Fairchild Helps Finance Job Training

Dr. C. Lester Hogan, president of Fairchild Camera and Instrument, gives a $5,000 check to Joe Adames, student council president for Opportunities Industrialization Center of Santa Clara County. Otis Courtney (center), job development coordinator for the non-profit job training and placement agency, will be working with Fairchild's Mountain View Employment to discuss how OIC students may be trained to meet Fairchild employment needs. OIC has been operational for almost two years. It not only offers job skill training but employment preparation in which the students learn self confidence and communication skills, are prepared for interview situations, and in general develop positive attitudes about job responsibilities. At the end of training OIC aids the students in finding jobs, and supplies further training and counseling if necessary.

FAIRCHILD VIEWS

Volume XVI, Number 5 July, 1969

Revolutionary!

Fairchild's New High Speed Memory System Makes Debut in a One-Inch, Multi-Chip Package

A 128-bit read/write random access memory (RAM) featuring access speeds of 35 nanoseconds and a fabrication technology that can be applied to semiconductor active memories is now being offered by Fairchild Semiconductor.

Available in a 1 x 1 inch multi-chip package, the MμL4027 is Fairchild's first entry in a planned series of memory system elements to be constructed with face-down bonding techniques. The MμL4027 is a bipolar product with a ceramic substrate that incorporates two layers of metalized interconnects. This advanced design eliminates die attach and wire bonding operations, and contributes greatly to improved performance and reliability.

The device consists of eight 16-bit chips (MμL9033 memory cells) bonded face down on the ceramic substrate. Memory organization is 64 2-bit words with uncommitted collectors that allow easy word or bit expansion. The organization is simplified by eight X and eight Y coincident-select address lines.

All outputs are compatible with current sinking logic such as DTL and TTL. True and complement outputs are available for each bit.

Subsequent products in Fairchild's new multi-chip memory system family will be offered within the next year.

$1.3 Million Projector Contract Signed

The largest 8mm sound motion picture equipment contract in the short history of the cartridge film medium has been awarded to Fairchild Camera and Instrument Corporation's Industrial Products division, according to Nat C. Myers, Jr., group manager for educational and audio-visual systems and services.

In excess of $1.3 million, the contract represents purchase of Fairchild Mark IV rear screen cartridge projectors by Professional Research Inc. of Los Angeles, a subsidiary of American Medical Enterprises, Inc. It was signed for PRI by Dr. S. Jerome Tamkin, president.

The Fairchild sound film systems with MoviPak* cartridges will be used by PRI for its patient counseling film library program produced for the American Dental Association, and other patient counseling film programs on obstetrics and gynecology, anesthesiology and opthalomology. Delivery is scheduled to be completed in 1969.

"The size of this contract emphasizes the acceptance of and momentum gained by the 8mm cartridge sound film concept since its introduction in the early 1960's," Mr. Myers said. The Fairchild projection system is similar in size and appearance to a portable color television set, permitting films up to 22 minutes in length to be viewed in an office, reception room or examination area without darkening the room. Featuring "instant" MoviePak cartridge loading, the Fairchild system has gained a high level of acceptance in educational, government, commercial sales and industrial training applications.

The success of 8mm cartridge sound film systems in the medical-dental field, Mr. Myers observed, has been due in good measure to the need to transmit clear, detailed information on procedures and practices to patients, students and doctors in the shortest possible time.

*Registered Trade Mark of FCIC.

Systron-Donner, Fairchild Camera Sign Agreement

The Systron-Donner Corporation and Fairchild Camera and Instrument Corporation have announced the signing of an agreement for the purchase of Fairchild's line of bench instruments.

G. H. Bruns, Jr., Systron-Donner president, stated that the purchase, for an undisclosed amount of cash, complement's his company's line of laboratory and test instruments and includes a major line of digital voltmeters, curve tracers, and electronic counters. These instruments represented sales of approximately $5,000,000 in 1968. The sales for Systron-Donner during the same period totalled $29,000,000. "This acquisition," Bruns said, "adds appreciably to the company's broad line of measurement devices which now include complete lines of electronic counters, digital voltmeters, data generators, spectrum analyzers, pulse generators, time coding devices, and other basic measuring equipments.

Production facilities and inventory will be relocated at Systron's headquarters in Concord and discussions are under way for transfer of key Fairchild personnel, according to Bruns.

A Fairchild spokesman commented that the transaction will enable the Instrumentation Division to concentrate its resources on its automatic high speed test systems products. This line includes discrete device, integrated circuit and logic circuit test and measurement systems with applications in device manufacturing, inspection and design engineering. Future growth will be oriented toward computer controlled systems and development efforts in high-speed automatic handling equipment and environmental chambers, the spokesman concluded.

Systron-Donner will honor all Fairchild service agreements and warranties and no changes in sales or marketing representation are contemplated, Bruns said.

Purchase of these lines, Bruns said, greatly increases Systron-Donner's penetration of the markets involved, especially that of digital voltmeters, a market which now totals $27,000,000 annually.

Systron-Donner produces and sells a broad line of transducers, electronic measuring instruments and control systems. It is listed on the American and Pacific Coast Stock Exchanges and has applied for a listing on the New York Stock Exchange.

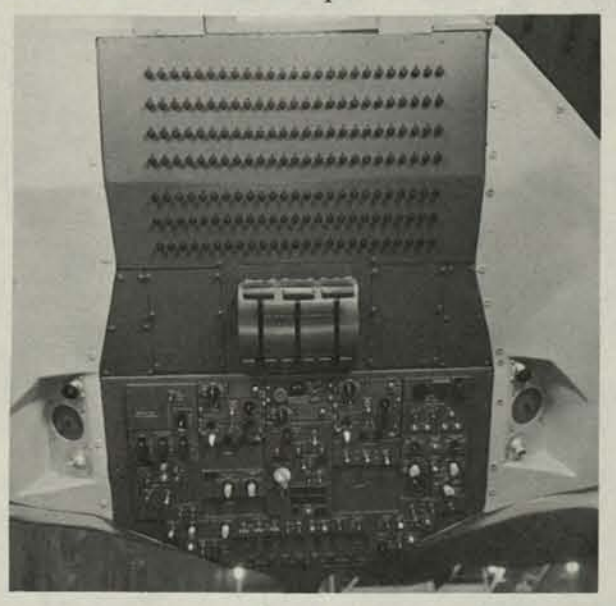
Systron-Donner comprises eleven divisions, located in California, New Jersey and Belgium. Incorporated in 1956, Systron-Donner sales have increased from $10 million to $29 million during the past three years.

Hogan and Burke Visit Far East Operations

Dr. C. Lester Hogan, president and chief executive officer of Fairchild Camera and Instrument Corporation, and Walter Burke, a member of Fairchild's Board of Directors and Executive Committee, departed from San Francisco International Airport for Tokyo to attend a series of conferences with Fairchild officials and customers in Japan, Hong Kong, Korea, Singapore, and Australia. Fairchild's Far East operations are engaged in the production of silicon semiconductors for sale in the Far East. Hong Kong alone buys many millions of dollars worth of locally produced Fairchild devices used primarily in small radios, televisions and stereo systems.

Giant DC-10 Will Carry 250-300—And 2 Fairchild Recorders

When prominent airline representatives inspect the mock-up of McDonnell-Douglas' huge new DC-10 in Long Beach, Calif., one of the first things they see is the control panel for Fairchild's cockpit voice recorder. It's situated conspicuously in the cockpit's center overhead instrument panel.

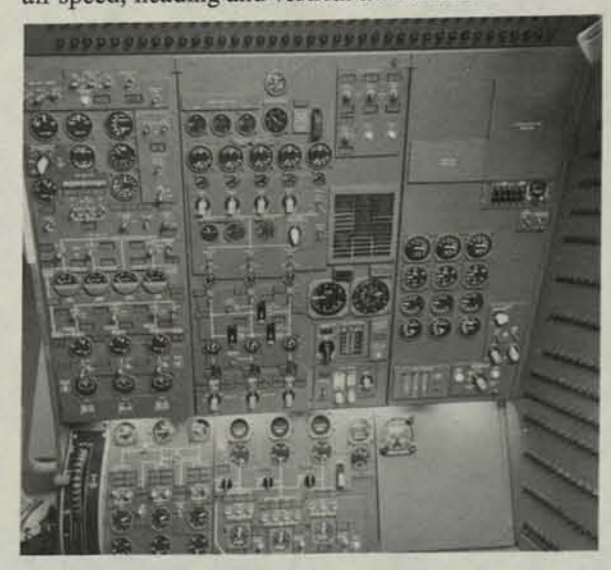


The DC-10's Fairchild Cockpit Voice Recorder is situated top center on the overhead instrument panel.

Presently aboard all types of commercial jet aircraft, this equipment has been selected for fleet-wide use by the majority of airlines in the United States, as well as many foreign countries.

Fairchild's cockpit voice recorder, manufactured at Industrial Products' Plainview facility, provides a continuous 30-minute record of all voice communications originating at the pilot's station, the co-pilot's station, the passenger public address system or third crew member station, and the cockpit areas. Its continuous closed loop tape is automatically erased thirty minutes after recording and can be totally erased by the pilot after a safe landing.

Also on board the new DC-10 at the Flight Engineer's station is the cockpit control panel for Fairchild's flight data recorder equipment. This unit, manufactured at Industrial Products' Los Angeles plant, furnishes a permanent record of four or more in-flight parameters including an aircraft's altitude, air speed, heading and vertical acceleration.



At the Flight Engineer's station, the Fairchild Flight Data Recorder occupies the upper right portion of the control panel.

The huge new jetliners, holding upwards of 250 to 300 passengers, will contain the finest avionic equipment available. Geared to carry maximum passenger loads in the 1970's, they will rely upon Fairchild equipment, operating in accordance with, and in excess of FAA specifications.

Flight data recorders and cockpit voice recorders, engineered to survive crash impact and submersion, play a vital role in the analysis of aircraft accidents and help prevent future accidents.

Offset Press Line Sold To American Type Founders

Fairchild Camera and Instrument Corporation and American Type Founders Co., Inc. of Nashville, Tenn. have announced the sale, by Fairchild, of its web offset newspaper printing press line to American. The amount of the transaction was not disclosed.

The sale also includes the printing press manufacturing facility of Fairchild's Graphic Equipment Division in Joplin, Mo. Thomas L. Ritter, president of American, stated the business will be operated as the King Press Division and they planned to continue to manufacture the Color King and News King web offset presses in Joplin.

Commenting on the transaction, Richard J. Robinson, general manager of Fairchild Graphic Equipment, stated that sale of the press business will enable his division to focus on a systems approach to composition and to accelerate the development of a product family in this area.

"Production of Fairchild's current line of electronic photocomposition equipment, the Photo-Text-Setter 2020 and the Photo-Text-Setter 8000, will be moved from Joplin to the division's headquarters facility in Plainview, Long Island," he said. Other products which will be moved to Plainview include the Teletypesetter line of tape perforators and operating units which automate hot-metal linecasting machines. The division also markets the Morisawa display photocomposing machine on an exclusive U.S.-Canada basis.

Pointing out that Fairchild Graphic was the first company to utilize integrated circuits in photocomposition equipment, Mr. Robinson added that long-range product planning for his division includes computerized composition systems utilizing cathode ray tubes plus computer peripheral equipment of a graphic nature, such as electronic keyboards.

Mr. Robinson was named general manager on May 5 and was previously director of product management for Intertype Company, a subsidiary of Harris-Intertype Corporation.

Whirlwind Tour of Semikor

Semikor News Editor, Joe Chong Hong sent these pictures of the visit: (TOP - BOTTOM)

Dr. Hogan arrives and is greeted by Semikor department heads.

Mr. Burke shakes hands with the Minister of Commerce and Industry of the Republic of Korea.

Dave Heck, Plant Manager; Wilf Corrigan, Group Director of Discrete Devices; and Dr. Hogan confer.

Dr. Hogan gets a first-hand look at the Semikor operation. Here he tours the lead bonding section.

He is welcomed by a group of mechanics.

Dr. Hogan engages in conversation with one of Semikor's lady engineers.

D. Kim explains the calibration work shop.

Graveyard shift operators join in the fun of Dr. Hogan's visit, and the feeling's mutual for both he and Wilf Corrigan.

Mr. Burke, Dr. Hogan and Plant Manager Heck met with Deputy Prime Minister and the Minister of the Economic Planning Board to discuss industrial development in the Republic of Korea and Fairchild's role in it.

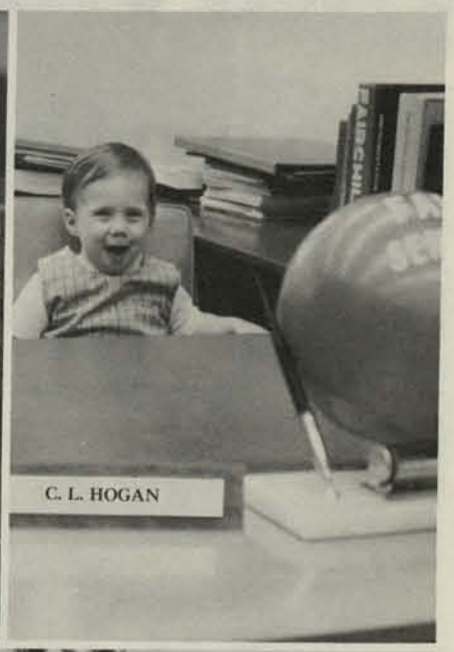
Dr. Hogan spoke to Semikor managers at a dinner party at the Korea House.
After their pleasant Korean visit, Dr. Hogan and Mr. Burke departed for the next leg of their visit.

When Fairchild Throws An Open House . . .

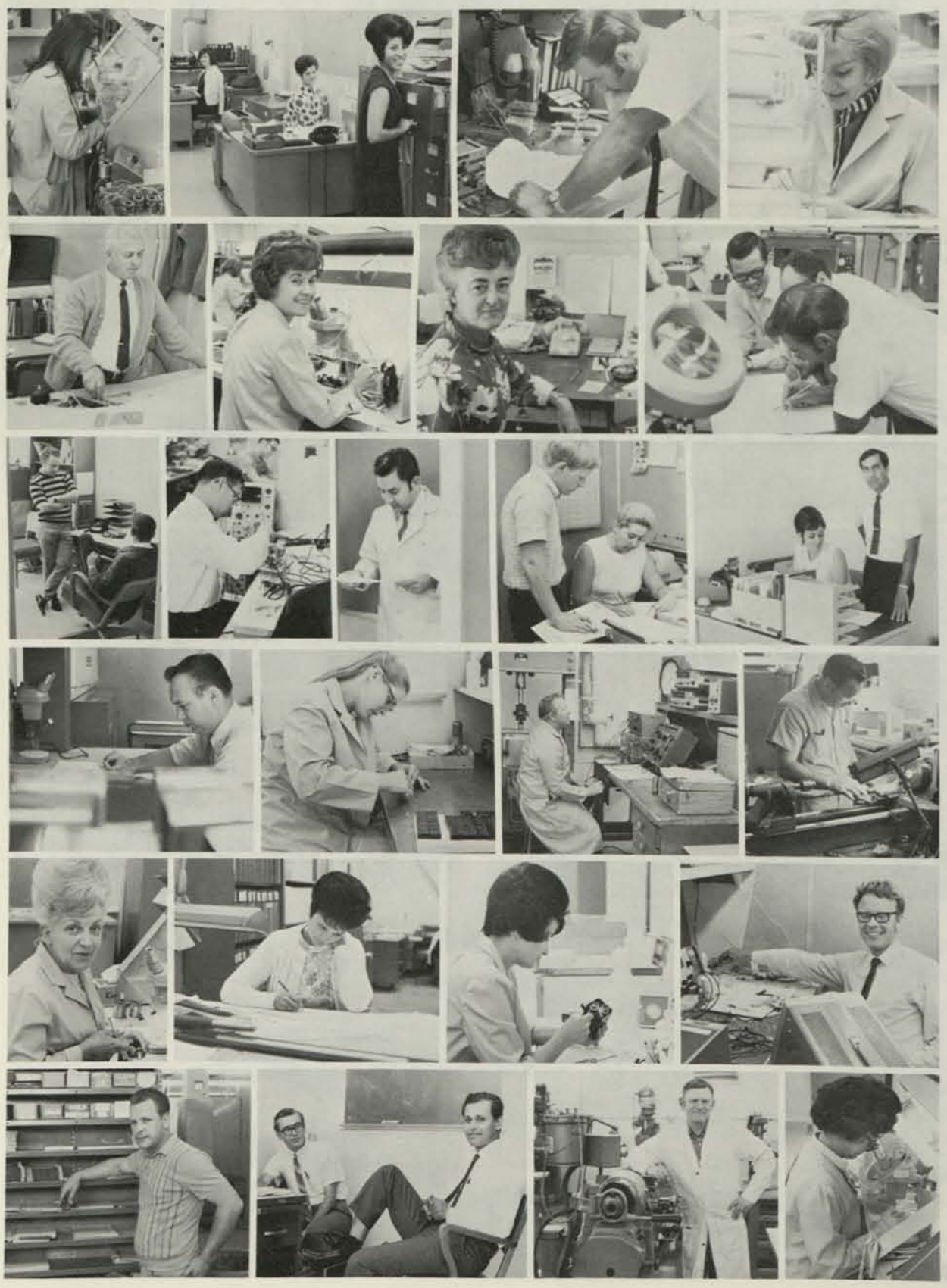
The doors opened at 11:00 a.m., Sunday, May 18th, and 9,600 people later they swung shut. In the process, the crowd consumed 9,800 hot dogs, 7,000 soft drinks, 1,400 cups of coffee, and 600 cookies. And, the children walked away with 5,000 balloons.

There were lots of exhibits and demonstrations as the "official tour" wound its way from the 313 Fairchild Drive building across the parking lot (via a San Francisco cable car) to the new Headquarters building at 464 Ellis Street. For many it was the first time to see the new building, and for youngsters like the two children of Carl Lowry, Management Information, it was a chance to try out Dr. Hogan's desk and chair.

This footnote to the day's activities: never trust a helium-filled balloon. Craig Simmons, son of Officer A. B. Simmons of the Security Force, tied two balloons to his pocket watch. As it drifted skyward, luckily it caught on the framework of the Ellis Street Building. A gallant plant maintenance crew rescued the watch from its precarious position Monday morning.



Fairchild Controls: People Behind A Common Goal!



Among the many Fairchild Semiconductor buildings in Mountain View is the headquarters for Fairchild Controls West Coast operation. Known as the Transducer Plant, this operation makes instruments that convert physical phenomena such as pressure or humidity or weight into an electrical signal.

To understand what the 70 people at Controls do requires imagination. For instance, picture Apollo 10 at lift off. Fairchild Controls instruments were there — in the systems designed to measure the liquid rocket fuel and pressure, and later in booster rocket systems making it possible to steer the "Charlie Brown" into orbit, first around the Earth and then around the Moon.

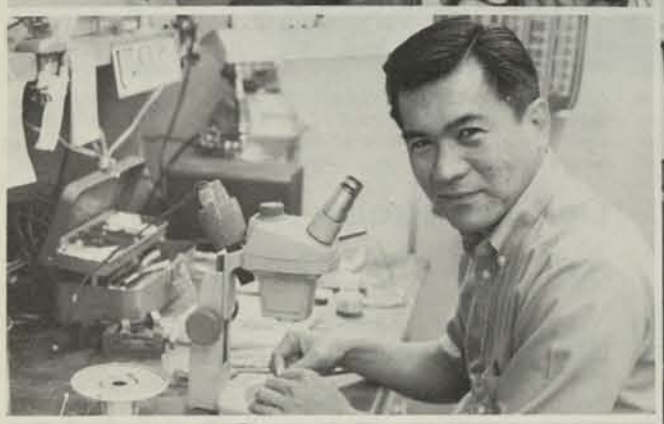
Fairchild Controls also manufactures pressure transducers for the Lockheed MADAR (Malfunction Detection Analysis and Recording) system in the Air Force Galaxy C-5, newest and biggest transport aircraft ever designed. Applications for Controls instruments vary from measuring milk during processing to performing pressure sensing in air conditioning systems and fresh water processing and in fuel injection systems for autos.

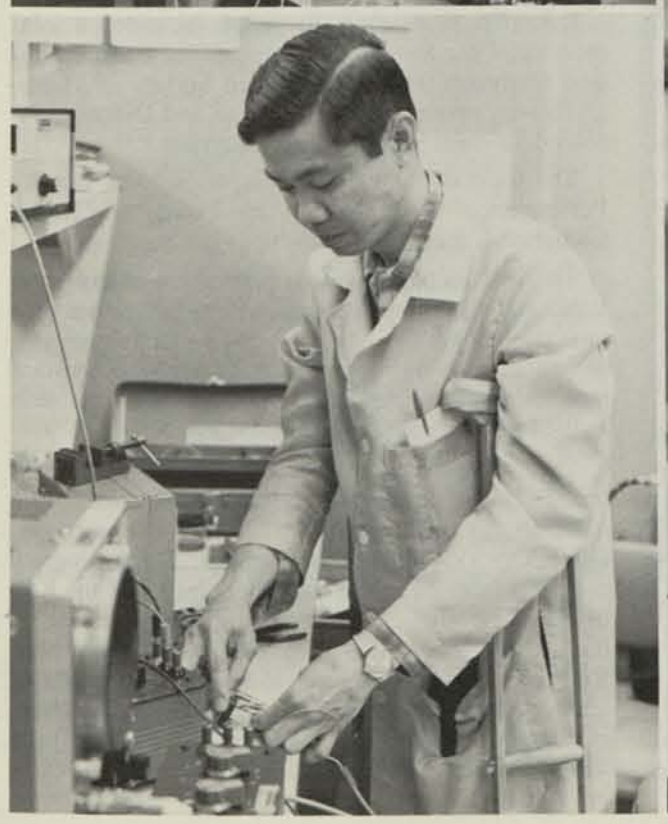
Controls also manufactures a line of modular products (affectionately called "little electronic black boxes") which include operational amplifiers, DC amplifiers, power supplies, and special products using latest integrated circuit technology.

To understand the people at Controls requires volumes. Many came with Controls when the West Coast plant moved to Mountain View from Southern California in 1963. Some have worked with the East Coast Controls operation, and many are natives of Northern California. More than half have been with Fairchild more than four years. Their accomplishments as a team include being the first Fairchild plant on the West Coast to receive a Zero Defects Participation Award and third over-all in the Western United States to receive this honor. The ability of Controls people to achieve this recognition resulted in a reduction in rejection rates from 10.25% to .02% over a four year period.

Maintaining this .02% rate is typical of the spirit each employee brings to the job. Individually, Controls employees hold many local and inter-plant sports championships . . . golf, bowling, table tennis to name a few. And collectively, again, they hold a safety record of 950,000 man hours worked without a lost time accident. Currently the number of hours is at 165,000 in pursuit of that previous record.

The secret of Controls' success is, of course, partly due to its size and the team spirit conveyed throughout the plant, but more importantly it is the people and the pride they take in doing a job right. The cohesiveness that made a .02% rejection rate possible makes just about anything possible, and that's the main theme that runs through the volumes and volumes of material anyone could collect on the Controls division out west.





TOP - BOTTOM

Gene Fetters and Perry Wallia, Engineering, develop a new 1/16" diameter solid state monolithic pressure transducer with both medical and aerospace applications.

Sub Okazaki, Engineering, recently designed a special transducer to measure the push-off (force) exerted by a person's big toe for the U. S. Public Health Service.

Jim Vinzant, Prototype and Repair, tests a vibrating wire transducer used to monitor missile acceleration.

Al Aldor, QC, performs final inspection on differential sensors used in the MADAR system on the Lockheed C-5 Galaxy transport aircraft.

Tony Natividad, R & D, recently completed assembly and test of a new Glossmeter product. The meter, which compares the gloss of paper to National Bureau of Standards criteria, is currently undergoing field evaluation tests at a leading paper company.

Under Val Haccou's guidance the production Soldering group has maintained a rejection rate of less than one rejection per 5000 hand soldered joints.

Plant Manager Don Lynam supervises the West Coast Controls operation — 70 people and 34 standard products (operational amplifiers, pressure transducers, and signal conditioners) with infinite variations in each product line.

Administering the Zero Defects program is largely the responsibility of Brian Duncan, QC, and Pat Carpenter; the drop in rejection rates in the past four years from 10.25% to .02% is credited to the united efforts of all 70 people at Controls.

Cliff McCarroll, Marketing, reviews sales forecasts, charts performance as an upward curve.

Ruth Mansfield, Production, assembles operational amplifiers typically used in IC test systems.

Corrine Maston and Sandy Varacalli, Production, assemble new FPT solid state low-cost industrial pressure transducers.

Marie Cantu, Blue Print room, controls over 10,000 company and military specifications.

Computer Aids Design of Micromosaic Arrays

The creation of complex custom MOS arrays can now be achieved quickly and economically using an advanced computer aided design (CAD) capability that features customized placements of standard "library" cells within an array.

Fairchild Semiconductor employs automated computer programs, in combination with MOS technology, to custom produce highly complex digital circuits designated as 3400 Micromosaic* arrays. The company's CAD facilities are used not only for artwork generation but for logic simulation and test generation/verification.

The Micromosaic design technique can implement a wide variety of LSI subsystem functions that are not economically feasible with conventional "hand crafted," fully customized methods. It offers very short design time and results in significant cost advantages when applied to the production of devices in low and medium volumes.

The design of 3400 Micromosaic arrays is based upon an alignment of functional building blocks selected from Fairchild's library of more than 45 MOS cells. These cells, which are uniform in height and systematically interconnected to form a monolithic circuit pattern, have been pre-designed and thoroughly characterized.

Availability of the large cell library contributes considerably to the efficiency of chip design by making it possible to design with great conciseness. The complexities of an interconnection system are minimized because the cell patterns are not prediffused and can therefore be positioned during the design phase. Only a single metalization layer is required.

Computer aided design (CAD) is an integral part of the Micromosaic concept and contributes to fast turnaround times and low tooling cost. The employment of CAD, together with the unique Micromosaic concept, enables Fairchild to give deliveries of prototype products within 10 to 12 weeks from the receipt of a customer's logic diagram.

The entire design sequence is performed with the aid of a computer working from customer supplied specifications. The sequence includes logic simulation and verification, cell selection, automatic cell placement, interconnection routing, artwork generation, and test sequence generation.

The customized nature of Micromosaic arrays brings Fairchild into a close working relationship with the engineering team of a customer company. Once the system requirements are defined by the customer, Fairchild is prepared to enter into a number of different working arrangements in the areas of logic design, verification, and CAD coding.

The library of Micromosaic cells has been extensively characterized to provide an operating history under varying conditions of temperature, power variation and fan-out. The arrays have been designed for the full military temperature range of −55°C to +125°C as well as the industrial range of 0°C to +75°C.

3400 arrays may be specified for conventional "high threshold" operation for compatibility at traditional MOS supply and signal voltages, or "low threshold" operation utilizing bipolar compatible +5 volt signals. The mask design is the same for either option; only the manufacturing process is varied.

*Micromosaic is a Fairchild trademark.

Controls Ad Copy Cited

Melvin Ecker (l), Controls assistant advertising manager, receives the Distinguished Product Advertising Award from Jack Doyne of Industrial Equipment News. The publication cited the copy excellence and high quality of inquiry response to the winning ad, which described the PSF 100A pressure switch. Controls' ad agency is Dunwoodie Associates of Garden City, N.Y.; Ed Berlin is the account exec.

Photogrammetric Award

THREE WINNERS . . . Mrs. Clarice Norton of the Space and Defense Systems Division presents Photogrammetric Award for 1968 to Frederick J. Doyle, incoming President of the American Society of Photogrammetry, at the recent Annual Convention in Washington, D.C. Previous winner is Gerhardus H. Schut, center. Mrs. Norton, photo-optical staff consultant in Syosset, was the 1964 recipient of the Award founded by Board Chairman Sherman M. Fairchild.

ETT-400 System Monitors Equipment Operation

A transducer surveillance system, with built-in monitoring and alarm and self-contained emergency battery power supply, is now available from FCIC's Electro-Metrics subsidiary in Amsterdam, N.Y.

The all-electronic transducer trip assembly, model ETT-400, is designed to monitor industrial equipments incorporating pressure, force, flow, displacement and other transducers, including thermocouples and thermocouple and resistance thermometers, to insure safe operation. It detects and controls microvolt changes where a malfunction in an operation can result in safety hazards to personnel, extremely costly damage and long shutdowns.

The ETT-400 provides continuous monitoring, responds to out-of-spec transducer output levels by alarm indications or complete shutdown, and has been designed to prevent false alarms caused by improper operation of the monitoring unit.

Fed from six transducers in two sets of three, the ETT-400 has two separate channels, each of which is driven by a set of transducers. the unit will function properly if only one channel is operating.

An out-of-spec alarm circuit with adjustable alarm point is driven by the channel outputs. Out-of-spec conditions are indicated by alarm lamp lights and action of relay contacts to initiate an external alarm. A differential alarm circuit compares the channel outputs. For additional protection, a separate trip system monitors the output of each ETT-400 pre-amplifiers, and can be wired to cause a full equipment shutdown if desired.

While normal power is from a 110 volt AC source, an internal nickel cadmium battery under continuous trickle charge automatically continues to provide power in case of a power outage. The unit can operate from its own source for up to 1½ hours.

The solid-state ETT-400 is furnished ready for mounting and interconnecting to customer-furnished transducers and leads as well as remotely located visual and aural alarm devices.

This ETT-400 unit is specially inscribed and calibrated for handling thermocouple data.

Courses Probe Wiring And Casting Design

Two training programs, geared to increasing capabilities of design and drafting personnel of the Space and Defense Systems division, have been completed. Printed Wiring Design and Casting Design programs were coordinated by Seymour Smith, supervisor, Engineering Standards.

Meeting over a 14-week period, the Printed Wiring Design course acquainted mechanical designers and draftsmen, who have little or no background in electronics, with printed wiring techniques. The course was conducted by M. Plotkin, associate professor of the State University at Farmingdale, and Arthur Stubenvoll, standards engineer. Fairchild vendors also contributed with films and a field trip to a printed wiring facility. The Casting Design course, 22 hours in 11 weeks, brought personnel the latest in casting design and drafting requirements. The course was conducted by H. Wacker, instructor at the State University at Farmingdale.

In assessing the success of these training programs, Thomas D. Spreer, manager of Design and Drafting, said: "Participants in programs such as these gain usable knowledge which will supplement their present skills and increase their overall capabilities. This in turn gives the Design and Drafting department improved versatility toward more effective use of manpower."

Joint Technical Meeting

Recently, more than 70 people attended a joint meeting of the Society of Photo-optical Instrumentation Engineers and the American Society of Photogrammetry sponsored by the Space and Defense Systems division at its Syosset headquarters.

The topic of the meeting was, "Verifying Quality Performance Characteristics of Military Mapping Cameras — the KC-6A."

The discussions centered around the many basic static and dynamic performance characteristics of a military mapping camera, the testing techniques employed in proving its performance and the constant monitoring of outputs from the first static lens tests to the final dynamic airborne surveys.

The theme was introduced by Mrs. Clairce Norton, FSDS' photo-optical consultant; Harold Levine of Kollsman Instrument Corporation discussed the GEOCON IV lens; Harry Hastings, FSDS program engineer described the acceptance testing of the KC-6A camera; the calibration and optical testing of the camera were outlined by Mrs. Norton and Mrs. Ruth Lyon, senior engineer in FSDS' computer systems and techniques section; and Clyde Berndsen, cartographer, ETL, Wright-Patterson Air Force Base, wrapped up the evening with a summary of the camera's final field tests.

People

FSDS Fish Story

There's a guy at FSDS who can talk about fish without exaggerating the size of the one that got away. He's Bill Siele of the Q & R department in Syosset, and he raises tropical fish as a hobby. Bill is a member of the L.I. Aquarium Society, which recently awarded third prize to two of his guppy entries in the 1969 Open Tropical Fish Show. One question, Bill — how do you pin a blue ribbon on a guppy?

Heimer Wins Incentive Award

Richard J. Heimer, Space & Defense Systems' technical director in El Segundo, has received a $100 incentive award for the presentation of a paper at the 105th annual conference of the Society of Motion Picture and Television Engineers, held mid-April in Miami Beach, Florida.

Heimer's paper, titled "Some Practical Aspects of Lens Designing by Computer," described the relative efficiency of a particular optimization program in relation to its specific architecture, and the need for more than one merit function during the synthesis of a given design. A computer program for the IBM 360/44 has been prepared which permits exploration into questions concerning the merit function.

Graphics Applauds Couch

District 4 of Graphic's sales department recently named Sam Couch Salesman of the Month because of his initiative in meeting a competitive situation. Sam made a sale of three perforators because he forced the competition to prove the worth of their equipment. They had sold the prospect on the benefits of hard copy for his computer-oriented photo-ad department. Sam suggested that the publisher ask for a trial from his competitor while he was selling the merits of the TPE-214. The publisher got the trial — and Sam got the order — when the publisher found out that the versatility of the Fairchild keyboard layout and the speed of the perforator were more important than hard copy.

Plautz Appears on TV to Plug Recorders

Bert Plautz, manager of Industrial Products' Los Angeles plant, has become one of Fairchild's TV stars. He appeared on Ed Nelson's Morning Show as the result of a suggestion by one of IPD's important airline accounts that Fairchild's flight data recorder and cockpit voice recorder would make interesting discussion material for West Coast TV audiences.

IPD's "little black boxes" proved an early morning eye-opener because of their bright orange coloration, an aid to recovery following accidents. Bert came through in the best Fairchild tradition, impressing viewers with his knowledge and easy professional manner as he discussed the equipment and its use.

Bert's segment of The Morning Show was especially meaningful for West Coast IPD personnel who had front row seats via in-plant television. They gained new pride in their role in the production of the flight data recorder as its importance to aviation safety was emphasized.

Taped rebroadcasts of The Morning Show to the Chicago and New York areas provided additional audience exposure.

Schwartz Attends Simulation Seminar

Ira Schwartz, a senior engineer in the Advanced Systems and Analysis Section at Space and Defense Systems, Syosset, represented the Division recently at the "Photo-Optical Techniques in Simulators" Seminar-in-Depth sponsored by the Society of Photo-Optical Instrumentation Engineers and the Simulation Councils, Inc. Schwartz, program chairman for S.P.I.E.'s New York Chapter, also served as audio-visual chairman of the two-day seminar at the Pines Hotel in South Fallsburgh, N.Y. Space and Defense Systems, a sustaining member of S.P.I.E., had a table-top display at the conference.

Bruce Named to Head United Fund Divisions

Robert Bruce, FCI vice president and general manager of Space & Defense Systems, will head the 1969 United Fund of Long Island Fall campaign in Divisions A. He is the first to accept the chairman's role in UFLI's fifth annual appeal for funds to help Long Island's voluntary agencies and hospitals, which benefit an estimated 600,000 Long Island residents. As Divisions A chairman for the second consecutive year, Bruce will select and coordinate the work of volunteer chairmen in the Industrial, Mercantile and Commercial subdivisions.

Last year, UFLI volunteers reported pledges and collections of $3,000,711. Approximately $26,000 of this impressive total was donated by Fairchild's four Long Island-based divisions and corporate staff.

Five Fairchilders to Participate In WESCON

At this year's Western Electronic Show and Convention, held August 19-22 in San Francisco at the Cow Palace, five Fairchild men will speak at sessions in the many technical seminars that coincide with the show. In a session titled "IC/Systems: The Changing Interface," Bob Ulrickson of the Semiconductor division will speak on "Using Computer-Aided Design in Production and Testing of Custom LSI — The Manufacturer's View Point." Later C. Clifford Roe, also with Semiconductor, will speak on "The Future of Automatic Processing" in a session titled "Automatic Production of Semiconductors." Derek Bray, Semiconductor, will speak on "Linear Circuits for Communications Applications" in Session 20 dealing with "New Solid State Devices." In the "Computer-Aided Circuit Design and Testing," Session Chairman will be Ron Rohrer of Semiconductor, and Ed Jones of R & D will talk about "Automatic Test Synthesis."

Graphics Goes to Portugal

Graphic's Teletypesetter tape perforator attracted attention at the recent Filgrafica Fair in Lisbon, Portugal. Visitors to the booth of the division's distributor, Sociedade Tecnica de Artes Graficas included Admiral Americo Thomaz, president of Portugal. Here, STAG's Director Miguel Pereira explains to Professor Marcello Caetano, Portugal's prime minister, the functions of the Fairchild perforator.

New Appointments

Fairchild Promotes Gil Lampner

Gil Lampner has been promoted to Director of Organization and Management Development for Fairchild Camera and Instrument Corporation. In this newly created position, Mr. Lampner has direct responsibility for all programs and policies concerned with conservation and development of key managerial resources. This includes establishment of internal personnel selection and manpower inventory systems, personnel research, and executive development programs. Prior to accepting this promotion, Mr. Lampner was manager of training and management development for the Mountain View-based Fairchild Semiconductor division. He is a member of the American Society for Training and Development and the American Management Association. He joined Fairchild in January 1967.

Fairchild Names Jones Marketing Manager, Far East

Terry Jones, a five-year Fairchild Semiconductor marketing veteran, has been named Marketing Manager, Far East, for Fairchild Semiconductor. Jones, who was formerly Product Marketing Manager for Special Circuits in Mountain View, will report directly to Douglas J. O'Connor, Group Director of Marketing. The 33-year-old marketing executive will be headquartered in Japan. His appointment reflects Fairchild's continued interest in the Far East market. Fairchild now has assembly plants operating in Seoul, Korea; Hong Kong and Singapore, Malaysia. Jones, a native of Nashville, Tenn., joined Fairchild as a computer market salesman in 1964 and later became a product marketing engineer. Prior to coming to Fairchild, he worked three years as an electrical engineer with IBM.

Bray Appointment Completes European Marketing Staff

Fairchild Semiconductor's European marketing staff has been completed with the appointment of Derek Bray as Applications Manager, Europe. Bray, who was formerly Communications Applications Manager in Mountain View, will head an applications team of European nationals who will cater exclusively to European customers out of Fairchild Semiconductor's European headquarters in Wiesbaden, Germany. He will report directly to Dedy R. Saban, Director of Marketing, Europe. A veteran of 14 years in the electronics field, Bray, 35, joined Fairchild in 1964 as a senior applications engineer. He became Consumer Applications Manager in 1966 and Communications Applications Manager in 1967. Prior to coming to Fairchild, he worked one year as a design engineer at Westinghouse and eight years as a senior engineer responsible for designing semiconductor devices for television equipment and computers with Electrical and Musical Industry in England.

Advertising Manager Named For Fairchild Semiconductor

Jim Lincoln, a veteran of 19 years in the advertising field, has been named Advertising Manager for Fairchild Semiconductor here. Prior to joining Fairchild, Lincoln was Division Advertising Manager for King-Seeley Thermos Co., Albert Lea, Minn., for five years. His other advertising assignments included four and a half years as an account supervisor with P. R. Mallory, Indianapolis; seven and a half years with DuPont, Wilmington, Del., as an advertising assistant; and two and a half years with Time Magazine and various advertising agencies in New York.

FCIC Bowlers Win Grumman Trophy

A highlight of the Bowling League dinner was the presentation of the Jake Swirbul Incentive Trophy, awarded annually by Grumman Aircraft of Bethpage to the team with the most pins over average in the Grumman-sponsored Long Island Industrial Bowling Tournament. Victorious Fairchild team members, representing the Long Island divisions, were Ken Anglin, Hank Carter, Mario DeMasi, Jim Econ, Lou Erhartic, Nick Ferrara, Gerry Genevrino, Dick Marz, Fiore Napolitano and John Saman. Sixteen teams competed for the Incentive Trophy and other awards.

Robert Bruce, FSDS general manager and H. E. Hale, Controls general manager, hold the Incentive Trophy as the FCIC team receives congratulations. It's a proud night for (l-r): Dick Marz, Mario DeMasi and John Saman; Alan Grant, group vice president; Robert Bruce; Bob Benn, Grumman director of recreation, who made the presentation; Hank Carter; H. E. Hale, Gerry Genevrino, Fiore Napolitano, Lou Erhartic, Jim Econ, Nick Ferrara and Ken Anglin.

FCIC's George Wade (c.) presents second place team trophies to the Dukes (l-r): Klaus Dean, John Lilly, Leo Forman, Cuno Engel and John Johnston.

The Saints, third place winners, receive trophies from H. E. Hale (c.), Controls general manager. The Saints are (l-r): Joe Suarez, Mike Bellack, Frank Bravato, George Endres and Dick Marz.

LI Men's Bowling Wrapup

The Men's Bowling League ended its season May 8th with a gala dinner at Carl Hoppl's in Baldwin, N.Y., where Fairchild's four Long Island-based divisions presented trophies and special prizes to its best bowlers. On hand to congratulate the keglers were Alan Grant, group vice president; Robert Bruce, FSDS general manager; H. E. Hale, Controls general manager and Ray Hennessey, Industrial Products general manager.

Here's the final team standings for the 1969 season, starting with the Cellar Dwellers — winners of the coveted Sherman Fairchild Trophy — and, in descending order: Dukes, Saints, Rimco's, Spares, Strikes, IBM, Graphics, C.P.'s, Ancients, Shylocks, Finishers, 5 Guys, Flip Flops, Mark V, Spotters, Jembs, Woodchucks, Brownies, Hi-Lows, Spectators, Chiefs, Mafia, Astronuts, Pacers, Headpins, Wildcats, Argos, Leftovers and Cosa Nostra. VIEWS would like to award trophies for imaginative team names!

The Saints had the highest handicapped 3-game series, followed by the Brownies and Spotters. Highest net in the 3-game series belongs to the Cellar Dwellers, Strikes and Spares. Graphic's boys had the high game handicapped and the Cellar Dwellers had the high net game. Shylocks and IBM tied for the most points on the last four nights; 5 Guys weren't far behind.

Officers for the 1969-1970 winter bowling season, were installed at the dinner. They are Mario DeMasi, president; Steve Napolitano, vice president; Harry Johannis, secretary; George Endres, assistant secretary; James Econ, treasurer and Nick Ferrara, assistant treasurer. Lou Erhartic and Frank Savio are trustees.

The Cellar Dwellers, winners of the League championship, receive the Sherman Fairchild cup and individual trophies from Alan Grant, FCIC group vice president and Robert Bruce, Space & Defense Systems general manager. The Cellar Dwellers and their guests are (l-r): Vinny Sorrentino, Mr. Bruce, Gerry Genevrino, Don Schoell, Mr. Grant, Frank Dedomenico and William Thompson.

High Game winner Harold Hartglass (c.) receives a Hamilton watch and congratulations from Ray Hennessey (r.), Industrial Products general manager and John Saman, outgoing league president.

John Johnston (r.) finished 13 points above his '68 average of 140 to win the Most Improved Bowler trophy, presented by Larry Weybrecht (l.), Graphic employee relations manager and John Saman.

FCIC Service Awards

5 Year Awards

Industrial Products
Richard Andrews
Roselle Henkel

Electro-Metrics
Walter Barney
James Behlen
Joseph Bernard
Marc Conney
Irene Cross
David Godey
Ronald Gomula
Joseph Greco
Russell Heller
Edward Kalenik
Edward Kaszuba
W. S. Lambdin
Anthony Meola
John Meola
John Morrello
John Prill
Dale Samuelson
David Smoler

Graphics
Don Borusheski
Ron Wells
Ted Forste
Lyle Birkinsha
Melvin McKinzie

Semiconductor
Mt. View
Leslie Gallagher
Alois Baum
Marie Christie
John Richardson
Vincent Fulginiti
Derek Bray
Annette Czarny
Rodger Likens
Walter Carter (R & D)
Bea Bravo
Phyllis Perry
Roland Darnell (R & D)
Tatsue Joyce
MaryAnne Santiago
Carmen Martinez

South Portland
Juliette Girouard
Frances MacMillan
Carol Willette
Diana Maloon
Jacqueline Collard
Susan Misener
Barbara Johnson
Donald White
Mary Brown

San Rafael
George Miller
Alice Phelan
Robin Simpson

10 Year Awards

Controls
M. Pietrafesa
M. Campanelli

Semiconductor
Mt. View
Gary Mickelson
Alyce Washburn
Robert Arnolde
Irene Kolacia
Lloyd Walsh (R & D)
Julia Howard
Josephine Peralta
Frank Ramos
Thelma Roseborough
Gordon Morrison
Alberta Allen
Wesley Cox
George Korpontinos
Fred Behringer
Virginia Hall
Maria Simon
Lillian Mickey
Samuel Luppo
Virginia Margetts

Instrumentation
Eleanor Palermo

FAIRCHILD VIEWS

Published monthly for the employees of the Fairchild Camera and Instrument Corporation, 464 Ellis Street, Mountain View, Cal. 94040, and its divisions and subsidiaries by the Department of Information.

ANNUAL MEETING—Fairchild shareholders gathered in Palo Alto, California on May 2 to participate in the first Annual Meeting to be held in California. Here, Sherman M. Fairchild, founder and Chairman of the Board calls the meeting to order. With him on the dias are (left to right), Sye Bohrer, representing the auditors; George T. Pfifer, Vice President, Finance; Dr. C. Lester Hogan, President and Chief Executive Officer; Roswell Gilpatric, a director and member of the company's general counsel firm; and Nelson Stone, Vice President, General Counsel and Secretary. For photographic highlights of the meeting, see pages 4 & 5.

Shareholders Hear Company's Plans At Annual Meeting

By combining its technological leadership with efficient, productive factory operations, Fairchild Camera and Instrument Corporation expects "to write another major chapter in the history of the electronics industry," Dr. C. Lester Hogan, president and chief executive officer, told shareholders at the company's annual meeting in Palo Alto, May 2.

"We expect to expand this Corporation by taking advantage of our technological excellence in this new era of electronics," he said. "We have no desire to turn Fairchild into a conglomerate. We believe the sales and profit opportunities are greater by concentrating in those fields in which we excel. By promoting these areas, we shall build a continuing sound growth for our Corporation both through internal growth and by acquisition."

He told shareholders that the future to Fairchild's problems and future growth and profits can be solved by modern management techniques, coupled with "a dedicated will to solve the problem." He warned, however, that such a solution costs a lot of money.

"We must spend money to improve and enlarge our factories to build products of yesteryear while we continue to forge new

(Please turn to Page 6)

FAIRCHILD VIEWS

Volume XVI, Number 4 Fairchild Camera and Instrument Corporation May-June, 1969

Fairchild Plans a Wiesbaden Plant For Its New European Operations

Fairchild Semiconductor has selected Wiesbaden, Germany as the location for a 120,000 square foot manufacturing plant to support newly established marketing operations in Europe. Selection of a manufacturing site in this city of a quarter million people was announced by Dr. C. Lester Hogan.

Dr. Hogan said that the Wiesbaden plant, which is scheduled to open in early 1970, will greatly enhance the company's ability to meet the needs of semiconductor customers in the European, African and Middle East areas. The plant site is off the Nordrampe, approximately one-half mile north of the Rhine River.

Fairchild is already conducting initial administrative and marketing activities from separate leased offices centrally located at Aarstrasse 1, Wiesbaden. These offices are part of an 8,000 square foot headquarters building that will also serve as a bonded warehouse. Here, Fairchild will stock its standard line of transistor, diode and integrated circuit products in addition to

(Please turn to Page 3)

Mayor Alfred Herbel of Wiesbaden, West Germany, is welcomed to Mountain View headquarters by President C. Lester Hogan. Gifts were exchanged, Dr. Hogan receiving a hand carved, crystal urn and the Mayor, a framed color photograph of an integrated circuit plus other souvenirs.

Alan Grant Named Group Vice President

The election of Alan J. Grant, formerly President of the Lockheed Electronics Co., division of Lockheed Aircraft Corp., as a Group Vice President of FC&I Corp., has been announced by the Board of Directors. He will be in charge of the operations of the East Coast divisions and the Instrumentation division in Sunnyvale, Calif.

Mr. Grant, under whose direction Lockheed Electronics Company grew from a relatively small operation to one of international significance, was also a vice president of the parent company, Lockheed Aircraft Corporation. He joined Lockheed in 1965, coming from Litton Industries, where he was president of their world-wide Guidance and Control Systems division. He also held various key management positions during his association with North American Aviation in the Autonetics division, as assistant general manager of the Navigation Systems division, and as vice president and general manager of the Computer and Data Systems division.

He began his career as an instructor in electrical engineering at Illinois Institute of Technology from where he received both his BS and MS degrees in electrical engineering. He is also a graduate of Northwestern University's Institute of Management.

After two years of active service with the U.S. Navy, he remained in the Naval Reserve for ten years. He now serves on the executive council of the Institute of Navigation and is a member of the Armed Forces Communications and Electronics Association and the Air Force Association.

FAIRCHILD SEMICONDUCTOR's European Marketing lineup: Kenneth Bradshaw, Marketing Manager, England; Dedy Seban, Director of International Marketing; Doug O'Connor, Group Director of Marketing; Carlo Longoni, Director of Marketing, Italy; Alain Barreau, Director of Marketing, France; and standing, Ralph Bennett, Digital Product Marketing Manager; Len Brown, Linear Product Marketing Manager; Doug Usher, Discretes Product Marketing Manager. Not pictured are Gardner DeSpain, Marketing Services Manager, and Erik Fischer, Product Marketing Manager, Germany.

Microwave and Optoelectronic Division Formed; Atalla is G.M.

The formation of a new division, to be known as the Microwave and Optoelectronic Division, concentrating on the microwave and photodevices market, has been announced by Dr. C. Lester Hogan, President and Chief Executive Officer. At the same time Dr. Hogan announced that Dr. John Atalla, most recently director of the Solid State Laboratory of Hewlett-Packard Laboratories, will join Fairchild on May 15 as a corporate vice president and general manager of the new division.

Nucleus of the new Division will be the Microwave Products Division and the Complex Optical Array and Photo Device departments of the Semiconductor Division. Consolidation of these operations is effective May 1.

"Fairchild's technological accomplishments in the fields of microwave and photodevices are well known," Dr. Hogan commented. "Credit for these achievements is due to the many dedicated people in these groups working with the scientists in our Palo Alto Research and Development Laboratory.

"Formation of this new Division will enable us to capitalize on

(Please turn to Page 6)

New Singapore Plant Construction Under Way

Fairchild Semiconductor's latest addition will be a new 40,000-square-foot manufacturing facility in Singapore. Construction, under the direction of the Equipment Engineering and Facilities group, began January 1st of this year and is scheduled for completion by August. Plant Manager currently directing a pre-manufacturing operation in a temporary facility there, is Art Francis.

SINGAPORE LABORERS prepare site for foundation. Low building in upper right in temporary Fairchild facility which will be used for training production employees. Other buildings are low-cost housing for Singapore residents.

ACCORDING TO PLAN — Reviewing structural layout of the Singapore plant are (l to r) John Thomas, Director Plant and Facilities Engineering; James Ferrie, architect and Obie O'Brien, construction engineer, far right. The others in the photo were not identified.

Left: Wiliam Cutts, electrical and mechanical Engineer, and John Thomas evaluate the setting of reenforcing steel. Above: Obie O'Brien and James Ferrie look at concrete test block.

MEET THE NEW EDITOR

A new editor of Fairchild Views makes her debut with this issue. She is Judy Horst, shown here talking with Sherman Fairchild, Chairman of the Board and Jim Moore, Director of Information at the Annual Shareholders meeting in Palo Alto. Judy joins the corporate staff from Semiconductor, where she edited the popular employee publication "Leadwire." Backing Judy up on the East Coast will be Naomi Glass, who will cover the divisions east of the Rockies. Naomi joins Fairchild from Service Publications, Inc., where she was news editor of a 160,000 circulation trade magazine.

Acquires Web Photo-Processing Line

The inventory and Fairchild-developed technology of the Fair-web saturated web photographic processing product line have been purchased for an undisclosed sum of cash from Fairchild Camera and Instrument Corporation's space and defense systems division by Townley Chemical Corporation of Amityville, New York. Fairchild said that a profit was made on the sale.

Win FSDS Incentive Awards

Clarice Norton and Jerome Libby each received $100 as part of Space and Defense's Incentive Awards program. Clarice presented a paper, "Photogrammetry — The Optical Problem" to the Optical Society of America's Southwestern Connecticut Chapter in late February, and at the ASP/ACSM Convention in Washington, D.C. March 9–14th Libby presented a paper, "Modularized Image Interpretation Equipment."

BURGERMEISTER FETED

BURGERMEISTER ALFRED HERBEL received a warm welcome from William R. Jelavich of Mountain View, plus the key to the city, at a luncheon in his honor shortly after his arrival. Here Joe Van Poppelen, Vice President and Director of Marketing, does the honors as mayor meets mayor.

At the Research and Development Laboratories in Palo Alto, Leo Dwork, Vice President and Director of R & D explains an integrated circuit test procedure to the Burgermeister and Dr. Wolfhard Geist, Weisbaden Manager of Industrial Development, who accompanied him.

DR. HARRY SELLO is not angry. He's using gestures to explain the complexities of Large Scale Integration to the Burgermeister. That's George Andrews, recently named Corporate Director of Acquisitions, in the center.

Sherman Fairchild Leaves IBM Board

In its 1969 proxy statement, IBM announced that Sherman Fairchild, a director of the company since 1925, had decided not to be a nominee for election to the Board of Directors this year.

Mr. Fairchild's letter to IBM Chairman of the Board Thomas J. Watson read:

"There may be some questions as to why, after forty-four years as an IBM director, I am not a candidate for re-election. The asnwer is very simple.

"There are just so many hours in the day. I am Chairman of the Board of both Fairchild Camera and Instrument Corporation and Fairchild Hiller Corporation and the growth of these corporations, coupled with my other venture interests and the desire to have a little time to myself, is the reason for declining to be an IBM board nominee.

"Perhaps sometime in the not-too-distant future, I will be able to have a vacation.

"IBM has an outstanding board and management and it was a great privilege to have been associated with them for forty-four years. I expect to keep in active touch with my IBM associates and the continuing growth of IBM.

"I have no present plans to sell any substantial part of my IBM holdings because, to me, they are an investment in the best management that I know of."

In his proxy letter to stockholders, Mr. Watson added, "Possessing a rare combination of scientific inventiveness and general business knowledge, Mr. Fairchild made many profound contributions to IBM over his forty-four year term. We thank him most sincerely and wish him every success."

Fairchild Plans a Wiesbaden Plant For Its New European Operations

(Continued from Page 1)

any future semiconductor components specially developed for the European market.

The Wiesbaden negotiations were the opening round in Fairchild's announced plans to penetrate the European market as an independent semiconductor manufacturer. Late last year, Dr. Hogan pointed out, Fairchild sold its third interest in Societa Generale Semiconduttori, SPA, the Milan based firm, in order to pursue its overall plans for expansion.

Selection of Wiesbaden as both a marketing and manufacturing center was based in part upon its central location in one of Europe's major industrial nations. Sales activities for customers throughout Germany will take place from regional sales offices to be located at the Wiesbaden headquarters.

The European headquarters staff is now completing organizational work to set up facilities for customer service, marketing research, advertising, product support and application engineering to reinforce the sales program for the Europe area.

The long range marketing plan is to make available Fairchild's full line of standard off-the-shelf semiconductor products, currently manufactured at company facilities on three continents. These products include digital IC's with MOS technologies and all the major logics, advanced linear integrated circuits, and the latest series of hybrid circuits. In discrete devices, the range of product offerings will include various diodes, small signal transistors, dual transistors, field effect transistors, power transistors, silicon controlled rectifiers and a number of electro-optical devices.

Ultimately, the Wiesbaden plant will be equipped to handle Fairchild's complete manufacturing output for the European market. When the plant is fully operational, the company will give employment to hundreds of assembly line workers and other employees.

Dr. Hogan said the Wiesbaden plant would be one-third operational (40,000 square feet) during the first quarter of 1970. The remaining portion of the 120,000 square foot plant will become operational in stages scheduled for early 1971 and 1972.

Saban Heads Marketing Team

Dedy R. Saban, a veteran of more than a decade in international marketing, today was named Director of Marketing, Europe, for Fairchild Semiconductor.

Saban, who was formerly responsible for all non-European international markets for Fairchild, will report directly to Douglas J. O'Connor, Group Director of Marketing. Fairchild's marketing headquarters for Europe will be located in Wiesbaden, Germany.

Appointment of the 37-year-old marketing executive reflects Fairchild's interest in the expanding European semiconductor market. The Semiconductor Division expects to do 20 per cent of its gross business in international markets this year with that figure doubling within the next four years.

Kenneth Bradshaw, a native of England, was Sales Manager for Plessy Microelectronics before joining Fairchild. From 1960–67 he was associated with Texas Instruments rising to the position of group sales manager. Erich Fischer joined Fairchild after serving as Marketing Manager of Motorola Semiconductor at its Wiesbaden office. Carlo Longoni, a resident of Milan, was employed for six years by SGS, the Italian firm in which Fairchild formerly held a third interest. At SGS, he progressed from sales engineer to Sales Manager for Northern Italy and ultimately to Data Handling Manager for Italy. Alain Barreau previously worked in the Paris office of Motorola Semiconductor in charge of market research, market development and sales promotion throughout France. He was with SGS from 1965 to 1968.

Reporting to Saban will be four regional marketing managers: Erich Fischer, Germany; Alain Barreau, France; Carlo Longoni, Italy; and Ken Bradshaw, Great Britain. Saban's staff at the marketing headquarters in Wiesbaden will include: Thomas Henderson, administration manager; Ralph Bennett, digital circuit product marketing manager; Douglas S. Usher, discrete device product marketing manager; Leonard Brown, linear circuit product marketing manager; and Gardner H. DeSpain, advertising-public relations manager. Rolf Hess, controller of European operations, will also be a member of Saban's staff but will report directly to the Mountain View headquarters.

Saban, a native of Milan, Italy, and a naturalized U.S. citizen, joined Fairchild last August as a member of the corporate staff in charge of international planning. Prior to coming to Fairchild, he was in charge of Motorola Semiconductor's Italian marketing efforts. He is also a veteran of international marketing in the textile industry.

Before coming to Europe, Tom Henderson was Fairchild's Manager of Marketing Systems and Procedures. Tom has been with Fairchild since 1962. Ralph Bennett started working for Fairchild as a Senior Product Engineer in 1966. His last assignment before moving to Wiesbaden was that of Assistant Digital Product Marketing Manager. Doug Usher, a Fairchild employee since June 1967, worked in support engineering groups for MOS and discrete device products. Prior to his Wiesbaden appointment, he served as Sales Liaison Engineer. Leonard Brown has a strong background in Linear Integrated Circuits, achieved as a Marketing Engineer and Assistant Product Marketing Manager in Fairchild's Mountain View offices. Until his appointment, Gardner DeSpain was Advertising Manager for Semiconductor. With Fairchild since 1963, he has also been Assistant Advertising Manager and Sales Promotional Manager with the Marketing Services group at Mountain View.

Fairchild Stockholders Attend First California A

The annual shareholders meeting of a corporation provides a forum through which management and the owners of the company, the holders of the common stock, can meet together and discuss the operations of the company and its future outlook.

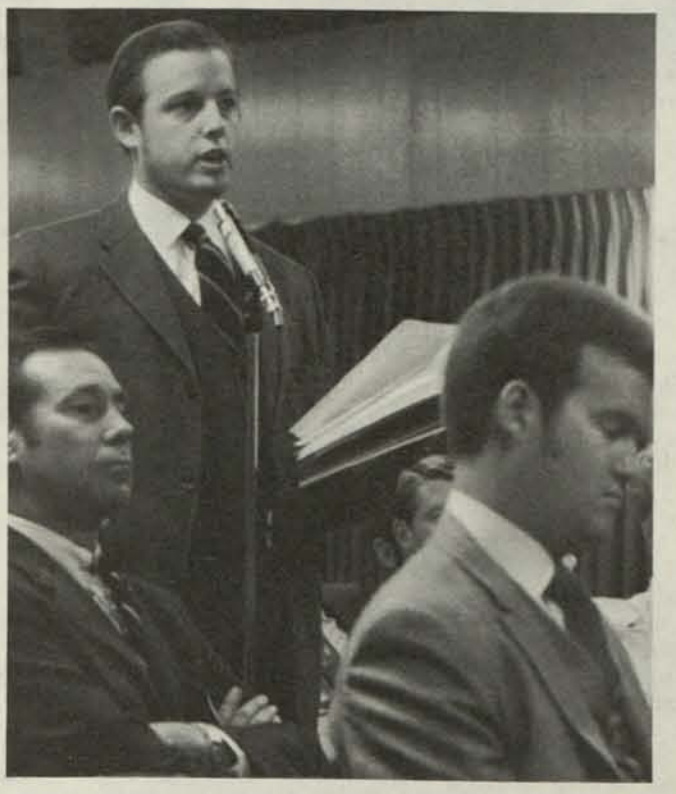
For many years Fairchild Camera and Instrument Corporation traditionally held its Annual Meeting in New York City, near to its Long Island corporate headquarters. With the move of headquarters to Mountain View, California in 1968, the Board of Directors decided that it was proper to shift the site of the Annual Meeting to California. Accordingly, at 10 a.m. on May 3, top Fairchild management and approximately 150 shareholders gathered at Rickey's Hyatt House in Palo Alto for the Annual Event.

Many California shareholders had the first opportunity to attend an Annual Meeting and they were well represented. Shareholders were also present from New York and other parts of the country. One shareholder, of many years standing, flew in especially from Miami Beach, Florida.

For most of them it was the first opportunity to meet and hear Dr. C. Lester Hogan, who became President and Chief Executive Officer in August.

The press was represented, too, with reporters from the Wall Street Journal, Electronics Magazine, Electronic News and the Palo Alto Times covering. The New York Times assigned a photographer, and Dr. Hogan's picture plus an account of the meeting appeared on the financial page the next day.

Some annual meetings make headlines because of dissent, controversy and acrimony. Fairchild's meeting was marked by an atmosphere of congeniality and interest in the firm's future.



QUESTIONS AND ANSWERS — Following Dr. Hogan's remarks, the shareholders had ample opportunity to ask questions of management and make comments. Left, above, David Brown of Brooklyn, N.Y. represented Lewis Gilbert, well-known shareholder in many corporations who attends over a hundred annual meetings a year as an advocate of shareholder rights. Mr. Gilbert, who normally attends Fairchild meetings in person, sent greetings but was unable to be present because he was attending the Curtiss Wright meeting. Mr. Brown had many questions and numerous comments. In the second photograph, Matthew E. Greco of San Francisco asks a question concerning the utilization of Fairchild integrated circuits in major computer programs. Third photo, above, Mr. Stephen Adams presents a resolution proposing limitations on the Corporation's stock option plan on behalf of Lewis and John Gilbert. While shareholders approved two proposals making more shares of stock available for options to key employees, the restrictive proposal was defeated. Many shareholders arrived early to have an opportunity to chat with Fairchild management and to look over material which was made available at the registration desk. At the right a stockholder reads a copy of the proxy statement which contains information about the business which will come before the meeting.

—Photos for Views by Steve Allen and Judy Horst

Annual Meeting

THE MEETING OPENS — In the photo at far left on the top row, Sherman M. Fairchild, Chairman of the Board and founder of the Corporation calls the meeting to order and proceeds with the legal formalities of the meeting. He welcomed the shareholders, expressed his pleasure at meeting in California and introduced the directors and Fairchild executives who were present. Following his opening remarks he introduced Dr. Hogan, who reported on operations and plans for the future.

In the second photo Dr. Hogan advises shareholders not to expect a sudden recovery to high profitability levels but assures them that if they have patience, such a recovery will be achieved. Dr. Hogan praised Fairchild's technological leadership, and in the third photo shows the shareholders three tiny chips of silicon, which comprise the complete electronics of a desk top calculator. As the fourth photo indicates, the meeting was not without levity and here the officers on the dias share a laugh occasioned by a stockholder's comment.

Second row, far left, Dr. Hogan welcomes Sam Gordon, who has not missed a meeting since 1930. Mr. Gordon flew to California from his home in Miami Beach to attend the meeting.

Second photo — Fairchild alumnus and shareholder Bob Noyce talks things over with Mr. Fairchild and Director Roswell Gilpatric during a short intermission. Dr. Noyce arrived on crutches as the result of a skiing accident. The audience was attentive, as indicated by the photo immediately above. The bearded gentleman, studying his notes, is Walt Barney, Western Editor for Electronics Magazine.

"Having been duly moved and seconded, the 1969 Annual Meeting of Fairchild Camera and Instrument Corporation is hereby adjourned."

Shareholders Hear Company's Plans At Annual Meeting

(Continued from Page 1)

frontiers," he said. "This is an extremely demanding task for your present management and does require capital investments which exceed normal requirements for our industry.

"Thus, you must not expect a sudden recovery to the profitability level you learned to expect in the past. However, if you have patience, I can assure you that I, personally, have confidence that that recovery will be achieved."

Dr. Hogan said that the industry is entering upon a new revolution in electronic systems — medium scale and large scale integrated circuits — which he feels is far more significant than that brought about by the introduction of the transistor or the development of integrated circuits.

To illustrate the significance of the new developments he told shareholders that Fairchild scientists had designed, and demonstrated to several computer manufacturers, a complete electronic desk-top calculator and had been able to put all of the electronics necessary to operate it on three tiny chips of silicon — each one "only slightly larger than the head of a pin."

He said the company had also built complete semiconductor memories that will, within a year, find their way into the bulk memories of computers.

"This application alone promises to make the semiconductor industry at least twice as large as the most optimistic projections that have so far been made for this industry," he said.

Concerning the other divisions of the company, which he said constitute about 25 separate businesses, Dr. Hogan commented that while much improvement had been shown, "We are still taking a hard and searching look at the various product families to see if they can profit by realigning them in a different way in the various divisions, and to ascertain whether all of the various product lines really have a place in our future plans for the company."

He added that it is highly probable that during the next quarter management would arrive at the conclusion that at least one of the product lines should properly be sold.

He also told the shareholders that new, top-notch executive talent has been brought into the company to implement its growth plans.

Directors re-elected included Sherman M. Fairchild, Dr. Hogan, William C. Franklin, Joseph B. Wharton, Jr., Walter Burke, Louis F. Polk, Jr., Roswell L. Gilpatric and William A. Stenson.

Stockholders also approved an amendment to the stock option plan to increase the number of shares, and approved arrangements for the sale of restricted stock to employees of the Corporation.

Optoelectronic Division Formed; Atalla is G.M. Microwave and

(Continued from Page 1)

our joint capabilities in this area, accelerate our growth through common technologies and reaffirm our commitments of resources in this field," Dr. Hogan said. "It is expected that very close cooperation and considerable support will come from the R & D Laboratory, which has a world-wide reputation for leadership in solid-state technologies."

Dr. Atalla had been director of the Hewlett-Packard Solid State Laboratory since 1966. From 1961–1966 he was director of research and development at HP Associates, where he was involved in the development and introduction of "hot carrier" metal-semiconductor diodes; research and development of injection luminescence diode sources, detectors and optoelectronic functional blocks; and the development of various microwave devices and subsystems.

From 1950 to 1961 Dr. Atalla was a member of the technical staff at Bell Telephone Laboratories in Murray Hill, New Jersey, where he directed various group activities in a number of research and development areas. Among these were research on the physics of metal contacts pertaining to the mechanisms of low voltage arcing; research on the physics and chemistry of the silicon-silicon dioxide system; the development and first introduction of silicon MOS technology, including the demonstration of the first MOS transistor; research on the physics of metal-semiconductor barriers and the first development of high speed Schottky barrier diodes.

He received his B.S. degree from Cairo University in 1945 and his M.S. and Ph.D. degrees from Purdue University in 1947 and 1949. He is the author of many technical papers in the field of surface physics, semiconductor technology and semiconductor devices and holds several patents on devices and device technology.

Dr. Atalla is a member of the American Physical Society, Sigma Pi Sigma and Sigma Xi, and a senior member of the IEEE.

FAIRCHILDERS IN THE NEWS

Robinson New G.M. at Graphic Equipment

Richard J. Robinson, formerly director of product management for Intertype Company, has been named general manager of the Graphic Equipment division.

In his previous position with the Harris-Intertype Corp, subsidiary, Richard was responsible for engineering, production, marketing and profitability of all major products. Prior to joining Intertype in 1967, he was associated with Poole Brothers, Inc., in Chicago, as president of its centralized service division, and with the Aeronautical division of Honeywell, Inc., where he was director of Aerospace Support Equipment.

A native of Chattanooga, Tenn., he holds a BSIE degree from the University of Tennessee and the rank of Captain in the USAF Reserve.

Landen Named Treasurer of FCI Two Elected Assistant Controllers

James P. Landen was elected treasurer of Fairchild Camera and Instrument Corporation, and John J. Giblin and Robert L. Keith were appointed assistant controllers by the Board of Directors.

Mr. Landen joined Fairchild in February as Assistant Treasurer. He was formerly associated with the Cosmodyne Corp. and is a graduate of Ohio State University.

Mr. Giblin, who is also Corporate Accounting Manager, has been a Fairchild employee since 1956 and prior to that was a staff accountant with Peat, Marwick, Mitchell & Co. He received his BBA degree from Manhattan College.

Mr. Keith joins Fairchild from American Express Company where he was Director of Budgets, a capacity which he will also serve at Fairchild. His previous associations include Leo Burnett Company and Montgomery Ward. A graduate of Northwestern University, he is also a CPA and a member of the Planning Executives Institute.

Andrews To Corporate Staff

George Andrews will join the Corporate Staff as Director of Acquisitions and will be responsible for formulating and implementing an acquisition program for the corporation. George joined Fairchild in January of this year and has been responsible for setting up our European operation. Experienced in the field of mergers and acquisitions, George previously was Corporate Attorney for Motorola, Inc. He holds a Bachelor of Science and a Law degree from Ohio State University. George will be moving from Geneva, Switzerland, with his wife and three children to assume his new position in Mountain View.

Greenberg Joins Fairchild

Herbert Greenberg has been named corporate director of professional and executive employment by Fairchild C&I Corp. Already in his new post, he reports to David Haynes, director of professional personnel, and maintains his office in Mountain View, Calif. He comes to Fairchild from ITT Corp. where he was personnel manager for the corporate headquarters. Prior to ITT, Mr. Greenberg held executive positions with Friden, Inc., Raytheon Co. and Forum Personnel Agency. A native of Everett, Mass., Mr. Greenberg was graduated from Harvard in 1956 with a BA in Social Relations.

James E. Beacham New FSDS Controller

James E. Beacham has been named controller for the Space and Defense Systems division. Mr. Beacham (or Jim) will supervise all accounting functions of the division's four operations on the East and West coasts from the division's headquarters in Syosset, N.Y.

Beacham joins Fairchild after 17 years with RCA where he was successively manager of accounting, manager of operations control and controller for various RCA divisions.

A graduate of Rutgers University, he holds a certificate of proficiency in accounting from the University of Pennsylvania's Wharton School of Finance and has studied economics for three years at Harvard University.

Tracy Named Graphic Controller

Frederick L. Tracy has been named controller for the Graphic Equipment division. Mr. Tracy, who has already assumed his new responsibilities, previously held positions as vice president, management information at Saxon Industries and as a divisional controller for the American Express Company. A U.S. Army veteran, he majored in accounting at Long Island University and also studied at Akron University.

Eugene E. Wollschlager has been appointed district manager for the Graphic Equipment division's Southern office in Atlanta, Georgia. Since joining Fairchild in 1961 as a customer engineer servicing electronic engravers in Kansas and Oklahoma, he was most recently district service manager for the Southern district which covers 11 Southern states including Kansas and Oklahoma.

IPD Works Manager

Louis A. Gallina has been appointed works manager for Industrial Products division and will be responsible for all the manufacturing lines of the division including both its audio visual equipment and aviation products.

Louis formerly served as manufacturing manager for IPD's Educational and Audio Visual Systems and Services Group. A graduate of Polytechnic Institute of Brooklyn with a bachelor's degree in mechanical engineering, he is also working towards his masters in Industrial Management at Polytechnic.

Weber Moves West

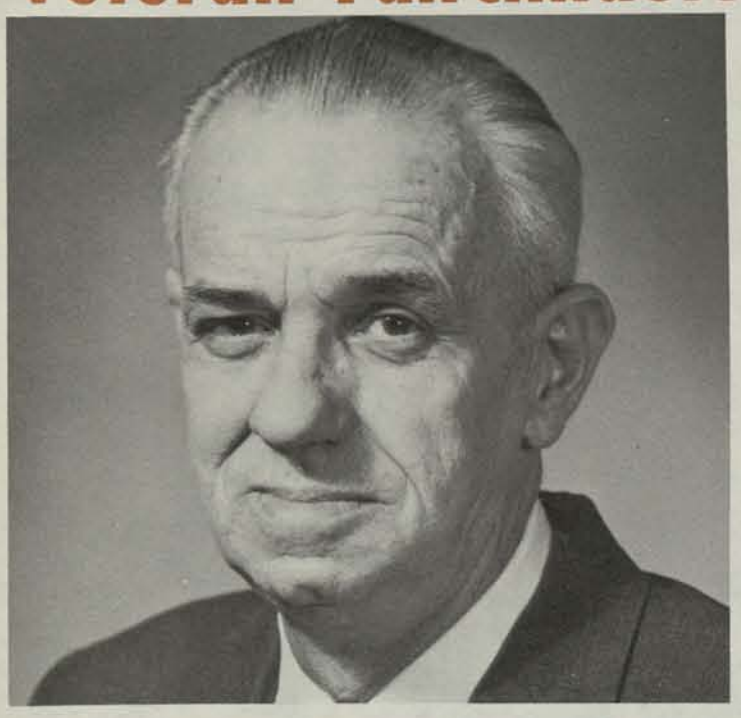
George Weber, Service Manager for Industrial Products division in Plainview since 1965 has moved to the Los Angeles facility and will act as West Coast Service Manager for the division. George's new responsibilities will include customer service requirements for educational and audio visual products as well as consumer products.

Eric Taube who formerly worked with George as Assistant Service Manager in the Plainview office will assume the responsibilities of Service Manager and will remain active in international sales for the Audio Visual group.

Joins Electro-Metrics

Alfred W. DiMarzio, formerly in-house consultant to RCA, has joined Electro-Metrics Corp., a subsidiary of Fairchild C&I Corp., as a project engineer assuming immediate responsibility for all digital remote control and computer/processor engineering projects relating to EMI/EMC instrumentation equipment and systems. Mr. DiMarzio holds both BS and MS degrees from Northeastern University in Boston.

Veteran Fairchilders Mark Anniversaries



During his 40 years of service for Fairchild Camera, Steve Kaiser's designs and countless suggestions for screw machine cams resulted in savings of thousands of dollars for the company. Working his way from the stock room to a first class tool maker, Steve is presently maintaining and repairing fine measuring instruments, such as indicators, height gauges and verniers.

Steve Stork (center) is congratulated by Les Hogan, President and Chief Executive Officer of Fairchild Camera and Instrument, as Robert Bruce, FSDS VP and General Manager looks on. The occasion was Steve's 40th anniversary with Fairchild. At the present time he is a member of Space and Defense's Accounting Department with responsibility for the division's fixed assets. As for hobbies, Steve keeps busy visiting his grandchildren who live in Arkansas and gardening. His specialty is peonies.

April 20-15-10-5-Year Service Awards

20 Years
Raymond Fields, Controls
Fiore Napolitano, Controls
Sam Dean, Graphic Equipment
William Boch, Space & Defense
Henry Carter, Space & Defense
Jiacomo Celeste, Space & Defense
Walter Fithian, Space & Defense
Thomas Kenny, Space & Defense
Michael Lypka, Space & Defense
Jack Maisel, Space & Defense
Evans Miller, Space & Defense
Philip Sears, Space & Defense
Angelo Silvestri, Space & Defense
Rudolph Thury, Space & Defense

15 Years
Galaurd Westerhoff, Graphic Equipment
Frank Altenburg, Space & Defense
John F. Cook, Space & Defense
Dennis Travers, Space & Defense

10 Years
Dwayne Lowry, Graphic Equipment
Gloria M. Bond, Space & Defense
Constantine G. Chartuk, Space & Defense
Lawrence W. Farrell, Space & Defense
William A. Jaworowski, Space & Defense
Joseph C. Macaluso, Space & Defense
Margot Johnson, Semiconductor
Minnie Figueroa, Semiconductor
Ruth Kameda, Semiconductor
Ida Price, Semiconductor
James Kilduff, Semiconductor
Betty Kemper, Semiconductor
Helmut Altman, Semiconductor
Howard Larson, Semiconductor
Ron Ivancich, Semiconductor
Betty Van De Erve, Semiconductor
Doris Hall, Semiconductor
Harry Sello, Semiconductor
Tom Shillingburg, Instrumentation
Robert Schaeffer, Instrumentation
Henrietta Theile, Instrumentation

5 Years
David Lawton, Controls
Alexander Jesensky, Graphic Equipment

5 Years — Space & Defense

Melvin E. Jackson	Banjamin St. Nicholas
Kenneth R. Kanter	Vincent Sciabarasi
Harold A. Petersen	Joseph D. Shay, Jr.
Richard E. Piggott	Joseph Simon
	Stephen Takacs

Bringing Electro-Metrics Anniversaries Up To Date
The following Electro-Metrics employees celebrated their five-year anniversaries with Fairchild between September 1968 and June 1969:

W. S. Lambdin	Anthony Meola
Dale Samuelson	Cedric Tatara
John Morrello	Walter Barney
John Meola	Joseph Greco
David Smoler	Edward Kaszuba
Marc Conney	John Prill
Edward Kalenik	David Godey
James Behlen	Joseph Bernard
Irene Cross	Russell Heller
Ronald Gomula	

May Anniversaries

25 Years
Robert Powell, Space & Defense

20 Years
Frank Bealey, Space & Defense

10 Years
Frank Chinn, Space & Defense
Joseph Polley, Space & Defense
Francis Landrigan, Space & Defense
Arthur Markart, Controls
Ed Mundwiller, Semiconductor
Helen Basford, Semiconductor
Dorothy Gallagher, Semiconductor
Phyllis Fullan, Semiconductor
Lucille Laidlaw, Semiconductor
Robert Bauer, Semiconductor
Mary Forrest, Semiconductor
Douglas Tremere, Semiconductor
Albert Ingram, Semiconductor
Erma Stites, Semiconductor
Frances McDonough, Semiconductor
George Lao, Instrumentation
Roger Crosby, Instrumentation
Art Meyer, Graphics

5 Years
Sanford Greene, Controls
Frank Flemming, Graphics
George Berry, Graphics

5 Years — Space & Defense

Charles Forney	William H. Olsen
Owen R. Goodwin	George A. Scheriff
Ernest J. Beltrani	Donald H. Schoell
William A. McLaughlin	John Graham
Emil F. Beckmann	Roger A. Keller

5 Years — Semiconductor

Virginia Griggs	Stanley Mazor
Norman Allen	Lillian Butterfield
Coleta Lucas	Cliff Ashley
Yvonne Hodgkin	Theresa Gillespie
Ana Wilson	Jennie Nalbach
Gertrude Hanusek	Gladys Earley
	Virginia Hackett
Maxine Finley	Anne Dunbar
Gloria Moody	Roger Merrow
Lessie Reynolds	

30–25–25. That's the service record of the trio pictured above. George Fries' 30 years with Fairchild began as an apprentice for what is now Space and Defense Systems. George is currently a manufacturing manager for the Division. There are three Fries children, one starting college, one finishing next year and one in high school. Faye Speck Varrone started with Fairchild 25 years ago when it was located in Jamaica, Long Island. Today she is supervisor of Office Services for the Space and Defense Systems Division. She and her new husband, also a Fairchilder, enjoy bowling, good music and dancing. Arthur McArthur celebrated his 25th year with Fairchild in the Finished Parts Department of the Space and Defense Systems Division. Outside work he plays sax with a small group.

THOSE WERE THE DAYS MY FRIEND

Harold Yulke Looks Back As Retirement Nears

Editor's Note — Harold Yulke will be retiring next month (and more about that later) but he is also celebrating his 35th anniversary as Fairchild's corporate advertising manager. We asked him to put some of his thoughts about his years with Fairchild on paper for Views. Here they are:

Call it the "hand of Fate" or whatever, but my coming to Fairchild on May 15, 1934 was the result of a chance meeting with a friend from my hometown of Naugatuch, Conn., some three months earlier. The country was still in the

depths of the great depression of the early 30's and I had been among the many millions of unemployed for over a year. On the train returning my wife and I to New York from a visit to our hometown, we met a friend I hadn't seen for several years. After the usual greetings came the equally usual, "What are you doing now?" I explained that I had been laid off from my job as a copywriter with the Catalog Division of the McGraw-Hill Publishing Co. — a position I had held for 5½ years. "Too bad," my friend said, "that I hadn't known this six months ago. I worked for a company that was looking for someone with just that experience."

Nevertheless, he gave me the name of Fairchild Aerial Camera Corporation, Woodside, N.Y., and the name of the man to contact. Now, writers with McGraw-Hill catalogue experience were a darn scarce commodity. To my knowledge, there were exactly six of us; so I wrote a letter and received a negative reply — then another letter weeks later asking me to come for an interview, if I was still interested. I was, and after a second interview I was hired on a temporary basis that has lasted 35 years!

My assignments in the early years included the writing of sales promotion brochures, sales bulletins and an occasional publicity release. Later I was asked to take over the editorship of the company's external house magazine — a new and rewarding experience which resulted ultimately in Fairchild "VIEWS." Still later, I was put in charge of the printing department which consisted of one Multilith duplicator and a second-hand Multigraph.

The shortage of manpower during the war years resulted in my wearing many hats. At one time I was manager of the Technical Data Dept. and the Printing Dept., Editor-in-Chief of the employee magazine, and manager of public relations. A staff of able and devoted assistants made the load relatively easy to bear.

As the war drew toward a close I resumed my original position as advertising and promotion manager, but with greatly expanded responsibilities, including new product investigations.

In 35 years my office had no less than nine major relocations — Woodside to Jamaica — to New York — to Jamaica — to Flushing — to Jamaica — to Syosset — to New York — and finally back to Syosset — in addition to countless other moves within those locations. But that was part of the fascination of working at Fairchild. A man couldn't grow stale. There were always new challenges, new horizons. And, I enjoyed being a man on the move.

SECRETARY OF THE MONTH

Mary Anne Harrison Has Many Faceted Job at IPD

IPD's contribution to the "Secretary of the Month" column is very difficult to categorize as such . . . for how do you proclaim her as "Secretary of the Month" when her assignment leaves her a minimum of time for routine secretarial duties.

But, as Group Manager for the Educational and Audio Visual Systems Group of Industrial Products, Nat Myers must have a secretary as an integral part of his executive function. Mary Anne Harrison fills the bill beautifully, even when she is also acting as staff assistant, administrative arm and general Girl Friday for Mr. Myers or Marketing Manager Mel Waterbor.

Mary Anne has been with Fairchild five years, all of them with IPD and with Nat Myers. She brings to her job the many attributes of a successful secretary and combines them with that something "extra" which spells the difference between one who performs a necessary function and one who is necessary to the performance of a function.

Her particular area of responsibility lies in overseeing the work flow of the staff in both the Administrative and Marketing areas of this busy arm of the Industrial Products Division, in maintaining liaison between the AV marketing group and the Service Department, and very often in direct contact with important accounts. All have come to know that she can pave the way with resourcefulness, initiative and speed . . . to expedite orders, to solve problems, or intercede as emissary for a special service requested.

According to Mary Anne the toughest part of her job is finding enough time to do all the things that need to be done. Shortcutting work procedures and analyzing new ways of accomplishing routine steps to provide more time to do the necessary things are at the top of Mary Anne's list of "Things to Do." What is gained by all this effort? The reward is plainly *visible to Mary Anne. The feeling of being needed . . . of being* part of the team from inside . . . of being part of a well coordinated group of very nice people makes her day an important one well spent by her standards.

A conversation with Nat Myers confirms the smoothly oiled pattern of his working arrangements with Mary Anne. He finds in her all the qualities that he would look for in a good secretary and staff member and in addition, he receives the added "extras" that separate the mediocre from the good and the good from the excellent. He said, "She has the ability to keep the office machinery running smoothly with no friction or grinding of gears and works efficiently and congenially with everyone."

If Mary Anne's most rewarding thing about her job is being needed, it is also her best and most outstanding quality as far as he is concerned. In his words, "She is always there when she is needed . . . her attitude and attention to every detail has been an immeasurable help to all."

Outside of office hours, Mary Anne is extremely interested in Early Americana. Vacation time and all the spare time she can find is devoted to exploring New England, visiting old colonial homes and researching and delving into the arts and crafts as they were practiced in early American days.

A member of the Long Island Craftsman's Guild and the American Craftsman's Council, she possesses a very real knack for the practice of these crafts. Many of the rugs in Mary Anne's own home in St. James were hand-hooked by her.

A recent "work" depicting a Revolutionary Minuteman provides a very handsome wall-hanging and trademark for a local business firm. It appears they too were quick to recognize the many faceted talents of IPD's "Secretary of the Month."

Beam Combiner Developed

The Precision Optics Operation of Fairchild Space and Defense Systems has developed beam combiners for the data processing industry, according to Ralph Wight, the firm's operations manager here. The beam combiner takes a data display and a transparency of a business form and combines them into a single optical path where they are photographed on microfilm. The heart of the device is a pellicle beam splitter. A telescope with variable magnifications of 15× and 75× monitors the alignment of the images. A solenoid-actuated reflex mirror and a Polaroid camera enable the user to record and check the alignment of film.

Graphic Employee Ronald Wayne Receives Second Bronze Star Medal

SP4 Ronald Wayne Radford (right), shown here with Col. John Brune, received a second Bronze Star for heroism in Vietnam. The citation accompanying the Bronze Star Medal stated that Ronald distinguished himself by displaying exceptional valor while serving as a machine gunner during a combat mission near Than Bon Pho on February 8, 1968. When his unit became heavily engaged in battle, Specialist Radford exposed himself to hostile fire as he moved to a more advantageous position from which to place accurate suppressive fire on the enemy emplacements. His action neutralized the insurgents' position and contributed to the successful completion of his unit's mission.

His first Bronze Star was the result of heroism during a military operation near Dak To. A platoon of his Company was ambushed by North Vietnamese Army forces and sustained numerous casualties. When a medical aidman volunteered to go to the aid of the wounded, Specialist Radford also advanced to the seriously wounded men, exposing himself repeatedly to heavy fire but enabling the aidman to reach the wounded and save the lives of seven wounded soldiers.

Specialist Radford also received the Air Medal and the Purple Heart. Today he takes life a bit easier; he works in the Machine Shop for Fairchild Graphics Equipment at Joplin.

Talk With Ike Recalled By Daughter of Employee

She was eight years old when she met him. That early morning in 1951 was cold and drizzly as General Dwight D. Eisenhower paid a Thanksgiving Day visit to U.S. troops stationed in Germany.

Bonnie had come with her father, Lieutenant Ted Schofield, now Security Supervisor for Fairchild Semiconductor at Mountain View, to meet the famous soldier. "We waited for about an hour to meet him," she recalls. "It was very cold and we were all bundled up. Daddy was in charge of escorting General Eisenhower. There were many generals there to greet the General, and all the troops were in formation."

As he was about to inspect the troops, Lieutenant Schofield asked General Eisenhower if he had a moment to talk with the children. "Certainly," Ike said. "I'd be glad to."

He came over and smiled and this simple action lodged in a little girl's memory. "I remember that especially. We didn't walk over to him. He walked over to us."

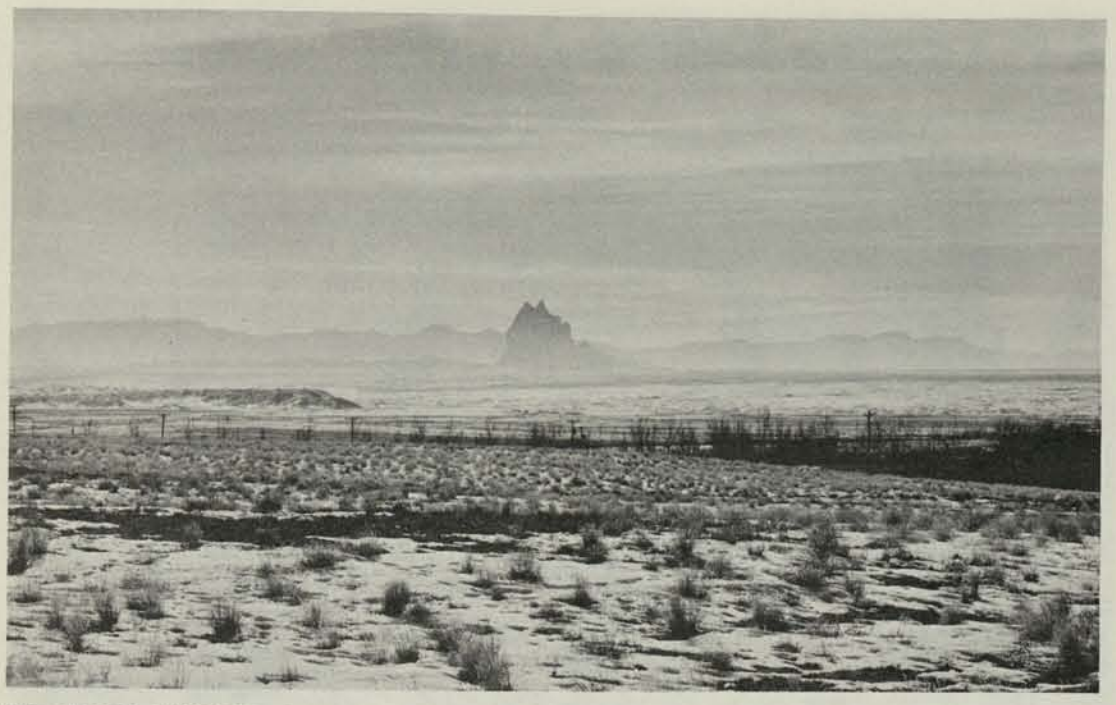
They chatted briefly, and then Ike posed for a picture with the youngsters. "For the longest time I remembered how warm his hand was on my shoulder."

Dwight D. Eisenhower was many men to many people. To millions, he was "beloved Ike." To Major Schofield as he remembered Ike recently, he was "a soldier's soldier . . . a gentleman's gentleman."

To Bonnie, now Mrs. Wayne Jeppson, wife of a warrant officer piloting helicopters in Vietnam and mother of two sons ages 5 and 3, General Eisenhower was the man in the picture with a "warm hand on my shoulder." General Eisenhower in Munich during 1951 found time to pose with three youngsters. The eight-year-old girl in the middle is Bonnie Schofield, now Mrs. Wayne Jeppson of Livermore, California.

FAIRCHILD VIEWS

Published monthly for the employees of the Fairchild Camera and Instrument Corporation, 464 Ellis Street, Mountain View, Cal. 94040, and its divisions and subsidiaries by the Department of Information.



THE FAMED SHIPROCK which gives the town its name stands only a short distance from Fairchild's Shiprock plant. In smogless New Mexico, the Shiprock is visible from 100 miles away. More Fairchild-Shiprock photos on page 8.

FAIRCHILD VIEWS

Volume XVI, Number 3 Fairchild Camera and Instrument Corporation March, 1969

Shiprock Planning Move to New Plant

"Yes, Fairchild has other fine plants, but this one is the best—because of our people. The success of the Shiprock plant lies with its people."

When Plant Manager Paul Driscoll talks about his Shiprock, New Mexico, facility, he leans back in his chair, his eyes roll back, and his face takes on the look of a doting parent. And for good reasons.

The Shiprock plant on the Navajo Reservation, which constitutes the largest non-government manufacturing employer in the state of New Mexico, is the fastest growing domestic Fairchild facility and the pride of the Four Corners area. The plant represents the first facility of a planned industrial complex conceived by the Navajo Tribal Council in its efforts to shift the Reservation's agricultural economic base to business and industrial.

The plant, which began as a pilot program in March, 1965, and opened officially in August, 1965, now employs 950 persons —"all but 23 of them Navajos," Paul proudly points out. He adds, "Someday—soon—this plant will be completely Navajo, including my job."

Driscoll feels the Shiprock plant has an advantage over other domestic Fairchild plants in the unity of its employees. "And the rich history of the Navajos in this area intensifies that feeling of pride and unity."

"The skills and industriousness of the Navajos is well-known so that is another advantage. But in addition to that, the people are totally unspoiled. Most of the employees of this plant have never worked in industry before, and in most cases no one in their families have. They have no bad habits to 'unlearn'."

Paul feels that when the Tribal Council went out to attract industry to the reservation, all they wanted was a chance to prove that industry could succeed on the reservation. "Fairchild gave them that chance, and we are all believers now," Paul comments.

The next step for Fairchild is to transfer the bulging Shiprock operation from its present location to its permanent home, a new 120-thousand-square-foot building now under construction, also in Shiprock. The plant is being built by the Navajos (only Navajos can own real property on the Reservation) to Fairchild specifications. The move is scheduled for sometime this summer. "Then watch us grow," says Paul.

Fairchild Recorder Is Vital Key Link In Solving Scandinavian Crash Mystery

When the Lockheed research submarine Deep Quest grabbed an instrument with its iron claw in 325 feet of water last month, one of the key links to solving the mystery of an airliner crash had been recovered.

It was the long-sought Fairchild Flight Data Recorder from the Scandinavian Airlines System DC-8 that crashed in the ocean off Los Angeles International Airport on January 13. Because of the crash-survivable specifications to which it is built by Fairchild's Industrial Products Division, the recorder was in good condition.

William Lamb, who is conducting the investigation of the crash for the National Transportation Safety Board, examined the recorder soon after it was recovered.

"It is in good condition," Lamb told newsmen at a press conference.

Don E. Saner, who piloted the submersible during the successful dive, and chief pilot Larry Shumaker, who was serving as observer, said they found the recorder through visual observation "exactly where it should have been."

Together with accounts of the surviving crew, the recorder can tell a graphic story of the flight's critical final moments before impact in a series of graphs inscribed into Inconel metal tape that recorded the plane's heading, altitude, airspeed and its vertical accelerations, or ascent and descent.

The recorder was shipped to Washington for analysis in the offices of the National Transportation Safety Board. Industrial Products engineers often are called upon to consult with crash investigators in the analysis of Flight Data Recorder tapes and the companion instruments, Cockpit Voice Recorders.

Recovered Intact

Chief Pilot Larry Shumaker of the submersible Deep Quest displays the Fairchild Flight Data Recorder which was recovered in 325 feet of water in the ocean off Los Angeles International Airport. The Recorder plays a key role in the probing of the crash of a Scandinavian Airlines DC-8 in January. — Photo courtesy Los Angeles Times

Graduation Day at FSDS

The Space and Defense Systems division has been providing training courses for military specialists and civilians attached to the USAF. The courses cover depot maintenance on the KB-18A strike camera aerospace ground equipment. Shown here from left to right: FSDS principal engineer Stanley Roth, one of the instructors; 1st Lt. Daniel J. Towers; T/Sgt. Arthur G. Matthews; S/Sgt. George C. Britt; Blair W. Sorenson; M/Sgt. Fischer B. Nelson; Elmo C. Hammer; Lou Kivetz FSDS Field Engineering Representative, who coordinated the course, and Donald Mannix.

Net Operating Loss Reported for 1968

Fairchild Camera and Instrument Corporation had a net loss from its continuing operations of $3,493,000 in 1968, C. Lester Hogan, president, reported. Activities which were discontinued in 1968, or are being discontinued, lost an additional $832,000 resulting in a loss for the year before extraordinary items of $4,325,000. After extraordinary items of income of $4,898,000, net profit for the year amounted to $573,000, equal to 13 cents per share.

The 1968 operating results were adversely affected by unprofitable contracts entered into in prior years by the Space and Defense and Tube divisions; write-off of inventories and unprofitable product lines in the Graphic Equipment division; provisions for return of products billed and warranty expenses applicable to sales of prior periods and expenses incurred in the introduction of new products.

Extraordinary items in 1968, all of which are net of income taxes, consisted of profit on sale of equity in an affiliated foreign company and cetrain domestic activities of $2,895,000; credit for prior year provision for realized or estimated losses on disposition of discontinued activities no longer required of $2,580,000 and realized or provision for estimated losses on disposition of discontinued activities or product lines of $577,000.

In 1968 the company adopted the policy of including in the consolidated financial statements the accounts of all domestic and foreign subsidiaries. The 1967 figures presented herein have been adjusted to include foreign subsidiaries not previously consolidated. Inclusion of foreign subsidiaries reduced 1967 net loss by approximately $150,000.

	Amounts in Thousands of Dollars			
	1968		1967	
	Amount	per Share	Amount	per Share
Net sales of continuing operations	198,470		196,952	
Earnings (loss) of continuing operations	(3,493)	(.81)	4,622	1.08
Operating (loss) of activities being discontinued net of tax benefit	(832)	(.19)	(5,091)	(1.19)
(Loss) before extraordinary items	(4,325)	(1.00)	(469)	(.11)
Extraordinary items net of tax	4,898	1.13	(7,078)	(1.65)
Net income	573	.13	(7,547)	(1.76)

NEW PRODUCT PARADE

High Voltage Transistors Aimed at Video Market

Three high voltage video output transistors which offer video circuit designers the advantages of high quality performance, unusual clarity of picture display and easier circuit design, have been added to the product line of Fairchild Semiconductor.

The new NPN products, now available in a standard TO-39 package (a TO-5 with half-inch leads), provide more linear output than any comparable video device on the market. They are designated as the SE7055, a 220 volt unit with a low collector base capacitance of 3.0 picofarads; the SE7056, a 300 volt unit with a 3.5 pF capacitance; and the SE7057, a 450 volt unit with a 2.5 pF capacitance.

These capacitances, which are the industry's lowest at such voltage and power levels, allow a better combination of circuit gain and bandwidth than any video devices to date. This makes for greater ease and latitude in circuit design.

For Mobile Radio Communications

An RF power transistor guaranteed to operate in mobile radio communication systems at 12 volts and 175 MHz has also been placed on the market by Fairchild Semiconductor.

The MSA8506 provides a combination of higher power output and power gain — 25 watts and 5 dB — than is available from any other single device operating at equivalent conditions. The chip design features an array of discrete emitters with thin film nickel chromium stabilizing resistors, which help to maintain an even distribution of current and thus maximize the safe operating area of the device.

To Debut At IEEE Show

A fully programmable, computer-controlled Spectrum Surveillance System for RFI/EMC testing and spectrum monitoring will be introduced and displayed for the first time at the 1969 IEEE Show in New York City. The system has been designed and manufactured by Electro-Metrics Corporation, a Fairchild Camera subsidiary.

The system to be shown consists of the Fairchild Spectrum Surveillance System Model FSS-250, interfaced with a Hewlett-Packard Model 2116B computer. Not only can the system be programmed to any one of a number of military and governmental specification limits for instant indication of out-of-spec conditions, but also for determination of signal and modulation types, correlations between signals and other specific information normally extremely difficult to obtain.

New Line For Controls

Bryant C. Rogers, general manager of Fairchild Controls, San Diego facilities, has announced the introduction of a new product line specifically designed for time trimming functions in digital circuitry.

Designated "Time-Trims", the new product line features a unique advantage in being adjustable within plus or minus one nanosecond from zero to 300 nanoseconds. Eight individual "Time-Trim" models are available, specified according to delay range, bandwidth and rise-time.

New Regulator

Low cost ($49 each) and low output ripple 3mV (peak) characterize two of the outstanding features to be found in Fairchild Controls' new model FRD-203 2% 20VDC regulator. With 85% efficiency it can deliver 3 watts of power at +65°C with no heat sink needed.

The FRD-203 fills the market requirement for a low priced 2% regulator that has negligible noise yet good power output. It measures 1.125″ x 1.125″ x .5″ and is suitable for socket mounting.

New Instrumentation Product

Fairchild Instrumentation has announced the Model 7000A to provide added capability to the popular line of Series 7000 Dual Slope Integrating Digital Multimeters. The reliability of the 7000 has been proved with delivery of over 1325 units. The 7000A is a 4-digit instrument utilizing a low-drift preamplifier to obtain 10 μv resolution.

The 7000A utilizes the same circuits and packaging as the Model 7000 and the preamplifier, a plug-in circuit card, has a rated accuracy of ±(0.01% of reading + 0.02% of full scale). Input imepdance is greater than 100 MΩ and input offset current is 100 pA. Integration time is specified at 50 milliseconds and step response time at 1 second to read within the specified accuracy of final value. Voltage protection is 300 volts DC or 210 volts AC.

300 MHz Counter

A 300 MHz counter for $1,100 has also been announced by Fairchild Instrumentation. George Rakonitz, Instrument Product Marketing Manager, announced the Model 8051 decade prescaler which increases the measurement range of the Fairchild Model 8050 to 300 MHz. Rakonitz stated that the compact, lightweight unit is compatible not only with Fairchild's Model 8050 Frequency/Period Meter, but with other counters as well.

J. P. Landen Named Assistant Treasurer

James P. Landen

James P. Landen has been named assistant treasurer of Fairchild Camera and Instrument Corporation.

Already in his new position, Mr. Landen reports to George T. Pfifer, vice president, finance, who made the announcement. Mr. Landen comes to Fairchild from The Cosmodyne Corporation.

He is a 1956 graduate (B.S. Business Administration/Accounting) of Ohio State University and a member of Beta Alpha Psi, honorary accounting fraternity. He is a native of Columbus, Ohio.

Mr. Landen will maintain his offce at the corporate headquarters in Mountain View, California.

Formerly residing in Redondo Beach, Calif., Mr. Landen and his wife Nonnie, will relocate in the San Francisco Bay area.

Markkula Heads Linear Marketing

Fairchild Semiconductor has named Mike Markkula as its new linear circuit product marketing manager.

The 27-year-old Los Angeles native replaces Jack Gifford, who was recently named Fairchild's computer marketing manager. Markkula, who has been with Fairchild for 2½ years, was formerly Gifford's assistant.

His new position will involve the definition and development of new linear integrated circuits as well as the merchandising of existing product lines. He will also be responsible for all linear custom circuits.

Markkula's promotion reflects Fairchild Semiconductor's interest in "Second Generation" linear circuits. The Second Generation family is distinguished by its advanced integrated circuit technology and increased design complexity through which a close orientation to the application needs of designers is achieved.

Markkula holds both a bachelor and masters degree in electrical engineering from the University of Southern California, where he was affiliated with Sigma Psi Sigma and Eta Kappa Nu, a national honorary society for electrical engineers.

In Beautiful Downtown Burbank

That was the scene for the open house for the new Western District Office of Fairchild's Electro-Metrics subsidiary. The suite of four offices at 724 South Victory Boulevard will serve all of California.

The opening was marked with a reception for friends and customers. In the photo, George Ufen, Western manager for Electro-Metrics demonstrates the FSS-250 Spectrum Surveillance System during the open house.

United Fund Tops Goal

When Tom Vais and George Szudy, both of the Santa Clara United Fund, gratefully accepted a check representing part of the Fairchild Contributions from Dr. C. Lester Hogan, Richard Winn, chairman of the 1968-69 Fairchild United Fund Campaign was making the final tally of employee contributions. Happily he now reports that Fairchilders in the Mountain View, Calif., area gave most generously — $61,333 as compared to $48,338 collected last year. All campaigns in Santa Clara County netted $3,285,047, or 104% of goal. The money will go to support 81 participating agencies.

Fairchild Sponsored Color Seminar Attracts Publishers from Mid-West

In keeping with the continuing and growing interest in color printing on web offset presses, approximately 40 newspaper publishers and production personnel recently attended a one-day color seminar at the plant of the Macon, Missouri Chronicle Herald. Coming from the four state area of Missouri, Iowa, Illinois and Nebraska, they heard presentations and saw demonstrations of four color process printing, inks, pin register systems, platemaking and press operation and maintenance. The seminar was sponsored by Fairchild Graphic Equipment.

Tom Briggs of the Chronicle Herald, describing his experience in converting to offset, said, "The special four page section which we produced for you today is only our second attempt to print process color on our four unit Fairchild News King press. We think the results are excellent and we think our experience shows that any publisher can handle process color with what is really a minimum of experience."

One of the high spots of the program was a demonstration of the "S-Wrap" method of printing four color process on a three unit News King press. In order to accomplish this, it is necessary to print two different colors on one perfecting unit; by means of a special roller on the press, the web of paper receives an offset lithographic image from one plate and blanket cylinder and a direct lithographic image from the other plate. Gene Manasco of Fairchild Graphic conducted the "S-Wrap" demonstration in addition to discussing spot color and press operation.

Other contributors to the program were: Fred Gilman of Agfa-Gevaert on four color separations, Ed Okri of General Printing Ink on color inks, Gene Kletchka of Lawrence Photo Supply on pin register and Max Burkhead of Anchor Chemical on press lubrication and maintenance.

VRCI Elects Lawton

David C. Lawton, divisional sales manager for Fairchild Controls, has been named president of the Variable Resistive Components Institute. Lawton is well known in the electronics industry, particularly in the precision potentiometer field in which Fairchild is a leading manufacturer.

Lawton contributes a wealth of experience to his new appointment. His background in the precision potentiometer industry encompasses over eighteen years in several different important managerial capacities. His knowledge has been gained from such responsibilities as liaison engineer, quality control manager, chief engineer and division sales manager. Lawton, a member of IEEE and ISA, is a graduate of Northeastern University.

Mental Research Institute Names Hogan To Board

Dr. C. Lester Hogan, President and Chief Executive Officer of Fairchild Camera and Instrument Corporation, has been named to the Board of Directors of the Mental Research Institute by the Institute's Chairman, W. Price Laughlin. The Mental Research Institute is located at 555 Middlefield Road, Palo Alto, California.

SPIE Names FSDS Man as Vice President

The Society of Photo-optical Instrumentation Engineers has named Ben Kleinerman (left), a principal engineer with the Space and Defense Systems Division, to the national office of technical vice president. Ben is shown being congratulated by Robert Murkshe, president of the group and mayor of Cocoa Beach, Florida.

FSDS Awards Total $340

Topped by a $125 award to Russell Giacalone of the Quality & Reliability Department, the Space and Defense Systems Division awarded a total of $340 to 10 Fairchilders for their cost-cutting and time-saving suggestions.

To earn his award, Giacalone suggested the adoption of a "Pre-Acceptance Scratch Test" as standard procedure in the KA-56 Panoramic Camera System. The Suggestion resulted in a considerable savings of inspection time.

The other winners and the amount of their awards are: Anthony Licata, Quality & Reliability, two awards—$50 and $15; Domenick Guido, Quality & Reliability, $35; Jack Kaplan, Manufacturing, $25; Nicholas Malashchuk and Nicholas Francischelli, Manufacturing, $20 each for joint suggestion; Dominic Mercadante, Manufacturing, $15; Mavis Catherwood, Manufacturing, $15; Richard Mirabella and Louis Cerreta, $10 each for joint suggestion.

Security Group Honors Sheehan

John B. Sheehan, Director of Security and Safety for FCI, was honored at the recent Winter Meeting of the National Secuity Industrial Association.

Mr. Sheehan, former chairman of NSIA in 1967 and 1968, was presented with a plaque "For his Leadership and Conscientious Efforts" on behalf of the organization. During the two-day meeting held on January 30-31 at Cape Kennedy, Florida, Mr. Sheehan also served as one of the principal speakers. His presentation and discussion was on: "The Dual Function of Safety and Security".

Rex Rice Named Fellow of IEEE

Rex Rice, manager of Fairchild Semiconductor's Digital Systems Research Department, has been named a Fellow of the Institute of Electrical and Electronics Engineers, Inc.

The award is made in recognition of extraordinary and outstanding qualifications and experience in electrical and electronic engineering.

New Application Notes for PSF100A

Fairchild Controls has available for immediate distribution a new set of Application Notes for its PSF100A pressure switch and PSF/SRF100A pressure switch/solid state relay combination.

The adaptability of the PSF/SRF100A to a wide range of industrial uses is described in the illustrated notes. The twenty-three applications range from the counting of objects to the automatic retraction of a plane's landing gear.

Controls Appoints Three New Reps

Fairchild Controls, a division of Fairchild Camera and Instrument Corporation, has announced the appointment of three new representatives for their operational amplifier product lines.

The three firms are:
P.L.S. Associates, Denver (Englewood), Colorado;
Jack Pyle Company, San Mateo, California; and
C.D.H. Associates, Encino, California.

Fairchild Controls, Mountain View, California, manufactures both discrete and hybrid operational amplifiers with particular emphasis on high performance, state-of-the-art products.

NEW FAIRCHILD PATENTS

The following United States patents have been issued and assigned to Fairchild Camera and Instrument Corporation:

PATENT NO. 3413589 — Title: Lead Screw Operated Potentiometer. Inventor — Sanford Greene, Controls.

PATENT NO. 3416423 — Title: Optical System for Panoramic Cameras. Inventor — Ralph Wight, Space and Defense Systems, El Segundo.

PATENT NO. 3409362 — Title: Slit-Scan Panoramic Rectifier. Inventor — Arthur Magill, Space and Defense Systems.

PATENT NO. 3412305 — Title: Direct-Current Motor Servo System. Inventor — Martin Kanner, Space and Defense Systems.

The following foreign patents issued:

PATENT NO. 788406 — Title: Photoengraving Resist. Inventor — Michael Michalchik, Graphic Equipment. Country — Canada.

PATENT NO. 529153 — Title: Lead Screw Operated Potentiometer. Inventor — Sanford Greene, Controls. Country — Japan.

PATENT NO. 343507 — Title: Turret Font Photocomposing Machine. Inventor — John McCall, Graphic Equipment. Country — Spain.

PATENT NO. 802579 — Title: Spectral Zonal Color-Reconaissance System. Inventor — Edward Yost, Space and Defense Systems. Country — Canada.

'Academy Award' for Hogan

Dr. C. Lester Hogan, president and chief executive officer, has been chosen by the American Academy of Achievement as one of 50 "giants of accomplishment" to receive the Academy's Golden Plate Award next June.

The Academy, a non-profit organization of more than 500 prominent Americans, annually honors extraordinary leaders in the sciences, professions, industry, arts and service to fellow man.

Past honorees include Dr. Michael E. DeBakey, Dr. Edward Teller, Bob Hope, Prof. Harold Urey, Astronaut James A. Lovell, Jr., Louis Nizer, Allen Drury, Gen. Douglas MacArthur, and Dr. Denton Cooley.

This year's awards will be presented during the eighth annual Salute to Excellence weekend, June 26-28 at Dallas, Texas.

She Aids South Vietnamese

Erma Woodrow works swing shift in the Hi Rel Lab in the San Rafael semiconductor plant. Her 19-year-old son Ernest is a Specialist-4 in the Army's 25th Infantry Division stationed at Cu Chi, South Vietnam. Ernest, apalled by the plight of the villagers in Vietnam, wrote home to ask his mother to send all the soap, toothpaste and toothbrushes that she could so he could distribute the items to the youngsters in the villages who were without the basic necessities of life.

Erma showed the letter to Ernest's former Typing teacher at Richmond Union High School who in turn asked that her students bring what they could to help. After reading Ernest's letter to all her classes, some 50 pupils responded, and two large boxes are now on their way to Cu Chi; other packages will follow soon.

$50,000 For Hong Kong Fund

A check for $50,000 (Hong Kong currency) was presented to the Community Chest by Fairchild Semiconductor, Ltd., Hong Kong.

The check was presented by General Manager James Diller to Mrs. Fung Ping-fan, Campaign Chairman, and the presentation ceremonies received wide press coverage including local television coverage. Following the presentation, Mrs. Fung and Mr. Samson Sun, chairman of public relations and the Hon. P. Y. Tang, president of the Community Chest Board, received a tour of the Fairchild facilities. The Hong Kong Community Chest was just organized this year in an attempt to combine the fund raising drives of over 42 charitable agencies, and Fairchild employees combined to make one of the largest donations to the fund.

Charity Committee Grant

The Fairchild Semiconductor Charity Committee presented a check for $1,500 to North Counties Workshop of Hope for Retarded Children and Adults, Inc. Mike Gates, Fairchild Committee Chairman, presents the check to Mrs. Patricia Hobbs, Executive Director, and Gladys Nuckles, Chairman of the Board. The Fairchild group helped finance the founding of the workshop in 1963 with a donation of $6,000. It now has 80 employees working on contracts with private industry. Other workshops are in San Jose and Gilroy.

It's Chest X-Ray Time

650 employees of the Space and Defense Systems division recently took advantage of the opportunity to have chest X-rays at the Syosset headquarters facility. This service is offered to Long Island business firms in cooperation with the Nassau County Department of Health and the Nassau Tuberculosis and Respiratory Disease Association with the help of Christmas Seal contributions.

In the photo: Robert Bruce, Jr., vice pres and division general manager, gets his card nurse Lillian Koch as Nassau TB-RD Associat Mary Reilly gives last minute instructions. Is Castillo and Joseph Balsamo wait their turn as Max Forrest (right) emerges from the room.

And Blood Drive Time

Making plans for the visit of the Peninsula Memorial Blood Bank to the Mountain View plant are Gail Bye, Sue Schmidt, Sylvia Whited, Joe Aboussleman, Helen Hutson. (Fairchild nurse), Chris Martinez, Lee Balegno, Lee Ziegler; and seated, Jane Wallace, Nati Hernandez and Carol Ford. The mobile unit will visit the plant on Tuesday, April 15, f 7:30 a.m. to 1:00 p.m. At the San Rafael pl employees have already donated 37 pints of bl Many were temporarily turned away because San Rafael Bank was not expecting, nor equip to handle so many volunteer donors.

How to Be Efficient with Fewer Violins

(OR — how a literal-minded industrial engineer reported on a symphony concert.

"For considerable periods the four oboe players had nothing to do. The number should be reduced and the work spread more evenly over the whole concert, thus eliminating peaks and valleys of activity.

"All the twelve violins were playing identical notes; this seems unnecessary duplication. The staff of this section should be drastically cut. If a larger volume of sound is required, it could be obtained by means of electronic apparatus.

"Much effort was absorbed in the playing of demi-semi-quavers; this seems to be an unnecessary refinement. It is recommended that all notes be rounded up to the nearest semi-quaver. If this were done, it would be possible to use trainees and lower-grade operatives more extensively.

"There seems to be too much repetition of some musical passages. Scores should be drastically pruned. No useful purpose is served by repeating on the horns something which has already been handled by the strings. It is estimated that if all redundant passages were eliminated the whole concert time of 2 hours could be reduced to 20 minutes and there would be no need for an intermission.

"In many cases the operators were using one hand for holding the instrument, whereas the introduction of a fiixture would have rendered the idle hand available for other work. Also, it was noted that excessive effort was being used occasionally by the players of wind instruments, whereas one compressor could supply adequate air for all instruments under more accurately controlled conditions.

"Finally, obsolescence of equipment is another matter into which it is suggested further investigation could be made, as it was reported in the program that the leading violinist's instrument was already several hundred years old. If normal depreciation schedules had been applied, the value of this instrument would have been reduced to zero and purchase of more modern equipment could then have been considered."

Author Unknown

Two Join 35-Year Club; One 30-Year

Two Join 35 Year Club

It's still rather exclusive company in Fairchild's 35-year club and it's not often that new members join the ranks. Last month, however, not one but two members entered the charmed circle. They are George Arnold, Manager of Marketing Operations for Space and Defense Systems; and Art Berutich, Manager of Service Administration for the Graphic Equipment Division.

George would have 43 years of service with Fairchild if he hadn't taken an eight-year leave between 1933 and 1940 to run his own aerial photography business. He had joined the Fairchield Aerial Surveys Company in June, 1926, a few years after Sherman Fairchild formed the parent company.

He left Fairchild in 1933 and didn't return until 1941. But when he came back, he didn't waste any time in making his presence felt. He was named Director of Service and Training and for the next five wartime years, he proceeded to: set up Fairchild's service organization of four factory schools for the Air Force and Navy; set up a worldwide field force of technical representatives, serve as technical advisor to the government on the tropicalization of photographic report on optical and camera processes in Germany and finally in 1946, to direct the design of Navy photographic installations to be constructed at Bikini for the atom bomb tests.

Now with the war ended, Arnold still had more personal achievements to record. He played the key role in establishing and managing the Scan-A-Graver Customer Engineering Department (now an operation of the Graphic Equipment Division). In the early 1950s, he organized what is now FSDS' factory Modification and Service Operation. This effective and smooth-running operation takes on just about anything and everything in the area of special and routine production jobs and in recent years — has even taken on the design and development of military system support products, including the flight testing of new aerial photo concepts. Manufacturing and service activities include special aerial cameras and modification to existing military equipment; also overhaul, spare parts and technical representative services.

George is no longer manager of M & S but he hasn't altogether severed his ties with the Department. Appointed Manager of Marketing Operations only four months ago, he has the responsibility for expanding the sale of FSDS' existing product line which includes much of the hardware and special equipment coming out of M & S.

He's enthusiastically looking forward to big things in his new job.

"If I didn't feel that way," he says, "there wouldn't be much point in my taking on the job. I don't like to take on any job unless it presents some kind of a challenge."

Berutich is Graphic's First 35-Year Man

Art Berutich bears much the same type of personality, drive quotient and "zeal for doing" as George Arnold; also, he's been just about as prolific as George in contributing to the overall effectiveness of the Graphic Equipment Division's operations in the past 20 years.

Two months ago, he was appointed manager of service administration for the Division after having served during the previous 14 years as manager of sales administration.

Arnold Berutich Hood

The first representative of the Graphic Equipment Division to mark 35 years, Art has seen service with three divisions of the Corporation. He began with the now separated Aerial Surveys Division as administrative assistant to the branch manager. In 1940 he was transferred to the Fairchild Camera Corp., or what is now the Space and Defense Systems Division. In the next nine years, he moved up from contract supervisor, to supervisor of production administration and to supervisor of the pricing group.

In 1949, which was shortly before FCI decentralized operations, the Graphic Equipment Division sought his services as assistant service manager. Four years later, he was moved up to service manager and then two years later, he was advanced to manager of sales administration.

A native of Brooklyn, Art now resides in East Williston on Long Island. His family includes his wife, two sons and a daughter. Two of the offspring are college grads and both should eventually match their father's success.

Hood Is Blind Finisher

Joe Hood of the Space and Defense Systems Division's Syosset-based Finishing Department marked his 30th Fairchild anniversary in February. His field is design engineering but he hasn't practiced it for over 40 years. There's a good reason. Joe has been blind for over 40 years.

Joe came to Fairchild in 1927. He wasn't blind at the time. However, within three years he gradually and unexplainedly lost his sight. Compelled by the circumstances to resign, he operated a newsstand for the next dozen years. When World War II broke out, he returned to Fairchild and the Finishing Department.

There are a limited number of duties a blind man can perform. Yet these same duties can be most important to Fairchild and the man performing them. With the characteristic awareness and nimble fingers of the designer, the blind Hood is readily suited to burring work, masking and wiring parts for plating, wire brushing of parts and the sorting of the countless parts FSDS utilizes in its manufacturing operations.

Finishing foreman Bill Landrigan says of him: "Joe may have lost his sight but he certainly hasn't lost his zest for living nor his appetite for working. He's efficient and punctual on the job."

Winter's Last Blow

A view of the Engineering Building at Space and Defense Systems in Syosset following the big storm that hit Long Island last month.

Heads Instruments Marketing

Frank J. Burge has been appointed Director of Marketing, Instruments, at Fairchild Instrumentation, with world-wide marketing responsibility for the company's line of digital voltmeters, frequency counters, and low-cost semiconductor test instruments. Burge was previously Sales Manager for the Semiconductor Test Systems Group and previously held product management positions for the Instruments and Components groups at Fairchild Instrumentation, a division of Fairchild Camera and Instrument Corporation.

A 1955 BSEE graduate of the University of Notre Dame, Burge spent six years as a sales engineer with Beckman Instruments, selling computer controlled, high speed data acquisition and telemetry systems. Later, he was product manager for small data systems. He has also held engineering and program management positions with IBM and ITT.

New Paramus Contracts Manager

Fairchild Space and Defense Systems has named Donald F. Cecere as contracts manager for its operations in Paramus, N.J. according to an announcement by Richard T. Petruzzelli, operations manager. In his new position, Cecere will be responsible for the review of all proposals and contractual documents as well as the negotiation of new contracts and customer liaison for existing programs and related new business.

Cecere has served for the last ten years as contracts administrator and contracts manager with Fluid Dynamics, Inc., Thiokol Chemical Corporation and Litton Systems, Inc.

A graduate of St. Bonaventure University, he is currently pursuing his MBA at Fairleigh Dickinson University. He is a member of the North Jersey chapter of the National Contract Management Association.

20-15-10-5-Year Service Awards

20 Years

John Loughlin, Controls
Paul Riyeff, Controls
William Boch, Space & Defense
Henry Carter, Space & Defense
Giacomo Celeste, Space & Defense
Walter Fithian, Space & Defense
Thomas Kenny, Space & Defense
Michael Lypka, Space & Defense
Jack Maisel, Space & Defense
Evans Miller, Space & Defense
Philip Sears, Space & Defense
Angelo Silvestri, Space & Defense
Rudolph Thury, Space & Defense

15 Years

Louis Cerreta, Space & Defense
Paul Van Brunt, Space & Defense

10 Years

Norman Nelson, Instrumentation
Harold Beam, R&D
Wendell Lafky, R&D
Milford Oliver, R&D
Betty Hawkins, Semiconductor
Linda Julian, Semiconductor
Gladys Newman, Semiconductor
Marcia Park, Semiconductor
Ethel Trautwein, Semiconductor
John H. Bradley, Space & Defense
Henry G. Foltmann, Space & Defense
Albert Mimmelbaum, Space & Defense
William E. Stattel, Space & Defense
Melvyn Turner, Space & Defense

5 Years

David Hall, Instrumentation
Leo Howe, Instrumentation
Rolf Kahle, Instrumentation
Patrick McGrath, Instrumentation
Avis Cherry, R&D
Gilman Chesley, R&D
Douglas Mattern, R&D

5 Years — Space & Defense

Robert Azukas
John A. D'Amico
Francis Dedomenico
George C. Fennimore
Peter Galligan
Gerald Genevrino
James D. Grooters
Irving Heinking
James Johnston
Ben Kleinerman
Alfred Larson
Jerome F. Sanfino
Mildred Stefanski
Arthur W. Stubenvoll
Armand A. Talamanco
William R. Thompson
Herman Tregerman
Rosalie Zabbia

5 Years — Semiconductor

David Argo
Patricia Barnes
Gary Bishop
Betty Brager
Sylvia Brown
Irene Collison
Rachel Cormier
Rose Ellen Downey
Teresa Dunphe
Carmelo Fenech
Charles Johnson
Irene Mostek
Yvonne Norberg
Bonnie Overby
Naomi Redlin
Rose Trottier

Lyle Jordan (right) electrical components buyer at the Instrumentation Division, was recently awarded the "Professional Designation Purchasing Management Certificate" issued by UCLA in conjunction with the Southern California Purchasing Management Association. Lyle completed 24 units in such purchasing courses as Negotiatiaons, Contract Legal Aspects, and Management Organization Theory. He completed the course in December 1968. Richard Trevisan, Materials Manager at Instrumentation, congratulates Lyle after the award presentation.

SECRETARY OF THE MONTH

Shiprock's Freda Garnanez Helps Make Plant Successful

From her small office in the Shiprock plant, Freda Garnanez looks out over a central clerical area, looking for the things that can tell her which part of her job she enjoys most.

Then she shrugs her shoulders and says, "Oh, I guess I like everything about my job;" which explains, in part, why dark-eyed Freda was nominated by her bosses, Plant Manager, Paul Driscoll, and Employee Relations Manager, John Jollie as VIEWS' Secretary of the Month.

Actually, Freda could be called "Secretaries of the Month" since her duties are two-fold. On January 6, she earned a promotion to secretary to the plant manager, but since she is helping train her successor, she still performs some of her functions for her former boss, John Jollie.

Freda Garnanez

And she performs all her duties with the professional touch that has characterized her entire Fairchild career. Both her supervisors attest to this.

"It is people like Freda who have made this plant the great success that is it," Paul proclaims. "All the people of this facility are absolutely top-rate, and Freda is an outstanding example. She is bright, hard-working and is virtually her own boss as far as her normal duties are concerned."

John concurs, "She is quiet and unassuming, but she gets things done. She has important duties in both her roles, dealing with confidential information. A person in that position has to be totally reliable and trustworthy and Freda is perfect for the job."

Because she is essentially an information and personnel traffic center as secretary to Paul and John, Freda particularly enjoys the fact that she has contact with virtually everyone in the plant.

Since almost all the plant's vital information crosses her desk at one time or another, she confesses impishly that she also *enjoys being "in the know."* "Naturally, most of what I learn is strictly confidential and I would never betray it; I just like knowing what's going on."

One of her good friends at Fairchild, whom she talks with "at least twice a week" is Vi Sands — who works in Payroll in the Mountain View complex.

The two girls routinely discuss plant payroll matters to insure good payroll service to the New Mexico facility.

"I've never seen Vi, but working with her — over the telephone — is one of the things about my personnel job I am going to miss the most," Freda says.

The feeling, it turns out, is mutual.

Told that Freda was VIEWS' "secretary of the month," Vi agreed, "they couldn't have made a better choice. She certainly deserves it," Vi says, "she has been a pleasure to work with because she knows her job and she is always extremely cooperative. I always kid her when we talk. 'When are you going back to personnel?' Yes, she is a very good friend."

Freda joined Fairchild in 1966 as an assembler, and worked her way up to her present position through production, accounting and personnel; so she is admirably suited to her job. She knows the plant and its people.

Her future plans? "To keep on doing a good job," she says, "Fairchild is a company of opportunity."

Breaks Sales Records

Frank Burge (right), director of marketing for Instruments, presents Del Aquila a plaque for his record-breaking month of small instrument sales totaling $68,000, the largest amount ever booked by an individual in one month in the history of the Instruments group. Lu Ross, Instruments group manager, was on hand to add his congratulations.

Junior Achievement, Fairchild Style

ANTIGO President, Will Tucker, trades Les Hogan, President and Chief Executive Officer of Fairchild Camera and Instrument, a share of ANTIGO stock for Dr. Hogan's dollar bill. Terry Ramseyer, Management Advisor; Susie Blomenkamp, Secretary of the Company; and Fred Glynn, Sales Advisor, were on hand during the business transaction. Dr. Hogan's dollar was well invested as he will be receiving a dividend in April from the company's profits.

ANTIGO, Incorporated, began with a capitalization of $127 derived in October from the sale of stock at $1 a share. When the company closes its doors in April, the 20 teenagers who run the company hope to meet their projected sales goal of $1000.

ANTIGO is one of several Junior Achievement companies in Santa Clara County, and each year for many years Fairchild has been supplying advisors for these unique business ventures. JA corporations are corporations directed and staffed by the young people themselves. Besides selling stock, these teenagers had to decide on a product line, elect officers, purchase raw materials, lease the building and any equipment they needed, make and package the product, and plan their marketing strategy. In the end, they plan to pay their stockholders a dividend.

Advising the youngsters are three Fairchilders, Betty Fague, Financial; Fred Glynn, Sales; and Terry Ramseyer, Management; and former Fairchilder Gary Hart who heads Production. They give one night a week to the project, but as Fred Glynn says, "though we've had our organizational difficulties, these kids' enthusiasm has overcome any problems we've encountered." He'd also like to add, as Sales Advisor, that the attractive wall plaques the company manufacturers will be sold until April and that any Fairchild employees who might like to buy one or more should get in touch with him.

Sweeney Honored By Security Group

Gerald A. Sweeney, divisional security manager for the Space and Defense Systems division, was recently named "Member of the Month" by the Long Island chapter of the American Society for Industrial Security.

Jerry is a former Long Island chapter chairman and national chairman of the society's Subversive Activities Committee.

He received his B.A. in Psychology from Long Island University. He is also a graduate of the Special Agents course, OSI, Washington, D.C. and the Criminal Investigators School, Canal Zone.

He retired from the USAF in 1959 after 23 years of service. Twenty years of such time were spent as a working agent and supervisor in the criminal investigation and counter intelligence field of CID, CIC and OSI. From 1955 to 1958 Jerry was Chief of the Counterespionage Branch, USAF, for Europe, the Middle and Near East.

In his spare time, he teaches police science at the evening college of the State Univesrity, Farmingdale, New York.

Equipment Aids College

Fairchild has donated $5000 worth of industrial equipment to De Anza College for use in the Materials Science Laboratory in a continuing effort to help schools and colleges broaden their technical programs and at the same time put Fairchild's obsolete electronic equipment to good use. Don Visger, manager of equipment fabrication, semiconductor division, made the presentation; the Board of Trustees of the Foothill Junior College District accepted it gratefully.

Views Office In California

With this issue, the editorial offices of Fairchild Views has moved from Syosset, Long Island to Mountain View, California, corporate headquarters.

Correspondence and material intended for publication in Views should be addressed to the Director of Information, 464 Ellis Street, Mountain View, Calif. 94040, Mail Stop 20-2258.

Fairchild Editor

Joe Chong Hong is chief editor of Fairchild's newest employee publication, The Semikor News. Published in Seoul, Korea for the semiconductor plant there, the well-illustrated publication is a welcome addition to the Fairchild family of employee news organs.

Recent Incentive Award

Ching-Ling Tseng, member of the Instrumentation Division technical staff, Advanced Development Instruments currently on an educational leave of absence and studying for his Ph.D. in Electronic Engineering at Stanford, received an incentive award from George Smith, manager of the Advanced Development Instruments Department. The award was given for his patent, "An Accurate 10ns, 100ns Time Base Generation For Universal Counter/Timer By Means Of Combining Phase Locking and Injection Locking Techniques."

FAIRCHILD VIEWS

Published monthly for the employees of the Fairchild Camera and Instrument Corporation, 464 Ellis Street, Mountain View, Cal. 94040, and its divisions and subsidiaries by the Department of Information.

Computers Now Assist Fairchild Divisions in Many Ways

Programmers Plus 'Electronic Brains' Save Company Many Man Hours

One of the major technological breakthroughs in this century has been the computer. One large computer can do more calculations in an hour than 50,000 scientists could do in a lifetime.

But computers are completely useless until a human being tells them what to do. That being is commonly referred to in industry today as a "programmer" and in those same circles the demand for his services often rivals that of the engineer.

The reason for his popularity is in direct proportion to the popularity of the computer. In 1956, there were only a few hundred computers. Today, there are over 30,000 in the United States alone. No figures are available on the number of programmers but their ranks are multiplying at the same rate; and most important — their responsibilities are increasing at the same rate.

Obviously, a programmer "programs" the computer. However, the information or data delivered by the computer and the adaptability of the information depend on how the machine is programmed.

Fairchild Semiconductor placed the industry's first LSI (Large Scale Integration) product, the series 4500 Micromatrix arrays, on the market. Micromatrix, which can be customized to perform virtually any digital logic function the customer requires, won recognition as one of the 100 most significant products of 1968 (all industries) in the National Research Week competition in October.

One of the keys to successful LSI product development is having the facility to design with the use of a computer. Efforts in 1967 and 1968 have brought Fairchild to full implementation of the industry's finest Computer Aided Design (CAD) facility. CAD consists of feeding logic descriptions into the computer, which then simulates the logic, devises the optimum circuit design, and generates the needed tests to prove out the circuit. A plotter, operated off the computer, then is able to draw and cut the photographic mask. This design automation allows efficient customizing of LSI circuits for short run production and speeds up "turn-around" time for standard LSI.

At the Corporate East Coast Management Information facility in Syosset, two computer systems are digesting a multitude of facts prior to spewing out processed data on such necessary and diverse applications as: labor reporting, payroll, accounts payable, sales reporting, expense budget and variance reporting, cost ledger and cost control reporting, inventory and production control for the Joplin, Missouri plant of the Graphic Equipment Division, factory machine loading and variance reports, bills of materials, invoice billing, general ledger reporting, public relations mailings of upwards of 10,000 pieces of mail per month, vendor rating analysis, and the corporate pension program.

Many of these operations (which are performed for six different Divisions) have been "computerized" for more than five years now. But it took a considerable amount of man hours of study, analysis and organization by the computer programmer and his counterpart, the systems analyst, before the computer could be put to work.

Steve Sica, programming manager for Corporate-Management Information, maintains, "You don't just sit down and write a program. First, you have to know what your computer can do. Of course, you can't hope to know its complete capabilities. But again that depends on the programmer. The more he works with the computer, the more he experiments with it, the more he learns about it, the easier it will be for him to 'translate his program into computer language'. Next step is to gather all the available information that you, or your 'customer' want translated, then analyze it. This means precisely that you define your objectives on the basis of the material you have to work with, what data the customer wants and your own knowledge of the computer's capabilities. It's one thing to sit down and write a program; it's another thing to execute it."

Programmer Analyzes, Organizes Facts

A good programmer, according to Sica, has to be "imaginative" and have the ability to "organize his facts" before submittting them to the computer. It may take two, three of four weeks to analyze and organize the facts but once the program is ready for the computer, the entire computer operation, which could involve several thousand computations. may be completed in a matter of minutes. Thereafter, each succeeding operation will take a "matter of minutes."

The actual "mechanics" associated with a programmer's job are represented by a large assortment of symbols which may be certain combinations of letters, numbers or characters and which, in turn, represent the "language" of the computer. A computer may have several languages and it's the programmer's responsibility to know each language. But more important: he has to know how to **use** the language. He has to know what particular combination of symbols will give him the information or data he wants. The newest computer being employed by Management Information can store 65,000 positions of memory. It's the programmer's job to "stimulate" the right memory cells.

The computer will not execute a job if it isn't programmed correctly. It will nullify certain operations. Thus the programmer has to work out certain formulas based on the computer's language.

"Even then," says Sica, "we may not get precisely what we want but this isn't necessarily discarded. We can re-program the computer, using it as a basis for the final data we're seeking."

Steve emphasizes that a programmer never knows what a computer **can** do. He says, "One of our first computers was punch card oriented. That is, it could only 'read' punch cards. Then we decided to switch to the faster and larger capacity magnetic tape. So to eliminate re-programming of the entire operation, another programmer, Vincent Mannino, and myself developed a standard package of a few cards that converted the entire operation to tape. We thus eliminated many hours of re-programming and saved several thousand dollars in programming expenses."

At present, Management Information has 1400 programs computerized on punch cards, magnetic tape or on magnetic disk. Sica's team of programmers never cease trying to gain the "ultimate" from the computer. A few years ago, each eligible employee's pension statement was computed on a desk calculator. Calculations for one statement required nearly 20 minutes time. Today, it takes the computer three seconds to compute each statement.

Mannino, who according to his boss, is never reluctant to try out new programming methods in an effort to improve the program or refine the data, devised a system whereby the computer processed 27 consecutive reports without operator intervention and without the use of auxiliary equipment such as collators, interpreters or sorters.

A good programmer can even "fool" the computer, Sica claims. To forecaset the completion date for a particular production job, the computer was programmed in such a way to make it "think" it was reading backwards.

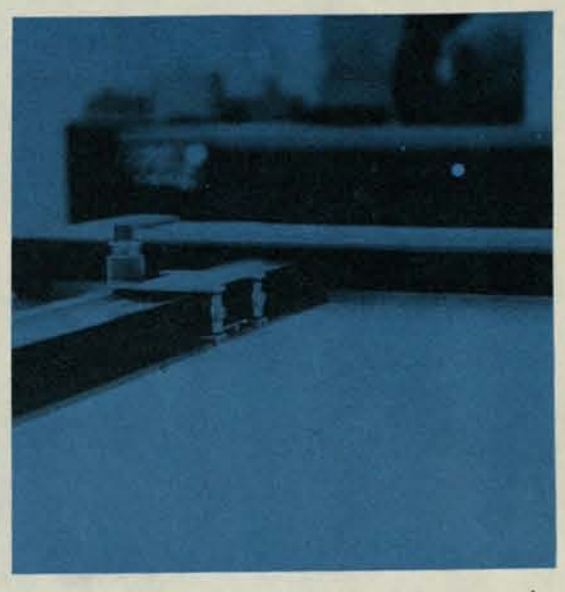
"Proving, if nothing else," says Steve, "that the computer still can't match the human brain."

Scientific Computer Software Systems Computer Works Overtime

With all its extensive programs, Management Information readily admits it doesn't approach the highly complex mathematical demands imposed on the computer by Space and Defense Systems "Scientific Computer Software Systems."

The Advanced Systems group, headed by Alex Dobbs, comprises six mathematicians officially referred to as computer applications engineers. Their collective responsibility is to utilize the computer's capabilities to the utmost in a concentrated effort to improve engineering designs with the latest computer aid-to-design techniques.

Using several different types of computer systems, this group has developed programs which will simulate design logic circuits, predict circuit performance, develop thermal maps for different packaging layouts, perform camera calibration curves, screen incoming parts to predict assembled yield and predict the performance of an aerial camera system.



COMPUTER AIDED DESIGN is one of the keys which makes Fairchild's LSI effort outstanding. The computer is fed logic descriptions, devises the optimum circuit design, and generates the test program needed to test the circuit. Here, the computer drives a plotter to design and cut the photographic mask for custom Micromosaic™ arrays.

ALEX DOBBS, HEAD of Advanced Systems' select group of computer applications engineers, reviews a proposed lens design program with C. A. engineer Harold Katz (seated). Katz will translate the lens design into mathematical formula which will be submitted to the computer for further "study."

STEVE SICA, PROGRAMMING MANAGER for Corporate Management Information, and Vincent Mannino, senior programmer (seated), analyze a labor reporting program from computer-generated diagnostics.

People Make Fairchild-Shiprock a Success

JULIA MARTIN concentrates on her duties as a final seal operator.

HARD DAY'S NIGHT — Shiprock employees head home after night shift duty. Most of plant's employees live in Shiprock and immediate surrounding area.

(Below) LIGHT MOMENT in Shiprock cafeteria is shared by QC operators (left to right) Treva Tony, Clara Belone, and Clara Rothisberger.

(Above) ULTRASONIC BONDING operation at work during day shift. Only identifiable person is Mary Tutt at center.

(Below) NEW PLANT SITE — Fairchild's new Shiprock plant, scheduled to be ready this summer, looked like this in February. Construction is progressing on schedule to accommodate the fast-growing facility.

ANNA MARTIN can't resist smile for the VIEWS' camera as she goes about her chores as a visual inspector.

(Below) SUE YAZZIE takes moment away from her duties as a visual operator.

(Extreme left) EMPLOYEES in the CERPAK die attach operation are Henry Hayes and Mary Manokey.

(Left) HIGH PRODUCTIVITY of Shiprock facility allows some less serious talk between Production Manager Don Ashton (left) and Production Assistant Henry Jack.

PLANT MANAGER Paul Driscoll (above) takes after hours tour of Shiprock plant.

(Above) CONFERENCE takes place between training technician Jessie Lee (left) and assistant foreman Joe Kieyoomia.

FIRST AID for faulty equipment is being applied by Lester Charley (left) and leadman Lee C. Begay.

'Coming Electronic Revolution Will Challenge FCI'–Pres. Hogan

Top Level Session

General Managers and members of FCI's senior corporate staff sit down for a wrap-up session with Dr. C. Lester Hogan at the conclusion of the 2-day general management conference.

FAIRCHILD VIEWS

Volume XVI, Number 2 Fairchild Camera and Instrument Corporation February, 1969

Keynote Address Highlights 2-Day General Management Conference

Within the next ten years large scale integrated circuit technology will so change the order of things that the top ten companies in electronics today may change radically. This presents Fairchild with a challenging opportunity and it is imperative that the Company muster its assets and resources to achieve a dominant position.

Thus did Dr. C. Lester Hogan, President and Chief Executive Officer, open the 1969 general management conference, held January 22 and 23 at the Hyatt House in San Jose, California.

Attending were members of the Corporate staff, Division General Managers, Division Comptrollers, Marketing Managers and Operations Managers.

In keynoting the session, Dr. Hogan told the conferees that we must recognize the importance of new technology earlier than the competition.

"This electronic revolution in the next ten years is much more significant to us in opportunities than any electronic revolution in past history," he said.

To take advantage of this opportunity, Dr. Hogan stated that we must muster the total technical competence of the Corporation; put our houses in order; have the ability to run Fairchild in a competent, predictable, businesslike way and see far enough down the road so that there will be no outstanding surprises.

"I not only encourage, but demand, that you do realistic

(Continued on page 9)

Instrumentation Div. Names Schreiner General Manager

Robert J. Schreiner has been named General Manager of the Fairchild Instrumentation Division by Dr. C. Lester Hogan, President and Chief Executive Officer. He succeeds Joseph Spaziani, who has resigned.

Already in his new post, Schreiner reports to Leo E. Dwork, Corporate Director of Research and Development.

At the same time, Dr. Hogan announced that Electro-Metrics Corporation, Amsterdam, N. Y., a wholly-owned subsidiary, and the Microwave Products group, Sunnyvale, Calif., both of which reported to Instrumentation, have been administratively separated from that division. Heads of these groups, William Lambdin of Electro-Metrics, and Dr. Irvin H. Solt, Jr., of Microwave, now report to Dwork directly.

Robert Schreiner

In making the announcement, Dr. Hogan expressed great confidence that a combined effort of the Instrumentation and Semiconductor divisions will establish Fairchild as a leader

(Continued on page 9)

New European Plant Operating in 1970

Fairchild's first semiconductor plant in Europe will be in operation by early 1970, President C. Lester Hogan announced this month.

Immediately, however, Fairchild will begin to serve customers in Europe through a full-fledged marketing effort.

The marketing organization will be the first entry into Europe by Fairchild since it terminated an eight-year association with Societa Generale Semiconducttori (SGS) in September. At the time of the sale of Fairchild's interest in SGS, Dr. Hogan pointed out that the move represented the start of a more aggressive and comprehensive effort on behalf of European customers by Fairchild, rather than a pullback.

The marketing move into Europe is now in progress. Fairchild personnel, including newly named European Marketing Manager Chaz Haba, have been recruiting personnel, from within Fairchild and outside for the European staff. (See story on page 3.)

By the end of March, 1969, Fairchild will have a headquarters providing customer services, applications engineering, information, and a field sales force, and inventory of products for immediate delivery.

At approximately the same time, Fairchild will break ground for an 80,000 square foot plant which should open in early 1970.

The entry of Fairchild into the European market is a natural step, it was pointed out by Dr. Hogan. He noted that Fairchild is extremely familiar with the need of European customers, thanks to its great technological expertise into new sophisticated products for its new customers.

"This does not demean the fine work SGS did on behalf of Fairchild for eight years," Dr. Hogan said. "Our association with SGS was immensely rewarding for both parties. I cannot think of a finer group of people to work with in Europe, and if we were to do it again, SGS is certainly a group we would want as partners."

"But I sincerely feel that to best serve the customer, you have to deal with him directly and keep your finger on his pulse. This plant gave us that capability. We have always had the technology and the products."

The Company will also announce, in the near future, the selection of an additional site in the Far East for a new integrated circuit facility. Fairchild now operates plants in Hong Kong, Korea and Australia.

Elect Dwork Vice President, FCI Director of Research

The election of Leo E. Dwork as Vice President and Director of research of Fairchild Camera and Instrument Corporation has been announced by the Board of Directors.

Dwork, Director of Research and Development before being named a Vice President, is responsible for the coordination of all research and product development efforts of the Corporation's divisions and subsidiaries and insuring that new technologies developed by Fairchild scientists are utilized to their maximum potential across the Fairchild product spectrum.

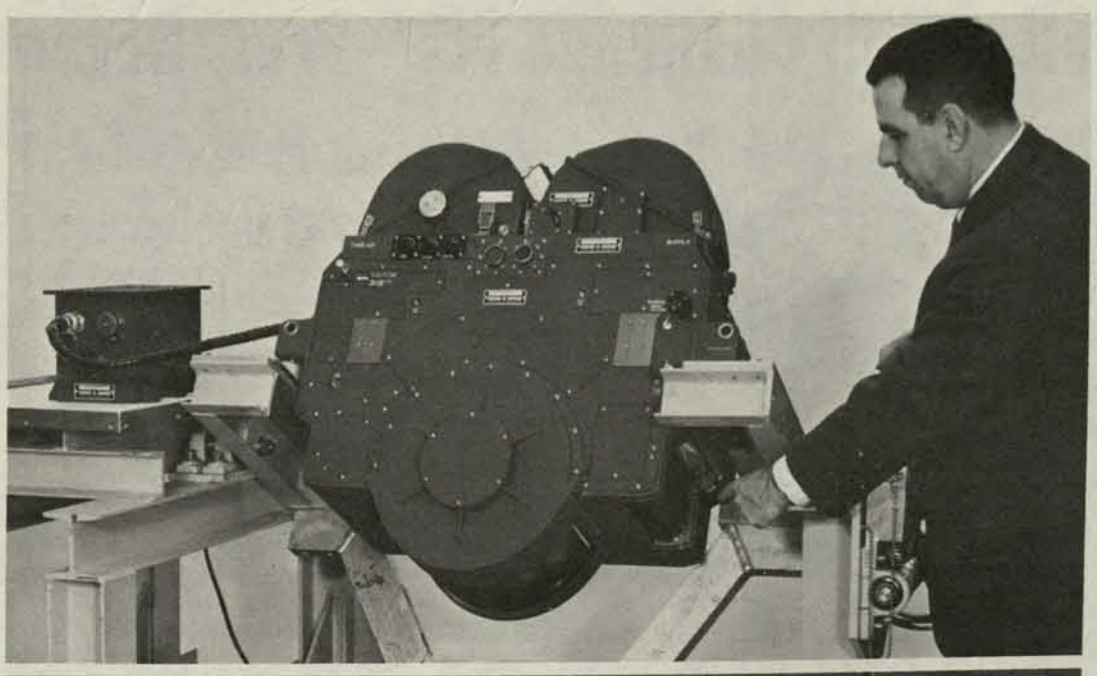
Leo Dwork

He joined Fairchild in August 1968. Prior to that he was Vice President and Director of the product and operations group of the Semiconductor Products division of Motorola.

He is a graduate of City College of New York, with a Bachelor's Degree in Electrical Engineering. He also holds a Master's Degree from the Polytechnic Institute of Brooklyn.

Military Visits Syosset

A distinguished group of visitors recently were conducted through the Syosset headquarters facility of the Space and Defense Systems division and shown the division's latest developments. Here, program manager Jerome Libby describes the division's new modular image interpretation system to (l to r) Col. S. J. Buinicky, deputy commander, Concepts, Tactical Air Reconnaissance Center; Brig. Gen. Robert W. Waltz, Commanding General, TARC; Col. Robert Royem, deputy commander, Tests and Evaluation, TARC; Col. Walter Weitner, Commander Defense Contracts Administration Services, Garden City, New York; and Syosset operations manager, Stephen Einig.



The Large and Small of it . . .

Space and Defense Systems' Syosset headquarters plant recently made a couple of shipments to the Navy and Air Force that, among other salient points, demonstrate the versatility and scope of Fairchild engineering — particularly in the line of aerial camera systems. That "bigger" camera, which weighs more than 200 pounds, is an F-638-140 panoramic reconnaissance camera used at medium-to-high altitudes. The camera features a new solid-state data annotation unit and recording head and is one of the first of its kind to be shipped to the Navy. Looking it over is Al Arena, FSDS product development section manager. The considerably smaller camera, which weighs in at 32 pounds fully loaded, is the KB-18A lightweight panoramic strike camera, intended for low altitude photography. A group of the cameras are pictured undergoing final inspection and testing by technicians Richard Mirabella (foreground) and William Kennedy prior to shipment. To date, more than one thousand of these cameras have been delivered to the U. S. Air Force.

Increase Production of Microwave Transistors–Lower Prices By 50%

Fairchild Semiconductor has instituted extensive price reductions in its line of microwave transistors as it geared efforts toward high volume production and delivery of these devices.

The new pricing action included reductions of more than 50 per cent for such popular NPN microwave items as the MT1060, an 80 mW oscillator, and the MT1061, a 12.5 dB, 500 MHz amplifier.

Altogether, the reductions affect 13 "off-the-shelf" products in Fairchild's microwave transistor family. Some devices are now selling at the lowest price levels in the history of the industry.

Announcement of the price changes reflects an increase in Fairchild's production capacity for microwave transistors and an increased emphasis upon this marketing area. The new prices, according to Product Marketing Manager Tom Ciochetti, will open up many new markets for discrete microwave products. He said design engineers will now be able to find applications for microwave oscillators and amplifiers that were not economically feasible under the previous price structure.

Graphic District Managers Meet

The district managers of Fairchild Graphic Equipment's five sales districts, including Canada, met with the Division's top management team on January 20 and 21 to discuss manufacturing and marketing operations for the new year.

The two-day meeting was directed by Joseph Van Poppelen, corporate vice president and director of marketing, who is acting general manager of the Graphic Equipment Division. Assisting in the administration of the meeting were Paul Till, corporate director of product and market planning and acting assistant general manager of FGE; and Stanley Ross, corporate controller.

Individual presentations relating to the Division's product line, personnel and marketing and sales objectives for 1969 were made by Frank Nardozzi, general sales manager; A. J. Smith, manager of new product development; R. C. Miller, manager of Teletypesetter and typesetting; Arthur Berutich, manager of sales administration; William Condit, assistant to the General Sales Manager; John Heidenreich, manager of printing presses; and Lawrence Weybrecht, manager of employee relations.

Final PTS Sales Training Course

The sixth and final PhotoTextSetter Sales Training Course for Fairchild Graphic Equipment district sales managers and sales engineers was completed last month at the Division's headquarters facility in Plainview.

Participants in the week-long course, which convened between January 13th and January 18th, were: Dwayne Lowry, west coast district manager; James McHugh, midwestern district manager; Michael Mahalick, sales engineer — eastern district; and three sales engineers from the Canadian district — William Taylor, William Yankewicz and Jean Lemieux.

Hogan Addresses Purchasing Group

Dr. C. Lester Hogan, President of FCI, was one of the featured speakers at the Annual Executive Management Conference of the Purchasing Management Association of Northern California.

In conjunction with the theme of the Conference, "Dialogue For The Contemporary Manager", Dr. Hogan spoke on: "The Practice of Communication in Company Management." The three-day conference was held on February 6, 7, 8 at the Highlands Inn, Carmel, California.

Controls Exhibits at London Show

Fairchild Controls displayed its complete product line at the U. S. Transducer Instrumentation Systems and Components Show at the U. S. Trade Center in London, England, February 10 to 14, 1969.

Representative samples of the diversified line of Fairchild Controls' electronic and electro-mechanical components were exhibited. The line includes precision potentiometers, wirewound and conductive plastic; pressure transducers, including potentiometric, semiconductor strain gage and bonded-foil types; and pressure switches, level controls, turns counting dials, trimmers, multi-turn potentiometers, and operational amplifiers.

Representing Fairchild at the London show were R. J. Sullivan, director of international marketing and engineering, and members of the staff of Elliott Brothers, Servo Components Division, London, including Jeff Blake, division general manager and Brian Hopwood, sales manager. Sullivan makes his headquarters at Fairchild's office at 8700 Seestrasse 233, Kusnacht, Zurich, Switzerland.

Bruce Appointed L.I.A. Director

Robert Bruce, FCI Vice President and General Manager of the Space and Defense Systems Division, has been appointed to the Board of Directors of the Long Island Association of Commerce and Industry. Mr. Bruce will serve for a period of two years.

Instrumentation Trio Receives $100

Three members of Fairchild Instrumentation's Systems and Development Engineering staffs have received $100 awards under the Corporate Incentive Awards program for the publication of technical articles in engineering trade publications.

They are: Gordon Padwick, Application Manager, Systems; Graham Cole of Systems Engineering; and John Dour of Time and Frequency Development Engineering.

Padwick authored "Are High-Speed Automatic Test Systems the Answer" which appeared in Electronic Design magazine. Cole wrote "High-Speed Reed-Relay Matrix Maintains Impedance Matching" which appeared in Electro-Technology magazine. Dour authored a cover story for Electronic Design magazine which covered Fairchild Instrumentation's new model 8040 and 8050 Counter.

Japanese Study Tour

Long one of the principal users of Fairchild Instrumentation test equipment, the Japanese electronics industry recently sent this astute group of engineers to the United States to study Fairchild and the Industry's semiconductor production and testing techniques. Priority stop was Fairchild Instrumentation's Test Equipment manufacturing facility in Sunnyvale, California. Japan Industrial Development, Inc., sponsored the study tour.

Semiconductor Realigns Marketing Dept.

A realignment of marketing management at Fairchild Semiconductor has been instituted to better serve rapidly-growing foreign market areas as well as new and expanding domestic markets.

The marketing personnel changes, put into effect by Group Director of Marketing Douglas J. O'Connor, emphasize the role of the European as well as other international markets in Fairchild's global sales effort. Fairchild Semiconductor expects to do 20 per cent of its gross business in international markets this year with that figure doubling within the next four years.

In preparation for these new and growing markets, the Division is planning a major manufacturing assembly plant in Europe to be started this year. By the end of this year's second quarter, the Semiconductor Division will have established a full-fledged service and sales organization as well as a complete warehouse distribution center in Europe. This group will include a complete field sales organization and distributor network as well as teams of application engineers, product market and management systems and administrative back-up personnel.

The importance of the foreign market to Fairchild is illustrated within the new marketing realignment by the appointment of two Directors to handle this sales effort. Previously, both the European and the remaining international markets were handled by one marketing Director – Bernard Marren.

The new European marketing structure, which will soon include a marketing manager in each of four European countries, will be headed by Chaz Haba. Haba, a Semiconductor Director since last July, is a seasoned marketing executive who previously headed the Division's Aerospace and Defense Marketing program. A Fairchild veteran since 1962, Haba brings to his new post a variety of sales and engineering experience in various market areas.

Working at the international Director level with Haba will be Dedy Saban, who will be responsible for all non-European international markets as well as all support and liaison activities between the Division's Mountain View (California) headquarters and all foreign market areas. Saban, who joined Fairchild last August from Motorola Semiconductor, has a background of several years in international marketing with his last Motorola assignment as head of the firm's Italian sales efforts. Since last August he has been on Fairchild's corporate staff in charge of international planning.

Heading all United States sales will be Bernard T. Marren.

Appointed a Semiconductor Director in charge of international marketing last July, Marren has been employed by Fairchild since 1960. Starting as a sales engineer, he rose to positions of sales manager for the computer/commercial market and later became a regional sales manager. In December 1965 he was appointed Consumer Marketing Manager heading applications engineering, market development and field sales in the consumer field. These responsibilities were expanded in 1968 when he was named Consumer/Industrial Marketing Manager.

The following individuals will be working as marketing Department Heads reporting to Mr. Marren:

GORDON RUSSELL, head of Aerospace and Defense Marketing. Russell started with Fairchild Semiconductor as a military salesman in 1965 working out of the Division's Wakefield, Mass. office. Previous to his promotion he was Aerospace and Defense Sales Manager.

JACK GIFFORD, head of Computer Marketing. Gifford, a Fairchild veteran since 1964, will be responsible for all domestic sales within the computer marketplace. Formerly he was the Division's Linear Circuit Product Marketing Manager.

JOHN RICHARDSON, Commercial Marketing Manager. In this newly-created post, Richardson will be in charge of all consumer, commercial and industrial sales. This expanded position emphasizes Fairchild's continued interest in these growing domestic market areas and combines Richardson's old job as Field Sales Manager with the vacated post of Commercial Marketing Manager, which was held by William Welling. Mr. Welling resigned from Fairchild recently to enter the investment business in Los Angeles.

The domestic marketing realignment also includes creation of a new Director post to handle distributor sales. This yet-to-be named individual, reporting directly to Mr. O'Connor, will be in charge of the Division's domestic distributor sales network.

Emphasing the continued and growing importance of domestic sales to the Semiconductor Division, Mr. O'Connor in his realignment program explained that he sees a major expansion in sales within the United States and is currently engaged in a personnel recruitment program aimed to increase by 50 per cent his field sales staff and internal marketing group.

Completing the marketing changes is the promotion of John Bosch as a Director in charge of Discrete Device Product Marketing. Bosch, a Fairchild employee since 1966, maintains the same responsibilities he held in the past, but now reports directly to Mr. O'Connor as a Director.

Heading the Integrated Circuit Product Marketing program is Ben Anixter, who retains his position as a Semiconductor Director. Anixter, who has been with Fairchild since 1960, was previously in charge of product marketing for all semiconductor devices. This change, explained Mr. O'Connor, "restores our emphasis and effort to the important field of discrete devices."

All changes were effective Jan. 3.

Eser Appointed Corporate Director of Ind. Relations

Harry Eser

G. Harry Eser has been promoted to Corporate Director of Industrial Relations. Announcement of the appointment was made by Dr. C. Lester Hogan, President and Chief Executive Officer of FCI.

Before receiving his promotion, Eser was director of Industrial Relations for the Semiconductor Division since joining the company in November, 1965. Until a successor is named, he will continue in his former capacity in addition to his new duties.

A native of Baltimore, Eser studied at John Hopkins University. Prior to joining Fairchild, he was with the Bendix Corporation, most recently as Hawaiian Area Manager of the Range Systems Department. He is a former U. S. Army officer.

Eser will maintain his office at Fairchild Corporate headquarters in Mountain View, Calif.

The Eser and Haynes appointments followed the resignation of Edward O. Cole.

Haynes Named Corporate Director of Pro. Personnel

David Haynes

David B. Haynes has joined Fairchild Camera and Instrument Corporation as corporate director of professional personnel. The announcement was made by Dr. C. Lester Hogan, President and Chief Executive Officer.

Mr. Haynes, who assumed his new duties February 10, reporting to the President, will have responsibility for all recruiting and development of professional employees of the corporation and its divisions.

He comes to Fairchild after six years with ITT, most recently as Director of Administration for the company's world-wide operations.

A native of Wilmington, Ohio, Mr. Haynes earned a BS degree in industrial management at Wilmington College, and has done graduate study at University of Cincinnati and Northeastern University (Boston).

$1,000 In Cash

Believe it or not, that's a $1,000 bill being judiciously examined by Semiconductor engineer Tony Cobanaglu of the Division's Linear Engineering group. Tony received the "unprecedent-type" award from Dr. Les Hogan, President of FCI, for his design engineering work in conjunction with Fairchild Semiconductor's "New Product A Week Campaign." Although he's not pictured here, General Foreman Dan Munoz made out even better than Tony. Dan was presented with THREE $1,000 bills for his contributions in support of the new product campaign.

Will Blood Be Available When You Need It?

The next person to need blood could be you! You may use 20 pints. You may use two. Regardless, your need is just as great.

If you believe that your immediate need for blood is remote, consider that each and every day more than 13,000 units of blood are transfused in the United States – nearly 6,000,000 units per year.

The demand for blood increases, yet it is estimated that the annual blood requirements of the nation are provided by less than 3% of the eligible donor population of the United States – approximately 3,000,000 donors.

The nature of blood is such that it must be transfused in its whole state within 21 days after being drawn, and the blood given to a patient must be compatible with his own blood group and type. Unless more people become donors, the supply will not keep pace with the growing demand for blood. Some day you or a member of your family may depend on its availability.

To fully meet these needs, blood of every group and type must be available at all times. Donors often respond when there is a special need or emergency. But blood banks depend much more on donors who are willing to give to meet day-by-day blood needs. Banks throughout the country must rely on a constant stream of donors to keep the banks full.

No substitute for blood has ever been developed. The only source is still the human body. As long as blood cannot be manufactured, blood banks must depend upon people like you to assure an adequate blood supply.

GIVING IS SAFE AND SIMPLE

Nature makes it easy to give blood. An average person has about 10 to 12 pints in his body. A normal donation is about one pint. Medical authorities say that donating a unit of blood quickly stimulates a healthy person's bone marrow and his blood count is as normal after the donation as before.

Under medical supervision, the collection of blood is made by a medical technologist or a nurse. The procedure is simple and safe. The entire process takes a minimum of your time.

After you have given blood, you receive a card which lists your blood group and Rh type. This is important as the blood of every human being is almost as distinctive as his fingerprint.

To assure that blood will be there when you need it, give blood now and encourage others to become voluntary blood donors. The giving of blood can be a satisfying and rewarding experience for you.

At the present time, Fairchild's Long Island-based divisions and the west coast Semiconductor Division, including Corporate headquarters, are making preparations to set up blood donation centers at their respective plant facilities.

Within the next few weeks, specific details will be made available to Fairchilders. You will be told where and when you can make your donation – and most *important* – how you and every member of your family can benefit from the single pint of blood you give.

Please heed the call!

REMEMBER WHEN?

Although baseball has long since been displaced by softball as a recreational activity in industry, at the time this picture was taken baseball was the "thing" at Fairchild. We thought the picture was noteworthy because it should stir up pangs of nostalgia in at least five veteran Fairchilders. Of those pictured here, five are still with Fairchild. We think that's a pretty good average considering the picture was taken awa-ay back in 1943. If you want more details, turn to page 10.

Du Mont Tube Making it Tough on the Fish

It may not evoke any sympathy in the average person but the life span of the ordinary fish has to be shorter these days. Modern mechanical fishing gear has made it tough enough on him but now that the fisherman is chasing him with electronics, the fish's situation looks to be downright hopeless.

In recent years, his primary Nemesis has come to be sonar equipment but equally culpable is the high resolution cathode ray tube which, in effect, is the "finger man" for the sonar. *First, a bit of history to show how sonar and the Fairchild-Du Mont CRT has come of age. In World War II and thereafter, sonar had been used for naval submarine detection but recent improved techniques in resolving capabilities now have made it suitable for other underwater applications. One of these applications is the detection of schools of fish. For this purpose, however, the sonar equipment is only as good as its display equipment.* That's where the cathode ray tube plays its important role.

The sonar locates and guides the ship to the fish and the CRT makes it possible for the fisherman to examine in great detail every school of fish within his catching range. It also assists him in setting his net in making the catch. Newest piece of equipment for this specific application is a "search and set scanning sonar" presently being manufactured by a west coast company and used by commercial fishing fleets throughout the world.

This "window in the sea" incorporates two separate cathode ray tube screens. Operating simultaneously, each screen provides an instant reading of the size, depth, and density of a school of fish. With an expander feature, the school can be made to appear from two to ten times its size and distance off the bottom.

The display on the screen is similar to the conventional recording sonar, although no paper charts are used and higher resolution is feasible. The trace moves from left to right like a conventional recording depth sounder with the bottom appearing as a line across the

bottom portion of the screen. The fish on the screen appear as blips between the top of the screen and this bottom trace. When heavy concentrations of fish are encountered, the screen glows with a band of light. The intensity of the glow indicates the density of the school.

The particular Fairchild tube which makes it all possible, whether viewing conditions are in *bright sunlight* or in *total darkness,* is 10 inches in diameter with a specially developed phosphor screen reinforced by a non-glare, non-reflective filter bonded to its outside surface.

The tube has all the features Du Mont tubes are recognized by: increased resolution, high performance, high contrast, small spot size. Moreover, it has a particular affinity for fish.

Fairchild Projectors Help Expand Phone Company's Training Network

At New England Telephone and Telegraph Company, Boston, a combination of techniques — film and videotape recording — has enabled the company to economically extend its closed-circuit television training network. In effect, 21 viewing locations have been expanded to 46, more than doubling the number of employees able to view a specific presentation.

The closed-circuit television network was started in January, 1964. Since then, videotapes on subjects varying from pay-phone coin return to personal safety have been produced and shown to employees with a portable videotape recorder located in the company's television studio in Boston and some 25 Fairchild Mark IV cartridge-loading 8mm sound projectors at viewing locations outside the Boston area.

Tapes are played back over a closed-circuit network to television receivers at 21 locations in metropolitan Boston. Television receivers are conveniently located at each site and workers are away from their jobs a minimum amount of time. The tapes may be played back over the network for as many times as is necessary.

Success of the television network was evident early from the number of requests for additional tapes and for similar service in outlying areas. Tape production gradually accelerated and, to date, over 75 have been produced with more than 3,000 New England T & T employees having benefited from this type of training.

However, the company realized that to build complete and efficient training communications in all New England, the closed-circuit television system would have to be extended beyond Boston. Because of the high cost, use of videotape was impossible. It was then that the company decided to use both videotape and film in the expanded system. Within Boston, the closed-circuit videotape network was retained. For areas outside Boston, Fairchild Mark IV projectors with their 8mm film cartridges were set up at each viewing location. At the same time, the videotapes were converted to 8mm kinescopes. Copies of the film were made, then inserted in cartridges and sent to the company's additional viewing locations.

Today, the area of coverage of the New England Telephone and Telegraph Company has been expanded to all of Massachusetts to parts of Rhode Island, Maine and New Hampshire.

FSDS' Bernice Corder is $15,000 Winner in New York State Lottery

Bernice Corder, electrical assembler for Fairchild Space and Defense Systems' Copaigue (L. I.) Ordnance facility, is $15,000 richer these days. That's the amount she won in the January drawing of the New York State lottery.

Bernice, a 26-year-old mother from West Babylon, L. I., has purchased one or two tickets each month since the lottery began over a year ago but has never won (up to now).

The mother of Gwendolen, 4 and James Jr., 2, Bernice plans on putting her new found fortune to good use. "I'm going to pay my bills and then hope I have something left over to spend on a few luxuries," she said.

With Fairchild and the Copiague operation for the past two years, Bernice was notified she was a winner by telegram. "I was almost afraid to open it," she said. "I always felt that telegrams usually bring bad news. In this case, I couldn't have been more wrong."

"No — I haven't any plans to leave my job," she added. "My husband and I still need a steady income after that money is spent." Bernice's husband, Jim, is a barber.

NEW PRODUCT PARADE

Controls Op-Amplifier

A new high speed, rapid settling time, operational amplifier has been announced by Fairchild Controls. This amplifier, the model ADO-60, guarantees 100 V/μsec slewing rate and 2.0 μsec settling time to 0.01%. It includes FET input and has unusually high d.c. gain, 1,000,000:1. The maximum frequency for full output is 1.5 MHz and the output current 20 mA.

Semiconductor PNP Switch

A high speed PNP switch and general purpose amplifier capable of operating at frequencies of 400 MHz is now being marketed by Fairchild Semiconductor at prices as low as 22¢.

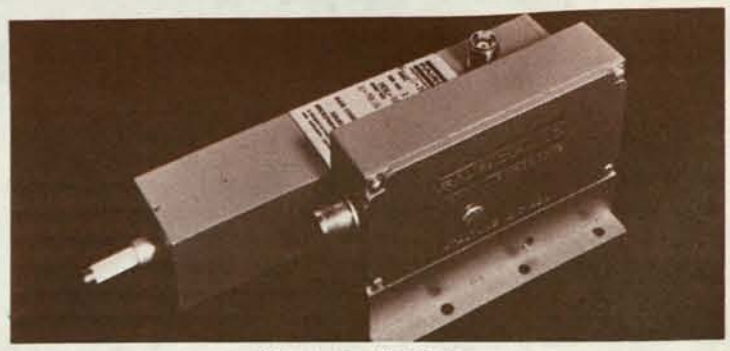
The new Fairchild offering is the 2N4389, which comes in an epoxy TO-18 package and is electrically equivalent to the 2N2894 metal can.

Applications for the 2N4389 can be found in both saturated and non-saturated switching operations up to 100mA.

Microwave Oscillator

Fairchild Microwave Products has introduced a new phase locked fundamental oscillator, the MO(L)-100XE, for use in tropospheric scatter or line of sight radio relay applications.

The MO(L)-100XE operates at 685 to 1055 MHz with a minimum power output of 80 mW over a temperature range of −30 to +60°C. The oscillator may be mechanically tuned with only one external knob, and exhibits excellent FM residual noise characteristics; FM noise is 60 Hz in a 3 KHz bandwidth.



Microwave Oscillator

Controls ADO-60 Amplifier

Top Management Tells 'How It Will Be' at 2-Day Conference

ALL FAIRCHILD TOP MANAGEMENT — which included members of the Corporate staff, Division General Managers, Division Comptrollers, Marketing Managers and Operations Managers — congregated at the Hyatt House in San Jose, California during the week of January 20th to hear Dr. C. Lester Hogan, FCI president, sound the keynote that the electronic revolution in the next 10 years is much more significant to Fairchild in opportunities than any electronic revolution in past history. With that salient point indelibly inscribed, the two-day general management conference then proceeded into high gear. The result: An assurance of concentrated, coordinated and inflexible efforts by Fairchild general management to take optimum advantage of those "revolutionary opportunities."

JOE VAN POPPELEN, vice president and director of marketing, talks about new product planning aimed at specific market segments.

PHIL HAAS, corporate tax director, is busy making notes.

LEO DWORK, director of research and development, discusses planning for technological advancement.

JAMES B. MOORE, Director of Information; H. E. Hale, general manager Fairchild Controls; Fred Walzer, general manager DuMont Electron Tubes and George Pfifer, Vice President-Finance are attentive as Dr. Hogan makes a point.

JOHN GIBLIN, corporate accounting manager, discusses methods and procedures with the management group.

TOM HINKELMAN, corporate planning director, was coordinator for the two-day session.

THE AUDIENCE was attentive.

Engineer's Computer Tutors Local Kids

Al Kronenberg, Fairchild Controls engineer, believes that within the next decade we will see every competent professional and business man with a computer terminal in his home as well as in his office. He forsees the beginning of a new communications explosion which opens direct channels of communication to vast bodies of knowledge and machines.

Al, however, has beaten the other guy to the mark. He already has a computer terminal in his home. This allows him access to not one but five different computer services offering a potential usage of any one of ten of the largest computer systems in the world within the time it takes him to dial the telephone.

In order to support the cost of this facility, Al uses his equipment to tutor high school students both in programming and other subjects.

It all came about when the Controls division installed a Time-Sharing Computer Terminal last summer. The results of this in terms of automating and improving design techniques for the highly specialized potentiometers made by this division were highly successful and today Controls division design engineer Sy Granite and Bill Ickinger turn out functional pot designs including geometric and structural data almost as fast as you can say, "Functional Potentiometer." It was during the development of this process that Al began to notice the machine had characteristics above and beyond the mere capability to shuffle numbers – i.e. 1. It produced a change in thinking and attitude which allowed the consideration of designing products which were previously considered either impractical, too costly, and/or too difficult to produce. 2. It was a very powerful motivational tool which encouraged the attempt at trying to tackle increasingly more difficult problems.

Al reasoned that if these characteristics also applied to students of high school age, he would be able to achieve some spectacular results in this area. Since the machines are basically of a mathematical nature, he looked for high school students who showed high achievement in the math and science areas but had difficulties in the other areas. Sure enough he hit success the first try. The first student he acquired had all these characteristics including a big deficiency in French. He is shown above demonstrating (Gregg Malalcoff) his English – French translation program to Steven Hawkins and Deborah Cohen, also of Commack. Needless to say, the twenty hours of typing, proofreading, and program debugging that Gregg spent had a tremendous effect on his French proficiency.

Al has been utilizing computer capabilities in his work with the Stan systems for the last two years since he first took a Fortran Programming course at Hofstra University under the Fairchild tuition aid program. He has now completed design of a new Digital Stan System which was successfully tested on Christmas Eve – the first time it was turned on. Working with Roy Segardahl, who did the packaging job, and Anthony Rasili, who translated Al's designs into working hardware, he completed the job in less than five months.

Controls Division now has a completely solid-state Digital Stan Prototype which will be flight tested starting sometime next month. The unit is also "Fairchild throughout," utilizing a cross-section of integrated, hybrid, and linear monolithic circuits from the entire Fairchild line.

Al has tried to demonstrate throughout his working career that the greatest strength within an organization comes from the application of combined skills and resources brought about through rapid and thorough communications.

About his own programming ability, he says: "I utilize a very feeble Fortran and I'm a lousy programmer but it certainly helps me to produce better hardware."

Here's The Way We Do It . . .

Representatives of three departments of the Space and Defense Systems Division get a close-up view of a jig mill in operation and at the same time, receive a briefing on the machine's productive capabilities from John Stonitsch, FSDS manufacturing manager. Along with some 25 other members of the Engineering, Manufacturing, Purchasing and Quality and Reliability departments, the quartet participated in a recently concluded eight-week seminar geared to improving coordination and liaison between the four departments and thus increasing engineering design performance. Watching machinist Charles Butrico at work are (l to r): Gregory Lampasona, Engineering; Stonitsch, William Carey, Purchasing manager; John Strampfer, Engineering; and William Curtis, Standards Engineering.

SECRETARY OF THE MONTH

Controls' Loretta Nassau Does the Usual Jobs And—Does Them Well

"I do the usual jobs a secretary is expected to do," says Loretta Nassau with typical modesty, "typing, filing, correspondence and phone reception and if I do a good job I guess it's just because I *try* to do a good job. You have to succeed then."

Loretta is secretary to Dave Lawton, Division Sales Manager for Fairchild Controls, who says of her in most succinct terms, "Sure she's a good secretary. She does everything that's expected of a good secretary and does it well. That's all you could ask."

A pretty blue-eyed blond with nine-year-old and five-year-old daughters, Loretta has been with Fairchild only since April, 1968. But this is her second time around. She had an initial three-year hitch with Controls from 1959 to 1962 as secretary to the previous sales manager. She left at that time to have her second child and stayed "retired" until 10 months ago.

Loretta Nassau

When she sought work again, Controls was happy to get her services. For the first three months she worked part time, then came to work full time for advertising manager Barry Hawkins. When Lawton's secretary resigned four months ago, Loretta – with three years secretarial-sales experience – was assigned to the job.

Loretta's "usual" secretarial duties include the necessarily accurate typing of orders booked, sales forecasts, representative and distributor contracts, general correspondence to Controls' Mountain View and San Diego plants (much of which she composes herself) and "manning" the telephone.

Her "unusual" duties, which require both tact and diplomacy, involve the telephone.

"You'd be surprised at all the strange calls I answer here," she says, "One man called me just the other day to ask if we sold oil and grease. Someone else just wanted to talk and another customer complained to me about a piece of equipment he bought. It took me a couple of minutes before I could interrupt to tell him we don't make drill presses."

Before she came to work for Fairchild, Loretta worked for a Chinese-owned Corporation. "I liked it fine," she says, "I worked there for eight years but I had to leave when I had my first child. One of my nicer memories was meeting a number of famous people when I served as hostess at many of the diplomatic receptions sponsored by the company. I can remember Barjar Ceyal, president of Turkey at the time, Haile Selassie, Secretary of Defense Stevens (at the time) and Mayor Wagner. The only tough part of the job was trying to communicate with my boss. I didn't speak any Chinese and his English was tough to understand. Also, I don't think he liked the Chinese tea I made for him – though he drank it."

Loretta, who makes her home in Hicksville on Long Island with her husband and two daughters, is fairly good at bowling and swimming and pretty close to a "pro" at play acting. Many of her evenings are spent in rehearsal with her local church drama group. A couple of times a year, the group puts on a popular play before as many as 2,000 parishioners. And more often than not, Loretta plays a lead role.

Then talent runs in the Nassau family. Last summer, VIEWS told a story about nine-year-old Veronica who has won over 40 first place trophies for baton twirling. Her proud mom says, "That tops anything I've done – even the part I played as a dumb blond waitress."

That's hard to imagine – Loretta Nassau playing a dumb blonde.

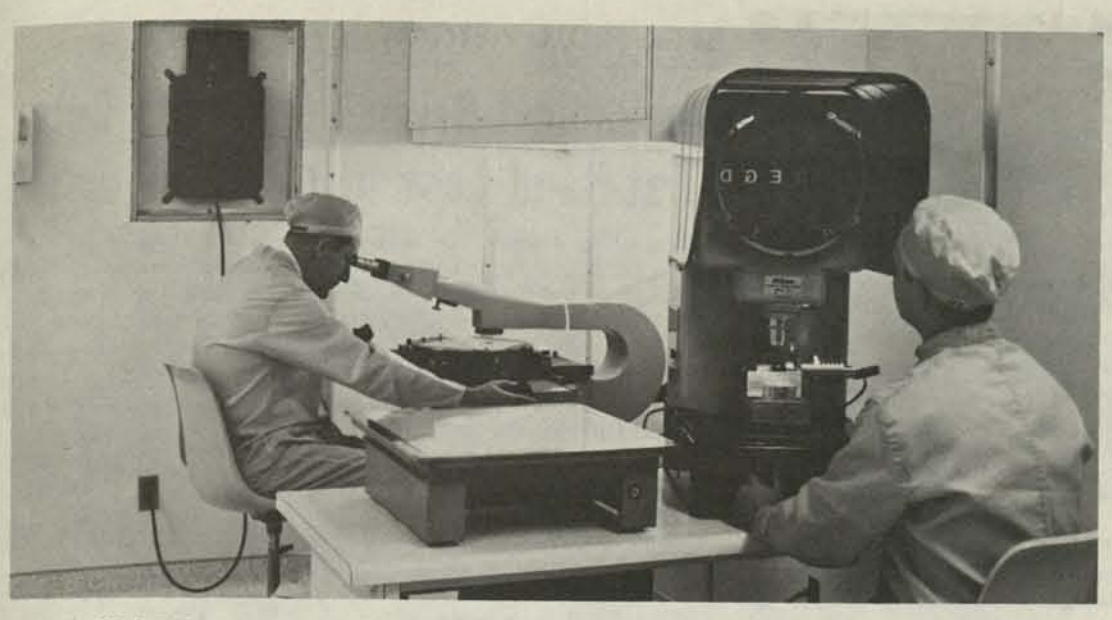
Typesetter Installs Computor, PTS

Trade Composition, Inc., a hot metal trade typesetter in Springfield, Massachusetts, for book publishers and commercial printers, has expanded its operation by installing a Fairchild computer, two phototypesetters for text and phototypesetter for display type.

Stanley Stachelek, president, said the prime reason they decided to get into photocomposition was to "automate ourselves to increase productivity and quality." Another important factor that influenced his decision, he added, was the declining supply of skilled craftsmen in the area.

The company purchased a Comp/Set 230C computer, two PhotoTextSetter (PTS*) 2000 units, and a Morisawa Electra headline phototypesetter. All of the equipment is marketed and installed by Fairchild Graphic Equipment Division.

When evaluating computers, Stachelek said he went on a trip to a commercial printing plant in Utica, N. Y. to see the Comp/Set computer in operation. He commented that he was impressed by the computer's high speed, hyphenation accuracy, and built-in back-up features.



CHECKING A FILM type segment on the Mann Comparator is Al Freericks (left), who supervises the clean room operation. Bert Dees, a chemist, evaluates the projected type images from a type turret on the Nikon Comparator. The clean room is used for making type turrets and film type segments for PhotoText-Setter Models "2000" and "8000," respectively.

RAY PELL, SUPERVISOR of the Type Design Department, puts some finishing touches on a capital "W". The letters of the alphabet, numbers and punctuation marks are first roughly sketched, accurately drawn to tolerances of less than .00025, and then sent to the clean room where they are reduced in size.

Graphic's Type Design Dept. Specializes in The Distinctive...Easy-to-Read...Unobtrusive

"Printing is the greatest means of promoting learning that was ever invented," wrote William Goddard, editor of the *Providence Gazette and Country Journal*, in 1762.

This holds true today as it did 206 years ago. Consider the number of newspapers, magazines and books you read each year and you will realize the vast amount of knowledge that is transferred by the printed word.

The "type" you are now reading makes this possible, yet very few people know how much effort goes into designing type faces. And this is as it should be. Type designers strive to make type faces distinctive, easy-to-read, yet unobtrusive.

Printing, as we know it today, is generally credited to Gutenburg's invention of movable type between 1435 and 1445. Printers set individual type characters by hand in a composing stick for around four hundred years before man began to consider the possibility of creating hot metal linecasting machines. The first of a number of these machines was invented in 1797.

Less than 150 years later, the first phototypesetting machine, which projects a type image through lenses onto photographic paper or film, was invented. This was a major breakthrough in graphic arts because the type could be set faster and be enlarged or reduced to different sizes.

Last year Fairchild Graphic Equipment introduced two phototypesetting machines — PhotoTextSetter Models "2000" and "8000". Besides designing and manufacturing these phototypesetting machines, the Graphic Equipment Division also set up a type design department and built a photographic "clean room" at its home office in Plainview, N. Y.

John Lord, type director, coordinates and is responsible for the activities of these two departments. He conducted a survey of type faces to determine which ones were most frequently used by newspaper, commercial and book printers. He also oversees that the high quality of type design standards are maintained.

Located in a corner of the Graphic Equipment plant is a long room with rows of drafting tables. This is the Type Design Department, supervised by Ray Pell. "The average person does not realize how much time goes into type design," he explained. "We work with extremely close tolerances and it takes us months to develop a type face to perfection."

"Once a type face has been selected," Pell said, "each character is roughly sketched to determine its height, weight, width and balance for fitting. A capital letter like the capital 'M' is first sketched about four inches in height. The final drawing of this capital 'M' is made holding a tolerance of less than .00025, so you can get some understanding of how critical type design is."

Over 50 Years Experience in Dept.

The Type Design Department, consisting of Ray Lauble, Ronald Puleo, Salvatore Barlotta, Patricia Malarkey, Mary Burke, and George Austing, represents more than 50 years of experience in the field.

After all the capital and lower case letters, numbers and punctuation marks are drawn, checked on an optical comparator and approved, they are sent over to the clean room.

Seated in a small office beside the clean room is Al Freericks, a photographic engineer. Al is responsible for operation of the room. "The cost of building the clean room — which is really a series of rooms — and the equipment and instruments in it was around $150,000," he said. "By accurately controlling the temperature, humidity and particles of dust in the clean room, we are able to make type turrets and type segments with a very minimum of dimensional changes."

The walls and ceiling of the clean room are white formica and the floor is seamless vinyl. Fairchild's clean room meets the Federal Standard Class of 2000 particles of .0003 microns or larger. "It is hard to visualize a micron," Freericks said, "but 25.4 microns is equal to one, one-thousandths of an inch (1/1000). The temperature is controlled at 70 degrees, plus or minus two degrees, and the humidity at plus or minus 5 per cent."

"When we receive the art work from the type design department, it is reduced down in size," he explained. "We are able to use the same art work for the type turret and film type segments."

PhotoTextSetter Model "2000" uses an hourglass-shaped type turret and PhotoTextSetter Model "8000" utilizes film type segments. The type images are on a negative-type photographic emulsion and when light is flashed, the type images are projected.

"Bert Dees, George Kraus, and I are always being kidded since we started working in the clean room." Freericks commented. "We have to wear light blue dacron jump suits, surgical hats, and cloth booties over our shoes when we enter the clean room, so everybody invariably asks us how many babies did we deliver today."

"Bert works mainly on the type turrets for PhotoTextSetter '2000' and George on the film type segments for the '8000'," he added. "Fairchild engineers designed and built the type generation equipment to make type turrets and film type segments. It is capable of holding tolerances to plus or minus 1/10,000 of an inch."

After the type turrets and film type segments are made, they are checked on a Nikon Optical Comparator which enlarges the type image hundreds of times. The film type segments on PhotoTextSetter Model "8000" are also checked for alignment and fitting on a Mann Comparator. This instrument can read plus or minus one micron and costs approximately $25,000. These are only a few of the critical checks that the type turrets and film type segments have to pass before they are shipped to customers.

Next time you're reading a beautifully printed book or magazine, pause for a moment in your reading to look closely at the type. Many talented men were involved in designing that type for your reading pleasure.

BERT DEES, a chemist who works in the clean room, adjusts a control valve on the temperature controlled darkroom sink.

WORKING OVER THEIR DRAFTING tables in the Type Design Department are Ray Pell (foreground), Ray Lauble, Ronald Puleo, and Salvatore Barlotta. (Not shown are Patricia Malarkey, Mary Burke and George Austin.) These artists represent more than 50 years of experience in the type design field.

Hong Kong Service Awardees

A "Fairchild First" has been marked at Fairchild Semiconductor Ltd., of Hong Kong. At the end of the past year, 50 employees of the Semiconductor Division's overseas assembly facility marked five year service anniversaries. This was the first time service awards had been distributed at the Hong Kong facility, General Manager Jim Diller made the presentations.

Semiconductor Had A Lot Riding On Apollo

Last month, VIEWS reported on the key role Fairchild Space and Defense Systems' lenses played in the successful Apollo 8 moon orbit in December.

But just as FSDS had a lot riding on Apollo — so did the Fairchild Semiconductor Division. Thousands of Fairchild monolithic circuits were in the guidance computers, the gyro system, and the instrumentation unit located in the collar between stages of the Saturn rocket. Semiconductor is also supplying devices for the guidance computer in the LEM (Lunar Excursion Module) that will eventually land on the moon. In fact, Fairchild's been on the way to the moon for a long, long time. All the integrated circuits on Lunar Orbiter were made by Fairchild Semiconductor. More than 1000 IC's in each unit were used in flight control and computers. And, in the Gemini Series, 40% of all components were made by Fairchild.

As for the Apollo program, the main guidance computer is built with Fairchild parts—over one million RTL (Resistor Transistor Logic) units. *In a refined version of the original Apollo computer, dual 3-input RTL's were used rather than single 3-input RTL's. This change enabled a smaller computer to be used, and herein lies the basis for recent advancements in the U. S. space programs.*

A computer large enough to handle Project Apollo, if made with vacuum tubes, would be as big as a warehouse. All the power generated by Hoover Dam would be required just to cool it. Even at that, this imaginary computer would not perform to necessary standards.

For example, the speed of a computer is dependent mainly on the distance an electric impulse must travel through the circuitry. In our warehouse computer, with its miles and miles of wiring, facts stored in memory (second floor, northeast corner) would be out of date before they could be located and transferred to the central processing unit (ground floor, west annex) for use in real-time space monitoring.

Using Gemini's on-board computer as an example, the significance of progress in electronics becomes even more impressive. In the first place, only recently did the United States develop a rocket engine with thrust sufficient to orbit an object as heavy as a pre-semiconductor computer. And even these antiquated machines could never have done the job — their memory and speed were insufficient to handle the myriad calculations involved in a mid-course maneuver.

Even the transistors of 1957, while suitable for portable radios and other limited applications, could not have been used in such NASA projects as Apollo and Surveyor. For germanium transistors, then in use, could not withstand high temperatures without danger of burn-out and at the same time allow the degree of exactitude and stability accepted as common-place in all present space-age applications.

The extremes of temperature in outer space necessitate a much greater operating range. The solid-state devices in Surveyor 1, for example, had to function in the extreme cold of *the lunar night and continue without burning up during the lunar day. Similarly,* while no industrial manufacturer expects to drop his product from a second-story window, equipment for space exploration or combat conditions must be able to withstand such an impact.

Solid-state reliability stands behind all these exceptional space-age advancements, and Fairchild reliability records are indeed impressive. They have led to the wide use of Fairchild devices in major missile and satellite programs where performance has proven the reliability expressed in test records. Major programs using Fairchild products include Poseidon, C-5 Aircraft, Polaris, LEM, Pioneer, Symcom, Surveyor, Lunar Orbiter, Advanced Minuteman, Apollo, Gemini, Saturn, Manned Orbiting Laboratory, Sprint, Loran-C, IHASS, and Nimbus.

This is, indeed, the age of the space age semiconductor.

15-10-5-Year Service Awards

10 Years

John Healy, Space-Defense Systems
Sanford Abramowitz, Space-Defense Systems
Donald Ronning, Space-Defense Systems
James Adie, Space-Defense Systems
Myra Landolfi, Semiconductor
Esther White, Semiconductor
John Ronald, Semiconductor
Archie Twombly, Graphic Equipment

5 Years

Marino Calabrese, Space-Defense Systems
Thomas McDonagh, Space-Defense Systems
Henry Mlodynia, Space-Defense Systems
Barbara Metz, Space-Defense Systems
Ira Schwartz, Space-Defense Systems
Ivan Karpin, Space-Defense Systems
Robert Healy, Space-Defense Systems
John Trytek, Graphic Equipment
Charles Martin, Graphic Equipment
John Miller, Graphic Equipment
Don Hartman, Graphic Equipment
Leroy Parker, Graphic Equipment
James VanderVlis, Industrial Products
Mary Richardson, Controls
Shirley Johnstone, Instrumentation
Nancy Johnson, Instrumentation
Doris Connally, Instrumentation
Dayle Parkes, Instrumentation
Virgil Klein, Instrumentation
Alfonso Briones, Instrumentation
Richard Portillo, Instrumentation

5 Years
Semiconductor

Barbara Archer	Dick Bader
Lynda Valeriani	Maurice Chidlow
Dorothy Murphy	Henry Heckendorn
Ruth Conley	Ben Stelzriede
Mary Maley	Tom Littlefield
Doris Tibbetts	Alice Nishijima
Jean Burdwood	Tomasa Salcido
Judith Bowley	Dorthy Kleiman
Ruth Lamb	Margaret Padilla
Harry Gould	Rita Marie Dyer
John Scully	Harry McCall
Margaret Merrill	Gottfried Herla
Barbara Davis	Barbara Vago
Lulu Hicks	Stephen Truitt
Sandra Johnson	David Duncan
Mary Trotter	David Courtis
Wanda Duer	Ben Curiel
Helena Noales	Geraldine Dollar

BACK FROM VIETNAM

Mechanical Assembler Kevitz Gets First-Hand Look at His Handiwork

Less than a year ago, Lou Kevitz never figured he soon would be in Vietnam overseeing the installation and maintenance of Fairchild aerial cameras in U. S. Army aircraft.

At the time, Lou was a mechanical assembler for Space and Defense Systems' Production Department. From 8:30 to 5 each day he helped assemble the intricate parts of those aerial cameras. In fact, he had been doing the same job for over five years.

Then the great transition came about. In May of '68, the former mechanical assembler left the sedate and secure confines of FSDS' Syosset plant for foreboding and unpredictable Vietnam.

"Our Field Service Department wanted a tech rep with detailed mechanical knowledge of our panoramic cameras. So I applied for the job and got it. It was as simple as that," says Lou in a bit of understatement.

LOU KEVITZ looks over the forward oblique installation of the Fairchild KA-60B panoramic camera in the U. S. Army Mohawk aircraft. Lou just returned from a seven-month tour of duty for Fairchild in Vietnam.

Lou is back home today — much wiser for his field experience and with a new appreciation of his old job. In the seven months he spent in Vietnam with the 245th Aviation Company, the Fairchild KA-60B panoramic camera, and the Army's Mohawk aircraft, he was kept busy hopping, via military aircraft, between four Army bases. These stretched along a 250-mile perimeter from Tuy Hoa in Central Vietnam to the Demilitarized Zone in the North.

"My feelings . . . impressions? They're fixed," he says. "It was a new experience for me. I had been putting these cameras together for more than five years yet I never saw them in actual operation. I'm impressed. They work fine. In all the time I was over there and through all the missions the Mohawk flew, our cameras never had a malfunction. What's more, the thousands of feet of film they exposed were just as sharp as you could expect. Contrast and resolution were excellent. Not meaning to boast, but we must have been doing a good job when we assembled these cameras back in Syosset."

Installed in the nose of the Mohawk in a forward oblique configuration, the workhorse KA-60B was used to spot troop infiltrations, locate helicopter landing zones and in general surveillance support of ground tactical missions.

Because of the mountainous terrain in the north, the 70mm camera was most effective in low altitude surveillance (from 200 to 500 feet) and says Lou, "It did some job. It could pick up just about anything on the ground — even enemy hideouts. At least they thought they were hiding out. But the way our camera could probe from a 20 degree angle along a 180 degree sweep, little or nothing could be concealed from it."

Lou's home base was a little spot called "Marble Mountain" in Da Nang — more commonly referred to by Army personnel as "Rocketville". "That's because we had more than our share of rocket and mortar attacks," he said. "But you learn to live with that and the weather."

Lou's future plans probably don't include another Vietnam tour. "More likely," he says, "I'll be back on the bench assembling these cameras. I'm satisfied, though. Now I know how the other half lives."

FSDS Begins Series of Televised Courses in Management Training

Fairchild Space and Defense Systems' Employee Relations Department, under the direction of manager Joseph Fitzpatrick, has inaugurated a noontime series of management training courses in conjunction with its presentation on Long Island's first television station, WLIW (channel 21).

WLIW began its full broadcasting schedule on January 27 and on that same day, presented the first part of a 26-program series entitled, "Managers in Action." It will be presented twice weekly on Mondays at noon and Fridays at noon in the training room at FSDS' Syosset headquarters plant until the series concludes on July 25th. Following the television presentation, a critique will be held on the principles discussed in the film.

Presented as a management training service for business and industry, the series was prepared by the American Management Association. This program is the same that is presented by the AMA as part of its educational series "Management in Action" affords new insight into the role as a manager and into the manager himself. It concerns itself with the principles and practices of good managerial practices.

Lawrence A. Appley, President of the American Management Association, is conducting the series of programs.

IRV HEINKING, FSDS mailroom supervisor, looks over his collection of woodworking creations. In case you can't identify them, the objets d'art are (l to r) a napkin holder, corner cabinet, cobbler's bench, clock planter, grandfather clock, wall planter, cracker tray and wishing well.

Woodworker's Forte is Grandfather Clocks

"There are plenty of guys interested in woodworking," says Irv Heinking, "you don't want to talk to me."

"But that's precisely why we're talking to you," we answered, "Everybody's interested in woodworking and besides, they all don't make grandfather clocks."

Irv is mailroom supervisor for the Landia plant facilities of the Space and Defense Systems Division and — as evident in the picture above — he spends much of his free time making wooden knicknacks like grandfather clocks, wishing wells, corner cabinets and even a bird that says, "No stamps sold before 10:30."

Though he soft pedals it, Irv's particular talent probably is geared to making those clocks — both decorative and functional. The one pictured (inset) was made as a Christmas gift for Marge Kaseler, who supervises the Landia communications facilities (telephone and mail). It was made from ½" white pine. The design was adapted from a picture; the pattern traced on the wood and cut out on a jigsaw.

The clock comprises 10 separate pieces all glued together, then stained and shellacked. Only four screws, fastened through the back and barely visible, hold the front panel on to the frame. The timing works were purchased from "an old reliable watchmaker". No electrical wiring is necessary because power is furnished by a single D battery.

The clock pendulum — "Of course it's only an ornament," Irv says — is a piece of brass wire. The weight is also made of brass and soldered to the wire. Both winding chains hanging alongside the pendulum are made of thinner brass wire. Completely assembled, the clock stands about two and a half feet high and "works like a charm," (according to Marge).

Besides Marge's grandfather clock, Irv made a couple of others including a miniature one that stands about 7 inches high and is made from ⅛" wood paneling.

He has a complete work shop in his Bellerose, New York home which includes a jigsaw, a circle saw, lathe, all size chisels and just about every type of hand tool on the market.

How much time does he spend at his hobby? "It could be only a couple of hours a week. It could be many more; usually whenever the spirit moves me," he says.

Many times, too, it's when he feels a need to make something. To make his Landia mailroom a bit more functional and decorative, he carved out several "cubbyhole" wall shelves to hold mail accessories (labels, stamping tools) and a plant stand.

As for the bird, Irv carved that from a picture and then glued the picture cut-out on to the wood. After lettering the sign, "No stamps sold before 10:30," he fashioned it into the shape of a cartoon balloon and mounted it alongside the bird.

"It serves the purpose, too," Irv says. "People never read the old conventional sign I used to have on my desk. They don't miss this one, though."

Name Ufen BSA Dist. Commissioner

George R. Ufen, Western Manager of Marketing and Sales for FAIRCHILD/ELECTRO-METRICS CORPORATION, has been appointed District Commissioner of the Boy Scouts of America, Verdugo Hills Council, covering the Glendale and Eagle Rock areas.

George has been active in Scouting since 1943. He holds the Scouters' Training Award, and is a Brotherhood member of the Order of the Arrow. He has served in many capacities in the Cubs, Scouts and Explorer programs. He also served on the Commissioners staff. His wife, Sandy, is a Brownie leader; daughter Riki is a Brownie. He also has a younger son, Karl.

George is also active in the I EEE, advancing through the ranks of the Los Angeles professional society as secretary-treasurer and chairman. He was vice chairman of the 1968 Symposium, EMC; one of the liaison officers of the 1969 Symposium, and is National Chairman of the 1970 Symposium.

FAIRCHILD VIEWS

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Photographer ..... Phil Kaseler

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Graphic Equipment ..... William Condit
Semiconductor ..... Judy Horst
Instrumentation ..... Judy Horst
Industrial Products ..... Peggy Schinnerer
Electro-Metrics ..... Dale Samuelson
Electron Tubes ..... Kathy Pfefferkorn

New LIC Brochure to Aid Second Generation Designs

A 28-page brochure which will help electronics engineers solve complex design problems by means of Second Generation linear integrated circuits is now available from Fairchild Semiconductor.

The brochure is titled "Fairchild Second Generation Linear Integrated Circuits" and is organized into three parts. Section I describes seven off-the-shelf Second Generation devices and provides all the information needed to incorporate them into circuits. The Second Generation series, introduced to the market in 1968 and 1969, comprises a family of advanced linear circuits which are more complex and more application oriented than any circuit family previously available. Section II discusses applications for these products, while Section III outlines electrical characteristics and parameters that will appear as tomorrow's standard products.

Automated Environmental Systems Acquires FSDS-Woodbury Operation

The assets of the Environmental Systems Operation of the Fairchild Space and Defense Systems Division have been purchased for an undisclosed sum of cash by Automated Environmental Systems, Inc. a New York Corporation, whose stock is held by an investment group represented by R. W. Pressprich & Co., Inc.

The Fairchild Environmental Systems Operation is a leader in the development and manufacture of automated monitoring equipment applicable to air and water quality surveillance. In excess of one hundred of its automated systems are in operation throughout the United States, Canada and Europe.

Automated Environmental Systems, Inc. will continue operations in the facilities heretofore occupied by Fairchild at Woodbury, New York and all key personnel of Fairchild have been retained by the purchaser.

Hogan Address Keynotes Conference

(Continued from page 1)

planning," he said.

The objectives of the conference were to develop a spirit of team work between the divisions and the corporate staff, to set up monthly operations review meetings to communicate the current status of the divisions and to initiate a new system of planning between the divisions and the corporation.

In outlining the conference theme, "Project '69 — Predictable Performance", Director of Planning Thomas Hinkelman stated, "The divisions must be able to measure, control and predict their performance in the short and long range. In 1969, operational reporting will be developed to provide objective and timely short range performance and planning initiated to provide predictable long term performance. The theme, 'Project '69 — Predictable Performance' defines a major goal for the divisions and the corporation during 1969."

"By 1975, Fairchild could be a billion dollar corporation with its net equalling today's total sales. There could be 1,000 new executive jobs created and five to six million additional square feet of plant space available for 65,000 to 75,000 employees," Hinkelman said. "This is not a plan and not a forecast but the basis for our strategy and planning."

Joseph Van Poppelen, Vice President and Director of Marketing, told the group that "Steady, profitable growth is our corporate objective."

He said that in planning of new products, each division must define its total market and its segments, select a specific segment, plan products which meet a specific need in those segments, plan a strategy to sell into the market segment and then sell the product.

In addition to the presentations by members of the Corporate staff, workshop sessions were held to develop the criteria and measurements for the operational review meetings of each division. The comptrollers as a group, the marketing personnel as a group, the general managers as a group and the operations managers as a group met on the afternoon of January 22 to develop ideas for the presentation of operational measurements. That evening each division met in a workshop to define their operational review meeting criteria. The following morning selected General Managers reported on the result of the workshop sessions.

In addition to Dr. Hogan, Hinkelman and Van Poppelen, presentations were made by George Pfifer, Vice-President, Finance; George Scalise, Group Director Manufacturing Services, Semiconductor; James B. Moore, Corporate Director of Information; John Field of the Corporate Planning staff; Leo Dwork, Director of Research and Development, and Jack Kabel, Group Director of Research, Semiconductor.

Schreiner Instrumentation G. M.

(Continued from page 1)

in the test systems business.

Dr. Hogan added, "Bob Schreiner brings to this position a very long and successful career in electronic systems and probably one of the best understandings in the United States of the technical revolution that is now taking place in this industry."

A native of New York City, Schreiner was graduated summa cum laude from Brooklyn Polytechnic Institute (BSEE) and has done graduate study at Stanford University and UCLA. Prior to accepting his present position, he was Manager of the Custom Arrays Department of the Fairchild Semiconductor division, with responsibility for Fairchild's Micromatrix, Micromosaic, and Semiconductor Active Memory programs, as well as Computer Aided Design. He joined Fairchild in February, 1966, coming from General Electric where he was manager of the Advanced Peripheral Equipment Laboratory.

Ulrickson Replaces Schreiner

Robert W. Ulrickson has been appointed to the position of Department Manager of the Custom Micromatrix Arrays Department of the Semiconductor Division to replace Mr. Schreiner. Announcement of the appointment was made by John L. Sentous, Director of Integrated Circuits Systems and Support Operations.

How's That Again?

A somewhat incredulous Ching Ling Tseng (better known as Jim) looks over the patent application recently filed for his invention of an extremely accurate Time Base Generation for a Universal Counter/Timer. Jim, a member of the Intrumentation Division's Technical Staff — Advanced Development Instruments, received $100 under FCI's Inventions Incentive Awards program. Looking over his shoulder is George Smith, manager of Advanced Development Instruments. Jim is a former lieutenant in the Nationalist Chinese Air Force. He joined Fairchild in February 1962 after receiving his BSEE from National Taiwan University and a Masters in Electrical Engineering from San Jose State University.

SAFETY SHORT

Where Necessary – Wear the Goggles

The following "affidavit" may be somewhat harsh. But it's intended to hit the production worker squarely between the eyes – rather than he (or she) be hit in that same vulnerable spot by a piece of flying metal or any other potentially dangerous object. The same explicit message also is aimed at all other Fairchilders who visit or have business in a plant area where safety measures are expected to be observed.

WIFE'S AFFIDAVIT

I, _____, hereby authorize my husband to work without wearing goggles, safety shoes, hard hat, or any other safety equipment and hereby promise that I will, without complaint, perform the following duties in case he is blinded or crippled:

1. *Lead him wherever he wants to go.*
2. *Help him dress and eat.*
3. *Describe the scenery to him on our vacations.*
4. *Read to him instead of watching television.*
5. *Describe the way the children's eyes light up at Christmas time and what their graduations and weddings are like.*
6. *Teach him to do housework so I can get a job to support our family.*
7. *Do all the work around the yard and garage that he used to do.*
8. *Teach our little boy how to play ball, build model airplanes, fish and hunt.*

Signed_____

Wife

Answer to: REMEMBER WHEN?

As we said, the year was 1943 – the first one for the Fairchild Aviation Corporation's baseball team. Oldtimers will remember only a few months later we became the Fairchild Camera and Instrument Corporation. Sports-minded oldtimers also will remember that the team compiled a good record in those years against top-notch industrial teams. A number of good hitters made it possible: men like team captain Dick Marz, Mike Bellack, Guy Boccio, Irving "Red" Brown and Bob Spotto. Yes, you guessed it. They're the five pictured here who are still with Fairchild. But for those veteran Fairchilders who knew them when, let's identify all of the team members. Kneeling (l to r) are: Phil LiAntonio, Bob Spotto, Sal Salvaggio, Guy Boccio and Mike Bellack. Standing (l to r) are: Red Brown, Charles Stock, Pete Mathe, John Ewasaw, Wilbur Knorr, Dick Marz, Charles Preuss and Frank Postorino.

FSC's Gifford Speaks at IC Seminar

Jack Gifford of the Fairchild Semiconductor Division was one of nine engineers from all phases of the electronics industry who spoke at a one-day seminar on integrated circuitry held on February 11th in Los Angeles. Mr. Gifford's topic was: "A Variety of Linear Applications".

The speakers discussed linear circuits in communications equipment, digital equipment and consumer products. The approximate 700 engineers, who attended the seminar, viewed the latest developments in linear integrated circuit design techniques and problem solving procedures.

Award-Winning Weekly Installs News King Press

The Box Elder News and Journal, award-winning twin weeklies of Brigham City, Utah, recently installed a three-unit Fairchild News King web offset press.

The News, published Sundays, has an ABC circulation of 3,991 while the Journal, issued on Thursdays, has 3956 ABC. While the twin-weeklies have been offset for the past five years, printing was done in a central plant at Murray, Utah, some 60 miles away.

Charles W. Claybaugh, publisher and past president of the National Newspaper Association, said he selected the press because "it best fits the type of jobs we print." He added they plan to print newspapers, shoppers, publications, and commercial work on the press.

Committeeman of Year Award to FSDS' Maisel

Jack Maisel of Fairchild's Space and Defense Systems Division has been named a winner of the second annual Democratic "Committeeman of the Year" Award which honors an outstanding party committeeman in each of Nassau County, New York's 12 Assembly Districts.

The awards are given for community and party service. Maisel was presented with an engraved plaque and a watch by County Chairman John F. English on Sunday, January 19th, at the Nassau Democratic Committee's Annual Reception, honoring the 1968 election winners, at Roosevelt Raceway.

LATIN MUSIC MAKER

Space-Defense Systems' Marrero Becoming Name on Record Charts

For the past four years Sam Marrero has been a mechanical assembler for the Space and Defense Systems Division. His Fairchild friends say he's quiet and reserved, and if they had to guess his "hang-up", they probably wouldn't think of him as the lead singer in a rock and roll group.

But that's just what Sam is. A few minutes before 5 o'clock, his Latin blood begins to bubble a bit with anticipation, he squirms almost imperceptibly in his chair and his foot begins a faint, compulsive tapping beneath his work bench in a silent effort to keep time to the soft song forming on his lips.

Sam Marrero

Sam is one of a quartet of singers of Puerto Rican ancestry who call themselves the "Latin Souls". We didn't need to say we hadn't heard about their group. Sam told us.

"We're not well known on the American music market," he says, "at least not right now. But someday we hope to make a splash. In the meantime, we think we're doing pretty good in our own circle."

In that circle, the Latin Souls have made two albums, one of which already has sold over 80,000 copies and has given the group something of a name in the Latin music market. In case you may want to buy one of the records, their names are: "Boogaloo and Shingaling" and "Tiger Boogaloo". Sam says all of the Latin music stores carry them and radio's "Symphony Sid" often plays them. Both albums are on the Kapp label.

One of a family of eight, Sam has been singing since he was 13. He's now 27 and a bachelor. Nominal business manager of the Latin Souls, he makes all their bookings but hastily adds, he does it through some half dozen agents who have secured some "nice dates" for the group but certainly haven't made them rich.

"No," he diffidently says, "we don't make any money from our albums. We gave up the royalties in exchange for weekend and sometimes week night singing dates. We've appeared at the 'Cheetah' at 57th Street in New York. We had a month at the 'San Susie' club on 126th Street. We've played one night stands at the New York Coliseum. We did several shows at the Palisades in New Jersey and we've appeared on channel 47 UHF-TV in Newark on at least 20 occasions."

Sam, who sings tenor, claims his group doesn't pattern themselves after any other singing group. They like "The Four Freshmen," "Flamingos" and "Moonglows" but feel they – and their style – are just as good Their only accompaniment is a guitar and their "good sound" is amplified by a sound system in which they invested $750 of their earnings.

Oh yes, Sam emphasizes they all have tuxedos and will travel,

New Semiconductor LSI Brochure

A 44-page brochure describing MOS/LSI integrated circuits and other recent MOS IC products is now available upon request from Fairchild Semiconductor.

The 8½ by 11 inch reference guide provides a section on MOS standard off-the-shelf products and a second section on custom MOS arrays, including Micromosaic® arrays developed by Fairchild to satisfy low engineering cost and fast turnaround time requirements. Illustrative charts and diagrams accompany the text.

The standard products section features a series of one-page specifications for Fairchild's complete line of MOS circuits.

Elect Dreher to Church Vestry

William Dreher, Operations Manager of Management Information, Corporate-East Coast; has been elected to the vestry of St. Thomas of Canterbury Episcopal Church, Smithtown, New York. Mr. Dreher will serve for a term of three years.

Top Instruments Salesman

Until another "record-breaker" comes along, Del Aquila, senior sales engineer for Fairchild Instrumentation, holds the record for the largest amount of sales booked in a single month — $68,000 — by a member of the Instruments Group. Accordingly, Del was presented with this plaque by Frank Burge, (right) director of marketing for Instruments. Witnessing the presentation is Lu Ross, Instruments group manager.

THE FAIRCHILD SPORTS SCENE

by Dick Marz

East-West Bowling Tournament

A total of 15 teams again will compete in this year's tournament scheduled to start on March 3rd and to run for four successive weeks, ending on March 24th.

The teams will come from Fairchild divisions on the east and west coasts, the midwest and New England. The lineup includes the following: Controls, FSDS-Copiague, Semiconductor-Diode, Du Mont Electron Tubes, Electro-Metrics, Graphic Equipment-Plainview, Graphic Equipment-Joplin, Industrial Products, Instrumentation, Semiconductor-R & D, Semiconductor-Portland, Semiconductor-Mountain View, FSDS-Engineering, FSDS-Syosset and Controls-Mountain View.

Members of the competing teams are the top ten bowlers who regularly compete in the Fairchild intramural league at their particular divisional facility. Each bowler must have bowled at least 12 league games on or before February 17, 1969.

Awards will go to: (1) The team knocking down the most pins over the four weeks of tournament play. (2) Team that bowls most pins above its average over the four weeks of tournament play. (3) The bowler who shoots the highest single game in the four weeks of play. (4) Bowler who shoots the second highest single game in the four weeks of play.

No team may win more than one award.

L. I. Men's Bowling

With the season in its last quarter, the always highballing SAINTS have moved into a first place tie with the CELLAR DWELLERS. Both teams have 156-64 won-lost marks. Not too far removed in the third spot are the STRIKES (144.5-75.5) and right behind are the DUKES (140-80). Bringing up the fifth and sixth places are the SPARES (129.5-90.5) and ANCIENTS (128.5-91.5).

Top bowlers to date averagewise are: Mike Bellack (182), Hank Carter (181), Nat Simon (179), Art Twyman (178), Mario DeMasi (177), Ken Anglin (176) and Jim Econ (175).

L. I. Mixed Bowling

The 5 HOODS have taken over the top spot from the SUNSHINE CO. The new leaders have moved in with a 124.5-62.5 mark and are looking better each week. Top bowler on the quintet is Hank Carter who doubles in the Men's League. In the Mixed competition he has a 169 mark. However, this doesn't quite measure up to his Men's mark of 181. Best of the gal "Hoods" is Joan Jordan with a 125 average. Trailing the two leading teams, in order, are the always dangerous V.I.P.'s (113-74), the CAMERAS (103.5-83.5) and the PSYCHEDELICS (102-85).

In the individual competition, Al Kohler (180) and Bob Welch (173) still top the males while Dolores Benenate with a 144 mark leads the ladies. Ruth Lyon is runnerup with a 139 average. High games thus far have been rolled by Hank Carter (247), Al Kohler (244), Pete Lampasona (238), Jean Hosking (200) and Ruth Lyon (200).

Drive Safely in Any Weather — Here's How:

No matter what you eastern-based Fairchilders roll on this winter, snow tires with cleats, ordinary snow tires, or a set of regular treads (fairly new, it is hoped) take these few suggestions from the experts and, in general, driving this winter will be considerably easier:

(1) On ice, don't hit the brakes.
(2) Turn INTO a skid, not away from it.
(3) When stuck in heavy snow, rock your car back and forth, don't try to pull straight out.
(4) Make sure your battery is in good condition and filled.
(5) Make certain you're using a winter grade or all-season oil.
(6) Don't let your fuel tank get too low.
(7) If possible use a winter-blend gasoline.
(8) Place filled sandbags, or something else heavy, in the luggage compartment — but as far forward as it will go.
(9) In extremely icy conditions, if you aren't using lugs, let a little air out of the tires.
(10) Check windshield wipers to be sure they aren't rusty and ready to fly off.

The number one rule for winter driving, of course, is don't push and don't panic. Take it "slow and easy." And, as any state trooper will tell you, the surest way to stay out of trouble winter, summer, spring and fall, is to keep an eye on every other driver — stay away from him. If you're too close to a car that's headed for trouble, you could be in trouble too.

For Outstanding Achievement . . .

Ted Gearhart is no longer on active duty with the U. S. Navy but its loss is Fairchild's gain. Formerly Lieutenant Gearhart and now office manager for Fairchild Controls' San Diego facilities, he spent the past three years (until November, 1968) as Personnel Officer at the Naval Amphibious Base, Coronado, California. He did such a good job of reorganizing the personnel operation for the administrative processing of hundreds of personnel per month for survival training prior to duty assignments in Vietnam that the Navy awarded him the Navy Achievement Medal. Commander H. S. Tilley (L) presented him with the medal and citation shortly after his separation from active duty in October. Witnessing the presentation is his wife, Jerri. Ted served 23 years with the Navy.

SAM PELLEGRINO (L) AND GENE MANTIE — FIRST PLACE.

KEN BERDAN (L) AND MICHAEL SINCAGLIA — SECOND PLACE.

ROBERT PERPIGNANO (L) AND STANLEY PAULOSKI — THIRD PLACE.

TOM CORBETT — LONGEST DRIVE; JOE MARKOVICH — LOW NET; STAN PAULOSKI — CLOSEST TO PIN. (L TO R)

Never Too Cold For Indoor Golf . . .

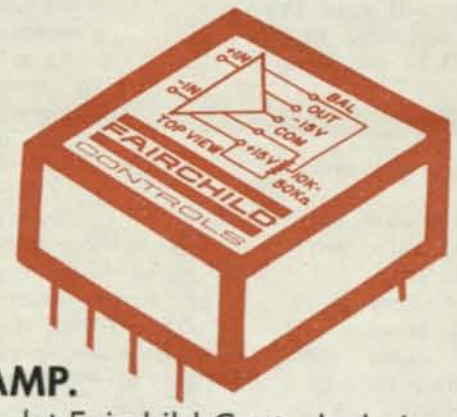
It's usually too cold for golf on eastern courses this time of the year. But it's never too cold for golf dinners. They held one of them recently at the Haworth Golf Club in Paramus, New Jersey for the members of the FSDS-Paramus Golf League. Besides the good food and fellowship, they also passed out trophies to the "better" golfers. Of course, some people might debate that point but for better—or worse—here they are.

FAIRCHILD
CONTROLS

PRESENTS

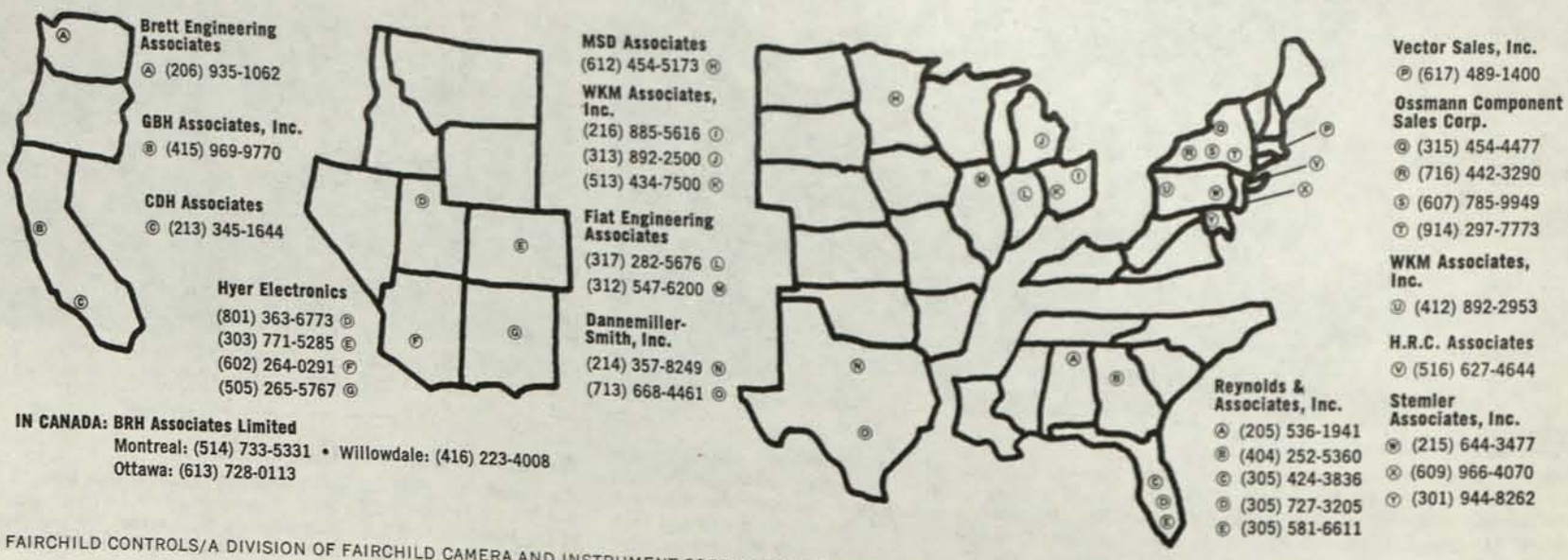
THOROUGHLY MODERN MODULE

STELLAR PERFORMANCE FET/IC CIRCUIT <2μV/°C! NATIONAL SHOWINGS



FAIRCHILD'S NEW ADO-26B FET OP. AMP.

If you are combining dual FETs with an IC op. amp., let Fairchild Controls do it for you. Just ask for the new ADO-26B. Guaranteed Specifications: Drift, <2μV/°C; Gain, >100,000; Drift vs. supply, <100μV/V; CMRR, 86 db. Other modern modules guarantee <5μV/°C and <50μV/°C. Ask for Fairchild Controls' new amplifier catalog available from the engineering representatives listed below.



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FAIRCHILD CONTROLS/A DIVISION OF FAIRCHILD CAMERA AND INSTRUMENT CORPORATION/Modular Products Facility/423 National Ave./Mountain View, CA. 94040/(415) 962-3833

Editor's Note: This is one of a series of typical Fairchild advertisements which are being reproduced in Views to acquaint employees with the efforts being made by various divisions.

(United Press International Photo)

FSDS Lenses Put on Apollo 'Spectacular'

At some point during Christmas week almost everyone who owns a television set saw one or another of the television spectaculars put on by the crew of the Apollo 8. Many people saw and heard about the 4.5 pound television camera produced by R.C.A. However, they also should know that the Precision Optics Operation of the Space and Defense Systems Division in El Segundo produced the "eyes" of the camera.

Two types of lenses were designed and developed specifically for the Apollo cameras — a wide angle 160° f/2.0 lens which was used to show the activities of the astronauts inside the spacecraft. This one picked up the famous floating toothbrush of James Lovell and the spaceborne version of a Christmas TV dinner.

The 100mm telephoto lens produced "out-of-this-world" pictures of the earth from distances as great as 220,000 miles away. It may also have contributed to the disillusionment of millions of romantics by showing the surface of the moon as it really is.

FAIRCHILD VIEWS

Volume XVI, Number 1 Fairchild Camera and Instrument Corporation January, 1969

STAN Now Aboard All Presidential Planes

The highly successful installations of STAN Integral Weight and Balance Systems aboard Air Force One and the number one backup plane (AF-2) have prompted the U.S. Presidential Airfleet to install the system on the balance of their fleet.

Fairchild Controls has received a contract for two additional STAN systems plus spare systems and test equipment which calls for early 1969 delivery to the 89th Military Airlift Wing, Andrews AFB for immediate installation on the two remaining 707 aircraft in the fleet.

Crew reports obtained indicate that STAN is performing its job with excellent accuracy and reliability. The system is producing data well within its operational tolerance of ±1%.

Award FSDS-Copiague $4,600,000 Contract

The Department of the Navy has awarded a contract in excess of $4,600,000 to the Copiague Ordnance Operation of Fairchild Space and Defense Systems for the high-volume production of MK344 electric bomb fuzes.

In announcing the order from the Naval Air Systems Command, Washington, D.C., Robert A. Draghi, Jr., Operations Manager, said that the fuzes will be used in the MK81 series of high and low drag bombs. The fuze, *mounted internally in the center of the bomb, works in conjunction with the MK43 proximity sensor.*

The Copiague Ordnance Operation of FSDS, a leading producer of ordnance equipment, is producing large quantities of several other types of fuzes and safety and arming devices for both the U.S. Navy and U.S. Army.

Polk Appointed President of MGM

Louis Polk, elected to the board of directors of FCI in November, has been elected to the board and appointed president and chief executive officer of Metro-Goldwyn-Mayer Inc.

Mr. Polk, 38-years-old, succeeds Robert H. O'Brien as president of the motion picture firm. His appointment was announced immediately after the MGM annual meeting on January 14th.

Most recently, Mr. Polk had been a director and financial vice president of General Mills, Inc. He is also a former member of Lyndon Johnson's Commission on Civil Disorders and was a director of special projects for President Nixon's national deputy campaign manager.

New Corp. Duties for Pfifer, Stone

The election of George T. Pfifer as treasurer and Nelson Stone as secretary of Fairchild Camera and Instrument Corporation, effective January 1, has been announced by the board of directors. Mr. Pfifer and Mr. Stone assume these responsibilities in addition to their duties as vice president — finance and vice president and General Counsel, respectively.

George J. Wade, who had been secretary and treasurer of the corporation, retired on January 1, 1969, but continues to serve as a consultant on the corporate staff.

Mr. Pfifer joined Fairchild in September, 1968 from the American Express Corporation where he was a senior vice president.

Mr. Stone has been with Fairchild since January, 1957. He was elected an assistant secretary for FCI in 1959 and vice president in July, 1968.

Ready to Fire

Two U.S. Army "tankers" load a Shillelagh anti-armor guided missile system aboard an M60 A1E1 tank This missile contains the M805 safety and arming device (see photo inset), which is being produced in large quantities by Space and Defense Systems' Copiague Ordnance Operation. Over 42,500 of these devices have been produced by FSDS. The Shillelagh missile system was recently put through a highly successful series of test shots to determine the system's performance in extreme varying weather conditions. (Photo—courtesy of ORDNANCE magazine, journal of the American Ordnance Association, Washington, D.C.)

A Tradition Passes On

The Christmas season is past but the memory lingers on. In this case it's a 50-year-old sleigh which has been in the John Sheehan family for nearly 35 years and for over 15 years before that, in the family of Mrs. Sheehan's father, the late Dr. Elwood A. Curtis of Hicksville, L. I. The sleigh, a bonafide cutter built shortly after the turn of the century, will still be in the Sheehan family but will pass on to another generation. John Sheehan, FCI director of security and safety, was recently transferred from Fairchild's former corporate headquarters facilities in Syosset to the new corporate headquarters in Mountain View, California. Before he left, he passed the sleigh (and Santa and the reindeer) on to his son, Brian, who lives in Southampton on Long Island. In place of the sleigh and reindeer, the Sheehans substituted the sign (shown in inset) in front of their old homestead in Wantagh, L. I.

FAIRCHILDERS TAKE NOTE:

You Pay More in '69 For Social Security

Starting with the first pay you receive in January 1969, the social security contribution rate for employees and employers goes up by 2/5 of one percent (2¢ on each $5 of earnings).

The following examples may help explain how individual take-home pay will be affected:

A worker who earned about $100 a week in 1968, or about $5,200 for the year paid about $4.40 a week for his social security. Under the new law, he will pay about $4.80 each week or 40 cents more.

Or, suppose he made $150 a week in 1968, or about $7,800 for the year. Then the 1968 social security contribution was about $6.60 each week. In 1969 he will pay 60 cents more, a total of $7.20 each week.

The monthly benefit of a worker whose average monthly earnings are $300 will be inceased upon retirement or disability from $112.40 to $127.10, and the benefit for a worker whose average monthly earnings are $400 will be increased from $135.90 to $153.60.

In future years, when a worker's average earnings covered by the law can reach $7,800, a retired or disabled worker will get as much as $218 per month.

Similarly, the protection wives and children have if the worker should die, and the protection the entire family has if he should become disabled for an extended period, is increased since family benefits may be as much as $434.40 a month.

Zero Defects Honor Roll

These employees of the Space and Defense Systems Division have taken ZERO DEFECTS action by initiating Error Cause and Removal Proposals for their Departments during the period October 1, 1968 through December 31, 1968:

Richard Barrett, Ernie Beltrani, Robert Clark, Philip Fasano, Dominick Guido, Frederick Hoffmann, Thomas Holmberg, Vincent Lombardi, Arthur Riegger, Angelo Ricca and Frank Vierra, Quality and Reliability; Louis Cerreta, Elmer Emmerich, Vincent Errera, Lorraine McNulty, Anthony Mannone, Edna Rogg and Frank Suomi, Manufacturing; William Kennedy, Optronics.

Busy I.R. Manager

George Manolakis, Industrial Relations Manager for Semiconductor's South Portland, Maine facility, says his day isn't always as "hectic." But during the course of a recent one, he helped to open a new restaurant and motel complex in the local area, ably assisted by Maine's Governor Kenneth Curtis (to his left) and other city dignitaries. He later drove to the University of Maine to participate in an evening telecast discussing the employment opportunities for the young people in Maine. George, who is also president of the South Portland Board of Industry, says he thrives on the activity as long as he has time for lunch.

Four FSDS Departments Complete Eight-Week 'Coordination' Seminar

An eight-week seminar geared to improving coordination and liaison between four key departments of the Space and Defense Systems Division was successfully completed on January 14. The Seminar aimed at increasing Engineering design performance.

The Seminar, which convened for four hours each week, was attended by personnel from the Engineering, Manufacturing, Purchasing, and Quality and Reliability departments.

Management of the four departments; Louis Pighi – Engineering; John Stonitsch – Manufacturing; Richard Lodato – Purchasing; and George Walsh–Quality and Reliability; organized the program, coordinated by Seymour Smith – Supervisor, Engineering Standards, for their particular presentations to closely adhere to seminar objectives. These were:

1. To explain to Engineering personnel the way Manufacturing, Purchasing and Quality and Reliability departments function.

2. To acquaint Engineering personnel with the problems and costs related to producing or purchasing the items they design.

3. To acquaint Engineering personnel with new production capabilities and design approaches required to take advantage of these capabilities.

4. To discuss Engineering problems which result from the operation of the Manufacturing, Purchasing and Quality and Reliability departments.

5: To demonstrate savings which can be accrued through the use of "Value Engineering" techniques.

Fairchild vendors also contributed to the seminar program. Representatives supplied films and discussed new production techniques directed toward resolving production and design problems experienced by Fairchild personnel.

In assessing the success of the seminar, Manufacturing Manager John Stonitsch said: "We organized the seminar primarily to acquaint each of the four departments with the other's operations and accordingly, improve each operation. I believe we succeeded. It should be made more feasible now for Engineering to design equipment which can implement or be easily adapted to Manufacturing, Purchasing, and Quality and Reliability's operations."

Send Surplus Equipment to Students

A 1½ ton shipment of obsoleted electronic equipment, valued at $31,000 when new, was delivered this week to Newark, Calif. public schools by Fairchild Semiconductor as a contribution to Newark's student science program. The assorted equipment – a bonanza to electronics and photography students but surplus to Fairchild – was presented by Don Visger (left), who heads the company's Equipment Fabrication Department at the Mountain View, Calif. headquarters. The pleased recipients are Loren Bainer (center), principal of the Newark Adult School, and Eugene W. Trask, head of the Vocational and Industrial Arts Department at John F. Kennedy High School. The equipment displayed includes a temperature gauge, a timer, and an audio generator, with several electric diffusion furnaces showing in the background.

Mr. Visger commented: "This equipment, which has served Fairchild for several years, will give the students of Fremont an opportunity to see what the semiconductor industry has been doing. As further equipment is obsoleted, Fairchild will continue its practice of donating such equipment to deserving schools in the San Francisco Bay area."

Congrats For A Contract

Smiles are appropriate as Fred Schmidt (L), Marketing and Contracts Manager for Space and Defense Systems' Copiague (L. I.) Ordnance facility, congratulates sales representative John Koehler upon receipt of a recent $4,600,000 contract award for the high volume production of electric bomb fuzes. Also pictured are (l to r): Andrew Gouzoulis, Ed Levy, Rubin Feinberg, Operations Planning Manager; and Alfred Jimenez. (See page one for contract story.)

Cockpit Voice Recorders Aboard Air Canada

Fairchild's Cockpit Voice Recorder, currently utilized as standard equipment by more than 75% of the major airlines in the United States, is now aboard Air Canada's jet fleet.

According to Martin Renger, Director of Marketing for the Aviation and Photo Products Group of the Industrial Products Division, the contract award for the Cockpit Voice Recorder systems represents a significant entry into the Canadian market for this product line. Air Canada, the leading Canadian airline, serves international as well as domestic routes.

The Fairchild Cockpit Voice Recorder system provides a mechanism for storing and recording all voice communications originating in the cockpit area, the Pilot's station, Co-Pilot's station and the Passenger Public Address system or third crew member station. The continuous, closed-loop tape is automatically erased 30 minutes after recording and can be totally erased by the pilot after a safe landing.

Housed in an internal protective enclosure with special thermal protection, the Cockpit Voice Recorder employs Fairchild silicon planar transistor circuitry to ensure and support a high reliability factor.

Constructed to withstand a force in excess of 1000 G's, survivability is assured by a high strength, stainless steel casing also designed for crush and shear protection. The Recorders meet and exceed all FAA requirements.

Semiconductor to Supply ICs and Transistors for Poseidon Missile

Raytheon Corporation of Lexington, Massachusetts has awarded contracts of undisclosed value for captive assembly lines to Fairchild Semiconductor to provide transistors and integrated circuits for the Poseidon missile.

Selection of the vendors, which include two other semiconductor manufacturers, was in conjunction with the U. S. Navy Strategic Systems Project office, responsible for Poseidon guidance and fire control, and Massachusetts Institute of Technology's Instrumentation Laboratory, designer of the Polaris and Poseidon guidance systems.

In providing a captive line, a manufacturer places separate and isolated semiconductor assembly areas under the direct supervision and control of the buyer. The semiconductor manufacturer staffs the activity and supplies both materials and facilities.

Greetings From Semiconductor

A gift of 5,760 decks of playing cards to American soldiers in Vietnam and to patients of West Coast hospitals was made by Fairchild Semiconductor as a gesture of good will during the Christmas season. The playing cards were accepted at Fairchild's Mountain View, Calif. headquarters by Staff Sergeant Franklin A. Craig, of the U. S. Army's San Jose recruiting station, seen here with part of the 144-case shipment. At right is Scott Christensen, distribution services supervisor for Fairchild. The playing cards were specially designed for a recently completed program to promote the company's line of transistor products.

Van Poppelen is Acting G.M. of Graphic Equip.

Joseph Van Poppelen, corporate vice president and director of marketing, has been named acting general manager of the Graphic Equipment Division, pending the selection of a new general manager for the division, according to an announcement by Dr. C. Lester Hogan, president and chief executive officer.

Mr. Van Poppelen's appointment to the interim post followed the resignation of Edward P. Tracht as general manager of the division on December 6th.

Paul Till, corporate director of product and market planning for the east coast divisions, has been named acting assistant general manager for the division by Mr. Van Poppelen. He will devote full time to the position until such time as a permanent general manager is named.

E. Coast Mgrs. Report to Hogan

In a realignment of east coast reporting responsibilities, general managers of all Fairchild east coast divisions now report directly to Dr. C. Lester Hogan, president and chief executive officer.

All east coast corporate staff employees now report directly to their functional department heads in Mountain View.

The realignment was announced by Dr. Hogan following the resignation of Edgar S. Hill, group vice president, east coast divisions, on December 6th.

Space-Defense Ships Last of Three Imagery Interpretation Stations

The last one of three Imagery Interpretation Stations (IIS) has been shipped by Fairchild Space and Defense Systems to the Texas Instruments Corporation. The IIS, which is used to support and assist the Photo Interpreter (PI), was designed, developed, manufactured and tested by Fairchild under a subcontract to Texas Instruments, prime contractor to the Aeronautical Systems Division at Wright Patterson Air Force Base, Ohio.

The mobile IIS unit, which is 76 inches high by 72" wide by 33" deep and weighs 1700 lbs., handles, displays and studies imagery transparencies in positive or negative form (black and white, and color) including all types of planar (frame) and panoramic aerial reconnaissance imagery, and also photographic records made through Side Looking Airborne Radar (SLAR) and infrared systems.

The IIS presents a variety of photographic records in direct, magnified and screen-projected displays. It permits convenient, simultaneous comparison of details of one display with those of another display and also provides stereoscopic viewing of imagery records. Through interface with a computer, an X-Y Plotter, a Code Matrix Reader (CMR) and a teletypewriter the IIS can perform search-and-compare and plotting operations, interrogation, and photogrammetric computations, as well as typewritten or visual display of data.

A FAIRCHILD TECHNICIAN checks out the Imagery Interpretation Station prior to shipment. Designed, developed and manufactured by Fairchild Space and Defense Systems, the IIS presents a variety of photographic records in direct, magnified, or screen-projected displays in support of the Photo Interpreter.

Add Colorimetric Analyzer Modules To FSDS Water Quality Systems

The Environmental Sytems Operation of Fairchild Space and Defense Systems is now offering an integrated water quality monitoring system which combines both solid-state electrodes and automated colorimetric procedures. The new 1500 series of monitors has all of the features of the 1200 series plus continuous colorimetric analyzer modules.

Each module is a complete self-contained system with a filter, sample pump, reagent pump, reagent storage section, chemical reaction section, dual-beam photometer and a measuring and readout section.

Using a continuous flow photoelectric colorimeter, the specific reaction color that results when a reagent is mixed with a continuous stream of water can be accurately measured. The dual-beam photometer precisely measures the color due to the reaction of the reagent and automatically compensates for the original color and turbidity of the sample. Outputs for strip chart recording, telemetering, punch paper tape, alarming or controlling can be provided.

Designed primarily for unattended field operation, the analyzers produce an accurate, continuous measurement of various parameters for such applications as stream survey, aqueduct systems, boiler feed water systems, cooling tower analysis and sewage treatment plants.

1500 Model Water Quality Monitoring System

Graphic Employees Make Another Merry Christmas for Indian Girl

Too many cynical and skeptical people these days are belaboring the idea that this country is "going to the dogs". But as long as there are people like Hylo Brooks and Terry Dilgard and some 200 other Fairchilders around, these United States of America should continue to be the land of the free and the home of the brave – AND benevolent.

Hylo and Terry work for the Graphic Equipment Division. For many years both of them always have been a soft touch when anyone solicited contributions (money or anything else) for the poor and underprivileged.

However, the girls confessed it wasn't until three years ago that they realized any "real" satisfaction from their charitable efforts. That's when they and those 200 other Graphic Equipment employees joined forces to sponsor "the good life" for a heretofore underprivileged 12-year-old Indian girl named Christine James (now 15-years-old).

Christine James

Hylo and Terry first learned of Christine's plight through the Christian Children's Fund of Richmond, Virginia. CCF is an organization dedicated to helping the poor and underprivileged children of the world (through the efforts of people like Hylo and Terry). In short order, the two girls contacted CCF and within a couple of weeks they found out they would be sponsoring Christine.

It was just before Christmas that first year when the Fairchild "200" took Christine under their benign wing. She was – and still is – living on the Whiteriver, Arizona reservation of the White Mountain Apache Tribe. Her parents also live there but both are in poor health. Moreover, her father is blind. Her family, which includes another sister and two brothers, receive welfare assistance but this is far from adequate to feed and clothe the family; also to enable Christine to continue her schooling.

Today, Christine is still going to school besides being well fed and clothed – primarily because Hylo, Terry and the Fairchild 200 are still seeing to her needs. That first year they supplied enough money to CCF to meet all of her needs plus a few "extra" contributions of food and clothing they personally packaged and shipped to Christine on her birthday and at Thanksgiving and Eastertime. Now with the '68 Christmas *season a thing of the past, Christine is happier than she was before Christmastime '66. Unfortunately, her parents are still not much better off than they were then – at least physically.*

But they have one big consolation. Things are looking up for their daughter.

Also Send Xmas 'Goodies' to GI's

Proving her altruistic feelings aren't restricted to American Indian girls, Fairchilder Hylo Brooks also set the wheels in motion toward extending an ample share of generosity at Christmastime to four former Fairchild young men now serving with the Army in Vietnam.

Hylo, an ex-GI herself (with the WACs during World War II), solicited cash contributions from her generous Graphic co-workers to buy gifts of food, candies, toilet articles and stationery for the "Fairchild" soldiers. She sent out the call in November via a bulletin board notice and within 10 days, she had collected enough monies to purchase nearly 200 pounds of foodstuffs and such. In addition, there was enough money left over to enable the Brooks gift committee to set up a reserve fund for future gift shipments to the GIs and to Christine James.

Name Lesnick Comdr. of Legion Post

Henry Lesnick, shipper-checker for Space and Defense Systems' Paramus, New Jersey facility, has been appointed Commander of Rosol Dul Memorial Post 359 of the American Legion in Passaic, New Jersey.

H. Lesnick

Hank, who has 20 years of service with Fairchild (initially with the Du Mont Laboratories), served with the U. S. Army for three years. Assigned to the 83rd Infantry Division, he participated in the Normandy campaign and all campaigns in the European theatre of operations. He received five battle stars and a bronze star and cluster.

He served in various official capacities with the American Legion such as Vice Commander, Adjutant, Chairman of Child Welfare programs and chairman of Boys State programs.

He and his wife, Helen, and their three children reside in Clifton, New Jersey.

Du Mont Tubes Keeping Pace in Space Age

In this fast-moving space age, the average person doesn't over-react to announcements of new technological developments. They're happening all the time — particularly at FCI's Du Mont Electron Tube Division.

About three years ago, Du Mont's resourceful engineering staff came up with an image magnifier-minifier tube design which can intensify an image as well as electronically increase or decrease the size of visual phenomena without the aid of a costly lens system. In subsequent years, the design—and variations of it—have been developed for new military applications and right now, Uncle Sam's Air Force is using it to develop new detection and surveillance techniques.

Before you try to figure this one out yourself, we'll explain. It's a fact that every engine driven device gives off flame and radiation. However, the color of the flame or radiation given off by one device usually differs from that of another type. The Du Mont minifier tube is used to identify that flame or radiation and thus the particular device doing the emitting.

The object is identified through measurement of its flame color or "spectral response" in the ultra violet region.

Primary advantage of the Du Mont magnifier/minifier tube is the speed of its focusing response. It's much like an electronic zoom lens. The image can be brought in instantaneously and magnified or minified as much as four times by instantaneous voltage changes. A mechanical lens system, on the other hand, would not be as light and as fast in pinpointing an unknown object.

Besides combustion identification, the amazing magnifier/minifier device can be used in the field of astronomy to aid in the identification of the stars, many of which vary in spectral response and many of which are invisible to the human eye.

Currently the military is also working with Fairchild-Du Mont on other "see-in-the-dark" applications for these imaging devices. Tubes, photosensitive to infrared radiation, can also be used to aid in seeking out such invisible heat-emitting—(infrared) matter in darkness such as soldiers, tanks or other heat producing objects on a battlefield.

Du Mont already has demonstrated to the military experimental devices with superior infrared photosensitive surfaces which can literally "light up" an object in complete darkness. Final step is the transfer of this ultra-sensitive surface developed to tube hardware. Du Mont is working on this. Then they can add other technological development products to its already lengthy list.

It's happening all the time.

Du Mont Magnifier/Minifier

Japanese Market Looks Good for Instrumentation

A recent survey conducted by the Fairchild Instrumentation Division reveals that the *tremendous growth of the Japanese electronics industry* in just two years has shown up in a coincident investment in Fairchild test systems. Until 1967, the Japanese integrated circuit industry was still in the development phase, but '67 was the year of production. This is evidenced by a major investment in capital equipment and facilities for IC production.

For example, Tokyo Electronics Labs booked 1.3 million in Fairchild Instrumentation test systems in 1966 and almost doubled sales in 1967 to 2.5 million.

And the future looks even brighter. From all predictions, there will be a significant increase in the Japanese IC industry. The electronics industry is predicting that by 1970 the use of IC's in the Japanese market will total 153,000,000 units. The major growth has been in computers and calculators and by the end of this year the industry will have completely switched to IC's. The next major growth will come from household appliances with strong emphasis on linear circuits.

This should be reflected in increased emphasis on LSI (large scale integration) development and a resultant increase in testing requirements.

NEW PRODUCT PARADE

Semiconductor 4-Bit Arithmetic Unit

Fairchild Semiconductor is now marketing a 4-bit arithmetic unit – the SH8080 – which introduces *the electronics industry* to the concept of multiple MSI (medium scale integration) circuits within a single compact package.

The new SH8080, combining a ripple carry adder and a holding register, is the industry's first hybrid circuit to incorporate four MSI chips. Employing an advanced packaging technique, Fairchild has interconnected two TTμL 9020's and two TTμL 9304's by a unique multi-layer thick film substrate that provides high reliability not possible with customary wiring connections. The 9020, a dual JKK flip-flop, and the 9304, a dual full adder, have been in widespread usage for more than a year.

Chief applications for the circuit are in airborne computers, desk top calculators, and high speed data processing and ground support equipment. These systems can realize substantial savings in assembly costs because the SH8080 reduces package count.

FSDS' Kennedy Addresses A.I.A.A.

Steven Kennedy, principal engineer for the Space and Defense Systems Division, addressed the American Institute of Aeronautics and Astronautics student branch of the Polytechnic Institute of Brooklyn.

The talk, entitled "Martian Orbital Photographic Experimental Analysis and Breadboard", was based on work Fairchild is performing under two NASA contracts: the Martian Orbital Photographic System Study and the Planetary Film System Breadboard.

Twenty-six students, all majoring in aeronautical engineering, attended the presentation. Because of the background and interests of the audience, the lecture emphasized aspects of the work applicable to other aerospace systems, such as radiation effects, orbits and trajectory considerations, and the use of parametric curves and trade-off analyses.

Daughter Is Scholarship Candidate

Michelle Swoben, daughter of Gerald Swoben, marketing manager for Space and Defense Systems Division's precision optics facility in El Segundo, California, has been chosen as one of four candidates for an "Americans Abroad" scholarship by the Peninsula Chapter of the American Field Service, Palos Verdes, California.

The names of the four students have been sent to the AFS headquarters in New York where final selection is made. Scholarship recipients will be announced after the first of the year.

Michelle is a junior at Rolling Hills High School, Rolling Hills Estates, Calif. She is an honor student, a member of AFS, French Club, and the Thespians.

FAIRCHILD VIEWS

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What's New In Circuits Is Little

Thirty years ago, your radio repairman opened the back of your radio, checked a few wires, replaced a tube and you were on your way. Ten years ago, he screwed a watchmaker's glass into his eye, tested your transistors and fixed your portable.

Now, if he were going to bother to fix it at all, he might need a high-powered three-dimensional microscope just to find the radio's circuit. But it would not even pay to fix it, because the radio's guts would cost less than $5. This is the age of the "integrated circuit" —

(Editor's Note: This story has been reprinted in part. The complete story, written by David Andelman, appeared in NEWSDAY, leading Long Island daily newspaper. We believe it is an excellent "educational" article for the layman who wants to know just what an integrated circuit is, how it functions and a few of its many applications.)

the third generation of the electronics industry which this year is expected to do a thriving $300,000,000 business and at least double that figure within five years.

This "electronic revolution," which began less than 10 years ago, is all due to a tiny chip of silicon as small as a speck of dust to the naked eye, known as an "Integrated Circuit" or to those in the know as an "IC." The IC may be anything from a tiny off-on switch used in electronic computers as a memory storage bank or an entire electronic amplifier that could run a stereo system or operate the nation's most crucial radar defenses.

Most scientists agree that without the transistor, developed about 20 years ago by Bell Telephone Laboratories, the integrated circuit would not have been possible.

Electronic engineers always have had a thing about size—a passionate desire to keep making their devices smaller and smaller and smaller. The reason is not the transistor radio or even the television set, but more complex devices like radar and computers which use not eight or 10 transistors but literally millions.

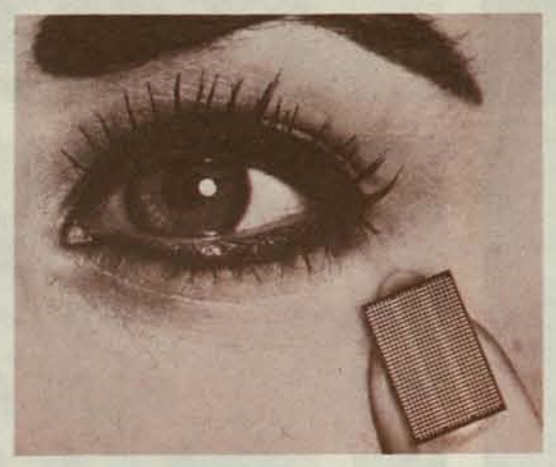
By 1958 the first working prototype of the IC was developed. It was crude by today's standards, and could perform only a single, simple function, but it was still about 1/100 the size of the conventional transistor. It was also expensive — about $1,000. But it worked.

Today, many hundreds of millions of ICs later, that same 1958 device would cost about 40 cents "if anyone were willing to tolerate its fantastic inefficiency and crudeness," one company official says. In the intervening years, engineers with that same smallness fixation have managed to make them smaller and above all cheaper.

The IC itself is manufactured in a giant "clean room" or sterile room kept perfectly free of dust and where everyone wears white lab coats, caps and gloves since a single speck of dust is often larger than the IC being manufactured.

The process begins in a high-temperature furnace where the silicon chips are manufactured from molten metal at about 2,600 degrees Fahrenheit. Elsewhere, diagrams like printed circuit boards are prepared and reduced photographically 500 times. Templates with up to 1,000 of these identical circuit diagrams then are placed over a single wafer the size of a silver dollar and as thick as this page, and exposed to light. The light etches away all but the important circuit area, leaving a complete "printed circuit" 1/16 of an inch or smaller on a side. The chips are sliced apart from the complete wafer, using a diamond stylus. Then the wiring connections are spot-welded on by women working through three-dimensional microscopes. They make up to 400 welds a day of metal as fine as a human hair.

Billions of ICs now are manufactured each year and they have plenty of takers. The first ICs were developed primarily for their military and aerospace applications. The Minuteman missiles used ICs in their guidance computers



TO GIVE YOU AN IDEA just how tiny — and at the same time — efficient an integrated circuit can be, this one is barely ⅝ inch on the long side and contains 576 light emitting diodes which can be flashed one at a time or in various combinations. That's the equivalent of 576 separate light bulbs on a single chip of silicon no larger than the lady's fingernail.

inside the nose cones (thousands of them supplied by Fairchild Semiconductor) and the circuits are used throughout the Apollo and other research and military rockets.

In the household, you already may have many ICs at work. The 1968 RCA color television sets for instance contained four ICs — one in the sound system, one in the remote control amplifier, one in the automatic fine tuning, and, in those with stereo phonographs attached, one in the tone arm for the first stage of amplification to eliminate hum and distortion.

The exciting future application for ICs in the home probably will be tiny computers. "Like every cultured home now has a typewriter, someday it will have a desktop computer," one marketing expert said recently. And tiny IC computers will be built into electric ranges so that a housewife can put a different dish of the evening dinner in each oven, put a card in a slot and the entire meal will be done to a turn and warm at the same time.

There are other even more bizarre uses. An IC device has been designed which fits in the pouring spout of a liquor bottle to eliminate overpour or underpour by a bartender. Automatic billchangers, which will accept denominations up to $10 and even foreign currency, soon will be installed at Kennedy Airport near the insurance vending machines and are built entirely around two ICs.

The uses of ICs appear to be endless and encompass every field from advanced military weapons technology to appliances found around virtually every home.

PROMOTIONS AND APPOINTMENTS

Graphic Equipment Appoints Lowry West Coast District Manager

Dwayne C. Lowry has been appointed district manager of its West Coast office by the Graphic Equipment Division.

Dwayne Lowry

Lowry will be responsible for sales and services of the Division's line of printing equipment in 11 western states. The West Coast district office is located at 7427-I Orangethorpe Avenue, Buena Park, California.

The announcement of Lowry's appointment was made by Frank Nardozzi, sales manager of the Graphic Equipment Division. "With more than 10 years experience," he said, "Lowry will be able to provide our customers with the technical and marketing information they expect from Fairchild."

Lowry joined Fairchild as a customer engineer in 1957. He was appointed a sales engineer for News King, Color King and Production King web offset presses on the West Coast in 1963.

He attended Brigham Young University and DeVry Technical Institute.

Name 2 District Service Managers

Robert P. Fuller and David M. Planker have been named to posts as district service managers by Fairchild Graphic Equipment.

Both men will be responsible for the supervision of all the company's service activities, including installations, in their respective areas.

Fuller, currently district service manager for 13 northeastern states, will take over the same responsibility for 12 midwestern states. He will be based at the company's district office in Park Ridge, Illinois. Planker will replace Fuller as district service manager for the northeastern area; he will be headquartered at the company's district office in Eastchester, N. Y.

Fuller joined Fairchild Graphic as an electrical assembler in 1959 and three years later became a customer engineer servicing the company's products in New England; in 1963 he transferred to general sales and became district service manager in 1966. He majored in electronics in technical high school and specialized in electronics during four years of service with the U. S. Navy.

Planker started with the company in 1966 as a customer engineer in the New Jersey, Delaware, Maryland and eastern Pennsylvania area. He attended the Maryland Institute in Baltimore, Maryland.

FGE Re-Aligns Field Sales Force

A re-alignment of field sales responsibilities and territories has been announced by Fairchild Graphic Equipment. Effective on January 1, 1969 the new organization provides for two groups of sales engineering personnel instead of the three groups previously designated. The two new groups will be known as typesetting systems engineers and production engineers — web offset presses.

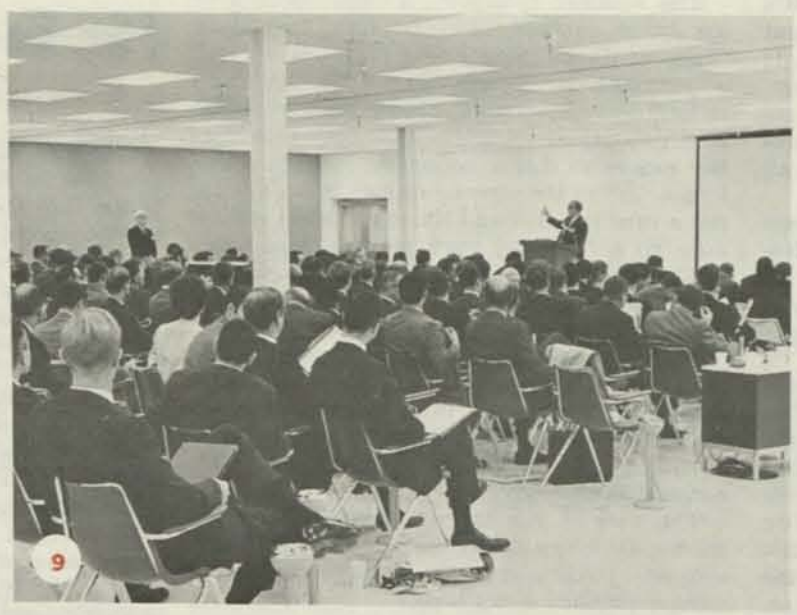
Typesetting systems engineers will be responsible for the sale of all products except printing presses; these products include Teletypesetter equipment, the PhotoTextSetter machines, the Morisawa headline phototypesetter, and all models of electronic engravers. The production engineers — web offset presses will handle, as in the past, the sale of the company's line of printing presses only. District office locations and responsibilities remain the same.

Commenting on the change, Frank M. Nardozzi, general sales manager stated, "this re-alignment provides for a higher degree of specialization, puts more emphasis on our commitment to the typesetting area of the newspaper and graphic arts industries and at the same time maintains our high degree of specialization in the press field."

IPD Plays Santa — Too

Christmas is for children and Fairchilders of the Industrial Products Division have their distinctive way of expressing this sentiment. IPD's Merry Christmas greetings this year went to St. Christopher's Home in Seacliff. This comfortable orphanage houses about forty children of all creeds from infancy through seven years of age. Referrals by the Welfare Department and other worthy organizations keep the rooms and the activity at a fever pitch the entire year round. Tom Dalton, Industrial Relations Manager for IPD, who shepherded the program, reports that IPD'ers contributed generously as always to make this Christmas a happy one for the kids. About 100 packages, including a Puppet Theatre, were delivered to the home by Nancy Maggio and Arleen Kerner who had a special treat in personally seeing some of the children. These two gals shopped the stores in the midst of the Christmas rush to buy all the presents. Pictured (l to r) looking over some of the gifts are: J. P. Murphy, Group General Manager Aviation and Photo Products, Tom Dalton, Margaret Patterson, Peg Schinnerer, Sally Spizman, Arleen Kerner and Nancy Maggio.

150 Security Analysts Applaud 'The



"It was a privilege to attend the outstanding presentation of Dr. Hogan and his management team. I can well appreciate all the time and effort that went into the preparation of this management review. All of the other analysts I talked to were equally impressed with the in-depth assessment of the company's problems and the policies and objectives being formulated to overcome them."

The foregoing is an excerpt from a letter written by John F. Cover, security analyst for Schwabacher & Company, New York brokerage firm, to James B. Moore, FCI director of information.

It is typical of the letters Mr. Moore received from a number of the 150 security analysts who attended last month's all-day briefing on the Corporation and the Semiconductor Division at Corporate headquarters in Mountain View, Calif.

It also indicated in concrete terms that the seminar gathering was an unqualified success. Held on December 12th, it brought together representatives of brokerage firms and investment houses to hear Dr. C. Lester Hogan and members of both the corporate and Semiconductor management teams discuss Fairchild's plans, operations, and prospects for the present and future.

Additional proof that the security analysts liked what they heard is evident in the following comments – both written and oral – directed to Mr. Moore.

"Thank you for an extremely well-organized and informative seminar. An essential part of an analyst's job is to visit and personally get to know the people who manage companies in which he is interested. When an executive really attempts to convey a candid view of what makes his company and industry tick, as you, Dr. Hogan and all the other Fairchild personnel did, it is both quite refreshing and extremely helpful."

– Nicholas B. Kronwall
Security Investors, Inc.

"Congratulations on a well-conceived and executed program."

– Deborah M. Odzer
Nuveen Corporation

"My congratulations on an excellent presentation by the entire Fairchild management team. I think this type of meeting is extremely valuable when carried out as well as this one was."

– Edward Botwinick
Dean Witter & Co.

"Your seminar and dinner went extremely well. The presentations were capably done and the analysis of the current position of Fairchild Camera and the program for future actions seems well conceived."

– Clark J. Winslow
Baker, Weeks & Co.

. . . And there are other quotes that say much the same. Then – so do the pictures on these two pages. They graphically indicate Fairchild management is telling an important story – both interestingly and informatively. They also indicate the audience is getting the message.

Fairchild Story' At All-Day Seminar

1. Sherman Fairchild waxes enthusiastic about the company's future prospects to the newest member of the Board of Directors, Louis "Bo" Polk, president of Metro-Goldwyn-Mayer.

2. Dr. C. Lester Hogan welcomed the analysts, introduced the speakers and served as the moderator for the question and answer period. He was also the principal speaker at the banquet which followed the day-long session.

3. Sherman M. Fairchild, founder and Chairman of the Board, was the first speaker. He brought analysts up to date on recent developments in the Corporation that led to the election of Dr. C. Lester Hogan as president and chief executive officer.

4. Analysts were greeted in the main lobby by Karen Yoki of the Department of Information and Linda Visser of Semiconductor Marketing Services where they were presented with an information kit and an identification badge.

5. The intense interest in the presentations is reflected in the expressions of the analysts; also Sherman Fairchild, foreground.

6. Bruce Everitt of Sterling Grumman and Associates shares a coffee-break conversation with C. C. Bond, Jr. of T. Rowe Price and Associates.

7. Analysts had ample time to ask questions during a two-hour question and answer session following lunch.

8. The press was also represented at the Seminar. Here Walter Barney, West Coast Regional Editor of Electronics Magazine, takes notes for a future story.

9. Dr. Hogan gesticulates to make a point during the question and answer session. Over 150 analysts filled the seminar room at 464 Ellis Street to capacity.

10. Stephen B. Randolph of the Energy Fund poses a question during the afternoon discussion period.

11. Notes taken by the interested analysts during the seminar would probably fill many volumes. They form the basis of many reports to the investing public which will be published by investment houses as a result of the meeting.

12. Gene Blanchette, Group Director-Integrated Circuits—Fairchild Semiconductor — is framed by the heads of his listeners as he concentrates on his presentation.

13. Joseph Van Poppelen, Vice President and Director of Marketing, answers a question from the floor as President Hogan watches for the next raised hand.

14. Doug O'Conner, Group Director of Marketing — Fairchild Semiconductor — discussed the marketing strategy of his division, planned to take optimum advantage of the growth of the semiconductor business both here and abroad.

(Photos by Steve Allen – Semiconductor)

THE SCENE IS ROTHMANN'S East Norwich Inn and the smiling faces belong to those Fairchild retirees who attended the luncheon in their honor. Although most of them haven't been around Fairchild for a number of years, the faces are still familiar. See how many you can name.

Fairchild Rolls Out Welcome Mat for Long Island Retired

There were 40 of them, all dressed in sharply pressed suits and conservative ties. They walked hesitatingly into the Landia plant in Syosset within a few minutes of each other on that morning of December 11th. At first, they seemed a bit unsure of themselves and their surroundings. But the feeling didn't last long. The other guy's familiar face was all the orientation they needed.

He, too, was a Fairchild retiree and he also had come back to his old work site to "see the boys" and talk over old times over a few cocktails and a gourmet lunch. It was that time of the year again – the day management extends an invitation to all retirees of FCI's Long Island divisions to come to Syosset and be a "king for the day".

And well they might be. Most of them had served Fairchild–and served well – for at least 20 years before joining the retired ranks and now they were getting the chance to relive those days – even though the reliving might be all too brief.

They thoroughly enjoyed it. Most of them arrived not long after the buzzer signalled the start of the working day and, until noon, they roamed the large environs of the Landia plant talking to any Fairchilder they recognized from the old days, but being careful not to take up too much of his working time. If their confidant happened to be a fellow retiree, however, time was forgotten.

They talked about anything and everything: about Fairchild–then and now, their jobs, their retirement living, their families and grandchildren and even boasted about their health. Most all of the forty could boast about that. Their outward appearances certainly didn't belie their claims. With very few exceptions, all looked to be at least even money to do another 15 to 20 years of soft living.

Then came lunchtime at Rothmann's East Norwich Inn and the tempo of the conversation didn't slow down. It picked up.

From the oldest in the gathering, 81-year-old Al Duffield, down to the youngest, 57-year-old Charlie Westerstrom, they had something to say:

"I'm not doing much of anything but I'm feeling fine," Al said.

"Early retirement was the best thing that could have happened to me," said Charlie. "Now I can do all the things I didn't have time for before."

Frank Navara is 70 but he's still doing the things he did before he retired. Only now he's spending more time at them. "I'm still taking pictures all year-round," he says, "and when the weather's good I go surf fishing. Last summer I caught 85 striped bass."

Charlie Carcano, former Maintenance foreman, is 68 but could pass for 58. His former boss, Charlie Blohm, superintendent of maintenance for the Syosset plants who also attended the luncheon gathering, said of him, "He looks better than he ever looked. I guess that mile a day he swims during the summer accounts for it."

"That's the secret," said Emil Rogers. "You have to keep active. In the past year, I traveled to Florida and California and painted the whole house."

Tony Simonelli and his wife keep active, too, even though they don't always emphasize "togetherness". Tony drew a few laughs when he reported: "I took a bus trip from here to California and toured up and down the coast. At the same time my wife went back to Italy to visit her relatives."

George Kendall is doing a lot of traveling, too. He *and* his wife have visited many of the islands in the Caribbean. "If anyone's interested in going down there, I think I can give them a lot of helpful hints on where to go and how to stretch their dollars," George says.

Retirees like Harry Currey, Bob Grimmer, Art Kantscheidt and George Diehr haven't made a complete transition to soft living as yet. As Harry puts it, "We still like to pick up an extra dollar once in a while."

Harry, a former tech rep and marketing man, works leisurely at real estate selling. Bob, a former accountant, still does it part time; and Art, who earned his living as a machinist, now runs a small job shop. George, a former toolmaker, manufactures and sells golf clubs.

Then there are Julius Beffert and Lou Crocco. Julius, who used to earn his living as an electrician for FSDS and later as a foreman, is having a new house built in Florida. Lou is content with his old house. However, he admits when he's watching a pro football game on TV he gets discontented with "myopic" football officials who don't see things his way.

Of course, not everybody in the 40-man group could boast that the advancing years had treated them kindly. They brought aches and pains to some and serious illness to a few others. Happily, though, the seriously ill claimed "the worst is over."

Ted Patocka says he's doing better after a stomach operation. Frank Guerra has pulled through a couple of throat operations and although 76-year-old Joe Richter wasn't present at the gathering, he sent word that he's "feeling much better" despite a couple of heart attacks and a gall bladder operation in the past year.

So it went – the conversation and the time. It was late in the afternoon

(Continued on page 9)

AND THE LADIES WERE HONORED – TOO

Johanna Neumann (left) and Dorothy Kipp (center) readily admit they don't constitute a large group but they still rate full membership in FCI's retirement club. A week after the male members of the club were wined and dined, the girls received the same treatment at Rothmann's East Norwich Inn. Their hosts were three veteran Fairchilders: Joseph Fitzpatrick, manager of employee relations for the Space and Defense Systems Division (standing, left); Lester Combe, corporate manager of personnel and community relations; and Edna Rogg (seated). Edna, secretary to John Stonitsch, FSDS manufacturing manager, has been with FCI for 28 years. As for the two honored guests, Johanna and Dotty, they had been in the company's employ for nearly 35 years. Before retiring in October, 1967, Dotty had compiled 25 years of service. Johanna had nearly 10 years of service when she retired in October, 1964. A former senior clerk for Space and Defense Systems' Production Control Department, Johanna still lives on Long Island and works part time as a key punch operator. Dotty, formerly supervisor of FSDS' Payroll Department, has moved from Long Island to Florida where, she says, "I just take it easy." Five other female retirees, formerly employed at FCI's Long Island divisions, were unable to attend the luncheon gathering.

FAIRCHILDERS IN THE NEWS

FSDS-Paramus Quartet Marks 25 Years

Space and Defense Systems' Paramus, New Jersey electronics facility took the spotlight in last month's service award sweepstakes with four employees marking 25-year anniversaries and a large total of thirty more marking 20-year anniversaries.

The quartet of 25-year celebrities include: Edward Fedor, Gertrude Santifort, Emil Pituch and Lena Heath.

EDWARD FEDOR: Like his three co-workers, Ed began his Fairchild working career with the old Du Mont Laboratories in Passaic, New Jersey. At that time, he was employed as a repairman in Maintenance. Now, 25 years later, and again like his fellow 25-year celebrities, he feels he isn't altogether separated from Du Mont. "We're with Fairchild and so is Du Mont," Ed says. A lab assistant in FSDS-Paramus' Engineering Model Shop, Ed claims, "It's just as pleasant working for Fairchild as it was for Du Mont. Actually I'm still working with many of the same people I always worked with." Ed, who resides in Clifton, N. J. with his wife and two daughters, is an amateur radio enthusiast and also prefers pistol shooting.

Emil Pituch

Gertrude Santifort

Edward Fedor

Lena Heath

GERTRUDE SANTIFORT: Gertrude began with Du Mont in November, 1943 as a wireman. Today she is employed as a wireman/assembler in the FSDS-Paramus Manufacturing Department and like fellow 25-year awardee Ed Fedor, she says, "It's been a good 25 years. I have no complaints." An inveterate traveler, "browser", and antique hunter, she likes to collect old and new china, especially English bone; also likes to crochet. She lives in Pequannock, New Jersey.

EMIL PITUCH: Also a former wireman with the old Du Mont Labs, Emil is now a lab assistant in the FSDS-Paramus Engineering Model Shop. "The best thing about Fairchild," he says, "is the people. They have always made my job a pleasant one." Emil, who lives in East Paterson, New Jersey with his wife and three daughters, is another amateur radio hobbyist and photography enthusiast.

LENA HEATH: Making it almost unanimous, Lena also started her Du Mont-Fairchild career as a wireman (or is that wirelady?) with the old Du Mont Labs. Currently she's employed as an electrical and mechanical inspector in the Incoming Inspection Department at FSDS-Paramus. Lena, who loves to travel, cook and bake (she baked over 900 cookies during the Christmas season), lives in Pompton Plains, New Jersey with her husband, Russell. Russ also works for the same Fairchild division in Paramus and will be celebrating his 25th anniversary in May. "How about that?," says Lena.

Eddie Widder–Fairchild Craftsman Puts In His Retirement Papers

"I wish I had come here sooner because I've enjoyed it so much," Edwin ("Eddie") L. Widder, Sr., stated modestly upon his retirement after 10 years of service with Fairchild Graphic Equipment.

Eddie is a craftsman — a carpenter who is proud of his trade — a trade he has worked at for more than half a century. A small, powerful man with a ready smile and rough-hewed hands, Eddie Widder was born and raised in New York City. His family moved to Uniondale, Long Island, when he was a young man and here he helped build a small house for his mother.

In those early days on Long Island, a man either became a farmer or took up a trade. When Eddie was 15 years old, he chose to go into the building trade, learning carpentry the hard way — from the bottom up. During his apprenticeship, he carried lumber for a long time before being given the chance to swing a hammer.

After years of learning his trade he became a journeyman (a master carpenter) which means he's an "all-around man" who can build anything. "You have to have a knowledge of surveying, mathematics for using the steel square, and figuring materials, and the skills of building so that everything falls into place exactly." he says.

When World War II started in 1941, Eddie Widder went to work at Ariel Products, a munitions manufacturer. Feeling he still wasn't doing enough for the war effort, he decided to moonlight for the Navy at its Montauk Point Submarine Base. He remained here for the duration of the war and was awarded the Navy "E" for excellence, an honor shared by only about a dozen other civilians in the United States.

After the war, he continued to ply his carpentry trade and with his wife's help, even built another home in Massapequa. Later, he joined the Liberty Aircraft Corporation where he worked until the Company went out of business.

Still a young man of 54, he sought employment at Fairchild. George Owen, plant engineer at the Graphic Equipment Division, recalls the first interview with Eddie Widder. "I walked into the office and Eddie was flexing his arm muscle for our personnel manager. I looked at him and said, 'I'm interested in hiring a carpenter — not a physical education instructor. I hired him, though, and certainly have had no cause to regret it. He's a true craftsman and we're going to miss him around here."

Miller Addresses 2 Workshops

Robert Miller, manager of Teletypesetter and typesetting for the Graphic Equipment Division, discussed Fairchild's new PhotoTextSetter Model 2020 at two workshop conferences on graphic equipment, one held in December and the second in January.

The first conference, held on December 14th at the Hotel New Yorker, was sponsored by the Typographers Association of New York. Photo composition and equipment were demonstrated by a number of large manufacturers in the field.

The second conference, held on January 11th at the War Memorial Auditorium in Boston, was a joint workshop session of the Boston Lithographers Club and the Craftsman Club.

The PhotoTextSetter Model 2020 utilizes solid-state computer with a core memory for setting hyphenless, justified lines from unjustified tape.

Welcome L.I. Retired

(Continued from page 8)

when the last luncheon guests walked gingerly out of Rothmann's. This was it for now. They would go home to live the good life for another year — sure in the belief they'd be back next year with new stories to tell.

"Hell," said 79-year-old Joe Side summing up the feelings of just about everybody, "I'm sure I'll be back. I'm feeling fine."

Joe walks with the aid of a cane but claims he can get along without it. His close friends agree, "Sure he can. He carries the cane in the wrong hand, anyway."

Closed-Circuit to PhotoKina

The world-famous PhotoKina Exhibition, held in Cologne, Germany, closed its doors several months ago but the Fairchild "feedback" is still coming. In its giant photographic display at PhotoKina, the Linhof Company, internationally-known manufacturer of photographic equipment, included this photo of Fairchild Space and Defense Systems' high resolution model TCS-950 closed-circuit television camera (on tripod in foreground). In addition to the prominent display of the camera photo, Linhof recently released its new professional tripod catalog which lists and illustrates Fairchild closed-circuit TV cameras on two full pages. Besides Space and Defense Systems' "indirect" representation at PhotoKina, Fairchild's Industrial Products Division exhibited its line of cartridge load 8mm sound, motion picture projectors.

Thirty 20-Year Awards

20 Years

Space-Defense Systems Paramus

Joseph Donohue
Regina Malinoski
Charles Antoinelli
Albert Cass
Neil Okker
Stanley Bajek
Helen Smith
Nora Lore
Michael Saguara
Arthur Zenkert
Herbert Foster
Emily Hansen
Robert Bielen
Joyce Smerika
Thomas Fallon
Catherine Anzalone
Catherine Garrity
Cornelia McCurley
Joseph Annibal
George Sullivan
Meyer Weiner
Frank Grace
Adriana Reyngouldt
Vincent Pugliese
Emma Faletto
Wilbur Bundy
Amelia Aros
Frances Burke
Harold Connolly
Yvonne Mills

5 Years

Instrumentation

Ernest Armstrong
Paul Barker
Marie Beddick
Brian Best
Arthur Briard
James Duckett
Rober Hoerauf
Donald North
Bob Renfroe
Richard Thornton

15 Years

Thomas Falvey, Graphic Equipment
Harold Sandiford, Corporate
Thomas Clements, Space-Defense Systems

10 Years

Lorene Baughman, Semiconductor
Catherine Musser, Semiconductor
Lupe Navarro, Semiconductor
Don Visger, Semiconductor
Doris Hart, Graphic Equipment

5 Years

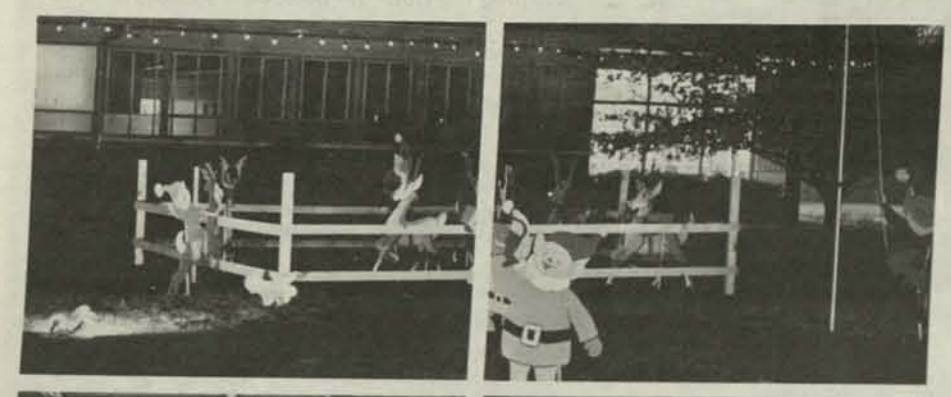
Armand Brancale, Space-Defense Systems
Dominick Esposito, Space-Defense Systems
Michael Giambalvo, Space-Defense Systems
Henry Kalbach, Space-Defense Systems
William Lenz, Space-Defense Systems
Ronald Soreil, Space-Defense Systems
Louis Kann, Controls
Gerald Sheridan, Graphic Equipment
Charles Marti, Graphic Equipment
Dexter Boles, Graphic Equipment
Bill Dry, Graphic Equipment

5 Years

Semiconductor

Betty Glass
Laura Gupton
Dave Haun
Edith Hathorn
Jean Havermann
Elaine Jackson
Ed Kanazawa
Michael Kuffel
Mario Lorente
Larry Luiz
Mary Martinez
Lorna McDaniel
Jim Murphy
Thelma Watson
Thomas Welch
Henrietta Ziegler
Beatrice Cleveland
Helen Halkovich
Virginia Washington
Maynard Cushman
Joan De Veau
Marie Fernandez
Dan Giordano
Robert Houde
Gerald Howard
Gladys Libby
Hazel Martino
Dorothy Murphy
Annette Nye
Roberta Parker
John Record
Ronald Smith
June Soucie
Bertha Van Vliet
Louise Wade
Joe Flood
Nancy Griffith
Dave Richardson

Industrial Products



Graphic Equipment — Joplin

Graphic Equipment

VIEWS Goes To A Christmas Party...Seven Of Them

A MERRY ROUND OF PARTIES punctuated the Christmas season at Fairchild locales on both the east and west coasts. We couldn't attend all of them, nor take pictures at all the gatherings. But we did the next best thing. VIEWS had its able crew of "contributing photographers" on hand to bring you graphic views of seven of the gala celebrations.

Five divisions on the east coast—Space and Defense Systems' Copiague Ordnance operation, Du Mont Electron Tubes, Instrumentation's Electro-Metrics' operation, Graphic Equipment and Industrial Products — threw parties at local night spots with a good percentage of employees and their wives (or husbands) attending. In the west, revelry prevailed at the Semiconductor Division in Mountain View and at the Graphic Equipment Division's Joplin, Missouri facility.

Because it has a number of facilities, Semiconductor held a number of parties — at least another half dozen at scattered locations. But because of VIEWS' space limitations, you won't see all the pictures here.

As usual, there was plenty of food and drink interspersed with dance music and a batch of door prizes. If you were there, maybe you can pick youself out of the crowd.

Semiconductor











Space-Defense Systems — Copiague


Du Mont Electron Tubes





Electro-Metrics

THE FAIRCHILD SPORTS SCENE

By Dick Marz

L. I. Men's Bowling

After pressing for the lead most of the season, the CELLAR DWELLERS have taken over the top spot in the 30-team league. The team, which includes Don Schoell, Bill Thompson, Frank De Domenico, Vin Sorrentino and Jerry Genevarino, has a 121-44 won-lost mark as the season moves into the last third. Trailing in second place are the SAINTS with a 119-46 record followed by the STRIKES (111.5-53.5), FINISHERS (106-59) and the ANCIENTS (102.5-62.5).

In the individual competition, Mike Bellack still shows the way with a 181 average. Hank Carter actually leads with a 188 mark. However, he has bowled only 12 games to date while Mike's mark has been compiled in 44 games. Other top averages are: Art Twyman (179), Jim Econ (176), Nat Simon (176), Fiore Napolitano (176), Ken Anglin (175) and Mario DeMasi (174).

L. I. Mixed Bowling

The SUNSHINE COMPANY, relative newcomers to the league, hold a comfortable 6½ point lead in the 14-team mixed league. The quintet has a 103-51 record. In the runnerup spot is the 5 HOODS, followed by the CAMERAS (88.5-65.5), and the always contesting V.I.P.'S (86-68) and PSYCHEDELICS (84-70).

Best of the individual bowlers to date are Dolores Benenate for the ladies and Al Kohler for the men. Dolores has a 142 average and Al has a 173. Other high marks belong to Bob Welch (172), Hank Carter (168), Carol Collins (138) and Eva Sweeny (137).

High game thus far is held by Carter with a 247. Kohler is right behind with a 244. Joan Hosking tops the girls with an even 200 and Carol Collins has a second high of 194. High series of 484 also belongs to Carol while John Mandler's 606 tops the men.

Mixed Bowling
Graphic-Joplin

It's only a six-team league but there's a lot of whooping and hollering when the six teams compete each week at the local Joplin, Mo. alleys. With the season past the halfway mark, the ODD BALLS and the MIXERS teams top the league with identical 28-20 records. A game back of them is the THE WHO? team and another game and a half further back is the ALLEY BUSTERS team. THE ??? team (yes, that's the team name as odd as it might be) holds down fifth place and the A.T.P.'s bring up the rear.

Individual bowlers who are showing the way are Loren Rinehart, Jack Wells and Tom Wallain. The gals leading the distaff side are Betty Johnson, El Parker and Alberta Bennett. Loren has a 178 high average, 233 high game and a 621 high series; Jack has a 219 game and a 596 series; Tom has a 216 game; Betty has a 215 high game and a 496 series; El has a 181 game and a 497 high series; and Alberta has a 173 game and a 465 series. Also ranking high averagewise are Fred MacPhail (161) and Betty Johnson (153).

Look at it this way.

Education.

Stimulating the senses to gather information.

Easier said than done. Already the competition for attention is intense. The senses are bombarded with urgent requests for attention, minute after hour after day, as the information explosion continues to grow.

One accepted innovation has begun to reduce this explosion to manageable terms: the MoviePak® System, using 8 mm. sound film to present an idea more graphically, in more detail and in more depth than the spoken word.

And one Communications System has made it possible to exercise fingertip control over your sound film library:

Fairchild's self-contained, rear screen automatic cartridge load 8 mm. sound projector, Mark IV.

As the established leader in 8 mm. projection systems for education, Fairchild and its national service center network have valuable experience gained through thousands of machines in the field.

Machines that the student operates.

For more information on seeing things in a new light, please use this coupon.

We'll send you all the details on the MoviePak concept.

And just as important, we'll send information about the ever-growing list of titles that are available in the MoviePak 8 mm. sound film cartridge.

So you can see for yourself.

FAIRCHILD

project E.S.P.

Fairchild Industrial Products
221 Fairchild Avenue T-1
Plainview, L.I., N.Y. 11803

Show me. My interest is in material for ☐ K-3, ☐ 4-6, ☐ Junior High, ☐ Senior High, ☐ College.

Please indicate subject area.

NAME

TITLE PHONE

ADDRESS

CITY STATE ZIP

(PLEASE INCLUDE ZIP CODE FOR PROMPT DELIVERY)

Editor's Note: This is one of a series of typical Fairchild advertisements which are being reproduced in Views to acquaint employees with the efforts being made by various divisions.

VIEWS

You May Have Noticed Something New About This Month's VIEWS!

You May Have Noticed Something New About This Month's VIEWS!

It's quite a change, and it also represents a shift in editorial philosophy.

VIEWS will not attempt to be an "instant" news media; that's impossible for its production cycle is at least one month. News items will be handled locally, but VIEWS will try to bring you the important things that shape a company, stories about its people and their involvements; stories about our divisions and what they are doing and how, in effect, they all inter-relate to form a dynamic entity known as Fairchild Camera and Instrument; and stories about what's going on in the world as these things relate to each of us.

From the laboratory environment of Charlotte, Michigan, to the manufacturing operations in Singapore, Syosset, or Sunnyvale, there are things happening that will affect each of us, possibly all of mankind.

A computer on three tiny chips of silicon that measure no larger than the head of a pin? Fairchild president Dr. Les Hogan introduced this fantastic development at this year's stockholders meeting. You probably read about it in VIEWS. What a fantastic change this will make on our lives! A front-row seat for your children at Lindbergh's return from his historic solo flight? IPD's done it with the help of Chelsea House publishers as you will read in this issue of VIEWS. What changes this will effect in the modes of education! Man on the moon by 1970? This is 1969 and it just happened! An impossibility becomes reality, and who did not have a part in it? Certainly there's a story to be told of the involvement of Fairchild people, and it, too, will be told.

Stories like these have a place in VIEWS, and VIEWS will also provide a forum for discussion. Now don't get us wrong, VIEWS should be a "fun" publication, too. We want this to be something for you and your family to enjoy. We'll welcome your suggestions, and we will definitely need your help to keep up with all the very real things that are happening within the Fairchild community.

Judy Horst, *Editor*
Naomi Glass, *Associate Editor*

AL GRANT: OPENING ON A NOTE OF STRONG OPTIMISM

Les Hogan calls him the "number two" man at Fairchild; and indeed, Al Grant, newly elected to the board of directors and group vice president of Fairchild Camera and Instrument since March, is just that. He would disagree, though, "We're all equal contributors and part of the same family. We share the same goals."

Formerly on the faculty of Illinois Institute of Technology and UCLA, at one time vice president and general manager of Autonetics' Data Systems Division, and more recently president of Lockheed Electronics Company, Al brings more than the ordinary amount of practical experience to the tasks assigned him at Fairchild. Add to this his "people-oriented" nature (he's also served as an industrial lecturer in a number of graduate business schools' behavioral science programs), and it is certain his contributions to Fairchild are bound to make a great impact on the company's character and profitability.

His job? Helping Les Hogan carry out the implementation of a management by objectives approach to running the company. More specifically, Al oversees eight Fairchild divisions. How he plans to do that job, what he expects for himself and Fairchild people in the near and far future follows.

I don't think there's any doubt that we'll continue to be one of the most dynamic companies in the U.S. With the talent assembled throughout the corporation, we have unbelievable potential. For my part, I like being in the middle of such a great opportunity.

What kind of growth are you talking about in terms of dollars and cents?

The numbers are private but our immediate plans call for achieving better than 15% return on investment after taxes.

How do you propose achieving this?

Working with Les, three critical long-term objectives have been set. Primarily by exploiting semiconductor technology leadership into subsystem and system hardware. That means, in effect, our ability to utilize solid state devices in systems hardware will be a necessary criteria for testing aquisitions, creating new product lines, and getting rid of present product lines in our divisions. For instance there's no reason why the precision masking and registration techniques we use in the semiconductor business can't be applied to the typesetting business and a whole line of new products be developed. And, there's no reason why we can't take a new typesetting technology and from it provide a hard copy "read-out" situation, say for test equipment or a desk-top computer.

Secondly, through the infusion and maintenance of modern management science disciplines. This infers the recognition of the talents and managerial skills of everyone in the company and the meshing of these talents into a smooth working format that will encourage individual initiative.

Lastly, we can achieve this rate of return if we provide the proper capital resources to our operating divisions to assure their planned growth. I think this attitude has been the most evident over the past year as we have been making sizable capital investments.

Additionally, the company's 1969 management goals include:

1. Reestablishment of the corporate image as a multi-product, multi-market enterprise driven by leadership in electronic technology.
2. Implementation of a strong "management by objectives" discipline in all divisions.
3. Introduction of "resources management" discipline.
4. Initiation of specific executive selection and development programs.

With eight divisions to work with, you'll be spending most of your time enroute just getting to them. How do you propose to manage such a large territory of operation and to see these goals become realities?

I will be doing a lot of traveling, but since my job is specifically to look at the development of new product lines and divisional structures within this framework of growth, I will only be helping the general managers accomplish their *own* goals. That is, they will set their own goals and have complete freedom to attain them.

This implies a "laissez-faire" attitude on your part. Certainly they will in some way have to conform to your goals and objectives; so where do you draw the line?

I don't really draw lines because I think our goals are all about the same. I think the "laissez-faire" approach is required today because we have a new breed of general managers, and it's most appropriate for us to give them all the tools to do their jobs. It's all part of the technological revolution which has brought with it such tremendous changes in our lives. The manager who is responding to change is himself a different breed of cat. He's the entrepreneurial type of executive who will respond to any opportunity with a full measure of personal initiative, resourcefulness, and responsibility. The incentives which motivate him are not those of the old B-school grad. Security in the usual ways of pension plans or sick leave ranks low. His security seems to rest more in his own self-confidence, and he desires responsibility accompanied by authority, opportunity for growth/change for himself, and a full share of financial incentives. He thrives in such a climate.

If managers have changed, certainly employees have too. Would you agree?

Definitely! Today's employee is a different breed, too. He or she brings more education, more insight, and more awareness to the job than was possible ten years ago; once again, it's the technological revolution. Each also brings a greater need to know what's going on and why, and to know the meaning of his accomplishments as an individual. In the best company, and that's going to be Fairchild, every employee knows what his boss's goals are. That's what we are striving for.

Your divisions have undergone many changes lately. What's the situation now?

I think we've done most of the close, hard looking at these divisions that we will be doing for some time, and I feel that all eight divisions are in good shape to achieve our mutually agreed upon goals. All eight divisions are now operating on a profitable basis, and we've trimmed them to fit within the "exploitation of semiconductor technology" criteria. That was one reason we sold the printing press business that was part of the Graphic Equipment division. It just didn't seem that semiconductor technology had much application in the press business.

What areas will you be concentrating on in the future?

Profitability will increase in each of the divisions, and I'll be working to achieve just that as well as studying future aquisitions. Just keeping up with Fairchild's growth and making sure we don't lose sight of the objectives will be more than enough to keep me busy.

Fairchild + Eumig + Kodak = Something Very New In the 8mm Sound Film Industry

It's called 8mm sound film standardization, something never achieved in the 8mm film industry until this year when Fairchild's Industrial Products Division invited members of the press, photographic equipment dealers, educators, and other significant audio-visual equipment users to preview Fairchild's new Seventy Series line of 8mm sound film cartridges and projectors.

Fairchild's new cartridge projection lines for the '70's will be standardized on magnetic sound, super 8mm film with a plus-18 image-to-sound separation. This standard is identical to the format adopted by Eastman Kodak in the U.S. and Eumig of Austria, largest producer of 8mm sound film systems in the international market. Fairchild, of course, pioneered 8mm sound cartridges and is the leading manufacturer of this type of system for American medical, educational, government, and industrial markets.

Standardization in film format by the three leading names in the film industry will significantly expand utilization of thousands of films in existing film libraries. Film cost reduction can be expected when laboratories have only one format to process. IPD's general manager Ray Hennessey foresees that standardization will eventually lead to the day when 8mm will replace 16mm for professional and educational applications.

IPD's new line for 1970 features three projector models and two distinct cartridge concepts: the Fairchild-pioneered continuous loop MoviePak cartridge and the new cassette type cartridge licensed by Eastman Kodak for reel-type projectors.

Many leading educational film producers have indicated that they will distribute their film libraries using this uniform format. Included are Doubleday & Company, Chelsea House Publishers, ACI, International Film Bureau, Hank Newenhouse, and the National Safety Council. Many educational films will be offered pre-packaged Kodak cassettes.

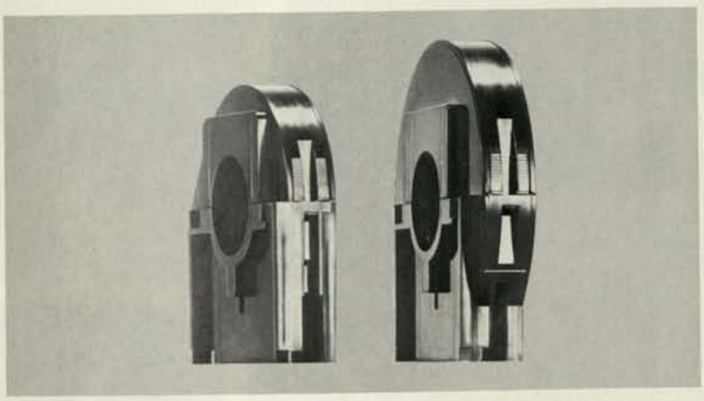
Fairchild's decision to standardize on a plus-18 magnetic sound format will not adversely affect users of current Fairchild systems. The Mark IV and Mark V systems now in wide use will continue to serve the needs of those who have selected this equipment for specific programs and requirements.

Standardization, however, will broaden the applications of audio-visual media for the betterment of all mankind.

Kurt Kanhouser, manager of Eumig's audio-visual department, and Sherman Fairchild examine the jointly-developed Fairchild/Eumig 711 Sound Projector—a new reel-type sound projector employing, for the first time ever, a cassette-type cartridge. The 711 will be distributed in the U.S. under the Fairchild/Eumig name. It is a high intensity front screen projector for large audiences, with wide application in education for teaching purposes. It will use the entire range of Eastman Kodak cassettes with film running time of 2 to 20 minutes. Built into the projector is a recording system which offers the capability of updating and changing sound tracks.

The compact 711 projector and its cassette cartridge attracted a lot of attention when IPD introduced its new line for 1970 which features three projector models and two distinct cartridge concepts, the continuous loop MoviePak and the new cassette type cartridge licensed by Eastman Kodak for reel-type projectors.

Answering questions posed by the press are (l-r) Kurt Kanhauser of Eumig; Ray Hennessey, IPD general manager; Nat Myers, IPD group manager for educational audio-visuals; and Sherman Fairchild, FCIC board chairman.



Eastman Kodak, which produced the 50′ and 100′ cassette cartridges shown here, proposes a family of cassettes ranging in playing time from 2 to 20 minutes. A cassette, in addition to having the film handling and storage convenience of a cartridge, provides a sophisticated feed and automatic rewind feature not found on conventional reel-to-reel projectors.

Hans Napfel, IPD engineering chief, explains the advantages of Fairchild's continuous loop MoviePak cartridge as the press takes a closer look at Series Seventy.

Ray Hennessey, IPD general manager, and Sherman Fairchild, chairman of the board of Fairchild Camera and Instrument, discuss the first of IPD's Seventy Series: the Seventy-21 and the Seventy-31. While the Seventy-21 is portable, the Seventy-31 console provides from 2 to 22 minutes of color-sound film lessons, sales presentation, point-of-purchase messages, or training programs within one second after a MoviePak cartridge is inserted.

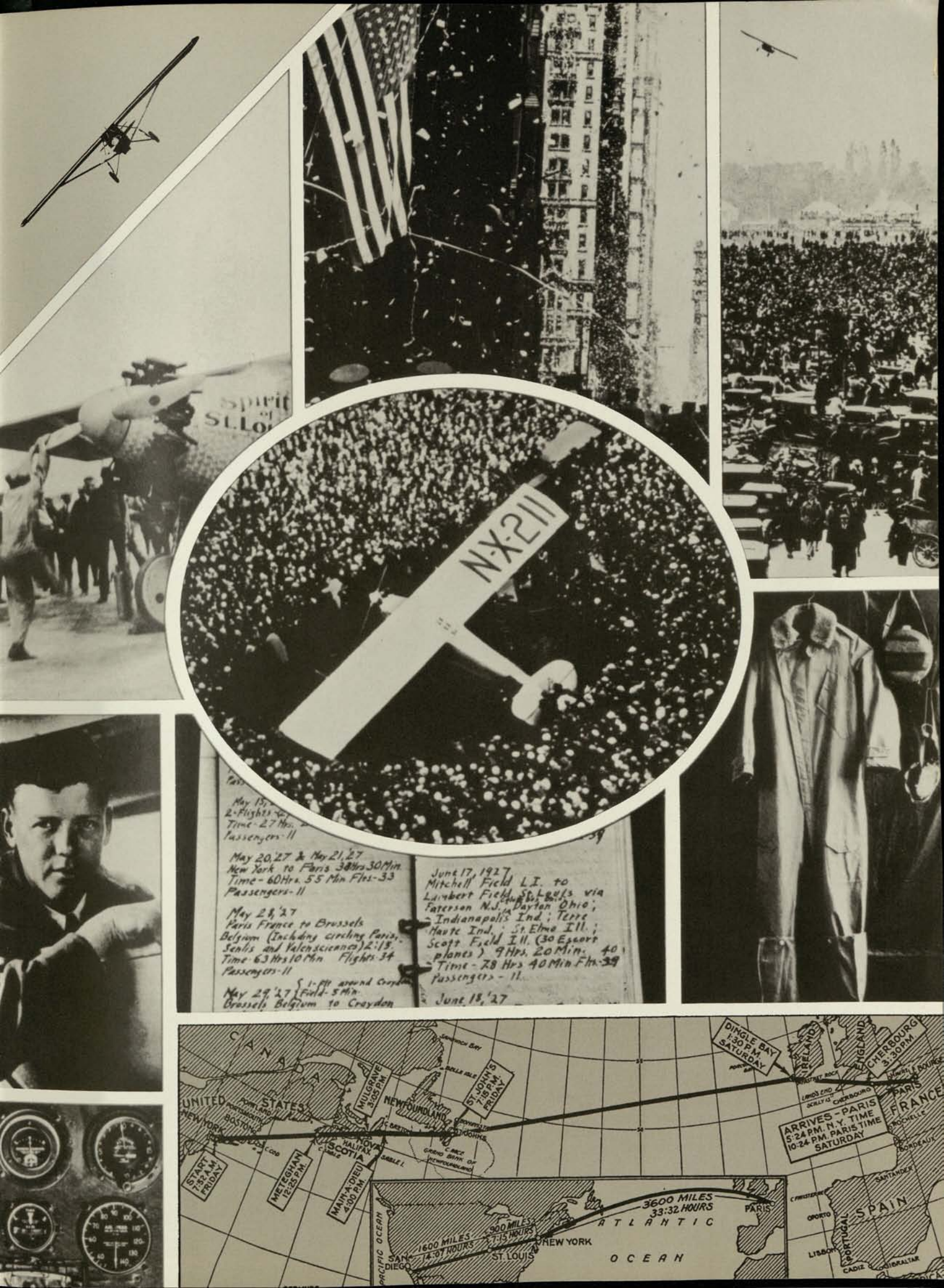
The Seventy-21, weighing 17 pounds, is Fairchild's most compact, portable system. It resembles an attache case when closed and is small enough to slip under the seat of a commercial airplane; yet, when opened, the projector expands to a 9″ x 12″ screen. For large audiences, the projector converts to full-sized front screen projection. The Seventy-21 uses both 22-minute and 10-minute capacity MoviePak cartridges.

The History Machine

One of these days your child is going to come home from school and say she's just watched Lindbergh's triumphant return from Paris, shared FDR's first fireside chat, or was at the coronation of Queen Elizabeth. It'll be for real, for chances are she'll have been watching each of these events on a Fairchild Mark IV-S rear screen projector.

Industrial Product's Mark IV-S, recently dubbed the "History Machine," is an integral part of an exciting new educational program introduced by Chelsea House Publishers of New York. The Chelsea House film series is made up of five-to-seven minute sound films in MoviePak cartridges featuring authentic film recordings of the most important people and events of this century. Until now, film footage of history-in-the-making has not been easily obtainable or convenient for students or researchers to use.

Chelsea's 40-cartridge film series, the first in several planned series of history on sound film, are under the direction of Pulitzer Prizewinning historian and author Arthur M. Schlesinger, Jr. He is being assisted by James F. Watts, Jr., and Fred L. Israel, professors of history at the City University of New York, and Eugene M. Finley, film editor-in-chief.


N-X-211
May 20, '27 & May 21, '27
New York to Paris 38 Hrs 30 Min
Time - 60 Hrs. 55 Min Flgt - 33
Passengers - 11
May 28, '27
Paris France to Brussels
Belgium (Including circling Paris,
Senlis and Valenciennes) 2:15.
Time 63 Hrs 10 Min Flights 34
Passengers - 11
May 29, '27
Brussels Belgium to Croydon
June 17, 1927
Mitchell Field L.I. to
Lambert Field St. Louis via
Paterson N.J. Dayton Ohio;
Indianapolis Ind; Terre
Haute Ind.; St. Elmo Ill.;
Scott Field Ill. (30 Escort
planes) 9 Hrs. 20 Min.
Time - 28 Hrs 40 Min Flgt - 39
Passengers - 11.
June 18, '27
CANADA
UNITED STATES
NEW YORK
BOSTON
NEWFOUNDLAND
NOVA SCOTIA
HALIFAX
MULGRAVE 3:05 P.M.
ST. JOHN'S 7:15 P.M. FRIDAY
START 7:52 A.M. FRIDAY
METEGHAN 12:25 P.M.
MAIN-A-DIEU 4:00 P.M.
DINGLE BAY 1:30 P.M. SATURDAY
CHERBOURG 3:30 P.M.
ARRIVES - PARIS
5:24 P.M. N.Y. TIME
10:24 P.M. PARIS TIME
SATURDAY
IRELAND
ENGLAND
FRANCE
PARIS
3600 MILES
33:32 HOURS
ATLANTIC
OCEAN
1600 MILES
14:07 HOURS
900 MILES
7:15 HOURS
NEW YORK
ST. LOUIS
SAN DIEGO
PACIFIC OCEAN
SPAIN
PORTUGAL
LISBON
OPORTO
CADIZ
GIBRALTAR
SANTANDER
BORDEAUX

Rodeos date back to the days of the early cattle industry of the southwestern plains when men, forced to spend months and even years on the range, would gather together in the "cowtowns" at the end of the trails and vie for the unofficial titles of best bucking horse rider, best roper, or best steer wrestler. As the cowboy was fenced in by the railroads and the barriers of cities and towns, these contests became regular, formal programs of entertainment. Today, rodeos are built around five standard events: saddle bronc riding, bareback riding, calf roping, bull riding, and steer wrestling. Other events such as team roping, wild horse races, and barrel races are added for extra interest. Such was the case when Shiprock threw one of the wildest, fun-packed barbecue-rodeo-bingo party-dance (disguised as the annual company picnic) for some 4000 people. But, the employees didn't hire rodeo cowboys; they matched their own skills against the untamed animals.

HO-NAN-NII!

The day began at about 10:30 with a barbecue, and the crowds moved on to the rodeo arena where Fairchild employees and relatives competed for prizes. Every rodeo has its queen and its clown, and Shiprock's was no exception. Queen for that special day was Ella Blackgoat. Herman Buck played the role of the clown distracting many a wild animal from disgruntled riders who were thrown from the saddle.

Winners for the day in the calf roping event were Eddy Atcitty (1st) and Harvey Johnson (2nd); bareback riding, Henry Sandaval (1st) and Eddy Begaye (2nd); bull riding, Henry Kellywood (1st) and James Tutt (2nd); team roping, Lewis H. Atcitty and Eddy Atcitty; bulldogging, Raymond Fulton (1st) and Jimmy Henderson (2nd); barrel race, Roberta Kieyoomia; and wild horse race, the team of Rich Cornellier, John Biggs, and Elmer Webster.

The rodeo was followed by a display of Navajo tribal dances, bingo, and a western dance that finally closed McKee Park at midnight. **HONANNII!** And, indeed, it was fun!















Have Bus, Will Travel

And before it's all over, Fairchild Electro-Metric's mobile display unit will have visited more than 45 companies in cities from Seattle to Cape Kennedy.

Dale Samuelson, vice president, who's driven part of this three-month sojourn, describes it as a "genuine opportunity to show our customers the stuff we're made of." It also proves the stamina of Electro-Metrics staff.

Electro-Metrics calls it a PFI/EMC Instrument Display; translated, it's a display of Fairchild's latest automated testing equipment including interference Analyzers Models EMC-10 and EMC-25, Swept Receivers, and the Computer-Controlled Spectrum Surveillance System Model FSS-250C/2116B, the real star of the show.

George Ufen, western manager for Electro-Metrics, who is also serving as chairman of the 1970 IEEE International Symposium on Electromagnetic Compatibility, brought the display to Fairchild's Mountain View headquarters in mid-July and explained useful applications of the systems to potential "in-house" customers.

Next stop, L.A.

Bowlers Take Home The Trophies

What has the Mixed Bowling League got that the Long Island Men's Bowling League hasn't got? Girls, that's what! Our roving VIEWS photographer, Phil Kaseler, rarely gets to shoot such photogenic subjects.

The L.I. Mixed Bowling League recently held its 1968-1969 Dinner at the Four Seasons Country Club in Woodbury, N.Y. Special prize awards were donated by FCIC for the season's top bowlers.

The 5 Hoods received the coveted Sherman Fairchild trophy. The winning team is named after Joe Hood, a member of the FSDS Finishing department in Syosset. Joe, who marked his 30th Fairchild anniversary in February, has been blind for over 40 years, but that hasn't kept him from doing his job — or from rooting for the 5 Hoods.

Trophies for individual high games went to Hank Carter, 265; Mike Sirko, 257; Jane Hosking and Ruth Lyon tied at 200. Sirko, Carter, Dolores Benenati and Jane Hosking were cited for individual high series.

The 5 Hoods and the V.I.P.'s tied for high team game net with 834; each picked up another trophy; the 5 Hoods for high team series net and the V.I.P.'s for high team series handicap.

Newly-installed officers for the LI Mixed Bowling League are: Henry Carter, president; Carmine Galati, vice president; Faye Varrone, secretary; Joan Jordan, treasurer and trustees Elsie Merrick and Emil Varrone.

Team standings, as the season closed, are reported in descending order: 5 Hoods, V.I.P.'s, Unholy 5, Sunshine Co., Harem, Psychedelics, Cameras, 5 Dimensions, Off the Wall 5, Alleycats, Mad Squad, Last Straw and Pentagonals.

Newly-crowned champs of the Mixed Bowling League, the 5 Hoods received congratulations from H. E. Hale, Controls general manager, who holds the Sherman Fairchild trophy; William Curtis, league president and Joe Hood, only Fairchilder to have a team named after him. The 5 Hoods are (l-r): Hank Carter, Joan Jordan, Jane Hosking and Ben Linder.

Very Important and Proud are the V.I.P.'s, who accept second place trophies from Irving Doyle, (second from l.), FSDS director of advanced engineering. The V.I.P.'s are (l-r): Harvey Goldstein, Ruth Lyon, Carol Collins, Sal Mande and Stephen Shraub.

Receiving third place awards from Joe Fitzpatrick, FSDS employee relations manager, the Unholy 5 are (l-r): Linda Waal, Emil and Faye Varrone, Pat Nolan and Val Matteucci.

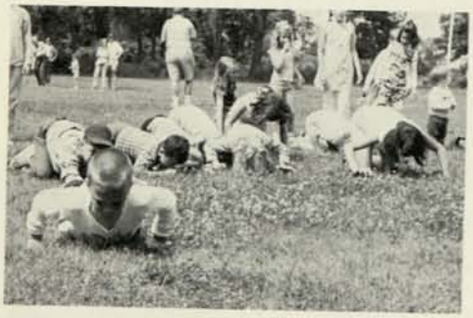
Harold Peterson (l.), president of the International Association of Machinists Local 1470, presents trophies to the league's Most Improved Bowlers: Keith Edwards, Janis Pereira and Al Veith.

H. E. Hale, Controls general manager, is flanked by High Average winners (l-r): Al Kohler, 173; Jane Hosking, 139; Dolores Benenati, 146 and Hank Carter, 174.

Harem amassed the Highest Team Game Handicap, 871, and received trophies from Irving Doyle, FSDS. Members of the Harem are (l-r): Rosalie Zabbia, Carmine Galati, Irene Puglise, Mike Sirko and Elsie Merrick.

Paramus Picnics At Palisades

More than 300 people, Paramus employees of Space and Defense Systems and their families, joined in the spirit of things competing for prizes in the egg-throwing contest, watermelon eating contest, golf contest, mummy contest, peanut pushing contest, three-legged races, and the door prize contests, not to mention the keeping the bugs out of the food contest. The date was June 21st; the place, Birchbrook Day Camp in Palisades, New York; the reason, of course, the company's annual picnic!



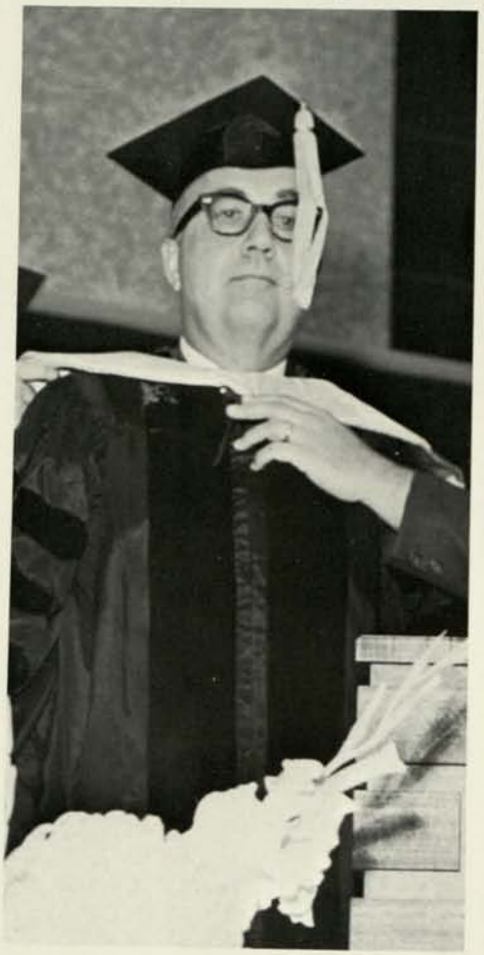
news briefs

Grant Elected To Fairchild Camera Board Of Directors

Alan J. Grant, Group Vice President of Fairchild Camera and Instrument Corporation, today was elected to Fairchild's board of directors.

Since joining Fairchild in April of this year, Grant has been directly assisting Fairchild's President and Chief Executive Officer, Dr. C. Lester Hogan, in the administration and management of the company. In addition, he supervises all Fairchild operating units except the Semiconductor and the Microwave and Optoelectronics Products divisions. Grant came to Fairchild from the presidency of Lockheed Electronics Company, a division of Lockheed Aircraft Corporation. He also had been a vice president of the parent company. Earlier he served in a number of key posts at North American Aviation, Inc., prior to his appointment as vice president and general manager of its Computer and Data Systems division. He later joined Litton Industries as president of the Guidance and Control Systems division.

Honorary Degree For Dr. Hogan



Dr. C. L. Hogan, President of Fairchild Camera and Instrument, received an honorary Doctor of Science degree from Worcester Polytechnic Institute. He was honored at the university's June commencement exercises.

Union Carbide's Modular Operational Amplifier Product Line Is Purchased By Fairchild Camera

Fairchild Camera and Instrument Corporation and Union Carbide Corporation today announced the acquisition by Fairchild of Union Carbide's modular operational amplifier product line. The product line will be located in the Fairchild Controls Division's West Coast production facility at 423 National Avenue, Mountain View, California.

Union Carbide's Electronics Division, Semiconductor Department began producing modular operational amplifiers in Mountain View, Calif., in the mid-1960s. Recently, Union Carbide Semiconductor was relocated into new and larger facilities in San Diego, Calif. Union Carbide Semiconductor will continue to feature a complete line of monolithic operational amplifiers, as well as a complete line of junction field effect transistors, MOS field effect transistors, and MOS catalog and custom integrated circuits.

H. E. Hale, Fairchild's Controls Division General Manager stated that a number of key engineering and manufacturing personnel associated with the modular product line at Union Carbide will join Fairchild.

"The acquisition will complement our division's existing line of modular operational amplifiers," Hale commented. "The line includes chopper stabilized, DC transducer preamplifiers, wide temperature range, high performance types, commercial temperature range, output current booster and comparator modular operational amplifiers."

IPD Recruits For Hofstra

Hofstra University completed a 12-minute color film/sound track for student recruitment, but found they needed a portable projector on which to show it. Administrators of the Long Island school turned to Fairchild for assistance. Industrial Products responded by donating four AV-400's which will be used by recruiters as they visit high schools across the country. The presentation was made at a Hofstra University Club luncheon where Ray Hennessey, IPD general manager and corporate vice president, turned over the projectors to Dr. Clifford Lord, president of Hofstra. Ray Hennessey, IPD general manager; Dr. Clifford Lord, president of Hofstra and Frank Dana, Hofstra Director of Admissions watch as Nat Myers, IPD group manager, demonstrates one of the school's new AV-400's.

Controls Lands USAF Contract

The United States Air Force has awarded a contract to Fairchild Controls for installation of a STAN integral weight and balance system on a C-7A Caribou. The Caribou, produced by DeHavilland, is used extensively by the USAF in its logistics support activity. An evaluation of STAN performance on the C-7A will be conducted at Sewart AFB in Tennessee.

Barry J. Hawkins, STAN Sales Manager, says the system being supplied to the Air Force under this contract is substantially similar to commercial STAN systems in use today, but with one major exception. "We have incorporated an additional capability to the system which we call MASS. MASS stands for Motion Augmented Static STAN," Hawkins explained, "and it provides improved accuracy for STAN in its static condition, or at the blocks before the aircraft has been taxied out to the takeoff point. In addition, we have also incorporated other refinements, such as deck slope compensation and wind correction features into the system."

Fairchild's STAN system is the only operational integral weight and balance system in use today by the airlines of the world. Pan Am, BOAC, Air France, Lufthansa, Universal, ONA, Seaboard, UTA, Air Afrique and the US presidential aircraft fleet are some of the present users of the system. With STAN aboard, the aircraft crew can be assured that their takeoff gross weight is never exceeded and that their loading is always within allowable limits for safe and efficient operation.

Security Workshop Held

At the podium, Gerald Sweeney, FSDS's Syosset Security Manager, hosts a recent security workshop on the relationships between contract administration and security. The Defense Contract Administration Services' Office of Industrial Security sponsored the informal workshop for security directors and contract administrators of companies dealing with the Defense Supply Agency. In addition to FCIC, companies represented were: Geospace Electronics, Reeves Instrument, Hazeltine, Airborne Instrument Labs, Fairchild Hiller, ARMA, PRD Electronics, Grumman Aircraft, and DCASR representatives.

Telling It Like It Is

Members of the New York City press recently previewed a film, "Just Sign Here," which was prepared for the Better Business Bureau of Harlem. The film was shown on a Fairchild Mark IV projector — particularly appropriate for the honor because the film was made possible through a contribution by The Fairchild Foundation, Inc.

Sherman Fairchild, Foundation President Walter Burke and Treasurer Warren Farrell felt the movie would help the Harlem community and other low-income communities to become more knowledgeable and wary about credit purchases. "Just Sign Here" explains some of the problems inherent in buying appliances, furniture, automobiles, food freezer plans and other merchandise on credit; it highlights the dangers in signing a contract without understanding it thoroughly, or in signing a contract with spaces left blank. Telling it like it is will aid in the battle against unethical and dishonest businessmen who have made credit purchases hazardous for the unsophisticated consumer.

Callis N. Brown, executive director of the Better Business Bureau of Harlem, watches "Just Sign Here," film sponsored by the Fairchild Foundation, on a Fairchild Mark IV projector.

Tennis Anyone?

If you're playing doubles, Pete Lampasona, Space and Defense Systems, is the man to have on your side. If you're playing singles, watch out! Pete has been the company's tennis champ for three years, and here he receives this year's trophy from Joe Fitzpatrick, FSDS Employee Relations Manager.

Fairchild And The Arts

What does the Emperor of Japan have in common with a trombone player? And what do they both have to do with Fairchild Camera and Instrument Corporation?

Both the monarch and the musician are being presented for the enjoyment of Long Island residents through the generosity of FCIC in cooperation with the Nassau County Division of Recreation and Parks. Fairchild, as an important member of the Long Island industrial community, is sponsoring two programs in the Summer Starlight Showcase, an entertainment series at Eisenhower-Salisbury Park in East Meadow, New York.

The first Fairchild-sponsored presentation was held July 21st at Lakeside Theatre, where the Gilbert & Sullivan workshop performed "The Mikado." Many Fairchild employees brought their families and friends out for a pleasant evening of theatre under the stars.

Still to come is a delightful treat for the ears on Saturday evening, August 30, when the New York Symphonic Band, 45 professional musicians under the talented baton of Maestro Frank Colasanto, will offer an enjoyable selection of music — from Sousa's marches to excerpts from Broadway and the Opera. It's neither highbrow nor lowbrow — just good fun for the whole family.

Backstage at Lakewood Theatre, Long Island, P.R. Manager Stewart Pardee greets the cast of the Mikado. Many Fairchilders attended the show.

New Product Profiles

Fairchild Controls introduced a complete new series of precision conductive plastic synchro potentiometers designed for use as a control transformer, control transmitter, transformer synchro, or as a control transmitter, non-linear control transformer synchro. The new line is available in ⅞″ to 3″ diameter sizes.

A new battery-operated transient amplitude detector, TAD-66, capable of reproducing a 30 nanosecond width pulse to 90% amplitude accuracy is now available from Electro-Metrics.

A 64-bit static random access memory complete with decode logic, chip select and control circuitry, has been introduced by Fairchild Semiconductor as the first in a planned series of MOS memory subsystems. The 3050 is a MOS integrated circuit which reads information repeatedly without requiring re-write. Applications for the 3530 are found in scratch pad memories, system controls and data accumulation systems. The device is also suitable for data storage, computer peripheral equipment, airborne and missile memory systems, and desk calculator memories.

Introduction of the μA715, an operational amplifier specifically engineered for applications requiring high slew rate and wide bandwidth, has been announced by the Semiconductor division. This monolithic linear integrated circuit is more than ten times faster than any IC operational amplifier now on the market. The device offers many application possibilities for the commercial, computer and military markets.

Semiconductor has capitalized on several technological breakthroughs to design an instrumentation operational amplifier which achieves precise, low level amplification and serves well in applications requiring low noise, low drift, and accurate loop gain. The μA725 can also find applications in low level signal conditioning, precision measuring equipment, transducer amplifiers, AGC amplifiers and active filters. Other application possibilities are in telemetry systems, data acquisition systems and process control equipment.

Fairchild Semiconductor has introduced the MT2500, a S-Band small signal transistor that features a maximum noise figure of 5.0 dB and a minimum power gain of 7.0 dB at the same bias conditions. It's basically designed for low noise microwave amplifier applications in electronic counter measures, telemetry systems, space telemetry, satellite communications and common carrier communications systems.

The reading of punched cards and marked cards can now be accomplished by a plastic phototransistor card reader array specially designed by Fairchild Semiconductor. Called the FPA710, this phototransistor can also serve as an optical encoder for reading shaft or disc positioning needed in process control machinery, tape milling machinery, distance indicators and other equipment in the industrial and computer fields.

Two high speed PNP transistor switches, fastest in the industry at 300 mA, are now available from Fairchild Semiconductor for a variety of saturated and non saturated switching applications, including complementary switching circuits. The 2N5455 and 2N5456 can also be used in RF oscillators up to several hundred MHz, plated wire memory drivers, and certain core driver applications.

The industry's need for a low cost, high gain differential video amplifier can now be satisfied by Semiconductor's new linear integrated circuit, the μA751. Its chief application is as a read amplifier for thin film memory systems, but it can also be used as a plated wire memory amplifier and as a general purpose video or pulse amplifier.

A simpler version of the STAN integral weight and balance system has been developed by Fairchild Controls. Called AccuMAC, the new system provides aircraft flight crews with instantaneous center of gravity data for a known takeoff gross weight condition. AccuMAC will aid the relatively small aircraft operator whose load factor remains reasonably constant, but who loads his aircraft in different ways, thus affecting the center of gravity aspects. Such operations as commuter airlines flying 6 to 16-place aircraft are logical users of the system.

DuMont Employees Celebrate 20th Anniversary

Several employees of DuMont Electron Tubes Division in Clifton, N.J., recently marked their 20th anniversaries with the company, and have received Service Awards.

Alan R. Howell of the Contract Administration department enjoys the ever changing variety of his work. "No two days are ever alike; new problems—new solutions." What's Alan's favorite Fairchild memory? He met his wife at DuMont! The Howells have three children.

Adriana Orr has been a mounter in the tube mounting department for her entire 20 years service at DuMont. She likes the pleasant working conditions, good benefits and nice people on the job, and spends her hobby time crocheting and knitting for her four grandchildren.

Earl Barney received his Service Award for 20 years. In Mechanical Maintenance, Earl is married and has one daughter, Frances.

Avior Pfister, a tube process operator, enjoys the constant variety in working on DuMont's broad line of electron tubes. She takes pride in seeing that the work is properly done, and enjoys the friendly atmosphere at the Clifton plant.

John Radigan served in the U.S. Navy in World War II, and is presently group leader in the Finished Tube Stock and Packing Department. According to John, there's never a dull moment on the job. He divides his leisure time between sports, fishing, oil painting and sculpting.

Frances Patruska, who began in the glass molding department making stems, is now a group leader in Engineering's model shop, where she enjoys working with experimental designs. Her proudest moment: seeing her two children graduate from business school and college.

Yulke Honored at Retirement Luncheon

Harold Yulke, retiring corporate advertising manager, was feted by his associates as he concluded 35 years of service to FCIC, at a Long Island luncheon in his honor.

New Appointments

Two Join Controls At Mountain View

Two appointments have been announced by the Modular Products Group of Fairchild Controls in Mountain View. According to Cliff McCarroll, Product Marketing Manager, George Urbani has joined the group as Product Sales Manager. Active in both design engineering and sales, Urbani was previously Sales Manager of ferrite components for Melabs in Palo Alto, Calif.

Shelby Givens, formerly Modular Products Manager at Union Carbide Electronics in Mountain View, has joined Fairchild Controls as Engineering Manager of Modular Products.

John Moll Named Technical Director Of Fairchild Microwave And Optoelectronics

Dr. John L. Moll, professor of electrical engineering at Stanford University, has been appointed Technical Director of Fairchild's newly-formed Microwave and Optoelectronics division. Already in his new position, Dr. Moll will be responsible for all product development and engineering of the division's complete line of solid state devices, components and subsystems in the areas of microwave and optoelectronics. Dr. Moll will also act as liaison and coordinator with Fairchild R&D. Dr. Moll has been at Stanford since 1958, when he left the technical staff of Bell Telephone Laboratories.

Van Poppelen Named Semiconductor General Manager

F. Joseph Van Poppelen Jr., a Vice President of the corporation, was named General Manager of the Semiconductor division. Van Poppelen, who joined Fairchild last September, fills the position that was held on a temporary basis by President Dr. Hogan. In making the promotion announcement, Dr. Hogan explained, "I feel we need a tighter organization with greater control over our many diverse operations and better communication between all of us in order to make our course more efficient and the achievement of our goals more rapid." Dr. Hogan described him as a "real generalist within our industry" whose background and abilities "will lead us to the goal we are seeking." Prior to joining Fairchild, Van Poppelen was with ITT Corporation, most recently as director of business and planning and earlier as president of the semiconductor division's United States operations. He is a former executive vice president and general manager of Signetics Corporation. Previous to this he was the vice president of sales for Motorola Semiconductor and a district sales manager for General Electric Semiconductor.

Hawkins Named To College Relations Post

Michael E. Hawkins has been promoted to Manager of College Relations for the corporation. He will have responsibility for corporate college relations, which will include college recruiting, fellowship administration, and university grants. He joined Fairchild Semiconductor division professional employment group in 1966.

New Corporate Legal Appointments

Richard Franklin has been named Director of the Corporate legal department in Mountain View. A native of New York, Franklin has been with the Fairchild legal group since joining the company in 1963. He is a graduate of Queens College, and the New York University School of Law. Stanley Winston will suceed Franklin as corporate counsel for all East Coast Fairchild divisions in Syosset, L.I., New York. Prior to accepting this promotion, Mr. Winston was patent counsel to the Fairchild DuMont Electron Tubes division in Clifton, New Jersey. Ralph Lee will assume the position of senior counsel and will assist in the performance of the duties of Secretary of the Corporation, as well as undertaking other legal assignments. Both men will report directly to Vice President and General Counsel Nelson Stone.

Berg To Head New Business Development

William A. Berg has joined the corporate staff as Director, New Business Development and will be responsible for putting Fairchild's divisions into new businesses and markets that are semiconductor technology-based. Mr. Berg was previously marketing manager for Signetics, Inc. of Sunnyvale, Calif. He joined Signetics in 1962 and was instrumental in building Signetics' marketing organization to its current highly respected position within the semiconductor industry. He has also held positions with Douglas Aircraft Company, TRW Laboratories and Motorola.

20 Years Service Awards

Space and Defense Systems

Emilio Pasqualoni

15 Years Service Awards

Space and Defense Systems

Everett Carpenter

10 Years Service Awards

Space and Defense Systems

Roy Eberhardsen
John P. Kolb, Jr.
Arnold Moskowitz
Richard C. Wilton

Mt. View

Ed Krueger
Margaret Nowlin
Eula Oltrogge
Henry Woo

5 Years Service Awards

Space and Defense Systems

Nicholas Anagnostikos
Joseph C. Curcio
Eraldo DiFonzo
Nicholas Francischelli
Barbara Kalb
Burl W. Mansberger
Herbert Simmons Jr.
Alvin Stobin
Henry E. Supel
Arthur D. Twyman
Frank S. Vierra

Mt. View

Rosemary Cabral
Barbara Earls
Patricia Johnson
Lisa Larsen
Howard Sharek

South Portland

Shirley Andrews
Rita Casey
Bernice Cronkite
Marie Fernandez
Robert Fish
Jeanette Frenette
Elizabeth Gardner
M. Queen
Mary Ricci
Annetta Richardson
Louise Whitney
Geraldine Wilson
P. Van Deventer

R & D

Patricia Curtis
Robert Jimenez
Donald Rickers
Wendell Sander

San Rafael

Bert McNamara
Clara Mertz
Donna Pedrani
Albert Wight

Instrumentation

Janet Barretta
Jean Jacobs
Edgar Johns
Marian Lopes
Dorothy Ray

Industrial Products

Mary Anne Harrison
John Luisi

Fairchild VIEWS

August 1969

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Graphic Equipment – Plainview, New York
Industrial Products – Plainview, New York
Microwave and Optoelectronics
Mountain View, California
Semiconductor – Mountain View, California
Space and Defense Systems – Syosset, New York
Systems Technology – Sunnyvale, California
World Magnetics – Charlotte, Michigan

Editor: Judy Horst
Associate Editor: Naomi Glass
Art Director: Larry Bender
Assistant Art Director: Ray Murakami

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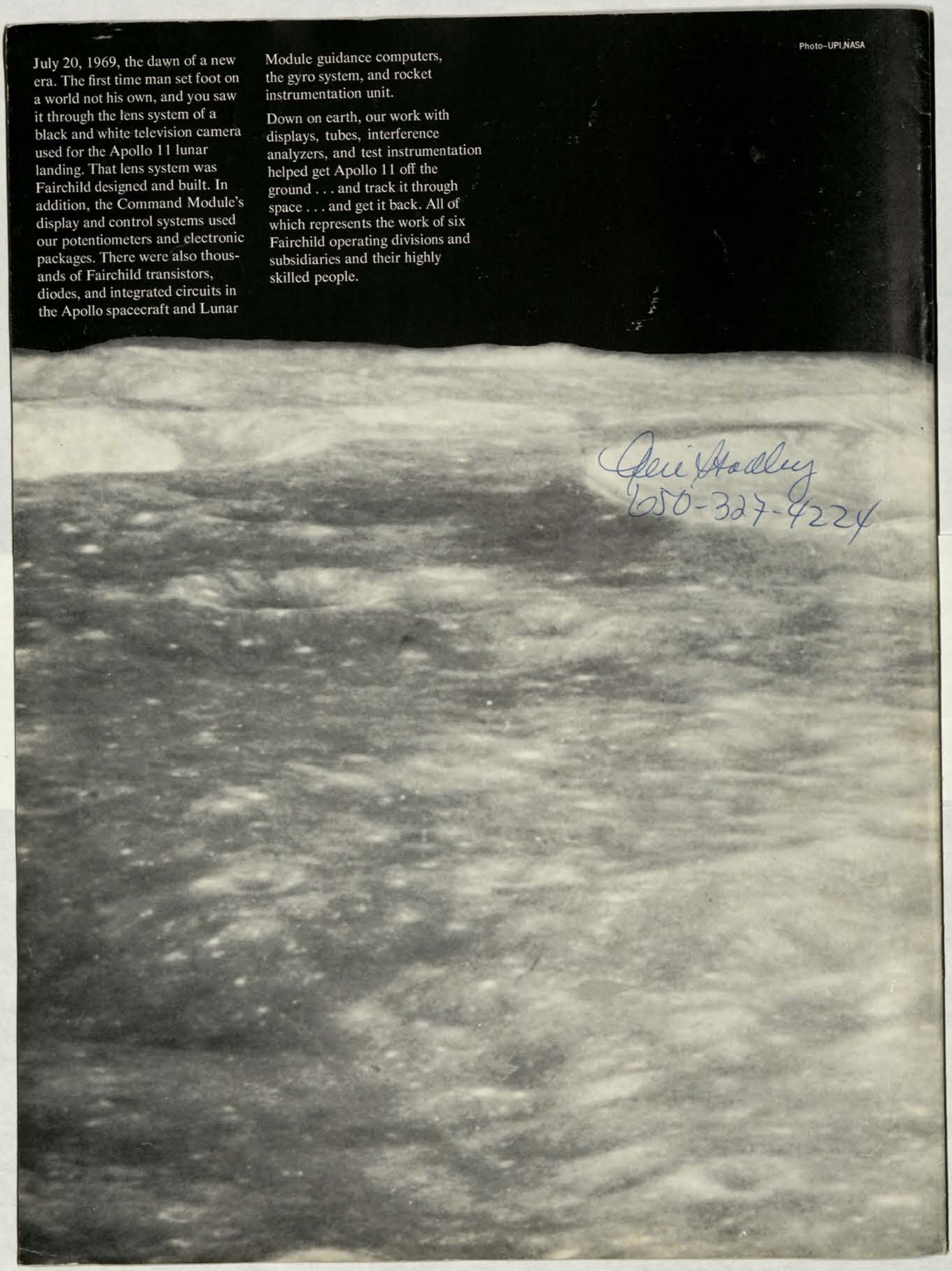
July 20, 1969, the dawn of a new era. The first time man set foot on a world not his own, and you saw it through the lens system of a black and white television camera used for the Apollo 11 lunar landing. That lens system was Fairchild designed and built. In addition, the Command Module's display and control systems used our potentiometers and electronic packages. There were also thousands of Fairchild transistors, diodes, and integrated circuits in the Apollo spacecraft and Lunar Module guidance computers, the gyro system, and rocket instrumentation unit.

Down on earth, our work with displays, tubes, interference analyzers, and test instrumentation helped get Apollo 11 off the ground . . . and track it through space . . . and get it back. All of which represents the work of six Fairchild operating divisions and subsidiaries and their highly skilled people.

Photo-UPI,NASA



Jeri Hadley
650-327-4224

VIEWS

Fairchild Camera and Instrument Corporation

New Directors, New Approaches... New Achievements

Lots of things have been happening at Fairchild over the past months, and they've been happening so fast it's been hard to keep up with them. For that reason this issue of VIEWS is a recap of some of those events.

As Fairchild returns to a "normal" pace, the emphasis in talks we've had with both corporate and divisional leaders indicates a sincere intent to work hard at keeping employees in tune with management thinking and the company's direction.

If you are wondering where we are now, some of the answers will be found in the articles that follow. It is highly recommended that every employee read the straight-forward interviews with Van Poppelen, Draighi, and Pighi, three of the company's newest general managers. And, if you'd like to know what Fairchild's divisions are doing and how they all relate to each other, check the lead article. It will serve as a good launching platform into the articles that follow.

Yes, lots of new things are happening. The needs of the company still demand time to solve the problems facing any changing organization, but the only way is up, and that's where Fairchild, under the direction of Les Hogan, is headed. And, it should be an exciting trip!

Judy Horst, *Editor*
Naomi Glass, *Associate Editor*

WE DESIGNED A NEW TYPE FACE; PRODUCED PRECISION PRINTED CIRCUIT BOARDS AND TELEVISION CAMERAS FOR A VARIETY OF USES; EQUIPPED WESTWOOD ELEMENTARY SCHOOL WITH THE LATEST AUDIO-VISUAL EQUIPMENT; INSTALLED SEARCH RADAR IN A SUBMARINE; CONSTRUCTED AIRCRAFT WEIGHT AND BALANCE SYSTEMS, LASER RECEIVER TELESCOPES AND IMPULSE GENERATORS; BUILT MICROWAVE AMPLIFIERS, LIQUID LEVEL CONTROLS AND COCKPIT VOICE RECORDERS; MANUFACTURED EARPHONES AND AUDIO-VISUAL PROJECTORS AND FILM CARTRIDGES; DELIVERED MAGNETIC TAPE HEADS FOR INSTRUMENTATION USES; AND TESTED MILLIONS OF INTEGRATED CIRCUITS, TRANSISTORS AND DIODES FOR THE APOLLO 12 PROGRAM.

IT WAS JUST ANOTHER DAY AT FAIRCHILD CAMERA AND INSTRUMENT.

When two men landed on the moon, millions of TV viewers were with them. Through the magic of modern technology they shared the excitement of the epic enacted 220,000 miles away in space—and they saw it through a Fairchild lens system.

Space and Defense Systems, one of Fairchild's 12 divisions, developed the lens system for Apollo 11's TV camera. The Semiconductor Division supplied many thousand transistors, diodes and integrated circuits for the spacecraft guidance system and ground instrumentation equipment. The airborne systems of the spacecraft employed transducers and electronic packages manufactured by the Controls Division, and various ground support systems incorporated equipment supplied by DuMont Electron Tubes, Systems Technology and Electro-Metrics.

The list is impressive. Yet it was less than 50 years ago that Sherman Fairchild's first aerial camera photographed a small segment of the earth from an altitude of 2,000 feet. Today, the company that bears his name, Fairchild Camera and Instrument, headquartered in Mountain View, California, is a front runner in other areas too.

More than 23,000 people located around the world manufacture more than 400 product lines, and of these products there are probably more than a quarter of a million variations to suit customer specifications and to meet many product needs.

For instance, Fairchild's Graphic Equipment division in Plainview, Long Island, is a leader in high speed photocomposition typesetting and type face design. The Industrial Products division, also located in Plainview, manufactures a wide variety of products for industry, education, and business — from Cockpit Voice Recorders and airborne music and announcement systems for commercial aircraft to 8mm cartridge-load audio-visual equipment.

Electro-Metrics systems are soon to be used on the gantry of Apollo moon shots to pick up and measure noises as part of last minute check-out procedures. The division's EMI/EMC (electromagnetic compatibility and electromagnetic interference) test equipment is also used by auto manufacturers and government contractors working to critical specifications. This Fairchild operation is headquartered in Amsterdam, New York.

Microwave and Optoelectronics, a very new division located in Mountain View, manufactures a line of solid state microwave signal sources, amplifiers, and products used in telecommunications. Other products include complex optical arrays and photo devices used in tape readers, card readers, light meters, light dimmers, and pattern and character sorters. Solid-state displays and detectors for various readouts is a new product line.

DuMont Electron Tubes in Clifton, New Jersey, is an industry leader in the design and production of display devices which include cathode ray tubes and direct-view storage tubes as well as photosensitive devices and power vacuum tubes. DuMont's products find application in special displays for sonar equipment used by commercial fishing fleets and computer terminal equipment such as

reservation and schedule information at airports and desk-type stock market quotations. DuMont is a prime supplier of direct-view storage tubes used in weather radar systems and its photomultipliers serve the medical and atomic energy fields in radiation detection and monitoring equipment.

Fairchild Controls, headquartered in Hicksville, Long Island, manufactures pressure transducers for the Lockheed MADAR (Malfunction Detection Analysis and Recording) system in the Air Force Galaxy C-5, newest and biggest transport aircraft ever designed. Applications for Controls instruments vary from measuring milk during processing to performing pressure sensing in air conditioning systems and fresh water processing and in fuel injection systems for autos. Controls also manufactures a line of modular products (affectionately called "little electronic black boxes") which include operational amplifiers, DC amplifiers, power supplies, and special products using latest integrated circuit technology.

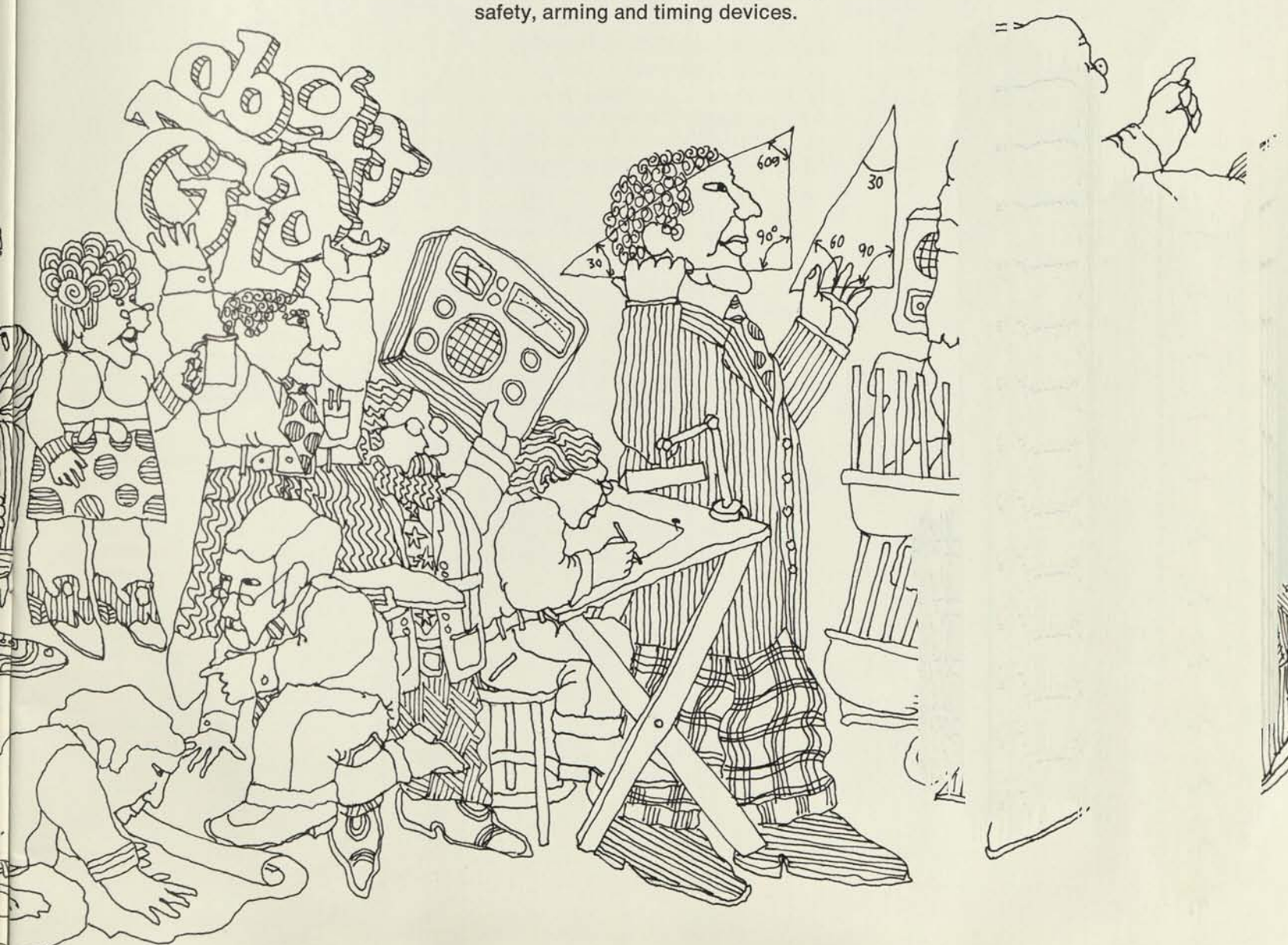
Fairchild's smallest division, World Magnetics of Charlotte, Michigan, manufactures magnetic tape reader heads for instrumentation use and magnetic rings for Burroughs' check sorters.

Fairchild Space and Defense Systems, headquartered in Syossett, Long Island, produces panoramic reconnaissance cameras, optics and lens systems, regular and low-light level television lenses, and specialized lenses for applications in the semiconductor field. The division's products also include electronic countermeasure sets, radar navigation equipment and airborne television view-finders. A number of closed-circuit television cameras for educational, CATV broadcast, training and data transmission markets and advanced television systems for NASA programs round out Space and Defense Systems' product line.

Defense Products, a new division and formerly part of Space and Defense, manufactures a variety of rocket, missile, and artillery fuses as well as safety, arming and timing devices. The division has furnished ordnance equipment for various government projects such as Honest John, Little John, Jupiter, Hawk, Lance, Sprint and Shillelagh missiles, the series of high and low drag bombs, and a number of artillery and rocket applications.

Systems Technology in Sunnyvale, California, (formerly known as the Instrumentation division) is a leading manufacturer of discrete device and integrated circuit test systems, and precision printed circuit boards. It will also be building electromechanical equipment to handle the flow of products into and out of testing as well as designing systems softwear packages, or computer programs, so that customers may better use its test equipment.

Semiconductor's line of transistors, integrated circuits and diodes, and complex arrays performs in products from pocket radios to rockets.



Fairchild Semiconductor, centered in Mountain View, California, is a recognized leader in semiconductor innovations. As the industry moves into medium scale integration and large scale integration, the Semiconductor division is developing new ways to fabricate devices that incorporate hundreds of functional elements on a single chip of silicon. Circuitry designs are now so sophisticated that the entire electronics of a desk calculator, including memory and logic, can be contained on three tiny silicon chips.

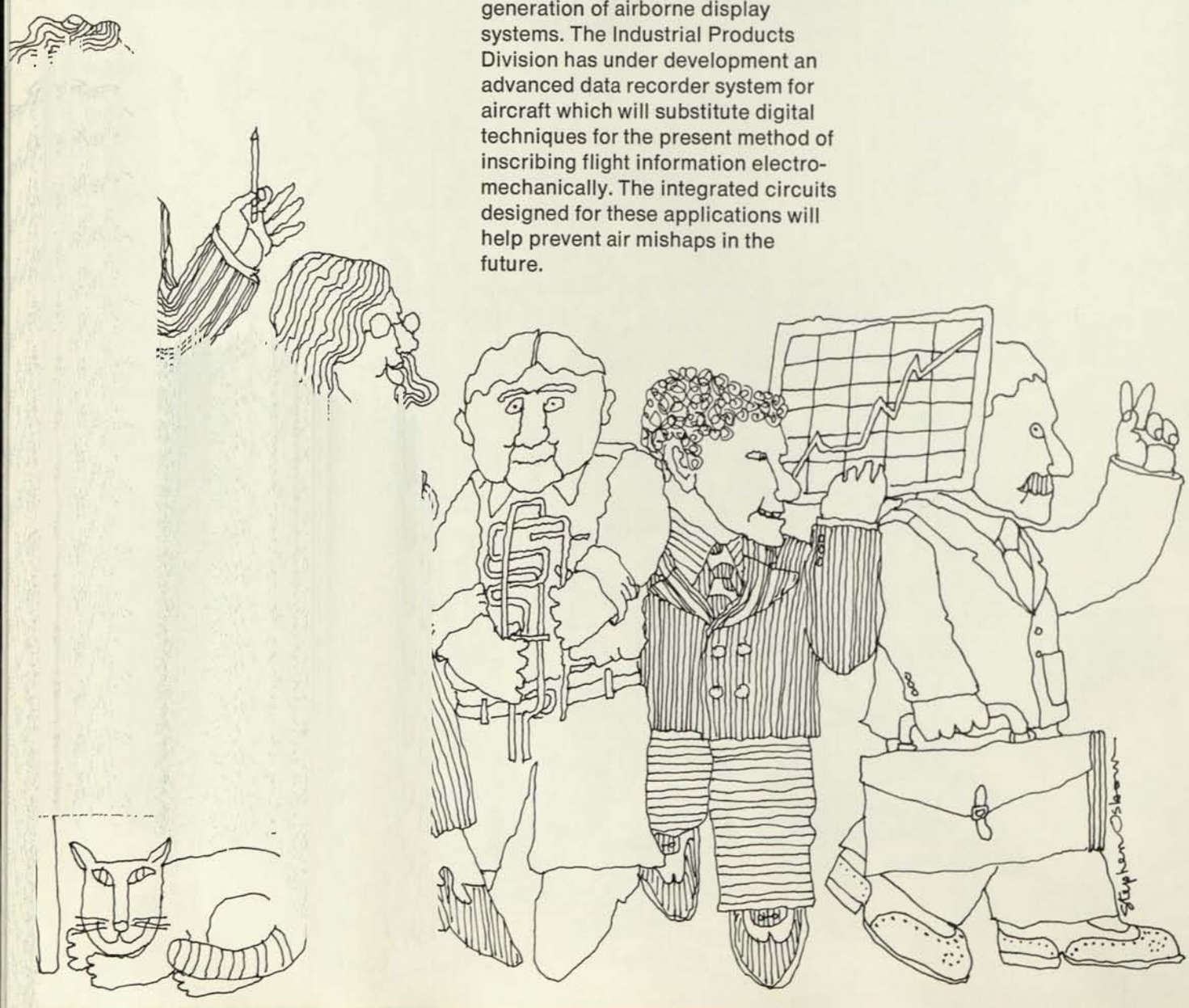
This forward thrust of Fairchild Camera and Instrument Corporation is in part due to strong leadership in technology. The Corporation's research and development program is a major part of the long range growth plan. Fairchild's Research and Development laboratory located in Palo Alto, California, and serving all Fairchild divisions, is responsible for many of the innovative concepts that make possible the improvement of existing products and the creation of entirely new products.

Add to these twelve divisions an extensive marketing network of sales offices and reps around the world, and the Fairchild Camera and Instrument picture becomes a very big and varied one. With Fairchild one of the largest 500 companies in America, its management is now taking a close look at its present posture and where it would like to be in the future.

Major emphasis is being directed to an interchange of technology between the various divisions. For instance, Graphic Equipment Division's technology has advanced to the point of using solid state devices for the reproduction of words and images in graphic arts equipment. DuMont is merging semiconductor innovations with tube technology to develop products that will be useful in phonovision systems and in the next generation of airborne display systems. The Industrial Products Division has under development an advanced data recorder system for aircraft which will substitute digital techniques for the present method of inscribing flight information electromechanically. The integrated circuits designed for these applications will help prevent air mishaps in the future.

Semiconductor uses trimmers and pressure sensors, products of Controls; display tubes from DuMont; Mark IV projector equipment from Industrial products; lenses and character display units from Space and Defense; and Systems Technology test equipment. The MOD division supplies avalanche luminescent diode arrays to Space and Defense and type readers to Systems Technology. It, in turn, uses Systems Technology's test systems and integrated circuits from Semiconductor.

And it goes on and on. Like most things, Fairchild is the sum total of all its parts and people, manufacturing audio-visual projectors and film cartridges or glossmeters or stereoscopes or cathode ray tubes . . . all in a day's work.



Three New General Managers Look At Their Divisions

Louis H. Pighi, steping into the top management slot at Space & Defense Systems, does so at a time when the defense business as a whole is undergoing a trial by budget cut and a realization of the need for sound management procedures and cost control in all areas.

Prior to his appointment, announced recently by FCIC vice-president Alan Grant, Pighi had been operations manager for the division's Syosset, N.Y. facility. He now assumes additional responsibility for the precision optical group in El Segundo and the electronic systems facility in Paramus.

Pighi rejoined Fairchild in 1968 as Director of Engineering after 10 years with Airborne Instruments Laboratory as head of Data Systems, where he was responsible for administrative functions and technology on computers, electronic displays, analog-digital converters, intelligence processing equipment and computer software.

Pighi is a member of the Institute of Electrical and Electronics Engineers, the Operations Research Society of America, the Society for Information Display, the Society of Photo-Optical Instrumentation Engineers and the Association of Old Crows.

In 1966, the Ordnance Products program of Fairchild Space and Defense Systems became a virtually self-sufficient operating group with its own marketing, engineering, manufacturing, industrial relations and accounting capabilities. Now, the ordnance unit in Copaigue, Long Island, has become a separate entity known as the Defense Products division.

Heading this new division is Robert Draighi, Jr., moving up from operations manager to become general manager. His father, Robert Draighi, Sr., joined the company in the early 1920's as a toolmaker and advanced to serve in the 1950's as vice president and general works manager of the Space and Defense division.

In addition to being the only second-generation manager in Fairchild history, Bob Draighi, Jr., heads one of the corporation's most interesting divisions. The Copaigue facility was established in 1966 for high volume, high rate production of a variety of fusing, safety and arming, and timing devices. Employing more than 700 people, Defense Products has expanded several times over the past three years and now occupies over 100,000 square feet of space in two buildings.

When Joe Van Poppelen was named General Manager of Fairchild Semiconductor July 1, he undertook one of the most difficult assignments in the industry: to turn Semiconductor around and put it on a profitable basis. Formerly executive vice president and general manager of Signetics, then president of ITT Semiconductor's U.S. operation, and most recently vice president and director of marketing for Fairchild Camera and Instrument, he has been called by Fairchild President Les Hogan "a real generalist within our industry, a man to give Semiconductor a tighter organization with greater control over its world-wide operations and better communications between all people in the company in order to achieve our goals." What course has Van Poppelen chosen? In one word, a course of "visibility." In his own words, "Every employee has a right to expect an answer to what's happening. He has to know what his job is and what his boss's job is, and what they expect from each other. Both must build a relationship of mutual respect."

PIGHI: A Space Age Division Banks on Human Resources

Since your return to Fairchild, what have you found most impressive?

I'm particularly impressed with the engineering capabilities of Fairchild Space and Defense, especially in the development of quality equipment that performs well in the field — with few complaints. Space and Defense also has an excellent production facility, particularly in precision machines, and our timely deliveries of cameras, converters and other equipment has contributed to the brighter divisional picture. Additionally, our lens systems, developed in El Segundo, are among the finest in the world.

There has been a shift in organizational structure recently. Can you explain why?

We've developed group directorates, product line centers which merge marketing and engineering capabilities. Irving Hirschberg heads a task force dealing with electronic data systems, Tom Palamenghi leads the reconnaissance systems group, and Edmund Muehleck directs the photographic systems group. Each directorate will set goals for its new business, research and development, budget controls and profits.

What sort of relationship will there be between Space and Defense and the New Defense Products division?

Because we've been so closely associated before, cooperation will continue between the two divisions, and now both of us can concentrate our energies in our specific areas of business.

Where's the growth area for Space and Defense?

The division's primary business area is surveillance and reconnaissance systems. I think there will be further expansion in the strategic camera field. New developments are required in optical and film handling systems because high performance aircraft increasingly demand higher resolution, smaller packages and greater reliability. Working with other Fairchild divisions, particularly Microwave and Optoelectronics, we will develop new electro-optical systems for near and real time applications.

You've spent many years developing data conversion systems. What role will they play in Space and Defense's plans?

The division has an excellent capability for the design and manufacture of electronic data converters; we expect to include them in avionic interior communications systems.

How do the recent defense cutbacks affect your division?

There's no simple answer to the problems besetting the defense industry at this time. The defense industry is tightening up; competition is becoming keener and sharper. If we're to stay in this business, we have to keep pace by developing new products and examining all cost areas. Improvements in program and cost controls are now being made to assure a more profitable year. It is essential the Space and Defense Systems come into line with competitive positions in order to continue as a profitable division.

What plans have you laid for Space and Defense Systems?

There will be more attention paid to company-sponsored developments and investment in the future, and we shall have to develop and improve our marketing and systems design capabilities. Both short-range and long-range plans are underway defining the business areas, group and divisional objectives, and employee development and R & D programs. Group directorates in Syosset are an implementation of these plans. The challenge to grow and to create an even better image in the marketplace is one which must be met by the same teamwork and dedication that is making 1969 profitable. We're banking on these same human resources to return great dividends in future years.

DRAIGHI: Maximizing Our Potential

How does Defense Products feel about being on its own?

Really, we've been a pretty self-sufficient group since 1966. Obtaining divisional status is really a form of recognition for our successful efforts over the past three years, and it presents an exceptional opportunity to establish the corporation in the ordnance devices product line. The technological trend of our industry in applying solid state devices will enable our division to assist the corporation obtain its objectives.

How does the future look?

Our industry will be more heavily electronically oriented, and as a division of a corporation that is an acknowledged leader in electronics, we are in a strong position to meet our divisional objectives.

What happens when the hostilities in Viet Nam cease; how will this affect your business?

It will have virtually no effect on the nucleus of our business since our products generally go into ordnance stores. While there will be some reverberations to suppliers in this field, I feel we have a good balance of contracts and prospective new business that will enable us to operate as well as we have in the past. Our technical capabilities, our high volume assembly capability, and our acknowledged leadership in semiconductor technology makes the future very promising for us.

What are your goals for the division?

Our objective is to couple the semiconductor technology to our ordnance technology and thereby enhance our position as the leader in both the development and production of ordnance devices. Our employees are well trained and top performers. We now employ the latest electronic technology in testing, and our quality and reliability leads the industry. However, we want to stay ahead of the crowd, and we can do just that.

VAN POPPELEN: Where Do We Go From Here?

Semiconductor has been unprofitable for several quarters. How do you propose to turn the division around?

It's true, we've been losing money for several quarters now, but profit turn-around is just around the corner. We'll be operating in the black by year-end. The picture looks far different than that of a year ago. Last summer the problem was falling production. Inventories were dropping at a terrific rate. Today, sales are booming, even a little ahead of forecasts of 25-30% growth per year, but the total spending level is in excess of what we had budgeted. To put Semiconductor on a profitable basis we will have to continue our large investments, but we are watching operating costs more closely than ever.

What is the plan of operation; what goals have you set for the division?

I think the number one goal is to develop an approach of priority ranking of what we want to do. We have to have better visibility into what we want to accomplish, what we can accomplish and what we are doing.

This leads me to the number two item on the list, establishing effective product line P & L. With production facilities spread all over the world, we are shifting reporting emphasis from plants to products. It's useless to know if a certain plant is making more money or not. The information that is important is how a certain product line is doing. This means a switch in our accounting structure so we can achieve world-wide "visibility." You see, product managers are now responsible for all phases of the manufacturing/delivery cycle, regardless of where the work is done. Now it follows that we need better reporting methods so this man has a better picture of what's going on and can take responsive action whenever it's demanded of him. Along with more effective reporting will come a new budgetary system with less red tape in internal charges for support services.

I've also set five more broad goals for the division. I think it's important to push ahead in MSI; I'd like to see us exploit our position in diodes, Linear circuits and digital circuits; we should make power transistors a major product line; we've got to make a big commitment to MOS; and lastly, I think we should become a big factor in the memory business. Many of these product lines have been neglected too long. While our research and development efforts have kept us ahead of competition, we will be putting considerable emphasis on manufacturing and marketing in these five areas.

You mentioned expenditures earlier and that we would have to continue our large investments. What kinds of investments will Semiconductor be making this year?

We plan to have invested about $20 million in equipment and facilities by year-end, about 25% of this in facilities. The equipment we are buying will be for assembly purposes and faster test equipment. Among the major investments is a wafer fabrication capability to be built in the Ellis street building at Mountain View.

The goals and objectives seem clear; how do you hope to unite everyone behind them?

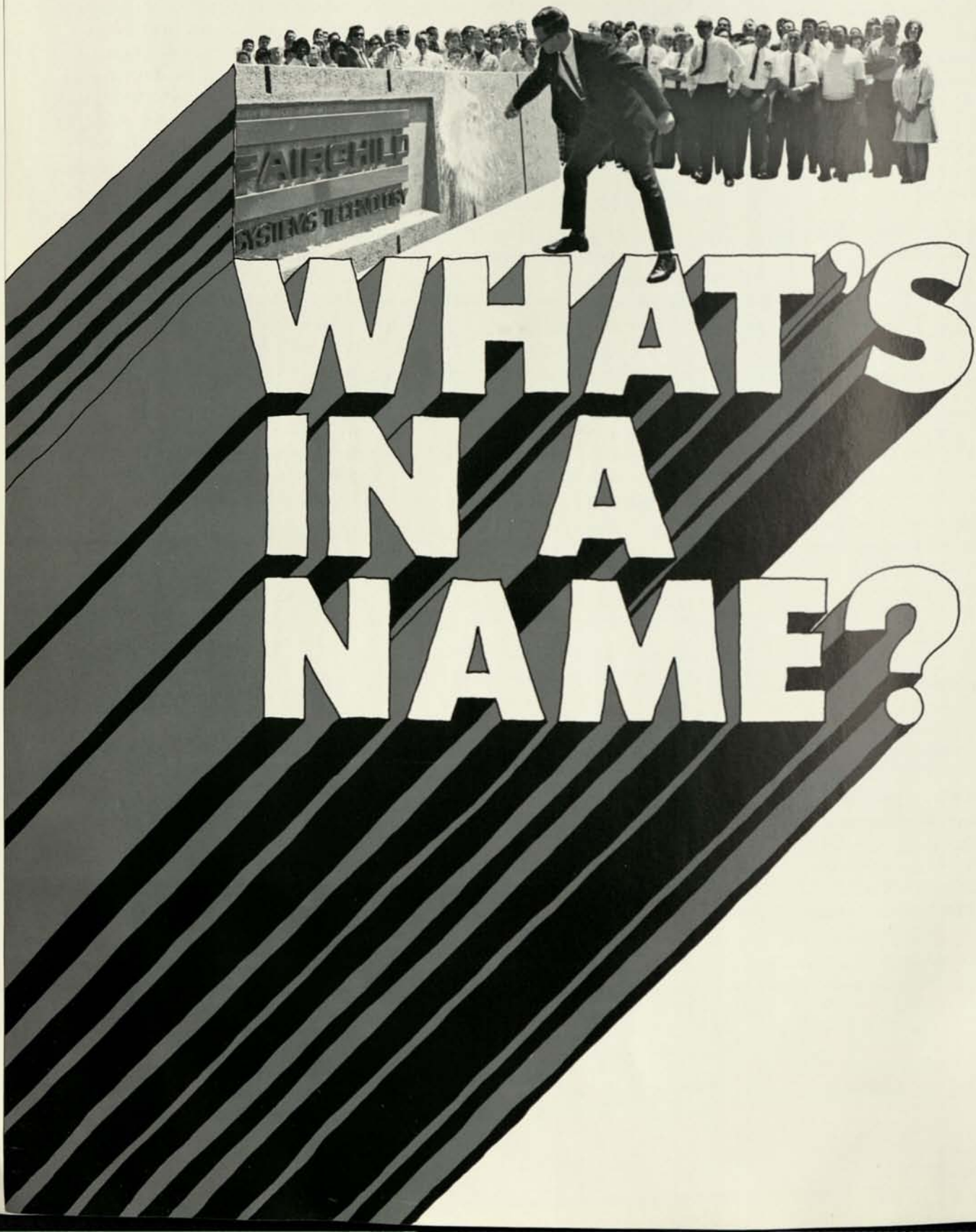
I'm acutely aware that getting everyone to work together is one of the biggest problems we face here. This is bound to happen when a company experiences large-scale change.

I plan to spend lots of time on the production floors in each of our plants and time talking with our managers, production people, and office staffs. We've all got to pull together, we've got to become more effective as a group. I'd really like to hit this subject pretty hard.

Every employee at Fairchild has a right to know what's expected of him from his supervisor, what his job is, what his supervisor's job is. I call it "visibility." My managers have to know what I'm thinking or they aren't going to be able to do the job I'm expecting from them. And, every employee has a right to expect an answer to what's required of them. They may not always like the answer, but we're going to have to be straight forward and give candid answers to each other. That's the only way we respect each other. As in a good marriage this doesn't mean everything is "lovie dovie;" often it means direct confrontation. Every employee has to know what his own personal contribution is whether it be to the girl on the line next to her or to the astronauts who've walked on the moon. I want everyone to take genuine pride in what they are doing, and I want them to be confident enough to stick their necks out for the company. We need "dam-busters." people who when the system bogs them down, don't quit, but continue to complete the job. We can't miss with people like that.

With a plan, highly motivated people, good reporting systems, and the skills gathered for another launch, where do we go from here?

There's no where to go but up, and all I can hope for is that everyone wants to get to the same place I do — that number one spot in the industry.


FAIRCHILD
WHAT'S
IN A
NAME?

Plenty where the Systems Technology Division is concerned. It means new challenges and new directions for the Fairchild division formerly known as Instrumentation.

Although several factors prompted the decision to change the name, the major reason was a dynamic shift in business strategy designed to capitalize on business opportunities by utilizing advanced semiconductor technology.

In the words of General Manager Bob Schreiner, "We believe that the corporations that control semiconductor technology will eventually control the entire electronic systems business no matter what the systems are used for. The problem today is to be positioned where the maximum overlap occurs. We see a huge potential in areas where we can work as partners with the Semiconductor Division such as in custom subsystems and modules. We also see opportunities to work with other Fairchild divisions in the development of new business.

And so, major emphasis of the Systems Technology division is being placed on the development of total systems (hardware and services) for its customers. This means the business charter of the division has been expanded to include a broad range of systems applications and new products. For example, the division is developing electro-mechanical equipment to handle product flow to and from testing equipment. It is generating systems software packages (such as computer programs) and will maintain an in-house test center to support some of its smaller customers.

One development project is a computer which should be available by the end of the year as a component part of some of the division's newest test systems. Systems Technology is also building up volume business outside Fairchild on precision circuit boards. This particular part of the division's business has increased 400% in the last three months.

"We want to be Number One and Number Two in the test systems business," Schreiner continued, "and we are bent on making a profit this year even with our huge new development costs and the expenses incurred in entering new markets and new product lines. Our long-range prospects depend on the good mix of people we have, a sound philosophy of developing our human resources, and our advanced technical development activity. From where I'm sitting, all three elements put us in a very strong position."

A new name, new directions, and the ultimate success of the Systems Technology group lies in the combined efforts of its people each bringing his or her particular skill or talent to work each day and investing it in the future of the division.

There are those who work in the metal shop, or perform the assembly, chassis wiring, cabling, and other manufacturing jobs.

There are managers who must make the decisions and direct the operation.

There are manufacturing support people who bring engineering and design skills to bear on new products and new pieces of manufacturing equipment. Where there is a better way to do the job they will discover it.

There are new departments, people doing new things and doing it well, like manufacturing printed circuit boards. Their efforts have marked a 400% increase in production and sales.

There are people creating new products and finding new customer applications for old products, contributing to the innovative spirit every company neds.

Working Together... What It's All About

Like it or not everyone has a boss whose job is to produce results through the efforts of others. How does he get results? Just giving orders isn't enough. This article should give you some idea of what it takes to be a boss and to be someone who works for a boss.

No matter who you are or where you work at Fairchild there is someone who is in charge of you and your work. Each boss has a boss, even the president. He answers to the board of directors. They in turn must report to the shareholders, the people who own Fairchild. Since many of those shares belong to Fairchild employees, they, in effect, "boss" the company.

This chain of command, similar to that used by the military, is absolutely essential for the success of any company. Without it, work would not get started, much less completed. Industry would deteriorate into nothing more than mass confusion.

The primary job of management at any level is essentially the same — to get work done. This requires four basic skills: planning, organizing, leading, and controlling.

Careful Planning Means Success

Planning is the first function of anyone in any position of authority. It is the foundation for success. In planning, he must think through ahead of time what he wants to accomplish, the steps he must take and the resources he needs to get the job done. Planned moves offer the greatest returns for the effort spent.

Effective planning involves making advanced decisions. A manager must look ahead and forecast the problems and opportunities of the future. The goals that he hopes to reach must be spelled out in concrete terms. Policies should be established which will apply to repetitive questions. He decides the steps that he will follow to reach his objectives. Schedules are drawn up and procedures standardized to show just when the work will be completed and what method will be used. He will sometimes plan budgets that provide the resources to carry out his programs and to reach his objectives.

Organize for Success

In order to coordinate the work of his team toward a common objective he must organize. Organization involves three basic activities. First, he must develop an organization structure. The work is arranged and grouped to form sound, balanced units. Next, he delegates authority and responsibility. This establishes accountability for results. Finally, he establishes and develops effective working relationships. The company, itself, will grow only if it is so organized to provide the opportunity for people to grow. When things are set up so that people can make their best contributions then they and the company can expand and profit.

The Job of Leading

Good leadership causes other people to take effective action. Ideas and suggestions are encouraged from all sources, but the manager must make sound, logical decisions to guide and direct people, if they are going to act effectively. He creates understanding between himself and other people by communicating effectively. People must be inspired and encouraged to take productive action. They produce better when they have the opportunity to improve their knowledge, skills, and attitudes. They should be helped to make the best use of their highest abilities.

Applying the Control Concept

Controlling is the work necessary to measure and regulate results. The first step in this concept is the development of performance standards. Yardsticks for performance are established. They are based on plans that have been developed to guide people. Reports record and measure what is taking place in all parts of the operation. After this data is gathered, it is evaluated by comparing actual performance with the standards that have been set. From this evaluation will come any corrective action that needs to be taken.

Putting these functions and activities into practice is the mark of a true professional, but there's more to managing and being managed as you'll see on the following page.

HOW DO YOU RATE?

The four links in the chain of command described in the previous article remain strong only as long as people at all levels of Fairchild know what's expected of them.

What qualities do employees think are most important in a supervisor? Companies that have asked this question have found that among other things, employees expect an effective supervisor to know his job, to be loyal to his people and to the company, to be fair with employees, and to be skillful in getting along with people. You could probably add to the list.

On the other hand, what qualities do supervisors think are most important in an effective employee? They expect employees to work safely, to have good work habits, to cooperate with co-workers, and to ask questions if they don't fully understand the assignment given to them.

These are just a few of the opinions expressed when employees and supervisors at Fairchild and several other companies were asked what qualities each group thought the other should have.

While you may not agree with every opinion listed, you may get a fresh slant on your own job if you take a minute now to compare your work with the ideas of others. See if there are opinions or expectations here that will help you to do a more effective job for yourself and for Fairchild.

What do you expect from your boss?

Employees feel that an effective supervisor should . . .

. . . know his job and the jobs of those who report to him.

. . . set goals and standards for his employees. He should know the difference between good and poor work and treat the two differently.

. . . give recognition for good work. He provides the incentive and opportunity that gives his employees room to grow and progress. He makes constructive suggestions to help his employees improve their skills and performance.

. . . let his people know where they stand. A supervisor needs to communicate both with his people and his management.

. . . create loyalty by being an effective spokesman for his people with higher management.

. . . accept his responsibility and refuse to pass the buck.

. . . treat fellow employees with dignity and respect. An effective supervisor gets along well with both his people and his own supervisor.

. . . train himself to be a good listener. He needs to make his employees feel free to discuss important things with him.

. . . be a fair but firm disciplinarian.

. . . control the results of his group more than their behavior. He lets employees work on their own as much as possible rather than supervising too closely.

. . . get results. An effective supervisor meets deadlines and schedules and sees that his group accomplishes its objectives. Employees want to share in the accomplishment of useful work.

. . . direct his men and equipment in the most efficient way possible to return maximum profit to the company and thereby provide the greatest possible job security for employees.

What does your boss expect from you?

Supervisors feel that an effective employee should . . .

. . . work safely himself and help other employees to do the same.

. . . be alert for better ways to do his job; work smarter — not harder.

. . . practice good work habits. Every employee can look for ways to save time, cut costs, improve housekeeping, and avoid waste.

. . . cooperate with fellow employees. Learn how his own job fits into the over-all picture so he can contribute more usefully to the effectiveness of his group.

. . . make the most of his time on the job. His job depends on how well he and other employees can work together to satisfy customers. He works as if he owned the business.

. . . ask questions if instructions are not clear. Find out first, then proceed.

. . . keep an open mind toward new things, new ideas, new people. Constructive change is progress and leads to better work and better jobs.

. . . listen carefully. Most mistakes are made by people who didn't really listen.

. . . face problems head-on. If he makes a mistake, he admits it, corrects it, and gets on with the job at hand.

. . . make himself indispensable in the job he now holds — then he'll be ready for a better job when one comes along.

. . . realize that his job is an opportunity and not a right that can be guaranteed by his supervisor, his company or any other group. Each employee must continually earn his right to share in the fruits of the American private enterprise system.

news briefs

Fairchild Camera Reports Second Quarter; Six Month Earnings

President and Chief Executive Officer C. Lester Hogan reported a net loss of $551,000 for the second quarter, which includes extraordinary income of $473,000 from the sale of two product lines. Losses from continuing operations during the second quarter (before extraordinary items) were $1,024,000.

Dr. Hogan said that sales continued to show an improving trend in the second quarter of 1969. Sales during this period totaled $65,211,000, which is seven per cent higher than in the first quarter of 1969, and 25 per cent higher than in the second quarter of 1968.

Sales of $126,302,000 for the first six months of this year were up 17 per cent over sales during the corresponding period of 1968. The higher sales were realized principally in the Semiconductor and the Space and Defense Systems divisions.

Dr. Hogan pointed out that most of the operating loss for the second quarter was experienced in the Semiconductor division, and resulted from lower selling prices and continued heavy expenses in connection with the program started in late 1968 to expand and automate production.

Product lines sold during the second quarter, 1969, were the bench instruments line which was part of the Systems Technology division in Sunnyvale, Calif.; and the printing press line, part of the Graphic Equipment division in Plainview, L.I., New York. These product lines were sold at a profit of $473,000 after taxes.

National Award

Marilyn Williams, Semiconductor's South Portland TWX Operator, received a $25 check from Del Smith, Information Control Supervisor. Marilyn was a recent winner in ITT's nationwide number contest for TWX operators.

DuMont Captures Fairchild East-West Bowling Tournament

(Editor's note: Dick Marz reported this news in May, but due to the change in editors, the story was misplaced. Please accept VIEWS' apologies, and congratulations to the fine DuMont team.)

The DuMont bowling team won the Fairchild East-West Tournament for the fifth straight time. DuMont grossed 10,977 pins in twelve games. Systems Technology and Electro-Metrics placed second and third. Electro-Metrics won the Incentive division of the tournament with a plus of 767 pins. Semiconductor's San Rafael plant took second. Members of the DuMont team included Joe Zanca, Frank Drake, Al Gertz, Walt White, Ted Maass, Gene Dubis, Tom Gatto, Gordon Decker, Frank Danko, Dan O'Mullan, and John Kubasta.

Award To Four At Space And Defense

Four FSDS personnel have been awarded a total of $100 for an article, "Cover, Solid-State Imaging Systems," prepared for SPIE's San Francisco Symposium in August. Steven Kennedy, John Hunt, Don Seyka and John Kolb described a program, funded as a company-sponsored R&D effort, which has progressed during the past two and one-half years to the point where imagery is obtained in a totally dark laboratory environment. The current breadboard system uses a Fairchild Semiconductor 200 element, 2.5 mil pitch, linear phototransistor array as the sensor and a GaAs semiconductor laser as a covert illumination source. In addition to covertness, the system has the following potential advantages: solid state device reliability; haze penetration capability through the use of a pulsed illuminator time synchronized with a range gated sensing array; real time and/or hard copy output; stereo capability; and passive near-IR daytime capability simply by not using the laser illuminator.

Fairchild Controls Precision Potentiometers Used In Apollo Fuel Control

Fairchild Controls Single Turn and Multi-turn Precision Potentiometers are being used in the Apollo Fuel Control System being manufactured by Simmonds Precision Products of Vergennes, Vermont. A model 751 Single Turn precision potentiometer and a type 909 Multi-turn unit are used in the Display Gage. One model 909 is used in the control unit and another in the oxidizer valve.

Ready for Indy

Tom Messer, age 11, didn't win this year's Soap Box Derby, but in local competition his car was judged the best constructed. Tom's father, Elford, works in the Design Department for Semiconductor at South Portland. Fairchild sponsored Tom's entry. Shown with Tom are his father and John Gundershaug, Personnel Administrator. *(We think it's a neat car too!—ED.)*

"Oh Happy Days"

San Rafael proudly presents three very talented girls—Jewell Nickerson, Gwen Holland (both of the Class Area at San Rafael), and Charlene Lambert (Monolithic Line). These three are part of the new singing group, "The Edward Hawkin Singers". The group's hit song, "Oh, Happy Day" from the album, "Let Us Go Into The House Of The Lord," was number one on the hit charts for several weeks. The girls made a tour of the Eastern states in June, performing in Madison Square Garden and other concert halls. The group's new album, with Jewell as lead singer, will be released shortly.

IPD Adds New Time-Sharing Computer Terminal

Recognizing the tremendous potential inherent in the use of computers for research and development, Hans Hapfel, IPD engineering manager, has installed a time-sharing computer terminal in his department. IPD engineering thus joins other Fairchild operations in exploring the benefits of automating and advancing design technology.

Initially, the time-sharing computer is being used in the development of IPD's new digital flight recorder. Mandated by FAA since 1958 and aboard all large commercial airplanes, the existing data recorder is an analog system which provides a permanent record of four or more in-flight parameters.

With new jet super transports expected off the production line by 1970, a demand for more sophisticated flight recorders and associated readout equipment has been created. To meet this challenge, IPD is designing and building a New Generation digital flight recorder, capable of recording many more channels of information.

Fairchild's advanced position is LSI and MSI integrated circuitry technology will lend strong support to this program. The new time-sharing terminal, tied into major computer services, will assist the development of this program by analyzing digital data recorded during simulated laboratory and/or actual flight tests, and by making possible accurate data readout and processing.

Hans Napfel (r), IPD engineering manager, discusses time-sharing terminal readout with Dave Roush, project engineer for IPD's new digital flight recorder. Use of the computer service will be extended beyond this initial project, Napfel reports, to other research and development programs.

Hennessey Named To School Board

Ray Hennessey has been elected President of the Harborfields School Board. Hennessey, FCIC vice president and group general manager for the Industrial Products division, served as vice president of the Centerport, L.I. school board for two years, and has lived in the community for the past fifteen years.

Meet The Graduates

These men just recently completed the Semiconductor division's Small Signal training course taught by Bill Fockelmann and Mike O'Neal, both product marketing supervisors who report to Ed Farrell, product marketing manager of small metal cans. The 24-hour course consisted of an analysis of the electronics industry, the semiconductor industry, and the specific duties product marketing engineers perform. Reed Neddermeyer, director of discrete marketing, spoke to the group at the conclusion of the course about the importance and responsibilities of individual product marketing engineers in pursuit of Fairchild's goals and objectives. The graduates (from Hi-Rel Small Signal, Standard Rel Small Signal, and Epoxy Transistors) included Jim Ostendorf, Gary Greenberg, Roger Wentzel, George Schuttinger, John Follett, Reed Neddermeyer, and (standing) Bill Deuchler, Ray Bortner, Bill DeHart, Bob Bridge, Clay Marr, Alan Ankerbrand, Dwight Meadows, Mike O'Neal, Ed Farrell, and Bill Fockelmann.

Space And Defense Backs Community Leadership Training

The Community Leadership Training Program, launched with the aid of FSDS and other Long Island concerns, has received additional financial assistance from the division. Louis Pighi, FSDS general manager, presents a check for $1,500 to Mel Jackson, director of the training program and principal engineer in the FSDS photo-systems department.

Bernardo Paper Wins $100 Award

Joseph Benrardo of FSDS in Syosset has received a $100 incentive award for his article, "A Technique for Establishing the Influence Exerted by Radial Thermal Gradients on Lens Elements." The paper was presented at the Los Angeles chapter of the Optical Society of America on June 4, 1969. The full title of the paper is "A Technique for Establishing the Influence Exerted by Radial Thermal Gradients on Lens Elements, with Application to the Behavior of a 24″ f/3.5 Catadioptric Lens in a Thermal Field of Axial Symmetry."

New Patent Awarded

Patent No. 3,456,516 has been issued to Igor Fisnar and Russell Lester, Jr., and assigned to FCIC. The patent covers an incremental drive mechanism particularly suitable for imparting an adjustable line-by-line advance to a strip-feed transport. The new patent is utilized in the film transport of Graphic's newly-developed photocomposing machine.

Fairchild Systems Technology Announces Computer Controlled Integrated Circuit Test System

The first computer controlled integrated circuit test system offered by Fairchild Systems Technology has been introduced and is now in production.

The Fairchild Series 5000C test system uses a Hewlett Packard 2114A computer. It is capable of greatly increased throughput rates due to a high-speed, analog-to-digital converter, the use of computer control, and a complete, versatile software package.

The basic system performs static parameter measurement of digital integrated circuits. A complete system tests both digital and linear integrated circuits, performs static and dynamic measurement and high speed functional testing. Hardware development for linear, dynamic, and functional test and measurement is complete, and these options will be offered upon completion of software programs now under development. These capabilities may be incorporated in a single system which can operate up to five test stations.

The system hardware is supported by an equally extensive and versatile software package, and the modular design concept of the 5000C enables the addition of new capabilities for future needs, preventing obsolescence of the system.

Fairchild Offers Single-Package Sense Amplifier For Large High Speed Core Memories

Fairchild Semiconductor is now marketing a high speed dual channel sense amplifier which is a subsystem containing complete analog and compatible digital logic functions within the same package.

The μA731 is a monolithic linear integrated circuit designed for high speed core memories and especially for units of 8,000 bits or more. It incorporates two OR'd preamplifiers and a bipolar reference setting, which together provide a tight threshold accuracy of ±2 mV under temperature and supply variations. Memory data register functions are performed on the chip, and no external digital circuitry is needed to implement these functions.

Fairchild's new device is one of the fastest sense amplifiers on the market, achieving cycle times of less than 400 ns. It operates with excellent recovery time and avoids gate selection delays, which are inherent in devices with input gating.

10-Year Service Award to Dorie Leonard

Dorie Leonard, Executive Secretary, received her ten year service award from Phil Haas, Assistant Secretary and Director of Taxation for Fairchild Camera and Instrument. Dorie's first job with Fairchild was in the Marketing Department for the Semiconductor division. Later she worked for Space and Defense when the division had a facility in Palo Alto, and before moving to the Corporate position, she was secretary to the head of Semiconductor's International Marketing operation. Coincidentally, Phil just recently celebrated his fifteenth anniversary with Fairchild.

10 Year Service Awards

Semiconductor Division

Mountain View

Bea Custer
Bernice Dixon
Esther Durden
Frank Durand
Beverly Dutra
Clint Haines
William Hamrol
Uli Hegel
Robert Peck
Marcia Root
Carman Sullivan
Mildred Wilkinson

R & D

Irving Michelson

Systems Technology

Donald Campbell
Lowell Erickson
Richard Remmers

5 Year Service Awards

Semiconductor Division

Mountain View

Theodore Hollinger
Joseph Solinski
Ruth Vennes

San Rafael

Audrey Coad
Margie Gouveia
Vivian Mangan
Helen Michalik
Tomoko Middleton
Evelyn Packnit
Marion Palmer
Albert Schmidt
Sharon Seeley

South Portland

Robert Beecher
Norma Campbell
Betty Collins
Gerald Dickinson
Leona Dona
Charlotte Douglas
Eleanor Jewell
Donna Keniston
Raymond LaJoie
Winona Potvin
Sara Strickland
Ruth Traynor
Sharyn Warren
Jane Whitaker
Filomena Yarnold

Systems Technology

Howard Dean
Sandi Kile
George Lowe

Fairchild VIEWS

September 1969

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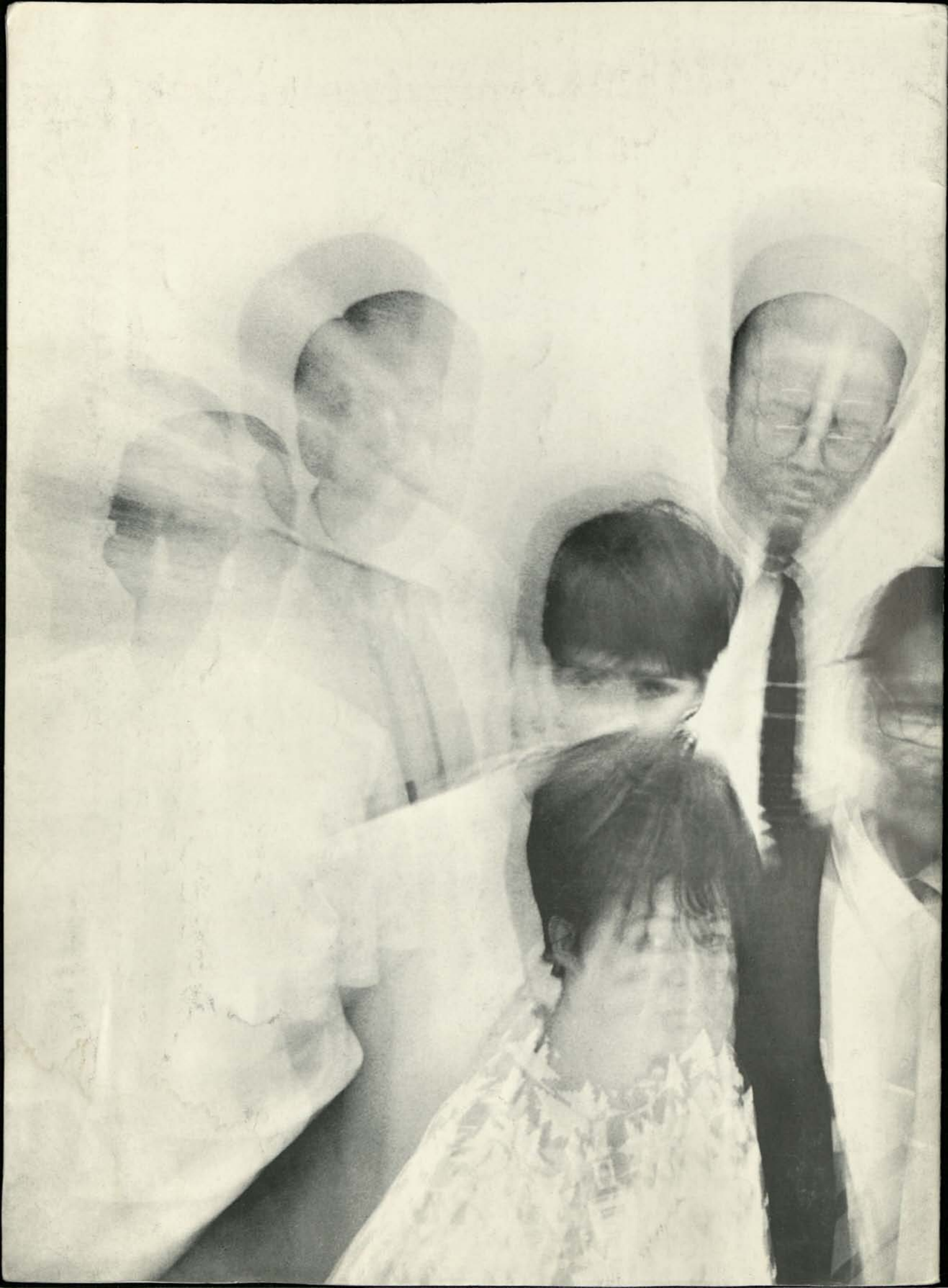


VIEWS

Fairchild Camera and Instrument Corporation

"I tell thee they are Giants and I am resolved to engage dreadful unequal combat against them all." This said he clapped spurs to his horse Rozinante without giving ear to his squire Sancho who again assured him that they were Windmills, not Giants. But he did not so much as hear his squire's outcry. "Stand cowards," cried he as loud as he could. "Stand your ground ignoble Creatures and fly not basely from a single knight who dares encounter you all." And so covering himself with his shield and couching his lance, he rushed with Rozinante's utmost speed upon the first windmill. — *Cervantes*

Men of all ages have sought to destroy the giant ignoble enemies that threaten him — the windmills of poverty, sickness, injustice, despair. Men of medicine, law, the arts; men of good will — all in the spirit of mankind — have ridden off to do combat with the sometimes unbeatable foes. Men who care that a child is starving, that a mother will not be able to keep her family together, that an old man is dying of loneliness, that a young girls needs psychiatric help, that a boy is going down the wayward path to delinquency.

These people have dared to dream dreams and to seek some unreachable stars. And, using the weapons of knowledge, research, time, money, or dedication, they have challenged the windmills and found that in time they can be toppled. No noble knights are they; just people who care about things and care about what kind of world this can be.

To dream the impossible dream,
To fight the unbeatable foe,
To bear with unbearable sorrow,
To run where the brave dare not go.
To right the unrightable wrong,
To love pure and chaste from afar,
To try when your arms are too weary,
To reach the unreachable star.
This is my quest
To follow that star!
No matter how hopeless,
No matter how far;
To fight for the right
Without question or pause;
To be willing to march into hell
For a heavenly cause!
And I know
If I'll only be true
To this glorious quest,
That my heart will lie peaceful and calm,
When I'm laid to my rest,
And the world will be better for this;
That one man, scorned and covered with scars,
Still strove with his last ounce of courage,
To reach the unreachable stars.

THE IMPOSSIBLE DREAM
from The Man Of La Mancha

It doesn't really matter how or how much; what matters is that everyone cares enough to do what he can. Because in the final analysis it can make a big difference.

Don Quixote and Sancho Panza (sketch by Picasso)

Dr. C. Lester Hogan

Why Care?

As the world grows smaller and communications networks wider, reality comes closer to home. The world's problems become individual's problems. No one can be isolated from the hardships of others.

Though these problems seem too big for one man, they often may be solved when many men and many organizations try in their own ways to find solutions. Fairchild is working with the people in Shiprock, New Mexico, to provide meaningful jobs for the Navajos; OIC, a job training center in San Jose, is preparing many hard-core unemployed for jobs thanks to the support of government and corporation grants. Fairchild is playing an important role in this program. Many employees and their families volunteer time and energies to help make their communities better places to live. They are involved. And even at work a foreman's "I care about people" attitude has made the difference in someone's life.

Each year at this time there is a special effort in communities across America to raise money for local health and welfare agencies. These campaigns may be called the United Fund or the United Crusade -- concentrated way of giving that makes it possible for these agencies to exist.

I had the opportunity in 1967 to serve as Chairman of the Phoenix United Fund campaign and was able to see at first hand the remarkable services this once-a-year fund raising effort makes possible. Without your giving the United Way many agencies would be forced to raise their own funds at almost prohibitive costs. These same agencies now receive 93% or more of all the money raised during the United Fund campaign. And, without the United Fund millions of people — old, young, disabled, despondent — would not receive medical aid and treatment, counseling services, and the personal attention they so critically need.

Last year more than 150 million people all over the United States gave the United Way. Their contributions totaled more than $705 million. Fairchild employees contributed generously to this amount, but I think we can do better this year.

"The many agencies depending upon the United Fund are asking that you pledge your Fair Share (one hour's pay per month or 1% of your annual salary). This may mean that you sacrifice a cup of coffee a day or at most a dollar or two a week. With that amount a little girl may be taught to walk, a deaf child can receive four sessions of speech development, three needy children can attend day camp for six weeks or a working mother can receive two weeks' care for her child in a day nursery."

One of your fellow workers will be contacting you to ask your help once again this year. How much you can pledge is, of course, something only you can decide. But remember, when you make your pledge, what you give will be shared by many worthy agencies and many, many people.

All of us owe to our communities and to the less fortunate the gift of help. This is one way we can show we care. I know you will respond fully.

An Industry for the People

Fairchild Semiconductor's new $1.1 million facility in Shiprock, New Mexico, standing as a proud monument to the Navajo people, was officially opened in dedication ceremonies September 6th. An estimated 5,000 people braved hot sun and the crowds to attend the ribbon-cutting ceremonies and to catch a glimpse of Julie and David Eisenhower who flew in to cut the ribbon.

Also participating in the dedication ceremonies were Dr. C. Lester Hogan, president of Fairchild Camera and Instrument; Raymond Nakai, chairman of the Navajo Tribal Council; Louis R. Bruce, newly appointed commissioner of Indian Affairs; Governor of New Mexico David Cargo; U.S. Senator from New Mexico Joseph Montoya; U.S. Representative from New Mexico Ed Foreman; Charles Fagan III, assistant deputy secretary of the Department of Commerce; Joe Van Poppelen, group director of the Semiconductor Division; John Husher, director of operations, DIC; and Paul Driscoll, Shiprock plant manager. Master of ceremonies was Carl Todacheene, Navajo councilman from Shiprock.

The 34,000 square foot plant, which employs some 1200 persons, all but 24 of them Navajo, was built with tribal and EDA funds and is leased to Fairchild. As Dr. Hogan puts it, "The dedication of this new Shiprock plant is proof of the successful partnership that exists between the Navajo people, the United States Government, and private industry as represented by Fairchild Semiconductor. In the next several years we expect to see great expansion of this facility concurrent with further development of the Shiprock community and increased financial opportunities for all Navajos. There is no doubt in my mind that the human and physical resources of the Navajo people are going to be seen as a vital and key part of the American economy. We are glad we came to Shiprock to play some part in this industrial growth."

The Eisenhowers were each presented with Navajo handcrafted silver jewelry and a large Navajo rug. Julie Eisenhower, in expressing her appreciation for the gifts told the delighted audience that the rug would fill a large gap in their living room furnishings as her parents who had recently moved into the summer White House at San Clemente and David's parents who had recently moved to Belgium borrowed back many things, including rugs, lent the couple when they were first married last December.

Chairman Nakai told the audience, "I have seen many industries look us over and turn aside. There was a rumor that the Navajo was lazy and couldn't be depended upon. Fairchild took a chance, and now they can laugh at their fellow industrialists. Bringing industry to the reservation is most important to our development, and we are grateful to Fairchild for helping us make the advancement from an agrarian nation to an industrial one.

Following the speeches, the ribbon cutting ceremony opened the building and those 5000 guests toured the new facility to witness the Shiprock success first hand.

The Shiprock Opportunity

The brand new Semiconductor facility in Shiprock, New Mexico, represents the successful partnership of government, industry and the Navajo people. This success can easily be measured in terms of growth and expansion. However, the real value of this progress lies in the creation of meaningful jobs for those who have not had jobs, jobs which will allow the Navajos to stay in the land they love and among the people they know. That is success in very real terms.

But with industrial development come problems—housing, providing jobs for all who can work, child care for working mothers, problems that can be solved in Shiprock with the continued cooperation of these same three forces in the community.

The opportunity at Shiprock, then, is not that there is a bigger payroll in the community. The opportunity is that from this start something exceptional and worthwhile can be created for all citizens of the community. As the major employer in the area Fairchild must and has been working to bring this about because Fairchild is very much a part of the Shiprock community.

Inadequate housing has been a big problem for the growing Shiprock population. Houses just can't be built fast enough and there are virtually no rentals. Even though several housing developments have been started, there just aren't enough of them. The need is immediate and urgent. Just recently some of Fairchild's top men went to Washington to seek a solution to this problem. The outcome is still uncertain.

There is no situation in Shiprock more loaded with potential for a good solution that the male employment opportunity. Simply, there are many more women employed in Shiprock than there are men employed. Why are so many men not working? There just aren't any jobs, and this whole situation is magnified by the success of female employment at Fairchild. One of Fairchild's tentative plans to aid male employment and give increased useful technical training to Navajos is to enlarge the present machine shop training and production operation. Another plan is to train more males for assmbly work. The Shiprock plant has gone ahead with a pilot program bringing automatic Frame/Die Attach machines to Shiprock which because of their mechanical content are better suited for male operation.

Fairchild is also trying to interest other industries which could provide jobs for the men in the community to come to Shiprock, but this, too, takes time.

Earlier in 1969 at the request of Dr. Hogan, a report and brief study of Shiprock needs was done by the Ford Foundation. One of the most apparent needs was for a day care program for the children of working mothers in Shiprock. $25,000 was the estimated initial cost of such a child care center. Both the Navajo Tribal Council and Fairchild sought private investment capital to establish such a center, and finally in August Indian Aid, Inc., a non-profit corporation, produced the $25,000 and a $6,000 labor and materials grant from the office of Navajo Economic Opportunity to make the Shiprock Nursery School a reality.

The potentials of the Shiprock area are enormous by any standards. There is now a strong employment base among the Navajos in Shiprock. They are governed well by the Navajo Tribal Council, and the agencies of the Federal government are highly enlightened, What is needed now is a drawing together of all participants in the community so that Shiprock can become a great asset to all its residents.

RETURN of THE RED MAN

by Don C. Hoefler, Electronic News

Mr. Hoefler visited Shiprock for the dedication of the new Fairchild facility. These are his impressions of what he saw while there.

Today's Troubled American, bearing generations of guilt for the racial injustices practiced by his forefathers, presently focuses on the most vocal of the downtrodden minorities, those with black skins. But he occasionally must face the unpleasant fact that those of yellow and red tint also have received their share of the white man's malice.

One firm which has done much to improve the lot of both of those latter ethnic groups is Fairchild Semiconductor, and that firm's pioneering work with the American Indian may prove to be a landmark in the contribution of American industry to social justice.

The story began in 1965, when Fairchild set up a transistor assembly plant at Shiprock, N. M., in the northeast corner of the Navajo Indian reservation, both the largest tribe and the largest reservation in the country. Stretching over some 25,000 square miles of arid desert plateaus, buttes, mesas and canyons through parts of New Mexico, Arizona, Utah and Colorado, the Navajo Nation is larger in area than six New England States, and larger in population than any other Indian tribe.

Starting in a Navajo community center with 50 people, today Fairchild occupies a $1.1 million facility owned by the Navajo Tribal Council. With a $4.3 million payroll, Fairchild employs 1200 people at Shiprock, only 24 of whom are white. And those last two dozen jobs will ultimately go to Indians, also.

"That is our philosophy and our objective," says Paul W. Driscoll, plant manager at Shiprock. "Each of us is actively striving to work himself out of a job. It's going to take some time, but I think it's realistic and it can be accomplished."

What Motivates A Man, especially a citified Down-Easterner like Paul Driscoll, to move out to the high desert to a job which is certain to terminate?

"Most of us have a feeling of pride in helping society, as well as making something run," he says. "To run a manufacturing facility is one thing. But to industrialize a whole nation is another."

Mr. Driscoll also thinks he may be helping to reshape American attitudes about this country's true natives. "People were completely unfair to the Indian, saying they couldn't be taught to do anything worthwhile. That's a lot of baloney. These boys are no different from you or me. They have the same aspirations and the same abilities."

The manager's Yankee background had not prepared him for his first encounter at Shiprock three years ago, however. "People thought the Navajos were somehow different and had to be treated differently, and I fell into the same trap," he recalls. "I was looking for the magic button to push to turn the people on. But after everything failed, we started doing what we knew best, being ourselves and treating them as people like anybody else, and suddenly everything turned around. Enthusiasm soared and production levels jumped.

"Here at last was a chance for the Navajo to show the world that they had been wronged, and all they needed was an opportunity to show their capabilities."

Fairchild also had to revise its thinking concerning entrance requirements. "We had people come in who couldn't read simple numbers of basic English," Mr. Driscoll says. "So we worked out with the Bureau of Indian Affairs (BIA) a very simple set of test requirements, and we said that if they could pass that very basic test, we would hire them. The BIA prepared a night-school program to meet our requirements, and it has been very successful. Now some 20 to 25 per cent of the people on our payroll are graduates of that program."

Another Fallacy that Mr. Driscoll would like to see given a quiet burial is the belief that the male Indian is too proud to work, and looks on any sort of labor as squaw work. "Those who have been unsuccessful are those who tell a man a great and wonderful story about opportunities for advancement, and then never pay off. There's no way in the world that they are going to be satisfied.

"We have been very successful in employing and training males of the tribe. We have shown them that even if they enter at the helper level, if they demonstrate ability, they can move on up, through lead man to foreman. In this plant we have 33 supervisors, 30 of whom are Navajos who have come up through the ranks."

Because the semiconductor work force is so female-intensive, Fairchild is sensitive about the need to create more male jobs on the reservation. The company is continually expanding its activities in this area, but would be very happy if some systems houses, with male-laden payrolls, would join it as neighbors.

"The objective is to have the people gainfully employed, and take their rightful place in society," Mr. Driscoll says.

Continuing the upward mobility following initial on-the-job training, Fairchild offers its employes a 16-week course, provided by the American Management Association. "You just can't take people who have had no exposure to formal education and decree that they will become managers," says the plant manager. "You have to give them some tools, to work with."

Paul Driscoll is a very popular White Father on the Navajo reservation—possibly because of his forward thinking:

"You can make anything work if you have a positive attitude."

Disaster On Bailey Avenue

"We used to live here."

"We've lived here for 24 years; our children were born here. Now they say we have to move."

"I work in Mountain View, but now I'll probably have to move to some other city. I can't find another house here that I can afford."

"We were lucky to find this house and it doesn't even have decent plumbing. Everything else was just too expensive. Now where can we go?"

"I wish I could go to that big man, whatever his name is; that big, big man, whoever he is, that takes control of everybody. My husband works and all we can afford is this small house. What would that man do if he came and lived with us for a month? He would go crazy, believe me, he would . . . because it takes guts to live like this. We don't like it but we can't do nothing about it. If I knew the man who would take care of all of this . . . who is he anyway?"

Who is the miracle man for the residents on Bailey Avenue and in the Washington-Jackson area in Mountain View? It seems they are being forced to abandon their homes by the need for another north-south thoroughfare to accommodate traffic from the industrial area along Bayshore Freeway to the southern part of the city and Los Altos. Work has already begun on a County-State Interchange at Bailey Avenue and Central Expressway, and Bailey will be widened to Miramonte Avenue, obliterating some of the oldest residential sections in the city. By December 1st all homes in the path of the project must be vacated. Some families have found lesser housing elsewhere or have been forced to leave the city they've lived in for 20 years or more. Right now, there are about 12 families who still have nowhere to go.

Just another highway project? Not this one. The areas in the path of progress are two of the few remaining areas of low-cost housing in Mountain View. For the most part, the families being displaced are in the low and moderate income bracket.

The residents on Bailey Avenue have received "fair market value" for their homes and some have been able to find housing elsewhere in the city without too much difficulty. However, a crisis has arisen in the Washington-Jackson area. Most of the residents there are, and have for a number of years, been renting homes at less than $150 a month. The majority pay less than $100 per month commensurate with a yearly income of from $6000 to $8000. For them, relocation anywhere else in the city is next to impossible.

County vacancy rates are at an all-time low of 1%. Common rentals are upwards of $200 for two-bedroom apartments which often have restrictions barring children. Rents are similarly high for homes and purchase prices climb from around $25,000 to offset the increasing costs of materials and labor. Interest rates on mortgages are currently about 9%. Land is scarce and therefore, extremely high priced and much of it has been zoned for apartment complexes. These factors combined permit little, if any, low-cost, single dwelling housing.

So, Mountain View is left with families living in concentrated areas in substandard houses. Now these people must abandon even those. Where will they go? They are being asked to leave the city where they live and work. Is there anyone who can change their plight? Who is he anyway?

Social service agencies supported by the United Fund, like the Mountain View Community Council or Family Service Association are trying to find homes, even temporary ones, for most of them. But these agencies can't do it all.

"Everyman" is Cynthia Sievers' answer. Cynthia is the wife of Bill Sievers, Digital Integrated Circuits Engineering. "It's going to take an effort on the part of everybody," she says. But, she thinks there is a solution to the housing crisis in Mountain View and she is doing something to find it.

Working with the League of Women Voters, of which she is an active member, Cynthia has been helping to conduct housing studies. Their objective has been to analyze present conditions, including such factors as housing supply and restrictions of building codes and zoning, and to discover resources available for fostering local development of low-cost housing.

Since federal housing appropriations will not reach far enough to take care of Mountain View's housing needs, other funding programs must be sought. The League has found federal funding programs providing technical and financial assistance for the planning and construction of housing for low-income people, but they require the direct involvement of private individuals in the community. "The Department of Housing and Urban Development (HUD), will insure long-term mortgages on money borrowed by non-profit sponsors to finance low-cost housing projects. Another HUD program provides financial assistance for rehabilitating existing homes and then selling them at below-market interest rates to low income families. Programs both for tenancy and ownership, are workable; they have been proven and they are available now, but they entail the support of organizations and individuals in the community. In fact, one successful HUD project is located in Portland, Maine, the home of a Fairchild Semiconductor plant.

Local individuals combined their talents and resources to construct a 140-unit townhouse complex, which won a 1968 HUD Award for Design Excellence. Community awareness and cooperation is the first step, and that has been the difficulty.

Recently Cynthia and several members of the League met with members of the City Planning Commission and members of CMU (Citizens for Mutual Understanding) to organize a tri-sponsored meeting regarding housing for members of the community. In the meeting, slated for Oct. 29th, they hope to communicate the vital need for housing and the possibilities for fulfilling that need to people who are in a position to help.

Why help? Cynthia sees it as being in everyone's self-interest. She foresees a day when we will have a community of engineers and executives with no one to put out their fires or police their streets.

Why help? You say you made it on your own, the hard way. Did you get your education on a GI bill, on a federal grant? Did you purchase your home with an FHA loan? Did you ever need help?

There are some people who never had exactly the right qualifications when they needed help. By December 1st, they probably won't live in Mountain View anymore. Some won't have anywhere to live. Their crisis has served to spotlight an enveloping problem in all communities.

"I wish I could go to that big man, whatever his name is . . . that big, big man, whoever he is, that takes control of everybody . . . If I knew the man who would take care of all of this . . . who is he anyway?" Are you that big man . . . whoever you are?

Cynthia Sievers spends a lot of time on the telephone and in meetings seeking solutions to the housing problems in Mountain View. The mother of two young children, Cynthia says she wouldn't be able to become so involved were it not for the Babysitters Co-Op and a very understanding husband who tends to get easily involved himself.

We Help

I'd like you to meet a man. He lives in a country that bears the calling card, "land of opportunity." He is any color, any creed, a native American, an immigrant. He is single, married with a family. He wants to become a productive member of society, but he is eternally frustrated in his efforts. He is one of millions of Americans who lacks education, is unskilled and untrained. He has been left behind in a fast-moving, highly technological society. He lives in our community and he needs our help.

Fairchild is helping him. Last July, Dr. Les Hogan, president of Fairchild Camera and Instrument, presented a $5000 check to OIC, Opportunities Industrialization Center of Santa Clara County. OIC is a national movement fostering job training in an atmosphere of respect for fellow men and a recognition of human dignity.

The program was begun in 1964 in Philadelphia, the City of Brotherly Love, by a Black minister who believed that every man can help himself. Since then, the job training centers have appeared across the nation. Each one, however, is independently operated by and for the community and depends on the community for its support. OIC seeks to discover the needs of industry within the community and then to prepare its students to meet those needs. But, that is not as easy as it sounds.

For most people who come to the center, failure is such a common experience that discouragement and dwindling self confidence have all but deprived them of a sense of human dignity. Poor financial conditions and inability to maintain a decent standard of living have caused personal problems and frustrations.

For example, Manuel, a former field worker, came to OIC after having little success in several small jobs in the San Jose area. His welfare checks were no longer adequate to meet the financial demands of his family of six children. At 36, he had received only a second grade education, could neither read nor write and was hesitant in his verbal communication. His carefree attitude appeared to be a cover-up for a great fear of failing again. He already had one son, a high school drop-out and a second son was threatening to do the same. The reason—they needed a father to provide the necessities of life. The pressures at home had reached a breaking point and Manuel burst into OIC, demanding a job.

"You can't just teach a man like that to solder and get him a job," said Otis Courtney, job development coordinator. "He'll quit in two weeks because he still has the same frustrations." Herein lies the unique significance of OIC, the development of the "whole man."

In Manuel's case, part of his problem was solved by a counselor convincing his son to remain in school.

This sincere interest and personal involvement of the staff is considered crucial in the development of the individual. People at OIC are friends, teachers, counselors and confidants. The students' success is their success. Manuel's teacher says he will never forget the smile on Manuel's face the day he realized he could read a beer ad in a **Time** magazine.

When a man comes to OIC, an old warehouse renovated by the students themselves and members of the community, the first thing he encounters is the motto, "WE HELP OURSELVES." He must be willing to do just that. Then he meets

with a counselor to discuss his background and determine some attainable goals. Together they reflect on the dignity of man, his rights and the responsibilities that correspond to those rights, the value of work and the importance of the self-help philosophy. Then he enters one of four feeder classes depending upon his ability and educational level.

Although OIC is open to all men and women, the majority of the participants in Santa Clara County are Mexican-American. One of their main obstacles in attaining employment is the inability to communicate in the English language. Feeder I then, is an ESL (English as a Second Language) class. Students learn to speak, read and write the language by listening and repeating.

The individual progresses at his own speed through all the feeder classes which give him a basic education in reading, writing, spelling, mathematics, English grammar and history. As a student masters the language arts, he adds machine shop training, care and use of hand tools, welding and electronics assembly to his curriculum.

All the classes are job-oriented. The importance of punctuality and the gravity of absence is stressed. Students punch in and out on time cards, and they learn why they should call if they are going to be absent. If anyone fails to appear for classes without calling to explain his absence, a counselor calls the student or visits him personally to determine the cause.

Throughout his training, the student is introduced to personal hygiene, good mental health, healthy job attitudes, proper behavior on the job, where and how to look for a job, and how to fill out applications and take interviews. In addition, consumer education teaches him to budget money to his best advantage.

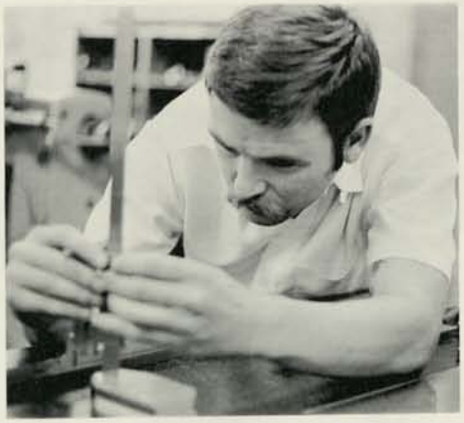
Ourselves

Classes are purposely limited to about 25 so that the teacher can communicate on a person to person basis. Constant positive reinforcement builds confidence. "You can do it." "Don't let discouragement win out." "Let hope and faith shine through."

When his teachers and counselors decide that an individual is mentally and emotionally prepared for employment, the job development coordinator, Otis Courtney, appeals to industry to obtain a meaningful job for him. Again, Fairchild had an opportunity to help.

In August, OIC placed two sisters, Elida and Eufemia Rivas in assembly at Fairchild. They had attended OIC primarily to learn the English language. Both cannery employees before, Elida is now working in DIC assembly, final seal and environmental finish, and Eufemia is working in the electronic packaging department. Dean Barnwell, product foreman in the electronic packaging department says of Eufemia, "she is an excellent worker; you don't have to keep checking on her. She can perform any job you ask of her." According to Dan Johnson, Product foreman in DIC assembly, "Elida is becoming an an outstanding employee, and she hasn't missed a day since she's been here." Both girls are happy in their new jobs and Eufemia is planning to attend night school in the near future . . . two success stories in the making.

But OIC doesn't stop here. Until a student assimilates himself into his new way of life, he will probably encounter many problems. OIC is always there to help. A follow-up counselor contacts the new employee at intervals to discuss his new job, his reactions to it and his performance. If for some reason the first job doesn't work out, the counselor will assist him in obtaining another.



Just how successful is OIC? Courtney boasts an astonishing 90% placement rate for the student of OIC. The combined earning power of that 90% has doubled in the past year, enhancing the economic power and the very heart of the community by providing that many more well-adjusted, productive members.

Remember Manuel — today he is happily employed and earning twice as much as he ever earned as a field worker. He talks of continuing his education at night. Like many alumni, he often thanks OIC for being interested in him and giving him a chance to live in human dignity.

The federal government thinks OIC is successful too. Last year, the center received a cost sharing contract from the government for $218,000 for a period of 18 months. It was to be matched 100% by contributions from industry and the community. OIC has just received another $200,000 for a 12 month period, a substantial gain where all other programs of its kind have suffered a cut in federal funds.

But that is still not enough. The center now has approximately 200 students and a regular staff of 23. "Our major problem is money," said Courtney, explaining that there are presently two empty classrooms and additional land for expansion. But, in order to give each person the individual attention so vital to his development, there is a need for more teachers.

OIC has discovered no magic formula for motivation. Success seems to hinge on the basic assumptions that men will learn faster when there is a bridge of humor, individual concern, respect and challenge, where there is a direct connection between what they are learning and their job goals and environmental situation, where they are genuinely expected to learn, and where there is an effort made to assist them in dealing with the very real everyday problems.

"We help ourselves" to develop as "whole men." OIC is perhaps one of the best hopes for the survival of America's big cities and the most effective strategy yet in the war on poverty.

"There is only one man in the world, his name is All Men."

Carl Sandburg

"NO MAN EVER STANDS SO STRAIGHT AS WHEN HE STOOPS TO HELP A BOY"

John Walsh, Personnel Administrator for the Semiconductor Division at Mountain View, was just wrapping up another day's work. He would stop by his apartment first, change clothes, and then head for Redwood City.

In Redwood City an 11-year-old boy named Eric had arrived home from school some hours earlier. He dropped off his books and headed outside to play with the kids in the neighborhood. They might ride bikes, shoot baskets, or find some trouble to get into — whatever they felt like. At least he'd pal around with them until his mother returned home from work. She works in San Francisco as a secretary, is divorced, and tries very hard to bring up her three children. It's a hard job to do when you're doing it by yourself.

Recently, though, it's been a bit easier for her as a result of her decision to seek some help from the Big Brothers organization in Redwood City.

Big Brothers are men who have found the time to be a friend to young boys needing the influential guidance of an adult man. Together the two of them can go to baseball games or movies, work on a car, build a radio, or play basketball — things that boys of all ages like to do.

That's why John Walsh drives to Redwood City almost once a week. "I felt a need to do something, and for a year I looked into all sorts of programs — working with retarded children or the suicide prevention center. They seemed to be too much to handle, and I thought the Big Brother program would be best for me. I hadn't been around younger children, except for nieces and nephews, and I had some real doubts that I might not be able to communicate with or handle a young boy— especially if he had some real problems. Fortunately Eric doesn't have any serious problems. With us it's all fun, or at least I hope it's for him, too."

"It's hard to measure the results, hard to say I've made progress with him," John continued. "I don't think the results can be seen immediately, if they ever are. You just try to do the things you think are right and good for him and hope they rub off. I do think I am good for him as he's developed a little different attitude toward school and he wants to get a paper route so he can save money for a mini-bike."

John and Eric have been doing things together for almost a year, and in that year they've gone to several Giants' baseball games, taken in some football games, learned to beat each other at checkers, and are big on "all you can eat for $1" restaurants. "The last four movies I've seen," John commented, "were the 'Love Bug,' 'The Rascal,' 'Swiss Family Robinson,' and 'Blackbeard The Ghost'." Not many parents can boast that record; so it's a learning experience for John, too.

John, who is now on Big Brothers Board of Directors, is just one of 147 men working under the direction of the Redwood City Big Brothers office with young boys. Each man has different problems in dealing with his Little Brother. The rewards, too, are different — perhaps keeping a boy from becoming a delinquent or making him believe in himself or motivating him to go to college.

According to Big Brothers Field Director Gary Matthies, "Our problem right now is finding men who can find the time to be Big Brothers. Too often they don't think they have the time or they feel, as John did, that they may not be able to cope with the boy's problems. We have 206 boys from San Mateo to San Jose who need someone they can turn to as a friend, someone who cares."

John Walsh found the time.

The Thing Is To Make People Want To Work For You .... And For Themselves

A year ago Norma Lias was promoted to a foreman's position for Semiconductor at Mountain View. This was a first for Semiconductor, a woman foreman; and it was a well-deserved promotion for Norma. With Semiconductor since December of 1959, Norma has progressed steadily from assembler to training technician to methods analyst in Industrial Engineering and to DIC foreman as of November 1968. There's not much about the Fairchild manufacturing operation that Norma doesn't know. The people (men and women) she works with will tell you she is one of the most effective foremen Semiconductor has ever had. Perhaps it is experience, she's worked at almost every production job Semiconductor has; perhaps it's her philosophy, a combination of compassion and reason; perhaps it's her personality, definitely pleasant. Whether it's dealing with her boss, an engineer, a personnel administrator, an assembler, a scheduler, a production assistant, or another foreman, Norma treats each person individually. And, indeed, she meshes them into a very smooth working team, even if the pace does get hectic. That's her job as foreman.

Are you called a lady foreman, a forewoman, or what? You know, of course, this presents a problem.

Don't I know, but we've settled on foreman, and besides, that's the function I serve. I am a woman, but that should make no difference at all.

Does it really make any difference?

I think maybe it did at first. I was sort of a novelty around here, but I think, or hope by now, that I've convinced all the people I work with that I am just like them, a person doing a job the best she can.

How do you view your job?

The greatest thing a foreman can possess is the ability to motivate, to make people want to work for you and for themselves and ultimately for the company. My job is to motivate, and to do this requires that I treat each person I work with as an individual. Each has his or her own personality and the problems each faces are very real to them. If I can help them out, then making sure we beat standard or meet a schedule or operate at the quality level required of us, will all fall into place.

How did you feel about being the first lady foreman for Semiconductor?

I didn't really expect it to happen when it did, but I'm very glad it did. I feel my experience, especially as a training technician, was one of the reasons I got the DIC training foreman's job. I'm glad to see other women becoming foremen; there are quite a few capable women at Fairchild who would do a great job. For a while there I thought I was going to be a loner in those foremen meetings. I got kidded a lot but the other foremen have always made me feel I was one of the guys.

What are the difficult things in being a foreman?

Decision making is the most difficult but it's a great deal easier than it was. The roughest thing, though, is deciding whether a girl is really suited for this kind of work. Any time I have to discharge a girl it hurts, and as long as I'm a foreman it will continue to hurt. I don't go home and cry any more, but I always wonder what could I have done to make this girl's job easier.

How do you think your attitudes differ from those of a man?

I think I have more insight into the girl's motivational problems because I am a woman. I'd have to admit that I'm more emotional about things because I am a woman, but getting a bit emotional doesn't hurt anything, and in some cases by not being hardnosed a foreman can find easier solutions to production problems. I can be tough if I have to but it is easier to be pleasant, and I'll let you in on a secret, some of the guys can be real softies, too.

What things do you think should be part of a training program for foremen?

If I were to design a foremen's training program, the first subject would be one dealing with the human relations aspects of the job. Additionally, a foreman has to have a good self-image and relate to all the people he or she deals with. Certainly, understanding production and reporting methods and a course in production analysis would go a long way to make a foreman more comfortable in his job.

How do you practice what you preach? Will it really work?

When the girls walk in the door, the first thing I do is try to establish a good rapport and maintain it. I want to make her realize what she's doing and why it's important. My girls were very happy and proud about the Apollo 11 moon shot, and for days they joked about rejected units saying, "You can't get a man to the moon with that bad unit". Yes, I do try to practice it, and it has to work for there's no other way to get good results.

Are there things that would make your job easier?

We've just undergone some changes. Recent management changes within our department have made a positive difference. And, production assistants have been a great innovation. I think they are enabling us to be better foremen. They assist us in material handling, setting up the line, and handling production reports for the line. I'm really grateful for their help.

How does being a foreman affect your social life?

I've put in a lot of twelve-hour days, but that's part of the job. My dates have understood my position; they may not have liked it, but they've been very tolerant.

What about the future? Do you want to remain a foreman forever?

I haven't even let myself think of the next job, there just hasn't been time to. There's still so much to learn in this job and it's sufficiently challenging my abilities. But, if I were in a higher position, I don't think my attitudes would change much. The picture would be bigger, but production workers would still be my first concern.

Do you feel you are doing a good job?

My accomplishments are still to be measured, but we set some die attach records while I was foreman there. My swing shift crew has really come through for Fairchild, and I've only been working with them for a few weeks.

Better than that her supervisor Joe Shagday says, "Norma definitely knows how to pump people up and keep them excited about what they are doing. She also has a knack for solving production problems by applying the simplest logic to them. She does her job well, and that's what counts."

And, he ought to know.

The following is from a talk Dr. C. Lester Hogan, President of Fairchild Camera and Instrument, gave to the New York Society of Security Analysts on September 9, 1969.

It is a pleasure to be speaking to you about our corporation today, on the exact date that represents my 13-month anniversary with Fairchild Camera and Instrument Corporation. I came to Fairchild 13 months ago because the corporation needed new management. I don't believe this comes as a surprise to anyone in the room.

The management of a large corporation is never the result of one man's decisions. It comes as a result of at least 100 top and middle management people. So when it becomes obvious to everyone—including the board of directors, the stockholders, the analysts, the competitors and the customers—that a management problem exists, it is to be expected that the problem goes rather deep in the organization and that any new chief executive will have a large rebuilding job to do.

"We Could Have Settled For Fourth or Fifth But We Decided to Take A High Risk Approach. It's Paid Off."

This came as no surprise to me. This kind of rebuilding cannot be done overnight. People must be evaluated. Others must be recruited. Finally, a team must be molded from a group of individuals.

We're Building On The Best Technology In the World

I have always been open and frank with the press and with all of you as to what I found when I joined Fairchild. I found the most competent technical group that had ever been assembled in this industry. It is true that many good technical people had left Fairchild before I joined the company. Many good technical people have left Fairchild since. But the depth of technical talent at Fairchild was and still is so deep that all of these losses, although regrettable, were not as devastating as they would have been in another company.

Today, I think that technical team has been strengthened and oriented more competently with respect to the activities that are most pertinent to our mission. If anything, the technological gap that exists between Fairchild and every other group that exists in the industry was widened, not diminished.

In a specific example, about nine months ago Raytheon and the Department of the Navy selected Fairchild to build radiation-hardened integrated circuits for the Poseidon missile. Fairchild was selected because the samples that had been submitted to Raytheon and the Department of the Navy were the best performing circuits they had seen. We accepted the order knowing full well that in spite of all the publicity to the contrary, no other manufacturer in the world had been able to produce such circuits in large volume at reasonable cost.

We, ourselves, had only produced these samples in pilot line quantities. We knew that the conversion to large scale production would be costly and time consuming. We hoped that we would not be delinquent in our deliveries, but frankly we were all very concerned. Today, this program ranks as one of our most successful.

In addition, about nine months ago, Fairchild was selected by the University of Illinois to build the first large scale semiconductor memory for the ILLIAC IV computer. That program is the biggest single program that exists today for the construction of large scale semiconductor memories. As a result of this single effort, it will become obvious to all about the middle of next year that Fairchild is leading the world in this new and exciting field.

But 13 months ago it was evident to us that this excellent technology was not adequately supported by management decisions that are necessary to lead any large and complex organization.

What Have We Done In The Past Year To Solve Our Management Problem?

First, we have completely rebuilt our management organization. As most of you know, there are ten major divisions at Fairchild: Semiconductor, Space and Defense Systems, Defense Products, Industrial Products, Controls, Graphics Equipment, Microwave and Optoelectronics, DuMont Electron Tubes, Electro-Metrics and the old Instrumentation Division which has now been renamed Systems Technology. All of these men came from within Fairchild or from other corporations.

I currently have nine people reporting directly to me, and I would like to tell you about these particular people, because I believe that people make a corporation. And I feel that during the past year we have put together one of the finest corporate management teams in existence.

To begin with, we have Nelson Stone—Vice President, Secretary and our Corporate Attorney—who was at Fairchild when I came. He is one of the finest legal minds I have had the opportunity of working with at any time in my career. I am sure you know that our Planar* technology is now being used by 18 companies in the industry, all under licensing agreements reached while Nelson has been our Counsel.

Warren Bowles is our Vice President and Director of Industrial Relations. He was formerly head of Industrial Relations at Texas Instruments Semiconductor division, and I consider him to be one of the finest industrial

*Planar is a Fairchild patented process.

relations managers in the country, and his reputation bears me out. He is one of the nationally recognized experts in the industrial applications of the behavioral sciences.

George Pfifer, who is Vice President of Finance, came to Fairchild from American Express and is one of the brightest, most imaginative and best financial vice presidents I have ever known. While he arrived not knowing much about the semiconductor industry, he is basically so bright that it took him just a few months—not only to catch on about the industry but to tell us a few things we ought to be doing.

Fred Hoar is Vice President and Director of Communications. Fred was formerly Vice President of Public Affairs and Advertising for the RCA Information Systems Group. We had a couple of tough weeks getting him out of RCA, but we made it, and we are very proud and happy to have him representing Fairchild now, particularly at this critical stage of our company's development when the need for effective communications is so impotrant.

Al Grant is Group Vice President in charge of all the systems and equipment divisions of Fairchild and a director of the corporation. He was formerly President of Lockheed Electronics Company and built that organization from a small operation to one of world-wide significance. I have known Al for many years, having met him first when he was Vice President and General Manager of the Computer and Data Systems Division of Autonetics.

Joe Van Poppelen, Vice President and General Manager of the Semiconductor Division, has held positions of major responsibility as President of ITT Semiconductors and Executive Vice President and General Manager of Signetics. In the latter capacity he built the foundation of the entire structure that is now Signetics Corporation.

Dr. John Atalla who is Vice President and General Manager of the Microwave and Optoelectronics Division is one of the most brilliant engineers to turn into a competent businessman that I have ever known. He came out of the Bell System and went to Hewlett-Packard, where he was almost single-handedly responsible for the Semiconductor operation. Not so well known is the fact that John was responsible also for the basic patent on the MOS transistor, now held by the Bell System. At Bell Laboratories, he also did the early work leading to the Planar technology that was carried through by Fairchild.

Finally, I do have two former Motorolans reporting to me. One is Leo Dwork, presently Vice President and Chief Technology Officer of the Corporation—a brilliant man and a real technical generalist, with a wide range of knowledge in many scientific disciplines. He is an outstanding businessman besides. Leo's main job is to help to infuse the advanced technology of our research laboratory throughout all the divisions of the corporation.

The other is Tom Hinkelman, Vice President and Director of Planning for the Corporation. Tom has a long and distinguished record in this industry—he was an engineer on UNIVAC I, a product planner for G.E. when semiconductors were just beginning to make their mark, and the creator of the product marketing organization at Motorola Semiconductor.

Joining this team will be Dr. James M. Early. He will serve as Vice President and Director of Research, with responsibility for the corporation's total R & D efforts. He came to us from Bell Telephone Laboratories, where he was director of the Semiconductor Device Laboratories, and an internationally recognized expert in semiconductor technology.

All of these men represent the very best professionals in their respective fields today. They are young, modern managers, completely familiar with contemporary management technology. The team, therefore, has been reconstructed and rebuilt. The next management level has also been restructured, and we are now in a position to forge ahead.

Building The Future on Semiconductor Technology

We will be banking on semiconductor technology — it will be the keystone upon which we intend to build the future of Fairchild Camera and Instrument Corporation.

An exciting new project is now under way which may eventually replace all film cameras with a solid state "eye" made with our own specially designed photo-transistor chips, and other products of the future like solid state displays, vidicons and microwave circuits will come to pass only if we have an advanced semiconductor technology permitting us to bring to the marketplace these particular products in an advanced state. Our entry into computer terminals and peripherals will come to pass only if we can economically build such systems using both MSI technology and semiconductor memories. Our ability to hold and increase our share of the military fuse market depends on our ability now and in the future to convert electromechanical devices to solid state devices.

In August of 1968, when the Wall Street Journal asked me when the Division would be profitable, I frankly was so shocked at the irrelevance of the question at that time that I was properly quoted as saying: to hell with profits, we have a job of rebuilding to do first. And for the past 13 months, we have been about the job of rebuilding.

Are We Succeeding?

Many of you have suggested that as the cabbage was peeled, we found the job to be tougher and larger than we first estimated. Frankly, I consider this to be of little importance. The only important question is whether we are succeeding in attaining our goals. And the answer to that is a resounding yes.

It is true that Fairchild was a high-cost producer in August of 1968. The Division was, in fact, losing money in August and had lost money for the two previous months. So costs must have been higher than the selling price.

But not primarily due to the lack of mechanization, as many of you assumed. First of all, no one is really

mechanized in the production of integrated circuits, which is rapidly becoming a larger and larger fraction of everyone's business. Fairchild was, and still is today, as mechanized in integrated circuit production as anyone in the business — with the possible exception of Philips in Holland.

The primary problem at Fairchild in August, 1968, was the lack of a total management control system for a complex world-wide operation. We lacked a system that allowed the various factories to be properly scheduled, permitted us to build the right product at the right time for the customer, and to maintain an inventory with the proper distribution at the proper level.

The problem began to rear its ugly head at Fairchild when the Division went from about $60 million of sales to about a $100 million in 1965. Even though the Division was handsomely profitable in 1965, our analysis of productivity figures, inventory figures and other such information showed that the management control system at Fairchild that was adequate in 1964 was not adequate in 1965.

When, in 1966, the Division grew again, what was simply an irritant the year before became utter chaos. As a result, there was no further growth in dollar sales in Fairchild's Semiconductor Division. The total dollar sales of Fairchild's Semiconductor Division were flat for three years — 1966, 1967 and 1968.

In this period, orders became delinquent. Inventories were either too high or too low, never right. Productivity decreased from 1965 until 1968 because production lines were started and stopped around the world on a moment's notice greatly increasing the cost of doing business. Finally, in 1967, as a result of these misdirections, the profit margin of the Division dropped to about 5%, if one neglects the handsome royalties that were even then being received. Thus, many times last fall, I stressed that Fairchild's biggest problem had been the complete lack of its management growth to keep pace with its sales growth.

The second major problem in Fairchild's Semiconductor Division was management's decision previously not to invest heavily in the improvement of production lines. The material processing area was the only up-to-date part of the whole Semiconductor operation. It is a unique operation, and it is my belief that Fairchild then could and still can produce an epitaxial wafer at approximately one half the cost of anyone else in the world. Actually, this group helped to support the organization because we were pumping five times as many wafers in the front end of the machine as we should have for the product coming out the back. The only thing that saved us was that these wafers cost us about half as much as they did anyone else in the world. So in terms of a total expense, our yield was roughly one-half to one-third of what it should have been.

Finally, to add to the woes of last August, Fairchild was successful in selling its interest in SGS back to one of the original partners. But this put Fairchild in the unenviable position of being the only major manufacturer in the United States with no activity in Europe. Thus, I inherited a Division with the above problems which was already losing money last August. Some very rapid decisions had to be made.

We Decided To Take A Very High Risk Approach

We decided to initiate a massive capital improvement program in order to up-date the production facilities, and to greatly increase the inventories so that we could use them as a fly-wheel for sensibly scheduled production lines around the world, as well as to meet our customer commitments more regularly. At the same time, we decided to greatly increase the overhead of the operation, so that we could do all the jobs necessary to exploit our advanced technology. We decided to take our lumps this year and wait for sales to catch up to our new overhead situation, knowing full well that we would initially increase the losses of an already losing operation.

In addition to deciding to do all of these things, we now have a complete staff in Europe, consisting of about 50 people, including salesmen, product marketers, application engineers and customer service people. We have sales offices rented and occupied in London, Wiesbaden, Milan and Paris, and from a standing start of about zero order backlog in June last year, the order backlog in Europe now stands at something in excess of $5 million. This additional expense will be self-supporting in terms of new orders and new business by the end of this year.

Finally we felt we had to expand our total operation in the Far East. We built a brand new factory in Singapore, which is now occupied by about 250 employees. It will soon grow to 1500, involved in the assembly of integrated circuits. We expanded the Hong Kong plant from 3000 employees to nearly 6000 employees. And this year we doubled the floor space and the employees in Korea.

We Wanted To Be Number One

Now when one chooses this particular course of action, it is very difficult to pinpoint accurately when you are going to get the payoff. Indeed, there is always the chance that it won't pay off at all. Total economic conditions in the world can kill you when you start a tremendous expansion program with a company that is already losing money. The average selling price of devices that we ship can greatly affect the particular date on which we can become profitable. The ability of our marketing organization to get orders and increase our backlog, and to get our shipments up so that our sales can overtake our new overhead, can greatly affect the day on which we get our pay-off. And finally, the ability of our technical team to honestly put into production the leadership items that they so beautifully demonstrate in the laboratories is a real gamble when you forge ahead in this kind of situation.

Now with all of these uncertainties, I think that it is proper that you ask why we chose the course of "to hell with the profits for the time being" when a more cautious and less ambitious program would have led to profitability sooner.

I personally think that the stakes were very high and that the reward possible at the end of the trip made the gamble worthwhile. For had we considered profits

first, it is probable that Fairchild would have always remained in the semiconductor business but would have probably competed for fourth or fifth place with someone else in the future.

If we could succeed on the program that I have outlined to you, and if we could solve our management problems, our yield problems, our productivity and cost problems — while at the same time we exploited our advanced technology — then I think that it was not just a matter of survival. It was a question of building the foundation that would ensure that we would have an honest chance at first place in this industry — together with profits; and the opportunity of exploiting the technology in other areas that would naturally accrue to the number one company.

Was the risk worth the gamble? I guess the answer to that is: if we succeed we are heros; if we don't we're bums.

How Do We Stand Now?

First, we have already brought order out of chaos. The factories are operating smoothly and intelligently. The individual factory managers are superb and all were part of the talent that I found at Fairchild 13 months ago. We have increased the semiconductor inventory by about $6 million, reckoned at the inventory value, which is considerably less that the market value. All the pipe lines have been filled and product is coming out.

A year ago, Fairchild Semiconductor Division was shipping approximately 80 million discrete devices per quarter, and there was only slight growth. Now we are shipping at the rate of 110 million discrete devices per quarter, and the growth rate is fantastic. Again, 13 months ago, we were shipping integrated circuits at the rate of 7 million devices per quarter, and there had been absolutely no growth for one full year. Today, we are shipping integrated circuits at the rate of 16 million units per quarter, and we are expecting the rate of growth to increase for the fourth quarter of this year. Already, the 16 million units represents an increase in unit volume of 130% in the past 13 months. In dollar volume, there was absolutely no increase in integrated circuit sales at Fairchild from January, 1967, up to January, 1969. Since that time, our integrated circuit dollar sales rate has increased by 60% and the rate of growth is increasing.

When I talked to many of you in Mountain View last December, I said that in 18 months, the total sales rate of the Semiconductor division would be running at least double, in dollar volume, what it was at the time I took the job. I simply remind you of that statement so that you might measure us by it when the 18 months have gone past.

So we have greatly improved the logistical control of our factories. We are shipping more than two-thirds of our products on the customer required dates, and nearly 90% on Fairchild committed days.

We are growing at an enormous rate. We set a record in the month of August and the month of September will be another all-time record for the Division. We will shortly introduce a complete line of series 74, TTL circuits, whose effect on our sales in the future will be substantial.

We have almost completed a new multi-million dollar wafer fabrication area that will at least double the integrated circuit yields during 1970. We will also have operating by the end of the first quarter of next year fully mechanized lines in the transistor area and later in the year for integrated circuits. These lines are unique and, in my opinion, have no equal anywhere in the world.

We started from scratch. We designed new equipment and a new philosophy of manufacture that is superior to anything else we know. All of the machines have been built, they have been tested as individual units, and we are now putting them together as a line. This action will greatly reduce our costs and, in addition, improve our yield and the reliability of our product.

I said it was a high risk approach we chose some 13 months ago. Yet, every important goal that we set for ourselves at that time has either already been achieved or is so close to being realized that we can give you accurate timing for its accomplishment.

Obviously. the thing that makes the approach we chose so risky is that there are so many variables in the prediction of profitability that one can easily run out of money before you quite make it. Even with an almost impossible chance of knowing when you can achieve profitability, I felt when we started on this course that we would achieve every goal and still obtain profitability sometime during this past summer.

Personally, I was prepared to endure an unprofitable operation for all of 1969. I felt that the reward was worth the risk. If we couldn't become profitable during 1969, I admit we could have run into some great financial problems.

It became obvious to us in May that we were not going to achieve profitability during the summer so we took stock again. We looked at the backlog, we looked at the economy, we looked at our costs, and we came up with the prediction that we would be profitable in September.

As soon as we believed that we had a real honest feel again for our operation, in the first part of June, I went before the San Francisco Security Analysts and predicted that the Semiconductor Division would achieve its first profitable month in 16 operating months by September, 1969. Today, I will stake my job on that prediction.

news briefs

Dr. Hogan Wins Award

Dr. C. Lester Hogan, president of Fairchild Camera and Instrument, was one of 47 persons honored recently by the American Academy of Achievement. Here he accepts the "Golden Plate Award" from Paul Thayer, chairman of the Academy and president of LTV Aerospace Corporation. The annual banquet salutes men and women from many fields of endeavor for outstanding personal achievement.

Fairchild Falcons Take Second in World Championship

The Fairchild Falcons had to settle for second place in the 1969 National Fast Pitch Softball Championship, losing the world title to the Stratford, Connecticut team. The Falcons, under coach Pat Campagna, took five straight games in Regional competition to earn a spot in the Finals played in Springfield, Missouri. The Falcons lost their first contest to St. Paul, 3-0, but won the next eight games beating Springfield 8-1, Salt Lake City 5-0, Birmingham 2-0, Cedar Falls 1-0, Portland, Oregon 3-1, Aurora, Illinois 2-0, Armed Forces 4-0, and Stratford, Connecticut 4-3. They lost the final game to Stratford 7-0 which eliminated them from the tourney.

The Falcons converted 60 hits into 29 runs during tourney play and Falcon pitcher Roy Burlison starting each game pitched 60 innings, gave up 23 hits and 8 runs, and struck out 106 batters to earn the Most Valuable Player award. In addition Roy was named to the first national All-Star team as were Eddie Loveless, first baseman; Ray Phillips, second baseman; and Glenn Beamon, center fielder. Named to the second All-Star team were Dave Timok, catcher; Chuck Caldera, third baseman; and Bill Lovato, left fielder. Pat Campagna was named All-Star manager. Here Dr. Les Hogan, president of Fairchild Camera and Instrument, congratulates Pat on the team's excellent showing as Vince Fulginiti; Warren Bowles, Vice President, Industrial Relations; and Roy Burlison join in the celebration.

DuMont Electron Tubes Awarded Over $300,000 In Defense Contracts

The receipt of two contracts totalling $306,879 for production quantities of electron tubes has been announced by Fred Walzer, vice president and general manager of DuMont Electron Tubes, a division of Fairchild Camera and Instrument Corporation. The contracts were awarded by the Defense Electronics Supply Center, Dayton, Ohio.

One contract calls for Fairchild-DuMont type KS2797, a direct view storage tube designed for use in the AN/AWG-10 missile control system aboard F-4 series fighter-bomber aircraft of the U.S. Navy and Marines.

The second contract covers Fairchild-DuMont cathode-ray tube, type K2261. It is employed in the Naval Tactical Display System (NTDS) used extensively by Navy surface vessels for radar search and command.

New Appointments

Manager of Product Planning Named At Systems Technology

Robert S. King has been appointed manager of product planning at Fairchild Systems Technology. He will be responsible for new business planning and coordination of present business activities, as well as the evalaution of new market application areas for current products related to the division's technology in test and data systems. Mr. King comes to Fairchild after 15 years with General Electric Company, where he was responsible for various product and business planning functions at the Information Systems Division in Phoenix, Arizona.

New Director of Semiconductor Marketing Services Named

Arthur M. Heller has joined Fairchild Semiconductor as Director of Marketing Services. He will be responsible for the public relations and advertising departments of the division as well as its graphic arts and printing facilities. His duties also include supervising a distribution services group that monthly mails over 100,000 pieces of literature. Before coming to Fairchild, Mr. Heller was manager of marketing communications for Signetics Corporation. He is currently the executive vice-president of the Peninsula Marketing Association.

Dr. Kay Magleby Joins Systems Technology

Dr. Kay Magleby has joined Systems Technology as Director, Data Systems Control. He will be responsible for investigating and defining new areas of systems development for the company, including digital systems designs based on the advanced technology of the Semiconductor Division. Dr. Magelby was formerly vice-president of Sycor, Inc., a manufacturer of video data terminals. Prior to that, he directed the design of computers and related systems at Hewlett-Packard.

Dr. James Early Named Vice President And Director of Research for Fairchild Camera

Dr. James M. Early, an internationally recognized expert in semiconductor technology, has assumed the position of Vice President and Director of Research for the corporation. He will be responsible for coordinating research and product efforts for all divisions and subsidiaries of the company. Before joining Fairchild, Dr. Earl was Director of Semiconductor Device Laboratory of Bell Telephone Laboratories, Inc., at Allentown, Pennsylvania. Throughout his many promotions at Bell Telephone, which he joined in 1951, Dr. Early has continuously been active in the development of junction transistors and holds the fundamental patent on high frequency transistor structures. Dr. Early's laboratory at Bell had primary responsibility for developing beam-lead sealed junction technology for silicon integrated circuits. His group was also responsible for a major innovation in this area by introducing silicon nitrate as a protecting layer.

A fellow of IEEE and the American Association for the Advancement of Science and a member of the American Physical Society, Dr. Early has authored many technical papers and was a recipient of the Texnikoi Distinguished Alumnus Award given annually by Ohio University in the field of engineering.

New Product Profiles

Semiconductor Markets New Digital Decoder/Driver

Fairchild has introduced a more economical and reliable means of directly driving a seven-segment numerical display — a new Semiconductor digital decoder/driver called the MSI 9317, which features a unique display position for numeral one. This integrated circuit is designed with a medium scale complexity that can convert four inputs in 8421 binary coded decimal format and is considerably flexible in design since its inputs are compatible with current sinking logic. It may be ideally used for any military, computer or industrial system employing seven-segment incandescent lamp displays or light emitting diode indicators. The circuit may also be applied in seven-segment numeric displays utilizing neon, electro-luminescent or CRT techniques.

Graphics Introduces High Speed Typesetting Computer

Fairchild Graphic Equipment has unveiled its new, high speed typesetting computer, the Comp/Set* 330-I, with programs for both hot metal and phototypesetting.

The new computer offers a modular or "building block" design which provides a wide range of expansion options as typesetting requirements increase or change. The basic Comp/Set 330-I has an 8K memory that can be modified to 4K or expanded to 32K. A variety of peripheral equipment including disc storage for mass memory, printers, and cathode ray tube editing terminals are also available.

One of the new computer's unique features is its versatile two throughput capability. Using two sets of readers and punches, the Comp/Set 330-I is capable of processing two totally different inputs, such as news and classified composition, simultaneously. This arrangement provides maximum flexibility of work scheduling in the composing room.

With two throughputs, the speed of the Comp/Set 330-I is 24,000 newspaper lines per hour.

Fairchild Controls Introduces New Glossmeter For Improved Paper Mill Quality Control

A new production glossmeter for improved quality control in the paper industry now is available here from Fairchild Controls, a division of Fairchild Camera and Instrument Corporation. Known as model FGS-1000, it is designed primarily for paper mill calender, coater, and waxed paper machine installations for paper laminate, plastic coating, box board and packaging applications.

The glossmeter's on-line optical scanner automatically and continuously compares production gloss to an internal standard traceable to the National Bureau of Standards. A built-in alarm signal on the unit's console indicates when set tolerance limits are exceeded, thus assisting operators in the maintenance of uniform paper quality.

In addition to automatic control provisions, the new glossmeter is compatible with circular or strip chart recoders, and high speed data handling. The equipment can be modified to monitor other continuous flow materials in sheet, web or foil forms such as stainless steeels, aluminum, plastics and glass.

Fairchild Systems Technology Announces Computer Controlled Integrated Circuit Test System

The first computer controlled integrated circuit test system offered by Fairchild Systems Technology has been introduced and is now in production.

The Fairchild Series 5000C test system uses a Hewlett Packard 2114A computer. It is capable of greatly increased throughput rates due to a high-speed, analog-to-digital converter, the use of computer control, and a complete, versatile software package.

The basic system performs static parameter measurement of digital integrated circuits. A complete system tests both digital and linear integrated circuits, performs static and dynamic measurement and high speed functional testing. Hardware development for linear, dynamic, and functional test and measurement is complete, and these options will be offered upon completion of software programs now under development. These capabilities may be incorporated in a single system which can operate up to five test stations.

The computer controlled, modular Series 5000C is actually several test systems. It may be assembled in many different configurations, from that of a high speed wafer test system for a manufacturer to a highly versatile design test system for engineering use. It is a third generation system, combining proved integrated test system design concepts developed at Fairchild during the past six years with the sophistication of one of the world's leading small computers.

Fairchild VIEWS

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