MOTOROLA

1955 annual report

MOTOROLA®

World's largest exclusive electronics manufacturer

4545 AUGUSTA BOULEVARD
CHICAGO 51, ILLINOIS

Paul V. Galvin
Director, President

Robert W. Galvin
Director,
Executive Vice President

Charles E. Green
Secretary

Matthew J. Hickey, Jr.
Director

Daniel E. Noble
Director,
Vice President in Charge of Communications and Electronics Division

Frank J. O'Brien
Director,
Vice President for Purchasing

Walter B. Scott
Director,
Vice President for Manufacturing Consumer Products and Military

DIRECTORS AND OFFICERS OF MOTOROLA

Edward R. Taylor
Director,
Vice President for Marketing Consumer Products and Assistant to the President

Edwin P. Vanderwicken
Director,
Vice President for Finance and Treasurer

Elmer H. Wavering
Director,
Vice President for Engineering Consumer Products

TRANSFER AGENTS

Chemical Corn Exchange Bank
165 Broadway, New York 15, New York

Harris Trust and Savings Bank
115 West Monroe Street, Chicago 90, Illinois

REGISTRARS

Irving Trust Company
One Wall Street, New York 15, New York

Continental Illinois National Bank and Trust Company of Chicago
231 South La Salle St., Chicago 90, Illinois

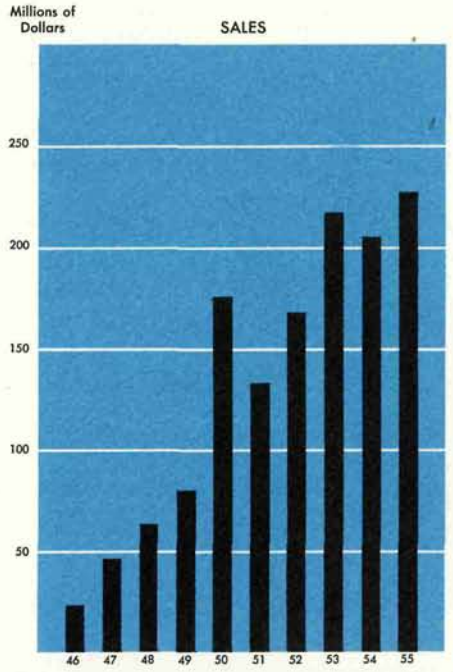
The annual meeting will be held on Monday, May 7, 1956. A notice of the meeting, together with a form of proxy and a proxy statement, will be mailed to shareholders on or about April 14, 1956, at which time proxies will be solicited by the management.

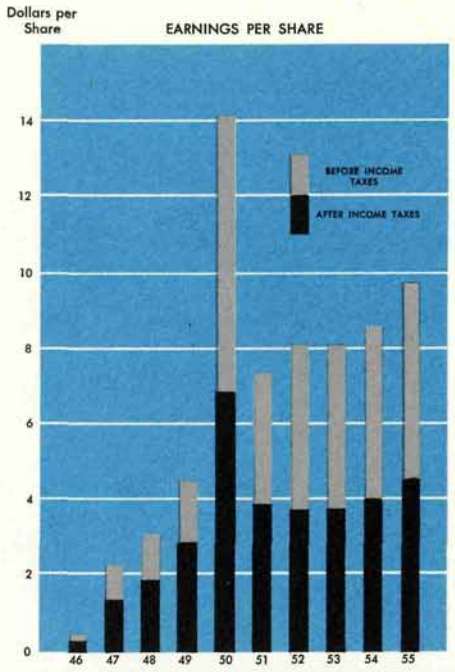
10 YEAR FINANCIAL SUMMARY

YEAR	NET SALES	EARNINGS BEFORE TAXES ON INCOME	NET EARNINGS	NET EARNINGS PER SHARE [1]	WORKING CAPITAL	INVESTMENT IN PLANT AND EQUIPMENT [2]	SHAREHOLDERS' EQUITY
1946	$23,201,107	$ 993,786	$ 656,286	$ .34	$ 5,862,933	$ 2,464,598	$ 8,733,345
1947	46,679,148	4,179,110	2,510,410	1.30	7,028,844	2,811,211	10,635,345
1948 [3]	61,981,442	5,755,347	3,550,347	1.83	11,088,342	3,148,206	13,085,196
1949 [4]	81,803,358	8,585,696	5,280,196	2.73	14,558,505	4,071,987	17,165,391
1950	177,104,669	27,368,061	13,130,246	6.78	20,731,871	5,794,309	26,895,638
1951	135,285,086	14,020,739	7,240,452	3.74	29,851,003	9,005,880	31,920,882
1952	168,734,653	15,576,165	7,012,700	3.62	38,007,247	11,429,532	41,755,780
1953	217,964,074	15,512,489	7,076.335	3.66	38,222,001	14,301,004	45,929,419
1954	205,226,077	16,523,889	7,572,024	3.91	38,308,612	16,579,531	50,598,747
1955	226,653,953	18,740,426	8,490,539	4.39	42,892,165	19,179,992	56,186,590

[1]Earnings per share of common stock based upon the 1,935,131 shares outstanding at December 31, 1955.
[2]Net investment after deduction of depreciation reserves.
[3]Thirteen month period ended December 31, 1948.
[4]Consolidated information including financial data of wholly-owned subsidiaries in 1949 and subsequent years.

to the shareholders of MOTOROLA





SALES AND EARNINGS

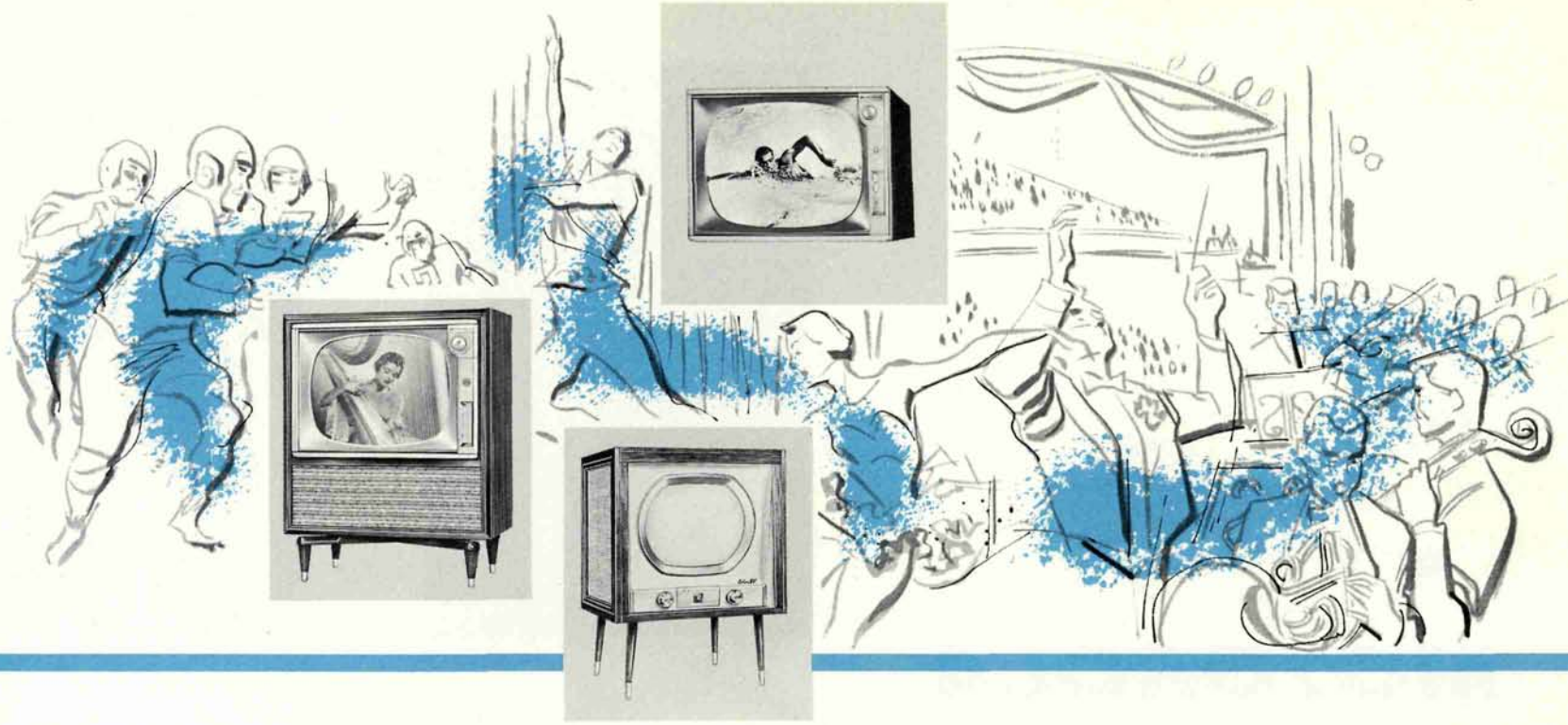
A new sales record for the company was made in 1955. The $226,654,000 sales were $21,428,000 or 10% above 1954. The auto radio, home radio, television and communications divisions each participated in this increase which was achieved despite a decline in our military business of about 18%.

Consolidated earnings in 1955, before provision for taxes, were $18,740,426, up 13% over 1954, and the highest in the record of the company except for 1950. Net earnings of $8,490,539 in 1955, equivalent to $4.39 per share of common stock, compare with $7,572,024 or $3.91 per share in 1954.

MONOCHROME TELEVISION

In 1955 the industry produced and sold more television sets than in any previous year. There were 7,756,521 monochrome sets produced which compares with 7,463,800 in 1950, the previous high. The dollar value of sets produced was greater than in the previous year because the demand shifted toward higher priced sets and the price level generally increased to give effect to higher costs of labor and materials. Industry inventories at the manufacturing, wholesaling and retail levels totalled about 2,100,000 sets at year-end and were at reasonable levels even though sales for the industry in November and December did not measure up to expectations.

Motorola introduced an entirely new line of television sets in July, featuring "right-up-front" tuning and a vertical chassis with a substantially brighter picture. Our objective was to give "value above all" and the acceptance of the line proved this was achieved. We were under the necessity of allocating sets to our distributors during August to October, resulting from a shortage of labor in the Chicago area at a time of peak demand for our sets. In the latter part of the year Motorola's proportion of industry sales was increased over the previous year.



The demand for replacement and second-set television is rapidly increasing. There was a total of 975,000 sets sold in 1948, 3,000,000 in 1949 and 7,463,000 in 1950. Many of these early sets contained smaller picture tubes and no longer provide a quality of reception available from current models. Many sets are old enough to require new picture tubes. Replacement of these older sets now provides a growing share of the television business and should continue to support a high level of production. The rate of obsolescence will further increase as color television gains acceptance. At year end it is estimated there were 37,500,000 monochrome sets in use in this country.

COLOR TELEVISION

Color television is gaining acceptance gradually. The number of telecasts are increasing, both day time shows and evening programs. There are more stations preparing to give more color programs. The telecasters have had good experience with day time telecasts of outdoor sports events—the world series, football games and other events. The NBC affiliate in Chicago will be converted to color exclusively for all programs emanating from Chicago beginning some time in April, 1956, thus providing upwards to ten hours of color a day. This progress in extending more programs into more localities is the forerunner of a greater volume of sales of color television sets.

We have been selling color television sets since the summer of 1954 and are one of the few companies that have sold them in any considerable number. We are continuing our research and development work in color television sets and expect to introduce new models this summer. With the advent of these new models, we expect to increase our volume of sales in color receivers.

COMMUNICATIONS & ELECTRONICS

This division of the business had, by a substantial margin of improvement, its best sales on record and is preparing for further advances.

During the year it completed preparation for manufacture of a new line of portable communication equipment. By the use of transistors, printed circuitry, modular construction and other improvements this equipment is lighter in weight, smaller in size, has higher power output (as much as 20 times former equipment) and is more versatile. The receiving units contain only 2 vacuum tubes. Transmitter power is 2½ to 1 compared with former equipment. As a result of extensive field tests substantial orders are already in hand.

This division also introduced the transistorized Handie-Talkie radio paging unit which can supplant noisy and ineffective paging systems in hospitals, mail order houses, industrial plants and in other locations where short distance portable communications are desired. Only the person being paged receives a signal on his small pocket receiver on which a message is also received.

Another new product line, the "Private Line" radiophone, is being introduced to supplement the mobile communications products. It employs the Motorola vibrasponder and vibrasender which prevent activation of unwanted stations using the same frequency channel. By this means mobile communications systems are freed from the necessity of monitoring all messages.

The last section of this report is devoted to a fuller description of the work of the communications and electronics division.

MILITARY ELECTRONICS

While sales of military electronic equipment and laboratory services declined about 18% in 1955, much preparatory work was underway which has promise of further substantial increases in military billings. Our research and development laboratories in Phoenix, Riverside and Chicago have been working on projects which could result in major development and production contracts, particularly in the field of guided missiles.

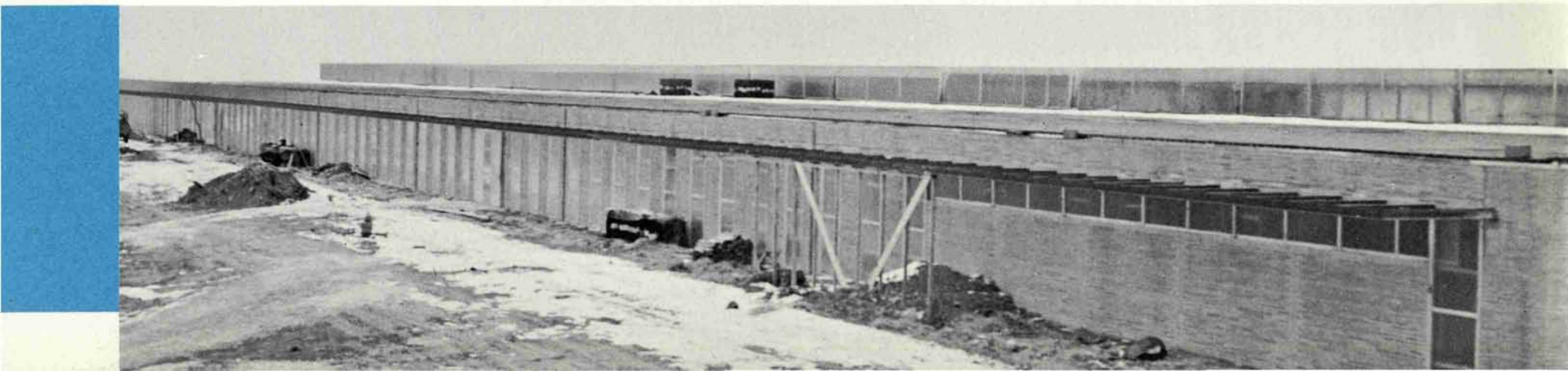
It is our purpose to make a constructive engineering contribution to the military services in the field of electronics in which we specialize, and by so doing to merit their interest as an increasingly important producer of electronic products.

The President's budget report to the Congress in January recommended substantially increased appropriations in the electronic and communications fields.

HOME RADIOS AND PHONOGRAPHS

The complete line of home, clock and portable radios and phonographs was redesigned in 1955 and this, in part, accounts for a 55% increase in sales over 1954. Sales of portable radios were more than doubled over the previous year. They feature an antenna enclosed in a rotating handle and an unbreakable, metal casing with good

New building will consolidate radio manufacturing facilities now occupying several separate buildings in Quincy, Ill.



design and colors. Their performance was outstanding. Motorola's proportion of industry sales in all of these categories was substantially greater than in 1954.

AUTO RADIO

Coincident with the record production of automobiles in 1955, our auto radio division also experienced its best sales year on record by a good margin. Our sales to Ford Motor Co. and the Chrysler Corporation increased substantially, as did sales to our distributors.

We recently announced a new line of transistor powered auto radios. Because the transistor has a practically unlimited life, its application to auto radios is particularly advantageous and, in addition, permits elimination of several power consuming components of an auto radio installation.

This division of the business added a new product line, the push-button shift actuator adopted on all Chrysler Corporation cars in 1955.

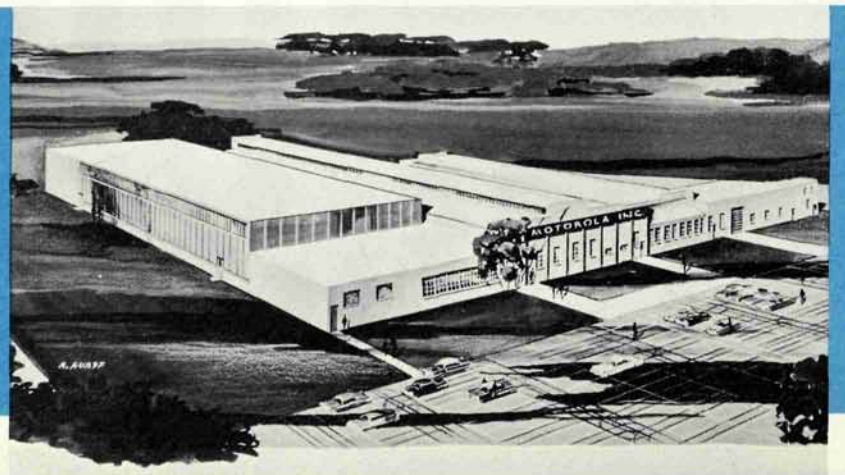
The auto radio tuner plant in Arcade, New York, acquired late in 1954, was used to good advantage in 1955 and plans are already in the making for a substantial addition to it. The new building, now being completed in Quincy, Illinois, will also provide more adequate manufacturing capacity for auto radios.

TRANSISTORS

We have just recently completed a $1,500,000 facility in Phoenix, Arizona, for the commercial production of transistors. This operation is designed to be the most efficient producer of transistors in existence. At the same time our development work in transistors has given better results than we anticipated.

As the first manufacturer to put a high power transistor into commercial production, we are concentrating on getting a high yield in

Architect's sketch shows car radio tuner plant in Arcade, New York, after new addition is completed.



New addition adds 50,000 square feet to television assembly facilities at Franklin Park, Ill.

production. Power transistors which will be used in auto radios, at first, will obsolete present methods of making auto radios.

We have also discovered an effective method of producing diffused base transistors for radio frequency applications extending into the microwave region. Development of four other types of transistors is well along.

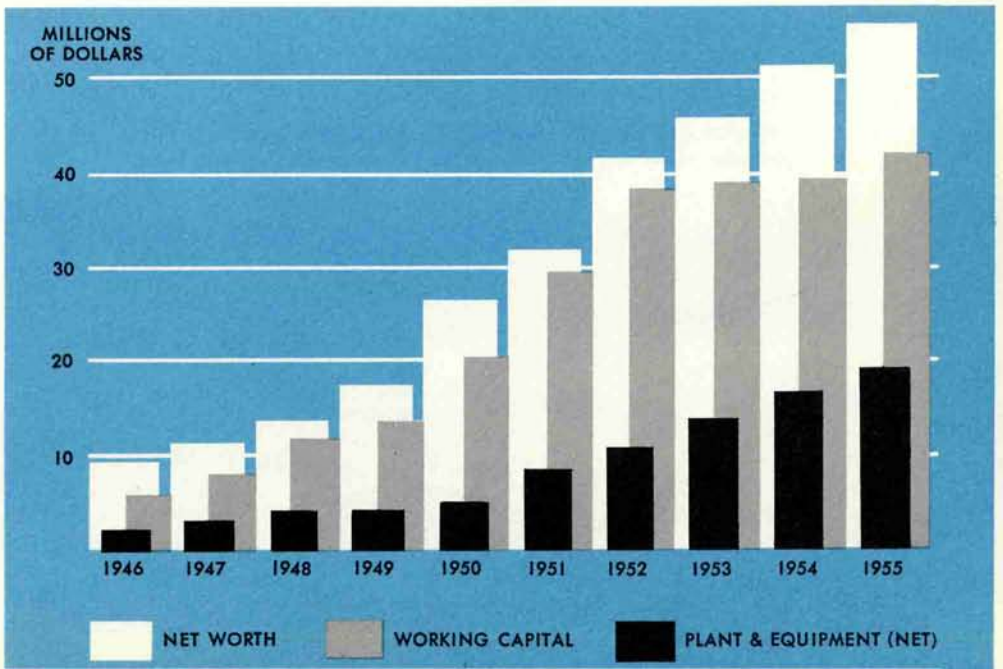
FINANCES

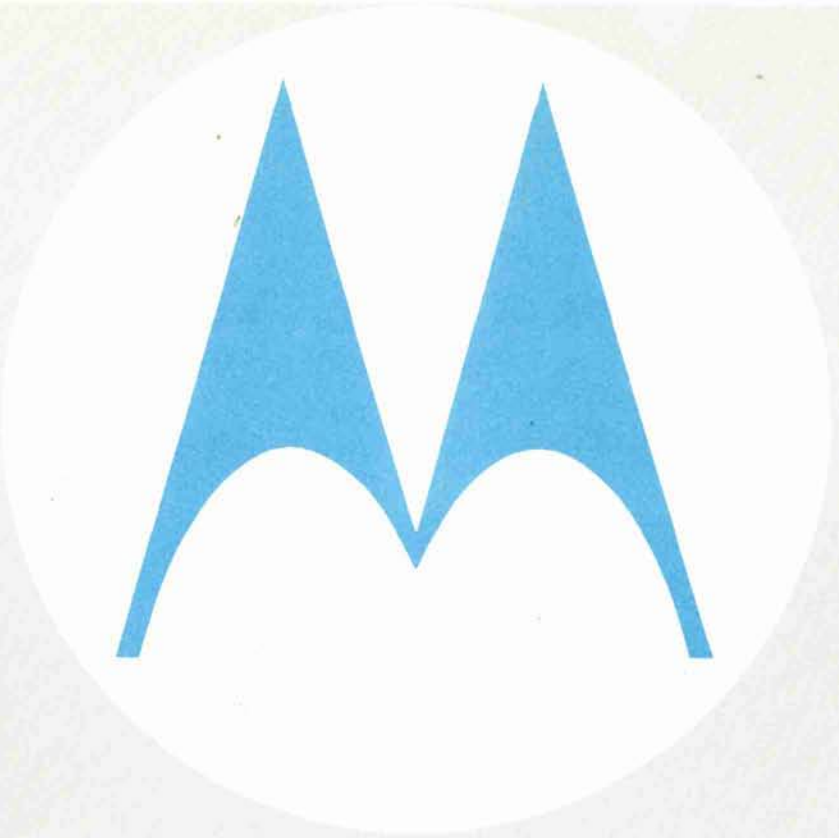
At the 1955 year-end net working capital stood at $42,892,165, up about $4,500,000 for the year, while consolidated net worth had risen to $56,186,590.

In June the company increased its long term notes, held by Prudential Insurance Company, in the amount of $3,500,000 and also arranged for an additional $4,000,000 to be made available to Motorola at any time up to July 1, 1957. These additional funds were arranged for in contemplation of a program for increasing efficiency and capacity of our physical plant and equipment. This program was underway in 1955 during which work was started on a 185,000 square foot building in Quincy, Illinois, to replace operations in three other locations in Quincy. A 70,000 square foot building was started in Phoenix, Arizona, to house the production of transistors and a 50,000 square foot addition to our Franklin Park, Illinois, plant was in progress. All three plants have been or will be occupied in early 1956. We also have under consideration an addition to our plant in Arcade, New York and further facilities at our Franklin Park plant. Recently we announced the acquisition of 160 acres of land near Phoenix, Arizona on which we propose to build a plant with about 150,000 square feet for military electronics engineering and production. We were also engaged during the year in a program of advanced mechanization of our plant equipment.

Dividends totalling $1.50 per common share were paid in 1955. At the close of the year there were 4,434 Motorola stockholders. Directors, officers and their immediate families owned directly or beneficially 565,709 shares of Motorola stock.

NET WORTH, WORKING CAPITAL AND INVESTMENT IN PLANT AND EQUIPMENT





THE FUTURE

While both the political and economic uncertainties are greater in 1956 than appeared at the beginning of 1955, we are aiming for another year of growth in 1956.

On a product by product basis, it is probable that our volume of sales of car radio will be reduced somewhat because of lower automobile production. Television sales will depend in some degree on what progress is made in public acceptance of color television because it is possible that sales of monochrome sets will be somewhat lower for the industry. The communications and electronics, home radio and military electronics divisions of our business appear to be headed for higher levels.

Over the longer term we see what we believe are exceptionally good prospects in all divisions of the business and to prepare for this we will continue in 1956 our program of improving our plant and equipment, providing adequate space and advanced mechanization of production methods.

March 14, 1956

Sincerely

P. V. Galvin

For the Board of Directors

MOTOROLA, INC. AND SUBSIDIARIES, CONSOLIDATED BA

December 31,

ASSETS	1955	1954
Cash	$ 5,936,356	$13,321,302
Accounts receivable:		
United States Government	9,067,795	10,489,782
Other trade accounts (less reserve for bad debts—1955, $849,438; 1954, $743,128)	28,863,516	23,772,927
Other current receivables	1,195,103	720,152
Costs recoverable under United States Government contracts, less progress billings	11,378,434	7,167,003
Inventories—at the lower of prime cost or market	24,805,491	19,290,806
Prepaid expenses	324,295	461,208
TOTAL CURRENT ASSETS	$ 81,570,990	$75,223,180
Other assets	3,495,463	2,573,429
Plant, equipment and leasehold improvements (less reserve for depreciation—1955, $5,197,536; 1954, $3,806,341)	19,179,992	16,579,531
Patents and trademarks—less amortization	184,773	154,944
	$104,431,218	$94,531,084

LIABILITIES	
Current maturities of long-term debt, and short-term borrowings of subsidiaries	
Accounts payable—trade	
Accrued taxes	
Reserves for product and service warranties	
Other current liabilities	
TOTAL CURRENT LIABILITIES	
Long-term debt, less current maturities above:	
3¾% notes:	
Due November 1, 1966, with annual prepayment requirements of $500,000	
Due July 1, 1972, with annual prepayment requirements of $500,000, commencing July 1, 1958	
Real estate mortgages:	
Parent, due March 1, 1956 (included in current liabilities on December 31, 1955)	
Subsidiaries, principally maturing after 1965	
Total liabilities	
SHAREHOLDERS' EQUITY	
Capital stock, $3.00 par value—authorized, 3,000,000 shares; issued and outstanding, 1,935,131 shares	
Capital surplus	
Retained earnings	
Total shareholders' equity	

LANCE SHEETS AS OF DECEMBER 31, 1955 AND 1954

December 31,	
1955	1954
$ 992,056	$ 1,000,040
13,992,508	9,687,561
10,616,111	10,545,551
1,312,734	1,365,625
11,765,416	14,315,791
$ 38,678,825	$36,914,568
5,500,000	6,000,000
3,500,000	
	446,804
565,803	570,965
$ 48,244,628	$43,932,337
$ 5,805,393	$ 5,805,393
9,018,506	9,018,506
41,362,691	35,774,848
$ 56,186,590	$50,598,747
$104,431,218	$94,531,084

NOTES TO FINANCIAL STATEMENTS

A—All of the company's subsidiaries are wholly owned and all are included in the consolidated financial statements. The accounts of Canadian subsidiaries are included in terms of United States funds, at appropriate rates of exchange; the amounts pertaining to Canadian companies are relatively inconsequential.

B—The company's business under United States Government contracts is subject to price renegotiation, in accordance with federal statute. The company's renegotiation status has been reviewed by the Government for years to and including 1952, and no refund was required. It is believed that no excessive profits were realized in subsequent years which would be required to be refunded under general price renegotiation.

C—In connection with the financing of sales of products to consumers in the ordinary course of business the companies are obligated to repurchase products under certain circumstances. It is believed that these obligations will have no material effect on the business of the companies.

D—The Retained Earnings account at December 31, 1955 is the balance after transfer therefrom in prior years of $2,945,385 to capital surplus and $5,034,625 to the capital stock account, in connection with stock dividends, share distributions and increase in the par value of capital stock. Capital surplus consists of $6,073,121 of paid-in capital and the above-mentioned transfer from the Retained Earnings account.

E—Election has been made to use a method for accelerated depreciation as permitted by the Internal Revenue Code of 1954. The effect of this change was to increase the depreciation charges in 1955 by approximately $280,000.

STATEMENT OF CONSOLIDATED INCOME AND RETAINED EARNINGS

	Year Ended December 31, 1955	1954
Sales	$226,653,953	$205,226,077
Other income	1,774,110	1,595,724
Total income	$228,428,063	$206,821,801
Manufacturing and other costs of sales	$179,293,927	$161,730,316
Selling, service and administrative expenses	24,133,615	23,187,253
Depreciation and amortization of leasehold improvements	1,840,911	1,405,941
Contribution to employees' profit-sharing fund	3,362,514	2,910,467
Interest and other expenses	1,056,670	1,063,935
Total costs and other expenses	$209,687,637	$190,297,912
Net income before provision for taxes on income	$ 18,740,426	$ 16,523,889
Provision for federal, state and Canadian income taxes	10,249,887	8,951,865
Earnings (per common share—1955, $4.39; 1954, $3.91)	$ 8,490,539	$ 7,572,024
Retained earnings, beginning of year	35,774,848	31,105,520
Total	$ 44,265,387	$ 38,677,544
Deduct cash dividends declared—$1.50 per share	2,902,696	2,902,696
Retained earnings, end of year	$ 41,362,691	$ 35,774,848

See the accompanying notes to financial statements.

AUDITORS' REPORT

BAUMANN, FINNEY & CO.
Certified Public Accountants
208 SOUTH LA SALLE STREET
CHICAGO 4, ILLINOIS

February 20, 1956

To the Board of Directors and
Stockholders of Motorola, Inc.

We have examined the consolidated balance sheet of Motorola, Inc. and its subsidiaries as of December 31, 1955, and the related statement of income and retained earnings for the year then ended.

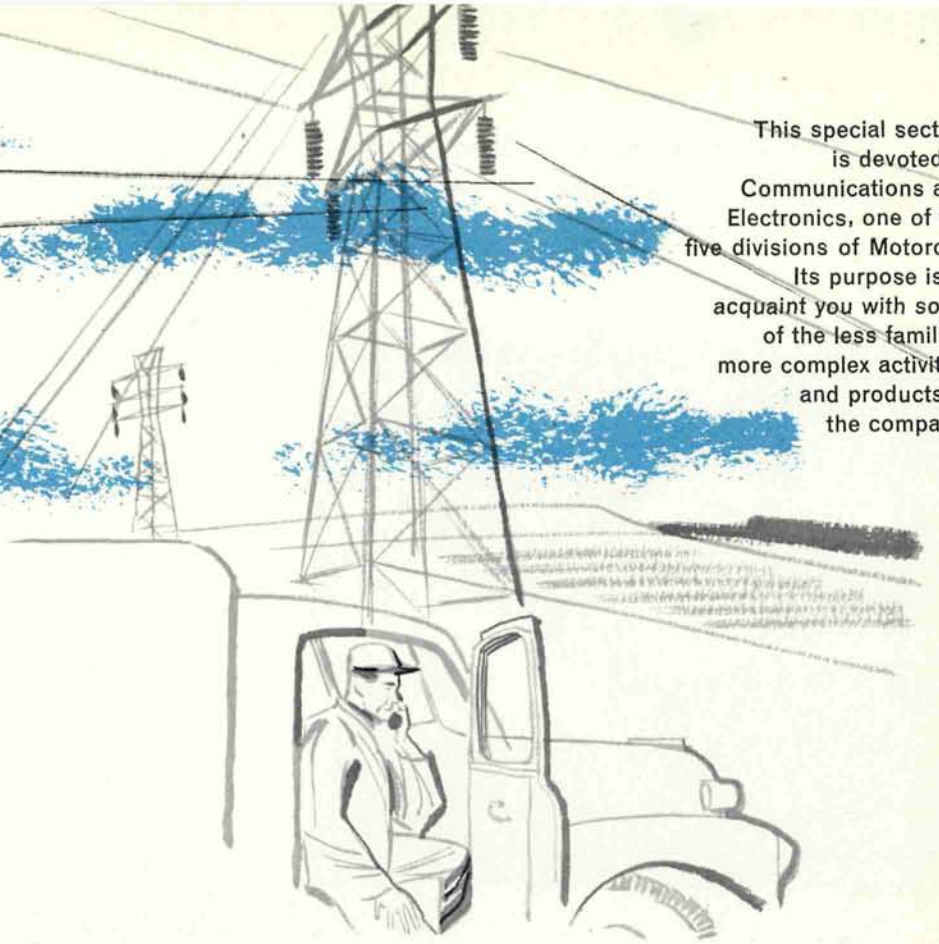
Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. It was not practicable to attempt to obtain confirmations of certain receivables from the United States Government, but we satisfied ourselves as to their substantial accuracy by means of other auditing procedures.

In our opinion, the accompanying balance sheet and related statement of income and retained earnings, as footnoted, present fairly the consolidated financial condition of Motorola, Inc. and its subsidiaries on December 31, 1955 and the consolidated 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.

Baumann, Finney & Co.

COMMUNICATIONS AND ELECTRONICS DIVISION

This special section is devoted to Communications and Electronics, one of the five divisions of Motorola. Its purpose is to acquaint you with some of the less familiar, more complex activities and products of the company.



The department that created a new industry.

From the very beginning, the history of Motorola's communications and electronics division has been one of achievement. Actually, this division has been instrumental in the creation and development of an important new industry.

Today its activities include construction, installation and maintenance of custom-engineered two-way radio systems, microwave relay systems, electronic signaling systems and remote control systems . . . everyday necessities for thousands of customers in scores of industries and government agencies, including the Armed Forces.

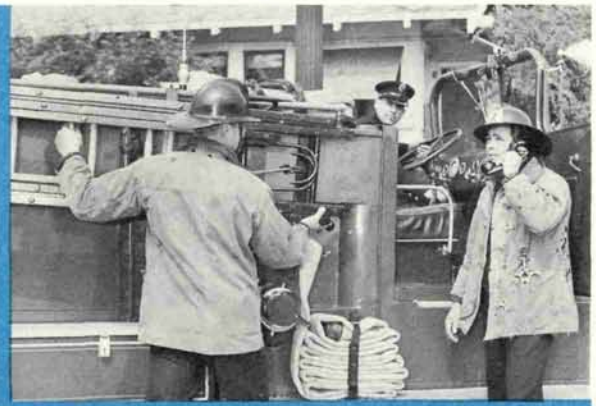
What is behind this remarkable achievement? It can be summed up in three words: *the creative spirit*. The communications and electronics division has always demonstrated vision and capacity to achieve. Its mission has been to explore new horizons in communications and electronics — and through creative engineering, production and marketing—to turn new ideas into practical tools for a growing range of industries.

This spirit has made the communications and electronics division a major factor in Motorola's growth. Today the division occupies 500,000 sq. ft. of space. It has 3,200 people, an unusually high proportion of them engineers. Nationwide sales and service are provided by a force of 225 sales engineers in 12 offices, and a network of 750 independent authorized Motorola Service Stations.

PERSON TO PERSON

Police and fire departments depend on it. So do doctors and truckers. Pipelines, public utilities and construction companies. Taxi fleets, railroads and ranchers. Two-way radio has become an everyday necessity in scores of fields. It's big business, with over 500,000 licensed transmitters already in existence. And growing rapidly.

Thanks to the pioneering of the communications and electronics division, Motorola has consistently led the industry in the production of two-way radio equipment. This includes base station equipment, mobile units for use in all types of conveyances, and self-contained portable units that go wherever a man can go.

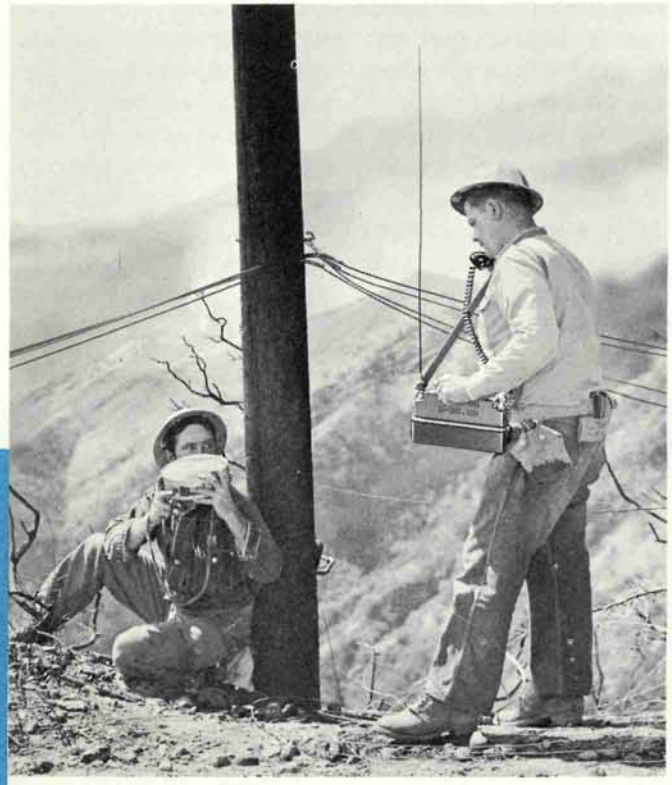


Fire fighters "on the air." The Detroit fire department reports it saves 10,000 miles a year in fire truck travel by using Motorola two-way radios. Fire departments throughout this country and abroad have found that Motorola two-way radio permits faster response to calls and more efficient use of equipment.

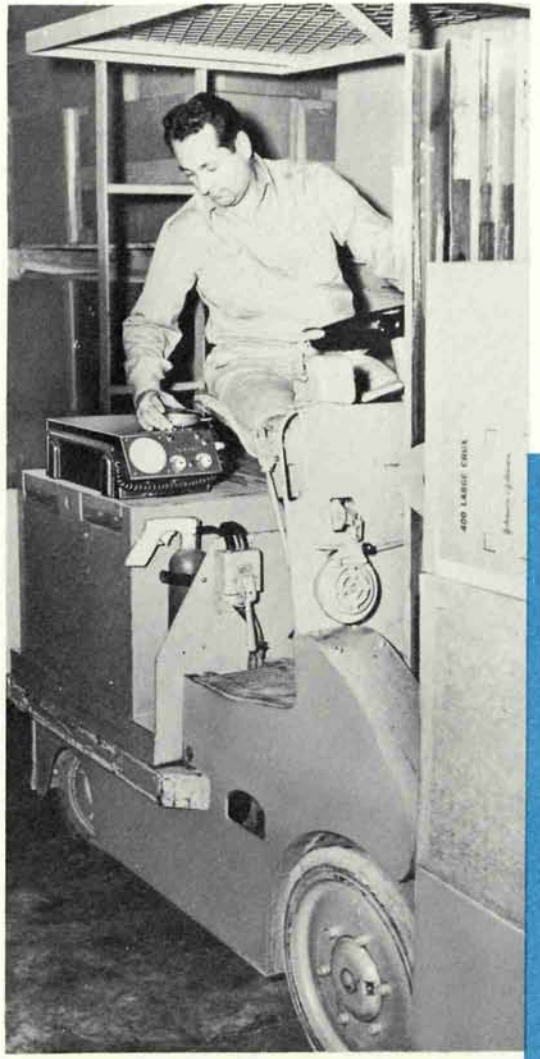
4 trucks do work of 5. The Butane Service Company of Fairfield, Texas, reports that Motorola two-way radio made possible a 25% increase in each truck's deliveries. In effect it enables 4 trucks to do the work of 5.

225 messages an hour. That's the average load on the Motorola two-way radio system at Timken Roller Bearing Company, Canton, Ohio. Four diesel locomotives, three railroad cranes and all trucks and cars were radio-equipped. The system paid for itself in dollar savings in just 2½ months.

. . . ON THE GO!



Forest rangers always "in touch." During a recent holocaust in the Santa Ynez Mountains of southern California, Motorola two-way radios kept rangers and fire fighters in constant touch with headquarters and each other, thus making it possible to coordinate their efforts more efficiently.



Radio speeds materials handling. Radio-dispatched fork lift trucks simplify and speed order filling at Johnson and Johnson, Inc., warehouses in Metuchen, New Jersey. This company has also found it profitable to install Motorola two-way radio in its Chicago warehouses.

Handie-Talkie radio-phone in the sky. In the construction of Chicago's huge new Prudential Building, the Geo. A. Fuller Company found Motorola two-way radio the only practical way to maintain communications between workers high in the structure and those on the ground. One important benefit was a remarkable safety record.

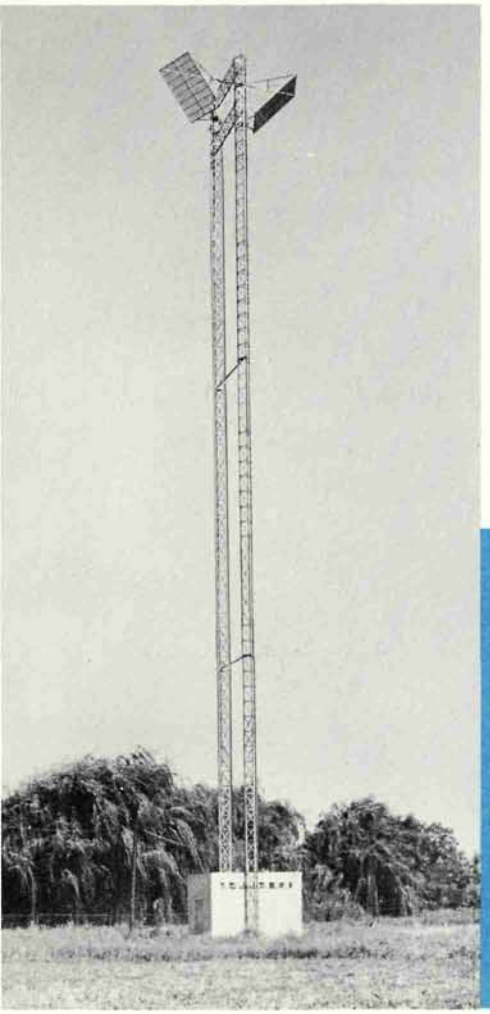
SEVEN-LEAGUE BOOTS FOR INDUSTRIAL COMMUNICATION

The story of Motorola Microwave

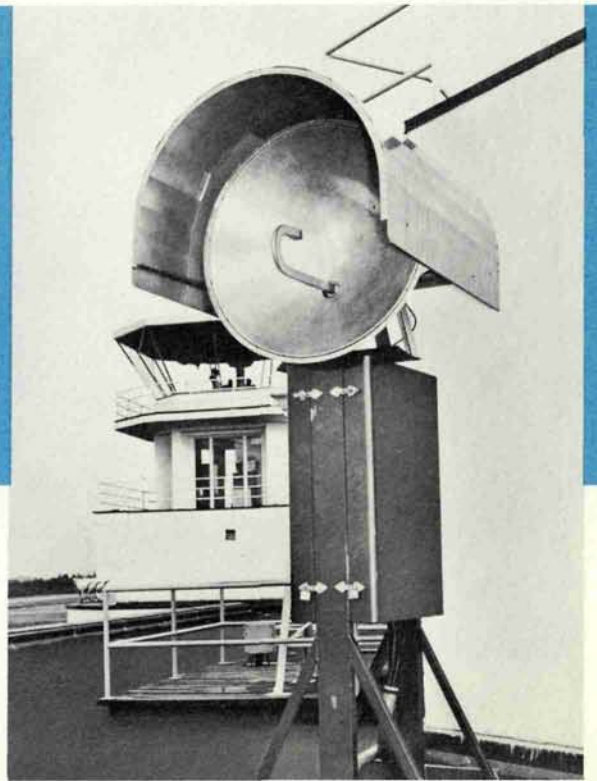
Microwave systems transmit information by means of super-high radio frequency signals. These signals can be focused into a very narrow beam directed at an antenna many miles away. A single beam can carry up to 24 voice messages or 500 code signals *simultaneously*.

Microwave provides industry with private, multi-channel communications without the expense, hazards and maintenance problems of conventional wire lines. Its applications are numerous. For example, pipelines and power utilities use microwave for cross-country voice communication, teletype, telemetering and remote control. Microwave extends the range of mobile radio by relaying signals from "out of range" transmitters to the base station. TV broadcasters use it to relay remote programs from place of origin to the studio or transmitter.

Motorola's communications and electronics division has been a leader in microwave from the start, having provided more "in and operating" systems than any other manufacturer.



Pipeline "on the beam." Unattended operation of pumps and compressors along a 1000 mile pipeline of the Texas-Illinois Natural Gas Transmission Company is made possible by radio signals beamed over a Motorola microwave relay system.



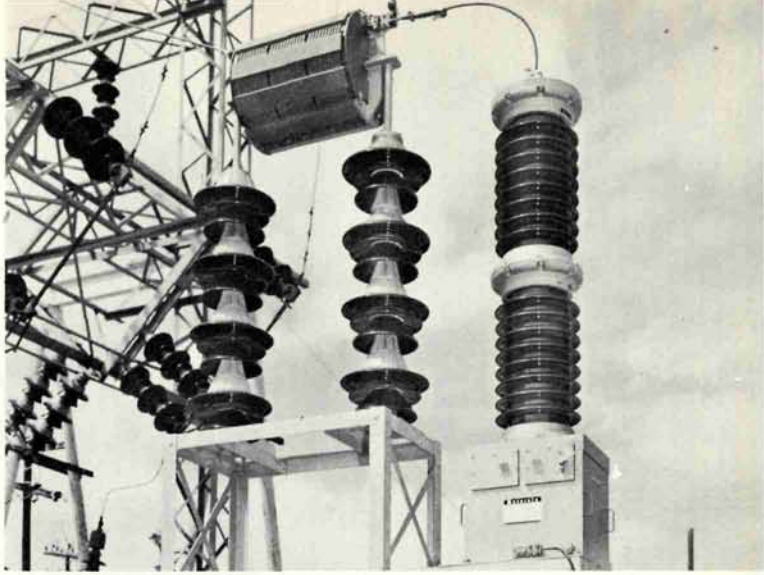
Two-way radio "levels mountains." In the shadow of Mt. Rainer, Aeronautical Radio, Inc. uses Motorola microwave at the Seattle-Tacoma International Airport to beam messages to remote mountain-top aviation radio transmitters.

Getting color TV to you. Next time you see a sporting event, the national conventions or some other "remote" program in full color, the picture will probably be beamed to the transmitting station by Motorola microwave relay.

MAGIC ON THE HIGH-TENSION WIRES

Motorola Power Line Carrier and Supervisory Control

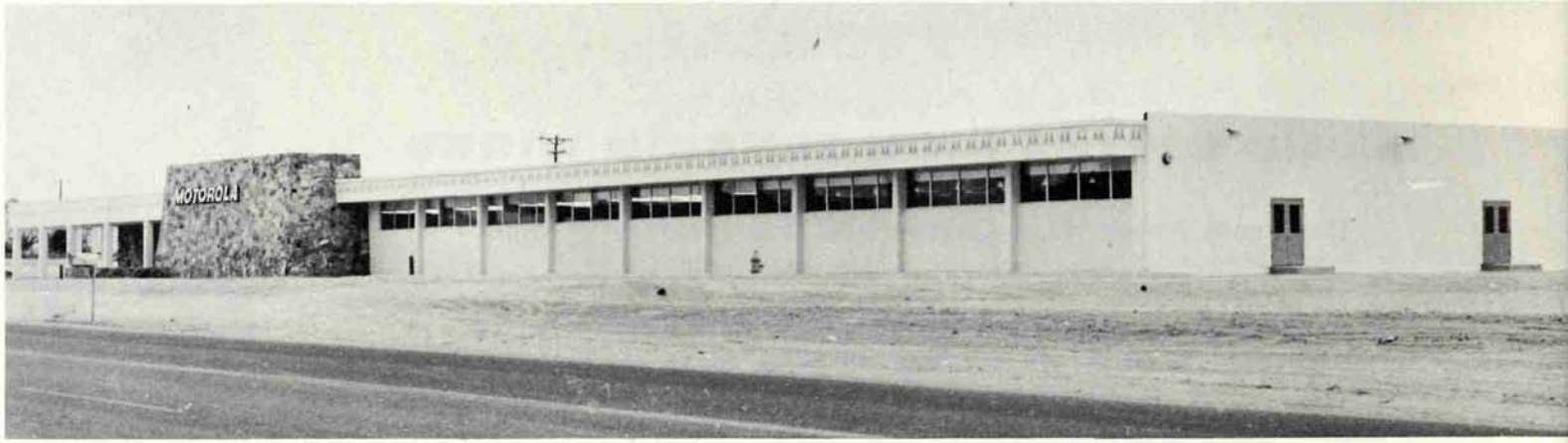
The power lines you see strung everywhere can carry more than current. Through Motorola power line carrier and supervisory control systems, they also carry thousands of messages every day! Voice messages. Telegraph and teletype messages. Code messages that make it possible to control a wide variety of generating and distribution operations throughout an entire power company system from *one central point*.



Hot wires hum with messages. Motorola power line carrier and supervisory control systems turn transmission lines into a dependable, economical communications network for City Public Service Board, San Antonio, Texas.

Throwing the switch—100 miles away. A dispatcher touches a button in the Grand Forks, North Dakota office of the Minnkota Power Cooperative, Inc. And a hundred miles away a switch opens and connects another generator to the line. This is only one of many operations that power companies handle by remote control using Motorola power line carrier and supervisory control systems.

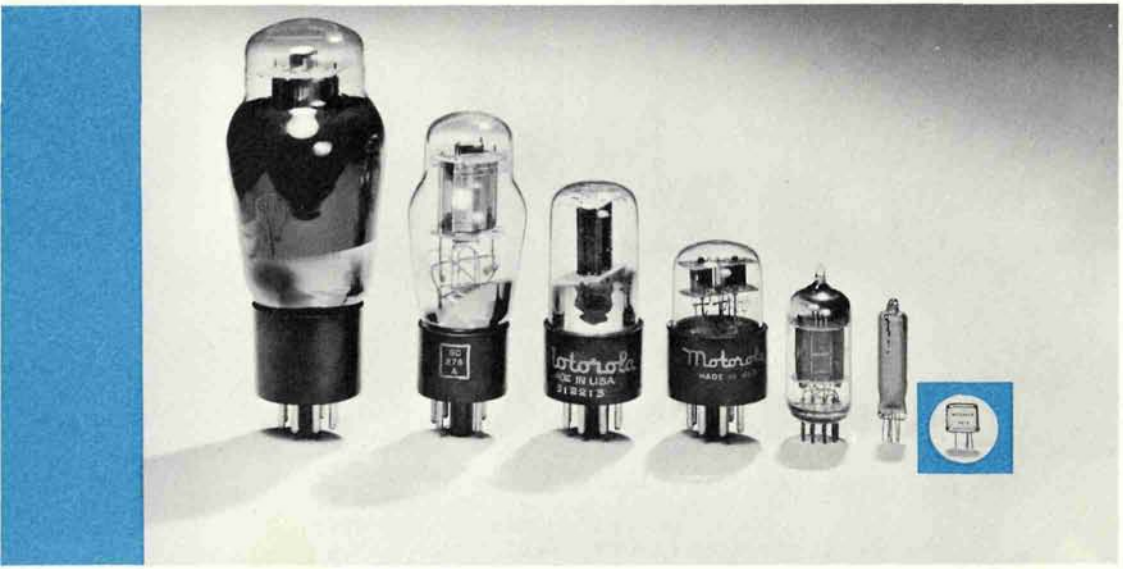
Cross-country meter reader. From one central office, Motorola power line carrier and supervisory control make it possible to meter the flow of gas, electricity, oil or water through lines hundreds of miles away.



Tooling up for production. This new plant in Phoenix, Arizona is now being readied to mass produce the power and radio-frequency transistors developed by Motorola.

Communications and Electronics Division achievement at work

TRANSISTORS



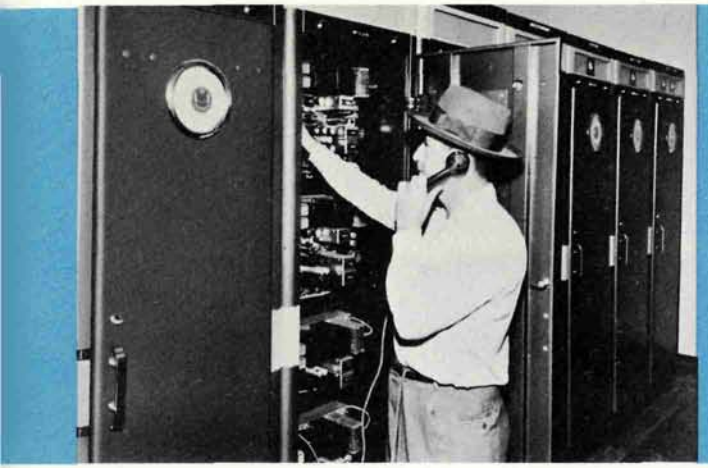
David replaces Goliath. Incredible though it seems, this tiny transistor can perform the functions of a vacuum tube many times its size. Note that through all its evolution, a practical mass-produced vacuum tube has never attained the small size of the transistor.

One of the most significant developments in the history of electronics is the transistor.

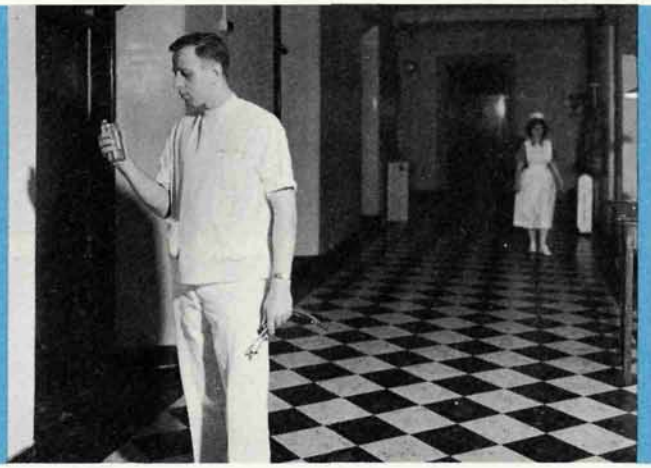
Hardly more than a speck of silicon or germanium with wires attached, a transistor can do the job of a vacuum tube many times its size.

But more remarkable than its tiny size are the reliability and long life of a transistor. Indications are transistors will last years longer than the vacuum tubes they replace. In addition, transistors use far less power.

The advantages of transistors for a multitude of products



Transistorized power line carrier. Use of transistors in both transmitter and receiver provides greater reliability in Motorola's frequency-shift power line carrier. Even when battery operated during an emergency, this transistorized equipment furnishes dependable, high-speed communication and control facilities for power companies.



"Silent paging" for hospitals. This new Motorola selective radio pager enables the hospital to page any doctor wanted without disturbing others. Designed with transistors, it fits easily in a shirt pocket.

New transistor powered car radios. In some new Motorola car radios, this tiny transistor replaces all of the 20 parts shown next to it. In addition, transistors provide greater reliability and reduce battery drain.

COME OF AGE

are obvious. Why, then, have they not found universal use? The answer is simple. Up to now it has not been possible to mass produce, economically, a radio-frequency transistor of satisfactory characteristics.

Now, however, Motorola can report that it not only has developed several new types, including a power transistor, but has perfected a technique for mass producing a radio-frequency transistor as well.

This, together with the development of transistorized circuitry, firmly establishes Motorola's pioneering position in this new field of semi-conductors.

New Transistor Pocket Radio. Use of 5 transistors assures up to 100 hours of battery life...and gives this radio up to 3 times more power than other pocket portables. It's the worlds only pocket portable with a rotating antenna handle.

New Handie-Talkie radio-phone. All the features of a two-way radio station in a small, self-contained unit that can be carried anywhere. Transistors helped make it possible.

WHAT WILL THEY THINK OF NEXT?

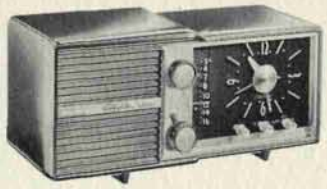
"The word 'revolution' may not be too strong to apply to the change which will take place in electronic equipment of all kinds within the next five years. The development of the transistor and other semi-conductor devices will reduce the size of equipment, improve the reliability of operation, and substantially reduce the operational power requirements. Not only will transistors replace vacuum tubes in many electronic equipments, but they will make possible the development of new devices for instrumentation, metering, controlling, detection, communications, and computing. The electronic art is on the move, and the changes in the old devices and the introduction of the new will demonstrate the dynamics of a young industry that is just getting started. Only the companies alert to the impact of solid state physics research in the semi-conductor field can hope to keep abreast of the changes. Motorola is well prepared, and we shall contribute our full share of the pioneering and gain the expected rewards of pioneering in this next stage in the flowering of the electronics industry."

Dan Noble

Vice President in Charge of
Communications and Electronics Division

PHONOGRAPHS

TABLE RADIOS



CLOCK RADIOS

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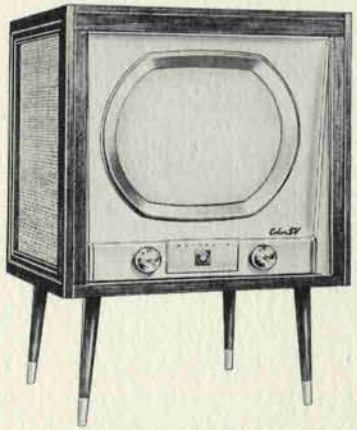
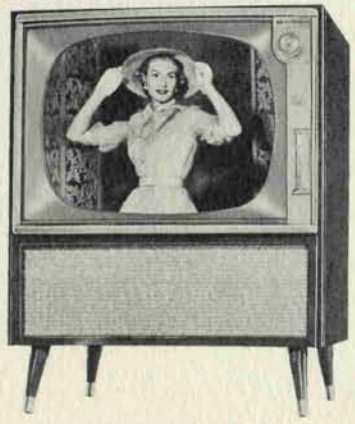


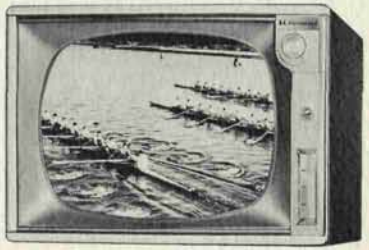
COLOR TELEVISION

quality is engineered
into every *MOTOROLA* product

CAR RADIOS

PORTABLE RADIOS





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