ANNUAL REPORT 1958

INVITATION

Shareholders are cordially invited to attend the Annual Meeting of the Company and the luncheon in their honor which will precede the meeting on Friday, May 1, 1959. The luncheon and Annual Meeting will be held in the Astor Gallery of the Waldorf-Astoria Hotel, Park Avenue and 50th Street, New York City. The luncheon will begin at 12:30 P.M., Eastern Daylight Time, and the Annual Meeting at 2. P.M. Shareholders who plan to attend the luncheon are urged to sign and mail the enclosed prepaid postcard. If, after making the luncheon reservation, you find it necessary to change your plans, the Company would appreciate immediate notification of such change.

COVER DESIGN

The cover of the 1958 Annual Report is symbolic of the approaching "Space Age" in which Fairchild is already making significant contributions. The entire layout of the report, including the cover, was designed by the Art Staff of Fairchild's Advertising Department. All illustrations were reproduced from engravings made on the Fairchild Scan-A-Sizer.

CONTENTS

Geri Hadley
650-327-4224

YOUR COMPANY AND YOU

ANNUAL REPORT

1958

FOR THE YEAR ENDED DECEMBER 31, 1958

FAIRCHILD
CAMERA AND INSTRUMENT
CORPORATION

EXECUTIVE OFFICES AND MAIN PLANT
Robbins Lane, Syosset, L. I., N. Y.

BRANCH OFFICES
Atlanta, Ga.
Chicago, Ill.
Dayton, Ohio
Eastchester, N. Y.
Los Angeles, California
New York, N. Y.
Washington, D. C.
Geneva, Switzerland

SUBSIDIARIES

FAIRCHILD AERIAL SURVEYS, INC.
Los Angeles, Calif.

FAIRCHILD GRAPHIC EQUIPMENT, INC.
Plainview, L. I., N. Y.

FAIRCHILD CONTROLS CORPORATION
Hicksville, L. I., N. Y.

FAIRCHILD CAMERA EN INSTRUMENTEN MAATSCHAPPIJ, N. V.
Emmen, Netherlands

FAIRCHILD CAMERA & INSTRUMENT CORP. OF CANADA, LTD.
Toronto, Ont.

BOARD OF DIRECTORS

Sherman M. Fairchild
Chairman of the Board and founder of F.C.I.; founder and Chairman of the Board of Fairchild Engine & Airplane, and a director of I.B.M.

Walter F. Burke, Jr.
Attorney and financial advisor.

John Carter
President of Fairchild Camera and Instrument Corporation.

Charles H. Colvin
is the President of Colvin Laboratories, Inc.

William C. Franklin
President and a Director of Royal Crown Bottling Co., Baltimore.

Richard Hodgson
Executive Vice President of Fairchild Camera and Instrument Corporation.

F. E. Newbold, Jr.
Vice President and Director of Fairchild Engine & Airplane Corp.

Wm. B. Scarborough
Consultant; director of Metropolitan Fire Assurance Company of N. Y.

Edward Streeter
former Vice President of the Bank of New York.

Milton L. Van Slyck
Managing Editor of The Journal of Commerce.

Joseph B. Wharton, Jr.
is President of National Can Corporation.

OFFICERS

John Carter	*President*
Richard Hodgson	*Executive Vice President*
E. S. Hill	*Vice President and Comptroller*
C. L. Terrill	*Vice President and Secretary*
F. P. Willcox	*Vice President - Technical*
K. P. McNaughton	*Vice President*
G. J. Wade	*Assistant Secretary - Treasurer*

Cravath, Swaine & Moore, New York	*General Counsel*
Peat, Marwick, Mitchell & Co., New York	*Accountants and Auditors*
The Bank of New York	*Transfer Agent*
First National City Bank of New York	*Registrar*

FCI

THE 1958 STORY BRIEFLY

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION and SUBSIDIARIES

For the years ended December 31, 1958 and 1957

	1958	1957
NET SALES	$31,674,000	$36,989,000
PROFIT BEFORE FEDERAL TAXES ON INCOME (AND SPECIAL PROVISION IN 1958 AND 1957)	1,869,000	1,865,000
NET PROFIT (AND SPECIAL PROVISION IN 1958 AND 1957)	544,000	799,000
TAXES	1,637,000	1,734,000
WORKING CAPITAL	6,741,000	6,407,000
NET WORTH	12,374,000	12,057,000
PAYROLL	14,907,000	17,341,000
NUMBER OF EMPLOYEES	2,168	2,352
NUMBER OF SHAREHOLDERS	1,965	1,778
SHARES OUTSTANDING	476,597	476,122
BACKLOG	18,154,000	15,210,000
PER SHARE		
NET PROFIT (AND SPECIAL PROVISION IN 1958 AND 1957)	$1.14	$1.68
TAXES	3.43	3.64
WORKING CAPITAL	14.14	13.46
NET WORTH	25.96	25.32

DEAR SHAREHOLDER:

Management presents herein its report on operations for the year 1958.

The year was highlighted by acquisitions, internal development of new products, moves to modern facilities and the correction of early losses by profits that increased in rate in each of the final three quarters.

FINANCIAL HIGHLIGHTS

Net operating profits, after taxes and reserves, were $544,395, or $1.14 per share on the 476,597 shares outstanding. This was accomplished despite a first quarter loss of $209,000, or 44 cents per share, and non-recurring expenses of approximately $1.00 per share.

This compares with a net operating profit of $799,093, or $1.68 per share on the 476,122 shares outstanding in 1957.

Total sales and rentals were $31,674,000 for 1958 as compared with $36,989,000 in 1957. Backlog increased from $15,210,000 at the close of 1957 to $18,154,000 on December 31, 1958.

Working capital remained steady at $6,741,000. The company had borrowings of $2,900,000 on its $5,000,000 line of credit. Total debt amounted to $5,700,000. Net worth was $12,374,000 at the year's close. In 1957, net worth was $12,057,000.

A cash dividend of 50 cents per share was paid to shareholders in 1958, as in 1957.

Submitted to you as part of this report are the financial statements for 1958, together with a report by Peat, Marwick, Mitchell & Co., independent Public Accountants.

The non-recurring expenses during the year included expense necessary to develop transistors and put them into commercial production by the Fairchild Semiconductor Corporation and integration of Teletypesetter, Acme Telectronix and Digitronics acquisitions. These projects will be described at greater length in the reports on the Divisions which follow.

Approximately $3,500,000 was invested during the year in broadening the product base and went for company-sponsored research and development and acquisitions of products which were fully engineered, commercially acceptable and suited to Fairchild's distribution and service organizations.

Defense Products Division and Components Division successfully sought new business during the year, as reflected in the company's increased backlog, and thus offset most of the cancellations and changes in military requirements which adversely affected them in the first quarter.

A new two-year contract was negotiated with the International Association of Machinists (AFL-CIO), extending to November 1, 1960, assuring a stable, skilled labor force for the new business being generated.

In summation, and as forecast to shareholders at the last Annual Meeting, a first quarter loss of 44 cents per share was eliminated by increasingly profitable operation in each of the remaining three quarters with a resulting profit for the year of $1.14 per share on a reduced volume of business and with non-recurring expenditures of approximately $1.00 per share.

Backlog was increased and three acquisitions were made and integrated with the business. Product lines were also expanded by internal research and development programs. Competitiveness was increased by tighter controls throughout the organization. Labor stability was achieved. All divisions operated profitably.

The effective, energetic teams that produced these results expect to continue to do so on an upward profitability curve in 1959.

Earnings Per Share by Quarter, 1958

First Quarter	**$(.44)**
Second Quarter	**.22**
Third Quarter	**.41**
Fourth Quarter	**.95**
	$1.14

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION AND SUBSIDIARY COMPANIES
EFFECT OF 1958 OPERATIONS ON WORKING CAPITAL

Working Capital, December 31, 1957				$6,406,852
Additions:				
Net earnings for the year			$ 544,395	
Depreciation and amortization:				
Rental machines		$ 619,745		
Other		686,543		
		$1,306,288		
Less: Charges to reserve:				
Disposals	$ 637,123			
Rebuilding costs	14,643	651,766	654,522	
Increase in non-current borrowings			1,021,000	
Decrease in investments in affiliated companies and other assets			307	
Proceeds from sales of capital stock			10,951	2,231,175
				$8,638,027
Deductions:				
Cash dividend paid – $.50 per share			$ 238,299	
Additions to fixed assets, etc. – net:				
Property and plant equipment		$ 633,799		
Rental machines		183,503	817,302	
Increase in advances to Fairchild Semiconductor Corporation less provision for possible loss			815,680	
Decrease in deferred Federal income taxes			26,100	1,897,381
Working Capital, December 31, 1958				**$6,740,646**

NOTES ON THE DIVISIONS

Defense Products Division

This division, a combination of the previous Reconnaissance Systems and Electronics Divisions, overcame major obstacles in 1958 to achieve broad-based profitability.

It was formed in February at a time when termination of military funding for a project, for which the division had prepared itself, cost the division $19,000,000 in orders. Despite this and despite sharpened competition in almost every product line, Defense Products Division successfully increased its backlog and earnings.

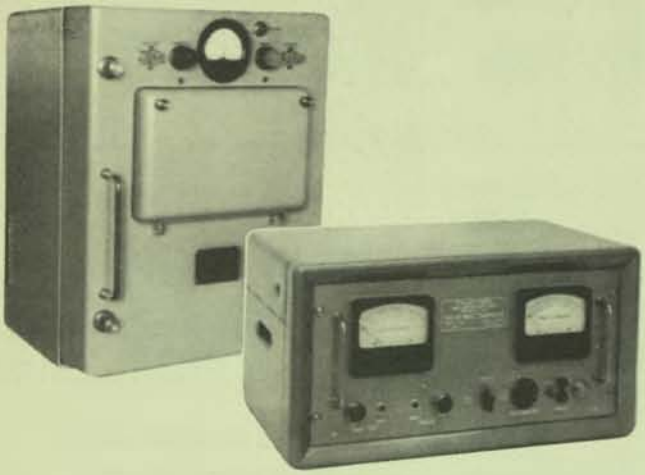
No less important, both the diversification and the technical capability of the division were increased during the year, and it demonstrated these advances by securing research and production contracts for which it was not eligible in previous years.

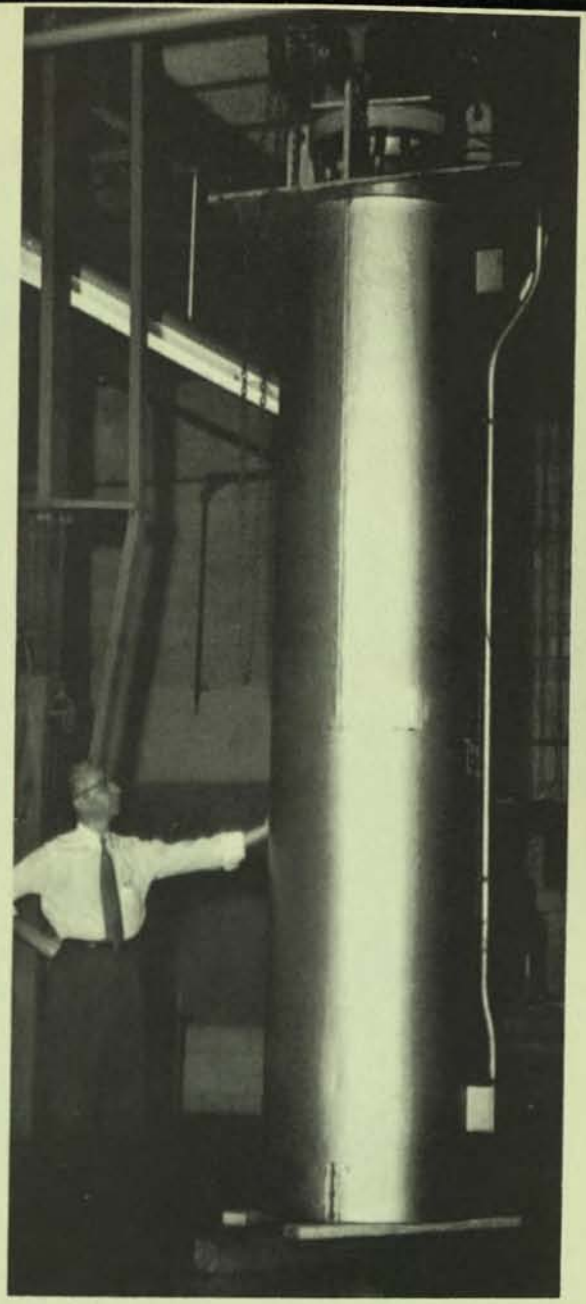
For example, it entered the fast-growing, but technically complex, field of missile ground support equipment, secured a contract from Ford Instrument Company on the Jupiter missile, and won special commendation for its work as well as follow-on production which is still continuing.

The division also qualified itself for work on safety, arming and fuzing devices on which substantial orders were booked and continuing orders can be reasonably expected.

Review of the character of its previous nuclear instrumentation program led to better definition of where to look for improved sales and profits. Nuclear instrumentation sales doubled, and greater emphasis was placed on decontamination and modification of drive rods, work which returns a better profit and requires less capital.

Since reconnaissance systems involve many elements of data-processing, the division took steps to add to its existing knowledge of the data-processing





Fairchild is continuing to make significant contributions in the field of nuclear instrumentation. At left above is the latest transistorized Air Particle Monitor. To the right of this is the Fairchild Pulse Rate Computer, while immedately below a Drive Rod Control Unit. All of these instruments are in current production and are used in the latest nuclear-powered submarines.

At the right is the Autoclave, the newst addition to our Nuclear Instrumentation Department. This unit, (shown prior to installation) installed underground, simulates the temperature and pressure conditions inside of a nuclear reactor. It measures approximately 14 feet in length and weighs nearly two tons.

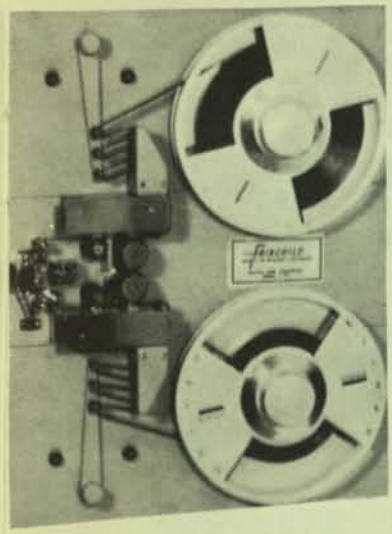
field and thus create a foundation for building a highly profitable new market. To its existing rapid-processing equipment were added electronic programmers of Fairchild design, telephoto and facsimile equipment and an optical scanning system acquired from NEA-Acme Telectronix and digital magnetic tape handling devices purchased from Digitronics Corporation.

Contracts calling for one or a combination of these devices were received increasingly during the year. Business almost quadrupled in the rapid-processing field for military end-use. Contracts calling for extremely complex and advanced data-processing systems were received, but cannot be described because of military security restrictions.

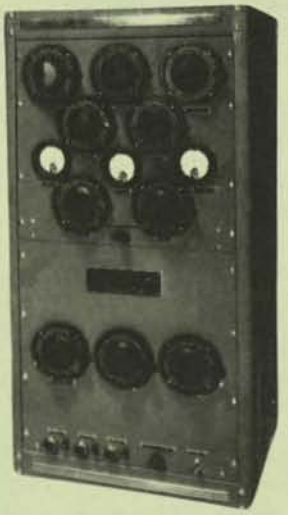
Although the division diversified its product lines, became fully competitive on production, grouped and enlarged its data-processing capability, increased its backlog and earnings, it also saw the necessity of, and found the time for, securing research contracts aimed at the farthest frontiers of knowledge. It is, of course, only at these frontiers that a technical company can learn to meet the product and service needs of industry and the military for the years ahead.

A special presentation to the scientists of Applied Physics Laboratory, Johns Hopkins University, was made by the division, with the result that the leading university research laboratory in the field of missiles and advanced weaponry assigned eleven broad tasks to Fairchild. These, ranging from research to prototype development in emphasis, have already permitted the Defense Products Division to generate business potential for virtually all other divisions of the corporation. On one project, Defense Products and Aerial Surveys personnel are working side by side. Still other projects involve Graphic Equipment Division and the Fairchild Semiconductor Corporation.

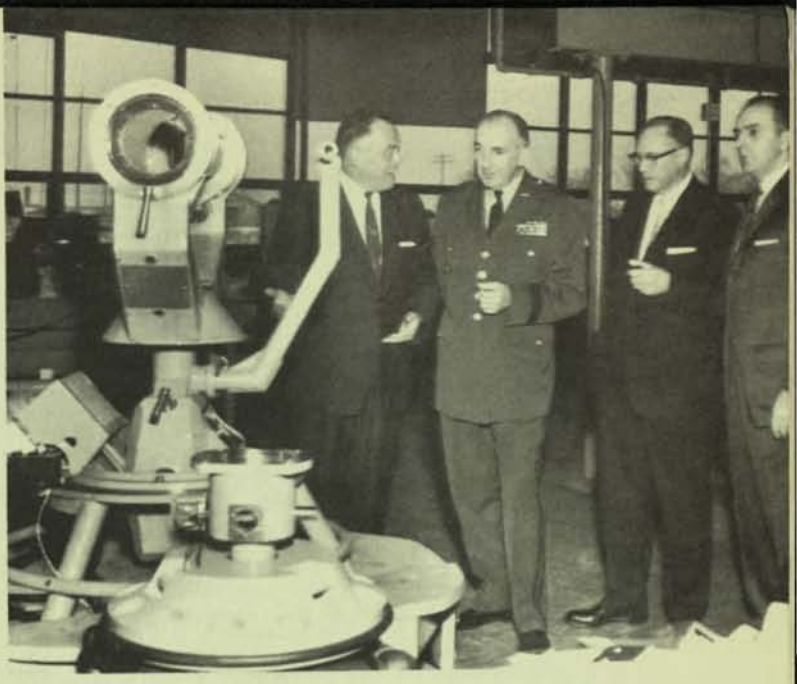
Greatly tightened controls made possible the division's record of improved profits in 1958, despite a reduction in sales. For 1959, the division is projecting substantial increases in both sales and profits.



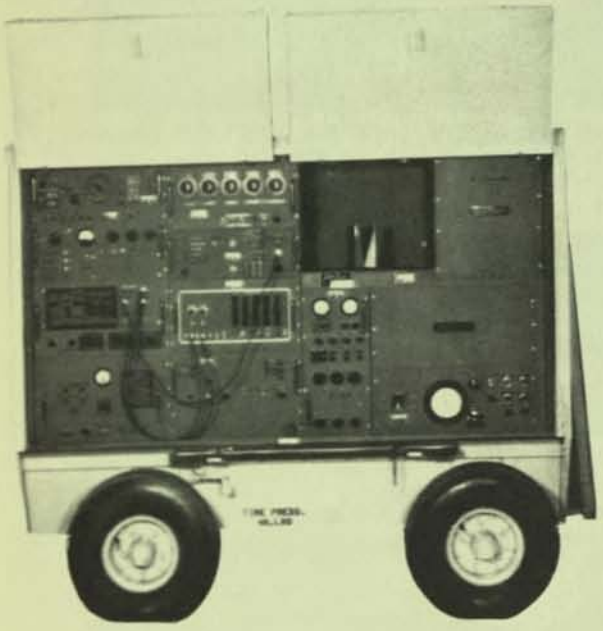
◀ Digital Magnetic Tape Transport (Left)—This new Fairchild acquisition has many electronic computer applications, serving in such conversions as analog-to-digital, punched tape-to-magnetic tape and cards-to-tape.



Precision test equipment, designed and manufactured by Fairchild, to check the accuracy of the remote control system of a TV Camera used in closed circuit television. ▶

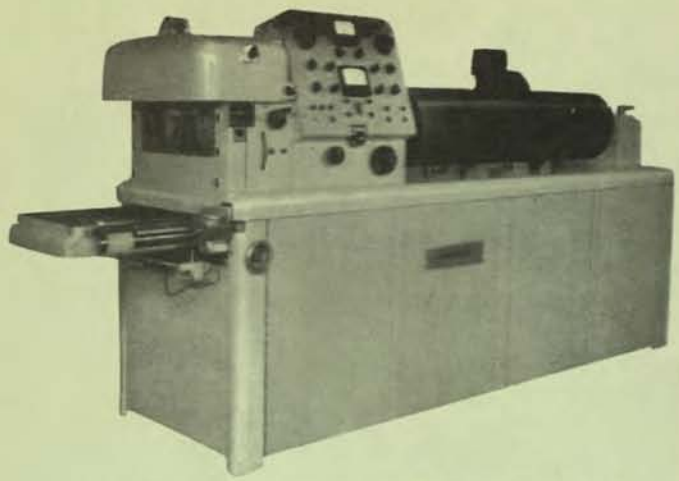


This highly precise planetary test stand was built by Fairchild for the Ford Instrument Company for checking the guidance system components of the Jupiter Missile. Unusually accurate machining to tolerances of .000025" was required on parts of this job.



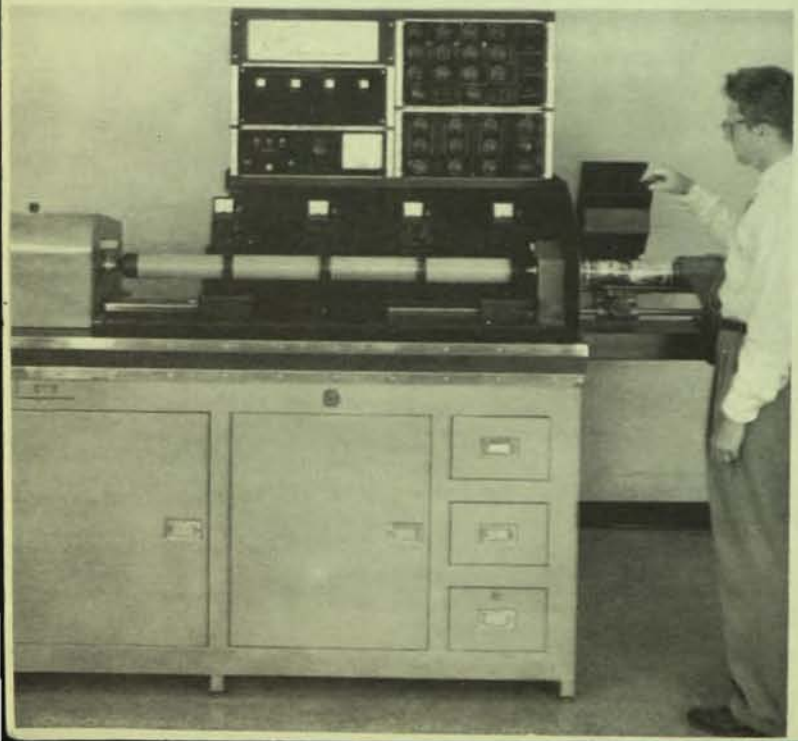
Mobile Test Unit — Designed to check out performance of a photo-reconnaissance system, this unit is typical of various types of ground support equipment for inspection, testing and training purposes which Fairchild is designing and producing.

70mm Recorder-Processor — Utilizes new "Thixotrol" processing technique which permits continuous rapid processing of film as it is exposed. Designed to meet a Signal Corps requirement for rapid recording and viewing of cathode ray tube traces, film is developed within 10 seconds of exposure at speeds up to 90 feet per minute.



Electronic Printing Rectifier — This development of the Graphic Equipment Division makes use of the scanning techniques used in Fairchild electronic engraving equipment. It is designed to convert, through electronic circuitry, oblique aerial photographs to vertical presentations used for mapping. It was designed and built for ARDC's Rome Air Development Center.

Since the acquisition of Teletypesetter, all production and servicing of this equipment has been integrated with the Graphic Division facilities at Plainview, L. I. Photo above shows a part of the Teletypesetter Training School where both Fairchild Customer Engineers and customers' personnel are trained in the use and maintenance of TTS equipment.



Graphic Equipment Division

This division's progress in 1958 was made on three main fronts: the broadening of its product base by acquisitions, the internal development of new products and a growth in sales and profits.

Products added by acquisition were the Teletypesetter, a device for automating and increasing production of linecasting machines used to set type by newspapers, magazines and commercial printers, and three devices from the Telectronix Division of NEA-Acme, two for transmitting and receiving photographs by wire or radio and the third, the Acme Color Separator. Two of the latter machines had been produced and are in commercial use. They are quite similar to the color scanning devices under development by the Graphic Division. Desirable features of the Acme Color Separator are being incorporated into the Fairchild design to further improve their utility to the market. Progress in color scanning by the Graphic laboratory was so material in 1958 that plans for marketing the equipment are now being finalized.

Within the division were developed a new Scan-A-Graver to provide at moderate cost two stages of enlargements for the plastic plate photoengravings it produces automatically, and a Fairchild version of a color scanner.

Management of the division moved with all possible speed on the very large task of integrating the Teletypesetter operations at Chicago and the NEA-Acme Telectronix operations at Cleveland into its own Plainview, Long Island, facility. By year-end, integration was completed and both research and successful production of the newly-acquired products was underway.

The growth in operations at Plainview and in the European market called for comparable expansion of facilities. An addition was authorized for the Plainview plant and larger production and sales facilities were occupied in The Netherlands.

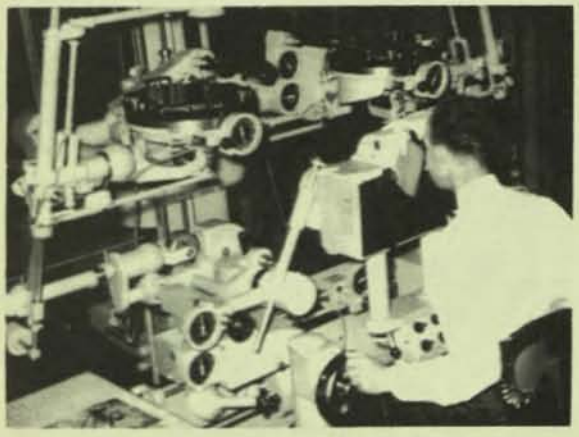
Gross sales and rentals of the division increased in 1958, despite generally poor business conditions and the burden of rapid integration.

In addition, the outlook is for the division's acquisitions to contribute their share of profits now that the major non-recurring costs of integrating them are past.

At left is a prototype model of the Fairchild Color Scanner. This is another development of the Graphic Division that is designed to produce color-corrected separations used by photo-engravers and lithographers in the production of plates for color printing.

One of Fairchild Surveys' fleet of special photographic aircraft. Note the magnetometer which is attached directly beneath the airplane behind the man.

This large copying camera is one of many specialized pieces of equipment needed in aerial survey work. It is shown here copying a large photo-index map.



The Stereoplanigraph is a very complex and highly accurate stereoscopic plotting instrument used for producing contour or topographic maps from aerial photos.

Aerial Surveys Division

This division, the oldest in your company, completed 1958 with profits higher than projected, but with only the anticipated volume of business. In large measure, this record reflected a vigorous tightening up by management during another year of sharp competition in the division's domestic market.

The division limited its ventures into new fields in order to concentrate on strengthening its position in all of its existing activities. However, two new tools of aerial surveying were acquired and an exclusive license to perform helicopter surveys of a specialized nature.

The division's foreign operations continued to grow. The second flying season of a continuing mapping operation of Afghanistan provided material to keep the compilation labs busy. A start was made during the summer on a mapping job of the Arctic islands, which was flown by the division's Canadian subsidiary. At the end of the year crews were at work on a photographic survey of over a quarter million square miles in Libya, a magnetometer-and-photography survey in Argentina and the third season of a classified electronics job in the Far East, all of them big operations by almost any yardstick.

In domestic operations, topographic mapping business was reduced because of extreme competition from shoestring companies in what is a very competitive business. This was offset, however, by greatly increased activity in airborne magnetics, particularly in Alaska and Mississippi.

In keeping abreast of current electronic developments in aerial surveys, Fairchild acquired an exclusive license to perform helicopter-borne electro-

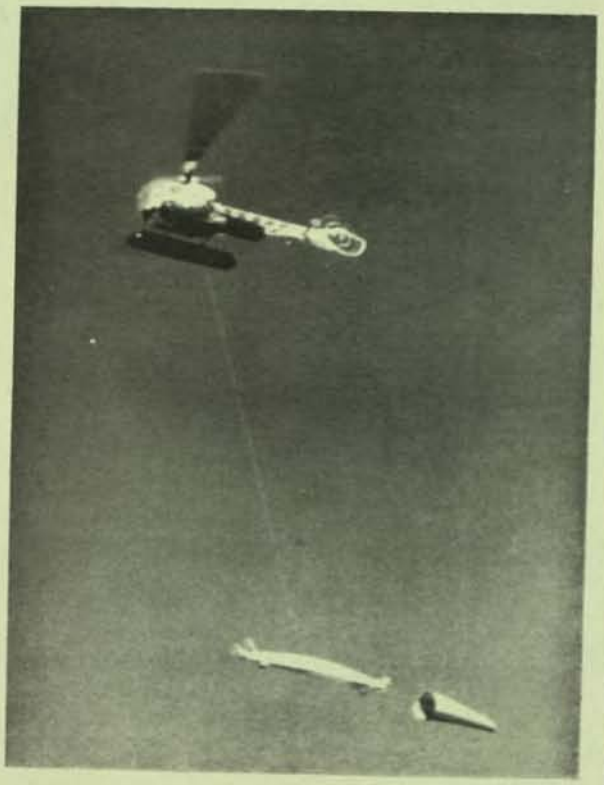
Another precision device for drawing contours is the Kelsh Plotter shown above. Like the Stereoplanigraph this is a stereoscopic plotting instrument.

magnetic surveys for ore detection. New surveying tools acquired included the Airborne Profile Recorder for obtaining terrain profiles from the air, and the Tellurometer, an extremely accurate device for measuring lines on the ground.

A number of changes during the year were made in administration and organization. Brig. Gen. E. M. Day USAF (Ret.) was elected President of the Corporation while Leon T. Eliel, former president, was named Chairman of the Board, and Vice President V. L. Bellerue was recalled from his post as Eastern Representative and made General Sales Manager. Branch compilation laboratories in Tallahassee and Long Island City were closed, their functions being absorbed by the main plant in Los Angeles, and a number of unprofitable sales offices were shut down.

A program of modernization is envisioned for the next two years. An additional four-engine aircraft has been acquired. Plans for modification of instruments and machines are being laid to tie into data automation methods.

Net result of the year's activity was encouraging. While volume of business, as previously noted, was pretty much what had originally been forecast, the profit picture turned out to exceed expectations. A continuation of most of 1958's trends into 1959 should assure a very successful year.



Another new tool employed by the Surveys Division is the Helicopter-borne magnetometer for use in making magnetic surveys for ore detection.

Industrial Products Division

Expansion of product line within the framework of the Industrial Camera Division during 1958 resulted in a corresponding change in division name.

In 1957, as the Industrial Camera Division, a full year of profitable operation was reported. In 1958, as the Industrial Products Division, new orders and operating profit increased over the previous year.

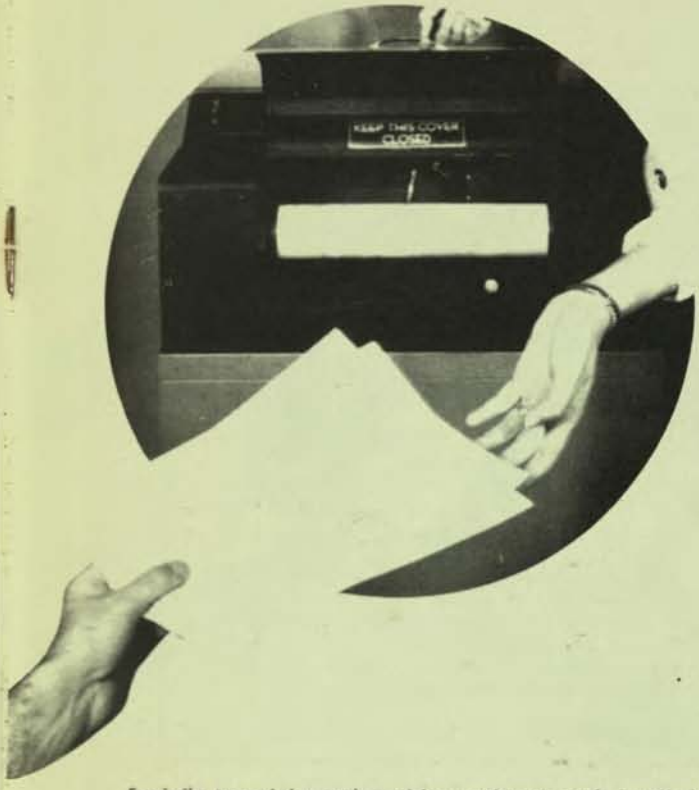
Fairchild extreme high speed camera equipment continued as a dominant tool in the fields of missile development and industrial research. This position was strengthened by addition of accessory products to enhance ease and reliability in operation.

Deliveries of the new Mini-Rapid 16mm automatic film processor began in Spring 1958. The acceptance of this unit has been excellent, especially in the TV news field and it has contributed significantly to sales and profit for the year. A complete family will be made available during 1959 by addition of 35mm and 70mm processing units.

The Cinephonic sound recording motion picture camera was another addition to the division product line, coming late in 1958. Intended as professional equipment, it records sound on a magnetic stripe applied to the film at the time of manufacture. Since it can be processed through the Fairchild Mini-Rapid machine after exposure with no adverse effect on the magnetic sound track, the combination promises good TV spot news application.

The Fairchild Oscilloscope Recording Cameras for laboratory test work continued to find acceptance.

The Cinephonic 16mm sound recording motion picture camera is a new addition to the product line of the Industrial Products Division. Model at left has 400-foot magazine; at right is 100-foot model. Sound is recorded on magnetic stripe applied to film.



Facsimile transmission and receiving equipment newly acquired from NEA-ACME has promising potential applications in many business communications. Above is shown transmitting unit.

In addition, the Fairchild Identification Camera was procured by both military and industrial groups. This equipment makes it possible to prepare a badge or pass card for a visitor or new employee in a matter of minutes, complete with an identifying photograph. Though not a new item, it is of interest that this camera has become standard to the point of excluding competition.

The medical department of this division added the Medi-Matic Processor to its line of mirror optic x-ray camera equipment. This medical version of the Mini Rapid 16mm Processor is intended to fit into the radically new x-ray screen intensification systems now being introduced to medicine.

Medical x-ray camera sales held at a satisfactory level despite the generally depressed x-ray equipment market. Fairchild-Odelca cameras accounted for better than 80% of all photo-fluorographic cameras sold in this country during 1958.

A new department was set up within the division late in the year to handle facsimile equipment industrial sales. This developed from Fairchild's acquisition of NEA-Acme Telectronix. Marketing activity based on industrial and commercial need for equipment to transmit drawings, photos and written material is currently in progress.

The current broadening of this division's product base, coupled with increased operating profit gives a climate ideal for continued and significant new product expansion. Plans for 1959 are specific in this regard. Corresponding increase in 1959 sales volume and operating profit is anticipated.

Facsimile receiver is shown here. With this equipment, drawings, printed data of all kinds, time sheets, inventory records, etc. can be transmitted and received over long distances in minutes.

Below is the new Fairchild Mini-Rapid 35mm film processor. A full line of similar automatic film processing equipment including 16mm, 35mm and 70mm units will be available during 1959.

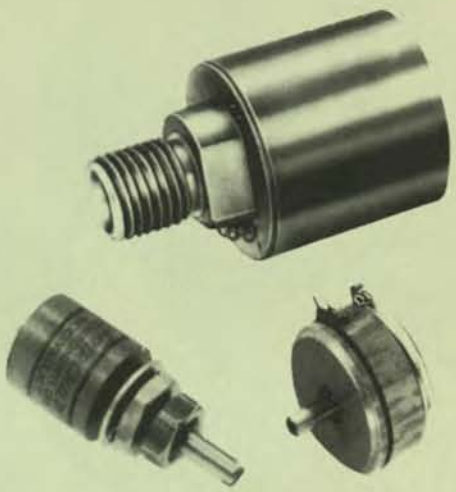
Components Division

The products made by this division are precision miniature components used principally by the Armed Forces, with better than 50 percent devoted to missile applications. All of these products fall into the category of transducers, which is merely a term used to describe a class of components which transforms pressure, temperature, position, motion or change in motion into an electrical output.

Potentiometers, which transform position into an electrical output, represent the major portion of our business, but in the past year growing emphasis has been placed on pressure transducers, accelerometers and gyros for which a more profitable market exists.

Practically every aircraft and missile uses these components. Because of the high reliability demonstrated by Fairchild components, they are used in most of these applications and in many we are the only manufacturer to succeed in meeting the rigid standards required. Missiles such as the Jupiter, Thor, Redstone, Atlas, Polaris, Falcon and Sidewinder contain many of our pressure transducers and potentiometers either in the missile itself or in some of the ground equipment or both. Aircraft such as North American F102, Lockheed F104, Douglas A4D, Convair B58, etc., all use products of Fairchild Components Division.

During the year the division developed two new pressure transducers, a new accelerometer, five new types of potentiometers, plus many improvements to existing product lines. In addition, combinations of some of these components were developed into small sub-systems which are used to compute airspeed, to control the flight of a target drone, and to program the flight of a missile from its ground launching to destination as a function of airspeed and altitude. The sub-miniature rate gyro mentioned in the 1957 Annual Report has been further developed and is now in prototype production. It is expected to be in large scale production before the end of 1959.

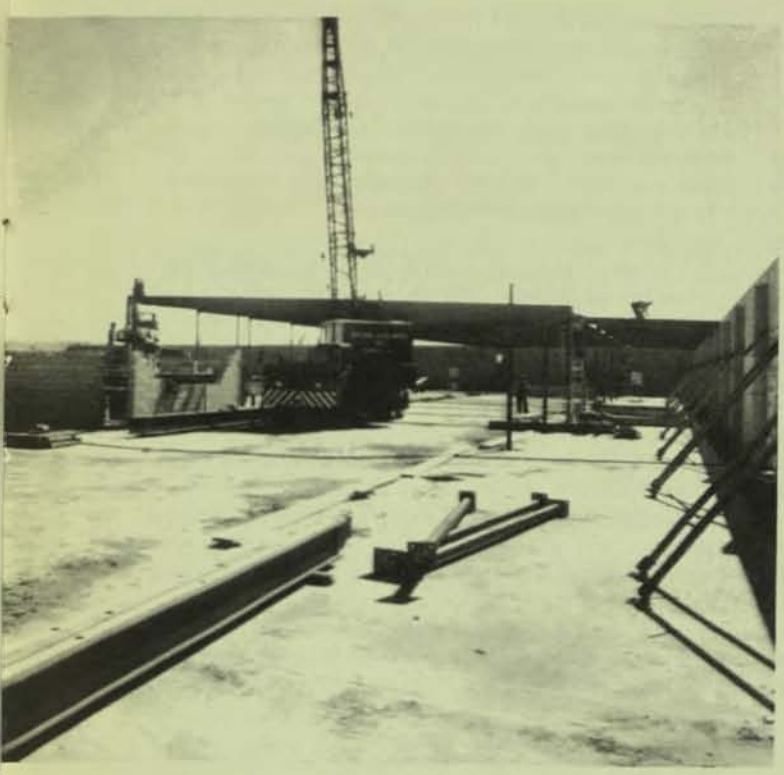


Three of the several new products introduced by the Components Division during 1958 are shown above. At top is a one-inch diameter pressure transducer. At left is a ⅜-inch diameter precision trimming potentiometer, while at the right is a miniaturized ⅞-inch precision single-turn potentiometer.

In the first quarter of 1958 this division experienced a very drastic decline in business due to the realignment of many military programs, resulting in unprofitable operations in the beginning of the year. This trend was reversed in April and operations have been profitable since. December shipments were the highest since October, 1957, and the backlog at the end of the year was up 24 per cent from last year. It is expected that this upward trend will continue as a result of the new products developed in the past year and new applications developed for existing products.

Gyro assembly "clean" room — This controlled atmosphere room is used for critical motor and gimbal sub-assemblies and final assembly of miniature rate gyros.

Final assembly of precision potentiometers is performed under positive-pressure bench hoods supplying electrostatically cleaned air. Ultrasonic cleaners are also used.



Architect's drawing of new Semiconductor plant now under construction at Mountain View, California. Photo at left shows construction in progress. Plant is planned to be in operation by early summer.

Fairchild Semiconductor Corporation

This corporation, Fairchild's stake in the extraordinarily fast-growing market for transistors, advanced from the research and development stage to successful production and substantial sales during 1958.

Employees increased from 20 at the beginning of the year to 165 at the end, and are expected to triple or more during 1959. Currently in production are high speed switching, diffused junction transistors, known to the industry as NPN – 2N696 and 2N697. Nearing production at the close of 1958 was the PNP high speed switching transistor, while under development was a transistor with a maximum oscillation frequency as high as six hundred million cycles per second.

Industry acceptance of these new devices, which provide a combination of very high switching speed, medium power and high temperature tolerance not previously available, was a prime factor in the decision to expand the corporation's production facilities substantially. Ground was broken during the year on a new 64,000 square foot manufacturing plant which is scheduled for occupancy by mid-1959. At that time, the present 20,000 square foot plant at Palo Alto, California, will be devoted to an expanded research and development program.

The corporation is already very active in research aimed at exploring new materials, such as intermetallic compounds, that can help maintain its position of technical leadership. In addition, research is underway on parametric amplifiers which utilize semi-conductor diodes.

Parametric amplifiers show promise of having characteristics, such as low noise level at very short wave frequencies, that would be widely applicable to radar and to microwave communications. Fairchild's research is especially aimed at developing amplifiers with greatly improved performance for long-range surveillance radar, transmitters for space vehicles and very high speed electronic computers.

Semiconductors, or transistors, were mainly scientific curiosities a few years ago. In remarkably short time they have come to replace the vacuum tube in many thousands of military and commercial products. Management of the Semiconductor Corporation believes even greater growth lies ahead and that the corporation's record of achievement in a single year shows that Fairchild's high precision transistors will enjoy a broadening share of this market.

IN CONCLUSION

The division reports demonstrate that the company made tangible progress in virtually every area of its business during 1958. The irregular pattern of divisional profits and losses in some previous years was forcefully changed into a program aimed at general, and increasing, profitability.

Backlog and earnings were increased in the Defense Products Division, and its missile ground support equipment and nuclear instrumentation markets and capabilities were enlarged.

Graphic Equipment Division produced larger sales and earnings while increasing its product lines by internally sponsored research and by acquisition.

Volume was as anticipated, but profits were greater in the Aerial Surveys Division which underwent extensive reorganization for the purpose of increasing its efficiency and economy of operation.

New orders and operating profits were up for the Industrial Products Division as it began deliveries of its new automatic film processors and added a new sound-recording motion picture camera.

Components Division operated profitably despite a very drastic decline in business in the early months of 1958, closing the year with a 24% increase in backlog.

Fairchild Semiconductor Corporation moved from research and development to production and sales of its advanced-design transistors, broke ground for a new 64,000 square-foot production facility, and undertook investigations of parametric amplifiers that use transistors and have characteristics desirable for long-range radar, space transmitters and electronic computers.

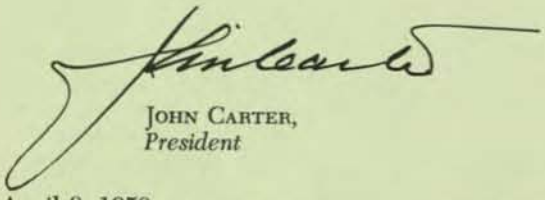
The corporation as a whole overcame first-quarter losses to end the year with an operating profit of $1.14 per share, of which 95 cents per share was earned in the final quarter alone.

Acquisitions made during the year were effectively integrated, with the major costs of such integration absorbed on a current basis so that these product lines could begin to contribute to the company's profits during 1959.

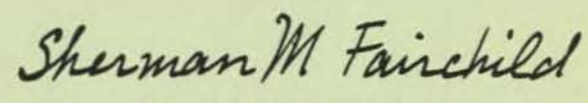
Results obtained from a much more aggressive sales program and more competitive manufacturing costs were reflected in a rising backlog and an increasing rate of profitability.

Management believes that these accomplishments are tangible and provide the solid base for growth in sales and profits during 1959 and the years ahead.

Sincerely yours,



JOHN CARTER,
President



SHERMAN M. FAIRCHILD,
Chairman of the Board

April 8, 1959

GLOSSARY

accelerometer – an instrument placed in a moving body, such as an airplane or missile, to measure the forces resulting from direction or velocity changes, and to supply an electrical output in terms of these changes. Applications are in bombing and gunnery computers and in guided missile controls.

airborne magnetics – see magnetometer surveys.

airborne profile recorder – an airborne device used in aerial mapping which automatically plots a vertical cross-section view or profile of elevations and depressions of the terrain over which the airplane is flying.

automatic film processor – a compact, portable machine which automatically develops, fixes and dries black-and-white roll film such as 16mm movie film in a matter of minutes. A 100 foot roll of exposed film can be processed, ready for viewing in 20 minutes.

backlog – refers to the contracted value of all orders booked but not as yet delivered. Includes work in process, work scheduled and work yet to be scheduled.

color separator – color scanner – an electro-optical device which electronically separates the primary colors of a color photograph and provides negatives of these colors for the production of engravings used in printed reproduction of such photographs.

data processing – in a broad sense, the automatic translation and evaluation of coded information into meaningful numbers, words, etc. An example would be the translation of punched holes in IBM cards into names, addresses, and numbers.

decontamination – in this case refers to the removal of radio-active particles from equipment and parts used in nuclear power generation so that they can be safely handled.

digital magnetic tape handling equipment – a device for transporting at relatively high speed the magnetic tapes on which are recorded various data and automatically reading (translating) these data into an electronic computer.

diode – a small component (literally half a transistor) having two electrodes, one being positive and the other negative. Principal function is in switching.

facsimile – in this instance, the transmission of printed matter, charts, drawings, etc. over long distances by wire or radio.

ground support equipment – inspection, test, operating and training equipment necessary to the operation of airborne vehicles such as aircraft and missiles but which are not a physical part of the airborne vehicle.

intermetallic compounds – inorganic semi-conducting compounds such as rare earths and near-metallic elements as opposed to inorganic compounds such as dyes. Silicon, used in Fairchild transistors, is classified as an intermetallic compound.

low noise level – "noise" is the volume of strength of an extraneous electrical signal or impulse which, in an electronic circuit, causes interference or "static". A component is said to have a low noise level when the causes of such extraneous impulses are removed or minimized.

magnetometer surveys – a method of aerial surveying by which changes in the strength of the earth's magnetic field are measured. Such changes recorded in the air over a strip of land reveal information to the geologist of the presence of mineral concentrations.

micro-wave – ultra high frequency electromagnetic waves used in the transmission of signals over relatively short distances.

mirror optics – an optical system that employs curved mirrors rather than conventional lenses to focus the picture image. This system has the ability to produce pictures of much greater brightness and sharpness than the conventional system. In the Fairchild-Odelca camera, this means that more details are recorded on film which therefore becomes more valuable to the radiologist. Also it means that the patient need be subject to only a fraction of the radiation heretofore necessary to produce a good image on the negative.

net worth – the book value of the shareholders' investment in the corporation.

nuclear instrumentation – includes all those devices necessary to detect, measure and control radiation and power levels. The four general types of devices include: primary plant instrumentation and associated amplifiers; control rod drive mechanisms and associated power supplies; power level and monitoring and control equipment; and radiation monitoring systems and equipment.

parametric amplifier – a low-noise amplifier primarily used for microwave equipment, radar and communications equipment. It is the type of component that has made long range early warning radar possible. Fairchild's role is supplying the diodes which are an integral part of the amplifier.

precision potentiometer – an extremely accurate variable resistor, or voltage divider. The volume control on your radio is one of its simpler forms. The Components Division makes precision potentiometers for very specialized industrial and government applications.

photo-fluorographic camera – a camera used to photograph in reduced size the image on the fluorescent screen of an x-ray machine as opposed to direct radiography where a photographic exposure is made directly onto negative film from the x-rays.

programmer – a device by which a series of mechanical or electrical operations or events may be preset to be performed automatically in a predetermined sequence and at specified time intervals.

prototype – usually the first working model of an instrument or machine upon which future production units will be built.

radar – a device which records reflected electronic waves from objects which lie in the path of the waves generated from its own wave propagation antennae. These reflected waves reveal an image on the face of a cathode ray tube, not unlike a TV picture tube. The position of this image on the face of the tube reveals distance and direction of the object. The size and shape of the object images often will reveal exactly what the object is, i.e. shore line, a battleship, airplane or a storm.

rate gyro – an electro-mechanical device which measures angular rates of turn in missile and aircraft applications.

safety, arming and fuzing devices – devices used to program the various sequences of operation in the firing of warheads on missiles, etc.

sub-system – any system composed of two or more functional components which perform specific operations within the framework of a more complex system or a complete instrument, vehicle or machine.

telephoto – refers to a method of transmitting photographs over long distances by means of radio, or telephone and telegraph lines.

topographic survey – a form of mapping which shows the contours and elevations of the earth's surface.

transducer – an electro-mechanical device that transforms one kind of energy into another. The Components Division makes pressure transducers which change mechanical pressure into electrical energy.

transistor – a small semi-conductor device no larger than the eraser in the end of a pencil, which performs the functions of a radio tube. Commonly used in miniaturized electronic devices.

working capital – the excess of current assets over current liabilities available for use in the everyday and any unusual operations of the corporation.

x-ray screen intensification – a method of improving the detail of an image imposed on the fluorescent screen of an x-ray machine without subjecting the patient to excessive dosages of x-rays.

FCI — FAIRCHILD CAMERA AND

CONSOLIDATED BALANCE SHEET

ASSETS	1958	1957
CURRENT ASSETS		
Cash	$ 1,110,683	$ 1,437,280
Accounts receivable, less allowances for doubtful accounts	5,914,702	6,312,153
Inventories, at lower of cost or estimated realizable market:		
U. S. Government contracts and other work in process, less progress payments – 1958, $606,490; 1957, $988,638	3,261,094	2,184,365
Raw materials, parts and finished goods	3,083,300	1,927,919
Prepaid expenses	212,454	230,208
Total current assets	13,582,233	12,091,925
INVESTMENTS IN AFFILIATED COMPANIES AND OTHER ASSETS (NOTE 1)	390,067	390,374
ADVANCES TO FAIRCHILD SEMICONDUCTOR CORPORATION, LESS PROVISION FOR POSSIBLE LOSS – 1958, $380,765; 1957, $65,445 (NOTE 1)	925,235	109,555
PROPERTY, PLANT AND EQUIPMENT, AT COST (NOTE 2):		
Land and buildings	3,860,200	3,860,200
Rental equipment	3,981,531	3,798,028
Machinery, furniture and fixtures and leasehold improvements	4,869,076	4,235,277
	12,710,807	11,893,505
Less accumulated depreciation and amortization	4,393,546	3,739,024
	8,317,261	8,154,481
GOODWILL	1	1
	$23,214,797	$20,746,336

See accompanying notes to consolidated financial statements.

INSTRUMENT CORPORATION and SUBSIDIARIES

DECEMBER 31, 1958 WITH COMPARATIVE FIGURES FOR 1957

LIABILITIES	1958	1957
CURRENT LIABILITIES:		
Notes payable to banks (note 3)	$ 2,900,000	$ 1,000,000
Current maturity of long-term debt	—	290,000
Accounts payable and accrued liabilities	2,445,446	2,395,910
Provision for Federal and other taxes on income	1,446,141	1,309,163
Provision for redetermination	50,000	690,000
Total current liabilities	6,841,587	5,685,073
LONG-TERM DEBT:		
4½ % promissory note	—	1,779,000
Secured revolving credit (note 3)	2,800,000	—
DEFERRED FEDERAL INCOME TAXES (NOTE 2)	1,199,000	1,225,100
SHAREHOLDERS' EQUITY:		
Common stock, $1 par value (note 4): Authorized, 750,000 shares. Issued and outstanding, 476,597 shares in 1958 and 476,122 shares in 1957	476,597	476,122
Additional paid-in capital	3,300,387	3,289,911
Retained earnings (note 3)	8,597,226	8,291,130
TOTAL SHAREHOLDERS' EQUITY	12,374,210	12,057,163
	$23,214,797	$20,746,336

FCI FAIRCHILD CAMERA AND

STATEMENT OF CONSOLIDATED EARNINGS

YEAR ENDED DECEMBER 31, 1958 WITH COMPARATIVE FIGURES FOR 1957

	1958	1957
NET SALES AND MACHINE RENTALS	$31,674,356	$36,989,284
COST OF SALES AND OTHER OPERATING COSTS (depreciation and amortization provided — 1958, $1,306,288; 1957, $1,224,233 [note 2]):		
Cost of sales and machine rentals	23,819,131	29,099,013
Administrative and selling	5,804,254	5,897,201
	29,623,385	34,996,214
	2,050,971	1,993,070
OTHER INCOME	176,788	283,307
	2,227,759	2,276,377
LESS INTEREST PAID (1958, $281,005; 1957, $245,715) AND OTHER CHARGES	359,044	411,839
	1,868,715	1,864,538
PROVISION FOR FEDERAL TAXES ON INCOME	1,009,000	1,000,000
NET EARNINGS BEFORE PROVISION FOR POSSIBLE LOSS ON ADVANCES	859,715	864,538
PROVISION FOR POSSIBLE LOSS ON ADVANCES TO FAIRCHILD SEMICONDUCTOR CORPORATION (NOTE 1)	315,320	65,445
NET EARNINGS FOR YEAR	$ 544,395	$ 799,093

See accompanying notes to consolidated financial statements.

INSTRUMENT CORPORATION and SUBSIDIARIES

STATEMENT OF CONSOLIDATED ADDITIONAL PAID-IN CAPITAL AND RETAINED EARNINGS

YEAR ENDED DECEMBER 31, 1958 WITH COMPARATIVE FIGURES FOR 1957

	1958	1957
ADDITIONAL PAID-IN CAPITAL		
BALANCE AT BEGINNING OF YEAR	$ 3,289,911	$ 3,332,688
Adjustment of depreciation provided by Canadian subsidiary on restated book value of rental machines	–	(42,777)
Excess of proceeds from sales of capital stock over the par value of shares issued (note 4)	10,476	–
BALANCE AT END OF YEAR	$ 3,300,387	$ 3,289,911
RETAINED EARNINGS		
BALANCE AT BEGINNING OF YEAR	$ 8,291,130	$ 7,730,098
Add net earnings for year, per accompanying statement	544,395	799,093
	8,835,525	8,529,191
Deduct cash dividends – 50¢ per share in 1958 and 1957	238,299	238,061
BALANCE AT END OF YEAR (NOTE 3)	$ 8,597,226	$ 8,291,130

See accompanying notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS DECEMBER 31, 1958

1. Subsidiaries and Affiliates:

The consolidated financial statements include the accounts of all domestic subsidiaries and a Canadian subsidiary, but do not include a wholly-owned Dutch subsidiary. The assets and business of Teletypesetter Corporation which were acquired in January 1958 are also included in the consolidated financial statements.

Included in the balance sheet caption "Investments in affiliated companies and other assets" are the investment in the Dutch company and 50% interests in two companies engaged in aerial surveying. The company's equity in the aforementioned companies exceeds the investment therein by approximately $185,000.

While there is no direct ownership of Fairchild Semiconductor Corporation it is controlled through a voting trust and Fairchild Camera and Instrument Corporation (through a subsidiary) has an option expiring in 1965 to purchase the capital stock at a price to be based on earnings but not to exceed $5,000,000. Working capital has been advanced to Semiconductor and used primarily for development purposes. As these development expenses have been written off as incurred, Semiconductor has shown substantial losses. However, in December 1958 and January 1959, operations were profitable. Provision has been made in the accounts of Fairchild Camera and Instrument Corporation for all losses incurred by Semiconductor to December 31, 1958 less related tax benefit.

2. Property, Plant and Equipment:

The company has claimed accelerated amortization for income tax purposes on approximately $3,600,000 of facilities acquired in 1952 and 1953 under certificates of necessity, but provisions for depreciation and Federal income taxes in the statement of earnings were based on the normal useful life of the facilities. The resulting deferment of taxes to the extent payable in 1960 and subsequent years is shown on the balance sheet as a noncurrent liability.

3. Bank Loans:

On May 29, 1958 the company and a subsidiary entered into a short-term unsecured credit agreement and a secured revolving credit agreement with a group of banks.

Under the terms of the short-term unsecured credit agreement, the company may borrow up to a maximum of $5,000,000 which must be repaid by May 31, 1959. The interest rate, which is based on the prime rate, was 4½% at year end.

The secured revolving credit agreement permits borrowings up to a maximum of $3,500,000. The borrowings are secured by the capital stock of Fairchild Graphic Equipment, Inc. and the assignment of the proceeds from equipment rental leases. The interest rate, which is based on the prime rate, was 5% at year end. The banks have the right to terminate this agreement at any time by giving written notice. After receipt of such notice the borrowings must be repaid in twelve equal monthly installments commencing seven months from the notice date. As of March 2, 1959 no termination notification has been received, nor is any expected, and therefore borrowings under the secured revolving credit agreement have been classified as long-term. Should the banks decide to terminate this agreement immediately after March 2, 1959, the maximum amount of the loan outstanding at December 31, 1958 that would be payable by the end of 1959 would be $700,000.

Among the restrictive covenants contained in the aforementioned credit agreements is a requirement to maintain consolidated working capital of $5,500,000 and a restriction as to the payment of cash dividends and purchases of stock (other than purchases from the proceeds of sales of stock) to 50% of consolidated net earnings since January 1, 1957. Unrestricted retained earnings at December 31, 1958 were $195,384.

4. Stock Option Plans:

Under the terms of a restricted stock option plan adopted in 1953, 41,325 shares of the company's authorized but unissued common stock remain reserved for issue to key employees at a price of not less than 100% of fair market value on the date the option is granted. During 1958 an option to purchase 1,500 shares at $40.13 per share was granted, options on 4,100 shares expired and options on 475 shares at an option price of approximately $23.00 per share were exercised. At December 31, 1958, under the 1953 option plan, there were options outstanding on 26,825 shares at prices ranging from $22.38 to $40.13 per share, of which options on 7,463 shares were exercisable. In 1957 a special stock option was granted to an officer to purchase 23,806 shares at $18.00 per share (the market value at date of grant). During 1958 options on 4,761 shares became exercisable, none of which was exercised.

5. Pension Plans:

Payments in 1958 to the trustee of the company's noncontributory pension plans amounted to approximately $64,000 ($139,000 in 1957). On the basis of the actuarial estimate, unfunded past service costs amounted to approximately $626,500 at December 31, 1958.

6. Long-term Leases:

The company has entered into four long-term leases expiring in 1967 with annual rentals aggregating approximately $235,000. In addition, the company has guaranteed a long-term lease entered into by Fairchild Semiconductor Corporation expiring in 1974 with an annual rental of approximately $91,700.

PEAT, MARWICK, MITCHELL & CO.
ACCOUNTANTS AND AUDITORS
SEVENTY PINE STREET
NEW YORK 5, N. Y.

ACCOUNTANTS' REPORT

To the Board of Directors and Shareholders of
Fairchild Camera and Instrument Corporation:

We have examined the consolidated balance sheet of Fairchild Camera and Instrument Corporation and subsidiaries as of December 31, 1958 and the related statements of earnings and additional paid-in capital and retained earnings for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We were unable to confirm, by direct correspondence, certain of the accounts due from United States Government departments and agencies but we satisfied ourselves as to such accounts by means of other auditing procedures.

In our opinion, the accompanying consolidated balance sheet and statements of consolidated earnings and additional paid-in capital and retained earnings present fairly the financial position of Fairchild Camera and Instrument Corporation and subsidiaries at December 31, 1958 and the results of their operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Peat, Marwick, Mitchell & Co.

New York, N. Y.
March 2, 1959

FAIRCHILD
CAMERA AND INSTRUMENT
CORPORATION

ROBBINS LANE, SYOSSET, L. I., NEW YORK

Annual Report | 1959

FAIRCHILD
CAMERA AND INSTRUMENT
CORPORATION

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Annual Report 1959

FAIRCHILD
CAMERA AND INSTRUMENT
CORPORATION

For the Year Ended December 31, 1959

EXECUTIVE OFFICES AND MAIN PLANT
Robbins Lane, Syosset, L. I., N. Y.

BRANCH OFFICES
Atlanta, Ga.
Chicago, Ill.
Dayton, Ohio
Eastchester, N. Y.
Los Angeles, California
New York, N. Y.
Washington, D. C.

SUBSIDIARIES

Fairchild Semiconductor Corporation
Mountain View, Calif.

Fairchild Aerial Surveys, Inc.
Los Angeles, Calif.

Fairchild Graphic Equipment, Inc.
Plainview, L. I., N. Y.

Fairchild Controls Corporation
Hicksville, L. I., N. Y.

Fairchild Camera en Instrumenten Maatschappij, N.V.
Emmen, Netherlands

Fairchild Camera & Instrument Corp. of Canada, Ltd.
Toronto, Ont.

BOARD of DIRECTORS

Sherman M. Fairchild, Chairman of Board
Founder of Fairchild Camera and Instrument Corporation; Chairman of Fairchild Engine and Airplane Corp.; Director of I.B.M. and G. M. Giannini Co., Inc.

Walter F. Burke, Jr.
Attorney and financial advisor.

F. E. Newbold, Jr.
Vice President of Fairchild Engine and Airplane Corp. and General Manager of Engine, Stratos and Guided Missiles Divisions.

John Carter
President of Fairchild Camera and Instrument Corporation.

Wm. B. Scarborough
Consultant; Director of Metropolitan Fire Association Company.

Charles H. Colvin
President of Colvin Laboratories.

Edward Streeter
Former Vice President of the Bank of New York.

William C. Franklin
President and Director of the Royal Crown Bottling Co., Baltimore, Md.

Milton L. Van Slyck
Managing Editor of the New York Journal of Commerce.

Richard Hodgson
Executive Vice President of Fairchild Camera and Instrument Corporation.

Jos. B. Wharton, Jr.
President and Chief Executive Officer of National Can Corporation.

THE 1959 STORY BRIEFLY

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION and SUBSIDIARIES

OFFICERS

John Carter
President

Richard Hodgson
Executive Vice President

E. S. Hill
Vice President and Comptroller

C. L. Terrill
Vice President and Secretary

K. P. McNaughton
Vice President

G. J. Wade
Treasurer

J. W. English
Assistant Comptroller

Philip Haas, Jr.
Assistant Secretary

Nelson Stone
Assistant Secretary

General Counsel
Cravath, Swaine & Moore, New York

Accountants and Auditors
Peat, Marwick, Mitchell & Co., N. Y.

Transfer Agent
The Bank of New York

Registrar
First National City Bank of New York

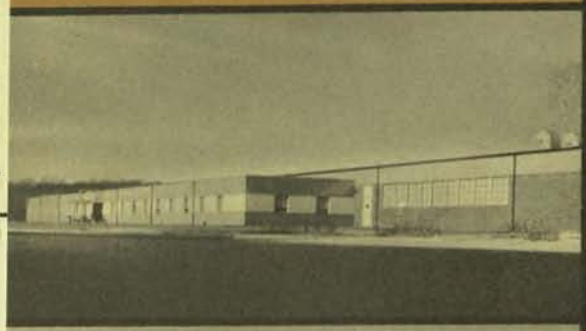
For the Years Ended December 31, 1959 and 1958

	1959	1958
Net Sales	$43,442,000	$31,674,000
Profit Before Federal Taxes on Income (and Special Provision in 1958)	4,360,000	1,869,000
Net Profit (and Special Provision in 1958)	2,071,000	544,000
Taxes	3,376,000	1,637,000
Working Capital	7,738,000	6,741,000
Net Worth	14,376,000	12,374,000
Payroll	22,368,000	14,907,000
Number of Employees	3,577	2,168
Number of Stockholders	3,174	1,965
Shares Outstanding (Two-for-One Split in 1959)	1,036,890	476,597
Backlog	19,823,000	18,154,000
PER SHARE (Both Years Based on 1,036,890 Shares):		
Net Profit (and Special Provision in 1958)	$ 2.00	$ .53
Taxes	3.26	1.58
Working Capital	7.46	6.50
Net Worth	13.86	11.93

FAIRCHILD CAMERA AND INSTRUMENT

PLANTS AND BUILDINGS

Corporate Headquarters and Main Plant of Defense Products Division,
Syosset, L. I., N. Y.
167,000 square feet



Left—Engineering Building, Defense Products Division,
Syosset, L. I., N. Y.
58,500 square feet

Right—Offices and Plant Industrial Products Division
Yonkers, N. Y.
10,000 square feet

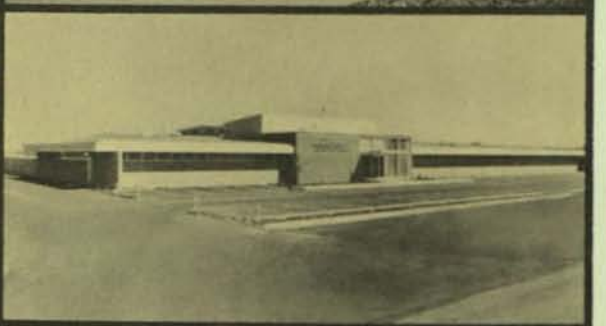
Left—Offices and Plant Graphic Equipment Division
Plainview, L. I., N. Y.
58,500 square feet

Right—Scan-A-Plate Plant Graphic Equipment Division
Syosset, L. I., N. Y.
9,500 square feet

Left—Offices and Plant—East Coast Components Division
Hicksville, L. I., N. Y.
43,000 square feet

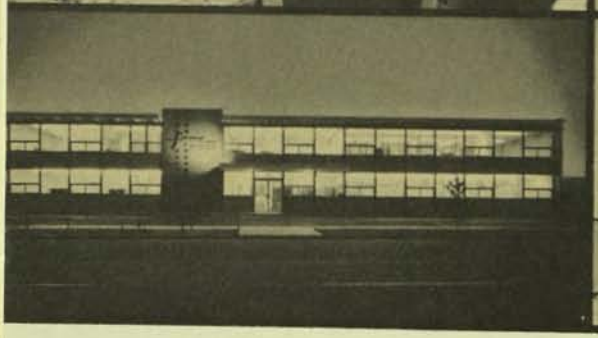
Right—Offices and Plant—West Coast Components Division
Los Angeles, California

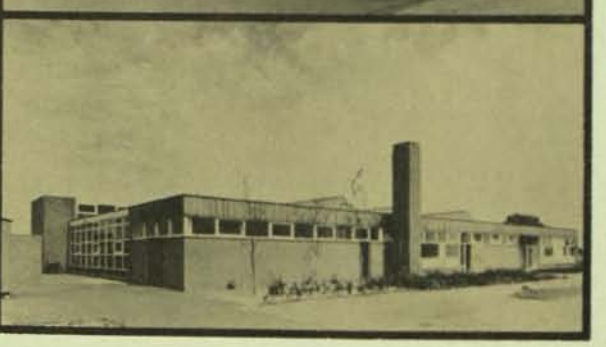
West Coast Sales and Service
Defense Products Division
Graphic Equipment Division
24,000 square feet



Left—Offices and Laboratories Aerial Surveys Division
Los Angeles, California
41,000 square feet

Right—Main Offices and Plant Semiconductor Division
Mountain View, California
113,200 square feet





Left—Research and Development Laboratories Semiconductor Division
Palo Alto, California
32,000 square feet

Right—Fairchild Camera en Instrumenten, Maatschappij, N. V.
Emmen, The Netherlands
12,000 square feet

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

SYOSSET, L. I., N. Y.

DEAR STOCKHOLDER:

Management presents herein a report on its operations for the year 1959.

We achieved the highest profits in the Corporation's 40 year history, and a sales volume second only to the peak World War II year of 1943.

Stockholders approved a two-for-one stock split, and an increase in the Corporation's authorized common stock from 750,000 to 2,000,000 shares.

A 50-cent per share dividend was voted on the split stock, representing a 100 percent increase over each of the two prior years' payments. The total dividend paid to stockholders amounted to $518,000 and represents the largest annual cash disbursement of dividends in the Company's history. The 1959 dividend represents the 22nd consecutive year in which cash dividends have been paid by the Company.

The year marked your Company's move into the consumer photographic market, acquisition of the Fairchild Semiconductor Corporation and an acceleration of the Company's research program, backed by new laboratories and facilities.

Total backlog was increased and product lines were expanded in all divisions.

All of these developments were geared to your Company's long range program of expansion and product diversification, which your Management believes will continue to result in increased profitability and appreciation of stockholder equity.

Sincerely,

Sherman M. Fairchild

SHERMAN M. FAIRCHILD
Chairman of the Board

John Carter

JOHN CARTER
President

REPORTS ON THE DIVISIONS

THE SEMICONDUCTOR DIVISION

On September 24, 1959 your Company exercised its option to acquire all of the common stock of Fairchild Semiconductor Corporation, Mountain View, California. The Semiconductor acquisition involved the exchange of 19,901 shares (before split) of the common stock of Fairchild Camera and Instrument Corporation for 100 percent of the stock of the Semiconductor Corporation. This exchange was accomplished on October 16, and the firm became a wholly-owned subsidiary.

During 1959 Fairchild Semiconductor increased its rate of sales tenfold, with an equivalent increase in personnel to 1260 employees. Plant space of 20,000 square feet in January was increased to 100,000 square feet in August with the opening of a new 68,000 square foot manufacturing facility in Mountain View, California and an addition of more space to the Research and Development Laboratories in Palo Alto, California.

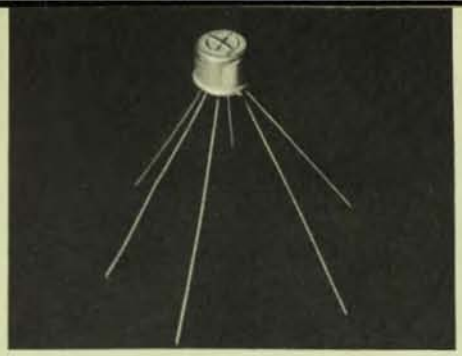
Undisputed technical leadership in the silicon transistor product line has been maintained by the introduction, during a six month period, of seven new transistors, each the most advanced type available in its area of application.

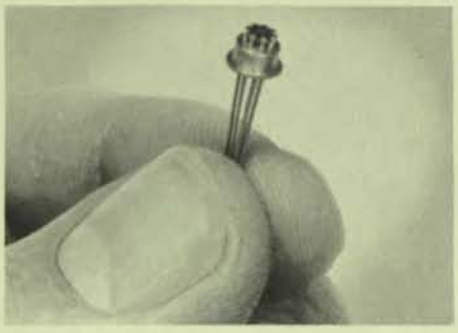
Development of a line of new ultra-fast silicon diodes was completed during the Fall, and a diode manufacturing operation was initiated in San Rafael, California. This activity is located in a temporary 7,000 square foot facility while a new 50,000 square foot diode plant is being constructed. Completion is scheduled for August, 1960. In addition to this new diode plant, the transistor manufacturing facilities at Mountain View are being expanded to more than double the present capacity in anticipation of 1960 demands.

The Research and Development activity has been increased during the year, and is now nearly as large as the entire Semiconductor Company was only a year ago. New materials and new methods of producing transistors and diodes are being investigated. New semiconductor devices, including parametric diodes and Esaki or "tunnel" diodes are being produced on a developmental production line and their applications are being studied.

Artist's rendering of new 50,000 square foot diode plant of Semiconductor Division now under construction at San Rafael, California.

Transistor production has been expedited through elimination of much manual handling of tiny parts. This is a die attach station in which parts move on metal track past the operator.





Two new developments of Semiconductor Division are shown here. **At top left** — "Hexistor" contains complete 20 megacycle flip-flop, gating, adding or other computer circuit block encapsulated in a standard transistor capsule; **at bottom left** is the new micrologic element packaged in tiny transistor capsule. Unit is one of six types of logic elements developed for computer use. Cost reductions of 75% and space savings of 20 to 30 times are possible with this new concept. **At right** is shown method of loading silicon wafers into diffusion furnace.

New integrated "micrologic" components have been developed which allow an entire computer circuit of four active elements plus numerous resistors and capacitors to be packaged in a conventional transistor capsule, smaller than the eraser tip of a pencil. These micromodules represent great space and weight savings to the modern computer, and give greater circuit reliability than previous types. Through these and other advanced R and D programs, Fairchild Semiconductor expects to maintain its technological leadership in the semiconductor field.

THE INDUSTRIAL PRODUCTS DIVISION

In the Industrial Products Division continued expansion of products for industrial application was accompanied by a major effort to develop a unique and proprietary position in the consumer field.

Marketing and technical investigations covered a number of consumer areas and possible new products. Final analysis selected eight millimeter magnetic sound motion picture equipment as the logical first in a line of Fairchild consumer items.

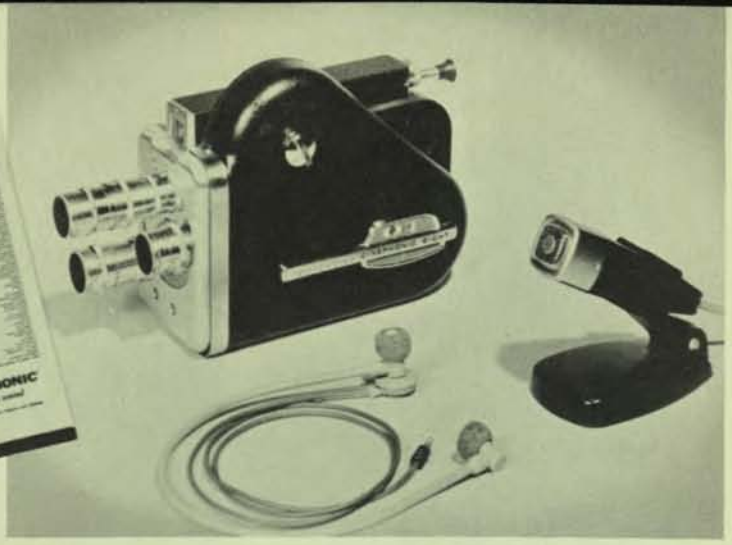
As a result, your management authorized immediate and full scale development of the 8mm Cinephonic equipment line, to include camera, projector, film, and related photographic accessories.

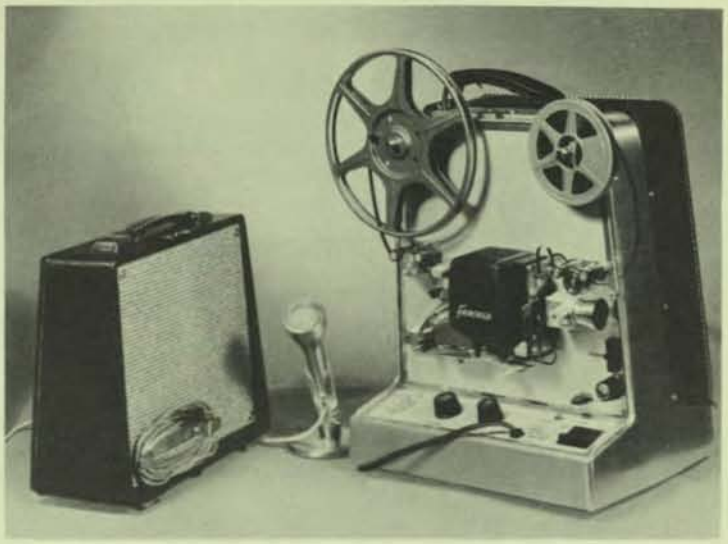
The accelerated program which followed has resulted in another "Fairchild First", this time in a vast consumer field. To quote from an article in the April issue of Popular Photography Magazine: "The 8mm sound barrier has been smashed, pulverized, evaporated . . . Fairchild's Cinephonic Eight system is a monumental development because it introduces an important professional tool—sound-on-film—to 8mm movies."

Distribution of the equipment is being handled directly by your Company through franchised dealers. Under agreement with Ansco, we are also marketing, under the Fairchild name, a superior sound-striped color film as well.

Since this represents a real breakthrough in the field, a significant area of accessory equipment is indicated and we will continue to add to the line now offered.

Board Chairman, Sherman M. Fairchild proudly shows the new Fairchild Cinephonic 8 sound-movie camera introduced by Industrial Products Division.





Cinephonic 8 heralds Fairchild's entry into the consumer market. Double spread full-color ads announcing new camera will appear in leading consumer magazines to support nation-wide dealer distribution. Camera is shown at right above—sound projector is shown below.

The Cinephonic 8mm camera is a compact, motor driven unit with re-chargeable battery and transistorized amplifier, completely self-contained. The single operating switch permits monitoring sound with the included headset, while recording it through the plug-in microphone. The recorded sound and picture are synchronized on the single 8mm roll of processed film.

Projection of sound and action is accomplished through the Cinephonic Projector, with operation comparable in simplicity to existing silent home projectors. Additionally, the projector allows for dubbing on commentary subsequent to the picture taking. Since it operates at the old 16 frames per second as well as the new standard sound rate of 24 frames per second, the feature of dubbing on sound can be applied to films accumulated in the silent days, if striping is now added.

A line of Fairchild Cinephonic magnetic striped film completes the base now established. Distribution and processing will be directed by your Company.

New product effort has not weakened the Division's position in previously existing industrial instrumentation.

The Division's lines of high speed camera equipment, automatic film processors, identification cameras, facsimile equipment and similar products continue to contribute significantly to sales and profit.

During the year the Division was moved from Syosset to larger quarters in Yonkers, N. Y. Broadening of the product base will continue to influence the organization. It is the Division's aim to capture and maintain leadership in the consumer photographic market, as evidenced by the current Cinephonic 8 program.

THE DEFENSE PRODUCTS DIVISION

From a profit standpoint, the Defense Products Division during 1959 reaped the rewards from the reorganization and merging of other departments and divisions during 1957 and 1958.

Broad utilization of the combined technical skills and the reshaping and acceleration of the Division's scientific research programs yielded a substantial contribution to profitability.

Leadership in the manufacturing of precise electro-mechanical-optical intelligence data gathering and transmission equipment was maintained with impressive gains in orders booked, sales and profitability.

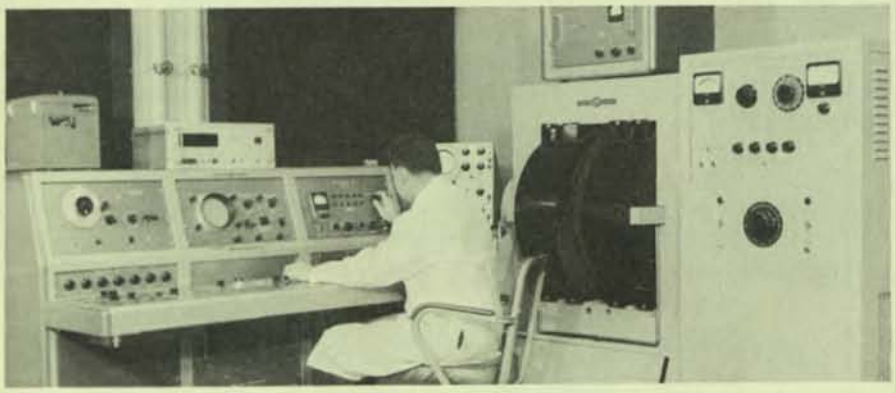
Most of the product development work of this Division is of a highly classified nature, and cannot be discussed or illustrated in this report. Stockholders can be certain, however, that the work being done is assuring Fairchild's continued leadership in the field of reconnaissance and defense systems.

The Division's contributions in the fields of missile support equipment; safety, arming and fuzing devices; data handling and processing have all been rewarded with continuing and additional contracts.

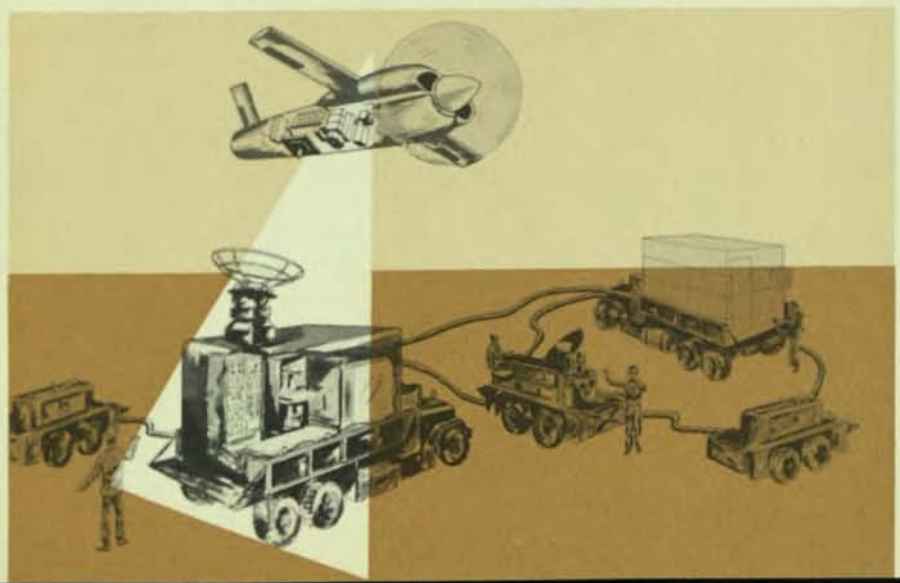
Management emphasis on the importance of continued research by the Defense Products Division resulted in approval of a two million dollar research facilities expansion program.

Construction was started on a new Basic Research Laboratory at the Syosset plant, to expand basic research in fundamental chemistry and physics. The laboratory will also provide facilities for research and development on new photo-processing techniques and devices and for conducting studies in new methods for recording images.

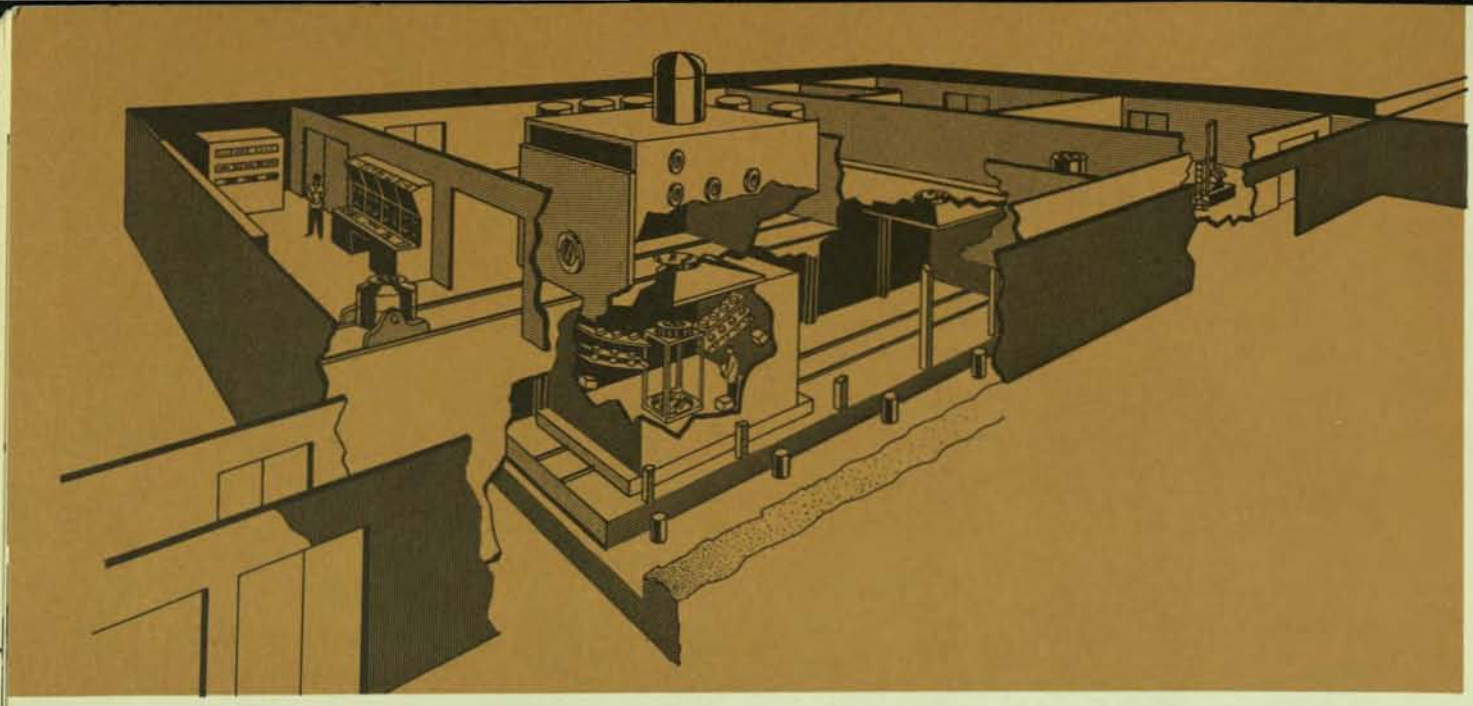
Also under way was Fairchild's new Environmental Test Laboratory, geared to the space age, which will provide an altitude chamber



New Basic Research Laboratory of Defense Products Division is furnished with latest and most advanced test equipment. Shown here is a Magnetic Nuclear Resonance Spectrometer.



One of the year's outstanding Fairchild developments in aerial reconnaissance is the air-to-ground Photo Transmission System depicted here. This system takes photos from an airborne vehicle, processes them in flight, and electronically scans and transmits photos to ground station, where pictures are received as radio signals, converted back to visual form and made available for viewing and evaluation in a matter of minutes.



Artist's rendering of new Defense Products Environmental Test Center. A feature of this center is the altitude chamber capable of testing entire systems under simulated altitudes up to 1,000,000 feet and temperatures from −100°F to +200°F.

capable of testing entire systems at altitudes up to 1,000,000 feet, with temperatures ranging from −100°F to +200°F. The Laboratory will be completely equipped with shock and vibration testing equipment, an acoustic chamber, and a parabolic collimator of highest optical quality which can be moved on tracks to a position beneath the pressure chamber for the resolution testing of complete reconnaissance systems.

The test center will be the first of its kind in the country and will provide the Division with a substantial advantage in soliciting contracts for the new products and systems of tomorrow. The research laboratory will provide solutions to problems arising from the ever-increasing complexities of defense systems and will enable your company to keep abreast of the demands of our military services.

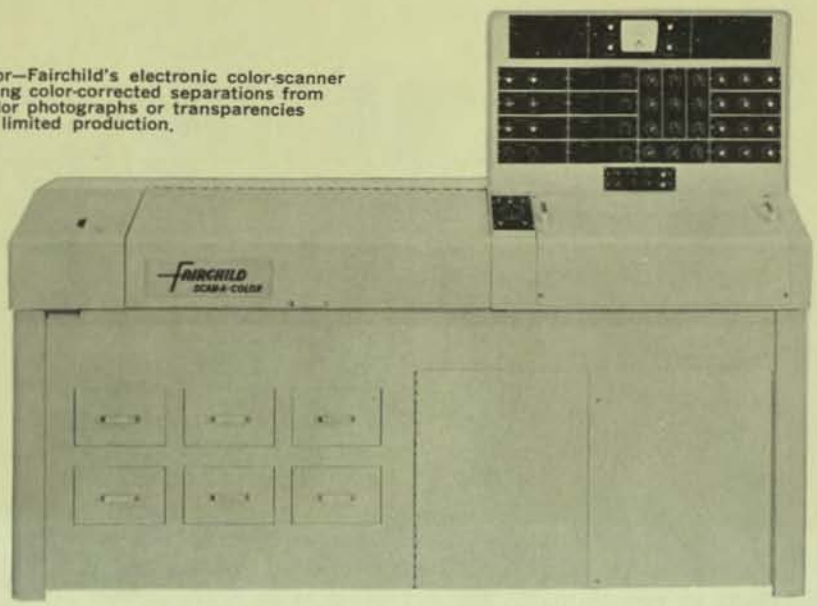
THE GRAPHIC EQUIPMENT DIVISION

Both gross sales and net profits in the Graphic Equipment Division increased again in 1959. Product expansion was accomplished in three important areas.

In April, 1959 the Division unveiled the latest model in the Scan-A-Graver line, the Illustrator, which offers two ratios of enlargement in addition to the one-to-one reproducing feature. It fills a market gap between the Standard Scan-A-Graver and the Scan-A-Sizer. The acceptance of this new Scan-A-Graver model has been outstanding.

Continuing to offer the most advanced electronic halftone engraving equipment, the Graphic Equipment Division, in 1959, introduced the new Scan-A-Graver "Illustrator" shown here. Among its many new features, this machine provides the means for enlarging engravings directly from original photographs in two ratios as well as the usual 1 to 1 reproduction ratio.

Scan-A-Color—Fairchild's electronic color-scanner for producing color-corrected separations from original color photographs or transparencies is now in limited production.

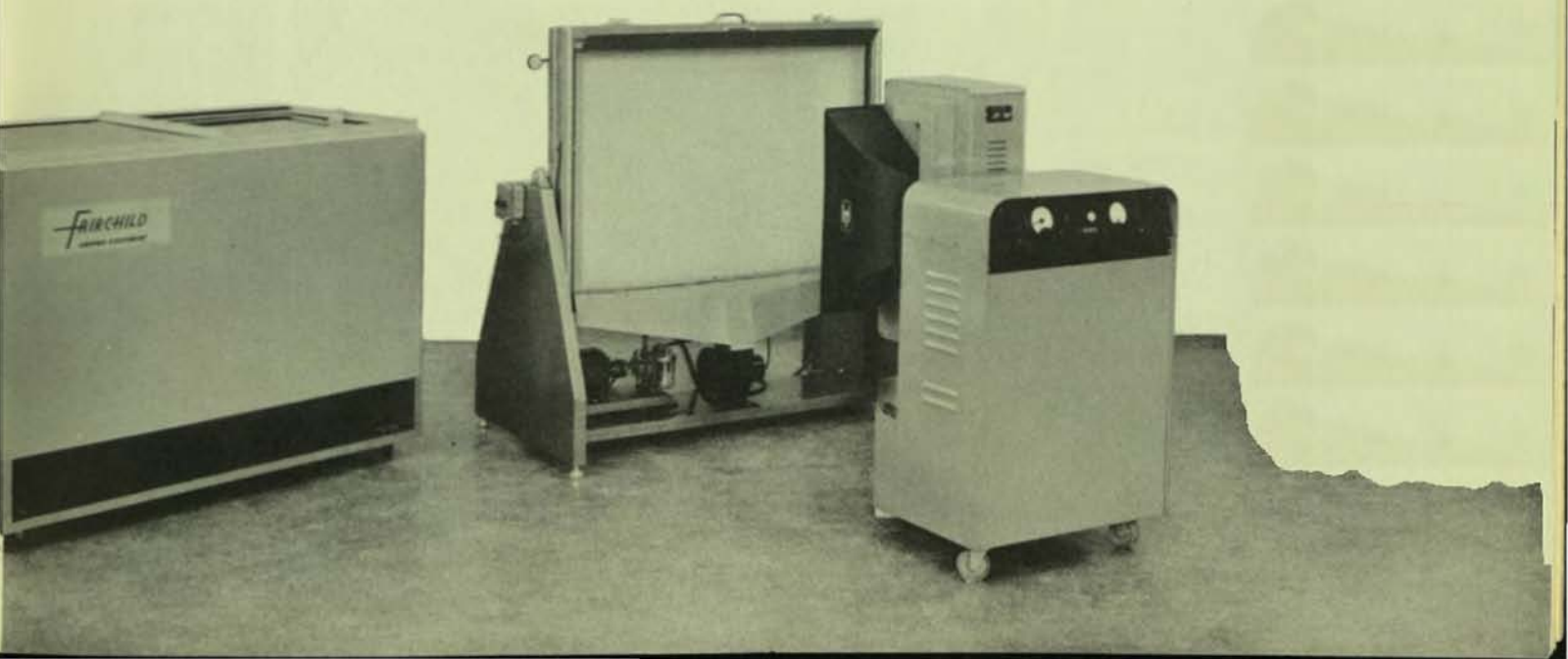


Sales of the Teletypesetter group of products have shown a consistent and significant growth.

To augment the Teletypesetter family of products, the Division's laboratories have developed several associated devices. An example is Fairchild's Horizontal Rule Dropper, which provides for the automatic insertion of rules between classified advertisements by means of a code punched in the TTS tape. Another new development important to the future of the Teletypesetter was the introduction of an ultra high speed TTS operating unit for use with higher speed linecasting machines which are currently being announced and introduced by the manufacturers of typesetting machines.

Late in 1958, this Division completed its first prototype of an electronic color scanning machine. During 1959 this prototype has been thoroughly evaluated and tested and production was started on the first six production units of this equipment, which has now been named Scan-A-Color. It is expected that the first of these units will be installed commercially during the first quarter of 1960. This color computer system, by means of electronics will, in one machine, produce color-corrected separations in the form of continuous tone or screened negatives from original transparencies for the four plates required for color printing.

Keeping pace with latest advances in graphic arts techniques, Fairchild Graphic now offers complete processing equipment for the new Dupont "Dycril" photopolymer plates. In the picture below are, left to right, plate conditioning cabinet, exposure unit, arc lamp and controls and plate wash-out unit.



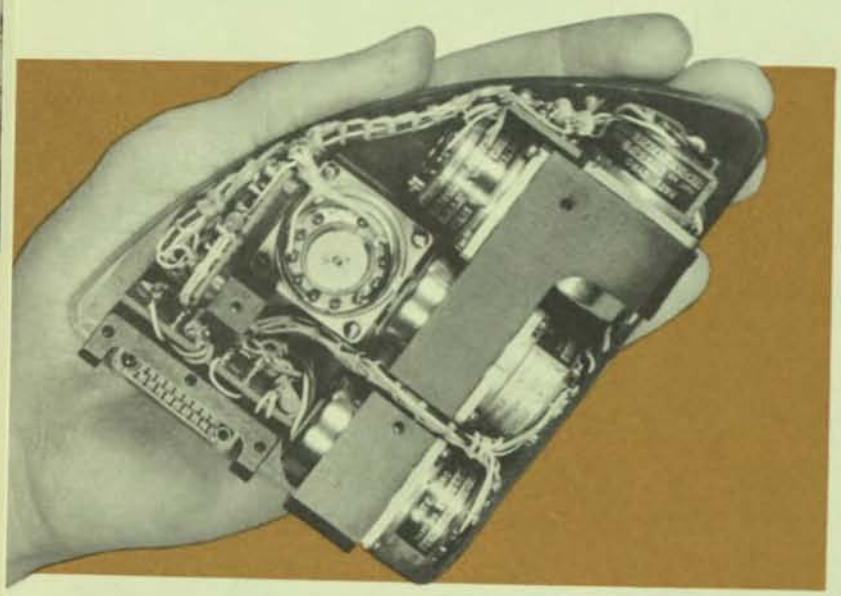
THE COMPONENTS DIVISION

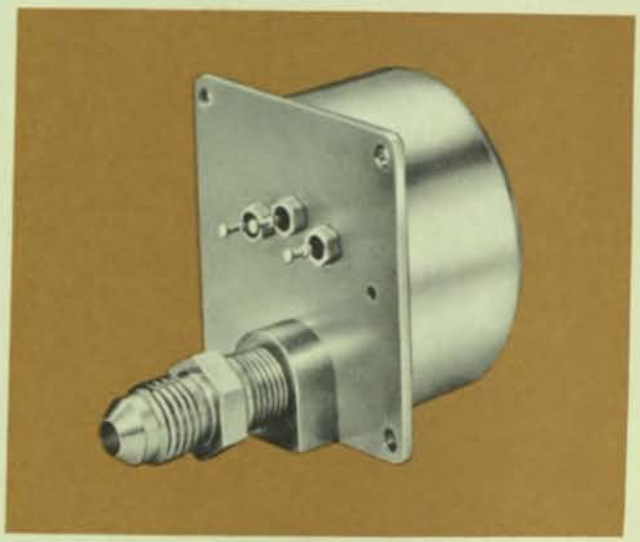
During the year, the Components Division expanded its line of pressure transducers and accelerometers and added two new precision potentiometers to its line. The sales volume of pressure transducers and gyros increased substantially, and it is expected that this will continue at an accelerated rate in 1960.

Fairchild pressure transducers and potentiometers have found increasing application in many missile programs, such as Atlas, Titan, Thor, Polaris, Jupiter, Falcon, etc. The Explorer satellites have been equipped with Fairchild pressure transducers, and the Mercury man-in-space capsules will utilize these units. There are many other applications of these components in almost all manned aircraft, including the Convair B-58, Republic F-105, target drones such as the Ryan Firebee and commercial aircraft such as the Boeing 707 jetliner.

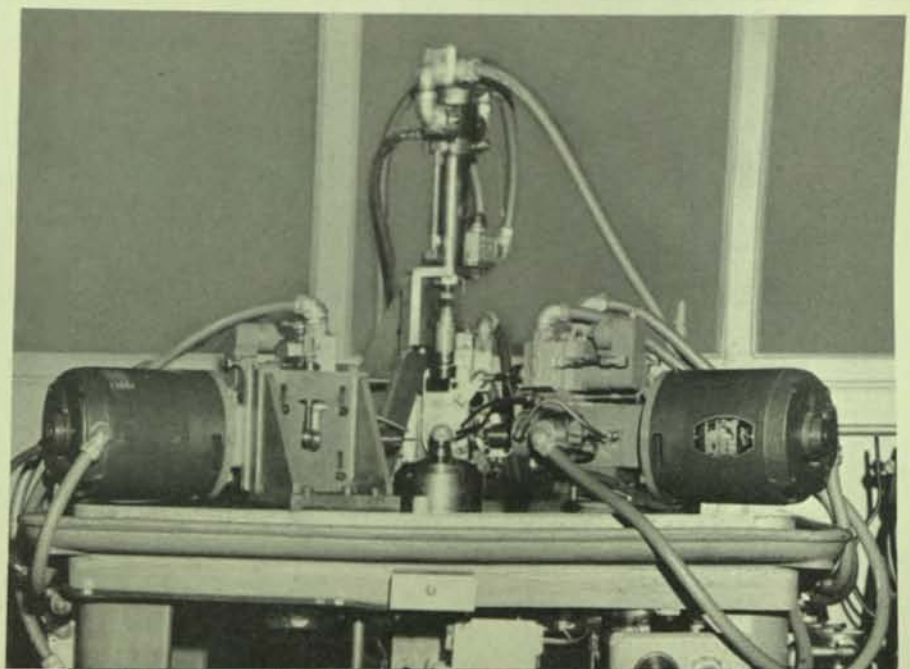
While price competition in the components field continues to be severe, the profit picture is expected to improve in 1960 and development of new products will continue at an even greater pace.

At right is the new Fairchild TPH-175 miniature Pressure Transducer. This component only 1¾ inches in diameter, is used in the Capsule Pressurization System as a part of NASA's Project Mercury Space Vehicle.

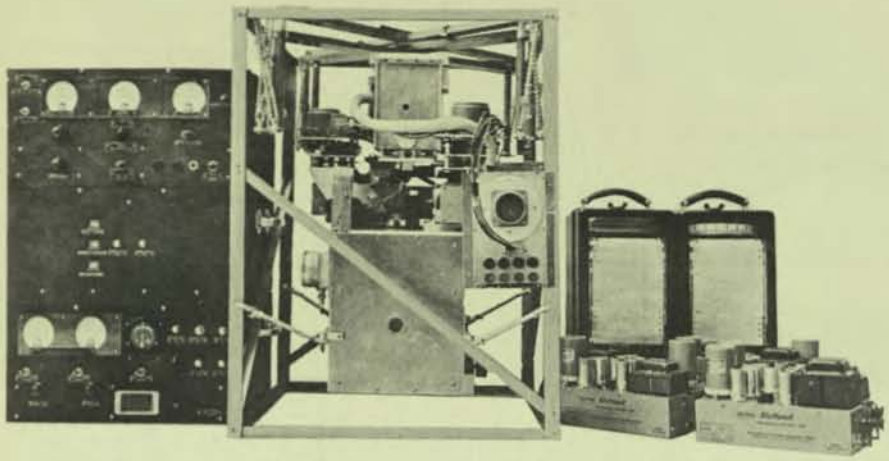




Small enough to fit comfortably in the hand, this Fairchild designed package, containing two rate gyros and two accelerometers, replaces a much larger assembly of units in a torpedo guidance system and "senses" any external forces which may tend to throw the vehicle off course.



Typical of Fairchild's ingenuity is the special "universal" automatic drilling machine designed by personnel of the Components Division. This machine with its electronic controls and hydraulic-actuated head is used for drilling operations in precision potentiometer housings. Greater production speed and virtual elimination of parts breakage has resulted from its use.



Newest among aerial mapping techniques offered by Aerial Surveys Division is the use of the Airborne Gravity Meter shown at left. Through this new device it is possible to improve the accuracy of contour maps prepared for geodetic and geophysical purposes.

THE AERIAL SURVEYS DIVISION

Competition for mapping business, domestic and foreign, remained brisk throughout 1959. Improved production methods, addition of several new services, modernization of equipment, establishment of several new sales offices, plus aggressive sales efforts have enabled the Aerial Surveys Division to meet the challenge and prospects for 1960 appear favorable.

Major photographic and topographic mapping projects were successfully completed overseas in Viet Nam, Afghanistan, Libya and Argentina. The most important domestic project for 1959 was an order for a large topographic contract in Alaska as part of the Alaska road building program. Production of topographic maps started in late 1959 and will be completed by mid-60.

A new corporation, Fairchild LaCoste Gravity Surveys, Inc. (FLAGS), in which Surveys will hold a 42½ percent interest, has been created to perform airborne gravity meter surveys. This was the result of the first commercial flight-testing of an airborne gravity meter – a major breakthrough in the art.

New equipment tested and added by the Division during 1959 included a new type of magnetometer with greater depth penetration, a new doppler navigation system for its aircraft and a Terrain Data Translator which permits conversion to digital form of information derived from aerial photographs.

Modernization, improved production techniques, an aggressive world-wide selling program, and Surveys' well-established global reputation for quality, dependability and service will continue to be emphasized to insure that 1960 is a successful year.

Automation comes to Aerial Surveying. By means of Terrain Data Translator, shown below with stereoplanigraph and electronic equipment, ground cross-section and profile data is now provided in digital form—automatically.

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION and SUBSIDIARIES

EFFECT OF 1959 OPERATIONS ON WORKING CAPITAL

Working Capital, December 31, 1958				$ 6,740,646
Net addition caused by consolidation of Fairchild Semiconductor Corporation under "pooling of interests" concept in 1959 without restating prior year				653,412
Additions:				
Net earnings for the year			$2,071,225	
Depreciation and amortization—1959:				
Rental machines	$ 559,816			
Other	916,407	$1,476,223		
Less: Charges to reserve:				
Disposals	$1,085,944			
Rebuilding costs	12,598	1,098,542	377,681	
Decrease in investments in affiliated companies and other assets			24,203	
Increase in non-current borrowings			100,000	
Proceeds from sales of capital stock less expenses			443,486	3,016,595
				10,410,653
Deductions:				
Cash dividend paid – $.50 per share			518,270	
Additions to fixed assets, etc.—net:				
Property and plant equipment		2,348,666		
Rental machines		(247,334)	2,101,332	
Decrease in deferred Federal income taxes			53,000	2,672,602
Working Capital, December 31, 1959				$ 7,738,051

GLOSSARY

accelerometer – an instrument placed in a moving body, such as an airplane or missile, to measure the forces resulting from direction or velocity changes, and to supply an electrical output in terms of these changes. Applications are in bombing and gunnery computers and in guided missile controls.

automatic film processor – a compact, portable machine which automatically develops, fixes and dries black and white roll film such as 16mm movie film in a matter of minutes. A 100 foot roll of exposed film can be processed, ready for viewing in 20 minutes.

backlog – refers to the contracted value of all orders booked but not as yet delivered. Includes work in process, work scheduled and work yet to be scheduled.

data processing – in a broad sense, the automatic translation and evaluation of coded information into meaningful numbers, words, etc. An example would be the translation of punched holes in IBM cards into names, addresses, and numbers.

diode – a small component (literally half a transistor) having two electrodes, one being positive and the other negative. Principal function is in switching.

doppler navigation system – a self-contained airborne electronic navigation system similar to radar which continually positions the aircraft at any time during its flight.

dubbing – the art of inserting verbal commentary or additional sound effects onto the sound track of a film or tape.

Esaki (tunnel) diode – a potentially inexpensive semiconductor device which can be used as a switching device for computer applications.

facsimile – in this instance, the transmission of printed matter, charts, drawings, etc. over long distances by wire or radio.

gravity meter survey – a method of measuring the force of gravity at points on the earth's surface usually resulting in a special gravity contour map showing the force of gravity at the different elevations.

magnetometer – a device which measures changes in the strength of the earth's magnetic field. Such changes, recorded in the air over a strip of land, reveal information to the geologist of the presence of mineral concentrations.

micrologic components – an ingenious group of miniaturized semiconductor circuit components which are capable of operating at speeds of 20 million cycles per second, and can perform all of the functions of a digital computer. Use of these unique units in contemporary digital computers would reduce their size by 95% and their cost by 75%.

missile support equipment – inspection, test, operating and training equipment necessary to the operation of airborne vehicles such as missiles but which are not a physical part of the airborne vehicle.

net worth – the book value of the shareholders' investment in the corporation.

parametric diode – a very high frequency semiconductor with low noise (static) characteristics.

precision potentiometer – an extremely accurate variable resistor, or voltage divider. The volume control on your radio is one of its simpler forms. The Components Division makes precision potentiometers for very specialized industrial and government applications.

prototype – usually the first working model of an instrument or machine upon which future production units will be built.

rate gyro – an electro-mechanical device which measures angular rates of turn in missile and aircraft applications.

safety, arming and fuzing devices – devices used to program the various sequences of operation in the firing of warheads on missiles, etc.

Scan-A-Color – trade name for Fairchild's electro-optical device which electronically separates the primary colors of a color photograph and provides negatives of these colors for the production of engravings used in printed reproduction of such photographs.

Scan-A-Graver – the registered trade name for the Graphic Equipment Division's electronic halftone engraving machine console model. Features same-size reproduction in any one of four screen size models.

Teletypesetter – a typewriter-like device that produces a perforated tape, which when fed into an attachment on typecasting machine permits the latter to be operated automatically.

topographic survey – a form of mapping which shows the contours and elevations of the earth's surface.

transducer – an electro-mechanical device that transforms one kind of energy into another. The Components Division makes a pressure transducer which changes mechanical pressure into electrical energy.

transistor – a small semiconductor device no larger than the eraser in the end of a pencil, which performs the functions of a radio tube. Commonly used in miniaturized electronic devices.

working capital – the excess of current assets over current liabilities available for use in the daily (and any unusual) operations of the corporation.

CONSOLIDATED BALANCE SHEET

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION and SUBSIDIARIES

DECEMBER 31, 1959

ASSETS

	1959	1958
Current assets:		
Cash	$ 1,452,665	$ 1,110,683
Accounts receivable, less allowances for doubtful accounts	8,300,102	5,914,702
Inventories, at lower of cost or estimated realizable market:		
U. S. Government contracts and other work in process, less progress payments – 1959, $849,269; 1958, $606,490	5,086,396	3,261,094
Raw materials, parts and finished goods	4,511,012	3,083,300
Prepaid expenses	236,147	212,454
Total current assets	19,586,322	13,582,233
Investments in affiliated companies and other assets (note 1)	365,864	390,067
Advances to Fairchild Semiconductor Corporation, less provision for possible loss of $380,765 (note 1)	–	925,235
Property, plant and equipment, at cost:		
Land and buildings	3,952,301	3,860,200
Rental equipment	3,734,197	3,981,531
Machinery, furniture and fixtures and leasehold improvements	7,459,705	4,869,076
	15,146,203	12,710,807
Less accumulated depreciation and amortization	4,828,143	4,393,546
	10,318,060	8,317,261
Goodwill	1	1
	$ 30,270,247	$ 23,214,797

See accompanying notes to consolidated financial statements.

WITH COMPARATIVE FIGURES FOR 1958

LIABILITIES

	1959	1958
Current liabilities:		
Notes payable to banks (note 2)	$ 4,000,000	$ 2,900,000
Accounts payable and accrued liabilities	5,895,394	2,495,446
Provision for Federal and other taxes on income	1,952,877	1,446,141
Total current liabilities	11,848,271	6,841,587
Long-term debt – secured revolving credit (note 2)	2,900,000	2,800,000
Deferred Federal income taxes (note 3)	1,146,000	1,199,000
Stockholders' equity:		
Common stock, $1 par value (notes 4 and 5): Authorized, 2,000,000 shares.		
Issued and outstanding, 1,036,890 shares in 1959 and 476,597 shares in 1958	1,036,890	476,597
Additional paid-in capital	3,188,905	3,300,387
Retained earnings (note 2)	10,150,181	8,597,226
Total stockholders' equity	14,375,976	12,374,210
Commitments (notes 6 and 7).		
	$ 30,270,247	$ 23,214,797

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

and SUBSIDIARIES

STATEMENT OF CONSOLIDATED EARNINGS

YEAR ENDED DECEMBER 31, 1959 WITH COMPARATIVE FIGURES FOR 1958

	1959	1958
Net sales and machine rentals	$ 43,442,600	$ 31,674,356
Cost of sales and other operating costs (depreciation and amortization provided – 1959, $1,476,223; 1958, $1,306,288 (note 3)):		
Cost of sales and machine rentals	32,012,210	23,819,131
Administrative and selling	7,119,927	5,804,254
	39,132,137	29,623,385
	4,310,463	2,050,971
Other income (note 1):		
Dividend from affiliate	75,000	–
Other	287,890	176,788
	4,673,353	2,227,759
Less interest paid (1959, $291,920; 1958, $281,005) and other charges	313,128	359,044
	4,360,225	1,868,715
Provision for Federal taxes on income	2,289,000	1,009,000
Net earnings before provision for possible loss on advances	2,071,225	859,715
Provision for possible loss on advances to Fairchild Semiconductor Corporation (note 1)	–	315,320
Net earnings for year	$ 2,071,225	$ 544,395

See accompanying notes to consolidated financial statements.

STATEMENTS OF CONSOLIDATED ADDITIONAL PAID-IN CAPITAL AND RETAINED EARNINGS

YEAR ENDED DECEMBER 31, 1959 WITH COMPARATIVE FIGURES FOR 1958

	1959	1958
Additional Paid-in Capital		
BALANCE AT BEGINNING OF YEAR	$ 3,300,387	$ 3,289,911
Excess of proceeds from exercise of stock options over par value of shares issued, less expenses (note 5)	421,364	10,476
	3,721,751	3,300,387
Less:		
Transfer to common stock account in connection with two-for-one stock split (note 4)	518,270	–
Excess of par value of Fairchild Camera and Instrument Corporation stock issued over par value of Fairchild Semiconductor Corporation stock acquired, less Semiconductor additional paid-in capital (note 1)	14,576	–
	532,846	–
BALANCE AT END OF YEAR	$ 3,188,905	$ 3,300,387
Retained Earnings		
BALANCE AT BEGINNING OF YEAR	$ 8,597,226	$ 8,291,130
Add net earnings for year, per accompanying statement	2,071,225	544,395
	10,668,451	8,835,525
Deduct cash dividends—50¢ a share in 1959 and 25¢ a share (adjusted for two-for-one stock split) in 1958	518,270	238,299
BALANCE AT END OF YEAR (NOTE 2)	$ 10,150,181	$ 8,597,226

See accompanying notes to consolidated financial statements.

Notes to Consolidated Financial Statements December 31, 1959

(1) Basis of Accounts:

The consolidated financial statements include the accounts of all domestic subsidiaries and a Canadian subsidiary, but do not include a wholly-owned Dutch subsidiary. In October 1959, the company exercised its option to acquire all the outstanding common stock of Fairchild Semiconductor Corporation. The company issued 39,802 shares of its common stock (adjusted to give effect to two-for-one stock split—see note 4) in payment for the Semiconductor common stock. This transaction has been treated for accounting purposes as a pooling of interests and Semiconductor's operations for the entire year of 1959 have been included in the statement of consolidated earnings. The financial statements for 1958 have not been restated to include Semiconductor since Fairchild Camera had provided each year for the losses of Semiconductor, less the related tax benefit, and any restatement would not change the 1958 earnings or retained earnings.

Included in the balance sheet caption "Investments in affiliated companies and other assets" are the investment in the Dutch company and a 50% interest in a company engaged in aerial surveying. At December 31, 1959 the company's equity in the aforementioned companies exceeded the investment therein by approximately $125,000, while for 1959 the equity in undistributed earnings was approximately $38,000. During the year a 50% interest in another company engaged in aerial surveying was sold and the resulting profit has been included in other income.

(2) Bank Loans:

On May 29, 1958 the company and a subsidiary entered into a short-term unsecured credit agreement and a secured revolving credit agreement with a group of banks.

Under the terms of the short-term unsecured credit agreement, the company may borrow up to a maximum of $5,000,000 which must be repaid by May 31, 1960. The interest rate, which is based on the prime rate, was 5½% at year end. In February 1960 a new short-term credit agreement was executed to replace the above agreement. The new agreement which terminates June 30, 1961, permits borrowings to a maximum amount of $10,000,000 (such maximum amount subject to periodic reductions during the term of the agreement). The rate of interest which is based on the prime rate may range from 5% to 6% per annum. The company shall also pay a commitment fee of ½ of 1% per annum on the average daily unused but available portion of the credit.

The secured revolving credit agreement permits borrowings up to a maximum of $3,500,000. The borrowings are secured by the capital stock of Fairchild Graphic Equipment, Inc. and the assignment of the proceeds from equipment rental leases. The interest rate, which is based on the prime rate, was 5½% at year end. The banks have the right to terminate this agreement at any time by giving written notice. After receipt of such notice, the borrowings must be repaid in twelve equal monthly installments commencing seven months from the notice date. As of March 3, 1960, no termination notification has been received, nor is any expected, and therefore borrowings under the secured revolving credit agreement have been classified as long-term. Should the banks decide to terminate this agreement immediately after March 3, 1960, the maximum amount of the loan outstanding at December 31, 1959 that would be payable by the end of 1960 would be $725,000.

Among the restrictive covenants contained in the February 1960 credit agreement (which is the more restrictive of the agreements) is a requirement to maintain consolidated working capital of $6,500,000 and a restriction as to the payment of cash dividends and purchases of stock (other than purchases from the proceeds of sales of stock) to 50% of consolidated net earnings from January 1, 1960.

(3) Deferred Federal Income Taxes:

The company has claimed accelerated amortization for income tax purposes on approximately $3,600,000 of facilities acquired in 1952 and 1953 under certificates of necessity, but provisions for depreciation and Federal income taxes in the statement of earnings were based on the normal useful life of the facilities. The resulting deferment of taxes to the extent payable in 1961 and subsequent years is shown on the balance sheet as a noncurrent liability.

(4) Common Stock:

As approved at the November 30, 1959 special meeting of stockholders, the certificate of incorporation was amended to increase the authorized common stock of $1 par value to 2,000,000 shares and the outstanding common stock was split two-for-one.

(5) Stock Options:

The following statement shows the changes (after adjusting for the two-for-one split) during the year in the outstanding stock options under the Plans adopted in 1953 and the agreement entered into with Mr. Carter in 1957 granting options at 100% of market value at date of grant:

	Plan		Carter Option
	Price per share	No. of shares	No. of shares (all at $9.00 per share)
Beginning of year	$11.19 to $20.06	53,650	47,612
Granted during year	39.16 to 58.72	5,000	—
Exercised	11.19 to 12.44	(24,850)	(19,044)
Expired	12.25	(2,250)	—
End of year	11.53 to 58.72	31,550	28,568

In 1959 the stockholders approved an increase of 26,000 shares in the number of shares for which options may be granted under the Plan. At December 31, 1959, 112,368 shares of the company's authorized but unissued common stock were reserved for issuance under the Plan and the Carter Option of which options on 60,118 shares have been granted but not exercised, as shown above.

(6) Pension Plans:

In 1959 the company's accrual for the payment to the trustees of the noncontributory pension plans amounted to approximately $132,000 ($64,000 paid in 1958). On the basis of the actuarial estimate, unfunded past service costs amounted to approximately $607,000 at December 31, 1959.

(7) Long-term Leases and Other Commitments:

The companies have entered into five long-term leases expiring between 1967 and 1974 with annual rentals aggregating $335,000. In addition there is an agreement to rent a building presently under construction for a fifteen-year period at an annual rental of approximately $100,000.

At December 31, 1959 the companies had plans for capital expenditures in 1960 of approximately $5,000,000, of which $1,650,000 had been committed.

PEAT, MARWICK, MITCHELL & CO.
ACCOUNTANTS AND AUDITORS
SEVENTY PINE STREET
NEW YORK 5, N. Y.

ACCOUNTANTS' REPORT

The Board of Directors and Stockholders
Fairchild Camera and Instrument Corporation:

We have examined the consolidated balance sheet of Fairchild Camera and Instrument Corporation and subsidiaries as of December 31, 1959 and the related statements of earnings, additional paid-in capital and retained earnings for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We were unable to confirm, by direct correspondence, certain of the accounts due from United States Government departments and agencies but we satisfied ourselves as to such accounts by means of other auditing procedures.

In our opinion, the accompanying consolidated balance sheet and statements of consolidated earnings, additional paid-in capital and retained earnings present fairly the financial position of Fairchild Camera and Instrument Corporation and subsidiaries at December 31, 1959 and the results of their operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Peat, Marwick, Mitchell & Co.

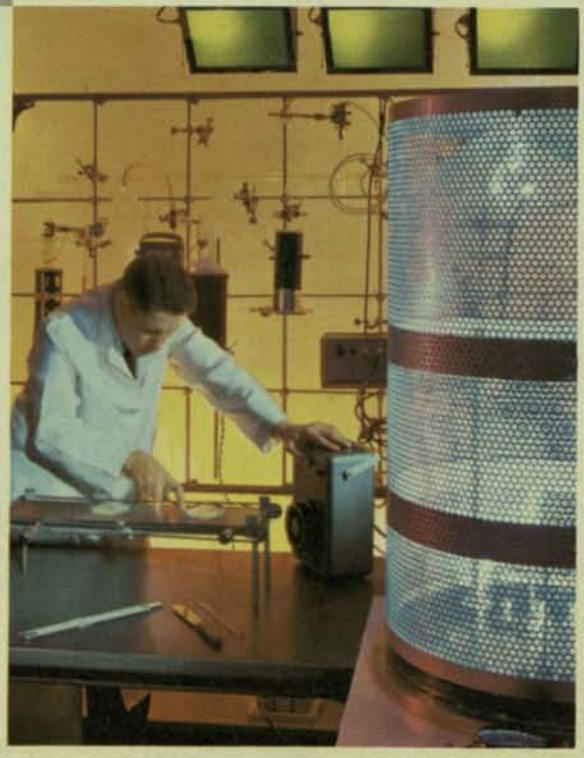
New York, N. Y.
March 3, 1960

ROBBINS LANE, SYOSSET, L. I., NEW YORK

FAIRCHILD
CAMERA AND INSTRUMENT
CORPORATION

1960 ANNUAL REPORT

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION



ON THE COVER

The four-color process illustration on the cover typifies the extensive research being carried on in all Divisions of the Company. It shows a physicist in the Defense Products Division's new Basic Research Laboratory preparing single crystals of silver bromide as part of a research program on the properties of photographic materials. Illustration was produced from continuous-tone color separations made on the Fairchild Scan-A-Color.

CONTENTS

1960 ANNUAL REPORT

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

For the Year Ended December 31, 1960

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

Executive Offices

Robbins Lane, Syosset, L. I., N. Y.

Plants

Syosset, L. I., N. Y.
Yonkers, N. Y.
Clifton, N. J.
Los Angeles, Calif.
Joplin, Mo.

SUBSIDIARIES

Fairchild Semiconductor Corporation
Mountain View, Palo Alto, and San Rafael, Calif.

Fairchild Graphic Equipment, Inc.
Plainview, L. I., N. Y.

Fairchild Controls Corporation
Hicksville, L. I., N. Y. and Los Angeles, Calif.

Fairchild Camera en Instrumenten Maatschappij, N.V.
Emmen, Netherlands and London, England

Fairchild Camera and Instrument Corporation of Canada, Ltd.
Toronto, Ont.

Du Mont Television & Electronics, Ltd.
Montreal, Canada

Cinephonic Manufacturing Corporation
Yonkers, N. Y.

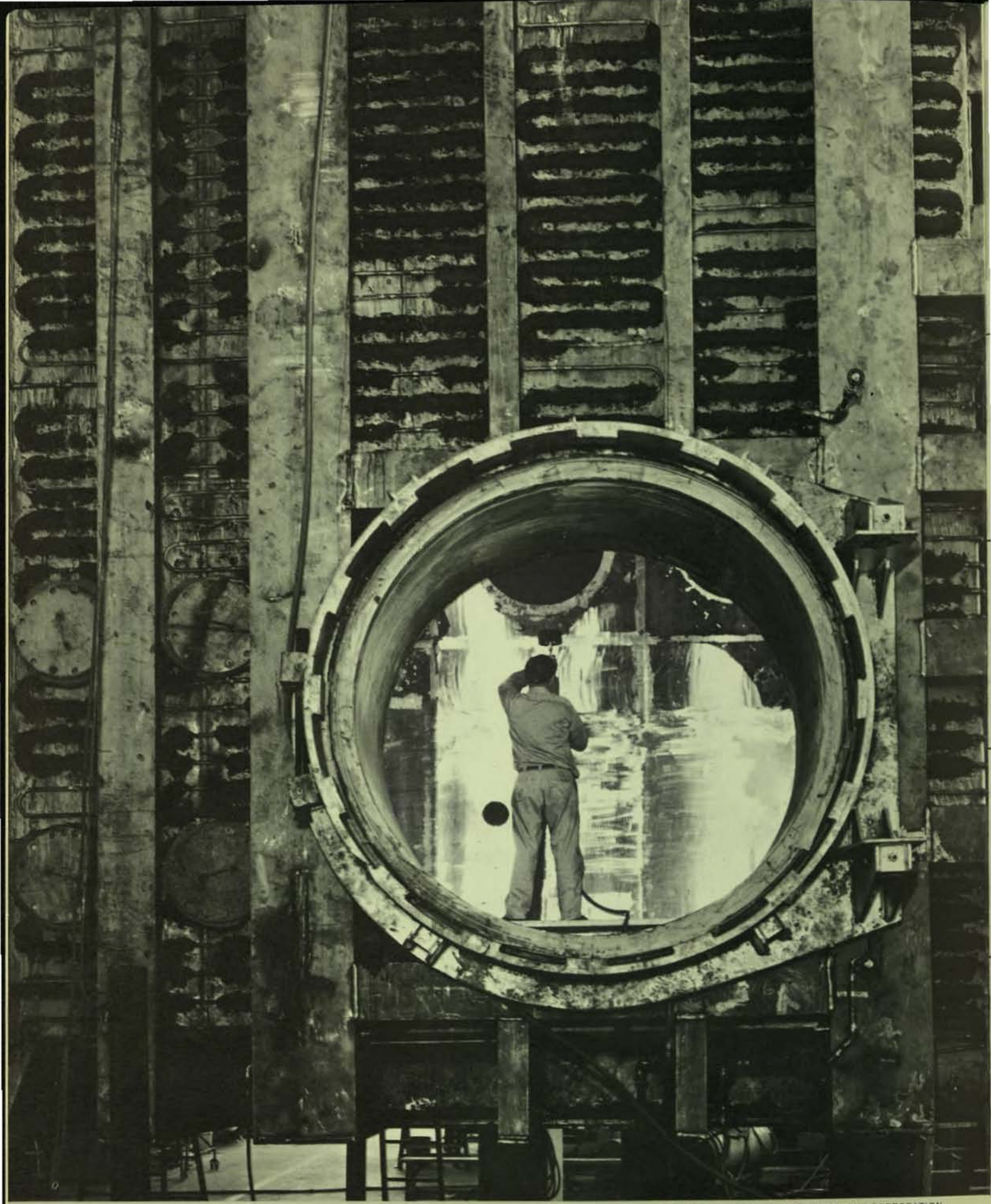


PHOTO COURTESY OF NRC EQUIPMENT CORPORATION

This view through one of the access ports of the space chamber in Fairchild's new Space Environmental Laboratory, is indicative of the size of this facility.

BOARD OF DIRECTORS

Sherman M. Fairchild
Chairman of Board

Founder of Fairchild Camera and Instrument Corporation; Chairman of Fairchild Engine and Airplane Corp.; Director of I. B. M. and G. M. Giannini Co., Inc.

Walter F. Burke, Jr.

Attorney and financial advisor.

John Carter

President of Fairchild Camera and Instrument Corporation.

Charles H. Colvin

President of Colvin Laboratories.

William C. Franklin

President and Director of the Royal Crown Bottling Co., Baltimore, Md.

Richard Hodgson

Executive Vice President of Fairchild Camera and Instrument Corporation.

Wm. B. Scarborough

Consultant, Director of Metropolitan Fire Assurance Company of N. Y.

Jos. B. Wharton, Jr.

Management Consultant. President of The Wealden Company.

OFFICERS

John Carter
President

Richard Hodgson
Executive Vice President

E. S. Hill
Vice President and Comptroller

K. P. McNaughton
Vice President

G. J. Wade
Secretary and Treasurer

J. W. English
Assistant Comptroller

Philip Haas, Jr.
Assistant Secretary

Nelson Stone
Assistant Secretary

General Counsel
Cravath, Swaine & Moore, New York

Accountants and Auditors
Peat, Marwick, Mitchell & Co., N. Y.

Transfer Agent
The Bank of New York

Registrar
First National City Bank of New York

THE 1960 STORY BRIEFLY

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION AND SUBSIDIARIES

For the Years Ended December 31, 1960 and 1959

	1960	1959
Net Sales	$67,940,000	$43,442,000
Profit Before Federal Taxes on Income	6,990.000	4,360,000
Net Profit and 1960 Special Credit	3,755,000	2,071,000
Taxes	5,008,000	3,376,000
Working Capital	14,822,000	7,738,000
Net Worth	28,697,000	14,376,000
Payroll	28,352,000	22,368,000
Number of Employees	5,424	3,577
Number of Stockholders	12,859	3,174
Shares Outstanding (Two-for-One Split in 1959)	1,222,168	1,036,890
Backlog	33,591,000	19,823,000
PER SHARE (Both Years Based on 1,222,168 Shares)		
Net Profit	$ 3.07	$ 1.69
Taxes	4.10	2.76
Working Capital	12.13	6.33
Net Worth	23.48	11.76

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

SYOSSET, L. I., N. Y.

DEAR STOCKHOLDER:

Presented herewith is Management's report on operations for the year 1960.

Both profits and sales hit record highs, unmatched in the Corporation's 41 year history. Sales showed a 56 percent increase over 1959, while profits were up 81 percent.

A 50-cent per share cash dividend was paid to shareholders, representing the 23rd consecutive year in which cash dividends have been paid by the Company. The total dividend amounted to $611,084, the largest annual cash disbursement of dividends in the history of the Company.

Acquisition by merger of the Allen B. Du Mont Laboratories, Inc. of Clifton, New Jersey, was approved by the stockholders and effected on July 5. Integration has proceeded smoothly and a number of new products were introduced.

A strike, called November 2 by the International Association of Machinists against the Company's Long Island plants, was settled on January 14, 1961 with agreement on a 30-month contract, which management feels will enable these divisions to continue to be competitive. While the strike did have some effect on fourth quarter earnings, every step possible was taken to minimize the economic effects of the strike.

Negotiations were initiated in the fourth quarter to acquire the 67,000 square foot production facility of Pacific Mercury Electronics in Joplin, Missouri and the manufacturing operations of the Graphic Equipment Division were moved from Long Island to this new air-conditioned plant early in 1961. In addition, the acquisition enabled us to add electric and electronic cables which are widely used in missile, aircraft and defense equipment, to the Company's product line. This activity is now known as the Cable Division. This acquisition was for cash, and included a financing arrangement extremely advantageous to your Company.

Total backlog showed a marked increase and all divisions developed new products during the period. Net worth increased to $28,697,000 from $14,376,000 as of December 31, 1959.

The outlook for 1961 is for a continued upcurve in sales and profitability and a continued emphasis on new product research and development in all areas.

Sincerely,

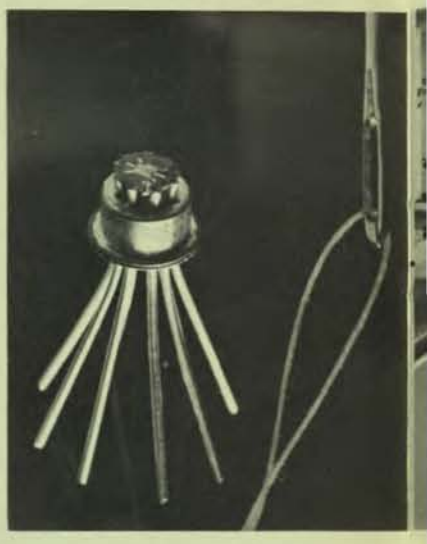
Sherman M. Fairchild

SHERMAN M. FAIRCHILD
Chairman of the Board

John Carter

JOHN CARTER
President

REPORTS ON THE DIVISIONS



THE SEMICONDUCTOR DIVISION

Fairchild Semiconductor achieved maturity in 1960, its third year since founding and its third successive year of substantial growth. From the position of brilliant newcomer, the Division advanced to acknowledged leadership not only in research and development, but in successful production and marketing techniques as well.

The growth was reflected in physical expansion; from a 1959 total of 95,000 square feet in five locations, 1960 ended with 166,000 square feet in seven plant sites. Ground has been broken for a 40,000 square foot addition to the main transistor manufacturing plant at Mountain View and a totally new 56,000 square foot Research and Development Center is expected to be occupied before the end of 1962

New sales offices were opened in Florida, New York, Massachusetts, California and Washington; the field sales force grew from seven to twenty-one. The Division's share of the total silicon transistor market was increased substantially in 1960. The new diode plant in San Rafael got into full production and profitable operation. A new product line was introduced – multiple assemblies of standard Fairchild transistors and diodes packaged as a single unit to meet particular customer requirements and to satisfy the need for common elemental building blocks in more standard circuits.

It was the year of the Planar process. Developed exclusively by Fairchild, the process offered a new standard of reliability and improved performance to the component user. The surface stability of Planar devices is unparalleled in the whole range of semiconductor devices.

Fairchild's reliability achievements received impressive recognition when the Division was appointed by Autonetics, a division of North American Aviation, Inc., to undertake the most extensive reliability evaluation program ever attempted in the industry in connection with Autonetics' MINUTEMAN ICBM program. A separate group, the Reliability Evaluation Department, was set up within the Semiconductor Division to life test 115,000 transistors. Data collected during the tests, which are to range up to 19 months in duration, is fed back into the transistor manufacturing plant, and a device reliability improvement program has set as its goal the unprecedented reliability level of .001% per 1,000 hours.

Growth was visible throughout the Division in 1960. New and important distributors were added to the marketing network. International operations came into play with the mid-year acquisition of one-third interest in SGS (Societa Generale Semiconduttori), a Milan, Italy manufacturer of germanium devices now owned in equal thirds by Fairchild, Telettra and Olivetti.

Within Fairchild Camera and Instrument Corporation, Semiconductor joined forces with Fairchild Controls to develop a semiconductor strain gauge, the most advanced design in its field. Mutual assistance highlighted the relationship with the Du Mont divisions.

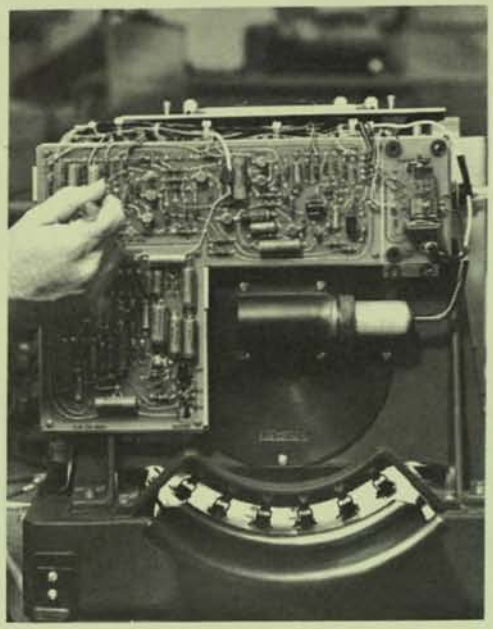
Illustrated left to right are –
Unencapsulated micrologic flip-flop element, one of a set of elements in development of the Semiconductor Research and Development laboratories.

Life test environmental ovens at the Reliability Evaluation Department; they are being used to test 115,000 transistors, some of them for a period of 19 months, in Semiconductor's reliability evaluation program.

Engineer checking readings on a diffusion furnace the main production facility in Mountain View.

At **left** – Technician checking progress of silicon crystal ingot being drawn in a crystal grower.

Below – Technician oversees application of protective epoxy coating to diodes.

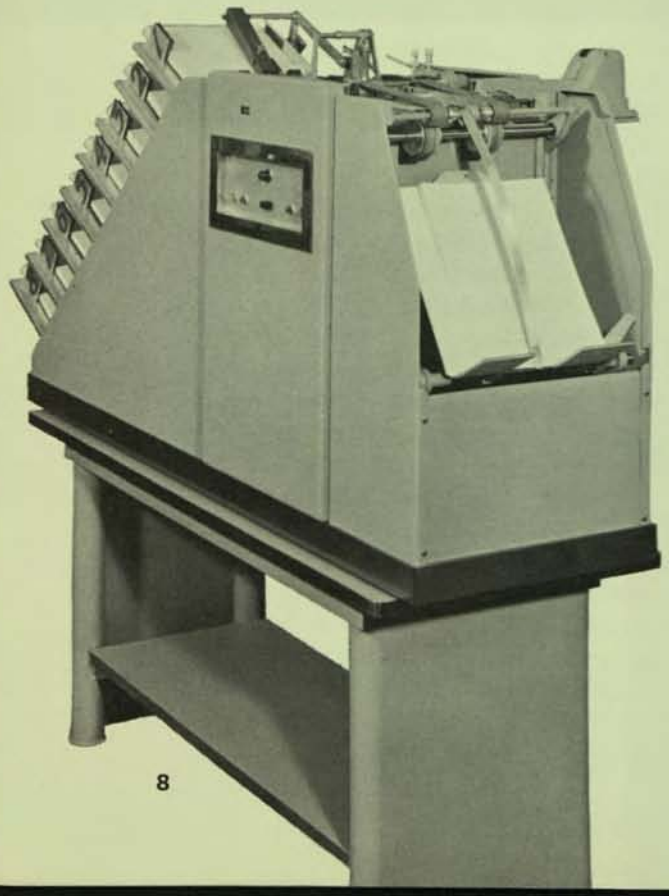


Photos above, **left to right,** show electronics system of Fairchild Facsimile Transmitter; Prototype of Facsimile Transmitter. Prototype of Facsimile Receiver; Cinephonic "8" camera with zoom lens.

At **right** is the Cinephonic "8" camera with special projector and Mini-Rapid Processor especially adapted for TV coverage of news and special events.

Below is Fairchild initial entry into the office equipment field — the new Collator designed for office and mailroom use.

Below at **right** is the prototype of the transistorized Fairchild 8mm Rear-view Projector. Designed for office or classroom use, it is compact, easily carried and simple to operate.



THE INDUSTRIAL PRODUCTS DIVISION

While the major activity of this Division during 1960 concerned the introduction of 8mm magnetic sound film equipment, management's aim to continue to broaden the product base also received considerable attention. Development programs in the Audio-Visual field, facsimile and office collating equipment were each brought to a point where production availability is assured during 1961.

Launching of the Fairchild Cinephonic 8mm program in the Spring of 1960 introduced an entirely new concept to both amateur and professional movie making. The impact was especially dramatic with the latter and the continued expansion of 8mm sound as a selling and training aid suggested a potential which has now resulted in a line of audio-visual equipment.

Portable and lightweight, this equipment is designed specifically to satisfy the requirements of sales and educational markets. Self-contained screen, speaker and film cartridge permit repeated projections in room light without rewinding or rethreading. Economy and ease of operation make this an ideal aid for the salesman or teacher. Inter-division cooperation is again exemplified in the development of this equipment, as it is made practical through a unique amplifier design using transistors developed by the Semiconductor Division.

The medium of 8mm magnetic sound film also affords a fast, economical method for television coverage of news and special events. This TV requirement has resulted in a Fairchild package which provides a Cinephonic 8 camera, Mini-Rapid processor and an 8mm TV-adapted projector. This combination makes it possible for even the lowest budget operation to accomplish fast, flexible coverage.

Thus, in addition to a well-established and expanding dealer network covering consumer sales of Cinephonic 8mm equipment, the Division is now developing a separate and significant Audio-Visual market capability. This group covers industry as well as the currently expanding educational systems.

Facsimile sales and service through 1960 made use of equipments available through a past acquisition. A joint development program with the Graphic Equipment Division has now resulted in Fairchild designed machines. Functional and styling improvements in these new models will greatly improve Fairchild's already significant position in this active field.

Fairchild's entry into the office equipment field will begin with the Fairchild Collator, the development of which was completed during 1960. This machine, now in the prototype stage, automatically collects, gathers together and staples paper sheets of varying weights and thicknesses at a rapid rate. It is designed and styled for office and mail room use.

Photo-instrumentation continued, as in the past, to be of major interest to the Division. Sales in 1960 set a new high for this class of equipment. Additionally, the year saw improvements in processor design, and additions of a new time-lapse and special purpose data recording camera to the existing line of high speed cameras, flight analyzers and automatic rapid processors.

DEFENSE PRODUCTS DIVISION

In 1960 the Defense Products Division took a number of major steps forward in broadening its capabilities to meet the challenges and demands of the Space Age.

Outstanding in the achievement of this goal was the integration of the Du Mont Military Electronics organization as a department of the Division, resulting in substantial strengthening in the electronics field through the addition of established technical skills, facilities and engineering personnel.

Specifically, Du Mont provided added competence in military television, communications, special radars, large area displays, fiber optics and electronic test and ground support equipment. Du Mont has been active in the test equipment field since the development of the first oscilloscope by Dr. Allen B. Du Mont over 34 years ago. Today's complex electronic equipment requires more sophisticated and automated test equipment in order to remain in operation for extended periods of time. Du Mont has kept pace with the rapidly expanding electronic era with its demand for rapid go-no-go test equipment for manufacturing equipment, missile systems of all types, drone aircraft, electronic sub-systems, and automatic check-out equipment for aircraft engines and control equipment.

Cross-fertilization of the ideas of Fairchild and Du Mont engineers is now developing new system concepts in these areas and furthering Defense Products' leadership in reconnaissance and surveillance techniques.

While many of the Division's efforts on space projects are of a classified nature, it can be stated that advanced studies now being performed are extending the established leadership of Fairchild in airborne systems to the even more sophisticated requirements of missiles, satellites and space vehicles. Typical of these efforts is a program with the ultimate goal of accurately mapping the entire surface of the moon for the first time.

During 1960 the Systems Management and Engineering Department of the Division has progressed in advanced scientific technology and capability to a marked degree. By reorganization and the addition of highly competent technical personnel, the Engineering Department has kept in the forefront of developments in the space and missile technology race. This includes capability in data processing, digital computer applications and digital electronic techniques as well as advanced optics and mechanics.

The continuing superiority of Fairchild equipment was evidenced by the performance of Fairchild aerial cameras in the annual NATO reconnaissance competition. A decisive factor in the high score of the winning U. S. Air Force team was the performance of the K-47 reconnaissance camera system which was flown in an RB-66 in night competition.

Interest shown during the year by a number of foreign governments further underlined the superiority of Fairchild photographic equipment and deliveries of an advanced reconnaissance system were made to the Swedish Air Force.

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shown at **left (top)** is Fairchild-Du Mont TV especially designed for naval shipboard use. This particular unit is used for radar boresighting and missile tracking and aiming.

At **left center** is a "breadboard" model of a rapid film processing unit used for analyzing new approaches to viscous processing. It is located in the new Photographic Processing Laboratory.

Photo at **bottom left** shows a specially designed device used in the Photo Processing Laboratory for exploring and evaluating advanced diazo development techniques.

Considerable publicity appeared in the national and trade press on the first field use of the Defense Products developed air-to-ground photo transmission system in Army drones and work continued on a version of this equipment for the Navy.

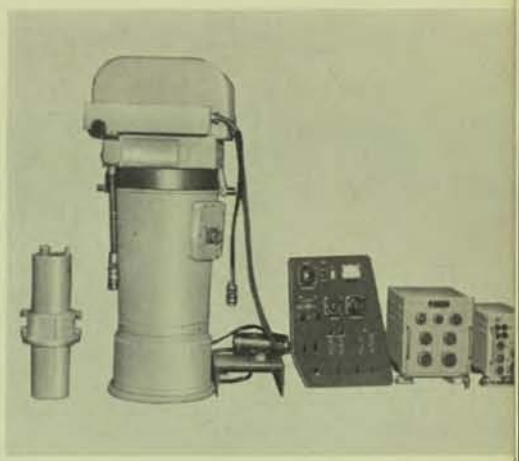
Presentations to the military on the use of Diazo materials for high fidelity reproduction were indicative of the progress being made by the divisional basic research and photographic processing laboratories in developing new and practical approaches to the increasing requirements of intelligence gathering agencies.

Substantial progress was made during the year toward completion of the new Space Environments Laboratory, which is expected to be in operation during 1961. The capabilities of this facility have already aroused great interest in the military and among prime systems contractors, and are expected to be an important factor in the acquisition and successful performance of future space oriented projects.

The Division continued to solidify its position as an outstanding supplier of ordnance products and its programming, fuzing, and safety and arming devices played vital roles in a number of important missile and satellite programs.

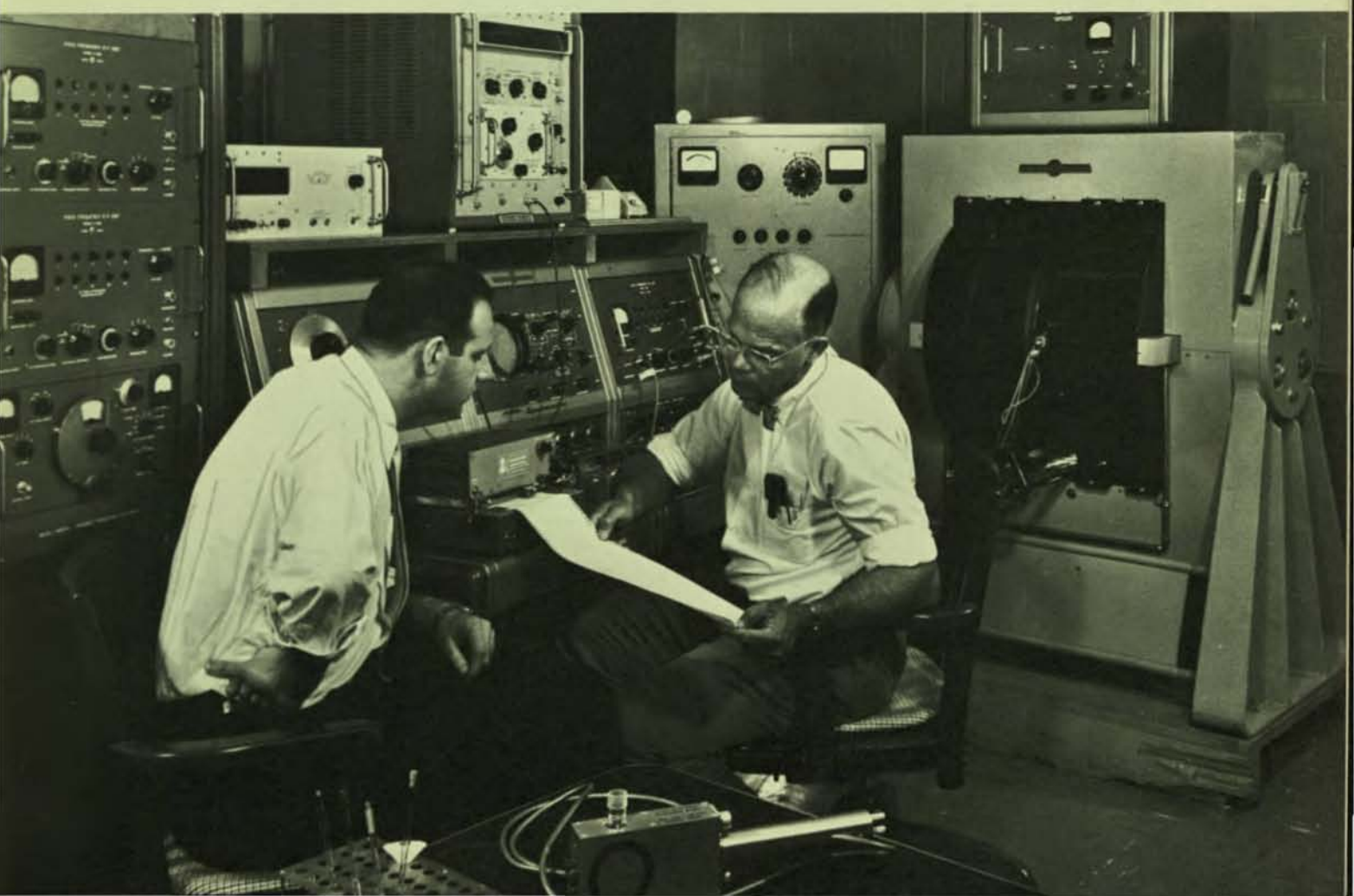
The development of photographic data reduction and processing and photogrammetric mapping systems of greatly increased speed and capacity, and the design and application of aerial camera systems of the panoramic type were other highlights of the year.

The Defense Products Division approaches 1961 with every assurance that the coming year will see further increases over the record sales and profit figures established in 1960.



Above is a day-night photo-reconnaissance system produced for the Swedish Air Force. System includes photo-cell unit, aerial camera, control unit and junction boxes.

Below is a section of the Basic Research Laboratory of the Defense Products Division. Shown here is a nuclear magnetic resonance spectrometer used by our physicists to investigate the structure of molecules and complexes in solution, and the distribution of impurities in highly purified photosensitive materials.



GRAPHIC EQUIPMENT DIVISION

In spite of the strike during the last two months of the year, which affected the Graphic Equipment Division's operations on Long Island, the 1960 increase of both gross sales and net profits for this Division was consistent with the growth that the Division has experienced from its inception in 1955. Very naturally, a sizeable backlog has resulted from the strike situation.

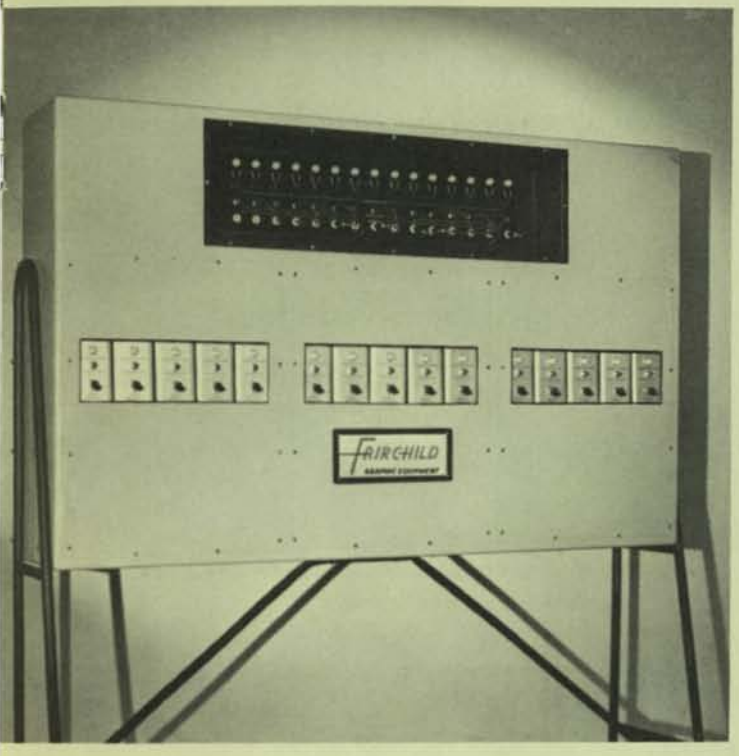
Two significant changes in this Division's organization were effected during 1960. During the latter part of the year, distribution in the United Kingdom for the products of this Division was strengthened by the creation of a direct sales and service subsidiary in that territory. A plan to strengthen Teletypesetter distribution in overseas areas by diverting manufacturing for European requirements to our subsidiary in The Netherlands was implemented during the latter part of the year. Dutch personnel have spent a number of months at Plainview in training for this operation. As the year ended, inventories of parts for this purpose were shipped to The Netherlands and production is expected to commence toward the end of the 1st quarter of 1961.

Several new product developments were accomplished during the year. Two Scan-A-Color units were completed and installed under field test conditions during the year. This is the electronic color scanner and computer which is expected to be of significant value to the printing industry in the preparation of color printing plates.

In the Teletypesetter product area, the initial prototype of a power-operated keyboard to modernize the Teletypesetter perforator was completed. These units will be applicable to all existing perforators in the field. In addition, prototype work was completed on an Allotter System which will make it possible to program tape produced by a number of Teletypesetter perforators to linecasting machines in a manner that will automatically select the next idle linecasting machine for production. Another Teletypesetter device has reached the point of field test which will selectively integrate signals from two different punched tapes so that information can be deleted from one tape, information can be added to the final typesetting from a second tape, or information from two tapes can be combined in one typesetting operation. These equipments will greatly enlarge the value of the Teletypesetter System to both newspaper and commercial printing establishments.

New developments of the Graphic Equipment Division are shown here. **Left to right above** are a counting device which automatically counts newspapers as they come off the delivery end of the press; TTS Allotter System which is designed to program tape produced on Teletypesetter perforators by automatically selecting the next idle linecasting machine for production of type; Prototype model of electric TTS perforator which is designed for faster tape production.

Photo at right shows typical installation of Fairchild Equipment designed for processing DuPont's Dycril photopolymer printing plates.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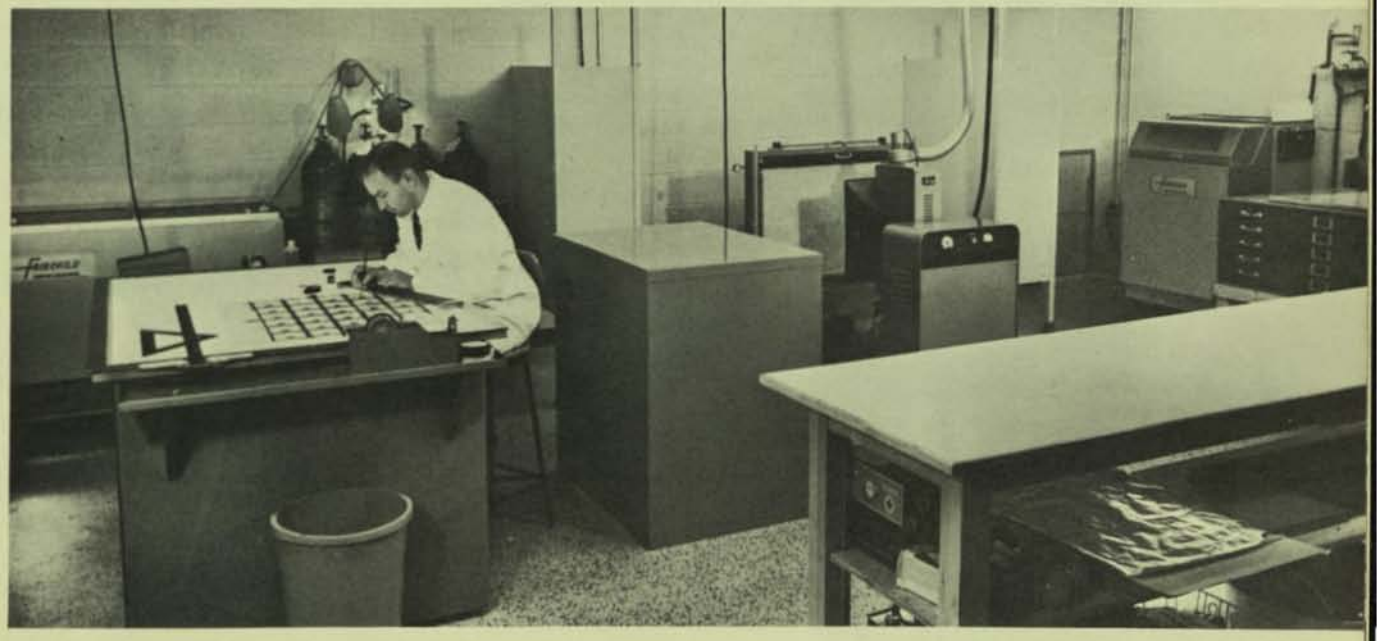
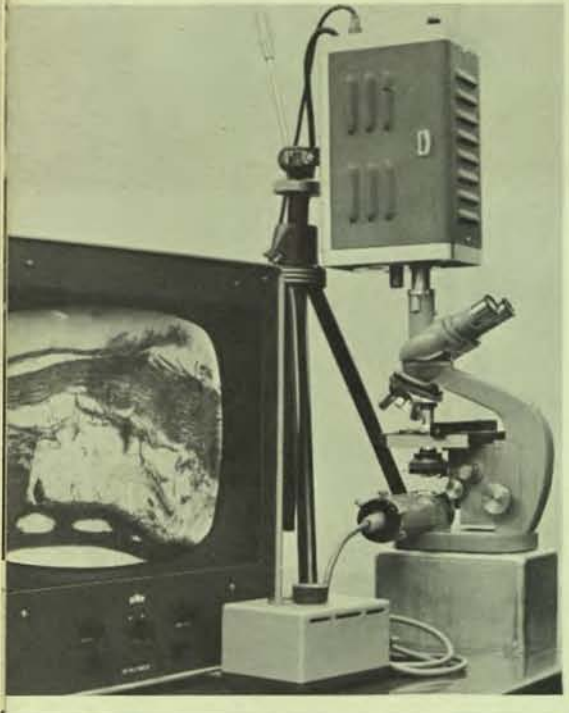




ALLEN B. DU MONT LABORATORIES DIVISIONS

On July 5, 1960, Allen B. Du Mont Laboratories, Inc. of Clifton, New Jersey, was merged with the Fairchild Camera and Instrument Corporation and became Fairchild Divisions. The Du Mont Divisions include the Electronic Tube Division, the Industrial Electronics Division, and the International Division for export sales.

Electronic Tube Division

The Electronic Tube Division develops, manufactures, and sells the most complete and diversified line of industrial and military cathode-ray tubes (over 4,000 types) available in the industry, including multiplier phototubes, direct-view storage tubes, and several types of microwave tubes. During 1960 increased emphasis was placed on sophisticated, highly engineered tube types rather than the highly competitive, standard items. Higher selectivity was exercised in the type of business solicited. Investment was made in company sponsored development programs, particularly in the areas of multiplier phototubes and direct-view storage tubes. Significant sums were also invested in test equipment that will facilitate supplying customers with products more closely tailored to their applications.

Application and development of multiplier phototubes for the entire nuclear field is receiving particular attention, and the Division is working closely with government aviation agencies in producing high-resolution monitor cathode-ray tubes, scan converters, and direct-view storage tubes for control tower radar.

Replacement cathode-ray tubes and multiplier phototubes are being aggressively sold nationally through a newly established network of franchised distributors. Du Mont brand television picture tubes and radio receiving tubes are marketed through an independent selling organization.

Industrial Electronics Division

Four separate product lines are made and sold by the Industrial Electronics Division. They include scientific instruments (oscilloscopes, pulse generators, voltmeters, oscilloscope cameras, and associated equipment), two-way mobile radio, industrial closed-circuit television systems, and automotive test equipment.

The year 1960 saw the introduction of a number of new products. They included the first direct-digital readout oscilloscope (a high-frequency instrument), a newly engineered general purpose oscilloscope, a storage oscilloscope, a very versatile scope recording camera, and a 5-megacycle oscilloscope.

In mobile radio a very competitive, compact unit called the *Transicom was introduced, and in automotive test equipment a new auto engine oscilloscope with plug-in provision for a timing light and tachometer was brought out. The Industrial Television Department, in conjunction with Elgeet Optical Company, introduced a microscope-television combination for school, hospital, and industrial use.

*Trademark

At left are shown some of the latest products of the Du Mont Industrial Electronics Division. **At top** is the Ignitionscope® an instrument for analyzing automobile ignition systems performance. **Center** photo shows new closed circuit TV-Microscope system combining high-resolution TV with high magnification microscope. This equipment is used in educational, medical, industrial and laboratory research. **Below** is the new Transicom® a compact and rugged two-way mobile radio.

New 401-B Low-frequency Oscilloscopes are shown **above** undergoing final test and check-out. High reliability and performance make this one of the best general-purpose oscilloscopes available anywhere.

Below — A few of the more than 2,000 types of special and standard cathode-ray tubes produced by the Du Mont Tube Division.

Introduction of these new products, together with expansion and upgrading of sales outlets, are aimed at sales volume increases in these areas. Industrial Electronics Division engineers are working closely with Fairchild Semiconductor Corporation to achieve transistorization of Du Mont products where economically and technically practical.

International Division

Du Mont products sold through the International Division showed an increase in sales volume during 1960 despite the loss of markets in Cuba and Venezuela due to political upheaval. Market coverage was strengthened through appointment of additional representation and improvement in existing representation. A further increase in Du Mont overseas sales is expected in 1961. In addition, certain products from other Fairchild Divisions suitable for the overseas market will be handled by this Division.

FAIRCHILD CONTROLS DIVISION

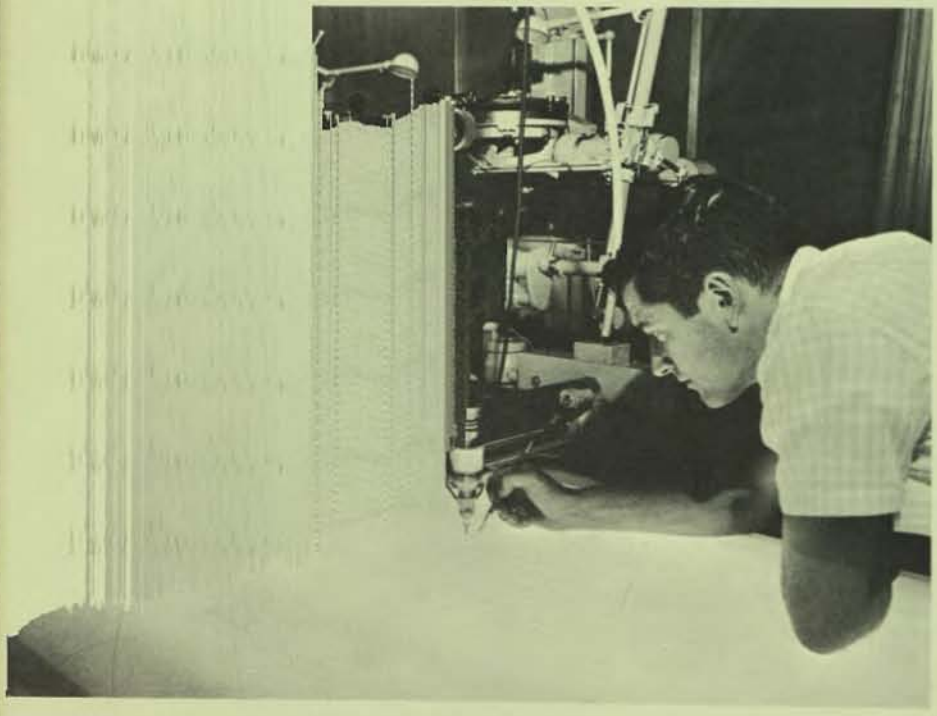
The most significant development during 1960 was the introduction by Fairchild Controls Corporation of a revolutionary new kind of pressure transducer, called the 3S-G (Solid State Strain-Gauge), using semiconductors as a sensing element. It also includes a built-in semiconductor amplifier to provide 125 times the output obtained from ordinary strain gauge transducers, while at the same time providing a significant improvement in many other performance characteristics. Development of this device was the result of a joint team effort with the Semiconductor Division. Additional developments included a new high pressure transducer with potentiometer output and improved versions of Fairchild precision potentiometers.

Although sales volume was down slightly from last year due to the strike in the East Coast plant, profits were substantially greater than the previous year due to better efficiencies resulting from an extensive tooling program and an intensive cost improvement program. At year end, backlog was up approximately 20 percent over the previous year.

Competition remains as intense as ever, but there has recently been some indication of a return to consideration of quality rather than price alone on the part of some of our customers, which places Fairchild in a much more favorable position.

It is anticipated that both volume and profits will increase substantially in 1961.

New Fairchild 3S-G (Solid State Strain Gauge) Transducer developed by the Components Division in cooperation with the Semiconductor Division. This is a high performance component combining the best overall characteristics of both strain gauge and potentiometer type transducers.



At left — The Stereoplanigraph and Terrain Data Translator are two of many precision devices used by the Aerial Surveys Division to produce topographic maps of extreme accuracy from aerial photographs.

Below — A view of the airport at Circle Hot Springs, Alaska which served as operations base from which Aerial Surveys' flight crews launched airborne magnetometer survey covering 21,000 square miles of Alaskan terrain.

This tiny motor stator being wound on a special winding jig will eventually contain 10,800 turns of wire one-tenth the diameter of a human hair. The finished stator, when equipped with its rotor, will be capable of reaching speeds of 24,000 revolutions per minute in only ten seconds.

Micro-balancing of this tiny Rate Gyro motor is performed under high magnification. Lint or other minute foreign particles are removed with needle-pointed tweezers. Tiny holes, visible as bright spots on edge of motor, have been drilled to equalize weight distribution and bring motor into perfect balance.

Magnetometer Recorder and Control Panel installed in Survey Plane. This highly sensitive device measures changes in the intensity of earth's magnetic field which can reveal presence of mineral deposits.

AERIAL SURVEYS DIVISION

In 1960, the Aerial Surveys Division continued its diversified activities in many fields and many areas of the world.

In geophysical exploration many airborne magnetometer surveys were made, both domestically and overseas. Among many domestic aeromagnetic surveys, several interesting offshore projects were successfully completed including what was probably the largest of its type ever undertaken.

Included in the overseas projects were two in Libya and one in the Republic of Niger. In addition, three projects were undertaken in Alaska. In another of Fairchild's geophysical services, Marine Sonoprobe surveying was successfully completed in the Philippines and Borneo, and at the year end personnel and equipment were being mobilized for a survey in Japan.

Photogrammetric mapping projects were undertaken in Ecuador and Alaska, and further progress was made on Fairchild's large mapping project in Afghanistan. Further developments and refinements have been achieved on Fairchild's Terrain Data Translator System for reading profile and cross section information on stereoscopic models and many extensive projects of this nature were completed.

It is expected that 1961 will be a successful and profitable year, despite continued tight competition. The Division started the year with a substantial backlog and with several substantial and profitable contracts close to the award stage. Reorganization of the entire Division has been successfully completed to insure that the proper balance is maintained between production, sales, and administration to achieve a profitable operation with the expected volume of business.

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION AND SUBSIDIARIES

EFFECT OF 1960 OPERATIONS ON WORKING CAPITAL

Working Capital, December 31, 1959				$ 7,738,051
Addition caused by consolidation of Allen B. Du Mont Laboratories, Inc., under "pooling of interests" concept as at July 5, 1960				6,629,450
Additions:				
Net earnings and special credit for the year			$3,755,472	
Depreciation and amortization—1960:				
Rental machines	$ 524,380			
Other	1,664,329	$2,188,709		
Less: Charges to reserve:				
Disposals	188,507			
Rebuilding costs	17,590	206,097	1,982,612	
Proceeds from sales of capital stock less expenses			84,521	5,822,605
				20,190,106
Deductions:				
Cash dividend paid – $.50 per share			611,084	
Additions to fixed assets, etc. – net:				
Property and plant equipment		3,146,173		
Rental machines		958,838	4,105,011	
Decrease in deferred Federal income taxes			52,000	
Decrease in long term debt			26,319	
Increase in investments in and advances to affiliated companies and other assets			573,538	5,367,952
Working Capital, December 31, 1960				$14,822,154

GLOSSARY

automatic film processor – a compact, portable machine which automatically develops, fixes and dries black-and-white roll film such as 16mm movie film in a matter of minutes. A 100 foot roll of exposed film can be processed, ready for viewing in 20 minutes.

backlog – refers to the contracted value of all orders booked but not as yet delivered. Includes work in process, work scheduled and work yet to be scheduled.

collator – a machine for collecting individual sheets of printed material in numerical or other predetermined sequence.

data processing – in a broad sense, the automatic translation and evaluation of coded information into meaningful numbers, words, etc. An example would be the translation of punched holes in IBM cards into names, addresses, and numbers.

digital computer – a computer which calculates, using numbers expressed in digits to represent all the variables that occur in a problem.

digital read-out – a "reading" or value expressed in numbers.

diode – a small component (literally half a transistor) having two electrodes, one being positive and the other negative. Principal function is in switching.

facsimile – in this instance, the transmission and reception of printed matter, charts, drawings, etc. over long distances by wire or radio.

ground support equipment – inspection, test, operating and training equipment necessary to the operation of airborne vehicles such as missiles but which are not a physical part of the airborne vehicle.

magnetometer–a device which measures changes in the strength of the earth's magnetic field. Such changes, recorded in the air over a strip of land, reveal information to the geologist of the presence of mineral concentrations.

microwave tube – a special electronic tube used as a source of power for generating microwave (ultra high) frequencies.

net worth – the book value of the shareholders' investment in the corporation.

oscilloscope – a test instrument using a cathode-ray tube (similar to TV tube) which produces visible wave forms of varying electrical currents or voltages.

Planar process – an advanced process by which Fairchild transistors and diodes are produced to provide unusual stability and increased reliability.

precision potentiometer – an extremely accurate variable resistor, or voltage divider. The volume control on your radio is one of its simpler forms. The Components Division makes precision potentiometers for very specialized industrial and government applications.

prototype – usually the first working model of an instrument or machine upon which future production units will be built.

safety, arming and fuzing devices – devices used to program the various sequences of operation in the firing of warheads on missiles, etc.

Scan-A-Color – trade name for Fairchild's electro-optical device which electronically separates the primary colors of a color photograph and provides negatives of these colors for the production of engravings used in printed reproduction of such photographs.

Sonoprobe – the registered trade name for a device which records reflected sound waves from the true ocean floor. The true floor may have hills and gullies in it, but because of the shifting sands and silt it would appear to the diver or ordinary ship's fathometer equipment to be perfectly flat. These hills or anticlines can indicate the possibility of oil or mineral deposits.

strain-gauge transducer – a miniaturized pressure sensing device using semiconductors as sensors.

Teletypesetter – a typewriter-like device that produces a perforated tape, which when fed into an attachment on a typecasting machine permits the latter to be operated automatically.

transducer – an electro-mechanical device that transforms one kind of energy into another. The Components Division makes a pressure transducer which changes mechanical pressure into electrical energy.

transistor – a small semiconductor device no larger than the eraser in the end of a pencil, which performs the functions of a radio tube. Commonly used in miniaturized electronic devices.

working capital – the excess of current assets over current liabilities available for use in the daily (and any unusual) operations of the corporation.

CONSOLIDATED BALANCE SHEET

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

ASSETS

	1960	1959
Current assets:		
Cash	$ 3,842,320	$ 1,452,665
Accounts receivable, less provision for allowances and doubtful accounts	13,923,383	8,300,102
Inventories, at lower of cost or estimated realizable market:		
U. S. Government contracts and other work in process, less progress payments – 1960, $1,650,579; 1959, $849,269	5,892,262	5,086,396
Raw materials, parts and finished goods	10,074,030	4,511,012
Prepaid expenses	425,727	236,147
Total current assets	34,157,722	19,586,322
Investments in and advances to affiliated companies (note 1)	793,030	344,200
Estimated future Federal income tax benefits (note 3)	994,581	–
Property, plant and equipment, at cost:		
Land and buildings	6,668,355	3,952,301
Rental equipment	4,422,561	3,734,197
Machinery, furniture and fixtures and leasehold improvements	13,931,952	7,459,705
	25,022,868	15,146,203
Less accumulated depreciation and amortization	8,650,279	4,828,143
	16,372,589	10,318,060
Unamortized patents and patent applications, and other deferred charges	245,595	21,664
Goodwill	1	1
	$52,563,518	$30,270,247

See accompanying notes to consolidated financial statements.

AND SUBSIDIARIES / **December 31, 1960 with comparative figures for 1959**

LIABILITIES

	1960	1959
Current liabilities:		
Notes payable to banks—unsecured (note 2)	$ 8,000,000	$ 4,000,000
Current installments of mortgage payable	52,024	—
Accounts payable and accrued liabilities	7,629,740	5,895,394
Provision for Federal and other taxes on income (note 3)	3,653,804	1,952,877
Total current liabilities	19,335,568	11,848,271
Long-term debt:		
Secured revolving credit (note 2)	2,900,000	2,900,000
4¾% mortgage payable, less current installments	537,146	—
	3,437,146	2,900,000
Deferred Federal income taxes (note 3):	1,094,000	1,146,000
Stockholders' equity (notes 1 and 4):		
Common stock, $1 par value: Authorized, 2,000,000 shares. Issued and outstanding, 1,222,168 shares in 1960 and 1,036,890 shares in 1959	1,222,168	1,036,890
Additional paid-in capital	18,097,358	3,188,905
Retained earnings (note 2)	9,377,278	10,150,181
Total stockholders' equity	28,696,804	14,375,976
Commitments (notes 5 and 6).		
	$52,563,518	$30,270,247

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

STATEMENT OF CONSOLIDATED EARNINGS

YEAR ENDED DECEMBER 31, 1960 WITH COMPARATIVE FIGURES FOR 1959

	1960	1959
Net sales and machine rentals	$67,940,374	$43,442,600
Cost of sales and other operating costs (depreciation and amortization provided – 1960, $2,188,709; 1959, $1,476,223):		
Cost of sales and machine rentals	49,543,531	32,012,210
Administrative and selling	11,235,685	7,119,927
	60,779,216	39,132,137
	7,161,158	4,310,463
Other income:		
Dividend from affiliate	15,000	75,000
Miscellaneous	550,770	287,890
	7,726,928	4,673,353
Less interest paid (1960, $618,117; 1959, $291,920) and other charges	736,456	313,128
	6,990,472	4,360,225
Provision for Federal taxes on income	3,580,000	2,289,000
Net earnings for year	3,410,472	2,071,225
Special credit–Federal income tax benefits resulting from losses incurred by Du Mont prior to merger (note 3)	345,000	–
Net earnings and 1960 special credit	$ 3,755,472	$ 2,071,225

See accompanying notes to consolidated financial statements.

AND SUBSIDIARIES

STATEMENTS OF CONSOLIDATED ADDITIONAL PAID-IN CAPITAL AND RETAINED EARNINGS

YEAR ENDED DECEMBER 31, 1960 WITH COMPARATIVE FIGURES FOR 1959

	1960	1959
Additional Paid-in Capital		
BALANCE AT BEGINNING OF YEAR	$ 3,188,905	$ 3,300,387
Additional paid-in capital of Du Mont at July 5, 1960, less merger expenses (note 1)	10,207,727	–
Excess of the par value of the capital stocks of Du Mont over the par value of Fairchild stock issued (note 1)	4,622,667	–
Excess of proceeds from exercise of stock options over par value of shares issued, less expenses (note 4)	78,059	421,364
	18,097,358	3,721,751
Less:		
Transfer to common stock account in connection with two-for-one stock split	–	518,270
Excess of par value of Fairchild Camera and Instrument Corporation stock issued over par value of Fairchild Semiconductor Corporation stock acquired, less Semiconductor additional paid-in capital	–	14,576
	–	532,846
BALANCE AT END OF YEAR	$18,097,358	$ 3,188,905
Retained Earnings		
BALANCE AT BEGINNING OF YEAR	$10,150,181	$ 8,597,226
Less accumulated deficit of Du Mont at July 5, 1960 (note 1)	3,917,291	–
	6,232,890	8,597,226
Add net earnings and 1960 special credit, per accompanying statement	3,755,472	2,071,225
	9,988,362	10,668,451
Deduct cash dividends – 50¢ a share in 1960 and 1959	611,084	518,270
BALANCE AT END OF YEAR (Note 2)	$ 9,377,278	$10,150,181

See accompanying notes to consolidated financial statements.

Notes to Consolidated Financial Statements December 31, 1960

(1) BASIS OF ACCOUNTS:

The consolidated financial statements include the accounts of all domestic and Canadian subsidiaries, but do not include a wholly-owned Dutch subsidiary.

On July 5, 1960 the company issued 178,816 shares of its $1.00 par value common stock upon a merger with Allen B. Du Mont Laboratories, Inc., in a transaction deemed a pooling of interests. The excess of the par value of the capital stocks of Du Mont over the par value of Fairchild stock issued of $4,622,667 has been credited to consolidated additional paid-in capital and the additional paid-in capital and accumulated deficit of Du Mont at July 5, 1960 have been credited or charged to the corresponding accounts of Fairchild.

The statement of consolidated earnings for 1960 includes the operations of Du Mont from the date of the merger. A statement of operations of Du Mont for the period January 3, 1960 to July 3, 1960 and for the year 1959 follows:

	January 3 to July 3, 1960	Year 1959
Net Sales	$7,696,876	$19,257,661
Cost of sales and other operating costs (depreciation and amortization provided—1960, $167,050; 1959, $413,763):		
Cost of sales	6,377,928	15,502,559
Administrative and selling	2,081,611	3,836,617
	8,459,539	19,339,176
	(762,663)	(81,515)
Other Income	174,278	105,565
	(588,385)	24,050
Interest expense	21,580	241,075
	(609,965)	(217,025)
Special credits (charges):		
Profit (loss) on sale of plant and equipment	(110,315)	1,532,929
Interest on Federal income tax refund	243,914	
Provision for inventory and other losses, less applicable future Federal income tax savings	(770,887)	
	(637,288)	1,532,929
NET (LOSS) INCOME	($1,247,253)	$ 1,315,904

The equity in undistributed earnings of affiliated companies for 1960 approximated $37,000 and at the end of the year the investment exceeded the equity therein by $46,000.

(2) BANK LOANS:

A short-term unsecured credit agreement (as amended) which terminates June 30, 1961, permits borrowings to a maximum amount of $13,500,000 (such maximum amount subject to periodic reductions during the remaining term of the agreement). The rate of interest, which is based on the prime rate, was 5¼% at year end. The company is also obligated to pay a commitment fee of ½ of 1% per annum on the average daily unused but available portion of the credit.

A secured revolving credit agreement dated May 29, 1958 (as amended), permits borrowings by a subsidiary up to a maximum of $3,500,000. The borrowings are secured by the capital stock of the subsidiary and the assignment of the proceeds from equipment rental leases. The interest rate, which is based on the prime rate, was 5½% at the year end. A commitment fee of ½ of 1% per annum on the average daily unused but available portion of the credit is also payable. The banks have the right to terminate this agreement at any time by giving written notice. After receipt of such notice, the borrowings must be repaid in twelve equal monthly installments commencing seven months from the notice date. As of March 6, 1961, no termination notification has been received, nor is any expected, and therefore borrowings under the secured revolving credit agreement have been classified as long term. Should the banks decide to terminate this agreement immediately after March 6, 1961, the maximum amount of the loan outstanding at December 31, 1960 that would be payable by the end of 1961 would be $725,000.

Among the restrictive covenants contained in the short-term unsecured credit agreement (which is the more restrictive of the agreements) is a requirement to maintain consolidated working capital of $11,000,000 and a restriction as to the payment of cash dividends and purchases of stock (other than purchases from the proceeds of sales of stock) to 50% of consolidated net earnings from January 1, 1960. Unrestricted consolidated retained earnings at December 31, 1960 amounted to $1,266,652.

(3) FEDERAL TAXES ON INCOME:

The Federal income tax returns of the company for the years 1957 and 1958 are presently being examined. An examination of the returns of Du Mont (which was merged into Fairchild on July 5, 1960) for the years 1952 to 1958 is also in process. Certain deficiencies have been alleged against Du Mont, but the ultimate liability, if any, has not been finally determined. The company is of the opinion that the liability for Federal taxes on income has been adequately provided for in the accompanying financial statements.

It was estimated that as of December 31, 1960 the loss carry-over and certain assets written off for book purposes but not for tax purposes by Du Mont prior to the merger aggregated approximately $8,200,000 which amount may be available as a deduction against taxable income of the company in future years. The maximum Federal income tax benefit which could arise from these losses approximates $4,264,000 in addition to the amount of $994,581 presently shown on the balance sheet.

The company has claimed accelerated amortization for income tax purposes on approximately $3,600,000 of facilities acquired in 1952 and 1953 under certificates of necessity, but provisions for depreciation and Federal income taxes in the statement of consolidated earnings were based on the normal useful life of the facilities. The estimated tax on the difference between book and tax depreciation has been provided in prior years and is now being restored to income as the book depreciation now exceeds tax depreciation.

(4) STOCK OPTIONS:

The following statement shows the changes during the year in the stock options outstanding under the Fairchild and Du Mont Plans and certain Du Mont Agreements (after adjustment for the conversion of Du Mont stock into Fairchild stock):

	Price per share (at 100% of market at date of grant)	No. of shares
Beginning of year	$ 11.53 to $ 58.72	31,550
Du Mont at merger date	97.50 to 192.00	6,338
Granted during year	139.25 to 177.25	5,900
Exercised	11.53 to 121.875	(6,462)
Expired	97.50 to 121.875	(182)
	11.53 to 192.00	37,144

In addition to the above, 28,568 shares remained under option throughout the year to Mr. Carter at $9.00 a share, under the terms of an agreement entered into in 1957, granting options at 100% of market value at the date of grant.

At December 31, 1960, 112,062 shares of Fairchild authorized but unissued common stock were reserved for issuance, of which options on 59,618 shares have been granted but not exercised under the Fairchild Plan and Carter option and 6,094 shares upon conversion of the Du Mont Plans. Of the options outstanding at December 31, 1960, options on 19,883 shares are exercisable.

(5) PENSION PLANS:

In 1960 the company's accrual for the payment to the trustees of the noncontributory pension plans amounted to approximately $151,000 ($132,000 accrued in 1959). On the basis of the actuarial estimate, unfunded past service costs amounted to approximately $597,000 at December 31, 1960.

(6) LONG-TERM LEASES AND OTHER COMMITMENTS:

The companies have entered into ten long-term leases expiring between 1964 and 1975 with maximum annual rentals aggregating $551,000.

At December 31, 1960 the companies had plans for capital expenditures in 1961 of approximately $5,000,000.

PEAT, MARWICK, MITCHELL & CO.
ACCOUNTANTS AND AUDITORS
SEVENTY PINE STREET
NEW YORK 5, N. Y.

ACCOUNTANTS' REPORT

The Board of Directors and Stockholders
Fairchild Camera and Instrument Corporation:

We have examined the consolidated balance sheet of Fairchild Camera and Instrument Corporation and subsidiaries as of December 31, 1960 and the related statements of earnings, additional paid-in capital and retained earnings for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We were unable to confirm, by direct correspondence, certain of the accounts due from United States Government departments and agencies but we satisfied ourselves as to such accounts by means of other auditing procedures.

In our opinion, the accompanying consolidated balance sheet and statements of consolidated earnings, additional paid-in capital and retained earnings present fairly the financial position of Fairchild Camera and Instrument Corporation and subsidiaries at December 31, 1960 and the results of their operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Peat, Marwick, Mitchell & Co.

New York, N. Y.
March 6, 1961

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

ROBBINS LANE, SYOSSET, L. I., NEW YORK

Annual Report 1961

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

ON THE COVER

Four-color process illustration on the cover shows a portion of the Semiconductor diffusion furnace area where silicon wafers are impregnated with controlled amounts of preselected chemicals. Illustration was produced from continuous tone color separations made on the Fairchild Scan-A-Color.

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FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

Annual Report 1961

For the Year Ended December 31, 1961

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

Executive Offices
Robbins Lane, Syosset, L. I., N. Y.

Plants
Syosset, L. I., N. Y.
Plainview, L. I., N. Y.
Yonkers, N. Y.
Clifton, N. J.
Los Angeles, Calif.
Mountain View, Calif.
Palo Alto, Calif.
San Rafael, Calif.
Joplin, Mo.
Cleveland, Ohio

SUBSIDIARIES

Fairchild Credit Corporation
Plainview, L. I., N. Y.

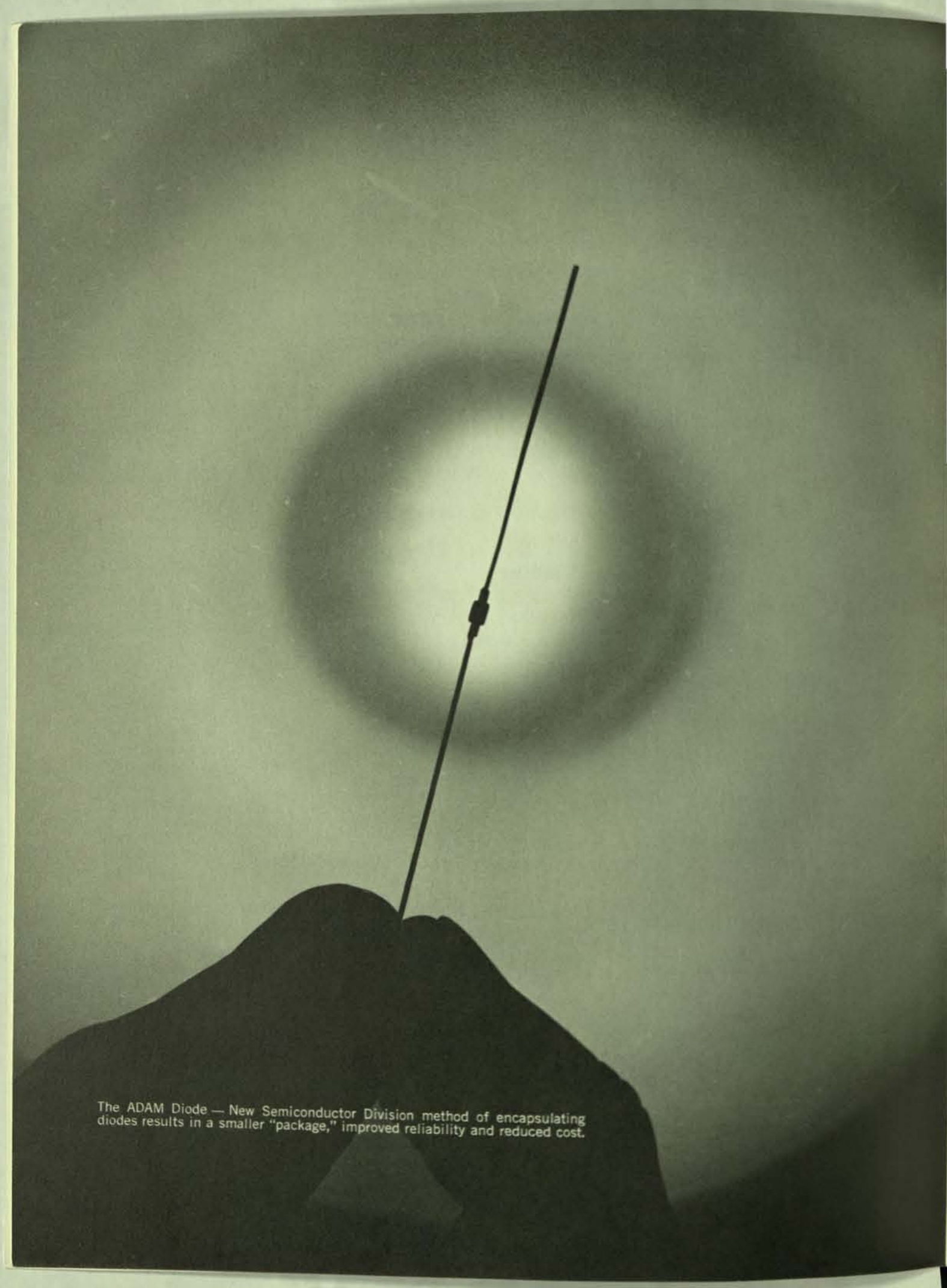
Fairchild Controls Corporation
Hicksville, L. I., N. Y. and Los Angeles, Calif.

Fairchild Camera en Instrumenten Maatschappij, N. V.
Emmen, Netherlands and London, England

Fairchild Camera and Instrument Corporation of Canada, Ltd.
Toronto, Ont.

Du Mont Television & Electronics, Ltd.
Montreal, Canada

Cinephonic Manufacturing Corporation
Yonkers, N. Y.



The ADAM Diode — New Semiconductor Division method of encapsulating diodes results in a smaller "package," improved reliability and reduced cost.

BOARD OF DIRECTORS

Sherman M. Fairchild
Founder and Chairman of the Board of Fairchild Camera and Instrument Corporation.

John Carter
President and Chief Executive Officer of Fairchild Camera and Instrument Corporation.

Richard Hodgson
Executive Vice President of Fairchild Camera and Instrument Corporation.

Walter F. Burke Jr.
President of The Fairchild Foundation, Inc.

Charles H. Colvin
President of Colvin Laboratories, Inc.

William C. Franklin
President of Royal Crown Bottling Co.

William B. Scarborough
Consultant; Director of Metropolitan Fire Assurance Company.

Joseph B. Wharton Jr.
President of The Wealden Company.

OFFICERS

John Carter
President and Chief Executive Officer

Richard Hodgson
Executive Vice President

E. S. Hill
Vice President and Comptroller

K. P. McNaughton
Vice President

G. J. Wade
Secretary and Treasurer

J. W. English
Assistant Comptroller

Philip Haas, Jr.
Assistant Secretary

L. S. Lanset
Assistant Secretary

O. A. Silvester
Assistant Secretary

Nelson Stone
Assistant Secretary

General Counsel
Cravath, Swaine & Moore, New York

Accountants and Auditors
Peat, Marwick, Mitchell & Co., N. Y.

Transfer Agent
The Bank of New York

Registrar
First National City Bank of New York

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

ROBBINS LANE, SYOSSET, L. I., NEW YORK

DEAR STOCKHOLDER:

Presented herewith is Management's report on operations for the year 1961.

Not only did profits and sales again reach record highs but the Company's growth pattern was significantly enhanced through acquisitions, introduction of new products and expansion of facilities.

Sales showed a 36 percent increase over 1960, while net profits and special credit were up 40 percent. Increased cash flow through prudent management of inventory and maintenance of profit margins permitted financing of increased sales volume and a reduction in borrowed funds. Net worth increased to $32,877,000 from $28,697,000 as of December 31, 1960.

The Company's common shares were split 2-for-1 and a cash dividend of 50 cents per share was declared on the split shares, in effect doubling the dividend paid in 1959 and 1960. The total dividend amounted to $1,249,136 and represents not only the largest annual cash disbursement of dividends in the Company's history, but also the 24th consecutive year in which cash dividends have been paid by the Company. On October 23, the listing of the Company's common stock was moved from the American Stock Exchange to the New York Stock Exchange, where it is now traded under its new symbol, "FCI".

Four significant acquisitions were effected in 1961, serving to broaden the product lines and to increase the technical capabilities of existing divisions. These acquisitions, all for cash, included certain assets of Waste King Corporation, Curtis Laboratories, Inc., Circle Weld Corporation, all of Los Angeles, California; and the Cable Division and other properties of Pacific Mercury Electronics, Inc., in Joplin, Missouri. In January 1962 the Addressing Machine Division of Dashew Corporation of Los Angeles was acquired for cash. In February, 1962, the Cosmic Corporation of El Cajon, California was acquired in exchange for 15,807 shares of the authorized and unissued common stock of the Company. Utilization of these acquisitions is explained in detail in the "Reports on the Divisions" section of this report. Several other compatible acquisitions were the object of management scrutiny at year-end.

In addition to acquisitions, the Company's internal expansion program was marked by the formation of a new Business Machines Division in Cleveland; the establishment of the Fairchild International Division as the overseas marketing arm for the Corporation; ground-breaking for a 60,000 square foot Semiconductor Research and Development Center in Stanford Industrial Park; a 40,000 square foot addition to the Semiconductor Division's production facility at Mountain View, California; and doubling the size of the Basic Research Laboratories of the Defense Products Division on Long Island.

In the area of industrial relations, in addition to the signing of a thirty-month contract with the I.A.M. on January 14, covering the Long Island plants, a three-year contract was signed in March with the I.U.E., covering the Du Mont operations.

A corporation-wide management development program, aimed at building management potential from within, was conceived and launched during the year.

It is anticipated that your Company's planned growth pattern for increased sales and profits will continue not only through 1962, but for the foreseeable future.

Sincerely,

John Carter,
President

Sherman M. Fairchild,
Chairman of the Board

Listing of the Corporation's common stock moved to the New York Stock Exchange on October 23rd where it is now traded under its new symbol "FCI." Shown here, checking the first listing on the ticker tape are, left to right, Mr. Fairchild, Mr. Keith Funston, President of the Exchange and Mr. Carter.

HIGHLIGHTS

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION AND SUBSIDIARIES

Comparative Figures for the Five Years Ending December 31, 1961

	1961	1960	1959	1958	1957
Net Sales	**$92,254,000**	$67,940,000	$43,442,000	$31,674,000	$36,989,000
Profit Before Federal Taxes on Income	**8,200,000**	6,990,000	4,360,000	1,869,000	1,865,000
Net Profit and Special Credit	**5,252,000**	3,755,000	2,071,000	544,000	799,000
Dividends Paid	**1,249,136**	611,084	518,270	238,299	238,061
Working Capital	**17,754,000**	14,822,000	7,738,000	6,741,000	6,407,000
Net Worth	**32,877,000**	28,697,000	14,376,000	12,374,000	12,057,000
Payroll	**36,806,000**	28,352,000	22,368,000	14,907,000	17,341,000
Number of Employees	**5,493**	5,424	3,577	2,168	2,352
Number of Stockholders	**10,997**	12,859	3,174	1,965	1,778
Shares Outstanding (Two-for-One Split in 1961 and 1959)	**2,498,272**	1,222,168	1,036,890	476,597	476,122
Backlog	**29,357,000**	33,591,000	19,823,000	18,154,000	15,210,000
PER SHARE (Based on 2,498,272 shares)					
Net Profit and Special Credit	**$ 2.10**	$ 1.50	$ .83	$ .22	$ .32
Working Capital	**7.11**	5.93	3.10	2.70	2.56
Net Worth	**13.16**	11.49	5.75	4.95	4.83

FAIRCHILD

REPORTS ON THE DIVISIONS

SEMICONDUCTOR DIVISION

In 1961 one of the major achievements of Fairchild Semiconductor was the introduction of Micrologic as a product line. After more than a year of research, pilot production and testing, six completely integrated functional digital circuits packaged in transistor sized packages with six or eight leads were introduced to the market and in full production. For the first time, digital computer manufacturers were presented with a usable integrated circuit which could substantially decrease the size of digital computers and lower the cost of fabrication. Immediate acceptance of Micrologic was encouraging. By the end of the year, several computer manufacturers were building digital computers using Micrologic. All indications are that 1962 will see Micrologic as one of the Division's major product lines.

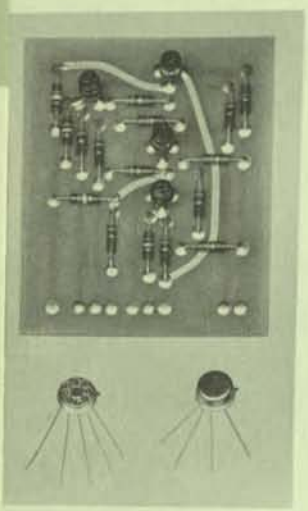
Also in 1961, the Division introduced the industry's first Planar epitaxial transistor and Planar epitaxial diode. These devices combine the reliability, stability and low leakage made possible through the surface protection of the Fairchild-developed Planar process with the high-level performance characteristics of epitaxial deposition. The resulting devices have a wide range of applications and are a major step toward developing the universal transistor and diode.

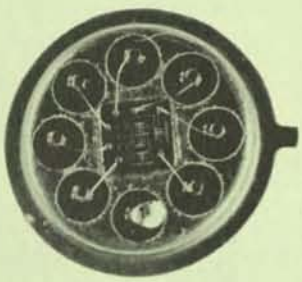
Transistor test equipment was another product line introduced by the Division during 1961. The improved electrical characteristics of Fairchild's Planar and Planar epitaxial devices had made it necessary for the Division to develop test equipment which could adequately test these new parameters. Once developed, it was found that there was a need within the industry for this extremely accurate test equipment and so the decision was made to market the equipment.

The Semiconductor Division continued to be the state-of-the-art leader in the industry in 1961. In addition, production techniques matured to the point where the Division became a seasoned manufacturer and competitive in all semiconductor lines. Although during 1961 several semiconductor manufacturers experienced difficulty because of heavy competition, Fairchild Semiconductor gained in its market position and continued to hold its profit

Top—The ADAM Diode, a smaller and more reliable diode resulting from a new Semiconductor Division method of encapsulating.

Above—Assembler in Semiconductor Division's Quality Assurance Inspection is shown here checking a diode through a microscope.





margin. By the end of 1961, Fairchild Semiconductor was the largest producer of high-performance silicon transistors and the leader in the field of integrated circuits in the United States.

The Division continued its reliability evaluation program in conjunction with Autonetics, a Division of North American Aviation, Inc., as part of the Minuteman ICBM contract. More than 80,000 of Fairchild's transistors were tested under varying conditions of current, voltage, temperature and power during the year. The superior reliability of Fairchild's Planar devices was recognized when, midway in 1961, Autonetics accepted Fairchild's Planar transistors as replacements for mesa devices in the Minuteman missile. Fairchild Semiconductor's devices are important components in other missile and space programs such as Polaris, Advent, etc.

Research and development efforts during 1961 were continued at a pace designed to keep the Division in the forefront of the industry. One of the developments with future promise is a surface controlled transistor. This device was outlined in a technical paper which appeared in the November, 1961 "Proceedings of the IRE". This surface controlled tetrode, allows the electrical characteristics of a transistor to be controlled by outside current in much the same manner as the grid controls the operating characteristics of a vacuum tube. When this device is perfected, transistors should have many more applications than at present. In addition to seeking new semiconductor devices, the R & D department has broadened its approach and is searching for solid-state applications in many fields. To provide additional space for these efforts, ground was broken in October for a new 60,000 square foot Research and Development Center. The new center will be located in Stanford Industrial Park and is scheduled for completion in the spring of 1962.

During the year the Division began manufacturing and marketing its Planar transistors in Europe through Fairchild's European affiliate, Società Generale Semiconduttori (SGS) of Milan, Italy. Production is expected to increase during 1962 and soon Semiconductor's complete line of devices will be manufactured for European markets by SGS.

Further physical expansion also became a necessity in 1961. In addition to the new Research & Development Center, a 40,000 square foot wing was added to the main transistor plant in Mountain View bringing the total space there to 108,000 square feet. The end of 1962 will find the Division occupying more than 270,000 square feet in six plant locations.

Cooperation with other Fairchild Divisions also led to fruitful new products for the company. The Du Mont Industrial Electronics Division used Semiconductor's transistors to market a transistorized oscilloscope and further advances were made in cooperation with Fairchild Controls on that Division's strain gauges.

Illustration at top left shows one of Semiconductor's integrated functional digital building blocks called Micrologic elements, now in volume production. The Micrologic half-shift register shown in lower portion of this photo performs the same function as the half-shift register on the printed circuit card above it. Enlarged portion to the right shows circuit configuration and intraconnections of the elements. Photo at lower left shows Type 4 transistor tester developed by Fairchild Semiconductor and now being produced and marketed on special order.

Photo above shows a part of the production line at the main Semiconductor Division transistor plant at Mountain View, Calif. Illustration below shows diodes being checked out on reverse current checker in Quality Assurance Department of the Diode plant.

At left is close up view through bell jar of a metal evaporator at main Research and Development Laboratory. Electrical contacts in tiny resistors and diodes are made by bonding fine wires to metallized areas vaporized on to the surfaces of the silicon wafers.

DEFENSE PRODUCTS DIVISION

With the acquisition of Curtis Laboratories, Inc., Los Angeles, California, in 1961, the Defense Products Division further expanded its capabilities to include the design and production of high precision optical components, equipment and systems.

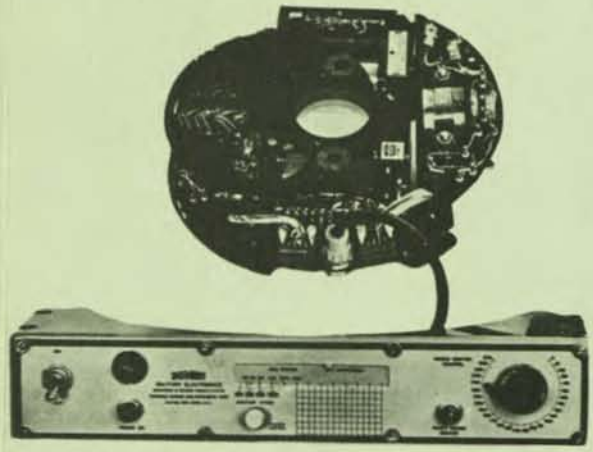
Now operating as the Curtis Optical Department, its products are aerial cartographic and reconnaissance camera lenses and filters, photographic viewfinders, radar recording periscopes, gun camera boresights, tracking telescopes and high acuity enlargers. The 20,000 square foot, air-conditioned facility adds an important new dimension to divisional systems competence.

An outstanding achievement of the department was the development and fabrication of the world's largest and widest angle projection lens. The 70mm lens, which has a 160° field of view in any plane, will be used to display a unique space voyage film which will be a feature of the United States Science Pavilion at the Century 21 International Exposition. The largest single lens ever produced for both filming and projection, it will completely surround the viewer with a 75-foot diameter, 8,000 square foot hemispherical picture.

The Division's Du Mont Military Electronics Department pursued research and development activities in electronic imaging and space reconnaissance. One successfully completed study in the field of satellite photography suggested feasible instrumentation of a lunar orbiter to secure pictorial data of the moon's surface for photogrammetric reduction to map form. Work also progressed in communications, countermeasures and information theories directed toward advancing the state-of-the-art in ground, airborne and shipboard electronic systems and equipment. An improved Automatic Exposure Control System, based on new engineering concepts incorporating proprietary design features, was produced in quantity for missile-tracking application in cinetheodolites at White Sands Missile Range. Long-range development programs included millimeter wave radars, fiber optic techniques and applications, and basic and applied laser research.

A number of related classified projects continued to receive high priority attention.

During the year the Division's quick reaction capabilities were evidenced by the design, development, production and delivery of a quantity of a new



Above at top is shown a portion of the Curtis Optical Department where grinding and polishing operation produces optics to the most exacting requirements.

Directly above is a new Automatic Exposure Control System developed by the DuMont Military Electronics Department of the Defense Products Division. This compact electro-optical device improves missile tracking performance of cinetheodolites.

Largest cinematic lens ever developed is shown at right. Produced by Defense Products Division's Los Angeles plant it will be used to film a spectacular "space journey" which will be a feature of the United States Science Pavilion at the Century 21 International Exposition.

variable magnification Screening Viewer for high resolution photography to the U. S. Air Force in a minimum of time. Also delivered to the Air Force was a high acuity photographic reconnaissance system considered the most advanced in existence. Composed of airborne and ground subsystems, this KS-25 system operates successfully at altitudes of over 100,000 feet and at speeds greater than Mach 2. Designed and developed under a $1,400,000 contract, it is expected to overcome many of the problems of reconnaissance at supersonic speeds as well as contribute importantly to space age photographic techniques.

In addition, Defense Products, which is producing the first fully automatic tactical Photo Transmission System, completed the system's ground sensor terminal for the U. S. Army Signal Corps. The improved terminal is the first to handle the output of all existing side-looking radars, infrared and photographic sensors.

Success of the Basic Research and Photographic Processing Laboratories established in 1959 resulted in substantial expansion of these facilities for conducting government and company-sponsored studies. Two Air Force contracts of major significance were received for research programs in the field of physical chemistry aimed at developing advanced photographic imaging techniques.

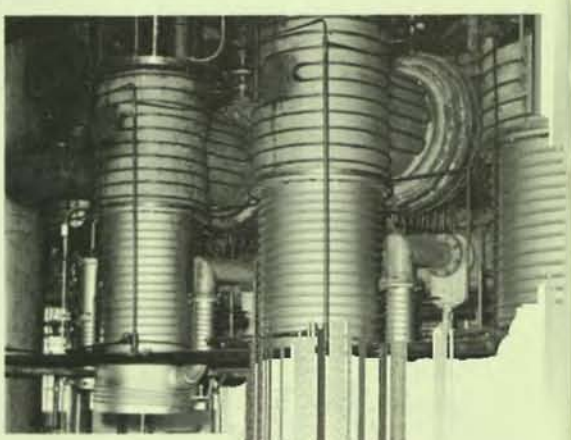
Final stages of construction and outfitting were completed on the new $2,000,000 Space Environments Laboratory and initial tests indicated that design goals in simulating the altitude and temperature conditions encountered up to 300 miles in space would be achieved. In operation, it provides the Division with an unrivalled research tool to assure the reliability and performance of vehicles, systems and sensors for space exploration and national defense.

In the international field, the Defense Products Division augmented its overseas marketing programs by the appointments of Ottico Meccanica Italiana, Rome, Italy, as its exclusive sales representative in Italy, Greece and Turkey, and the firm of Kirchfeld K.G., Dusseldorf, in West Germany. The Okura Trading Company, Ltd. of Tokyo was named as the Division's representative in Japan.

New Screening Viewer (above), developed and produced for U.S. Air Force, incorporates folded optical path rear-projection system for unimpeded viewing of photographic data on a 19 x 36 inch screen.

Below—Airborne Components of KS-25 reconnaissance system include camera, stabilized mount and associated equipment.

Illustration at left above shows a section of Defense Products Basic Research Laboratory. One of the best equipped laboratories of its kind, this facility has recently been expanded.



At the right are shown three of the six 32-in. high-vacuum pumps which are part of the Space Environments Laboratory. This unique facility is available for testing surveillance and charting sensors in the combined altitude, temperature and vibration conditions encountered in space vehicles.

BUSINESS MACHINES DIVISION

The Business Machines Division was established in June, 1961, for the development, manufacturing and distribution of paper handling, data processing systems, microfilming and diazo enlarging equipment. Management's objective has been to establish a division which would have specific responsibilities for providing commercial and industrial markets where demand for highly automated office equipment exists.

The market for products in the paper handling area alone embraces virtually all business firms that employ 20 or more people in the United States, hence it is exceedingly broad. When it is combined with other areas of interest to the Division such as photocopying, spirit duplicating and the diazo material market, it represents an estimated total market potential in excess of $1,000,000,000 (based on research figures developed for the National Stationery and Office Equipment Association) for products which the Division will have available by the end of 1962. It is realized that substantial segments of this potential market are highly competitive, yet there are segments which have not been given coverage to the extent Fairchild Business Machines plans.

Headquartered in Cleveland, Ohio, the Division has developed a completely integrated operation since its inception. Its administrative, marketing and engineering personnel have all had years of experience in the business machines field. Special attention was given to the creation of an experienced and sound sales department. Sales offices were opened in 11 key cities in 1961 and three additional offices were scheduled for opening in early 1962. A complete sales network will be in being by year-end 1962. Dealer organizations have been contacted in Canada, Great Britain and in Europe for distribution abroad.

Production of the Fairchild Collator, which had been received in prototype form from the Industrial Products Division, was started in October. This device collects, gathers together, and staples sheets of paper of varying weights and thickness at the rate of 24,000 sheets per hour.

Another proprietary product now in production for April, 1962 distribution is the Fairchild Inserter, which will automatically insert cards, sheets of paper, etc. into envelopes.

A postage metering machine is currently undergoing design engineering.

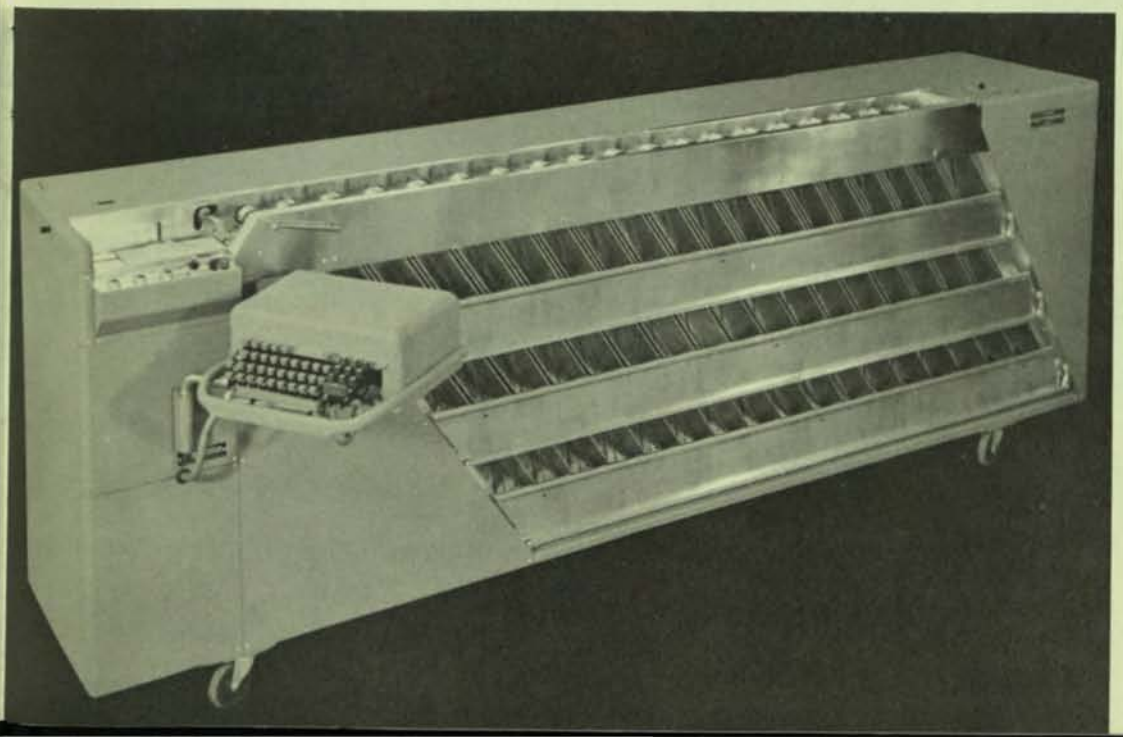
Other products already offered by the Division include the "Flex-O-Fold" line of folding machines, a line of postage scales, the "Keytronic" line of document and mail sorting machines, "Therm-A-Bind" binding machine and a line of photocopying machines.

In January, 1962 Fairchild acquired the Addressing Machine Division of Dashew Corporation of Los Angeles and this line of addressing machine products was added to the Business Machines Division. Manufacturing was transferred from Los Angeles to Cleveland.

The Business Machines Division began to generate sales in October, which continued at a brisk pace throughout the final quarter of the year. It is anticipated that the objectives established for the Division will be realized without any substantial difficulty by the end of 1962.

As the Division grows, it is expected that other types of paper handling machines will be made available as well as a line of office furniture, addressing machines, labeling machines and complete office systems in these fields. Currently, a number of products are being developed which include the application of microfilm and diazo papers in office operations.

On opposite page from top to bottom are shown—Fairchild photo-copying machine; designed to handle paper to 18 inches wide. Flex-O-Fold table model folder; will fold, staple, slit, score, perforate and cross-fold with various attachments. Fairchild Binding Machine; binds in minutes any combination of paper stock from onion skin to card stock in sizes up to 15 x 15 inches.



Above at left—Model 2100 8-station collator. Automatically jogs, staples, counts and stacks in one operation. Cycles at 24,000 sheets per hour.

Parcel Post Scale (top) computes automatically by means of all-zones, easy-to-read rate chart.

Fairchild Duplicator shown above is one of 20 models available for short runs or up to 600 copies.

Left—Fairchild Keytronic document sorters offer 3,000 to 5,000 sorts per hour of various size paper from 2¾ x 3 in. to 11½ x 12 in.

A few of the hundreds of specially designed ducting and metal hose assemblies produced by the Special Products Division are shown at right. Flawless precision forming of hundreds of identical convolutions is required in these units. Hot air duct assembly above is used in turbo-jet aircraft engines.

Large diameter double bellows expansion joint above is used to compensate for three-directional parallel motion in gaseous nitrogen service.

Fabrication of precision-formed metal products requires a high degree of mechanical skill. Mechanic above is performing post-rolling operation on 24 in. diameter flexible bellows section of high nickel-alloy.

SPECIAL PRODUCTS DIVISION

The Special Products Division was created in March, 1961, following the acquisition of the assets of the Waste King Corporation's Technical Products Division in Los Angeles, California. The Division was enlarged in May, 1961 when Fairchild acquired the Circle Weld Company of Los Angeles and made it part of the Division.

From the Waste King acquisition came the now internationally recognized Color King press (marketed by the Graphic Equipment Division), an airborne Flight Data Recorder line, plus the special design and manufacturing capabilities in the field of heat exchangers, sophisticated gear drive assemblies and data probes developed for space vehicles.

Under a contract, the Special Products Division developed a special data probe to be used in controlling the attitude of reentry vehicles. The design was completed and three experimental units built in 1961. This probe was made of a specially developed material that will withstand temperature created by air friction under reentry conditions. It also incorporates a cooling system utilizing the evaporation of Teflon, the vapors of which pass over the nose of the probe reducing the effective surface temperature.

The Circle Weld and the Cosmic Corporation acquisitions added rocket engine sub-systems and cryogenic sub-systems for missiles, space craft and nuclear applications to the products and capabilities of the Special

Products Division. Components produced and integrated into these subsystems include precision bellows and bellows products, including aneroids, bellows seals, instrument temperature and pressure sensing units, and motion transmitting and absorbing devices. Also produced are precision machined and welded assemblies of stainless steel and other alloys, flexible ducting assemblies, flexible metal hoses, gimballed universal and expansion joints, cryogenic lines and related hardware for the missile, missile ground support and gas turbine fields, as well as commercial pipe line applications.

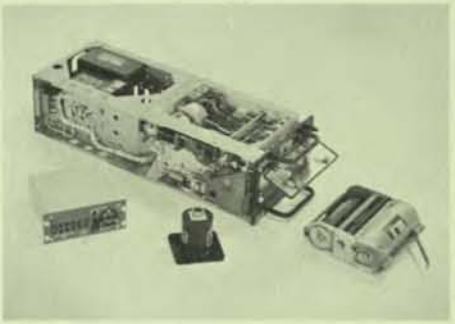
The Fairchild Flight Data Recorder is now being supplied to over 50 percent of the international operators of commercial jet aircraft. In the latter part of 1961, several installations were made for evaluation in military bombers.

During 1961, the Division also developed for evaluation by the Federal Aviation Authority two airborne cockpit voice monitors. F.A.A. has indicated that such instruments may be required in all jet aircraft.

Also designed and made ready for production in early 1962 is a multichannel voice recorder designed to meet the requirements recently established for a court and legal testimony recorder. Several states and federal court circuits have established the requirements for such a recorder. The Fairchild instrument will be the first recorder to be designed specifically for this market. Variations of this new recorder design are being readied for special applications as educational and conference recorders.

New techniques in welding developed by the Division in the past year make possible the manufacture of bellows for instrument applications with far longer life and increased reliability over the current established standards.

Operations during the ten months since organization have resulted in substantial increase in volume and the introduction of a number of new products. The Division has several new products in final stages of development, which will be introduced in the next few months. A substantial increase in business has been forecast for 1962.



Above—Flight Data Recorder provides commercial airlines with continuous and virtually indestructible record of key flight information in compliance with FAA regulations.

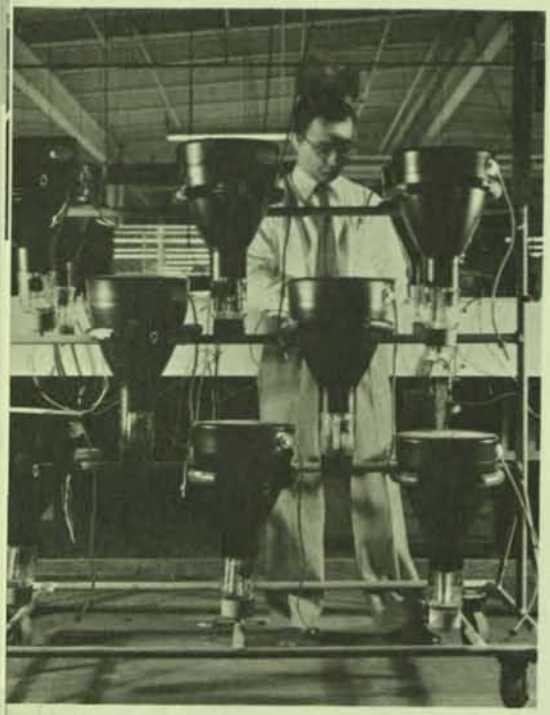
Below—Prototype model of new multi-channel voice recorder/reproducer. It is actually 6 recorders on one chassis.

Above – Checking precision-formed aneroid capsule diaphragms for hysteresis, linearity and motion under vacuum bell jar. At right–Precision welding of wafer-thin materials is a specialty of this Division. Welder is shown here butt-welding thin wall stainless steel tube.

Heat exchangers used in Atlas and other ICBM's are shown above. Similar units were used in Mercury Man-in-Space project.

ALLEN B. DU MONT LABORATORIES DIVISIONS

The Allen B. Du Mont Laboratories Divisions of Fairchild Camera and Instrument Corporation comprise two operating divisions, each with its own management, but reporting to an overall general manager for the Divisions. They are the Electronic Tube Division and the Industrial Electronics Division. New products developed from within, possible acquisitions, and an aggressive engineering and marketing reorganization are being carried out to further a carefully planned growth pattern for the Du Mont Divisions.



Major break-through in 1961 for DuMont Electronic Tube Division was development of cathode-ray tubes with fiber optical face plates. Tube illustrated above at top has 6,000,000 individual tiny glass rods in the face plate.

DuMont technology and production know-how are illustrated above by mass production of large screen direct-view storage tubes.

DuMont Industrial Electronics Division produces the most extensive line of cathode-ray oscilloscopes in the industry. Shown at right are Type 425 Digital Read-Out Oscilloscopes undergoing final inspection.

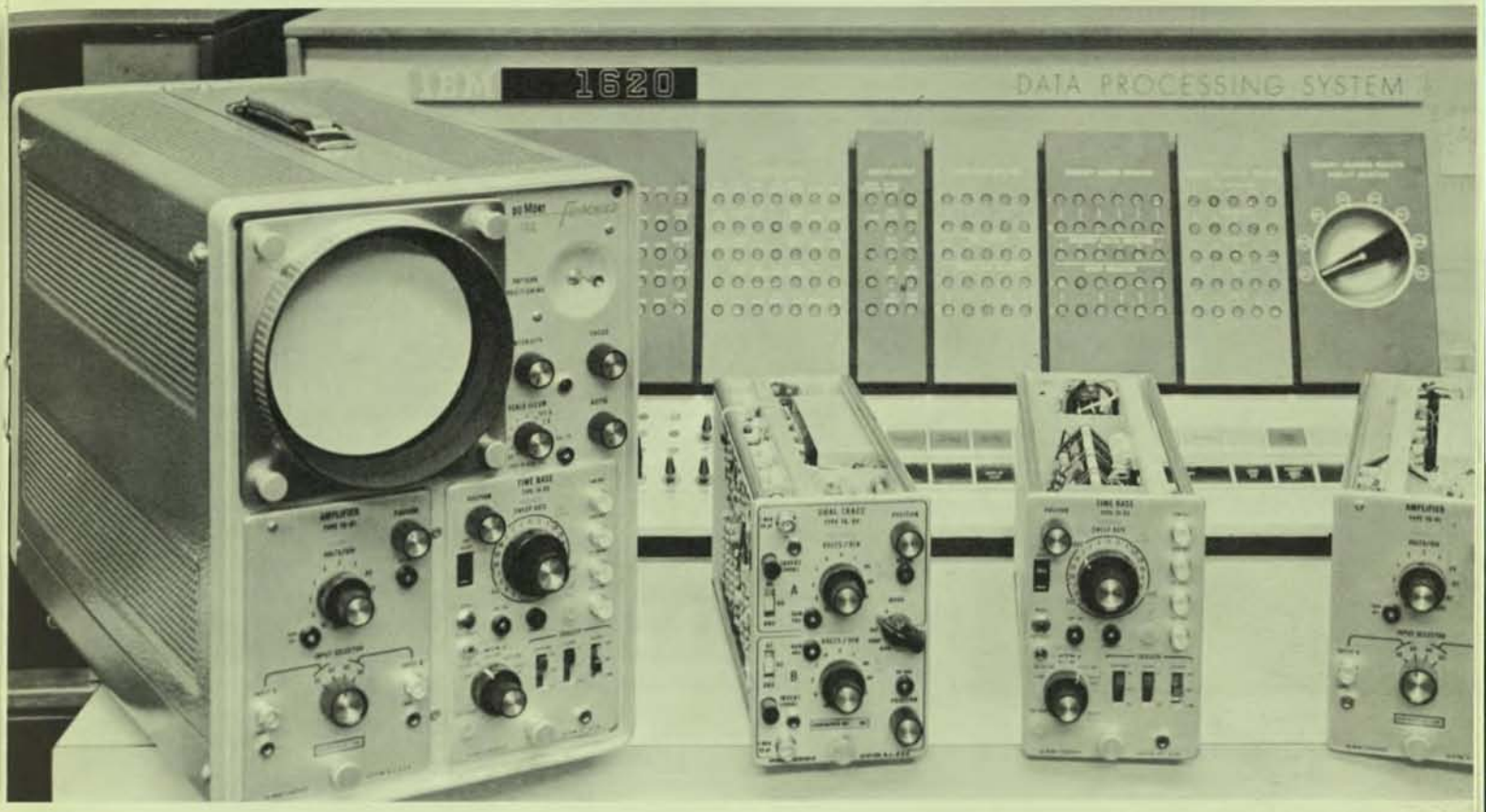
Electronic Tube Division

This Division is the outgrowth of the original pioneering by Du Mont Laboratories and Dr. Allen B. Du Mont to produce commercially practical cathode-ray tubes. Today it produces more varied types of industrial, special, and military cathode-ray tubes than any other company (over 2,000). They are used in oscilloscopes, radar, computers and data read-out systems, and in other industrial and military display devices. The Division is also a leader in design and manufacture of multiplier-phototubes. In 1961 it developed a full line of multiplier-phototubes with tri-alkali surfaces. Direct-view storage tubes are a vital and growing factor in the Division's progress. Significant advances have been made in such tubes during 1961, and some very substantial contracts received for their use in airborne radar equipment. The Division believes that storage tubes (tubes that retain the image or trace for minutes on the tube face) will more and more replace conventional cathode-ray tubes in military and industrial applications.

A vital factor in 1961 was the successful development and marketing of cathode-ray tubes with fiber optical faceplates and the fabrication of a double ended scan-converter storage tube which transforms radar pips to a television type picture.

A definite trend towards increased volume of new business was noted in the latter part of the year with consequent favorable reflection in profit ratios.

The Division's management was strengthened with the naming of a new general manager and the marketing organization was vitalized with area responsibilities and the naming of a career sales executive in the tube industry as general sales manager. The Division anticipates further product diversification and emphasis on highly engineered precision tube products which utilize the full Du Mont capability.



Industrial Electronics Division

This Du Mont Division has significant potential for a substantial increase in dollar volume in each of its product lines. Basically, the Industrial Electronics Division makes and markets four individual product lines. They are oscilloscopes, oscilloscope record cameras, and other electronic instruments; two-way mobile radio systems; industrial closed-circuit television cameras, monitors, and associated equipment; and electronic automotive test equipment.

In each of these product areas there is a multi-million dollar market in which the Industrial Electronics Division has the opportunity to capture a much larger percentage of available business with resulting effect on the profitability of its operations.

Management of the Du Mont Divisions is taking positive steps to obtain this larger market share.

In scientific instruments it has taken a new design concept for an oscilloscope through the design to production stage in extremely short time. It is the Type 766 high frequency, transistorized (almost entirely Fairchild) oscilloscope which is light in weight (27 lbs.), features dual plug-ins, and gives almost 100% reliability because of the use of silicon transistors. This is Du Mont's second product in the high frequency field and follows the introduction of direct read-out 425 high frequency scope. The 766, with its dual plug-in versatility, gives Du Mont entree to the much higher potential (85% of the market) high frequency oscilloscope field.

In mobile radio, a transistorized version of the compact Transicom has been designed and is ready for production. In addition, the Communications

Another major DuMont development during 1961 was the entry into the large-volume high-frequency oscilloscope market. New Type 766, 25 megacycle scope featuring dual plug-in versatility and the improved reliability of silicon transistorized circuitry is shown above at top.

New, low-cost, transistorized DuMont closed circuit television camera is shown above. Designed for industrial, business and institutional uses, this compact camera provides high-definition pictures through conventional home television receivers.

DuMont Enginscopes (top) are standard at Ford Motor Company assembly plants. These versatile instruments provide an almost instant quality control check of engine performance.

U.S. Weather Bureau radar sets feature DuMont cathode-ray tubes. Latest type meteorological radar for more accurate weather forecasting is shown above.

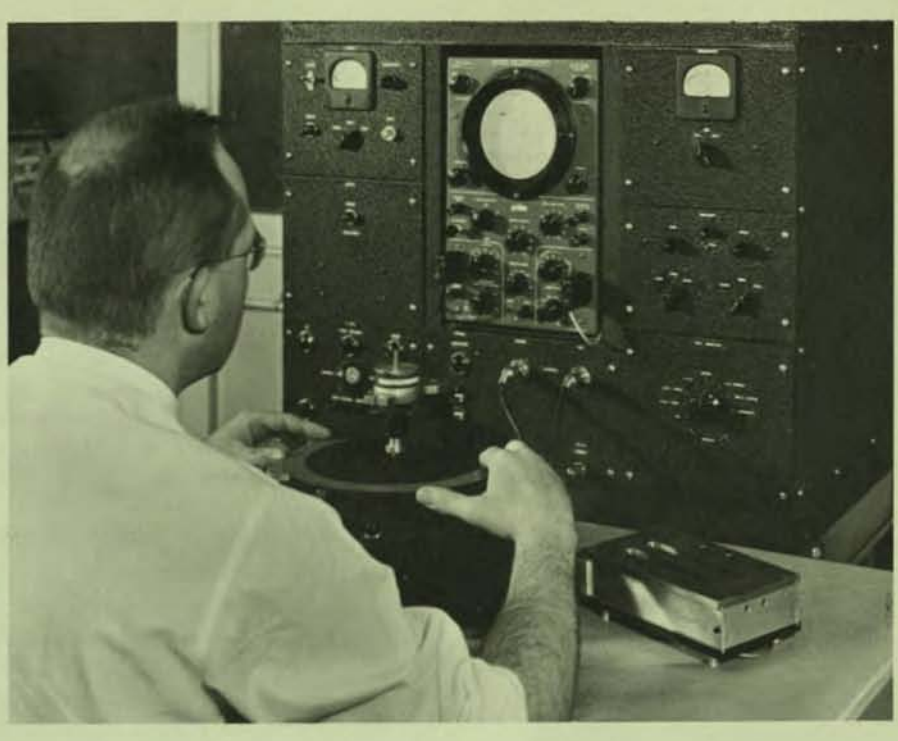
Department completed one of the largest and most complex two-way radio systems installations when it completely equipped the City of San Francisco Fire Department with 141 vehicle installations and four base stations. This followed the successful systems installation for the entire San Francisco Police Department.

The Division's industrial television business will be materially strengthened through the introduction in 1961 of a low-cost, transistorized miniature television camera which can utilize an ordinary home TV receiver as the monitor.

In addition to improved products, a new Communications Department was established late in the year. It will market conventional industrial television and mobile radio systems, through the established sales outlets, but will go beyond conventional systems to tie many of the communications products of other Fairchild divisions into complex and sophisticated systems for specialized military, industrial and commercial applications. Such products include facsimile, data display devices, telemetering apparatus, motion and still picture taking and projection, Teletype, microwave, data recording, dial selection of data, and transmission. A top marketing team has been established to handle communications products and systems.

Management looks to the vitalization of product design and greatly strengthened marketing methods to rapidly increase the Division's sales and profit ratios.

Part of the base station consoles for complete two-way mobile radio system installed by DuMont for the City of San Francisco Fire Department. This installation follows a similar complete system installed for the City's Police Department. Typical mobile unit installed in fire truck is shown at left.



Electro-mechanical components produced by Fairchild Controls are used in extremely critical control applications. To assure maximum performance and reliability under severe conditions of use, all Fairchild components are subject to close quality control and rigid life and environmental tests. Some of these tests and inspections are illustrated on this page.

FAIRCHILD CONTROLS CORPORATION

Fairchild Controls Corporation experienced both increased sales and profits during 1961.

During the year, the subsidiary developed and marketed its first load cells, based on the same semiconductor strain gauge principle used in the "3S-G" solid state strain gauge pressure transducers introduced a year ago. Load cells are used to measure very high forces of a few hundred pounds to millions of pounds. Units have been supplied by Fairchild for such diverse applications as indicating the lifting force being developed by a helicopter, to the pressure on rolls in a steel rolling mill.

The semiconductor strain gauge pressure transducer line, introduced in 1960, has been greatly expanded and is finding growing applications in many fields, including many missile programs, nuclear tests, public utility power stations, glass-making furnaces and underwater tests.

Fairchild sub-miniature rate gyros have found increasing application in various programs, including torpedo guidance control, the Minuteman, Polaris and Dynasoar programs, nuclear subs and the Trail Blazer Space Probe. The ability to withstand tremendous shock and vibration is one of the outstanding features of these tiny components.

An outstanding achievement was the use of the Fairchild potentiometer-type pressure transducers in the Mercury man-in-space capsules to control the oxygen supply and pressurization during flight.

In the potentiometer field, Fairchild Controls became the first major producer of precision wire-wound potentiometers to introduce a line of conductive plastic precision potentiometers. These units will provide the infinite resolution and long life so much desired by all potentiometer users without some of the drawbacks, such as humidity effects, which other units of this type have had. This business is expected to grow considerably in the coming year.

It is anticipated that 1962 will show a continuing increase in both volume and profits.

GRAPHIC EQUIPMENT DIVISION

The move of the Division's production operation from Plainview, Long Island to Joplin, Missouri, began in January, 1961. The training and development of personnel and the return to normal production output was completed within a much shorter time than originally expected. Teletypesetter and Scan-A-Graver production was returned to usual schedules beginning in March.

This modern, fully air-conditioned plant provides the Division with a central manufacturing and distribution point for these products, and at the same time affords a reduction of cost in both manufacture and distribution.

New Universal TTS Perforator developed by Graphic Equipment Division will enable printers to tape-set so called "mixer" copy. Its versatility makes it ideal for commercial printing applications.

The acquisition of the Technical Products Division of the Waste King Corporation in March, 1961, brought with it a unique, web offset perfecting press, known as the Color King. While the newly created Special Products Division has the manufacturing responsibility for this press, the marketing and servicing functions have been assigned to the Graphic Equipment Division. This press is designed for the small and medium sized newspaper and the commercial printer, where a decided trend to offset methods of reproduction has been established. It offers all of the advantages of offset printing—reduction of costs, faster and better reproduction, greater flexibility in layout, easy and crisp reproduction of photos and art work—plus a facility for color, superior to that offered in competitive presses. The press found immediate acceptance, and between March and December, twenty-eight of these presses, most of which were multiple units, were installed. This is believed to be a new sales record for this type of press.

The first Teletypesetter Allotter System, an automatic tape programmer for multiple perforator and linecasting equipment installations, was delivered and installed for a medium circulation newspaper. Orders have been accepted for delivery during the first quarter of 1962, and an active sales effort is now being conducted on this product.

Field tests on a new Universal perforator for the production of Tele-

New Technical Center established at Graphic Equipment Division is unique in the graphic arts industry. Completely equipped, it provides facilities for training customers' as well as Fairchild's own personnel in operation and maintenance of all Fairchild equipment, with special emphasis on web offset printing and the Color King Press. Photo at right shows part of the group of trade press editors who attended recent press conference announcing opening of the Technical Center. At right on opposite page is a 4-unit Fairchild Color King Press. This press is capable of printing 18,000 newspapers per hour.

typesetter tape were completed and final plans for production of this product are now underway for June, 1962 deliveries. It is expected that this "mixer" type perforator, permitting combinations of different type faces, will materially open the commercial printing field to Teletypesetter operation. It is interesting to note that The New York Times utilizes Teletypesetter tape, transmitted by cable, and Fairchild TTS operating units in the production of its Paris edition simultaneously with the New York edition. The same type of Fairchild equipment will be utilized by the Times for its new West Coast edition.

Scan-A-Color, the electronic color scanner and computer used in the preparation of color printing plates, has completed its field evaluation stage and is now a finished product and producing revenue.

Acquisition of Curtis Laboratories, Inc. in 1961 (now a department of the Defense Products Division) included several graphic arts products which have been assigned to the Graphic Equipment Division for marketing. The Curtis Color Analyst is an optical device which permits three black-and-white color separations to be viewed in full color, to determine if further correction is necessary prior to the printing process. Other Curtis products include the Color Scout Camera, Precision Contact Color Separation Printer and the Curtis Color Film Enlarging Printer.

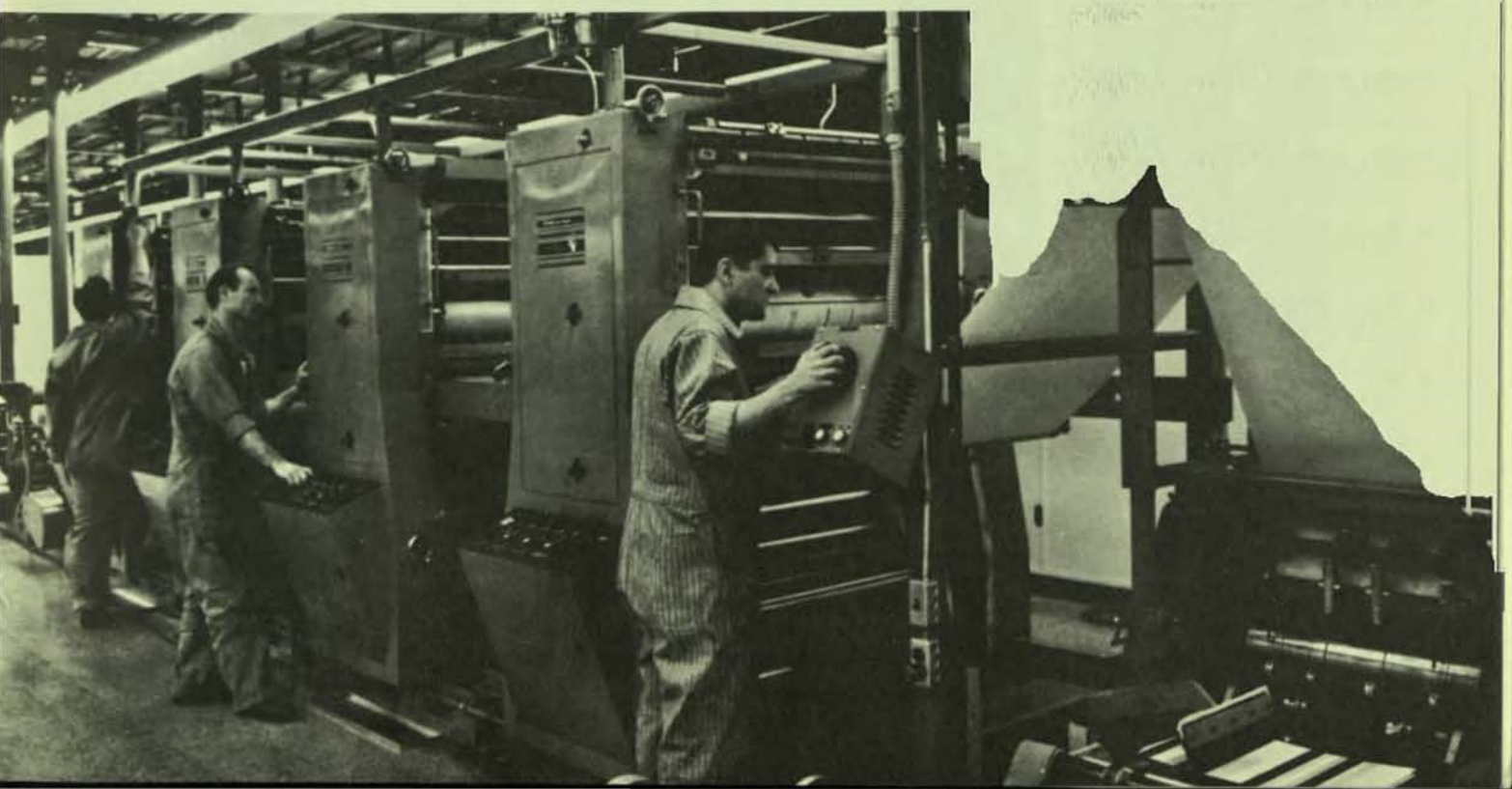
Distributor arrangements were made with a number of leading graphic arts manufacturers which enables the Division to completely equip an offset newspaper or commercial printing plant with all production equipment requirements, with the exception of typesetting machines.

Fairchild electronic engraving machines, Scan-A-Graver, Illustrator and Scan-A-Sizer continued as the leader in the daily and weekly newspaper field.

In November, the corporation name of "Fairchild Graphic Equipment, Inc.", a leasing and financing subsidiary of FCI, was changed to "Fairchild Credit Corporation" to reflect its additional function of financing sales and leases of the various divisions of your company.

Field evaluation tests of Fairchild Scan-A-Color (top) have been completed. Production units are now in operation at several locations.

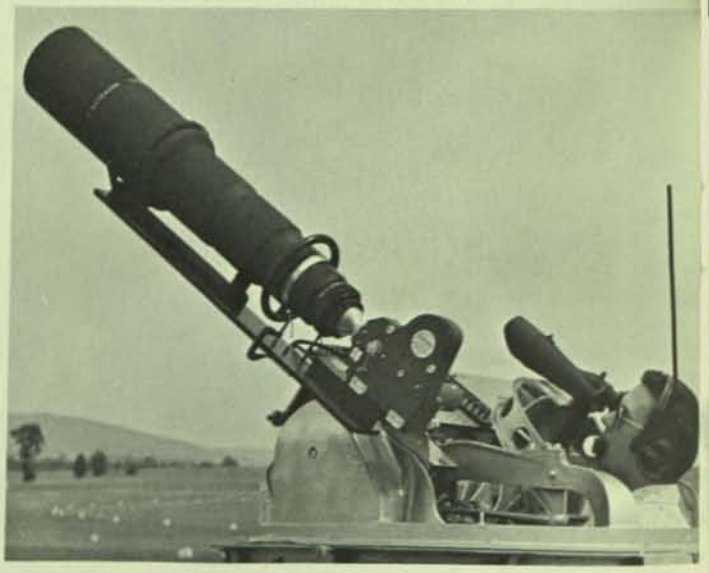
Above is newly-acquired Curtis Color Analyst which permits black-and-white color separations to be viewed in full color to determine what additional corrections, if any, are necessary prior to printing.



Major development of the Industrial Products Division has been 8mm Cinephonic Repeating (Rear view) Projector shown above. This compact, light-weight unit provides an effective low-cost visual aid device for sales and educational use.

The 8mm Cinephonic sound movie camera and projector (at right on opposite page) continues to grow in popularity. Refinements in design include improved viewing eyepiece (shown at top) for greater user convenience.

Improved I.D. Camera for personnel identification offers users greater versatility in picture size and format. Industry, government departments and state, county and municipal law enforcement agencies are typical users of this camera.

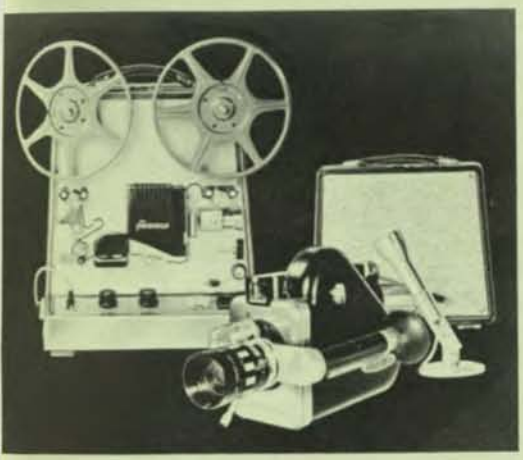


INDUSTRIAL PRODUCTS DIVISION

This Division functioned in three major areas during 1961; audio visual, consumer products and photo instrumentation. While each of these evidenced product expansion and promotion, primary effort was concerned with 8mm magnetic sound applications.

Audio visual expansion was based on the Cinephonic 200 and Cinephonic 400 repeating projectors. The equipment line progressed from the initial pilot run to full production by year end. These light-weight machines, no larger than a portable typewriter, can show 8mm color sound movies continuously, for days at a time if desired, on self-contained viewing screens. Recognized as a major advance by industry and education, film is stored in a magazine which feeds out and rewinds film endlessly. The machine eliminates need for room darkening, separate screen, and threading or rewinding.

Already in use for sales demonstration and training by thirty-four large corporations representing a wide segment of industry, the potential for education and social services is now also being tested and evaluated. The impact of 8mm synchronized sound motion pictures, minus the traditionally high cost of sound movies, promises to bring a new dimension to the fields of selling and training.



Consumer awareness and acceptance of the Cinephonic sound movie equipment were strengthened by both product improvement and promotional efforts. Field experience in this new medium served as the basis for an improved model 802 made available in the Fall of 1961. Offered at a slightly higher price, this unit provided, in addition to engineering improvements, user conveniences such as a carrying handle and improved viewing eyepiece.

Promotionally, mid-1961 saw the launching of a major retail exploitation based on the Fairchild-Warner Brothers Talent Search. Entrants provided screen tests made with the Fairchild Cinephonic Camera. These gave evidence of the flexibility and scope possible in application of this equipment. Winners were awarded film and TV contracts by Warner.

In photo instrumentation, several new products were introduced. A new Identification Camera offers a greater flexibility in use and a significantly low cost to the customer. A new miniature timing light generator for use with Fairchild High Speed Camera equipment was also introduced, which now makes it possible for scientists to precisely determine time intervals on missile and trajecting tests or in analysis of industrial problems.

The Fairchild line of high-speed motion analysis cameras has been improved by design refinements and by the addition of new accessories like the timing light generator above. Uses for these cameras are widely varied as indicated by the installation on a gun mount for missile tracking shown at left.

Another advance in the high speed instrumentation is the HS408 camera. Utilizing an ultra precise eight-sided prism, it is capable of frame speeds of 14,000 per second. This performance makes the HS408 valuable in the growing fields of metal and ceramic stress analysis as well as a useful tool in space technology.

Prototype units of the Fairchild Collator were completed by this Division by mid-year and turned over to the newly established Business Machines Division for production and marketing.

Additionally, the engineering program on the new Fairchild Facsimile machines was completed and assigned to the Facsimile Products Department to allow for concentrated acceleration of development and marketing of this line.

Program planning for 1962 schedules continued product development to further enhance existing lines and also result in new products in the fields in which we are now active.

CABLE DIVISION

The Cable Division became part of Fairchild Camera and Instrument Corporation in February, 1961, with the acquisition of the Joplin, Missouri, facilities of Pacific Mercury Electronics.

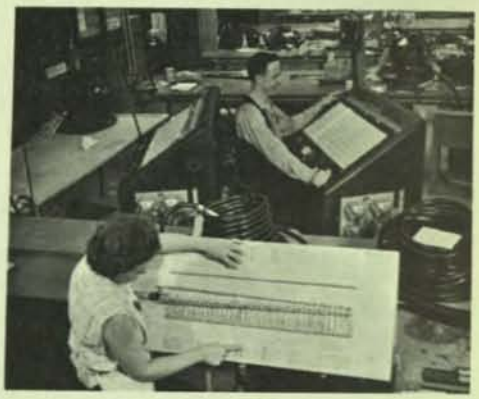
This Division is geared to meet the highly specialized harness requirements of the aircraft and missile industries, as well as Atomic Energy Commission applications. Through modern manufacturing facilities and experienced personnel, it is capable of producing a wide variety of cables ranging from multi-conductor cables to miniature cabling with sub-miniature connectors.

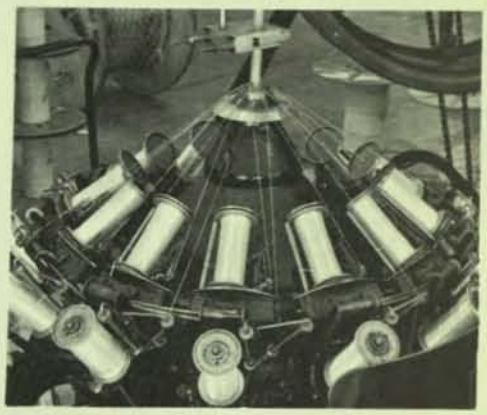
The main marketing objective of the Division this year, following its acquisition by Fairchild, was to substantially broaden the market and gain wider acceptance for the Division's products in the aerospace field. This has been accomplished.

The Division is housed in a modern, completely air-conditioned building, occupying 68,000 square feet on eleven landscaped acres, which it shares with the production facility of the Graphic Equipment Division.

Modern production methods and close military-approved quality control throughout manufacture, assure reliability of product performance and on-time delivery.

A modest research and development program was authorized during the year and is now being placed in effect by the Division's own engineering staff of specialists.

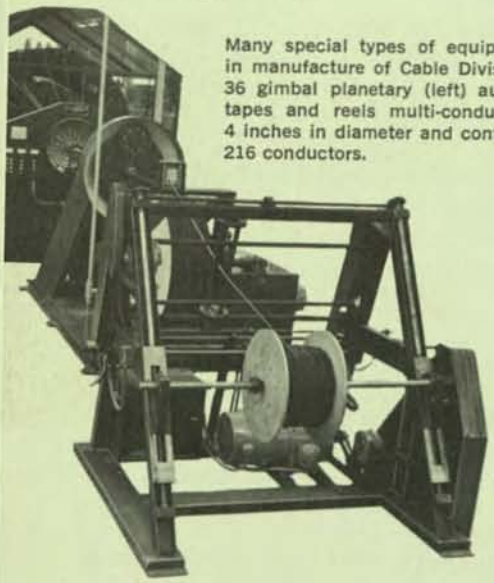




Top—Typical cable assembly produced by Cable Division for missile check-out interconnect system.

Above, center—Electronic circuit analyzer is used for checking out cable assembly fast and accurately.

Special Braider (directly above) is used for weaving a metal sheath over cables when specifications call for electrical shielding.



Many special types of equipment are required in manufacture of Cable Division products. This 36 gimbal planetary (left) automatically twists, tapes and reels multi-conductor cables up to 4 inches in diameter and containing as many as 216 conductors.

Right—Extruder used for jacketing cables with variety of tough, flexible plastics to meet customers special requirements.

Two of the many services offered by Fairchild Aerial Surveys are illustrated above in the photo-map (left) and contour map (right) of the Hollywood Cahuenga Pass traffic control project.

AERIAL SURVEYS DIVISION

A completely new and unique service — that of airborne gravity meter data collection and mapping — was added in 1961 to the Aerial Surveys Division's broad range of worldwide mapping activities. A full scale production test of this revolutionary new device was successfully completed for the U.S. Corps of Engineers, Army Map Service, conclusively demonstrating the feasibility and accuracy of this new mapping technique. The initial use of this service will be in the field of geodesy by military and federal agencies. As instrumental accuracies and processing techniques are improved, it could have widespread commercial application in petroleum and mineral exploration.

An extensive modernization of the photographic laboratory of Surveys' production department was inagurated during 1961 with the overall objective of increased plant efficiency and broadening of capabilities. An electronic computer using standard programs, as well as some developed by Surveys' engineers, was installed during the year and has been most effective in accomplishing substantial time and cost reductions.

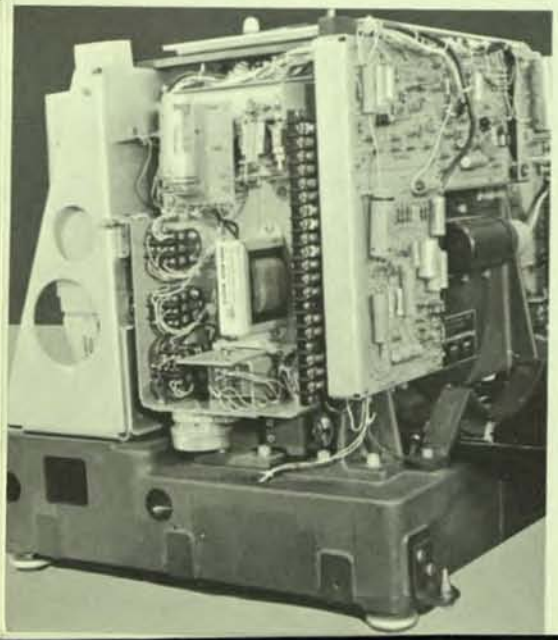
Marketing activities were realigned and costs sharply reduced during the year without sacrificing effective sales coverage. Surveys now has four domestic sales offices, eight domestic sales representatives and fifteen foreign representatives and associates, greatly broadening the areas of effective sales coverage.

Overseas assignments completed or in progress at the end of the year include projects in Chile, Japan, Bolivia, Libya, Iran, Republic of Niger, and Alaska. One of the most successful and interesting programs is that currently under way in southern Chile where Fairchild, in cooperation with three other engineering firms, has undertaken a program for the Organization of American States to assist in the reconstruction and rehabilitation of the earthquake stricken region in southern Chile. This project includes not only preparation of basic photographic and topographic maps for overall planning and accurate determination of the damage, but also land use studies, tax mapping, geological and geophysical exploration, and airborne magnetometer surveys.

Competition in the varied services offered by the Surveys Division is expected to remain keen in 1962 both domestically and overseas. Continued emphasis on quality, dependability, and integrity, together with development of new services and extensive use of newly developed electronic instruments will, it is firmly believed, permit Surveys to maintain its position as a recognized world leader in aerial surveys.

Services of Aerial Survey Division require highly-specialized equipment such as the giant copying camera (below) used to photograph large mosaics and maps.

Photo at bottom of page shows drawing table of Stereoplanigraph with Benson Lehner automatic cross-section equipment installed. This equipment is used in plotting maps from aerial photographs.



FACSIMILE PRODUCTS DEPARTMENT

The Facsimile Products Department was created in June, 1961, to concentrate and accelerate efforts in the development, manufacture and marketing of facsimile and related image transmission equipment for which a broad industrial and commercial market exists.

Fairchild entered the facsimile field in 1958 with the acquisition of Acme Teletronix Division of NEA Service. The acquisition was followed by a product development program to adapt and improve a system used primarily for news photo transmission to one acceptable for industrial and commercial use. Early in 1961, Fairchild announced a new type of facsimile transmitting and receiving equipment called "Scan-A-Fax", which featured transistorized circuitry as well as a series of operational features which provided for greater transmission and recording capacity. Scan-A-Fax transmits information (written, drawn, typed, printed or photographed) by flat bed scanning, which permits transmission of almost infinite length copy. This equipment is considerably lighter, more compact and more durable than its predecessor.

Scan-A-Fax was developed by the Graphic Equipment Division and initially assigned to the Industrial Products Division for marketing. The enthusiastic acceptance of the device following its introduction, led to the management decision to establish the special Facsimile Products Department. This will enable a group of specialists to concentrate on further improvements in this type of equipment in reproductive quality, speed of transmission and other areas pertinent to image transmission.

Although introduced only this year, the functional and styling improvement of Scan-A-Fax is already gaining an ever-widening acceptance in all phases of business activity and governmental applications.

Electronic facsimile communications systems by Fairchild reduce the time and cost barriers of inter-office, inter-plant, city-to-city or coast-to-coast interchange of graphic information. The system includes a transmitter and receiver, both of which are completely transistorized. Its purpose is to exchange exact duplications of original material. The copy that is received can be duplicated as many times as necessary by conventional duplication methods.

Fairchild Scan-A-Fax can be transmitted by conventional telephone lines (through a switchboard if necessary), microwave circuits and radio (FM, AM, short wave or frequency shift keying).

The equipment is currently being used by airlines, airframe manufacturers, heavy industry, space and missile industries, the publications and printing industry, and a wide variety of commercial concerns.

As the domestic market has been expanded, the overseas market has not been overlooked. Equipment has already been shipped to Latin America and, in conjunction with Fairchild International, this and other overseas areas are being actively promoted and marketed.

Fairchild Scan-A-Fax facsimile equipment has been completely redesigned and improved through transistorized circuitry for industrial and commercial use. At top is shown the new facsimile transmitter featuring flat-bed scanning. Directly below is the receiving unit. The complexity of the circuitry in this type of equipment is illustrated in the bottom picture showing the chassis of a new transceiver under development.

INTERNATIONAL DIVISION

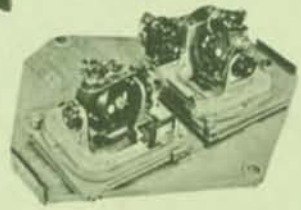
What was originally the overseas marketing arm of the Allen B. Du Mont Laboratories, was reorganized in 1961 as the Fairchild International Division to handle the company's export sales as well as its foreign acquisition activities.

This division functions as a corporate service unit to assist the Corporation and its divisions in setting up marketing and sales promotion programs for its products overseas; in providing the mechanics of export operation and in studying for the Corporation the status of possible acquisitions and licensees.

The Division is headquartered in New York City, and has an office in Milan, Italy, to handle European matters, and one in Miami to take care of Latin American business.

Considerable expansion and activity in the export and foreign fields is anticipated in the near future with the advent of the expanding European Common Market with its attendant effects on United States overseas interests.

The products of five Fairchild Divisions were represented in the Mercury man-in-space project. Cables used in the launching check-out system were supplied by the Cable Division. Monitoring of the astronaut's oxygen supply within the capsule was controlled by pressure transducers produced by Fairchild Controls Corporation. Both the ground guidance and control system and the abort system utilized transistors supplied by Fairchild Semiconductor. Special Products Division provided Lev 3 gyros in the initial stage rocket as well as the cryogenic heat exchangers used in the first stage Rocketdyne engine. In addition to DuMont oscilloscopes used in ground test equipment installations, many DuMont radar display tubes were used in tracking stations around the globe to provide trackers with a visual representation of the capsule's position in space.



FAIRCHILD CAMERA AND INSTRUMENT CORPORATION AND SUBSIDIARIES

EFFECT OF 1961 OPERATIONS ON WORKING CAPITAL

Working Capital, December 31, 1960				**$14,822,154**
Additions:				
Net earnings and special credit for the year			$5,251,966	
Depreciation and amortization — 1961:				
Property and plant equipment	$2,545,581			
Rental machines	610,053	$3,155,634		
Less: Charges to reserve:				
Disposals and fully depreciated items	1,111,608			
Rebuilding costs	22,759	1,134,367	2,021,267	
Proceeds from sale of capital stock less expenses			309,374	
Use during the year of estimated future Federal income tax benefits			994,581	
Increase in long-term debt			323,790	**8,900,978**
				23,723,132
Deductions:				
Cash dividend paid — $.50 per share			1,249,136	
Additions to fixed assets, etc. — net:				
Property and plant equipment		3,815,374		
Rental machines		158,361	3,973,735	
Decrease in deferred Federal income taxes			50,000	
Expenses, net of Federal income taxes, in connection with surrender of certain stock options			131,523	
Increase in investments in and advances to affiliated companies and other assets			564,572	**5,968,966**
Working Capital, December 31, 1961				**$17,754,166**

GLOSSARY

collator — a machine for collecting individual sheets of printed material in numerical or other predetermined sequence.

cryogenic — the science of extremely low temperatures.

data processing — in a broad sense, the automatic translation and evaluation of coded information into meaningful numbers, words, etc. An example would be the translation of punched holes in IBM cards into names, addresses, and numbers.

diazo — a material that is changed into a colored dye by the addition of light energy and a chemical. Blueprints are examples of a common diazo process.

digital computer — a computer which calculates, using numbers expressed in digits to present all the variables that occur in a problem.

digital read-out — a "reading" or value expressed in numbers.

diode — a small component (literally half a transistor) having two electrodes, one being positive and the other negative. Principal function is in switching.

epitaxial — a method for forming semiconductor circuits by direct planar growth from a crystal pattern. (See Planar)

facsimile — in this instance, the transmission and reception of printed matter, charts, drawings, etc. over long distances by wire or radio.

geodesy — the science of surveying that accounts for the curvature of the earth.

laser —(*Light Amplification* by the *Stimulated Emission* of *Radiation*) — a coherent light amplifying device of very narrow beam and band-width.

magnetometer — a device which measures changes in the strength of the earth's magnetic field. Such changes, recorded in the air over a strip of land, reveal information to the geologist of the presence of mineral concentrations.

Micrologic — a new Fairchild technique combining the electronic components of a computer circuit into a single miniaturized transistor-like element.

net worth — the book value of the shareholders' investment in the corporation.

offset — a printing process by which the printed image is transferred from a positive plate to a rubber blanket and thence to the paper. The term derives from the fact that the printed image is "offset" from one medium (blanket) to another (paper).

oscilloscope — a test instrument using a cathode-ray tube (similar to TV tube) which produces visible wave forms of varying electrical currents or voltages.

perfecting press — in this case an offset printing press in which a continuous roll of paper (web) is fed between two printing blankets which make a printed impression on both sides of the paper simultaneously. It is also referred to as a blanket-to-blanket press.

Planar process — an advanced process by which Fairchild transistors and diodes are produced to provide unusual stability and increased reliability.

precision potentiometer — an extremely accurate variable resistor, or voltage divider. The volume control on your radio is one of its simpler forms. The Components Division makes precision potentiometers for very specialized industrial and military applications.

prototype — usually the first working model of an instrument or machine upon which future production units will be built.

Scan-A-Color — trade name for Fairchild's electro-optical device which electronically separates the primary colors of a color photograph and provides negatives of these colors for the production of engravings used in printed reproduction of such photographs.

solid-state — the physics of materials in their solid form. Examples of solid-state materials are: transistors, diodes, solid-state lasers, metals and alloys, etc.

strain-gauge transducer — a miniaturized pressure sensing device using semiconductors as sensors.

Teletypesetter — a typewriter-like device that produces a perforated tape, which when fed into an attachment on a typecasting machine permits the latter to be operated automatically.

transducer — an electro-mechanical device that transforms one kind of energy into another. The Components Divisions makes a pressure transducer which changes mechanical pressure into electrical energy.

transitor — a small semiconductor device no larger than the eraser in the end of a pencil, which performs the functions of a radio tube. Commonly used in miniaturized electronic devices.

working capital — the excess of current assets over current liabilities available for use in the daily (and any unusual) operations of the corporation.

CONSOLIDATED BALANCE SHEET

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

ASSETS

	1961	1960
Current assets:		
Cash	$ 2,667,062	$ 3,842,320
Accounts receivable, less provision for allowances and doubtful accounts — 1961, $893,343; 1960, $687,953	17,707,999	13,923,383
Inventories, at the lower of cost (principally first-in, first-out) or estimated realizable market:		
U. S. Government contracts and other work in process, less progress payments — 1961, $450,505; 1960, $1,650,579	5,774,608	5,892,262
Raw materials and parts	4,178,934	4,820,643
Finished goods	4,018,663	5,253,387
	13,972,205	15,966,292
Prepaid expenses	429,402	425,727
Total current assets	**34,776,668**	**34,157,722**
Investments in and advances to affiliated companies (note 1)	**1,389,699**	**793,030**
Estimated future Federal income tax benefits (note 3)	**—**	**994,581**
Property, plant and equipment, at cost:		
Land	485,025	348,486
Buildings	7,151,994	6,319,869
Rental equipment	4,580,922	4,422,561
Machinery, furniture and fixtures and leasehold improvements	16,778,662	13,931,952
	28,996,603	25,022,868
Less accumulated depreciation and amortization	10,671,546	8,650,279
	18,325,057	**16,372,589**
Unamortized patents and patent applications, and other deferred charges	**213,498**	**245,595**
Goodwill	**1**	**1**
	$54,704,923	**$52,563,518**

See accompanying notes to consolidated financial statements.

LIABILITIES AND STOCKHOLDERS' EQUITY

	1961	1960
Current liabilities:		
Notes payable to banks — unsecured (note 2)	$ 7,500,000	$ 8,000,000
Current instalments of mortgages payable	82,635	52,024
Accounts payable and accrued liabilities	7,566,424	7,629,740
Provision for Federal and other taxes on income (note 3)	1,873,443	3,653,804
Total current liabilities	**17,022,502**	**19,335,568**
Long-term debt:		
Secured revolving credit (note 2)	2,900,000	2,900,000
4¾ to 6% mortgages payable, less current instalments	860,936	537,146
	3,760,936	**3,437,146**
Deferred Federal income taxes (note 3)	**1,044,000**	**1,094,000**
Stockholders' equity:		
Common stock, $1 par value (notes 4 and 5):		
Authorized, 4,000,000 shares.		
Issued and outstanding, 2,498,272 shares in 1961 and 1,222,168 shares in 1960	2,498,272	1,222,168
Additional paid-in capital	16,999,105	18,097,358
Retained earnings (note 2)	13,380,108	9,377,278
Total stockholders' equity	**32,877,485**	**28,696,804**
Commitments (notes 6 and 7).		
	$54,704,923	**$52,563,518**

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

STATEMENT OF CONSOLIDATED EARNINGS

YEAR ENDED DECEMBER 31, 1961 WITH COMPARATIVE FIGURES FOR 1960

	1961	1960
Net Sales and machine rentals	**$92,254,237**	**$67,940,374**
Cost of sales, and other operating costs (depreciation and amortization provided — 1961, $3,155,634; 1960, $2,188,709):		
Cost of sales and machine rentals	68,133,284	49,543,531
Administrative and selling	15,376,657	11,235,685
	83,509,941	**60,779,216**
	8,744,296	**7,161,158**
Other income	**527,456**	**565,770**
	9,271,752	**7,726,928**
Less interest paid (1961, $686,912; 1960, $618,117) and other charges	**1,071,786**	**736,456**
Earnings before Federal taxes on income	**8,199,966**	**6,990,472**
Provision for Federal taxes on income	**4,381,000**	**3,580,000**
Net earnings for year	**3,818,966**	**3,410,472**
Special credit — Federal income tax benefits resulting from losses incurred by Allen B. Du Mont Laboratories, Inc., prior to merger (note 3)	**1,433,000**	**345,000**
Net earnings and special credit	**$ 5,251,966**	**$ 3,755,472**

See accompanying notes to consolidated financial statements.

STATEMENTS OF CONSOLIDATED ADDITIONAL PAID-IN CAPITAL AND RETAINED EARNINGS

YEAR ENDED DECEMBER 31, 1961 WITH COMPARATIVE FIGURES FOR 1960

	1961	1960
Additional Paid-in Capital		
BALANCE AT BEGINNING OF YEAR	$18,097,358	$ 3,188,905
Additional paid-in capital of Allen B. Du Mont Laboratories, Inc. at July 5, 1960, less merger expenses	—	10,207,727
Excess of par value of the capital stocks of Allen B. Du Mont Laboratories, Inc. over par value of Fairchild stock issued	—	4,622,667
Excess of proceeds from exercise of stock options over par value of shares issued, less expenses (note 5)	279,003	78,059
	18,376,361	18,097,358
Less:		
Transfer to common stock account in connection with two-for-one stock split (note 4)	1,245,733	—
Expenses, net of Federal income taxes, in connection with the partial rescission of a stock option (note 5)	131,523	—
	1,377,256	—
BALANCE AT END OF YEAR	**$16,999,105**	**$18,097,358**
Retained Earnings		
BALANCE AT BEGINNING OF YEAR	$ 9,377,278	$10,150,181
Less accumulated deficit of Allen B. Du Mont Laboratories, Inc. at July 5, 1960	—	3,917,291
	9,377,278	6,232,890
Add net earnings and special credit, per accompanying statement	5,251,966	3,755,472
	14,629,244	9,988,362
Deduct cash dividends — 50¢ a share in 1961 and 25¢ a share (adjusted for two-for-one stock split) in 1960	1,249,136	611,084
BALANCE AT END OF YEAR (note 2)	**$13,380,108**	**$ 9,377,278**

See accompanying notes to consolidated financial statements.

FAIRCHILD CAMERA AND INSTRUMENT CORPORATION AND SUBSIDIARIES

Notes to Consolidated Financial Statements December 31, 1961

(1) BASIS OF ACCOUNTS:

The consolidated financial statements include the accounts of all domestic and Canadian subsidiaries, but do not include a wholly-owned Dutch subsidiary. The inclusion of Du Mont for the entire year of 1961 as compared with six months in 1960 resulted in an increase in consolidated net sales of approximately $9,450,000 in 1961. Du Mont had no significant effect on consolidated net earnings in either year.

The investment in the wholly-owned Dutch subsidiary is included in the balance sheet caption "Investments in and advances to Affiliated Companies". The company's share of the net losses of affiliated companies for 1961 approximated $195,000, and at the end of the year the equity exceeded the investment therein by $40,000.

(2) BANK LOANS:

A short-term unsecured credit agreement which terminates June 30, 1962 permits borrowings up to a maximum amount of $14,000,000 at December 31, 1961 (such maximum amount subject to periodic reductions during the remaining term of the agreement). The interest rate, which is based on the prime rate, was 4¾ % at year end. The company is also obligated to pay a commitment fee of ½ of 1% per annum on the average daily unused but available portion of the credit.

A secured revolving credit agreement dated May 29, 1958 (as amended), permits borrowings by a subsidiary up to a maximum of $3,500,000. The borrowings are secured by the capital stock of the subsidiary and the assignment of the proceeds from equipment rental leases. The interest rate, which is based on the prime rate, was 5% at the year end. A commitment fee of ½ of 1% per annum on the average daily unused but available portion of the credit is also payable. The banks have the right to terminate this agreement at any time by giving written notice. After receipt of such notice, the borrowings must be repaid in twelve equal monthly instalments commencing seven months from the notice date. As of March 1, 1962, no termination notification has been received, nor is any expected, and therefore borrowings under the secured revolving credit agreement have been classified as long-term. Should the banks decide to terminate this agreement immediately after March 1, 1962, the maximum amount of the loan outstanding at December 31, 1961 that would be payable by the end of 1962 would be $725,000.

Among the restrictive covenants contained in the short-term unsecured credit agreement (which is the more restrictive of the agreements) is a requirement to maintain consolidated working capital of $12,500,000 and a restriction as to the payment of cash dividends and purchases of stock (other than purchases from the proceeds of sales of stock) to 50% of consolidated net earnings from January 1, 1961. Unrestricted consolidated retained earnings at December 31, 1961 amounted to $1,376,846.

(3) FEDERAL TAXES ON INCOME:

The Federal income tax returns of the company have been examined through 1958. The Internal Revenue Service has examined the returns for the years 1952 to 1958 of Allen B. Du Mont Laboratories, Inc. (which was merged into Fairchild on July 5, 1960) and has asserted certain deficiencies, but the ultimate liability, if any, has not been finally determined. The company is of the opinion that the liability for Federal taxes on income has been adequately provided for in the accompanying financial statements.

At December 31, 1961 the company had approximately $4,850,000 of unused tax credits available against future income from which the maximum benefit would amount to approximately $2,520,000.

The company has claimed accelerated amortization for income tax purposes on certain facilities acquired in 1952, 1953 and 1961 under certificates of necessity, but provisions for depreciation and Federal income taxes in the statement of consolidated earnings were based on the normal useful life of the facilities. The estimated tax on the difference between book and tax depreciation is now being restored to income as the book depreciation now exceeds tax depreciation.

(4) COMMON STOCK:

As approved at the October 26, 1961 special meeting of stockholders, the certificate of incorporation was amended to increase the authorized common stock of $1 par value to 4,000,000 shares and the outstanding common stock was split two-for-one.

(5) STOCK OPTIONS:

The following statement shows the changes during the year in the company's various stock option plans and agreements (after adjustment for the two-for-one stock split):

	Changes in shares available for options	Changes in shares granted under option plans	
		Price per share (at 100% of market at date of grant)	No. of shares
Balance at beginning of year.....	92,700	$ 4.50 to $96.00	131,424
Granted during year.....	(41,300)	72.31 to 93.75	41,300
Exercised	—	4.50 to 60.94	(53,936)
Rescinded (a)	—	4.50	(8,474)
Expired (b)	2,000	6.13 to 88.63	(2,724)
Balance at end of year..	53,400	$ 4.50 to $96.00	107,590

(a) A Settlement Agreement filed during 1961 with the Court of Chancery of the State of Delaware and approved by that Court provides, among other things, that the stock option agreement between the company and John Carter shall be rescinded to the extent of a total of 8,474 shares (after adjustment for the stock split) of the company's common stock.

(b) Stock options that expired on 724 shares are not available for regranting.

Options on 39,766 shares were exercisable at the beginning of the year, and options on 21,000 shares were exercisable at the end of the year.

(6) PENSION PLANS:

In 1961 the company's accrual for the payment to the trustees of the noncontributory pension plans, the benefits under which were increased during the year, amounted to approximately $170,000 ($151,000 accrued in 1960). On the basis of the actuarial estimate, unfunded past service costs amounted to approximately $782,000 at December 31, 1961.

(7) LONG-TERM LEASES AND OTHER COMMITMENTS:

At December 31, 1961 the companies were obligated under thirteen long-term leases expiring between 1965 and 1975 with maximum annual rentals aggregating $655,000. The company has also entered into an agreement to lease a building, presently being constructed, at an annual rental of $175,000 commencing in 1962 for a term of fifteen years.

At December 31, 1961 the companies had plans for capital expenditures in 1962 of approximately $5,000,000.

PEAT, MARWICK, MITCHELL & CO.
ACCOUNTANTS AND AUDITORS
SEVENTY PINE STREET
NEW YORK 5, N. Y.

ACCOUNTANTS' REPORT

The Board of Directors and Stockholders
Fairchild Camera and Instrument Corporation:

We have examined the consolidated balance sheet of Fairchild Camera and Instrument Corporation and subsidiaries as of December 31, 1961 and the related statements of earnings, additional paid-in capital and retained earnings for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We were unable to confirm, by direct correspondence, certain of the accounts due from United States Government departments and agencies, but we satisfied ourselves as to such accounts by means of other auditing procedures.

In our opinion, the accompanying consolidated balance sheet and statements of consolidated earnings, additional paid-in capital and retained earnings present fairly the financial position of Fairchild Camera and Instrument Corporation and subsidiaries at December 31, 1961 and the results of their operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Peat, Marwick, Mitchell & Co.

New York, N. Y.
March 1, 1962

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FAIRCHILD CAMERA AND INSTRUMENT CORPORATION

ROBBINS LANE, SYOSSET, L. I., NEW YORK