten at Christmas time. Even the animals receive an extra Christmas ration. It is during this season that the "little people" visit all the Scandinavian countries. These tiny gnomelike figures, whose images appear in decorations as symbols of the holiday season, are always found in family groups and it is considered lucky to have such a family come to stay on Christmas Eve. Scandinavians always provide them with a Christmas dinner, and every family carries a great bowl of hot milk out to the barn or up to the attic for their little guests. No one ever sees them drink it, but the children always find it empty in the morning.

The Danes have their "Little Christmas" on December 23 when the house is swept and garnished with holly and mistletoe. The Swedish folk begin their festivities on De-

## und ein Glückliches Neves Jahr

cember 13, Saint Lucia's Day. Jule-nisen brings gifts to the boys and girls. He's a red-clad figure with a pointed cap and long white beard. He lives in a stable during the year, and comes riding astride a goat bringing gifts for everyone at Christmas. It's also traditional to start great bonfires on the heights of Norway and Sweden to honor the birth of Christ.

The people of Finland have some very special customs all their own. One is the steam bath that tradition rules everyone must take on Christmas Eve. January 6 celebrates the end of Finnish yuletide, and the tree is dismantled and the holiday ends in a mad rush of singing and dancing.

6 In Slavic countries, though Communist-controlled, most Christmas customs are still kept in the homes. They sing the story and are rewarded with gifts. In Poland, each child writes a letter telling what he wants for Christmas. It is placed in the window where the Wise Men can see it. Gifts, though, are exchanged earlier on the Feast of St. Nicholas Day, December 6. Bulgarians and Romanians begin their festivities with the first star on Christmas Eve, the end of two weeks of fasting. In Romania, on Christmas night, boys go from house to house singing carols, reciting poetry, and repeating the Christmas story. The leader of the group carries a large star, the steana, made of wood and mounted on a pole. It is covered with gilt paper and colored streamers on which are fastened small bells and a picture of the Holy Family is painted or pasted in the center. To make it glow, a small candle is placed inside.

The Christmas spirit of the Teutonic lands goes by the name of Good Saint Nicholas — a tall, kind-faced man with a beard, wearing a cape of a bishop and a miter headdress. With him is his devilish partner, Evil Peter, who always carries a bunch of switches. Saint Nicholas rewards the good children by giving them gifts from the bag he carries and Peter distributes switches to the parents for bad boys and girls. In Germany, Saint Nicholas is an advanced messenger of Christmas, and the actual gifts are not delivered until Christmas Eve. Sometimes these gifts come from the hands of the Christmas Man, and in other sections it is *Christ Kindle*, the Christ child, who gives them. The weeks between St. Nicholas Day and Christmas are times for great fairs in Germany and they are often called *doms* from the fact that they were once held in the cathedral squares. The Christmas tree is the prime German contribution to holiday decorations, and in Hungary a special candy is made and rolled in bright-colored papers to hang from the Christmas tree boughs.

In Hungary as in other middle European countries, the season opens with Saint Nicholas Day on December 6. The actual Christmas festivities, however, begin at school on Christmas Eve. Before classes are dismissed, the children gather in a circle and each recites a verse from the Bible about the Nativity. They sing carols and each child is presented a bag of sweets. When they arrive home, they find the door to the best room in the house is closed and they must wait until a bell is rung and the door is thrown open to reveal the lighted Christmas tree. Underneath are the gifts from Saint Nicholas.

**I**n America, there is a Santa Claus who fills children's stockings with toys and leaves gifts too large for stockings under evergreen trees covered with ornaments. There are Christmas carols and yule logs, holly wreaths and mistletoe, and so many more Christmas customs — all passed on from generation to generation throughout the world.

MEPN KRNCMAC N XATTN HEY EP	(RUSSIAN)
KELLEMES KÁRARSONYI SSNNEPEKET ES	ŝ
Boldog Uţţéret	(HUNGARIAN)
Sretan Božić i Vesela Nova Godina	(YUGOSLAVIA)
VROLYK KERSTFEEST EN UN	
GELUKKIG NIEUWJAAR	(DUTCH)
FROHLICHE WEIHNACHTEN UND EIN	
GLUCKLICHES NEUES JAHR	(German)
JOYEUX NOËL ET BONNE ANNEE	(FRENCH)
Feliś Navidad y Feliś Año Nuevo	(SPANISH)
MALIGAYANG PASKO AT BAGONG TAON	(PHILLIPINO)
FELICES PASCUAS Y PROSPERO AÑO	
Nuevo	(Portuguese)
BUON NATALE FELICE PRENCIPIO D'AN	NNO (ITALIAN)

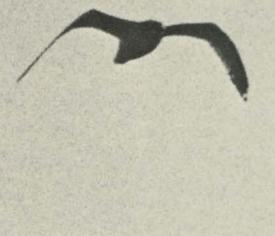


## In the True Gristmas Spirit

Throughout the year each of us has many rewarding experiences. Someone you work with does more than asked of her, and it makes your job easier. Women put together potlucks, showers, and birthday parties . . . this takes extra planning and effort on someone's part. Then there's the person in the hallway who always greets you with a smile or calls out your name when she greets you and you really didn't think she knew your name at all. Or, there's the person closest to you who knows when you're down in the dumps and can lift you up again. This is the Christmas spirit, and that these things happen throughout the year is a fringe

benefit you receive for being part of the human race. And, while there are many instances of man's goodwill, here are two group efforts that deserve special recognition.

Giving to the United Fund is a routine sort of thing, but for a whole department to pledge their Fair Share is unique. 99% of Packaging Production (that's more than 100 day and swing shift people working for Dan Murray) did just that, and their gifts will be appreciated throughout the coming year by those people assisted by the Santa Clara United Fund.







In the other instance, all the girls on Aerospace and Defense's IC and Special Products Assembly swing shift baked 258 dozen cookies for America's Special Forces serving in Viet Nam and another group stationed in Germany. The cookies were headed for the 5th Missile Battalion in Germany, the 9th S and T Battalion at Da Nang, the 12th Aviation Group at Bien Hoa, the 661 Ordnance Company AMMO, a Navy ship just off the coast of Viet Nam, and the Commander Carrier Division FIVE (this last choice, the result of a letter received from RDC James R. Davis, USN, published in *Leadwire* 10). Several of the girls have relatives stationed with the six groups, and that also accounted for their selection.

Joan Connally organized the "bake-in" and Joy Waters, Diana Tollner, Darla DuBois, Lynette Evans, and Andrea Anderson helped her wrap each cookie hoping to save them from crumbling en route. The cookies were then neatly wrapped in Christmas packages, and six huge cartons of cookies were transported to Fairchild's mailing room and sent on their way.

## Industry and Community: Partners in A Committment to Job Opportunities





The industry representative just happens to be Fairchild Semiconductor, and the community organization is OICW. OICW stands for Opportunities Industrialization Center West.

OICW is a job training center organized two years ago in Menlo Park to provide a variety of courses (Business Skills, English, Math, IBM Keypunch, and Electronic Assembly) for San Francisco Peninsula residents. It then follows these with an all-out attempt to enlist local industries to support its program by providing job opportunities.

Fairchild Semiconductor is one of many Peninsula firms that regularly hires OICW graduates, and according to Bill Strickland, Personnel Assistant who does quite a lot of the Mountain View hiring, he's received lots of favorable comments from the supervisors OICW graduates work for. He is continually hiring OICW applicants and finds them not only well qualified but quite adaptable to Semiconductor's specialized skills.

OICW is a demonstration project of "self-help." In fact, that's the



organization's motto, "We help Ourselves." And Fairchild's employees who graduated from OICW certainly typify this.

Imelda Trevino is doing RF Testing, testing tuners for radios and TVs in Mountain View's Commercial Test and Finish Department. She's been with Semiconductor for seven months, and according to her foreman, John Mack, she's one of the best girls he has. All the girls she works with have the greatest respect for her and comment that she's the hardest worker of them all.

Dessie Rogers works for Aerospace and Defense, and more specifically for Bruce Thomas, Mark and Pack supervisor. Bruce has raved about Dessie's work for some time and is a big booster of OICW mainly because of Dessie's fine work. She's been with Fairchild for four months and has been cross trained in many jobs adapting easily to each new challenge.

Lucy Plascencia, originally from Guadalajara, Mexico, has been working at Fairchild for three months. Her supervisor, Dan Bittel, praises her work



highly. She's done a variety of jobs and currently is loading Fairpac Caps on the Flatpac line in the Packaging Department.

Mary Lindley is one of two girls backlapping wafers to specific thicknesses in the Wafer Test and Finish operation. This is a highly skilled job, and her foreman, Al Nott, depends heavily on the accuracy with which Mary performs her job. Mary has been with Fairchild for about three months.

Waltraud (Wally) Scott, a native of Frankfurt, Germany, studied OICW's English, Math, and Typing courses, but eventually wound up in the electronics field working for Fairchild Semiconductor in the Hybrid Products group. Bob Powell, foreman of the Flatpac line, says Wally is his best die attach girl and when she starts working nothing disturbs her concentration. (Thelma Shaw, graduated from OICW in 1965, the IBM Keypunch School, and it wasn't until Wally's interview that either one of them realized the other had attended OICW.)



## Christmas comes but once a year,



butit anywa our Fi almos



What used to be a simple recordkeeping has evolved into economic and financial overhead control, pricing and profit plan international finance as well as payroll,c

This department even provides Yes, as Semicondu



too!

a travel service, accounting took n



it ł fin hig att

autonomy than ever before be cause each plant or major department has its own



Controller and staff.

Even with all this, the Finance Departme doesn't forget about the simple tasks it's asked to perform, but then preparing near 10,000 paychecks a week isn't any simple matter.

takes many, many paychecks ay. And, speaking of paychecks, nance Department prepares t 10,000 paychecks each week.



That's not all they do, either!

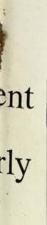
function planning, ning, and



ost accounting and timekeeping.

ctor grew, ew shape;

became ance – and gh finance that. Following this evolution, the Finance Department reorganized along product lines to match"straight-through production with"straight-through accounting." Group Controller organizations have been established to service each of the major device manufacturing organizations. Now there's more local financial









Deck the halls with lots of paintings, fa-la-la-la-la-la-la-la. And, that's just what's been going on lately at Mountain View. Mountain View employees and their families rallied to the cause of art, contributing more than 115 works of art to the Rec Council's combination contest and exhibit. All entries were judged by Larry Bender, Marketing Services Art Director; Tom Hewitt, Marketing Services Designer; and Roger Flanagan, Art Director Sunset Magazine.

First prize winner was Helen Magnus of Maskmaking for her pastel portrait of her daughter, Rachael. Helen has been doing portraits on commission for nearly ten years, and she likes to dabble in other media as well.

Second prize went to Bea Wilkerson of CLIC for her still-life painting of flowers done in oils. Bea considers herself only a week-end painter, but her abilities rank her as a professional. She also specializes in portraits.

John Arthur, Senior Personnel Administrator, has been painting for nearly 20 years, and like all artists he never has enough time to spend painting. His seascape done in oils earned him third prize in the employee art show, but then John was entering a tested winner, for it has won honors in every show he's entered it in.

Frank Gusdorf of Memory Products' Engineering Department won an honorable mention for his woodblock print, and Sophie Keefe's sister-in-law also won an honorable mention for her acrylic painting. Sophie is in Maskmaking and is an artist herself.

Clockwise: John Arthur, third prize winner; Bea Wilkerson, second prize winner; Helen Magnus, first prize winner; and Sophie Keefe who accepted an honorable mention for her sister-in-law. Not pictured was Frank Gusdorf who also received an honorable mention.

# Art D Abounds

## Photography, Fairchild-Style

It's not the film, lens opening or camera that makes a good picture. They help, but what counts is what the photographer sees. That criterion — content — was the basis for selecting the best of 64 entries in this year's *Leadwire* Photo Contest. Photos arrived from almost every Fairchild location, and most of them fell into two categories, scenics and human interest. Choosing the best photos from 64 excellent ones was the job of Marketing Service's art directors and photography staff.

This year's grand prize winner received a Kodak Instamatic M-18 Movie Camera, first prize winners received Polaroid Swingers, second prize winners received transistor radios, and honorable mention winners received certificates. Now, here are the winners:





Human Interest Honorable Mention:

W. H. Lau, Hong Kong, Diode, for his photo, "Hong Kong Worker."



Human Interest Honorable Mention:

Konrad Herman, Plant Controller, for Hong Kong.



James Combes, Cost Accounting at Mountain View.



Scenic Honorable Mention:

Brodie Spencer, Industrial Relations Manager for Hong Kong.



Human Interest Honorable Mention:

Y. T. Chang, Hong Kong, Diode, for his photo "Summertime, Hong Kong."





Human Interest Second Prize Winner:

Louie Kish, Foreman in the Hybrids section at Mountain View. Scenic Second Prize Winner:

Kiyoshi Murakami of Electronic Design, San Rafael.



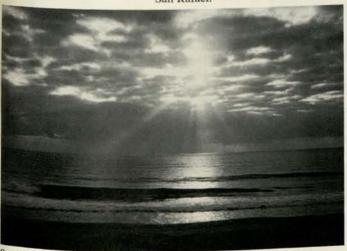
Still Life Honorable Mention:

Herman Martin, Special Products, San Rafael.



Still Life Second Prize Winner:

Jurgen Wickert, Fairchild Australia.



Scenic Honorable Mention:

Sandi Richlin, Department Secretary in Packaging at Mountain View for her photo "Sunrise Down Under,"



Sports/Action Honorable Mention: Charles Hunter, Materials, Mountain View, for his photo "Around the Cape."

## **Qf** Interest

#### FCI Buys World Magnetics, Inc.

Fairchild Camera and Instrument announced the acquisition of substantially all the assets of World Magnetics, Inc. of Charlotte, Michigan, in exchange for a number of shares of Fairchild stock. World Magnetics designs and manufactures magnetic heads for the electronic reading of printed magnetic ink characters from checks, ledger records, and similar data for the computer and data processing industry. It will be operated as a wholly owned subsidiary of Fairchild.

#### **Credit Union Advances Reported**

Fairchild's Credit Union serving San Rafael, Mountain View, and Palo Alto locations, as well as Instrumentation, reported assets exceeding \$1.5 million and loan volume exceeding \$1.5 million by the end of the year. Manager Bob Maydeck said that the operation was exceeding its budget on gross income and was way underbudget on expenditures. 4500 employees now belong to the Credit Union.

### Research& Development

The new R & D cafeteria observed its first birthday on October 31st with a lavish smorgasbord menu served from elegantly decorated tables in the dining room. The Halloween motif was carried out in the floral arrangements and room decorations. Birthday cake and coffee were served during the day with the compliments of the cafeteria contractor, Coca Cola Bottling Company of San Jose, and staff. Chef Floyd Manning was celebrating his birthday as well, and his popularity was attested to by the many hearty birthday congratulations and the musical tribute he received from the lab groups.



Pasatiempo was the site of the Golf League's last grueling event. John Gundershaug took low gross honors with an 89, and Joan Blome and Arnold Riemer won closest to the pin and fewest putts contests. Joan was only 53 inches from the pin on the par-3 fifteenth hole, and Arnie went around in 30 putts. Low net honors went to John Michel (76) in Flight A, while Dave Elrod's 66 was low for the B Flight, and Joe Ruiz captured low net in the C Flight with a 72. Next course on the agenda is the Oak Ridge Golf Club in San Jose. It promised to be only slightly easier.

## From the Field

Top salesmen for the month of September included Scott Brown (Industrial-College Park), Hank Merino (Aerospace and Defense-Minneapolis), and Dick Koehler (Computer-Minneapolis). Named for October were Chuck Keough (Industrial-Elmwood Park), Ronald Smith (Aerospace and Defense-Albuquerque), and Tom Dyer (Computer-Poughkeepsie).

### Instrumentation

Monopoly, Parchesi, and Password are a few of the traditional games many Instrumentation families will find under their Christmas trees this year, for they are being sold like "hot cakes" by the Rec Council at their Discount Christmas Gift booth. More than 100 employees a day browse during their lunch hours and breaks, selecting from a variety of toys, stuffed animals, and novelties. The project is the Rec Council's biggest money maker of the year, and the profits go toward the annual Children's Christmas Party and to support Instrumentation's foster child for the approaching new year.



Bonifacio Navalta, Instrumentation's foster child, has been writing very regularly. Here's his last letter:

How are you? Guess you're busy at the moment. About me, we're also busy here getting ready for our examination on October 2nd. From here, they'll get our grades for the second grading. I am studying hard. I wish to thank you for the things we're receiving. Last month we got hold of the mosquito net and the sum of 31.35 (\$8.00). Please do take good care of your health. This is all for now. May God bless you always.

Winner of the sales trophy for instrument sales, Western Region, is Jim Coffey, who succeeded in having the Model 7000 specified on a phase of the Phoenix program. First month's orders totaled \$15,000 with more to come. In the East, regional winner was Bill Ernul for his efforts promoting the Model 8220 specification on a large FAA requirement. Highest man in instrument sales this year is Gary Verwer with more than \$200,000 to date.

### MountainView

Microwave Assembly has two assemblers, Susan Yoshimine and Bev Chase, who maintained a perfect record of quality over a four-week period, October 2– November 3, a fete which makes Assembly Foreman Barry Richardson quite happy. To the girls it's just all in a day's work.



Derek Bray, Manager Consumer Applications, presented Ted Hanna, Consumer Applications Engineer, his share of the cash award he and Dave Bingham, LIC Consumer Microcircuits, received for publishing their article, "A Low-Cost AM-FM Radio Employing An Integrated Circuit." The article was presented at the Chicago Spring Conference in June and published in *IEEE Transactions on Broadcast and Television Receivers*. Ted also had an article, "An Integrated FM IF Amplifier" published in the September issue of *Electronic Products*.

Robin Jeffs reports that the Fairchild United Soccer team dropped its first contest to the Germania team. The loss also knocked them out of the top spot in the league. However the team added wins over the Newark Kickers, Hercules, and a "friendly" with the University of Santa Clara to their string of victories. They also tied the Fortuna 66 team. Jan Visser is trying to get a second team organized, so anyone who just wants to play for the fun of it should get in touch with him.

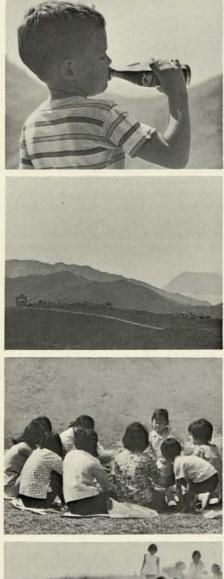
The Tenth Framers continue to lead the Mountain View Winter League stretching their lead with a 29–11 record. In second place is the F Troop team (26–14). Ed Beers' high series (617) leads the men, and Ann Lima's high series (566) leads the women. Charlie Kuhlmann holds high game honors with a 246, and Aggie Myreholt and Ann Lima share the women's high game honors with a 212.



QA and QC are joining forces in the IC group, or at least that's where all the people making up the new Packaging Inspection group come from. Some of the people in this operation are Dick Stafiery, Manager, and Dick Berger, General Foreman. Bill Huff is QA test room foreman on graveyard, and Pete Fletcher is graveyard technician. Jerry Bendinelli is now day shift foreman for QC Packaging, and Al Hiratsu serves as the Engineer. Jim Tucci rounds out the staff as swing shift foreman, but the most important additions, the girls, are shown below - days on the left and swing on the right.

### Hong Kong

Hong Kong's summer picnic was held October 22nd. The place was Har Leung in Hong Kong's New Territories. The pictures were entries in this year's *Leadwire* Photo Contest taken by Jim Perry, Y. K. Yeung, S. W. Chiu, and Y. H. Tsui.





### San Rafael

Amid holiday goodwill and good cheer, each person harbors his own Christmas wish. Here are just a few:

Avrille Nielsen, Receptionist, would like to find actor Paul Newman in her Christmas stocking.

Jeanette Schwinghammer, Nurse, would like to receive a six month cruise to the Orient with an interesting (???) companion.

**Bill Morinville,** Foreman, would like a really good single lens reflex Miranda camera.

Naomi Petri, Can Line, would like a tape recorder.

Tony Schiavo, Line Maintenance, must be one of the happiest fellas in the plant. "Now what more could a man like me want, I have everything."

Karel Svoboda is asking for a six-month trip to the Adriatic.

Harry Spence has a sports car kit and would like someone to change it into a new sports car.

Wayne Lawson wants a Ferrari. Madeline Reynolds would like her

husband home from Vietnam for good. Rose Colona would like a new

wardrobe.

Robin Hodge, Engineer, would like a new Ferrari, too.

Jane Lysher, Can Line, would like another week's vacation with pay.

Janet Marz, Engineering, would like a round-trip ticket to England to surprise her family.

Clara Crouch, Can Line, would like her home redecorated.

Mario Scavino, Engineer, is just asking for a trip around the world.

Jackie Stephenson, Special Assemblies, would like a new marking machine.

Bob Campagne would like a 40 point rise in the Stock Market.

Bert McNamara would like a white elephant.

Alex Danks thinks a signed and approved P.W.O. for lab equipment would be a welcome Christmas surprise.

Herm Martin would like a stable organizational chart.

Hal Knopp wants Mikio Suzuki to accept his letters the first time without tables and appendixes.

Palmer Merrill, Foreman on the Module Line, was called upon to assist the training effort down in Tijuana. He not only wrote a maintenance manual, but served as a trouble-shooting guide and trained mechanics and operators in Com Fab.

Going into November, Team No. 2 (Rich McIntyre, Evelyn McIntyre, Al Danks, and Madeline Reynolds) is leading the bowling league. Most surprising woman bowler this season is Madeline Reynolds who leads all women bowlers with her 151 average. Other women causing quite a stir are Jo Manino with a 212 high game, Janet Marz with a 512 high series, Sheila Morton with a 238 high game handicap, and Karen Callaway's 606 high series handicap. Hal Knopp leads the men with a 170 average, Rich McIntyre's 223 is high game so far this season, Art Pearson holds the high series record with a 566, Jerry Callaway leads the high game handicap category with a 245, and Daryl Cremers' 652 is high series handicap.

Coach Mike Feldtman predicts an improvement over last year's 0–17 basketball record thanks to the addition of youth and height. Ron Ostertag and Gordon Tremoureux stand 6'5", and Al Danks and Frank Barton check in at 6'3". Bruce Mack, at 6'2", and Mike Feldtman at 6' even add additional height. Those below the 6' level are Stan Manning, Bob Casel, Rob Reynolds and Ernie Grosso. Receptionist Avrille Nielsen came out for team tryouts, but the fellas and Avrille all decided there was too much holding under the boards and she voluntarily retired from the game.

### Seoul, South Korea

Production at Semikor, Ltd., hit a million devices a week, and employees celebrated the occasion at a picnic held in late October. Morning activities consisted of games, races, production skill contests, a masquerade parade, and a group talent show. After box lunches, a local radio station helped the group celebrate the event by taping a show which will be broadcast at a later date. Many prominent local celebrities in the singing field participated in the affair, and a singing contest held among Semikor employees topped off the afternoon.



### Ten Year Anniversaries



Murray Siegel, Industrial Applications Manager accepts his 10-year pin from Industrial Marketing Manager Jim Martin.

### Five Yr. Service Awards

Elaine Davis . . . . . . . . Toshiko Matsunaga . . . . . MV Marce Mora . . . . . . . . . MV Viola Alderete . . . . . . . . . . . MV Ruth Brown . . . . . . . . . . . . . . . . SP Leonard Hernandez . . . . . MV Russ Harper . . . . . . . MV William Worcester . . . . . . . . SP Nette Blaylock . . . . . . MV Jim Dixon . . . . . . . . . MV 

 Ray Reposa
 .
 .
 .
 MV

 Donald Morlan
 .
 .
 .
 .
 Instr.

 Anita DiPerno
 .
 .
 .
 .
 SR

 Earl Golsan . . . . . . . . SP Stan Smith . . . . . . . . . . . R&D Marjorie Wade . . . . . . MV SP Shirley Remington . . . . . Joe Paret . . . . . . . . . MV SR Diane Livingstone . . . . . Delores Stephens . . . . . . . . SR SR Maxine Teague . . . . . . Thelma Mageean . . . . . . SP Jean Spencer . . . . . . . . . . SP

### New Faces

Philip Edwards III joined Mountain View as Power Devices Application Engineer. He formerly worked for Teltronic Industrial Systems.

Robert Hodges was named Manager of Compensation for the Semiconductor Division. Bob will be responsible for all wage and salary administration including job classifications, merit reviews, and wage and hour law interpretations. He was formerly with Raytheon's semiconductor operations as Industrial Relations Manager.

Kurt Stehling was named Test Equipment Engineer at South Portland. A native of Germany and a graduate of the Munich Technical University, he was employed by Siemens A6 in Munich as an Equipment Design Engineer.

Guy Tessier was appointed Shop Supervisor at Instrumentation. He was previously associated with Statham Instruments in Oxnard, California.

Ken Van Kleeck joined the Finance Department as Mountain View Plant Controller for Discrete Devices. He previously worked for the Norton Company as a member of the Corporate Controller's staff.

### Moving Up

Steve Ammann was named Technical Director for the Instrumentation Division, heading a research staff located at R & D. He was formerly Section Manager, Advanced Circuits and Techniques Research.

David Barton was promoted to Time and Frequency Manager at Instrumentation.

Robert Cadwell was appointed Special Instruments Development Manager for Instrumentation.

Joe Fulginiti was promoted from Technician to Foreman, Discrete Devices on the swing shift at Mountain View.

Gene Kruschke was named Applications Engineering Manager for Memory Products. He was formerly Central Regional Sales Manager for Memory in Minnesota.

John La Porta was promoted to Plant Manager, Small Instruments, at Instrumentation. Formerly with the company's Clifton, New Jersey, engineering group, he joined the Mountain View facility earlier this year.

Richard Thornton was named Manager, Development Engineering for Small Instruments at Instrumentation. He has been with the division since 1963 working in instrument design engineering.

Qui Hadley 650-327-4220

#### Leadwire

Vol. 9, No. 12

Published by and for Employees of Fairchild Semiconductor/ Instrumentation Mountain View - Palo Alto - San Rafael - Hong Kong - South Portland, Maine - Shiprock, N.M. - Croydon, Australia - Ontario, Canada - Tijuana, Mexico - Seoul, Korea

Editor: Judy Horst Art Direction: Larry Bender, Mark Gorse Photographer: Ron Turner

#### Reporters:

MOUNTAIN VIEW—Marge Killian, Wes Cox, Lois Eagleston, Nellie Covington, Ginger Tygret, Keith Thomson, Judy Dunkelberger, Iantha Kochsiek, Katie Guida, John Walsh, Edna Loucks, Missy Strebig, Val Knowles, Barbara Horst, Loann Stoats, Chris Squires, Bonnie Weber, Donna Hudson.

SAN RAFAEL—Cleatus Dunkley, Audrie Graxiola, Janet Marz, Margaret Queen, Hal Knopp, Cary Barford, Bobbie Talley, Anne Parfitt, Hilda Kaliczak.

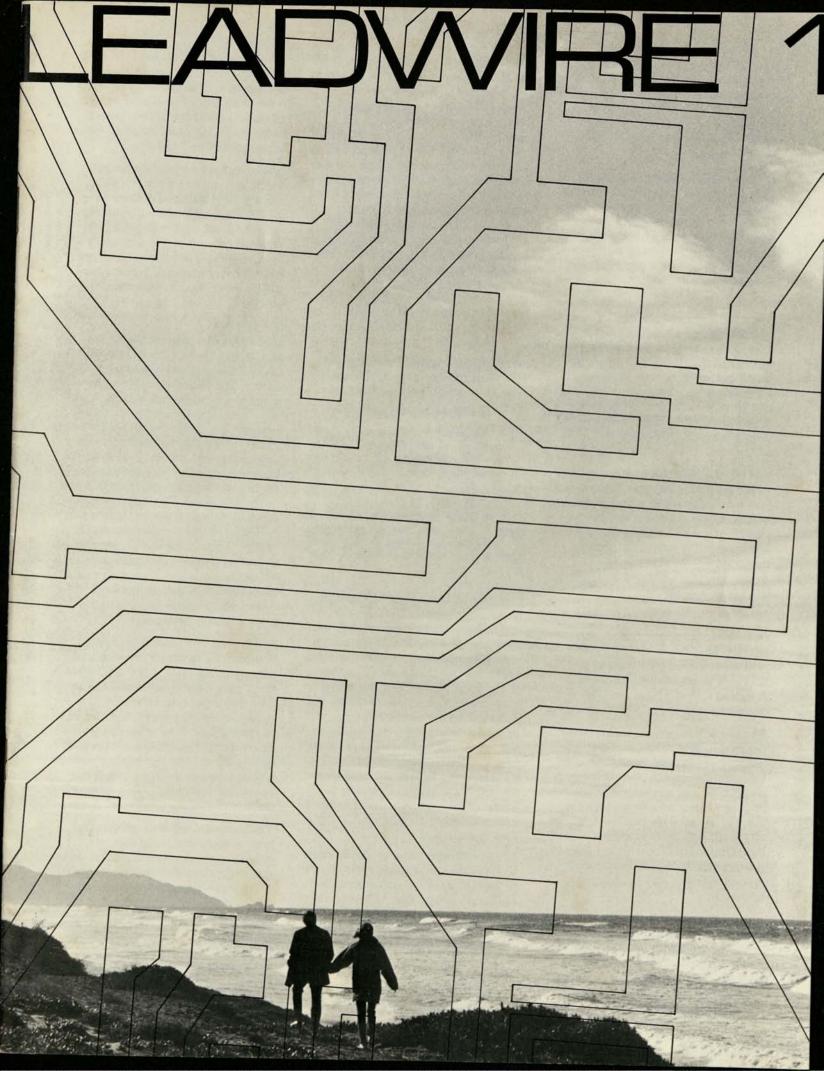
RESEARCH & DEVELOPMENT— Janet Jones, Terri Mead, Adrienne Juliano, Janet Lumley. INSTRUMENTATION—Jack Ramon, Pat Campagna, Anna Ackerson, Walt Skruch, Jeanne Meyer.

SOUTH PORTLAND — Linda Allen, Bob Tetrault.

μL is a registered trademark of Fairchild Semiconductor, a Division of Fairchild Camera and Instrument Corporation.

Copyright Fairchild Semiconductor Printed in U. S.A. 4000-543-107 9.5M

THE COVER: The photo taken by David Barton of Instrumentation would have been cover material no matter what the season, but it affords the *Leadwire* an unusual approach to the Holiday Season. As grand prize winner in this year's *Leadwire* Photo Contest, it handsomely reflects this year's Christmas theme — peace on earth, good will to men . . . of all nations and all faiths.



As man walked, the horizon remained that same far distance away, and when he thought he had found the road to the end of the world, there lay before him an even greater unknown land, and always the horizon remained.

So it is in the dynamic electronic age. Scientists and manufacturers are producing the things science fiction was made of just a few years ago. Our homes are filled with conveniences that have become necessities . . . new gadgets, and always new horizons.

The eerie interface of man and machine as characterized by the electronic age presents both boundless opportunity and a burden of adjustment . . . the shorter work week but what to do with leisure time, improved mass communication but less communication between individuals. This is the two-headed coin the electronic age has flipped us.

But it's a sure bet that mankind will come up winner as you'll see when you lend your imagination to this science fiction concocted by Fairchild's Applications people who are constantly looking to new horizons.

from an article by Elliot Sopkin, Public Relations

Computer technology that is responsible for man's spins around the earth is likely in the next few years to turn his castle into a virtual science-fiction fairyland that will leave the American housewife with hours of extra free time.

The key to this household revolution lies in electrical advances and miniaturization pioneered by such firms as Fairchild Semiconductor. Through a combination of mechanical adaptations to present electronic technology the average house of the late 1970s will be physically smaller than today's home, but will provide a bewildering bevy of devices that will make the chores of housekeeping as easy as dialing a telephone.

The center of tomorrow's home will be a computer about the size of a typewriter jammed with sub-miniature electronic parts capable of performing a host of time-saving tasks . . . thanks to integrated circuits that can perform a series of electrical functions.

This miniaturized computer when attached to special mechanical devices will regulate the temperature and moisture in tomorrow's home; will prepare meals; serve up music or other entertainment into every corner of the house; and can even be programmed to keep tabs on the family budget and the number of times the blue-serge suit has been worn and when it should be cleaned. It can be set up to do the family's income taxes; keep track of gas and tire mileage on the family bus; and maintain an automatic dialing system for the ordinary telephone. The computer can be charged at home, or through telephone lines by a special numerical combination that can be dialed while the housewife is at the beauty shop.

Much of the household revolution will take place in what today's housewife calls her kitchen. Tomorrow there probably won't be a kitchen as most

push butten pleasure

of the equipment will be hidden behind push-button panels. The food-storage area will double as a freezer and oven with rows of single compartments for separate foods. The computer, which can be programmed weeks in advance, at 4 p.m. on a given Tuesday, will start defrosting a section of the freezer that contains a nine-pound turkey, and then turn the area into an oven. After roasting, which will be set automatically by the computer, the oven will shift to a lower setting to keep the meal warm. Cooking the turkey itself will be a matter of minutes rather than hours with microwave ovens similar to those now in use in many restaurants.

Frying and other cooking can be easily accomplished on a range affair that can be hidden under the center panel of the home's dining table. This way the bread-winner's eggs will be warm when served. After dinner, a portable dishwasher will be rolled out from behind another hidden panel; loaded at the table; and again hidden where it will quietly go about its task. Storage of food that doesn't require freezing will be in a special unit, probably located under the house, delivering items as needed through a special chute. And, if the home has a first-class computer, all the housewife has to do is push a button and a tabulated list of all foods in storage will be typed up.

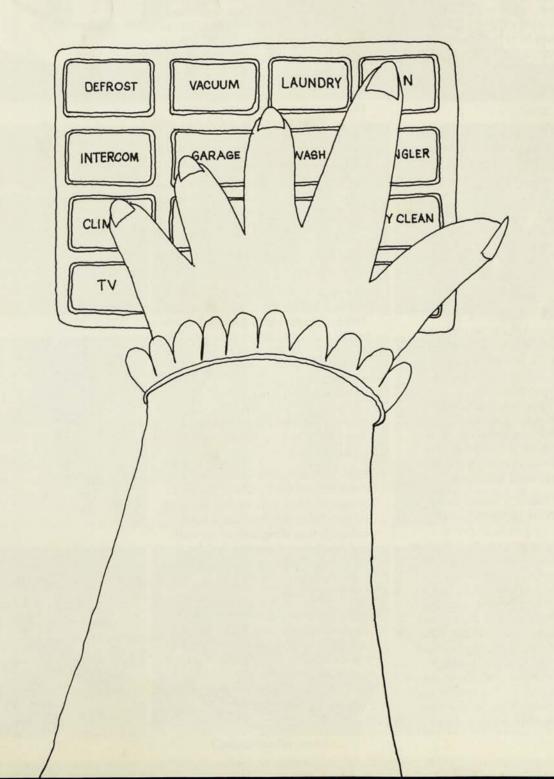
A special food-preparation counter, which also will be hidden in the wall and can be portablized, will contain the full range of kitchen appliances from the toaster to the disposal unit. Many of milady's larger appliances will be portable and will show significant technological advances. Her washer will be programmed automatically to wash and dry, according to the size of the load and the materials involved.

Life within the computerized home will be dust free with temperatures maintained automatically at a given setting. The central computer will be wired to a weather station as well as outside sensing devices for accurate readings of external conditions. Weather reports and existing outside temperatures will be fed into its brain with heating or air conditioning units springing into action as needed. Coupled with this will be automatic window openers that will close with the first hint of rain as well as machine-controlled drape pullers. Actually the use of computers to control temperature ranges is as old as Gemini where it not only provided navigational facts, but kept America's spacemen in a constant environmental atmosphere.

For the real boy scout type, many houses in the future will be equipped with roofs that open so that for romantic or nature-loving reasons, one can dine under the stars. Of course, if a sudden storm comes up in the middle of the night, or if the smog gets a little heavy the roof will automatically and quietly close. Heat and cooling systems will be centrally located under the house, but will radiate from walls and ceilings eliminating drafts and ducts.

The computer will also sprinkle the lawn at given times, and turn on defrosting mechanisms under the driveway and sidewalk when a freeze starts. Electrically-controlled machines that will mow the lawn and shovel the snow are also just over the horizon.

Lighting in tomorrow's home will also be diffused with walls that glow or fixtures hidden in the ceiling. And, with a special Buck Rogers unit built into the belt or shoe, a person can walk



from one section of the house to the other with the lights going on automatically ahead of him. Of course, special lighting effects will be installed in junior's room so that lights gradually dim, probably accompanied by a little electrical story telling to coo him to sleep.

The same hidden speaker system that will tell junior about Red Riding Hood will also be used as the central entertainment center. A bank of tapes or records will be stored and will be reproduced throughout the house when desired. By dialing a special combination of numbers on the computer's telephone-dial operating system, waltz music can easily be served with dinner. Of course, there is always the possibility of malfunction so that the Beatles could accompany a solemn Sunday turkey. Such mishaps can be corrected by a flick of the switch.

Television will be viewed from wallsized screens that will be located in several parts of the home that closely resemble picture frames. And, when



Lawrence Welk is turned off, the screen will automatically be replaced with Aunt Em's picture. This television set-up will also be hooked to a special closed-circuit system similar to those now in use in many banks with cameras hidden in such places as the kitchen, to check on the stew; outside the home to screen visitors and peddlers. And, in junior's room an infra-red camera will keep a careful eye on his nap without any lights to keep him awake.

The lord and master's wardrobe will be stored beneath the home and will be delivered part by part to a special narrow closet opening on the same type of moveable racks now in use in many commercial cleaners. By dialing 768-934 on the computer dial, he'll have his blue serge suit, but, of course, if he makes a mistake and dials 668-934 he may end up with his wife's pink evening gown to wear to the office. Every time he wears his serge it will be automatically tabulated, so with the dialing of another special code he can have a printed list of how many times he has worn each suit to know

when it should be dry-cleaned. The dry-cleaning list will be thrown off a little when the husband gets a little sloppy with his spaghetti. If the house is really fancy, a special chute that can be opened from outside will automatically be filled with all the clothes that need to be cleaned and can be picked up by the cleaner without any fuss from the household.

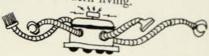
With underground storage units and hidden kitchens, the home of the future will be physically different and smaller than today's home. There will be no permanent walls, except maybe in the bathroom, because rooms will be made by sliding walls. Thus, for the Christmas party the entire home can be used, but the bachelor wishing a little intimacy can adjust his home to have a small romantic dining area.

This great flexibility in the interior design of the home will make it possible for smaller houses, thus cutting construction costs and using less of the ever-decreasing supply of land. Although construction costs will be reduced because of size, there will be new expenses because of the many electro-mechanical gadgets. But, Fairchild engineers feel the average home cost will remain about the same as it is today.

Although many of these marvels will be designed for the single-family residence, the apartment dweller will not be left to his old-fashioned ways. The multi-unit combination freezer-stove can be used in apartments, as well as portable dish-washing and food preparation units. And, with large apartment projects of individually-owned apartment-style units, a large computer providing a host of services will probably be available.

Even with this assortment of modern conveniences the family of the next decade will still have to rest. Sleeping will probably still be done in beds, although they'll pop out of the walls and be electrically controlled for temperature and automatically fit the body's curves.

And, about 2 a.m. when everyone is safely tucked away either in a home or an apartment, a small hatch in the wall will open up and out will roll an automatic cleaning machine picking up the debris of modern living.









**Research & Development** 

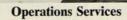




Canada



















Hybrid Products







Marketing

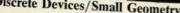




















QA, PC, QC



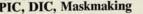




















**Industrial Engineering** 







Finance





Instrumentation



Aerospace & Defense









**New Products** 









San Rafael





Discrete Devices/Large Geometry

### **Of Interest**

One of Santa's helper's expertise in Russian has been challenged, and the challengers have come out the winners. "Merry Christmas and Happy New Year" are not the mumbo-jumbo printed in the December **Leadwire**, but "S Rozhdestvom Khristovym i S Novym Godom" when translated from the Cyrillic alphabet. The **Leadwire** stands corrected.

3

### Seoul, South Korea

Additional photos arrived depicting October's picnic celebration:



Two mechanics hoist Stars and Stripes and Korean National Flag to start the day's activities.



All sorts of sporting events



And cheerleaders, to boot!





Masquerade



Korean costumes



Skills contests

## Hong Kong

Greetings from Hong Kong, compliments of Dave Heck. An early November Tea Dance sponsored by the Production Control Rec. Council for all employees in Die Fab, General Stores, Transistor Stores, Production Control and Planning, and Final Test drew nearly 1000 people. Entertainment included a singing contest, a quiz program, a luck drawing, and "A-Go-Go" Hong Kong style.



Speaking to the gathering in Cantonese.



More people.



An operator performing in the amateur singing contest.



P. L. Lau (Rec. Council Pres.) and two assistants.



John Sussenberger giving away prize from the lucky drawing.



Some particularly well dressed swingers.



The people and the Hecks swing.

## Australia

Fairchild Australia hosted Mr. and Mrs. Frank Merkert when they stopped off to see the plant on their "roundthe-world" tour. Mr. Merkert, now retired, worked with Fairchild Camera and Instrument for over 30 years. Shown with the Merkerts is John Baldwin, General Manager of the Australian plant.



## South Portland

It's called an open house, and South Portland's November Open House was wide open, hosting employees and their families, the local Portland community, and several visiting dignitaries. On hand for the occasion were Miss Maine; U.S. Representative Peter Kyros; Marion Martin, Commissioner of Labor and Industries; Ed Cole, FCI Vice President; and nearly 15,000 people.

Bud Sawyer, top announcer for the leading station in Portland did a "remote" from 10-1:30 to give "stay-athomes" a chance to "see" the plant. Door prizes (a color TV and eight transistor radios) were given away, and a SRO crowd filled the "movie house" to see the continuous showing of "Integrated Circuits" starring Dr. Henry Sello of the Palo Alto R & D Labs.

A local radio station representative summed up the whole afternoon when he said, "That many people didn't leave Portland when the whole city was on fire!" What a happening!













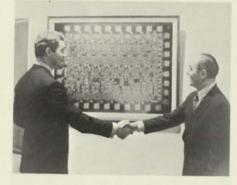






# From the Field

Jerry Sanders, Marketing Director of Fairchild Semiconductor, presented Seymour Schweber of Schweber Electronics an enlarged reproduction of the 3800 Chip-200 Gate MOS Circuit (from the LSI series of new products) during the highly-publicized "Summit Conference" sponsored by Schweber. Featured in addition to Sanders were top marketing men from Motorola, Westinghouse Semiconductor, and General Electric Semiconductor.



### Shiprock

Shiprock employees celebrated the holiday season at departmental luncheons and parties held in the plant's cafeteria amid Christmas decorations and presents.



Scoutleader John Giblin (who doubles as Corporate Accounting Manager) and his fledging "Webelos" Boy Scout Troop of Oyster Bay, Long Island, made it a merrier Christmas for many Indian children on the Navajo reservation at Shiprock. The troop decided their "Goodwill Project" for the Christmas season would be to collect toys for underprivileged Indian children on the reservation. John is reluctant to take credit for the success of the project, but he can take credit for the idea .... the result of a summer trip he and his family took through the southwest. Before John turned his pack loose to collect the toys, he contacted George Higgins, Employee Relations Manager of the Shiprock plant, who in turn contacted William Howard of the Bureau of Indian Affairs, Shiprock Agency, to see if the idea had merit. It did, and John's Scouts went to work. Later, the Navajo children made fast work out of opening the gifts.

Ten Shiprock employees were awarded certificates at a banquet honoring their completion of a sixteen-week management training course given by General Foreman Don Ashton. The course material included quality control and engineering, accounting, company policy and procedures, human relations, planning and organizing, supervision, effective communications, and case studies and methods. Those receiving certificates were Keith Grass, Donald Kee, Thomas Nelson, Kee Blackwater, Joe Kieyoomia, Gilbert Castillo, Edward Ashley, Chee Benallie, Mike Perez, and Nelson Blackgoat.

### **Research & Development**

R & D's Christmas Party held special significance this year for several reasons. First, it was R & D's Tenth Annual Christmas Party; next, Dick Parker received his 10-year service award that evening; and in addition, roses were presented to the wives of seven of the employees who have been with Fairchild Semiconductor for ten years.

R & D added its spirit to the Christmas spirit, answering an appeal for presents for servicemen in Viet Nam made by a local radio station. Margaret Coulbourn of the Purchasing Department, with the help of many employees, headed R & D's "Present for a Soldier" campaign. The Calibration Lab collected money, the girls in the front lobby put together food packages, and anonymous gifts of food, candy, and cigars flowed into Purchasing from all corners of R &D. "Present for a Soldier" turned out to be many, many presents from R & D.

# Instrumentation

Many, many children of Instrumentation employees were entertained by magicians, clowns, and variety acts at this year's Children's Christmas Party. Santa was there, too, passing out gifts to everyone.



And here, William Harrell, engineer with the Special Systems section, receives a nice Christmas present from Jim Bryson, Manager of Development Engineering. Bill earned this check, though, co-authoring an article, "Build Your Own Low-Cost SCR Tester." The award was made through Fairchild's Inventions Incentive Program.

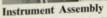


Surrounding the first Model 8200 Universal Counter-Timer to leave the production line are some of those responsible for its development: Steve Doyle, Design Technician; Del Aquila, Product Marketing Manager; Dave Barton, Manager of Development Engineering for Time and Frequency Instruments; and Jack Wiens, Designer. The Model 8200, incorporating extensive use of integrated circuits, is one of a new line of instruments introduced by Instrumentation in 1967.



Christmas Decorations took top billing during the holiday, especially since everyone was competing for steak dinners. Judges Bob Chan, Ib Larsen, and Ray Murakami picked Instrument Assembly's espaliered Christmas tree, Purchasing's church made of frosting, and Bill Walker's Systems Manufacturing gal's "Willy's Express". The judges also voted a special Honorable Mention to "Samantha's Cart".









Purchasing



Instrument Model Shop



Systems Manufacturing



Samantha's Cart

# Mountain View

Rather than exchange Christmas presents Aerospace and Defense's Mark and Pack Swing Shift decided to sponsor a Christmas for a family belonging to the St. Lawrence Church in Sunnyvale. The girls and guys, led by Betty Anderson, Chris Handley, and Barbara Seay, collected food and toys and money for food certificates for the nine children of this deserving family. There were at least three gifts for each child.



And in Slicing, members of this department made Christmas a bit brighter for one of their co-workers, surprising her with boxes of food and toys for her children.



Of the many Christmas decorations seen around the plant, one of the most unique was this Christmas tree made of old **Leadwires** and decorated with Cerpak and dip rejects. Its creators were Carolyn Scott, Doris Abel, and Judy Curiel of Parts Preparation.

Derek Brey Consumer Applications must certainly be accustomed to handing out checks to Bob Hood and Ted Hanna, for they've just received another for articles they authored. Bob's "Transistor Breakdown Yields Inexpensive Thyristor Trigger" and "Combination Timer and Speed Control for a Food Blender" earned him a cash award as part of Fairchild's Inventions Incentive Program as did Ted's article, "An Integrated Circuit f-m i-f Amplifier".



Mountain View's Fairchild Drive building participated in the first fire evacuation drill ever held at the plant. The day shift needed just eight minutes to complete the drill, but the swing and grave shifts took only three and a half minutes. Maybe that cold night air had something to do with it. Fire drills are scheduled throughout the division to keep warning systems in top shape and to keep employees informed of evacuation routes.

An eight-week Detailed Work-Factor course was completed November 16th. This predetermined time study, sponsored by Project and Equipment Planning, is equivalent to a three-hour college course and prepares people to use the Work-Factor technique in work measurement, method improvement and tool design. Fourteen Fairchild Industrial Engineering personnel graduated from the course, including one woman, Norma Lias of IC Engineering. Others were Chuck Clark, Warren Lindahl, and Mike Morgan of Hybrids; Fred Blamer, Tom Easley, Robin Jeffs, Gene Knauer, Kumar Patel, and Al Stout of Integrated Circuits; George Hargrove of Materials; Dan Bittel and Tim Daly of Packaging; and Dick Gamble of Test and Finish.

F Troop approached the New Year on top of fifteen other teams in the Mountain View Bowling League. Their 39-17 record put them just barely ahead of the Gutter Dusters. F Troopers are Jim Green, Sandi Johnson, Carolyn Delgadillo, Charlie Kuhlmann, and Jim Wallis.

A typical day in the cafeteria: a sur-

prise shower for Donna Jordan, QA clerk, who had just become Donna Hudson; another shower, this time a baby shower, for Carol Watkins of Materials; a baby shower given by the girls in DIC Assembly for Dan and Dodie Headington's newly born son Mathew; a surprise Birthday celebration for Paul Bassett, Product Specialist, Production Control; and a merry sendoff for Elmer Webster, Stores, and Connie Scheu, Commercial Test and Finish, now Mrs. Webster.



### San Rafael

San Rafael employees enjoyed a holiday fashion show on December 19th, featuring the latest City of Paris fashions modeled by fellow employees. Debbie Slack, Kathy Klee, Roberta Forsythe, Betty Nichols, Evelyn Packnit, Linda Baker, Iaella Warner, Shirley Riella, June Minto, Barbara Robinson, Mary Thompson, Cathy Hoekman, Joe Wilson, and Bruce Mack whipped through the three showings like professionals.



San Rafael's Christmas Choral Group once again added their special touch to the Christmas season providing entertainment for employees during their lunch period on December 21st. Under the direction of Fave Norvell, the choir included Annie Tillman, Barbara Blaisdell, Roberta Sampson, Wanda Caldwell, Sandy Brock, Maxine Ogleton, Doris Belle, Georgia Harper, Penel Kritzer, Ann Green, Charles Etta Woods, Kay Johnson, Madie Stith, Barbara Robinson, Lillian Ellis, Joyce Bluitt, Lorraine Hollingsworth, Helen Owens, Melva Morgan, Nita Brown, Archie Bryson, Ann Cooksey, LaVerne Comb, Jewell Ficklin, Joyce Kiger, Miritha Moon, and Pat Washington.



Bob Champagne, formerly Department Manager of Module Products, was given a party by his staff in honor of his transfer to Manager of Manufacturing Engineering. Everyone chipped in and bought a portable bar. The package was beautifully wrapped by his secretary, Anne Frugoli, and on top was a circle of cigars and a miniature broom-the prerequisites for Bob's new position, as everyone who knew Bram Kool will verify.

# Jan 10-Yr Service Awards

Bert Person Mountain View

December 11th marked George Langevin's 10th anniversary with the Semiconductor Division, and all of R & D joined in the celebration. It also marked the announcement of his retirement. George, a little guy with a big heart, sought the company's first janitorial post. George remembers it was an uphill battle to get the job. "I told them that my size wouldn't make any difference; I could do as much work as two men my size. Julie Blank took a chance on me, and I guess I proved my point." George was on hand to see the first transistor leave production, and he's collected quite a few memorable experiences in those ten years. Receiving his 10-year pin was one of George's happiest accomplishments in life, but he feels Fairchild Semiconductor started just a bit too late, for he wished it could have been a 20-year pin. As for his retirement, George plans to catch up on some long-overdue fishing. He'll be able to do that and in grand style with the new equipment he plans to purchase with the gift certificate he received from all his friends at R & D.



# Jan 5-Yr Service Awards

#### **Mountain View**

Arnold Anderson Hilda Pendley John Domingo Helen Felter Robert Gray Lupe Gonzales **Opal Kester** Art Kitkowski Ann Lima Hazel Miracle Amil Nelson Robert Orrick R&D

Felix Sandry Charlene Scott Will Steffe Larry Stenger Dorothy Stewart Wilma Turner Stella Underhill James Welch Howard Zinschlag

Edna Rhoden

Edith Bein William Shepherd

### John Wright

#### San Rafael

Robert Olsen Mary Simmons

#### Instrumentation

**Russell Hughes** Douglas Johnson Neil Heil Juan Ramirez South Portland Hazel Day

Steve Carmichael Delores Stephens Mark Stock Monte Toole

> Ernest Robertson Donald Sintek Maude Stanley Bill White

Robert Anderson Barbara Killinger



Gloria Wright sports her five-year necklace just presented her by Jim Nash, Foreman of Silicon Manufacturing QA.



Helen Sasaki received her five-year service award from Foreman Hal Johnson of Amplifiers Manufacturing at Instrumentation.



Myrna Hyatt, QA Test Area, and Becky Real, QC Die Attach, accepted their five-year pins from Dick Staffiery, QA and QC Manager.

### Moving Up

Kee Blackwater, Shiprock, was promoted to Assistant Foreman. He was formerly Production Assistant and has been with Fairchild since 1965.

Robert Curlee was appointed Purchasing Agent at Mountain View. Bob joined Fairchild in August 1966 after retiring as a Colonel in the United States Air Force where he was Director of Procurement, Defense Industrial Supply Center, Philadelphia.

Andre Desmarias was promoted to Foreman at South Portland. He will be responsible for Box Stock, Shipping and IC Dispatch for all three shifts. Andy was formerly a Production Scheduler.

Frank Gusdorf was named Field Service Engineer for the Marketing Department of Memory Products. Before his promotion, Frank was a Senior Electronics Technician for Memory's Engineering Department.

Donald Kee was named Assistant Foreman at Shiprock. He has been with Fairchild since 1965 and was a Production Assistant before his recent promotion.

Edward London was promoted to Plant Maintenance Foreman at Instrumentation. He will be in charge of the expanded operational requirements in building maintenance, janitorial service and plant engineering projects for Instrumentation's new facility.

Gordon Padwick was appointed Manager of Systems Applications Engineering at Instrumentation. Prior to coming to Sunnyvale, he was with Fairchild Instrumentation Ltd., in Aylesbury, Buckinghamshire, England.

Ron Smith was named Special Account Representative for the Atomic Energy Commission for Semiconductor's Northwest Aerospace and Defense Sales Region. Ron has been with Semiconductor since May as a Sales Engineer in Albuquerque.

George Vashel was promoted from Product Manager to Manufacturing Manager for the MOS group at Mountain View.

Leadwire

Vol. 10, No. 1 Published by and for Employees of Fairchild Semiconductor/ Instrumentation

Mountain View - Palo Alto - San Rafael - Hong Kong - South Portland, Maine - Shiprock, N.M. - Croydon, Australia - Ontario, Canada - Tijuana, Mexico - Seoul, Korea

Editor: Judy Horst Art Direction: Larry Bender, Mark Gorse Photographer: Ron Turner Bill O'Keefe was named Licensee Manager. He was formerly Senior Engineer assisting with the technical side of licensee arrangements.

In addition, the following promotions have occurred in Manufacturing Engineering at Mountain View:

Bill Birnie was named Section Head. Gordon Wothe was appointed Technical Supervisor.

Jim Victor was promoted to Engineer B. Harvey Press was appointed Engineer B. Bob Kozen was named Engineer B. Dave Tovar was promoted to Engineer B.

John Bye was promoted to Supervising Engineer. Keith Thomson was named Supervising

Engineer.

The following promotions were announced for members of the Electronic Services group:

McLellan Powell was promoted to Senior Engineer.

Ted Marlbrough was named Engineer B. Ivan Nielson was appointed Engineer B.

Jerry Hubbard was named Senior Electronic Technician.

Joe Portillo was promoted to Senior Electronic Technician.

Ed Bunch was promoted to Electronic Technician.

Saleh Chinoy was appointed Electronic Technician.

Art Prewett was named Electronic

Technician. Curtis Reeves was named Electronic

Technician. Bob Segalla was appointed Electronic Technician.

Shizuo Sueoka was promoted to Electronic Technician.

Pat Villanueva was named Electronic Technician.

Sam Wong was appointed Electronic

Technician.

Tony Morales was promoted to Specifications Designer.

#### Reporters:

MOUNTAIN VIEW—Marge Killian, Wes Cox, Lois Eagleston, Nellie Covington, Ginger Tygret, Keith Thomson, Judy Dunkelberger, Iantha Kochsiek, Katie Guida, John Walsh, Edna Loucks, Missy Strebig, Val Knowles, Barbara Horst, Loann Stoats, Chris Squires, Bonnie Weber, Donna Hudson.

SAN RAFAEL—Cleatus Dunkley, Audrie Graxiola, Janet Marz, Margaret Queen, Hal Knopp, Cary Barford, Bobbie Talley, Anne Parfitt, Hilda Kaliczak.

RESEARCH & DEVELOPMENT— Janet Jones, Terri Mead, Adrienne Juliano, Janet Lumley.

INSTRUMENTATION—Jack Ramon, Pat Campagna, Anna Ackerson, Walt Skruch, Jeanne Meyer. SOUTH PORTLAND — Linda Allen, Bob Tetrault.

 $\mu$ L is a registered trademark of Fairchild Semiconductor, a Division of Fairchild Camera and Instrument Corporation.

Copyright Fairchild Semiconductor Printed in U. S.A. 4000-543-107 9.5M

Jui Hadley 650-327-4220

**New Faces** 

Brooks Hamilton joined the San Rafael team as Customer Service Engineer. He was formerly with TWA as a Sales Representative.

Murdo MacGregor joined the CIC group at Mountain View as a Senior Engineer. Originally from Scotland, he was with Elliott Automation before coming to Fairchild.

Lawry Miller was appointed Product Marketing Manager to direct the development of Microwave Products' voltage tuned oscillator line. Before joining Fairchild, he was with Western Microwave Labs as Product Sales Manager for its line of solid state devices.

David Owen joined the Mountain View Purchasing Department as buyer of electronic components and sub assemblies. He was formerly a buyer with Bendix Aviation.

Richard Probst was named Foreman of San Rafael's Machine Shop. He was proprietor of his own tool and die company before joining Fairchild.

Leslie Steele joined the Finance group at Mountain View as Accounts Payable Supervisor. He was formerly a Commander in the United States Navy.



### the times they are a-changin'

And what do you want to be when you grow up little girl? A housewife, a mother, a secretary, a dress designer, an engineer. An engineer?

In this day and age there's nothing unusual about that. But the truth of the matter is that women throughout industry, and especially here at Fairchild, have been called upon to do many different jobs requiring not only specialized talents but specialized education and training. Many have progressed "through the ranks" to their present responsible jobs. Others were chosen or hired for the job because of their special aptitudes or knowledge.

Women are making inroads into almost every field in industry, and at Fairchild it's no different. From a draftsman at San Rafael to an engineer at Instrumentation, from a machinist at Mountain View to a CPA in International Finance, Fairchild women are making the best of their opportunities.

There is no point to make except to give credit where credit is due. And even that is hard to do by virtue of so many women having been unintentionally overlooked for lack of time or space. They, too, should share the limelight.

purchasing and expediting materials is a good place to begin

Adrienne Hernandez is not the typical woman shopper. No indeed. When she buys, she buys the nuts and bolts that keep Semiconductor running. As a buyer for Purchasing, Adrienne specializes in production parts and stationery. She sees to it that a minimum stock is maintained, works with vendors to get the best prices and fastest delivery possible, and expedites materials to all plants drawing from inventory control. Originally from London, she's been in the United States for 15 years. She gained experience as a buyer for Stanford University, joining Semiconductor in 1960. She left Fairchild briefly but returned to Purchasing and has been with Semiconductor nearly two years this second time around.



orking closely with Adrienne is Aggie Myreholt, Stores Clerk, who acts as satellite plant co-ordinator for Purchasing. She deciphers requests for in-



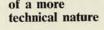
direct materials from all satellite operations, fills the orders if the supplies are on hand, and if they're not, sends the requests on to Adrienne. With Fairchild since October 1958, Aggie has held a variety of jobs starting with assembly and progressing to her present position. Her vast working knowledge of Fairchild's operation made her a natural choice for the job.

Marian Kathary, a grandmother, had never worked before joining Fairchild two and a half years ago, but her



gentle, well-organized manner made her seem a natural for the position open in Applications' Stores. As a Stores Clerk, she keeps track of all stock for Applications' stationary stores and just lately she has been learning to punch transaction cards to implement new inventory control measures.

anielle Gronner, IC Engineering, is of a more responsible for testing IC devices technical nature and transistors before they are finally sent to Marketing. Though the devices may already have been tested, they are sent to Applications for further testing to meet stringent customer requirements. Once a teacher in Paris, Danielle moved to America with her husband and son and applied at Fairchild a year ago for a job as an assembler, hoping to better her English while working. She's more than mastered English, and her interest in electronics prompted her to invest time in further study which eventually led her to her present job.





Norma Lias belongs to that group of "elites" who trace their first days with the company back to the 50's. Since then she has progressed steadily from Assembler to Methods Analyst in the Industrial Engineering group at Mountain View.



As Methods Analyst, she studies and implements labor standards to improve production methods. Norma also holds the distinction of being the only woman chosen to take the Detailed Work Factor course sponsored by Fairchild, and she was the only participant enrolled who did not have a college degree. She passed with flying colors, and that's just typical of Norma, who, when told that she had progressed about as far as she could with just a high school education, promptly enrolled in an evening Business and Industrial program at the College of San Mateo.

LIC Spec Designer Mary Hendrix typifies the many women performing this job at Fairchild. With the company nine years this coming June, she's well-versed in electronics via experience and special Fairchild-sponsored courses. All of this is essential for translating customer specifications into Fairchild language for production purposes. Mary began in Production Testing and must have enjoyed the past nine years, for both of her daughters have worked for Fairchild. Daughter Judy still does.



O ne of the more unique Spec Designing jobs is that held by Geri Hadley. She's Minuteman Program Office Spec Designer for Aerospace and Defense. That means she analyzes Fairchild's capability to conform to the tight Minuteman requirements and also turns Minuteman specs into Fairchild language. A History major at USC, she started with Fairchild two and a half years ago as a Spec Typist.



**B** arbara Butler has been a programmer for Management Information almost a year. A graduate of the University of



Arizona, she majored in Engineering Mathematics, and today puts what she learned to work writing computer programs for the Management Sciences section. She writes scientific programs as compared to business ones. One project was to write a program for thermal behavior of a transistor, while others include breaking out certain test data for Marketing Research of Aerospace and Defense. Mary Mayer may be one of the few female Micro-machinists in the world. She's a Machinist for Equipment Fabrication's Microtool Fab at Mountain View. Microtool makes probes and tools for ultrasonic bonding machines, and the work is miniscule. It's Mary's job to set up the equipment for a production run, and she trains the girls in more than 18 operations they perform. Quite a difference for a woman with five children.



Midge Bowen also has five children, but while at Fairchild, she doubles as QA Department Technician. She re-



ceives all customer IC circuit returns, complete with Fairchild's paperwork and the customer complaints. It's her job to see if the complaint is justified. If so, the units go to Defect Analysis or a sample is pulled for study elsewhere. Midge expedites the problem, pulling from eight years experience at Fairchild. Maskmaking is the beginning step in IC production, and there's only one person responsible for making the master masks. She's Elna Threat, Master Maskmaking Specialist. Elsa controls the



camera that prints the masters, and as working plates are made from the masters, her job is critical to the production process. Elna will soon complete her sixth year with Fairchild and echoes the progress made by many women who began as assemblers.

W hen Sharon Nicholaisen meets machine, it's a 10-ton Hull Transfer Mold Press. She's the girl who produces the plastic dip packages Fairchild has just begun to make for its IC units. For Sharon to take on this responsibility is quite a credit to her, for she joined Fairchild just last May.



Personnel or Jan Peters followed that old adage, "go employee relations J west, young woman", coming to west, young woman", coming to has always been a California from Ohio and Wittenberg welcome field for University in 1965. Her first job was with women, and here's Fairchild as a receptionist in Personnel. one place where Today she's a Senior Personnel Assistant, they've really heading up the Insurance, Unemployment, chalked up im- and Security sections. She and her able pressive records. staff handle all group insurance claims, process security clearances for Fairchild personnel, control visit requests, and handle unemployment insurance claims for Semiconductor.

S ally Griffin's a Tech Illustrator for Marketing Services' Graphic Arts section. She translates rough sketches into finished art for technical papers, application briefs, and other sales aids that find their ways to salesmen's briefcases or customers' desks. Sally graduated from the University of California in Design and worked for an advertising agency before joining the art staff a year ago. She's also the only woman on that staff.

Women offer various artistic and analytical talents in Marketing



Alyce Washburn's career with Fairchild has been phenomenal. Almost nine years ago she took a job as assembly trainee, and from that day has held a variety of jobs leading her to Supervisor of Personnel Records, the group that



maintains the necessary paperwork to keep track of all Mountain View personnel. Alyce's "success story" typifies the opportunity for women at Fairchild and, in turn, the type of women working at Fairchild who combine family and career very successfully.



ary Jane O'Brien is the only person in the company with her own private TWX and her own private stockpile of ready Fairchild devices. The TWX is for constant communication with the field sales force, and the devices are there to



be shipped in an emergency. Solving "panic" situations called in by more than a hundred Fairchild salesmen is all in a day's work for Mary Jane. An Intermediate Clerk, she must quickly answer requests for product samples by any salesman who sends up the distress signal at any time during the working day. This awesome responsibility doesn't dazzle her at all. "When you have nine children," she explains, "you're on a 'panic' basis 24 hours a day."

Beryl Catt, Contract Administrator for the Government Contracts section of Marketing, draws up Fairchild's research



proposals for bid on Government contracts. For the past year it's been her job to see that Fairchild's proposals conform to the requirements of various governmental agencies. She takes rough drafts and drawings from R & D's staff, does some rewriting, and supervises printing and distribution of the final proposals. This requires knowledge of governmental research and development contract procedures, something Beryl picked up in her 12-year career with the U.S. Navy.

financial matters are generally left to the men (why, women can hardly balance their check books), but there are quite a few who have become integral parts of Fairchild's financial world. I antha Kochsiek graduated from the University of California Berkeley with a degree in Finance and was immediately hired by Fairchild as an Assistant Accountant two years ago. Today, she's a Financial Analyst in the Profit Planning section and she's mainly concerned with writing financial commentary analyzing Semiconductor's profit potential.



In International Finance, Senior Finance Analyst Dorothy Eggebrecht's desk is covered with foreign governmental data and reports and Semiconductor's international operations' accounting records which she brings into agreement with domestic accounting procedures. At her desk she may be in Korea or Hong Kong, but more than likely she is tracking down information at Mountain View to complete projects and studies. Dorothy, CPA with an MBA, joined Fairchild in 1965.



Virginia Bunn, Accountant in the General Ledger section, approached the accounting field in a roundabout way.



Having studied psychology in school, she was a Management Analyst for the Federal Government. Seven years ago she came to Fairchild as a Budget Analyst, and since then has progressed through Accounts Receivable, Billing, Accounts Payable and Payroll. She now co-ordinates the flow of information from the General Ledger Section to Management Information's computers.

Lois Garrett will have been with Fairchild Semiconductor six years in April. A Senior Accounting Clerk in Cost



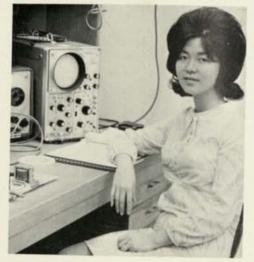
Accounting, her main job is to prepare final divisional statements from journal entries collected from other accounting sections. These statements, in turn, serve as accurate performance records and are used to analyze Semiconductor's gross profit. There's no doubt she can balance a check book!

Instrumentation

at S hirley Bailey's little but mighty, which she proves by managing a household



which includes three sons and heading up a brand new Data Processing section at Instrumentation. The eight girls she supervises maintain almost around-the-clock service, converting source documents submitted by sales or information from accounting and other departments into punched cards for Management Information's computer center. Further attesting to her tenacity, Shirley learned key punching, on her own, from manuals while a clerk typist at Lockheed. Finally, Lockheed sent her to school where she mastered the tools of her trade. An Wu holds the unique distinction of being Instrumentation's first lady engineer. With Fairchild almost two years, she's a member of Systems Component Engineering and her work centers on component evaluation. Born in China and raised in Hong Kong, she has been in the United States for 11 years. Science and math were always her favorite subjects in high school, and she pursued them at the University of California where she earned her BSEE.



S hirley Johnstone took a different approach on her way to becoming a Technician at Instrumentation. She joined Fairchild four years ago as an assembler in the Model Shop. Shirley, then, began taking electronics courses at Foothill Junior College, and, once given the opportunity to become a technician, progressed through technician ratings rapidly. In Shirley's words, "One of the important



things that Fairchild offers to its employees is the willingness to promote people and to place them in jobs according to their capabilities and ambitions. I am a prime example, but I am only one of many. In our group alone there are five engineers who were technicians. One girl was given the opportunity to learn PC Board design, and another has learned drafting and documentation." Shirley, like those others, is making the best of opportunity. She's currently doing some programming as well as working on discrete device tester prototypes. V irginia Sutton has been with Fairchild five years. Her first job was assembling PC boards, while today she tests and inspects and performs specialized repairing of nearly 150 types of printed circuit boards used in Instrumentation's final products. She's the only one doing all that work, and when she has a spare moment, she also helps train girls to build PC boards.



Dottie Ray and Ruth Taylor prove to be a winning combination on the Pilot Line at Instrumentation. Dottie works to improve production methods of new products soon to be manufactured by Instrumentation. As an Inspector, she takes the product from the Model Shop, scans the documentation for errors, and then analyzes each production step, working very closely with Engineering. She also helps train girls for work in the Small Instruments group. Dottie will have been with Fairchild four years in August progressing from Line Assembly to her present challenging job.



Ruth's specialty is wiring and cabling, and her job is much the same as Dottie's. She can spot a short-cut in cabling technique that will make production easier and faster, and she has the knack of being able to put it on paper for final drafting. A five-year veteran just this month, Ruth was taking a six-week soldering course during the evenings almost seven years ago when a company offered her a job. Then she switched to Fairchild and was the first girl to be Pilot Line Instructor. Even now, a big part of her job as an Inspector is to teach and train new Instrumentation employees.



**S** and i Kile transferred from the Semiconductor Division to Instrumentation in September 1966 to take over the position of Employment Assistant. Today,



as Senior Personnel Assistant, she interviews and hires all hourly employees and all non-technical and clerical employees. Part of her work involves employee benefits, and she handles many employee compensation details. Sandi's three and a half years with Fairchild mirrors the typical success story. She began as a Typist in Professional Employment, advanced to Personnel Records, and then became Secretary to the Personnel Administrator. She's currently attending classes at San Jose State in the limited spare time her present job leaves her.

The whole field of research and a "man's world" for many years, but ever since the Sputniks and space age, women have found definite places in science, and so it is at R&D

When I was 10 or 12, I wanted to study archaelogy to look back into study archaelogy to look back into development has the past, but later I decided that looking been considered into the future was much more exciting and I decided to pursue this career." Maija Sklar did just that. She currently works as an Engineer in Materials and Processes at R & D. Her work concerns investigating basic properties of dialectic films of interest later for device uses. She's also carried out support work for Planar II. With Fairchild five years this coming March, Maija obtained her BS in Industrial Chemistry from the Rochester Institute of Technology.



hile Maija is "basic properties oriented", Pat Castro, also an Engineer at R&D could be considered "device oriented". That is, Pat's research efforts



are directed to problems on the production line. Her projects are associated with getting the product to the production line by designing out any foreseeable problems. At R & D just a year and a half, Pat has worked on "problems associated with nickle gettering" and "process effects on fast surface states". Pat completed her MSEE at Stanford and is also in the Materials and Processes department.

E veryone knows what librarians do, but at R & D being a librarian takes on a special twist. Not only does Liz Frisz maintain a central clearing house of "technical know-how", but she must be able to keep one step ahead of R & D's inquisitive scientists. Liz brought loads of library experience to R & D when she joined Fairchild almost three years ago.



She has a Masters from USC in Library Science, and she's worked in all types of libraries, from medical to public. Which does she prefer? Obviously R & D's, filled with its patents, government reports, company documents, and the latest books and periodicals necessary to keep that one step ahead.

Programming has become an integral part of the electronics age, and very vital to R & D's research efforts. Judi



Karintie, a programmer in the Digital Integrated Electronics Department, writes programs for test sequence designs or updates programs or devises workable sets of programs for future as R & D uses the computer more and more for research. Judy also is finishing her degree in Math at San Jose State.

To do a story on the variety of jobs women hold would be incomplete without including at least one of the women in Myra Landolfi's Purchasing Department. Jo Ann Kolbo seemed the natural choice as she started in the department almost nine and a half years ago as a clerk-typist. Just being in the department served as a good training ground for her promotion to buyer. She specializes in chemicals and precious metals, finds the best sources and is forever look-



ing for things so new to the market they are nearly unknown. But that's all in the job, for at R & D everyone's concerned with looking beyond the present.

at Bee Watkins has been at San Rafael almost seven years, and five of those she worked the graveyard shift to be at home with her family during the daytime. She's worked in Assembly, Test and Finish, Tinning, Shipping, and Inventory.



Today she holds the title of San Rafael's only Lot Makeup Operator. She receives all standard products from Assembly, and then she makes these materials into lots and issues them to class. She also receives reclaimed material and completes various inventories. There's no doubt about it; Bee puts in a full week's work every day. In addition, she hasn't missed a day in five years. Ann Felmery fled Hungary in 1956. She spoke no English but started attending night school to learn Drafting as well as English. Her teacher got her a job at



the telephone company, and in June 1966 she joined San Rafael as an Electrical Draftsman in the Electronics Design section. Her duties cover drawing schematics supplied by project engineers for the fabrication of the electronics and electromechanical equipment construction at San Rafael. Quite often Ann will originate mechanical assembly drawings of a complete tester down to the last washer.

If San Rafael ever had a "jack-of-alltrades", top candidate would be Inge Filtuth. In October 1960 she joined San Rafael as an assembler in Standard Pro-



ducts. She transferred to Engineering where she worked for four years. She then went into the Training Department, using her artistic talents to work out-diagrams used as training and production aids and to draw most of the reject criteria. Presently she's in Engineering's New Product Department lending her talents to the work done there.

There's no end to the jobs these and many other women perform so well. Fairchild even has a lady editor, if you can believe that!



## **Mountain View**

Remnants of Christmas parties that somehow got misplaced from December to February were those held by Electronics Lab and Testing (Applications) and Equipment Fab and Design.



Applications





Equipment Fab and Design

And to remind you that Christmas is only 10 months away is this candid shot from the Accounting Christmas Party. The spirit of Christmas Past is Hank Breen, Section Head of Disbursements, Payroll, and Travel for Finance.



Have you heard this one? Paul Pronos of Traffic reports that a shipment enroute from South Portland to Mountain View met with disaster. The carrier telegramed "69 microcircuits broken—unuseable—chewed by an animal (dog) enroute from Portland to Boston—type 6A9030."

Bill Bertetta, also from Traffic, relates that a recent shipment from Hong Kong was delayed three days when the steamship hit a whale and had to limp home to California as a result of a bent propeller.

January 16th marked the first anniversary of Aerospace and Defense production. Vener Escolar, Lucy Geronimo, and Cruz Salcido were joined by Dave Chalmers and Don Hart and as many of the A & D troops who could crowd into the A & D cafeteria for cake and coffee. The three girls were three of the first six hired to start the Aerospace and Defense operation. Today there are nearly 250 working three shifts, and the operation is still growing.



Tom Bay, General Manager of the Semiconductor Division and Trevor Law, Materials Plant Manager, share the honor of presenting Lorraine Seay and Betty Childers complimentary tickets for free coffee and **two** doughnuts in the cafeteria—the result of Materials' 200 "Safe Days Without An Accident." All Materials personnel received the same rations, and have upped their safety record to 239... and still counting.



First half bowling winners were Jim Green, Sandi Johnson, Carolyn Delgadillo, Charlie Kuhlmann, and Jim Wallis, all of "F Troop."

Did you catch Hal McGee, Applications Storekeeper, in "The Caine Mutiny" presented by the Mountain View Playhouse?

Dave Myers received a bonus from John Ready, Aerospace and Defense Manager, for the publication in **Electronic Engineer** of his article, "Avoiding Radiation Effects on Semiconductors." Dave is with the Hybrids group located at R & D.



The "last of the goldbricks" came rolling off Microwave's assembly line in January. No reflection on Ann Replogle, lead girl of Microwave Assembly, who holds the new alumninum microwave unit that has taken the place of the old gold plated brass units. The lighter aluminum units require only two adjustments to change frequency (as opposed to 6 adjustments), use only 2 printed circuit boards (as opposed to 4), contain one crystal oven which makes it a higher stability unit (as opposed to no oven), and are less costly to produce making them even more competitive. Customers using these units include Collins Radio, Raytheon, Philco, Litton, RCA, Lenkurt, and Sylvania of Mountain View, and all the units contain only Fairchild produced transistors and diodes.



## San Rafael

Now here's a picture that should warm the cockles of your heart—a more motley crew you won't find anywhere! Kent Jastron, Vic Watson, Bob Gallagher, and Earl Head are the four remaining members of the line maintenance squad from the old Jordan Street plant.



John Moody, carpenter with the Maintenance section of plant engineering gave a face lifting to Manufacturing Engineering's Thermocouple Calibrator, a piece of test equipment used by Frank Ellis. The walnut plywood cabinet makes the calibrator a showpiece for customers inspecting the operation.



# South Portland

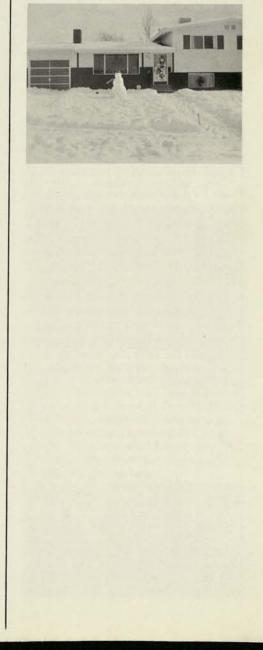
"Sweet Aaaa-do-linnne" and many other sweet refrains are part of The Atlantic Clippers' repertoire. Fairchild's barbershop quartet (Alan Phillips, Industrial Engineering; Tom Booth, Design; Elford Messer, Design; and Mahlon Lary, Industrial Engineering) have appeared at the Rockland Lobster Festival, the Union Blueberry Festival, and many other local festivities, not the least of which was this year's Fairchild Christmas Party. Members of the Portland Chapter of the Society for the Preservation and Encouragement of Barbershop Quartet Singing in America, these four really keep things "humming" at South Portland.



### Shiprock



1967 will be remembered as the "Year of the Snow." They were taking bets that the snow would melt before evening, but it kept coming down until reaching disaster proportions. George Dowdy snapped these pictures while on assignment at Shiprock. They show the Farmington community where several Shiprock employees live. Who said it never snows down Shiprock way?



# From the Field

November Salesmen of the Month were Don Boyle (Aerospace and Defense - College Park, Maryland), Herb Wallack (Industrial - Jericho), and Paul Kauffman (Consumer -Jenkintown, Pennsylvania).

For December top sales honors go to Mel Brewer (Aerospace and Defense-College Park), Ralph Jassen (Consumer - Jericho), Bill Maxwell (Computer - Poughkeepsie), and Chuck Stauss (Industrial - Los Altos).

Why these men were selected for the award can be better explained by their regional managers, two of whom are quoted here.

Vince Sabella writes that Herb Wallack's bookings have been outstanding since beginning his career with Fairchild. "Herb has just booked a long term counting micrologic purchase order. A conservative dollar figure for 1968 would be in the six figures. He's also done a fantastic job with another customer, having received a VPA which will yield for Fairchild \$250K in 1968. He is deserving of receiving credit for penetrating a large calculator manufacturer which will most likely be a great dollar value for Fairchild this year. The above reasons leave no doubt that Herb is one of Fairchild's outstanding salesmen."

From John Richardson comes word of Chuck Stauss' exemplary job in handling a portion of Fairchild's Industrial business in the San Francisco Bay area. "The major segment of Chuck's time is spent at Hewlett Packard, certainly one of Fairchild's most significant customers. Because Hewlett Packard is committed to the "state-of-the-art" in instruments, Chuck has been able to capitalize on Fairchild's strong position in the market to build an excellent relationship between the two companies."

### **Research & Development**

January's golf champion was Don McCall, spectacularly one-putting his way to Low Gross honors in Winter League play at the Hillview course. Ladies Low Net winner was Joan Blome, Closest-to-the-Pin was Don Henderson, Fewest Putts was Kitty Christenson, and Winners in Flights A, B, and C were Jack Jones, John Winding, and Doug Peltzer.

Dick Johnson and Mel Mendelson organized a ski trip to Lake Tahoe's North Shore for R & D employees. Nearly 50 employees in the R & D Ski Club enjoyed almost-perfect conditions. The Rec Council picked up the tab for lodging costs for members and their immediate families.

And speaking of the Rec Council, new members for the '68 year are Alan Mills, John Wright and Sheila Bantillo. Sticking around for another term of office are Liz Frisz and Chet Gunter. Also elected were two alternate members, Adriene Juliano and Julia Mikaelian.

### **Of Interest**

Spreading the Planar Story in Brazil



Don Rogers, International Marketing Manager, took this picture in San Paulo. Standing beside the giant "Planar" sign is Ricardo Battistuzzi, Semiconductor's Sales Engineer covering Brazil, Uruguay, and Argentina. This "Planar" is actually the name of a construction company, but the sign fits nicely into Fairchild's Marketing program. (Planar is a patented Fairchild process.)

# **Moving Up**

James Coffey was named Western Regional Sales Manager for the Instruments Group at Instrumentation. He had been working as a Senior Sales Engineer in the Los Angeles Sales Office.

Rich Cornellier was promoted to Foreman in Line Maintenance at Shiprock. He was previously Plant Engineering Crew Chief.

Bob Horvath was promoted to Senior Product Engineer for FET and MOS Discrete Devices. He had been working as a Product Support Engineer for FET devices.

Bram Kool joined Instrumentation as Manager of Systems Mechanical Engineering. He was formerly with the Semiconductor's San Rafael operation as Manager of Manufacturing Engineering.

Tom Littlefield was named Distributor Merchandising Manager for Semiconductor. He was formerly working out of the Denver sales office.

Louis Lyons was named to head up Fairchild's new Minuteman Program Department as Minuteman Program Manager. He was previously working in field sales in Philadelphia where he handled the RCA military account.

Takashi Mori, previously a Senior Engineer with the Instruments Group, was appointed Manager of DVM Development at Instrumentation.

Ronald Smith was named Special Accounts Representative to the Atomic Energy Commission. He will continue to work out of the Albuquerque sales office.

Marshall Wilder was promoted to Supervising Engineer for MOS. He was formerly a Senior Engineer.

### New Faces

Grattan Betancourt joined San Rafael as Production Supervisor. He just recently completed studies at Howard University in Washington, D.C.

Henry Caron joined the South Portland group as Accountant specializing in inventories, shipping paperwork, and audits of shipments. He was previously with RCA as an Accountant.

Leonard Caterinicchio is a new Printed Circuit Board Designer with the Instruments Manufacturing section of Instrumentation. He formerly worked for Electromec Design and Development.

David Cooper joined Mountain View as Mechanical Engineer B. He came to Fairchild from the Ford Motor Company where he was a General Foreman.

Walter Derrington was appointed Cost Accountant for the Integrated Circuit Support Group at Mountain View. He was previously a Cost Analyst with General Foods.

John Jost was named Cost and Budget Group Manager of the Mountain View Integrated Circuit group. He was formerly a Staff Accountant with Honeywell.

Clyde Ricker joined South Portland as Foreman in IC Assembly. A graduate of the Maine Maritime Academy in 1965, he served with the Merchant Marine until joining Fairchild.

Rhoda Rodger, RN, joined Fairchild Instrumentation as Industrial Nurse. She was previously employed at the Coyote Canyon facility of United Technology Center.

William Shepard was appointed Foreman in the IC Fab area at South Portland. He was previously a Lt/Col in the United States Air Force.

John Stevens joined South Portland as an Accountant. He was formerly with Sanders Associates as Supervisor of General Accounting and Forecasting.

Roger Thomas was named Consumer Marketing Development Engineer at Mountain View. He previously worked for Texas Instruments.

# February Ten Year Anniversaries

Gene Held-R & D Chet Gunter-R & D

# February Five Year Anniversaries

#### Mountain View

Hilda Amaral Tsuneko Anderson Maxine McGuire Rudolf Bartneck Delores Carranza Lois Pacheco Edward Carter Hua-Thye Chua Marian Foltmer Doris Gennette Viola Gonzales Perry Holst Louis Kish Margaret Ledford Irene Williams

Kenneth Matsuura Thelma Prince John Ross Herman Russ Keith Thomson Robert Valentine Barbara Walker Joan Watanabe

Delores McGowan

#### Hong Kong Dave Conway

#### R&D

Laura Costales Ed Garrigues Viola Hughes Jim Moore

#### South Portland

Roberta Andrews William Crosby Georgia Millett

#### San Rafael

Rose Addison Norma Randle

Instrumentation

Pat Campagna Paul Cookson Carter Hennessey Francis Zeigler Harold Sargent

#### Controls

Frank Howard

Roy McCreight

#### And Speaking of Five-Year Anniversaries

Microwave Products has approximately 150 employees — eight of whom are starting their fifth year with Fairchild, two are starting their seventh year with the company, one employee starting his eighth year, and another in his ninth year. That adds up to 8% of Microwave's employees and a pretty good track record.

### **Five Year Celebrations**



Maude Stanley, Nedra Mills, and Alice Gomez all join forces to cut the cake presented them by friends in Systems Manufacturing at Instrumentation. The three received their five-year service awards from their foreman, Tom Bird.

Barbara (Babe) Killinger was feted by South Portland friends at a party celebrating her five-year anniversary. Joining in are Spencer Fitts, QA Supervisor; Earlene McCormick; Ellie Huston; Louise Barrett; Andrea Childress; Betty Aquino; Liz Holland; Bud Gould; QA Senior Engineer; Diane Kelly; Cyndy Leach; and sitting next to Babe, Janet Johnson. Babe started five years ago in the transistor test area and today is handling field returns in the QA department.



This crew got together to celebrate five-year anniversaries of Don Sintek, Robbie Robertson, and Juan Ramirez. Shown are Joe Rozum, Tom McManus, Don Sintek, Robbie Robertson, Jim Chunn, Howard Dean and Bill Whitcomb. The party must have been too much for Juan Ramirez who wasn't around for the picture.



Shelby Putnam Barbara Ross Dorothy Sibley

Enid Rickel

William Smith

Ruth Taylor

John Willi

Mike Purnaiya

Charles Wagner

Irene Rollins

Jeii fradlig 650-327-4224

#### Leadwire

Vol. 10, No. 2

Published by and for Employees of Fairchild Semiconductor/ Instrumentation

Mountain View - Palo Alto - San Rafael - Hong Kong - South Portland, Maine - Shiprock, N.M. - Croydon, Australia - Seoul, Korea

Editor: Judy Horst Art Director: Larry Bender

#### Reporters:

1

MOUNTAIN VIEW—Marge Killian, Wes Cox, Lois Eagleston, Nellie Covington, Ginger Tygret, Keith Thomson, Iantha Kochsiek, Katie Guida, John Walsh, Edna Loucks, Missy Strebig, Val Knowles, Bonnie Weber, Donna Hudson.

SAN RAFAEL—Cleatus Dunkley, Audrey Graxiola, Janet Marz, Margaret Queen, Hal Knopp, Cary Barford, Bobbie Talley, Anne Parfitt, Hilda Kaliczak.

RESEARCH & DEVELOPMENT— Janet Jones, Terri Mead, Adrienne Juliano, Janet Lumley.

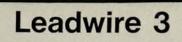
INSTRUMENTATION—Jack Ramon, Pat Campagna, Anna Ackerson, Jeanne Meyer.

SOUTH PORTLAND-Linda Allen, Bob Tetrault.  $\mu$ L is a registered trademark of Fairchild Semiconductor, a Division of Fairchild Camera and Instrument Corporation.

Copyright Fairchild Semiconductor Printed in U.S.A. XX-00-0018-18 9M

#### Cover:

This Aubrey Beardsley drawing depicts women of a by-gone era just as this issue of Leadwire exemplifies modern women assuming unique roles in the todays and tomorrows of a changing world.







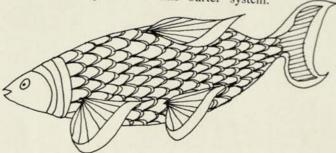
小王



# The Most Talked About Thing In The World

At tax time, or any time, there's one subject on everyone's mind—MONEY. This medium of exchange has been a source of inspiration to businessmen, housewives, hippies, humorists, embezzlers, economists, poets, statesmen, and the younger generation everywhere.

Could it be that it is not love but money that makes the world go 'round? History would prove it, for money, or rather a medium of exchange, has been an important ingredient of all civilizations. It has been whatever people have agreed to accept in exchange for the things they sell or the work they do. A man who liked to fish traded some of the fish he caught for spears, clothing, or a sheep. But there were problems in this "barter" system.

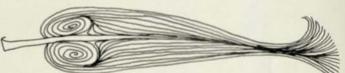


A sheepherder trading one sheep for a hundred fish would have to use or trade the fish before they spoiled. If he could not, he lost the value of the fish; so to avoid this, people began to accept certain objects that everyone valued . . . animal skins, grain, salt, shells, and metal objects such as fishhooks, hoes, pots, and rings of gold, silver and bronze.

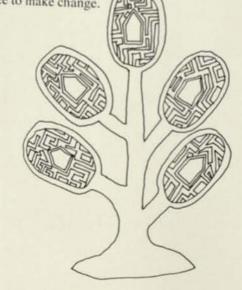
As time went on, people began to use metal money more than any other kind because it was more practical. Metal objects did not wear out easily, and they certainly did not spoil. They also had a wide range of values depending on their weight, and they could also be broken into smaller pieces. Historians believe that the Chinese may have used specially shaped metal money as early as the 1100's B.C. Their money consisted of miniature bronze spades, knives, and other tools.

Lumps of salt were used as money to pay Roman soldiers. This practice eventually led to the expression "not worth his salt" about a person who does not earn his wages.

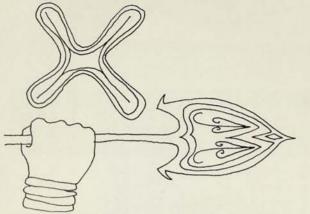
Feathers of jungle birds were once used to make a rare kind of money. Tribesmen in the Santa Cruz Islands, northeast of Australia, trapped birds and glued their feathers to a rope coil.



The Japanese devised a system of "tree money" during the 1800's. These were coins that could be broken "branches" of a simple from money tree to make change.



Money of Central African tribes once included a copper cross about the size of an outspread hand and an iron spearhead. A tribesman used a number of crosses to buy a wife, and with several spearheads he could buy a slave.



Today's credit system can be attributed to the old "Babylonian Due Bill" of the 3000's B.C., a clay tablet showing what a purchaser owed a merchant in exchange for goods. Such bills are the earliest known monetary documents.

The first paper money was probably made in China. The Italian adventurer Marco Polo saw it being used there in the late 1200's A.D. Paper money appeared in North America for the first time in 1685. Modeled after playing cards, the back of each card was signed by the French Colonial Governor.



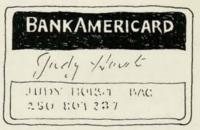
Paper money we use today developed from a custom that began in England during the 1600's. At that time, many persons stored their gold and other valuables in the vaults of goldsmiths who gave them a written receipt for the valuables. These receipts were used as money.

The use of paper money increased greatly after 1650 with the rise of national banks. For instance, they printed bank notes issued to persons who had either deposited money in the bank or borrowed money from it. Each note stated the amount in coins that the person could get from the bank in exchange for the note. Money was not important to the early English Colonists, though sometimes the colonists used Indian wampum (strings or belts of beads made from the insides of shells) or coins called shillings and pence. Gold and silver for coinage were scarce, and most of the coins were Spanish received in trade with Spanish settlements in the West Indies. Paper money was first issued in the American colonies during the late 1600's and by 1750, the colonies had much more paper money than they had gold or silver to exchange for it, a condition not uncommon today.

During the Revolutionary War, the Continental Congress issued great amounts of notes called "continentals." The value of these notes was stated in terms of Spanish silver coins called dollars. Other coins were made and circulated unofficially, until in 1792 the Coinage Act established the first national mint, and Congress established an American dollar (at about the same value as the Spanish dollar) as the basic unit of the system.

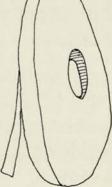
Two other important currencies in the United States, historically speaking, were the "greenback dollar" issued to help pay the costs of the Civil War, and the Federal Reserve Note issued to alleviate a shortage of paper money. Most of our paper money today is Federal notes.

As for the medium of exchange today, Americans have been paying their bills more and more by checks and various forms of credit. The higher evolutionary form of the "Babylonian Due Bill" or that "Lump of Salt" seems to be the credit card or the enigma of the six-month revolving charge that lasts for years and years.



But in some parts of the world, even today, not all money is as handy as all that. Yap Islanders still use primitive stone "coins" weighing hundreds of pounds and with a

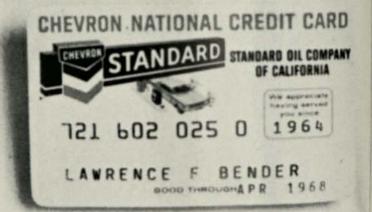
diameter twice the size of man. They place the money in front of their homes to represent their wealth, and chances are it's quite a topic of conversation.



## Credit: Learning To Live With It

Money comes in and goes out, and somewhere in between lots of decisions are made. Many are made for you (the Macy's charge, the purchase-plan on a television, or the doctor bill), but many dollars are spent on impulse, regretted later, but necessary at the time. A few dollars might be lucky enough to be saved, but by and large, there are never enough dollars coming in and too many going out.

Credit makes living today easier, but as we approach what some have termed a "cashless society", surviving in it depends on our ability to use credit wisely.



ELLS FARGE BANK

BANKAMERICARD The Family Credit Card

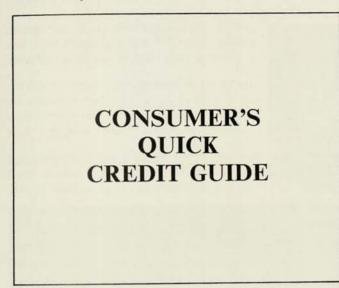
August 1 - 67 - CDCI

225 S25 F23

JANES L CARTER



For your convenience the U.S. Department of Agriculture at the request of the President's Committee on Consumer Interest has published this:



- Consumer credit comes from banks, credit unions, finance companies, and retail stores. Some charge more than others. Have you shopped around to find where the credit rate is the lowest and most convenient?
- Do you know how much you are paying for the use of credit?
- Is having something NOW worth the added credit cost?
- How does your decision fit into your family's budget and plans?
- Are you sure you can meet this payment, plus all other monthly payments? Will you have money left for emergencies?

#### TYPICAL CREDIT CHARGES

If charges are based on the beginning amount owed and are included in the 12 equal monthly installments:

If Charged:	Simple Annual Rate Is
\$4 per \$100 or 4% per year	7.4%
\$6 per \$100 or 6% per year	11.1%
\$8 per \$100 or 8% per year	14.8%
\$10 per \$100 or 10% per year	18.5%
1% per month	

If charged only on unpaid amount owed:

H

f Charged: Simple Annu	
3/4 of 1% per month on unpaid balance	9%
5/6 of 1% per month on unpaid balance	10%
1% per month on unpaid balance	12%
11/4 % per month on unpaid balance	15%
11/2% per month on unpaid balance	18%
$2\frac{1}{2}\%$ per month on unpaid balance	30%

#### BUYING ON INSTALLMENT? Remember Before You Sign . . .

- · Read and understand contract. Don't rush.
- Never sign a contract with spaces left blank.
- Be sure the contract tells: Exactly what you are buying. Purchase price, or amount borrowed. Interest and service charge in dollars or simple annual rate.

Total amount due. Down payment. Amount and number of payments. Dates due. Trade-in allowances, if any.

- What if you can't pay? Or pay ahead?
- Know whom you make all payments to.
- What are seller's commitments for maintenance, service or replacement?
- · Be sure you get a copy of contract to keep.

#### BORROWING MONEY? Ask Before You Sign . . .

- · How much cash you will actually get?
- What is the simple annual rate?
- What if you have to miss a payment?
- How does the lender figure the balance due if you refinance?
- If you pay ahead of time is there a penalty? Will you get a refund?
- Whom do you make all your payments to?

### HOW TO FIGURE DOLLAR COST OF CREDIT

- Multiply amount of monthly payment by number of monthly payments to be made.
- Subtract from that total the amount financed. (Cash price minus down payment)

Difference will be dollar cost of credit.

rate of 14.8%. See chart.

**EXAMPLE:** A refrigerator costs \$300 and can be paid for by making a \$12 down payment and 12 monthly payments of \$25.92 each.

<b>MULTIPLY</b> payments $\times$ months to be made (\$25.92 $\times$ 12)	\$311.04
SUBTRACT the amount financed (Cash price minus down payment)	\$288.00
DOLLAR COST OF CREDIT	\$ 23.04*
Total cost on credit (\$300 cash price plus \$23.04 credit cost)	\$323.04
*Cost of credit equals \$8 per \$100 per balance of \$288. This is equivalent to	er year on unpaid o a simple annual

## Money Worries? Building a Nest Egg? Your Credit Union Can Help



It's true, you know! If you've lots of debts to pay, consolidate them with one big loan at less cost to you compliments of the

Fairchild Federal Credit Union. If you've been trying to save money, but just can't seem to do it after making ends meet, try the payroll deduction method. You'll never miss that \$5 or \$25 a paycheck if you don't have it to spend.

There's no easy way to solve money matters, but your Credit Union has been in business for the past seven years and today serves more than 5,000 Fairchild employees at San Rafael, R&D, Mountain View, and Instrumentation. In addition, South Portland has its own Credit Union.

The Fairchild Credit Union was established in agreement with a Federal charter. It is an industrial bank owned and operated by Fairchild employees. Employees serve on its Board of Directors and various operating committees, but the managing of the Credit Union is left up to Bob Maydeck and his staff who are responsible to the Credit Union's Board of Directors.



Nearly 14,233 loans have been made in the past seven years, totaling almost \$8 million. Last year's loan volume accounted for one-fourth of this total dollar volume as 4,610 loans were made. This averaged out to 18 loans a working day, nearly \$10,000 loaned to employees every working day! The credit union offers use the lowest loss artice

The credit union offers you the lowest loan rates practically anywhere and a unique life insurance feature that automatically repays the loan at your death.

As for savings, your Credit Union pays a higher dividend than you can find elsewhere (5.25% per year paid quarterly), and payroll deductions make it easy to save. In January alone, more than \$400,000 was saved through the Credit Union; some deductions were as little as \$1.25 a week and some were as high as a whole paycheck.

So what does this all mean to you? Well, if you have money matters on the mind, (and who doesn't) you might be wise to abache id be to a back of the second second

to check with Bob Maydeck and his staff. Or better yet, make one of the smartest investments of your life. It only takes 26 e—25 e to join the Credit Union, and 1e to open a savings account.



Swing Shift Line Mechanics Lynn Henley and Kent Daigle just couldn't resist "putting their two cents in" to help solve a problem.

As they watched line operators do visual sort on die, they noticed that every time a girl discovered a reject, she had to stop and then pick it up with a hand held vacuum wand.

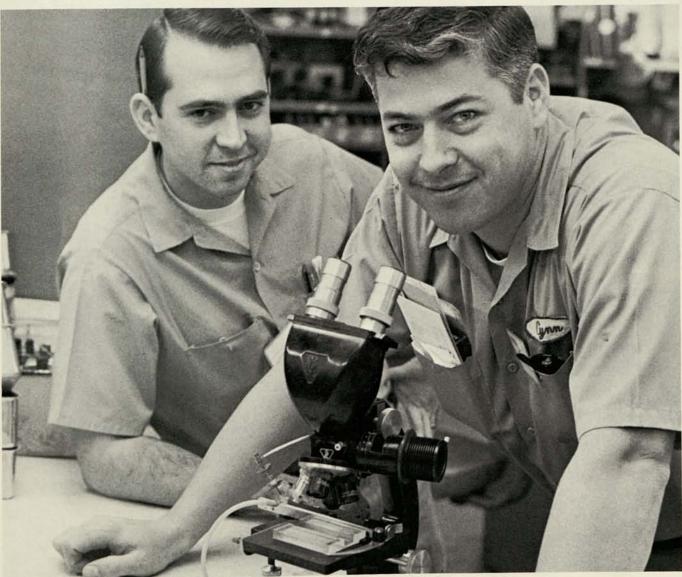
Knowing there was a better way, Lynn and Kent started working on a new and improved system. They came up with a work-



ing prototype jig that would allow the operator to push a plunger and draw the reject die into a bottle by means of suction without removing her eyes from the scope.

The prototype, made from two pennies, some plastic and wire, has been turned over to Equipment Design so that production units can be built.

That's really getting the most for their money! And, the return on that investment will mean a lot to Fairchild.



32.00	ppi	ne	:55	15	CR NGS	EA 117 28,80	144.00	
FEDERAL CURRENT 25.10	VEAR TO DATE	CURRENT F	IC.A YEAR TO DATE 68.47	STATE DISAB INSURANCE 1.15	STATE IT CURRENT	NCOME TAX YEAR TO DATE	TOTAL CURRENT TAXES 31.32	CHECK NUMBER 0236598
RETIREMENT	LONG TERM DISABILITY	UNITED GIVERS	80ND5	CREDIT UNION 5.00	INSURANCE	ME OTHER DEDUCTIONS	DEDUCTIONS 8.66	EMPLOYEF NUMBER 34986
* = OTHER EARNINGS # = OTHER DEDUCTIONS (SEE REVERSE FOR CODES)		VACATI	ON HOURS BALANCE				PAY PAY 104.02	PAY PERIOD ENDING DATE 03/10/68
↓ CODE € 5	AMOUNT \$28.80		CODE	AMOUNT			NOT NEG	HILD

And where your happiness is concerned, it all begins right here in Payroll.

Fairchild's Payroll Department, under the direction of Bill Stam, makes all payments to Shiprock, San Rafael, Instrumentation, R&D, and Mountain View employees as well as many members of the Hong Kong and South Korean staffs and sales representatives throughout the world. This amounts to about 40,000 paychecks a month. Payroll receives employee action reports from Personnel, codes them for the computer operation which writes the payroll register and prints the checks, and then breaks the checks out by department to be distributed by Timekeeping on time every week. Payroll also has to see to it that vacations, leaves, and terminations are all paid on time which totals up to be quite a lot of work for just eleven people. But, they've never missed a deadline yet!





- Save pennies-When you're shopping for food, there's no doubt about it, watching costs down to that last penny pays off. Three to four cents off on a 25¢ can of beans is a 10-15% savings. Applying this shopping sense could save you as much as \$5 on a \$30 weekly bag of groceries.
- Try new recipes-It's been proven that you can cut your food bill 20% by using lower-priced items in your menus. So get out the cookbooks and watch for new recipes and unusual casseroles.
- Shop the specials-Shop the ads, checking them for meat, poultry and fish on special. These items can amount to a third of your food bill.
- Make out a shopping list-But be openminded should you find an unadvertised bargain, and if you can, shop alone, for the family will tend to run up the food bill.
- Compare brands-Lower priced brands may be just as good as the more expensive items. Nutritional values vary little. By looking for lowest priced brands in one store, you can save  $5 \notin -7 \notin$  on a 6-ounce can of frozen orange juice, a nickel on a can of peas, and as much as 20¢ a pound on bacon.
- Buy in quantity-but only if you've checked to see that it's a good buy, and only buy what you need. (What woman could resist a good bargain!) It's not a bargain if the food's wasted or spoils before you can use it.

The sign read "Welcome to Sunnyvale, Test Systems Capital of the World," and so began Instrumentation's unique Systems Sales Conference.

It's goal was clearly stated—\$20 million in sales for 1968. Not an easy one, but with the active cooperation of sales and manufacturing, highly probable.

Dr. Robert Noyce, Fairchild Group Vice President, keynoted the conference. Charles Askanas, Systems Group Manager, outlined specific goals for engineering, manufacturing, and marketing in 1968, and Dale Williams, Product Marketing Manager, reviewed the current "state of the union" summarizing the current status of planned programs and strategy for transistor, IC, array, and module test systems. Frank Burge, National Sales Manager for Systems, wrapped up the program with a sales training workshop covering the role of the salesman and the psychologies of the salesman and the buyer.

But what made this sales meeting so unique was the presentation of awards to salesmen and men from Product Engineering, Applications, Field Service, Marketing, and Production—in anticipation of their performance in 1968.

Those winning gold plaques for outstanding performance and sales support in the upcoming year were:

Jerry Lucas, Eastern Area Sales Manager Ron Freiley, Regional Sales, Boston John Lee, Regional Sales, New York Wayne Peacock, Southern Area Sales Manager George Shukov, Midwestern Area Sales Manager Don Baumann, Western Area Sales Manager Bill McCusker, Regional Sales, Los Angeles John Purdy, Regional Sales, Los Angeles John Spangberg, Regional Sales, Los Angeles Bob Darrow, Regional Sales, Los Angeles

The sales force, in turn, presented a series of awards to various departments for "outstanding support that made it possible for the Salesmen to exceed the 1968 forecast". Those receiving the awards were:

Jim Bryson, Engineering Dean Mack, Manufacturing Gordon Padwick, Applications Dale Williams, Product Marketing Tom Edel, Customer Service Frank Parlette, Field Service Gary Mickelson, Marketing Services Ken Howser, Materials Noel Montagnon, Research

These awards will be voided if those sales dollars don't live up to expectations.

### "In Pursuit of Sales Dollars"



### **Mountain View**

The Rec Council has elected new officers for the 1968 year. Mike Walton, Materials/Slicing, will be replacing Bryce Herbst as President of the Council. Jim Vinzant, Controls, was elected Vice President; Dick Jennings, Mask Making, is the new Treasurer; and Betty Smith of Microwave is the Rec Council's new Secretary.

Art Kitkowski reports that Winter Golf League leaders are Lee Henderson, George Bangora, Bob Reber and Art Kitkowski—first, second, and a tie for third in the A Flight. Jim Impey leads the B Flight followed by Ron Warner and John Calhoun.

Lavar Rhodes, an Experimental Machinist in the Microwave Products Machine Shop, walked off with firstplace honors at the Introductory Handicap, the first event of the Sahara Mid-Winter trap shooting tournament at Las Vegas. Lavar, a Class A shooter, had a perfect 100 hits for 100 attempts.



This year's Blood Donor Drive (encompassing R&D and Instrumentation as well as Mountain View) is scheduled for April 16th and 17th. Members of the committee working on the drive each submitted poster designs for the campaign, and Alyce Washburn's idea was voted the winner. Joyce Scott's "Snoopy" poster will be used as a reminder. Members of the Committee are Bonnie Page, R.N.; Alyce Washburn; Shelah Walker; Rhoda Rodger, R.N. at Instrumentation; Dian Warnecke; Gladys Logan; Mary Seifert; Shirley Richards; Sharyn Walter; Judy Curiel; Ivy Macias; Connie Bell; Carroll Ford; and Joyce Scott. Additional members not pictured are Dan Goodrich, R.N at R&D: Joe Aboussleman: Neomi Romero; Bea Wery; Elizabeth Nicolai; Basil Kristoff; and Jonnie Tedrick.

### R&D

Jack Jones' Winter Golf League has really been on the move. At Aptos Beach February 18th 44 teed off on the hilly course. Art Engvall took low gross honors with an 85 and Judy Horst was low net for the ladies with a 68. Closest to the pin was Don Henderson, placing his tee shot on the par-3 17th hole to within four feet ten inches of the cup. Bob Hewitt carded the fewest putts, making the round in 30 putts. Flight A winner was Nils Laegreid with a net 70, John Winding took Flight B honors with a 65 net, and Gene Blome's 69 was the best net score for Flight C.

Traveling to the Hayward Golf Course March 3rd, top honors once again went to Art Engvall. This time he fired an 82. Ladies low net winner was Joan Blome with a 71, and Don McCall won the closest-to-the-hole contest on the eighth hole. Andy Burkhart recorded the fewest putts for the round, taking only 31. Jack Jones' 71 net score captured the A Flight prize, while Frank Grasso's 67 net won the B Flight. Gene Blome's spectacular 63 net took the C Flight. Shouldn't he be up there in Flight B?

### Instrumentation

Tokyo Electron Laboratories, representatives for Fairchild Instrumentation in Japan, opened the first automatic integrated circuit testing facility in Japan. The center uses a Fairchild 4000M Test System and offers unit or hourly testing at prices competitive with "in-house" testing units.



### South Portland

Industrial Services Corporation of South Portland, a firm employing the handicapped, contracted with Fairchild's South Portland plant to assemble six million units. Though disabled, the workers have one attribute in a quantity seldom possessed by the non-handicapped. This is the tireless patience so necessary for the close tolerance work of the contract. This gesture on Fairchild's part, and several other contracts, will enable Industrial Services to continue providing meaningful jobs for the handicapped.

Tom Holman has taken over the reins of South Portland's Recreation Council. Outgoing President Terry McCollister can now take a welldeserved rest.

## San Rafael

About 40 people braved an early morning 2:00 a.m. hour to climb aboard a bus bound for Tahoe's South Shore. While skiing was the main objective, gambling remained the ulterior motive.

Don Brown, General Foreman, and his wife Fran just adopted a two-month old baby girl, Lara Ann. Their two boys Jeff and Greg were just as excited about Lara Ann as they were.

Jeanette Schwinghammer, San Rafael nurse, is off for six weeks on "maneuvers", or rather participating in Air Force flight school. She's a Reserve 1st Lieutenant.

San Rafael's cafeteria has received a complete overhaul—new paint, new vending machines, and a new food service company, ARA. While employees managed to survive all the remodeling work being done in the cafeteria, quite a few suffered through a "period of adjustment" learning to work the new coffee machines which required a selection of "coffee black", "with cream", etc., **before** coins were deposited. There was lots of trading being done those first few days.

### Moving Up

Bill Bennett was promoted to Aerospace and Defense Sales Engineer in the Northeast region. He was previously Supervisor of Semiconductor's A&D product support engineering group.

Eric Bossak advanced to Marketing Analyst for Discrete Devices in Marketing Research from Resources Planner in Project and Equipment Planning.

**Barbara Brollier** was appointed DIC Scheduling Clerk. She was formerly a swing shift assembler.

James Coffey was named Manager of Instrument Sales in California for Instrumentation. He was formerly Western Area Sales Manager for the Instruments group.

Ursula De Vries was promoted from Department Technician to Junior Spec Designer for Aerospace and Defense.

Larry McClintock was promoted from Test Room Foreman to High Reliability Test Room and Data Check General Foreman for Aerospace and Defense.

Takashi Mori was named Manager of Digital Voltmeter Development for Instrumentation. He was formerly a Senior Engineer with the Instruments group.

Randy Olson was promoted from Product Support Engineer to Product Support Section Head for LIC of Aerospace and Defense.

Herb Perry advanced from Sales Liaison Engineer, Discrete Devices to Special Account Co-ordinator for Aerospace and Defense.

Howard Sharek has been appointed Manager of Computer Market Planning for Semiconductor. He was formerly Manager of Headquarter Sales.

Thomas Shillingburg was named Systems Quality Assurance Manager at Instrumentation. He joined Instrumentation after nine years with the Semiconductor Division.

Jim Soldani was promoted to Foreman at Aerospace and Defense from Data Check Technician.

**Don Thorn** was promoted to Manager Product Support for DIC, Aerospace and Defense. He was previously an Applications Engineer.

#### Dave Powell Named Corporate Manager of University Relations

Dave Powell, recently Supervisor of Employee Relations at Mountain View for Semiconductor, has accepted a promotion to Fairchild Camera and Instrument's Employee Relations staff as University Relations Manager. In his new job Dave will be responsible for coordination of college recruiting for all divisions as well as coordination and development of co-operative training programs with many universities. He will also be involved in other areas such as manpower and organizational planning. He will report to Fran Hartzell, Corporate Manager of Manpower Planning and Development.



#### He's Retiring

Yes, Charlie Friend, DI Water Plant Operator at Mountain View, is giving up hard work and the "eight-to-five" routine for a life of leisure in the Sierras. Here, Charlie (right) presents his Supervisor, Marlin Anderson of Plant Engineering, with a certificate enabling him to stop in and pay Charlie a visit anytime Marlin's in the area. Charlie started working at Fairchild nine years ago as a janitor in the DI Plant.



### **New Faces**

**Donald Creamer** joined the South Portland facility as Operations Supervisor. He was formerly Operations Supervisor for Ametek, Incorporated.

**Clive Davies** is a newly appointed Production Engineer at Mountain View. He has recently been working on his doctorate degree at Reading University, England.

Anthony Dervan joined Semiconductor's South Portland group as an Engineer. He was formerly an Engineer for Texas Instruments.

**Ronald Dubois** was named Production Controller at South Portland. He was formerly a Department Manager for Components, Incorporated.

Herbert Lee joined Fairchild as a Financial Analyst at Mountain View. He was previously a self-employed Accountant and with Dividend Security Company as Chief Accountant and Secretary/Treasurer.

Leonard Milauskas returned to Field Sales as a Sales Engineer for Consumer Products for the Chicago area. He worked for Fairchild Field Sales, covering Michigan, until July of last year.

**Norman Miner** is a new Foreman at South Portland. Before joining Fairchild he was with Humble Oil and Refining as a General Salesman.

**Rush Norvell** was appointed Financial Analyst for Integrated Circuits Operations at Mountain View. He was previously a Product Engineer and Production Planner for Texas Instruments' Semiconductor Division.

Harvey Steinberg was named Sales Engineer for Aerospace and Defense in the Philadelphia Area. He was formerly with the Naval Air Development Center, Johnsville, Pennsylvania, as an IC Design Engineer.

**Don Wilson** was appointed Support Group-Cost and Budget Manager of Mountain View Integrated Circuits. He was previously an Analyst in Capital Planning and Control with TRW Systems.

### March Five-Year Service Awards

**Mountain View** Constance Bell Bernice Foncell Socorro Garcia Caries Golden Donna Johns Charles Kuhlman Duncan Loop Annabelle Maute Beatrice McColgan Arthur Minton Masae Ost William Oswald Lucille Roderick Donna Souza **Ruby Striplin Eleanor** Surritte Bruce Thomas Helen Welch Betty Winningham Zenon Zubrycky

Instrumentation Robert Hall Robert Hart Virginia Sutton James Walker

#### San Rafael

Jim Diller Jeanette Schwinghammer Christa Seebach

### Five-Year Celebrations

Carter Hennessy, Electronic Technician, Incoming Inspection for Systems at Instrumentation received his fiveyear award from Roger Crosby, Manager QA, Incoming Inspection.



Margaret Ledford and friends in Employee Relations on the occasion of her fifth anniversary.

Ruth Taylor received a beautiful corsage from General Foreman Bob O'Neal and the rest of Instruments Manufacturing Engineering at Instrumentation.



Harold Sargent, Senior Electronic Technician, Test Array Systems for Systems Engineering at Instrumentation gets a hearty handshake from Jim Bryson (left) after the five-year award presentation.



Pat Campagna, Storekeeper for Instruments at Instrumentation, sports his new five-year pin; John Guydish, General Foreman of Instruments Production and Material Control, made the presentation.



#### Bruce Deal Andrew Grave Rex Rice Maija Sklar Gene Weckler

R&D

South Portland

Dorothy Burnie

Chiyo Clancy

Harold Hall

Lorna Libby

Olga Lund

Heinz Ermlich

Hope Larracey

Edna Matthews

Dorothy Nelson

Joseph Richard

Dorothy Verrill

Harriet Whiteley

Ruth Stinson

Elizabeth Fowler

Janet Champagne

Aerospace and Defense surprised "Mac" McAnelly, security guard, with a cake and party honoring his five years with Fairchild. Mac's been on a three-month leave following a heart attack but will be back on the job soon. Also shown in the picture are Laura Williams, Barry Kaufman, Marcia Fish, and Dick Mundy.



The two honored guests at this party were Renee Williams of Box Stock (MV) and Maxine McGuire of Finished Goods (MV). The two gentlemen who made the five-year service award presentations were Cecil Harris and Ken Stephens.



Dee McGowen was treated to a celebration by the Incoming Inspection group at Mountain View on her five-year anniversary.



Virginia Ruiz, Crystal Growing, received her five-year award from Buzz Sawyer, Production Supervisor, and Dave Block, Section Head.



### From the Field

Salesmen of the Month for January were Jim Kennedy (Computer-Minneapolis), Dave Haun (Industrial-Los Altos), Don Boyle (Consumer-Jenkintown, Pennsylvania), and George Korpontinos (Aerospace and Defense-Los Altos).

This is the second time around for Dave Haun, and according to Industrial Program Manager Jerry Oberley, "Dave has proven his abilities and demonstrated his initiative and perserverance by establishing Fairchild Semiconductor as a major semiconductor supplier at Techtronics, Beckman, and Freiden, a task not easily accomplished. These accounts will probably exceed a million dollars in 1968 and represent a fantastic effort on Dave's part, especially since this business is up from relatively nothing two years ago when Dave took over the accounts.

### **Of Interest**

Dr. Robert Noyce, Group Vice President of Fairchild Camera and Instrument and co-founder of Fairchild Semiconductor, highlighted the 1968 International Solid-State Circuits Conference held in February with his keynote address, "Making Integrated Electronics Technology Work".

### Clipped from the San Jose News:

The other day, we had a bit of fun with electronics industry jargon by noting Fairchild Semiconductor in Mountain View was making "hex inverters" and quipped that maybe it could be the answer to a voodoo victim's prayers. Yesterday's mail brought another press announcement from our wordcoining friends at Fairchild-saying that a "dual TTL flip-flop can function as a standard JK or Type D circuit." We were impressed with this, and wondered if it would help folks with insomnia. But public relations chief Manuel J. Robles set us up in the flabbergast department. He noted that Fairchild also makes mod counters (for girl watching?), buffers (the answer to Anacin?), gates (what, no fences?), extenders (for long, tall, cool ones?), drivers (commuter type?), memory cells (for jailed brains?), comparators (more girl-watching equipment?), half adders (useful with checkbooks?), counter adapters (for people who can't count?), and those flip-flops.

#### Leadwire

#### Vol. 10, No. 3

Published by and for Employees of Fairchild Semiconductor/ Instrumentation

Mountain View - Palo Alto - San Rafael - Hong Kong - South Portland, Maine - Shiprock, N.M. - Croydon, Australia - Seoul, Korea - Mexico City

Editor: Judy Horst Art Director: Larry Bender

#### Reporters:

MOUNTAIN VIEW—Marge Killian, Wes Cox, Lois Eagleston, Nellie Covington, Ginger Tygret, Keith Thomson, Iantha Kochsiek, John Walsh, Edna Loucks, Missy Strebig, Bonnie Weber, Donna Hudson, Beverly De Los Santos.

SAN RAFAEL—Cleatus Dunkley, Audrey Graxiola, Janet Marz, Margaret Queen, Hal Knopp, Bobbie Talley, Anne Parfitt, Hilda Kaliczak.

RESEARCH & DEVELOPMENT— Janet Jones, Terri Mead, Adrienne Juliano, Janet Lumley.

INSTRUMENTATION—Jack Ramon, Pat Campagna, Anna Ackerson, Jeanne Meyer.

SOUTH PORTLAND—Linda Allen, Bob Tetrault.

 $\mu$ L is a registered trademark of Fairchild Semiconductor, a Division of Fairchild Camera and Instrument Corporation.

Copyright Fairchild Semiconductor Printed in U.S.A. XX-00-0064-28 9M

Qui Gradley 650-327-4224