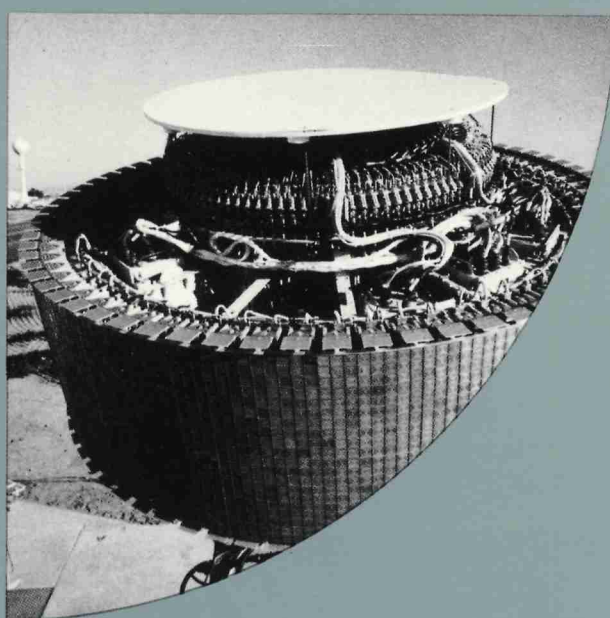
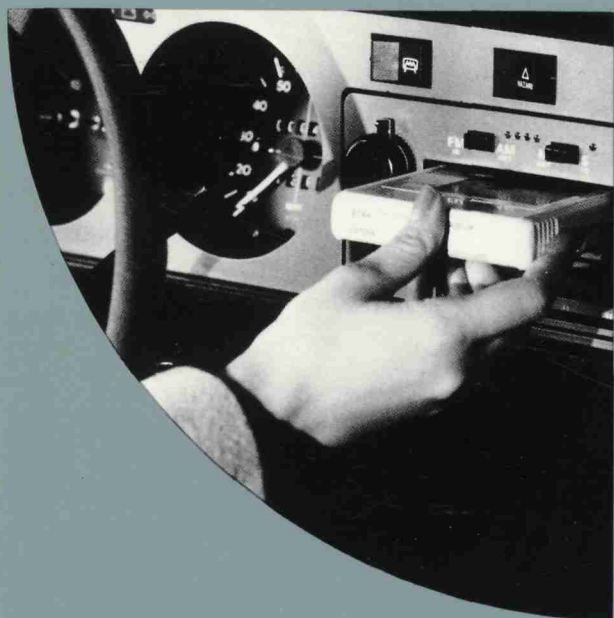
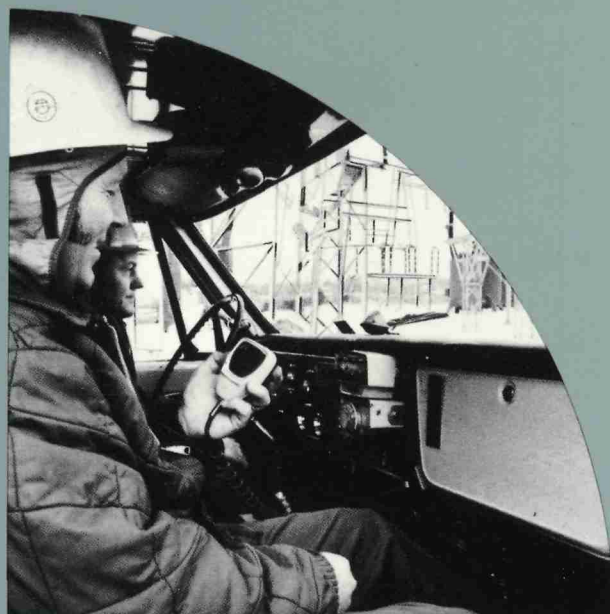
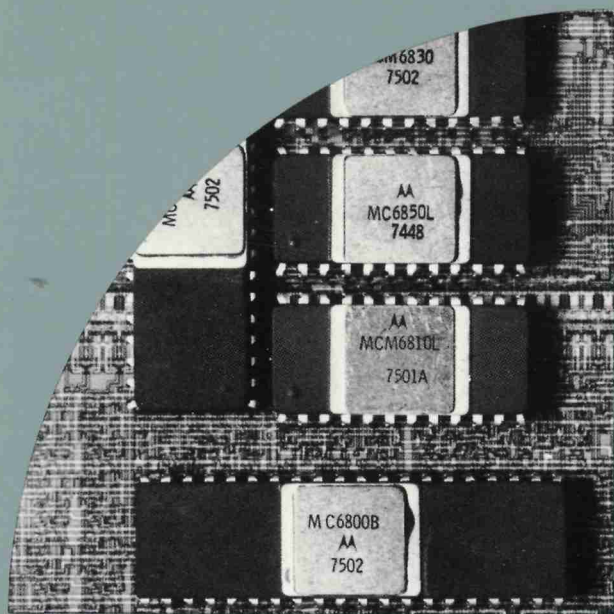
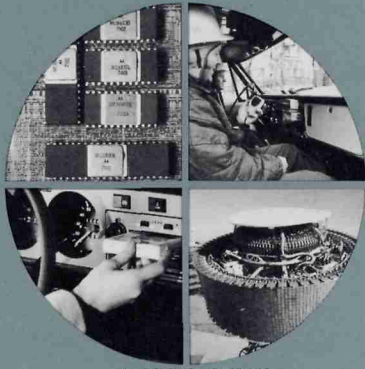


# Motorola Annual Report 1974



"the mind to imagine...the skill to do"



"the mind to imagine... the skill to do"

### THE MIND TO IMAGINE . . . THE SKILL TO DO

Through the imagination of Motorola people worldwide, and their ability to apply skill in bringing their ideas to fruition, Motorola is able to build products to improve the quality of life around the world. For this reason, Motorola has adopted "The mind to imagine... the skill to do" as its corporate theme.

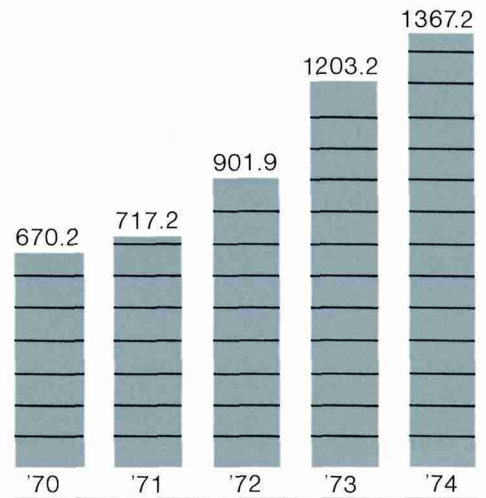
This harmonization of imagination and skill has made possible the many faceted technological advances that Motorola people have given their best to create. A sampling of these products appears on the cover of this report.

Clockwise (starting upper left): (1) The 1/5-inch square microprocessor chip built by the Semiconductor Products Division has almost as much computing power as the central processor of a large computer. (2) Typical of the many markets served by the Communications Division, utility customers use Motorola mobile two-way radio to effectively control business costs. (3) This steerable beam antenna was designed by the Government Electronics Division for installation on a command aircraft to simultaneously control drones. (4) Entertainment centers are produced by the Automotive Products Division for Volkswagen's new Rabbit.

## Contents

Letter to Stockholders	1
Financial Highlights	4
Directors and Officers	5
Communications Division	6
Semiconductor Products Division	9
Automotive Products Division	12
Government Electronics Division	14
New Ventures & Other Businesses	16
Financial Statements	17
Ten-Year Financial Summary	26
Major Facilities and Product Lines	28

**NET SALES** (in millions of dollars)



## To Our Stockholders and Friends:



**1974 RESULTS.** Through the first nine months of 1974, Motorola had achieved 14 consecutive quarters of both sales and earnings increases over year earlier periods. Fourth quarter results, principally impacted by the general recession in the U.S. and worldwide economies and almost incredibly sharp reductions in demand from our semiconductor and automotive customers, caused full-year earnings of \$72,912,375 from continuing operations to lag 1973's \$85,473,462 by 14.7 per cent.

Sales and other revenues from continuing operations for the year were \$1,367,170,948, up 13.6 per cent from \$1,203,216,629. Fourth quarter sales of \$325,210,202 were down one per cent from 1973's \$329,455,611, while earnings of \$4,199,395 declined 81 per cent from \$22,089,482 a year earlier. These results, and our inability to have foreseen the abrupt changes in semiconductor and automotive demand, are severely disappointing to us. We are pleased to note, however, that the record performance of the Communications and Government Electronics Divisions continued through 1974, and the plans, backlogs and new order rates of these divisions posture them to achieve further gains in 1975.

In the fourth quarter, the Semiconductor Products and Automotive Products Divisions each incurred operating losses aggravated by inventory revaluation charges, losses in our Italian and Japanese joint venture companies, costs of moth-balling facility construction in progress, closing the semiconductor division's Puerto Rican operation, layoff costs and other similar items.

The rate at which the general economic activity declined late in 1974, principally in November and December, is unprecedented in recent history, U.S. and worldwide. This phenomenon was felt most severely in the automotive and consumer durables industries. Suddenly, almost overnight in some cases, inventories at every stage in the pipeline between component parts manufacturing and the purchase of end products by the consumer became excessive. Previously firm, and even recently expedited, customer orders were abruptly and repeatedly rescheduled as the needed inventory-trimming reactions reverberated through the pipelines. As the semiconductor and automotive divisions' sales outlooks for the balance of 1974 and the early quarters of 1975 were repeatedly lowered, several successive and large personnel reductions were unfortunately required.

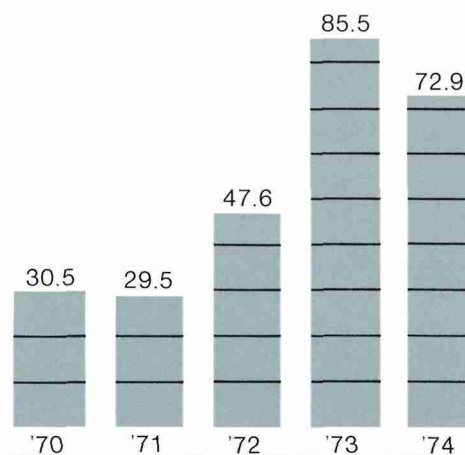
**ENTERING 1975.** Employment and expense budgets in all divisions and departments have been subjected to unusually intensive challenge. Task forces are at work in each division and across the corporation, directed toward the elimination of all unnecessary costs. In all of our divisions, however, careful attention is being given to maintaining, or increasing where appropriate, engineering and other strategic expenses associated with important products and markets of the future. Similarly vigorous company-wide programs are underway for inventory reduction, with significant results already being achieved.

**PEOPLE.** During the past four months, economic and market conditions have necessitated the furloughing of approximately 12,000 Motorola people, worldwide. Additionally, about 4,000 are currently working less than full schedules. These staff reductions were not easy actions to take, and careful effort was taken to ensure that the separations were determined with a high degree of fairness. Eliminating the job or reducing the paycheck of even one Motorola is difficult, and we earnestly look forward to the day on which we can begin calling these people back to work and, even more so, to the day when all of them will have been offered re-employment on a full-time basis.

**FIFO vs. LIFO.** During 1974, we carefully studied changing to a Last-In, First-Out (LIFO) method of valuing inventories. We decided to remain with our present First-In, First-Out (FIFO) method.

In our study, we first limited the scope of a possible change to U.S. inventories because the tax benefits of LIFO accounting are generally not available outside the United States. We then de-

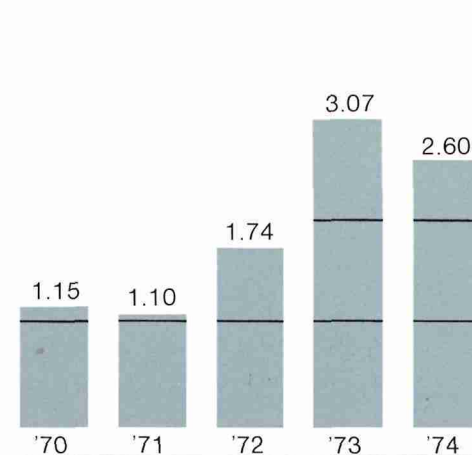
**NET EARNINGS** (in millions of dollars)



ecided to stay with FIFO for semiconductor and government electronics inventories because of the consistently declining costs and unit values of semiconductor inventories, and because of particular government contract accounting requirements. We then reviewed the trend of unit values of the U.S. inventories in the other equipment-producing divisions and found that, with the exception of the double digit inflationary environment in 1974, our inventory values have generally followed a level or deflationary trend even in earlier periods of only slightly less general inflation. Rather than cause a major change in our accounting for short-term and probably non-recurring reasons, we decided to stay with FIFO for 1974. Had we changed to LIFO for the year, the estimated impact would have been a reduction of approximately 11 cents per share on reported 1974 earnings, spread about equally over the first three quarters. Inventory values in the fourth quarter remained stable or, in some cases, declined as a result of lower commodity prices and increased competitive pressure among our suppliers.

**DISPOSITION OF TELEVISION RECEIVER BUSINESS.** On May 28, 1974, the sale of certain assets of Motorola's home television receiver business to a subsidiary of Matsushita Electric Industrial Co., Ltd. of Japan was concluded. The net cash proceeds received from Matsushita, plus the net proceeds of other assets and liabilities retained and liquidated by Motorola, reached

**EARNINGS PER SHARE** (in dollars)



\$100 million at yearend. The final sales price of the assets sold to Matsushita is dependent in part on completion of certain audit and possible arbitration procedures. We do not expect any significant reduction in the sales price to result.

The agreement with Matsushita also provides for their purchase of Motorola's Quincy, Illinois facility in May 1976.

**FINANCIAL.** The financial position of the company remains strong, essentially the same as a year ago. At yearend, the current ratio was \$2.31 of current assets to every dollar of current liabilities, and total short and long term borrowings were 29 per cent of borrowings plus stockholders' equity. We are disappointed that the substantial cash proceeds from the disposition of the home television receiver business did not improve these ratios. The excessive automotive and semiconductor inventories which resulted from the abrupt sales declines discussed above, slightly slower collection of accounts receivable and fixed asset expenditures of \$131 million vs. \$84 million in 1973 represent major 1974 uses of cash. Inventories, as mentioned previously, and accounts receivable are now being given major corporate and divisional attention toward improved turnover ratios.

1974 spending for engineering, research and development was \$112 million, up from \$89 million in 1973.

While budgets for fixed asset expenditures and R & D spending for 1975 have not yet been finalized, we are, as

previously stated, giving careful attention to projects and programs important for the future.

#### MANAGEMENT AND ORGANIZATION.

On Feb. 28, 1975, John F. Mitchell, senior vice president and general manager of the Communications Division, was named executive vice president and assistant chief operating officer of the corporation. John has become a full member of the chairman/president's office, and has the same basic authority and responsibilities to make overall company decisions as do the other two members of the office.

The position of executive vice president was first established in 1969, but has remained vacant, as planned, since 1970. The company's growth in size and complexity over the past several years, as well as the challenging current economic and business environment, requires that the chief office of the company again be increased to three persons.

On the same date, it was also announced that Joseph F. (Ted) Miller, a 23-year Motorolan, was named vice president and general manager of the Communications Division.

The dynamic development and organization of other key executives also continued through 1974. Six vice presidents were named senior vice presidents, and several new officerships were established. The organization and assignment of all officers appears on page five of this report.

**PROPOSED ACQUISITION.** In October 1974, Motorola and the Phillip A. Hunt

Chemical Corporation announced an agreement in principle for Motorola to acquire Hunt Chemical subject to negotiation of a definitive agreement and approval by the boards of both companies and the stockholders of Hunt. In January 1975, Hunt and Motorola management jointly announced the decision of the two companies not to proceed with their proposed merger. After careful review, the two companies concluded that the merger should not be undertaken in the current economic environment.

**DIVISION COMMENTARIES.** Other sections of this report summarize the activities of our various divisions during the year. Each of these divisional reports begins with a brief statement describing the major products of and markets served by the division.

**OUTLOOK.** The near-term prospects for the U.S. and international economies are uncertain. We do believe that our semiconductor and automotive results in the fourth quarter were substantially impacted by customers' inventory reduction actions. This phenomenon, our delivering at lower rates than the associated end products are being purchased, will probably continue at least through the first quarter of 1975. Therefore, and despite continuing fine performance by our Communications and Government Electronics Divisions, we do not see significant opportunity for earnings gains in the early quarters of 1975. The balance of the year is obviously greatly dependent on external economic factors. We are budgeting

conservatively and with alternate plans for reacting to either further declines in demand, which we do not expect, or resumption in economic growth, which we do expect—but with uncertainty as to timing.

For the longer term we are more certain and positive. Motorola's strong product, market and technological bases, along with our financial strength and the skill of our people, provide excellent opportunity for resumption of our fine record of sales and earnings growth.

1974 was a difficult year, but we believe that the actions taken and experiences gained have made major contributions to the strengthening of our organization and our people for whose continued dedication we are sincerely grateful.

For the Board of Directors,



ROBERT W. GALVIN  
Chairman of the Board



WILLIAM J. WEISZ  
President

March 13, 1975

# Financial Highlights

	1974	1973
Sales and Other Revenues .....	\$ 1,367,171	\$ 1,203,217
Earnings from Continuing Operations before United States (Federal and State) and Other Nations' Income Taxes .....	133,598	157,969
% to Sales .....	9.8%	13.1%
United States (Federal and State) and Other Nations' Income Taxes .....	60,686	72,496
Net Earnings from Continuing Operations .....	72,912	85,473
% to Sales .....	5.3%	7.1%
Per Share of Common Stock .....	2.60	3.07
Weighted Average of Common Shares Outstanding .....	28,085,349	27,823,252
Capital Expenditures* .....	131,201	84,510
Depreciation .....	43,456	33,340
Working Capital* .....	412,335	427,715
Current Ratio* .....	2.31	2.43
Stockholders' Equity* .....	585,711	523,481
Book Value Per Common Share* .....	20.78	18.72
Yearend Employment (approx.)* .....	51,000	64,000

(Dollar amounts in thousands, except per share data)

\*1973 data has not been restated to exclude discontinued operations.

COMPARATIVE STOCK DATA: The table below sets forth the high and low sales price per share for Motorola Common Stock on the New York Stock Exchange and the dividends declared and paid for the periods indicated:

1973	Stock Prices		Dividends	
	High	Low	Declared	Paid
1st Quarter	\$69.00*	\$51.25*	\$.075*	\$.075*
2nd Quarter	55.44*	45.25*	.125	.075*
3rd Quarter	65.00	41.25	.125	.125
4th Quarter	68.75	43.88	.125	.125
1974				
1st Quarter	61.88	40.50	.125	.125
2nd Quarter	60.38	51.00	.125	.125
3rd Quarter	54.25	35.12	.175	.125
4th Quarter	51.00	31.62	.175	.175

\*Adjusted for May 1973 share-for-share distribution.

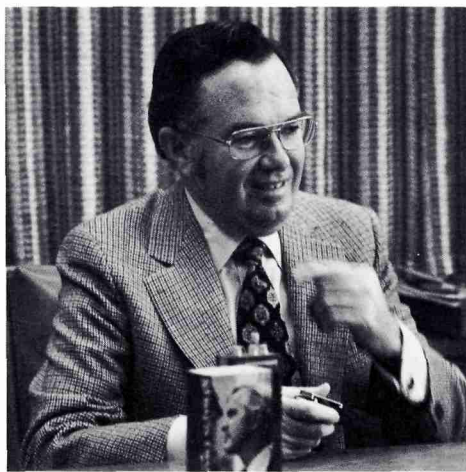
At the close of each fiscal year, Motorola submits a report on Form 10-K to the Securities and Exchange Commission containing certain additional information concerning its business. A copy of this report may be obtained by addressing your request to the secretary, 5725 N. East River Road, Chicago, Illinois 60631.

# Directors

ROBERT W. GALVIN
WILLIAM J. WEISZ
THOMAS J. CONNORS
JOHN T. HICKEY
J. PAUL JONES
OSCAR P. KUSISTO
STEPHEN L. LEVY
HOMER L. MARRS
JOHN F. MITCHELL
ARTHUR C. NIELSEN, JR. President, A. C. Nielsen Company
ARTHUR L. REESE Retired, formerly Executive Vice President, Motorola Inc.
ELMER H. SCHULZ Director, I.I.T. Research Institute
WALTER B. SCOTT
EDWIN P. VANDERWICKEN Chairman, Finance and Audit Committees, Motorola Inc.
ELMER H. WAVERING Retired, formerly Vice Chairman and Chief Operating Officer, Motorola Inc.
KENNETH V. ZWIENER Retired, formerly Chairman and Chief Executive Officer, Harris Trust and Savings Bank
Director Emeritus: DANIEL E. NOBLE Chairman, Science Advisory Board, Motorola, Inc.

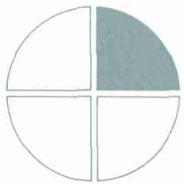
# Officers

		Years of Age Service	
<b>CORPORATE</b>			
Robert W. Galvin	Chairman of the Board and Chief Executive Officer	52	34
William J. Weisz	President and Chief Operating Officer	48	27
John F. Mitchell	Executive Vice President and Assistant Chief Operating Officer	47	22
<b>FINANCE</b>			
John T. Hickey	Senior Vice President and Chief Financial Officer	49	27
Donald R. Jones	Vice President and Assistant Chief Financial Officer	45	24
Edward J. Harty	Vice President and Controller	59	23
Vincent J. Rauner	Vice President for Patents, Trademarks and Licensing	47	5
Lewis D. Spencer	Vice President, General Counsel and Secretary	58	24
William P. Meehan	Treasurer	39	5
<b>STAFF</b>			
Carl E. Lindholm	Senior Vice President and Director of Corporate Staff	46	8
L. Curtis Foster	Vice President and Corporate Director of Engineering	49	1
Earl R. Gomersall	Vice President and Corporate Director of Information Systems	43	3
R. James Harring	Vice President and Corporate Director of Planning	50	23
C. Travis Marshall	Vice President and Corporate Director of Government Relations	49	4
Walter B. Scott	Vice President and Corporate Director of Manufacturing and Facilities	59	29
<b>NEW VENTURES</b>			
Stephen L. Levy	Senior Vice President, New Ventures	53	11
<b>HUMAN RELATIONS</b>			
Benjamin W. Borne	Vice President and Corporate Director of Human Relations	50	3
Robert N. Swift	Vice President and Assistant Corporate Director of Human Relations	51	23
<b>MULTINATIONAL</b>			
Levy Katzir	Vice President and Corporate Director of Multinational Operations	42	19
<b>GROUP EXECUTIVES' OFFICE, Automotive Products and Government Electronics Divisions</b>			
Homer L. Marrs	Senior Vice President and Group Executive	58	37
J. Paul Jones	Vice President and Assistant Group Executive	51	23
<b>AUTOMOTIVE PRODUCTS DIVISION</b>			
Oscar P. Kusisto	Vice President and General Manager	61	26
Robert J. Solem	Vice President and Deputy General Manager	45	18
James A. Torrence	Vice President and Assistant General Manager	44	22
Fred P. Hill	Vice President and Division Director of Entertainment Products and International Operations	54	36
<b>GOVERNMENT ELECTRONICS DIVISION</b>			
Ralph W. Elsner	Vice President and General Manager	54	26
James R. Lincicome	Vice President and Assistant General Manager	49	24
<b>COMMUNICATIONS DIVISION</b>			
Joseph F. Miller	Vice President and General Manager	50	23
Jack Germain	Vice President and Assistant General Manager	48	25
Martin Cooper	Vice President and Division Director of Systems Operations	46	21
Rhesa S. Farmer, Jr.	Vice President and Division Director of International Operations	48	17
Arthur P. Sundry	Vice President and Division Director of Domestic Distribution	46	18
<b>SEMICONDUCTOR PRODUCTS DIVISION</b>			
Thomas J. Connors	Senior Vice President and General Manager	45	11
John R. Welty	Vice President and Assistant General Manager	52	17
Patrick D. Lynch	Vice President and U.S.A. General Manager	41	15
Richard P. Abraham	Vice President and U.S.A. Assistant General Manager	45	7
Roderick J. O'Connor	Vice President and Division Director of Marketing — U.S.A.	42	14
Christian J. Goodman	Vice President and Division Director of Business Resources	54	13
Ernest H. Shrenzel	Vice President and Division Director of International Operations	44	8



“Achieving an average annual growth rate of 15 per cent over the past 10 years is an enviable record for our division, and maintaining that growth rate in the face of poor economic conditions is the challenge we face in 1975. We believe that our breadth of product line, management of technology, sound financial controls and an in-depth understanding of our markets will enable us to meet this challenge.”

**JOHN F. MITCHELL**  
Executive Vice President and Assistant Chief Operating Officer, Motorola Inc., formerly Senior Vice President and General Manager, Communications Division



## Communications Division

**PRODUCTS AND MARKETS.** The manufacture and distribution of two-way mobile and portable radio communications systems, paging receivers, microwave instrumentation, component products, and complete command, control and monitoring systems, form the division's product base.

The scope of the division's activity is worldwide, as are the many markets it serves. The division's industrial, governmental, transportation and telephone customers, with their many sub-markets, provide a broad base which has traditionally served the division well in times of economic instability. This has resulted in a steady growth pattern for the division.

**SALES AND EARNINGS SUMMARY.** Both sales and earnings were up approximately 25 per cent over 1973, establishing new records. One of the primary reasons for this continued record growth, in spite of poor economic conditions during the latter part of the year, is the strength and diversity of the division's businesses and its markets.

This strength was exemplified by the fourth quarter order input which exceeded that of the year earlier period by 15 per cent despite a generally weak economy. These results reflected some moderation in the very strong growth rate of approximately 30 per cent through the



In addition to the extensive land mobile and portable communications system designed and installed for the State of Pennsylvania, Motorola incorporated a communications network into the state police's helicopter crime prevention and safety service during the year.

first nine months of the year. Total 1974 order input increased by more than 25 per cent from 1973. Yearend backlog was up more than 20 per cent over last year, and bookings since yearend have resumed a seasonally strong upbeat pattern.

**GROWTH.** One key to the division's growth is its success in effectively recruiting and training high quality engi-

neers to develop an ever-widening product line which serves the growing communications needs of a mobile society, and in providing able distribution personnel in adequate numbers to reach its many marketplaces. Radio frequency spectrum is another vital resource necessary for future growth, and the division's engineering efforts of the past decade have aided in a breakthrough to the 900 MHz band which should allow continued industry growth for another generation.





Heart attack victims can be treated by paramedics on the scene with the help of COR (Coronary Observation Radio) duplex equipment, which transmits a patient's electrocardiogram to a hospital monitor for interpretation by a cardiologist who then can respond with medical instructions.



With the division's introduction of its first two PAGE ONE paging stores, users can now enter one of the stores for an immediate demonstration of how the system operates.



Better management coordination can be achieved with Motorola microwave systems which provide a fixed-path communications network for the petroleum industry. The system carries radio, closed-circuit television, data and several other forms of communication.

Recognizing that there is opportunity for continued growth, the division has adopted several strategies to make the most of this opportunity. First, its multi-tiered product line concept is continuing to develop, resulting in four price levels of mobile and two of portable and paging equipment. Second, the decision to invest more heavily in the world marketplace continued to produce significant results in 1974.

The division's multi-tiered product lines have enabled its mobile products in particular to become an inflation and cost fighting tool for business, worldwide.

Typical vehicle operating costs rose dramatically during 1974, making mobile radio products, which make vehicles more productive, an even better business investment. With broad product lines, the division was able to penetrate deeply into the many markets affected by rising fuel costs.

**THE U.S. MARKET.** While broadening its price ranges, the division also improved product features to meet specific requirements of its markets. A significant product advancement of this type in 1974 was the new COR (Coronary Observation Radio) duplex equipment, which transmits a patient's electrocardiogram to a hospital monitor for interpretation by a cardiologist who then can respond with

medical instructions to paramedics on the scene. New mobile equipment included a motorcycle radio and a new 8-frequency MICOR radio. Emphasizing the breadth of the product line, closed-circuit television cameras designed for high temperature environments and new mobile telephone and paging control terminals were also introduced.

The command and control communications system concept developed in previous years has been augmented by a vehicular data terminal which provides direct computer access from a vehicle. In addition, a more advanced computer-aided dispatch system has been designed. The first large system of this type was installed during the fourth quarter in San Diego, California for a public safety agency.

The Pennsylvania State Police Radio Communications System, one of the most complete, sophisticated police communications systems in the world, became operational in the fourth quarter. This system is unique in both its size and scope.

A major portion of the division's paging growth has been in large metropolitan markets requiring high capacity systems. The division began the sale of Metro-Pageboy II radio pagers at two Chicago area retail locations during 1974. These stores, known as PAGE ONE, represent

a new approach to marketing in which pagers are rented or sold directly to the general public.

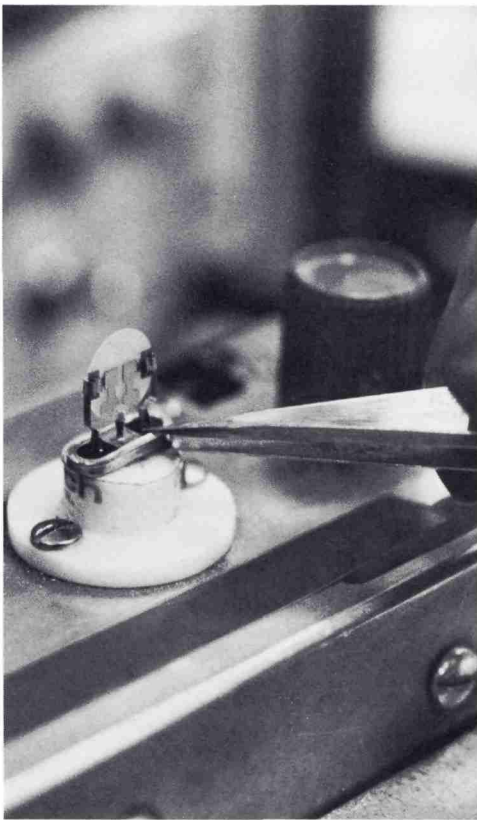
The portable two-way category remains one of the division's fastest growing businesses. The multi-tiered portable line now features nearly 400 separate models.

The division's component products group had an outstanding year, with sales and earnings up substantially. This product operation is rapidly becoming a significant contributor to division earnings.

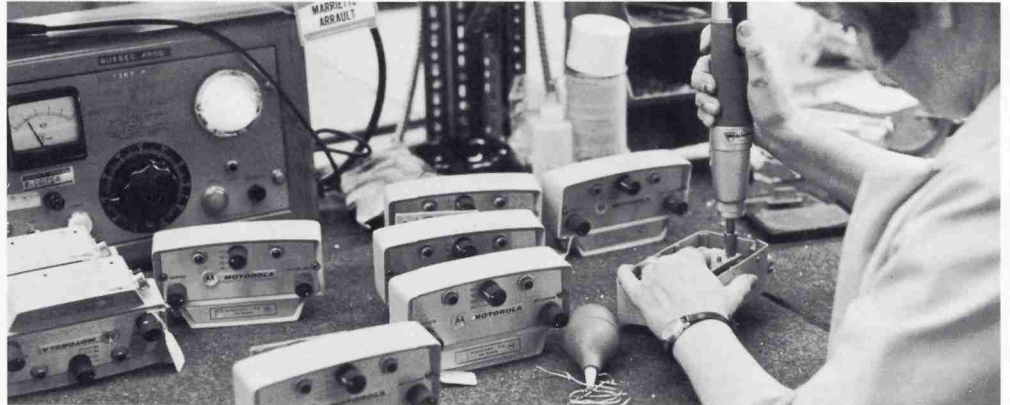
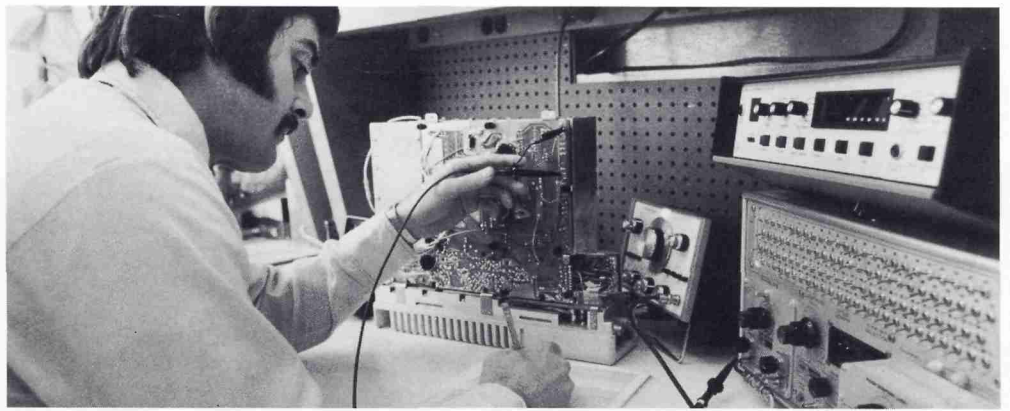
**INTERNATIONAL MARKETS.** For most of the last five years, the division's international business has grown faster than in the United States, with 1974's growth approximately equal to the U.S. market.

In the face of double digit inflation and local economic problems, the division deliberately moderated its European growth policy, putting more emphasis on cost effective marketing and budget controls.

Canada, the division's major non-U.S. market, continued its excellent growth pattern of the last few years. Strong growth also continued in Mexico and Israel. Business in South America grew at a good pace while Australia, one of the



The electronics industry depends upon quartz crystals to give its products the precision stability demanded by the very nature of its operation. The division significantly increased its man-made quartz output in the last several years to meet increased demand for its products and systems.



A division engineer tests a 900 MHz radio which will serve the public when the recent FCC decisions regarding that spectrum band are finalized.

A complete line of mobile and portable two-way radio products and systems are manufactured and marketed in Canada. Here, control heads for two-way radios are produced at the division's new facilities near Montreal, Quebec.

division's newer marketplaces, continues to offer great potential, particularly for radio paging.

**FACILITIES.** The international and U.S. growth experienced in 1974 was accompanied by the announcement of new facilities, worldwide. Plans for a major production facility in Ft. Worth, Texas were revealed. Smaller production facilities were also announced in Montreal, Canada; Warrington, England; and Nogales, Mexico. A new U.S. distribution area was created, with headquarters in the Baltimore/Washington, D.C. area. In addition, ground was broken in May 1974 for a major manufacturing facility in Taunusstein, Germany, which will also be the division's European headquarters.

**A NEW RESOURCE.** Of particular significance for both immediate and long-term divisional growth was the Federal Communications Commission's Second Report and Order on Docket 18262, allocating 115 MHz of radio spectrum in the 900 MHz band. In its decision, the FCC made a great contribution to the public interest by allocating this substantial amount of urgently needed spectrum for land mobile radio users.

For Motorola, these new rules can be summarized by one word—opportunity.

Totaling three times the amount of spectrum currently available for the markets served by the division, the new allocation offers the greatest opportunity for long-term growth in the history of the land mobile radio industry. This spectrum will significantly increase the competitive aspects of the entire business. Such increased competition is ultimately in the public good because of the multiplicity of systems and products that will be made available in the coming years.

In response to this allocation, the division is prepared to introduce 900 MHz radios which will operate in applications and systems similar to their lower frequency equivalents. These radios and systems should allow the division's growth to continue in the dense population areas that have started to suffer frequency congestion.

However, Docket 18262 will also have impact well beyond today's traditional businesses. Several new classes of systems, in which individual users share base station facilities, will now be practical, and the FCC has set aside spectrum in blocks of 1 MHz for such systems. These systems could represent a new marketplace for the division.

The FCC is still working out final rules for the new service. Some aspects of the docket are being challenged via petitions

for reconsideration. While there may be short-term delays and certain modifications in various applications, 900 MHz remains a major long-term opportunity.

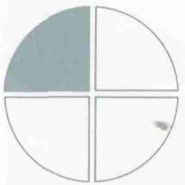
**LOOKING AHEAD.** In early 1974, the United States faced a severe fuel supply crisis. Through its broad communications equipment offerings, the division was able to provide specific products and services tailored to help its customers control fuel usage and costs. By early 1975, increased costs in all categories had joined fuel expenses in making efficiency progressively more difficult to a business or governmental agency. More than ever, one- and two-way communications products and services have become important to business efficiency and effective resource utilization.

With business and government searching for tools to control their operational costs, the division's technological leadership and broad product line will mean it can provide products to meet these needs. For Motorola, a total communications systems supplier directly to end users, 1975 presents unique opportunities. Combined with the breadth of markets already served, the addition of new markets and continued international growth should expand sales opportunities, and thereby make 1975 another growth year.



"When a general economic upturn occurs, the keys to immediate sales growth will be highly reproducible product lines and mass production facilities ready for sharply increased demand. With our leadership position in many discrete and integrated circuit product lines, and with volume manufacturing capabilities, we will then have an excellent opportunity to increase our historically significant share of the worldwide market."

THOMAS J. CONNORS  
Senior Vice President and  
General Manager



## Semiconductor Products Division

**PRODUCTS AND MARKETS.** The division manufactures one of the industry's broadest ranges of semiconductor devices—miniature electronic components that are used in practically all types of electronic, or "solid-state," end products.

There are two major semiconductor product categories: (1) discrete devices, which are the transistors, rectifiers, diodes and other single semiconductor products which began supplanting vacuum tube functions in the 1950s, and (2) integrated circuits, which include hundreds or even thousands of discrete components combined in a single electronic device to perform a complete circuit function. Where technically and economically feasible, one integrated circuit can perform electronic tasks previously requiring a great many discrete devices.

With increased miniaturization, semiconductors make possible an ever-widening host of electronic controls for almost every facet of modern life, including applications in such equipments as TVs and tape decks, solid-state ignition and ant-iskid systems, variable speed drills, kitchen stoves with continuous heat control, communications systems and computers.

Whereas in the early 1960s the division served only the U.S. market, today it manufactures and markets a diverse line of semiconductors throughout the world. The division's numerous sales offices and applications assistance centers in strategic marketplaces are backed by 10 manufacturing and assembly facilities worldwide. These include two new plants brought on line in 1974: the first phase



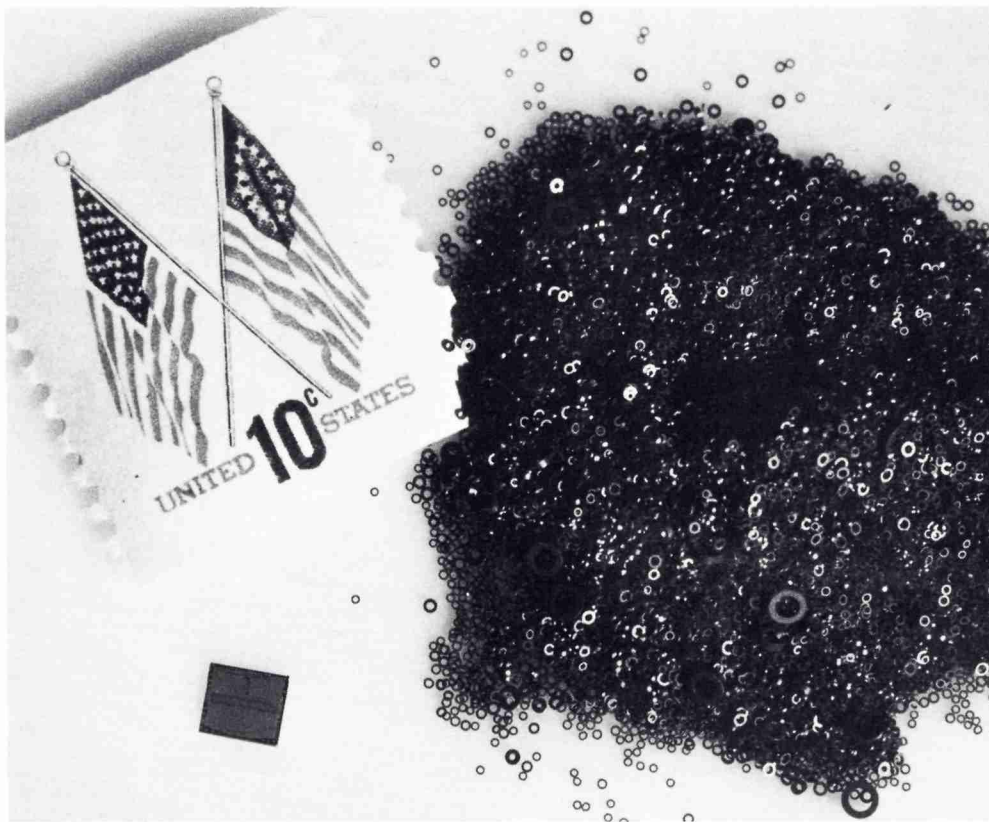
CMOS wafer fabrication began in June at the division's new Austin, Texas facility, dedicated to MOS integrated circuits production.

of an MOS integrated circuits facility in Austin, Texas, and an assembly plant in Kuala Lumpur, Malaysia for both discrete devices and integrated circuits.

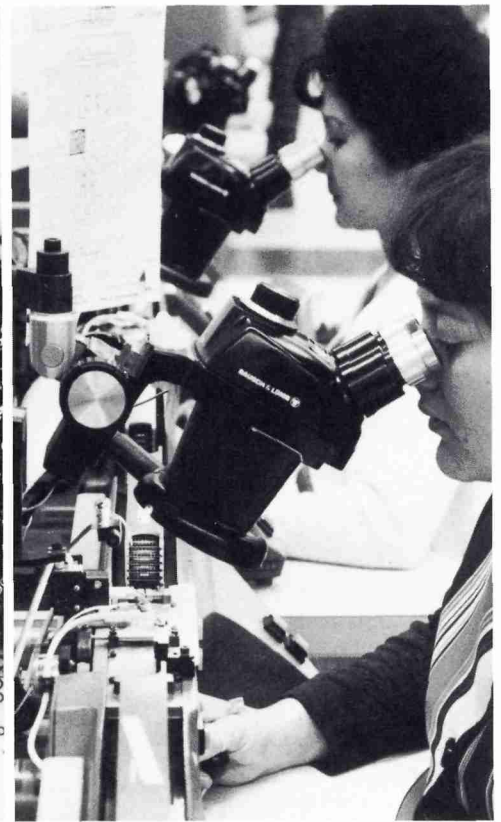
**WORLDWIDE SEMICONDUCTOR INDUSTRY.** Industry sales were above 1973's record performance, in spite of a downward sales trend during the latter part of the year. This downward pressure resulted primarily from the slowing world-

wide economy which caused semiconductor customers to quickly reduce production and inventory levels. Many firms had increased their inventories and orders for semiconductors during the shortage environment of 1973 and early 1974.

The division expects the industry sales decline to continue through the first part



This tiny semiconductor chip contains as many bits of "memory" as the 4,096 ferrite cores it replaces. Introduction of the new compact random-access memory chip signals a price-per-bit decline that should make the semiconductor memory directly cost competitive with long-entrenched ferrite cores.



"Mini" wire bonders were installed during the year to increase productivity in some of the division's plastic-packaged integrated circuit production lines. The bonders connect each integrated circuit chip to the leads on its package with increased speed and efficiency.

of 1975, with some recovery toward year-end.

#### **SALES AND EARNINGS SUMMARY.**

The division's sales were up approximately seven per cent over 1973. This slowed growth resulted primarily from a very abrupt and steep decline in the division's business activity during the fourth quarter.

While affecting all the division's major product and market sectors, the primary areas of decline were the automotive and consumer durable markets. As one of the leaders in semiconductor device sales to those markets, the division was probably more adversely impacted than some of its competitors when these market segments eroded rapidly and substantially in the late 1974 downturn.

Mid-1974 division strategies were based on a forecast of only a modest recession, with an economic upturn in early or mid-1975. This expectation was reinforced when the division experienced approxi-

mately the same net order input in the third quarter as in the second, while order input for the total industry was apparently declining. This relatively positive indication, combined with an extremely high order backlog, led to the division's plan to continue operating at a level production rate.

Then, as the recession suddenly and unexpectedly deepened, fourth quarter order input declined sharply in reaction to reduced consumer demand compounded by then-required inventory adjustments in all stages in the pipeline. The division was forced to rapidly curtail operations in an attempt to correct production and employment levels as its end customers repeatedly deferred delivery dates or cancelled orders. During the fourth quarter, the division experienced the steepest and most abrupt decline in order input and shipments in its history. Although the division did substantially reduce its costs and production levels, these reductions were not sufficient in extent or timing to avoid an operating loss in the quarter. These results were aggravated by many one-time charges resulting from the dramatic reduction in the division's operating level, including

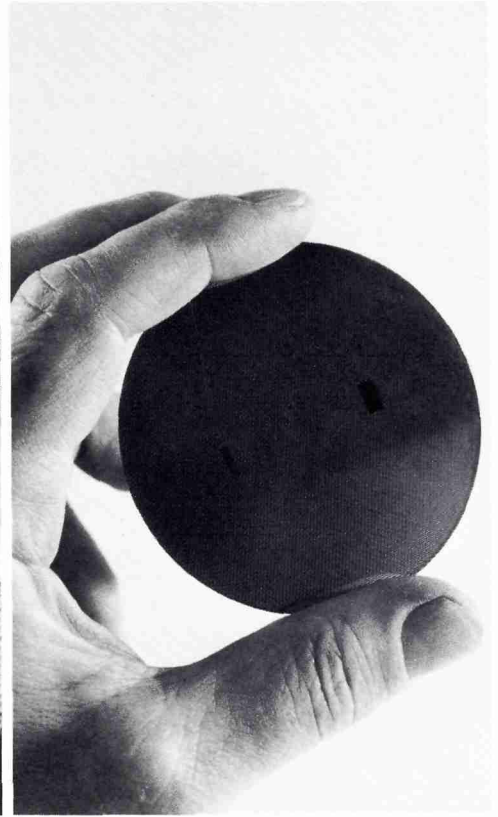
for example, inventory revaluation charges, personnel separation costs and the closing of the division's Puerto Rican operation. Barring further erosion in demand, such costs should not be a major factor in 1975's results.

In its rapid and substantial fourth quarter reduction of personnel and expense costs, and in its associated plans for 1975, division and corporate management have given major attention to the need for maintaining, even in some instances increasing, strategic engineering and pre-production activities associated with important products of the future.

**DISCRETE DEVICES.** 1974 also saw a continued market shift from discrete devices to integrated circuits, although dollar sales of discrete semiconductors continued to grow. The division plans to take advantage of developing opportunities in integrated circuits while maintaining its industry leadership position in the more mature discrete components market. Such new developments as an AM tuning diode, RF power devices for the new 900 MHz band, and liquid crystal displays—along with established discrete functions which cannot be duplicated with existing integrated circuit technology—should provide continued unit and



Because semiconductors are relatively very lightweight and small for their value, the division is able to take advantage of time-saving airfreight as a means of transportation between its Arizona plants and specialized assembly plants up to half a world away.



The now-standard 3-inch wafer contains 2 1/4 times as many semiconductors as its 2-inch predecessor. When scribed into its individual components, this particular type of wafer yields as many as 30,000 transistors.

dollar growth for the division's discrete product lines.

**INTEGRATED CIRCUITS.** In bipolar integrated circuits, the division's worldwide sales in emitter-coupled logic dramatically increased over 1973. Five computer mainframe manufacturers introduced equipment using Motorola's MECL 10,000 devices.

At yearend, the division introduced the semiconductor industry's first complete family of associated microprocessor integrated circuits—possibly the most significant product introduction in the division's history. Some equipment designers expect microprocessors to eventually be recognized as a technological advance rivaling the importance of the vacuum tube, the transistor or the integrated circuit. In a mix-and-match compatibility covering a broad range of system needs, the division's 8-bit NMOS microprocessor set provides attractive costs for components which will allow the design of tabletop products with computing power comparable to roomful of equipment needed a decade ago.

Other new bipolar and MOS integrated circuits—such as state-of-the-art 1-GHz MECL counters, general purpose interface bus linear components, a broad CMOS product line, NMOS 4,096-bit random-access memory and a 16K read-

only memory—have promising growth potential for the balance of the 1970s. This potential is further backed by continuing research and development efforts in such new integrated circuit technologies as integrated-injection logic and the next generation of microprocessor devices.

**LOOKING AHEAD.** For the full year 1975, the division forecasts world semiconductor industry sales to be five to eight per cent below 1974's total. And, despite anticipated continued softness in one of the division's strongest markets—the consumer market—the division does expect its overall market share to remain unchanged in 1975. Reasons include a diverse product line serving many different markets; continued dedication to researching new technologies; increasing sales of all integrated circuits as a percentage of the division's total annual sales; and growing strength in international sales.

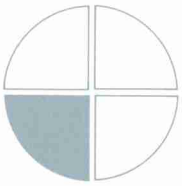
The division has established several near-term alternate operating plans which, along with increased attention being given to improving production cycle times (the elapsed time from start to finish of pro-

duction of one batch of semiconductor devices), should allow the division to shift rapidly with significant changes in customer demand. Currently, many of the division's major customers are taking delivery of semiconductors at rates substantially lower than their production usage as they work down excess inventories. The division is posturing itself to be able to efficiently respond to the increased demand which should occur when these excess inventories have been eliminated.



"The automotive industry is experiencing difficult times as car sales are greatly depressed, and the outlook for 1975 remains cloudy. Although we are adversely affected, our product and customer diversification puts us in a somewhat more favorable position than the degree of the passenger car market decline would indicate."

OSCAR P. KUSISTO  
Vice President and General Manager



## Automotive Products Division

**PRODUCTS AND MARKETS.** The division continues to serve the automotive marketplace through the design, manufacture and sale of car radios, stereo tape players, alternator charging systems, solid-state electronic ignition systems and automotive instruments. The division sells both aftermarket and original (factory installed) equipment to customers such as Ford, Chrysler, American Motors and Volkswagen. Truck, agricultural machinery, off-the-road equipment and other "non-passenger car" manufacturers are other customers.

The division is active in the international marketplace with wholly owned subsidiaries in Canada, England and France; a majority-owned company in Italy; a joint venture company in Japan; and licensees and affiliated companies in other free world markets.

**SALES AND EARNINGS SUMMARY.** Sales of the division approximately equalled last year's record level despite greatly depressed automobile sales in the United States and general worldwide economic retrenchments. The fourth quarter, in particular, was a period of sharply reduced car sales, causing excessive inventories throughout the distribution channel necessitating lengthy production plant shutdowns by the major automakers. These conditions reduced the division's level of business significantly for the quarter and also caused excessive Motorola inventories.

Earnings for the year declined substantially, and for the fourth quarter the

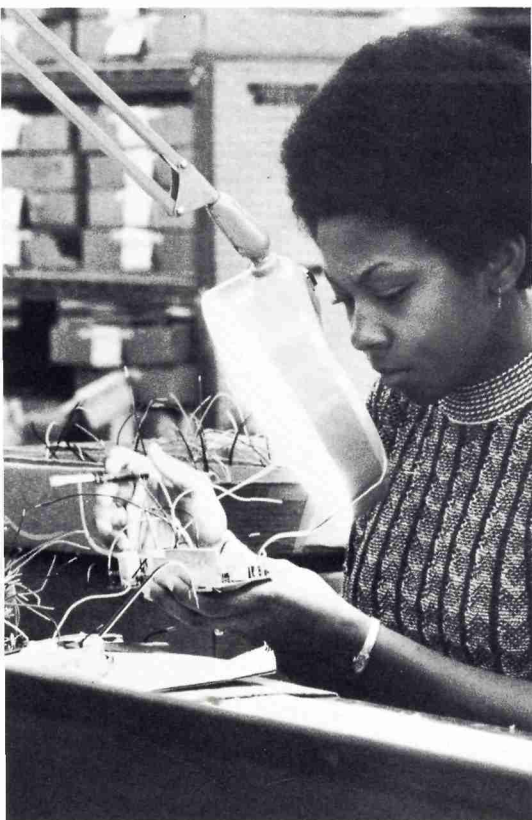


The Motorola-branded aftermarket electronic ignition system is designed for retrofitting in passenger cars, as well as industrial vehicles and engines.

division operated at a loss. Increased material costs; rapid rescheduling of product mix for original equipment customers as buying trends shifted; customer and supplier strikes; and startup costs associated with the new Seguin, Texas and Angers, France facilities were adverse factors in addition to the lower than expected sales volumes. Very poor local economic conditions and automobile sales caused major losses at Autovox, the division's majority-owned Italian company, which also contributed

significantly to the division's poor results.

**ORIGINAL EQUIPMENT ENTERTAINMENT PRODUCTS.** Original equipment product sales decreased considerably during the year for the reasons described above. The division received a two-year, multimillion dollar per year contract from the Ford Motor Company to supply AM radio/8-track tape player units as optional equipment on 1976 and 1977 Ford Grandas, Mustangs, Mavericks, Pintos and Mercury Monarch models. Another multimillion dollar contract was received from Ford to supply 4-channel discrete enter-



An employee in the division's new Seguin, Texas facility inspects a radio subassembly. Product shipments from this new plant began in April.



All new Motorola car radios, as well as ignition, voltage regulator and automotive instrument subassemblies, will soon be tested and analyzed by inserting the subassembly into a computer-controlled test system. Here, a Motorola engineer perfects a program for the testing.

tainment centers as optional equipment for top line 1976-1978 model year Ford automobiles. These entertainment centers are capable of receiving AM, FM and FM stereo radio broadcasts and will play both 8-track, 2-channel stereo and discrete 4-channel quadraphonic tapes as well.

**MOTOROLA-BRANDED AUTO SOUND PRODUCTS.** Sales to the aftermarket increased dramatically due particularly to improved distribution and the addition of many new products, including an extensive line of custom car radios designed specifically for many models of cars made by General Motors and Ford.

**ALTERNATOR CHARGING SYSTEMS.** Sales of alternator charging systems increased modestly during the year. Customers included American Motors, Volkswagen of America and manufacturers of trucks, heavy machinery, agricultural equipment and off-the-road machinery. Significant sales gains over 1973 were made in the aftermarket with Motorola-branded alternators sold as replacement units to fleets and other customers.

**ELECTRONIC IGNITION PRODUCTS.** Electronic ignition product sales nearly doubled over the 1973 level as a 1974-1976 Ford solid-state ignition module contract began to show its full impact. The one millionth ignition was shipped to Ford for the 1974 model year in August. In addition, a contract was received to supply ignition modules for a substantial

share of Ford's 1975 Capris sold in the United States.

A Motorola-branded solid-state ignition system was introduced into the aftermarket for retrofitting on cars with conventional ignitions as well as for sale to certain original equipment customers.

**INSTRUMENTS AND CONTROLS.** Sales in this minor product category rose substantially during 1974. The product line includes tachometers, electronic speedometers, hourmeters, ground speed indicators and several other instruments which are sold both as original equipment and as Motorola-branded units in the aftermarket.

A new concept in battery testers was also introduced in 1974. Totally electronic, the new battery tester potentially obsoletes existing equipment used to test many parameters of 12-volt batteries with a current up to 600 amperes. Major potential customers are car dealers, service stations, fleet operators and others.

**INTERNATIONAL OPERATIONS.** The division's joint venture company in Japan, Alps-Motorola, designs and produces entertainment products for sale in the United States, Japan and other world markets. Sales of this company declined moderately because of a slowdown in demand from U.S. home entertainment manufacturers and depressed economic conditions in Japan.

The initial customer for the newly built

Angers, France plant is Volkswagen in Germany, which began receiving alternator shipments in the fourth quarter.

Sales in the United Kingdom declined because of major national strikes and the faltering local economy. As mentioned earlier, Autovox in Italy sustained major losses and contributed significantly to the division's decreased earnings.

**FACILITIES.** In anticipation of the phasing out of production in Quincy, Illinois in 1976, as a result of the sale of Motorola's television business to a subsidiary of Matsushita Electric Industrial Co., Ltd. of Japan, an expansion of the division's new entertainment products manufacturing facility in Seguin, Texas is targeted for mid or late 1975. Production in the new Seguin facility began in April 1974.

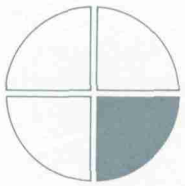
Initial alternator shipments were made from the new Angers, France plant in October.

**LOOKING AHEAD.** To meet the challenges brought about by poor economic conditions, the division has substantially reduced production levels and overhead costs. It is closely monitoring inventory and product mix versus customer requirements. Significant long-term contracts with major customers, plus many years of mutually beneficial rapport, should also provide the division of a solid base for growth when the automobile industry recovers to more normal levels.



"Since state-of-the-art technology is our 'distinctive competence,' we intend to invest more in research and development programs in 1975 to further augment our high level of sophisticated technical know-how."

RALPH W. ELSNER  
Vice President and General Manager



## Government Electronics Division

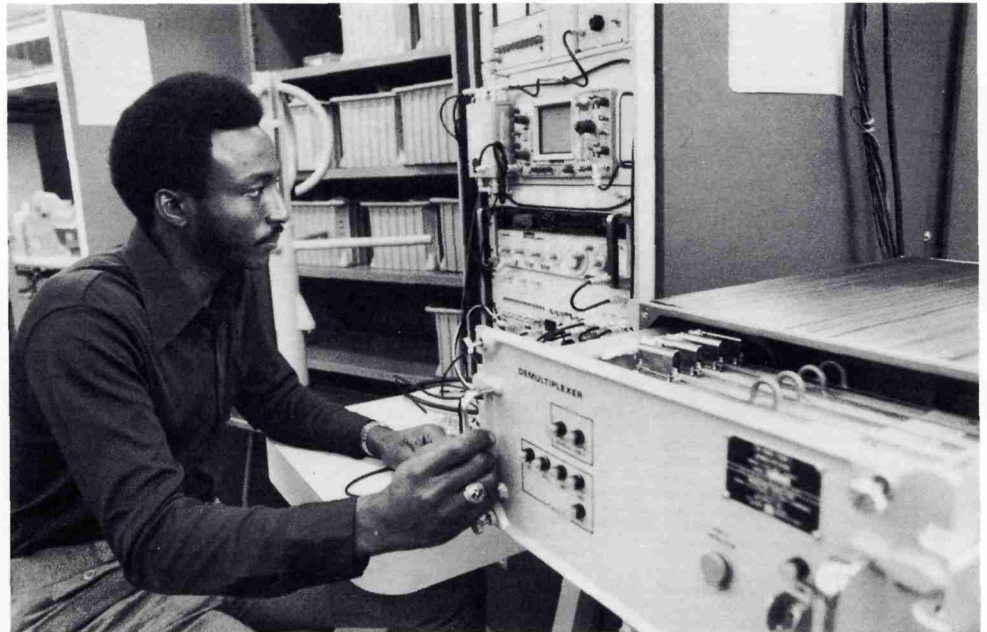
**PRODUCTS AND MARKETS.** The division specializes in research, development and production of advanced electronic systems and equipment for the U.S. Department of Defense, NASA and other government agencies, with limited sales internationally and to commercial markets in the United States.

**SALES AND EARNINGS SUMMARY.** In 1974, the division again increased its sales and earnings, achieving record results. Fourth quarter results also increased from the same period last year. Backlog during most of the year, as well as at yearend, reached all-time highs.

The division's growth has come from increased penetration of a relatively level government electronics market. Among the factors contributing to this fine performance are long experience in serving the needs of the U.S. military services and NASA, and depth of understanding of specific operational requirements.

Defense and space systems become more complex each year, and therefore concentration on technical advancements to the state-of-the-art and simplification of equipment design is increasingly important.

**COMMUNICATIONS SYSTEMS.** The division's space business, which began with the early days of U.S. involvement in space exploration, continues strong. An outstanding record of on-time and on-budget deliveries, coupled with years of *perfect* in-flight performance, have made Motorola a prime contender for



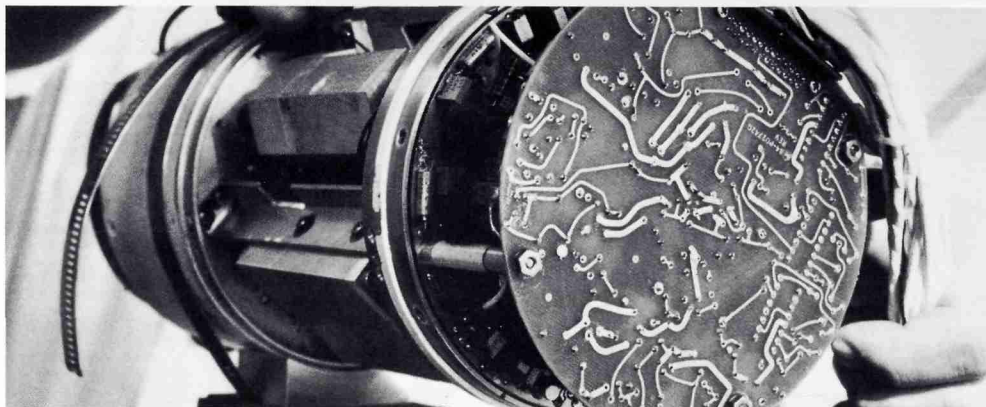
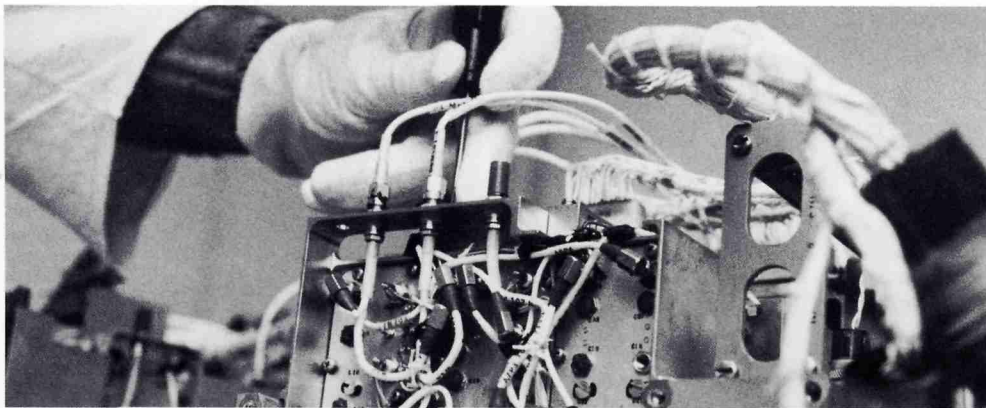
A Motorola engineer conducts final tests of the new worldwide satellite-to-ship communications systems for the U.S. Navy. Fleet broadcast receiving terminals are currently being installed on all U.S. Navy surface ships.

new space electronics programs. In 1974, final deliveries of Motorola's Viking Orbiter equipment were made to the Jet Propulsion Laboratory for its 1975 launch; and in August, a contract for the mission-critical radio frequency subsystem for the Mariner/Jupiter/Saturn spacecraft scheduled to be launched in 1977 was booked. Also in 1974 work began on the transponders for the tri-service global positioning satellite and, in addition, a \$1.5 million follow-on contract was re-

ceived for a Japanese space program.

A contract to provide the U.S. Navy with receiving terminals for a worldwide satellite-to-ship communications system demonstrated that, by working closely with the customer, simple equipment can be developed to solve complex problems and with savings in cost. While development of this system is now completed and delivery of production quantities has begun, the same fundamental techniques are being proposed for airborne applications.





Motorola communications equipment undergoes final adjustment at the Jet Propulsion Laboratory prior to integration into the Viking Orbiter spacecraft.

An engineer checks the company's low-cost, all-weather, active radar guidance system for air-to-air missiles.



The Integrated Target Control System console, designed to aid the U.S. Navy in training defensive forces, entered the pre-production phase during the year.

Similar techniques have also been successful in troposcatter communications systems. Bell Canada put the division's equipment on-line during 1974 in its long-hop telephone communications system to increase capacity and improve the quality of its existing installations. Late in 1974, a new contract for similar equipment was received from the U.S. Department of the Interior to be used in a communications link between the islands of Guam and Saipan.

**RADAR SYSTEMS.** Mini-Ranger III, a horizontal positioning system for applications such as mineral exploration, ship positioning and channel and harbor surveying, has been well received in U.S. and international markets. Systems were sold in 18 different countries during 1974. This third generation system has been tailored to fit specific market requirements for a relatively simplified, inexpensive, accurate, short-range positioning system. The price of a basic system has been cut in half over the past several years.

Included in a 1974 award of \$9 million for side-looking airborne radar systems was the development of a new processor using dry silver film to provide near real-time hard copy of radar imagery in the cockpit. With this equipment, operating costs will be reduced and mission duration can be extended. This is typical of the product improvements co-

operatively worked out over the years by Motorola and the U.S. Army Electronics Command at Ft. Monmouth, New Jersey.

The integrated target control system that Motorola is building for the U.S. Navy will allow pilots on the ground to control drone aircraft remotely. These drones are used to simulate enemy planes and missiles in training U.S. defensive forces. Several system elements of this multi-million dollar contract started into production in 1974.

**TACTICAL ELECTRONICS.** In addition to introducing state-of-the-art circuit concepts to missile guidance packages, countermeasures systems and ordnance devices, the division has also initiated unique mechanical designs, introduced advanced antenna configurations and applied new materials to meet the ever-changing requirements of its customers. By precise matching of specific operational requirements with the latest technological advancements, Motorola has introduced several new, more effective systems and devices to meet today's cost-conscious department of defense requirements.

**A UNIQUE CAPABILITY.** The division's extensive in-house integrated circuit facility for design and limited high technology production, with support from

the Semiconductor Products Division and the processing facilities of the corporate integrated circuit advanced research laboratory, all within a few miles of each other, combine to provide the division with a unique capability in its marketplace. This capability is particularly important in the development of new large-scale integrated circuits which form the fundamental building blocks for many advanced systems. Motorola's leadership position in the development and application of these circuits to solve specific customer problems provides a sound base for future growth.

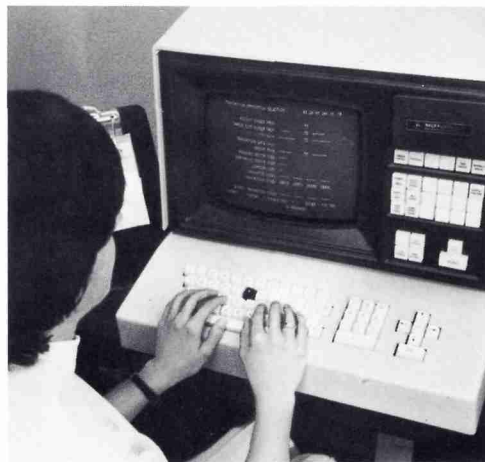
**LOOKING AHEAD.** Based on its present strong backlog, the division should be able to continue the steady growth patterns established during recent years. Investments planned for research and development during 1975 will support an unusually high level of sophisticated technology. It is upon this foundation of advanced technology that the division's long-term growth plans are based.

In 1975, the division also plans further diversification of its product base in several areas to serve a broader spectrum of government customers.

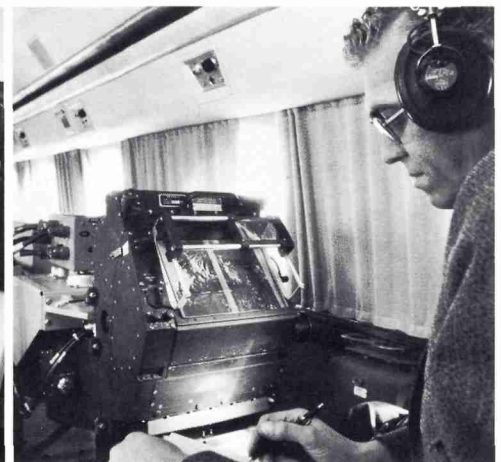


"The current economic environment presents many opportunities for high technology goods and services which can advance our standard of living. Product and service improvements are critical cornerstones in a progressive and productive society."

STEPHEN L. LEVY  
Senior Vice President, New Ventures



Utilizing Motorola's new STAT-SCAN computerized management system, any member of a medical practice staff can retrieve business summaries and patient information, or prepare billing statements, by pressing the appropriate function key.



Installed on a MARS-owned aircraft, a specially configured side-looking airborne radar provides geological survey capabilities to the resources exploration and other markets.

## New Ventures and Other Businesses

Motorola's New Ventures mission is to foster growth and leadership in related high technology areas beyond the company's existing divisional capabilities. Four types of expansion have been selected as most appropriate for company exploration, research and development: technological innovation, internally generated new businesses, cooperative new ventures and acquisitions.

**NEW VENTURE COMPANIES.** Motorola's program of seeking out entrepreneurs inside as well as outside the company, and providing a climate for the nurture and development of good ideas into new businesses, continued during the year. The aid of bankers, management consultants and centers of higher learning in management and technological fields in discovering outside entrepreneurs with innovative ideas in selected areas is being sought. Once an entrepreneur with a suitable idea capable of generation into a new business is identified, Motorola works with the venturer in setting up the business as an on-going enterprise partially owned by the venturer.

Motorola Teleprograms Inc., an internally generated business, is the leading producer/distributor of training films for police agencies. The company's law enforcement training library contains more than 50 film titles, and the company added its 1000th customer during the year.

Incorporation of Motorola Aerial Remote Sensing Inc. (MARS) was com-

pleted in 1974 involving Motorola, a company employee and a non-Motorola venturer. MARS provides sophisticated geological survey capabilities to customers in the resources exploration market and to those planning construction over land which might involve a geological fault.

**TECHNOLOGICAL INNOVATION.** Motorola's skills and capabilities in many electronics-related technologies, such as chemical and metallurgical processing, provide a base for exploration of new market opportunities. To build on these skills and to pursue opportunities beyond the division's interests, the two New Ventures laboratories were consolidated during 1974 into a single new development laboratory in Phoenix. Among the fields being studied are solar energy conversion and computer-based voice recognition systems.

**ACQUISITIONS.** Acquisition studies have covered both diversification opportunities and fields related to the businesses of Motorola's existing divisions. Objectives have been established whereby opportunities are sought in new, but related, high technology businesses which would enable Motorola to selectively broaden its base of operations. While many business areas and companies have been evaluated, no diversification-oriented acquisition has yet been made.

During 1974, two small acquisitions relating to Motorola's existing divisions were concluded. Both were in the materials processing and development field;

one (Topsil A/S in Denmark) complements the silicon-producing technology of the Semiconductor Products Division, and the other (Optoceram, Inc. in Albuquerque, New Mexico) complements the ceramic materials technology of the Communications Division.

**OTHER BUSINESSES.** The Business Systems Unit—wholly owned by Motorola Inc.—introduced a computerized management system for group medical practitioners. This low-cost, modular system, marketed under the Motorola trademark STAT-SCAN, is based on INN-SCAN, a similar system developed and introduced to the lodging industry in 1973. Sales and leases of INN-SCAN units, while hampered slightly by the recent hotel-motel industry declines, are improving.

The Institutional Electronics Unit markets Motorola's products in the U.S. commercial lodging industry, which has been adversely affected by the energy shortage and its resultant curtailing effect on the country's pleasure motoring habits. However, the unit continues as a prime supplier to such major chains as Holiday Inns Inc. and ITT Sheraton Corporation of America.

The Display Products Unit had a good year as a leading manufacturer of cathode ray tube displays for computer peripheral and other applications. New systems applications are currently being developed for the leisure time and other industries.

# Financial Statements 1974



## Accountants' Report

PEAT, MARWICK, MITCHELL & CO.  
Certified Public Accountants  
222 South Riverside Plaza  
Chicago, Illinois 60606

The Board of Directors and Stockholders of Motorola, Inc.:

We have examined the consolidated balance sheets of Motorola, Inc. and Subsidiaries as of December 31, 1974 and 1973, and the related statements of consolidated earnings and retained earnings, additional paid-in capital and changes in financial position for the years 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.

In our opinion, the aforementioned consolidated financial statements present fairly the financial position of Motorola, Inc. and Subsidiaries at December 31, 1974 and 1973, and the results of their operations and changes in their financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis, after restatement for the change, with which we concur, in the presentation of the statements of consolidated changes in financial position as described in note 1 to consolidated financial statements.

PEAT, MARWICK, MITCHELL & CO.

February 18, 1975

# Consolidated Balance Sheets

Motorola, Inc. and Subsidiaries as of December 31

1974

1973

(Thousands of dollars)

## ASSETS

### CURRENT ASSETS

Cash .....	\$ 29,118	\$ 25,262
Short-term investments, at cost (approximating market) .....	23,336	21,982
Accounts receivable .....	278,299	294,276
Allowance for doubtful accounts .....	(8,454)	(7,520)
Costs recoverable under United States government contracts, less progress billings .....	14,486	9,711
Inventories, at the lower of cost (first-in, first-out) or market		
Finished goods .....	108,333	106,264
Work in process and production materials .....	213,936	230,202
Future income tax benefits .....	19,221	26,341
Other current assets .....	49,062	20,873
<b>Total Current Assets .....</b>	<b>727,337</b>	<b>727,391</b>

### PLANT AND EQUIPMENT, AT COST

Land .....	15,979	14,522
Buildings .....	205,657	175,966
Machinery and equipment .....	271,276	219,263
Accumulated depreciation .....	(167,984)	(159,160)

Net Plant and Equipment .....	324,928	250,591
-------------------------------	---------	---------

SUNDRY ASSETS, NET .....	20,724	15,539
--------------------------	--------	--------

	<b>\$1,072,989</b>	<b>\$993,521</b>
--	--------------------	------------------

See accompanying notes to consolidated financial statements.

1974                      1973

(Thousands of dollars)

**LIABILITIES AND STOCKHOLDERS' EQUITY**

**CURRENT LIABILITIES**

Notes payable—banks and other		
United States.....	\$ 41,115	\$ 23,181
Other nations.....	46,470	40,907
Current maturities of long-term debt (note 3).....	2,606	2,289
Accounts payable.....	103,032	98,818
Accrued compensation.....	18,335	19,974
United States (Federal and State) and other nations' income taxes (note 4)....	15,168	22,332
Other (including withheld) taxes.....	16,117	13,909
Contribution to employees' profit sharing funds (note 7).....	18,060	21,906
Product and service warranties.....	7,338	16,780
Accrued expenses and other.....	46,761	39,580
<b>Total Current Liabilities.....</b>	<b>315,002</b>	<b>299,676</b>
<b>LONG-TERM DEBT (NOTE 3).....</b>	<b>147,810</b>	<b>150,338</b>
<b>OTHER NON-CURRENT LIABILITIES.....</b>	<b>23,923</b>	<b>17,971</b>
<b>MINORITY INTEREST IN MAJORITY-OWNED SUBSIDIARIES.....</b>	<b>543</b>	<b>2,055</b>

**STOCKHOLDERS' EQUITY**

Common stock, \$3.00 par value (notes 3 and 5)		
Authorized: 40,000,000 shares		
Outstanding: 1974—28,188,185 shares; 1973—27,959,424 shares.....	84,565	83,878
Preferred stock, \$100 par value issuable in series		
Authorized: 500,000 shares (none issued).....	—	—
Additional paid-in capital (notes 3 and 5).....	135,898	128,210
Retained earnings (note 3).....	365,248	311,393
<b>Total Stockholders' Equity.....</b>	<b>585,711</b>	<b>523,481</b>
	<b>\$1,072,989</b>	<b>\$993,521</b>

# Statements of Consolidated Earnings and Retained Earnings

Motorola, Inc. and Subsidiaries, Years Ended December 31	1974	1973
	(Thousands of dollars, except per share figures)	
SALES AND OTHER REVENUES .....	<b>\$1,367,171</b>	\$1,203,217
Manufacturing and other costs of sales .....	<b>878,675</b>	755,720
Selling, service and administrative expense (notes 6 and 7) .....	<b>285,035</b>	240,274
Depreciation of plant and equipment .....	<b>43,456</b>	33,340
Interest and amortization of debenture discount, expense and premium, net .....	<b>27,201</b>	16,194
Minority interest in losses of majority-owned subsidiaries .....	<b>(794)</b>	(280)
Total costs and other expenses .....	<b>1,233,573</b>	1,045,248
Earnings from continuing operations before income taxes .....	<b>133,598</b>	157,969
United States and other nations' income taxes net of investment credit of \$4,639 in 1974; \$2,414 in 1973 (note 4) .....	<b>55,082</b>	66,324
State income taxes (U.S.) .....	<b>5,604</b>	6,172
Total income taxes .....	<b>60,686</b>	72,496
EARNINGS FROM CONTINUING OPERATIONS .....	<b>72,912</b>	85,473
Loss from operations of discontinued businesses (reduced by related tax benefits: 1974, \$2,227; 1973, \$5,272) (note 9) .....	<b>(2,184)</b>	(3,477)
Net earnings .....	<b>70,728</b>	81,996
Retained earnings at beginning of year .....	<b>311,393</b>	283,610
Share-for-share distribution—par value of 13,889,899 shares transferred to common stock .....	—	(41,670)
Cash dividends declared (per common share: 1974, \$.60; 1973, \$.45) .....	<b>(16,873)</b>	(12,543)
Retained earnings at end of year (note 3) .....	<b>\$ 365,248</b>	\$ 311,393
EARNINGS PER COMMON SHARE		
Continuing operations .....	<b>\$ 2.60</b>	\$ 3.07
Operations of discontinued businesses .....	<b>(.08)</b>	(.12)
Net earnings per share .....	<b>\$ 2.52</b>	\$ 2.95

# Statements of Consolidated Additional Paid-in Capital

Motorola, Inc. and Subsidiaries, Years Ended December 31	1974	1973
	(Thousands of dollars)	
Balance at beginning of year .....	<b>\$128,210</b>	\$114,645
Share option plans (note 5) .....	<b>5,048</b>	11,673
Conversion of 4½% convertible guaranteed debentures, (principal amount: 1974, \$3,579; 1973, \$2,782) (note 3) .....	<b>2,640</b>	2,022
Equity change in affiliate .....	—	(130)
Balance at end of year .....	<b>\$135,898</b>	\$128,210

See accompanying notes to consolidated financial statements.

# Statements of Consolidated Changes in Financial Position

Motorola, Inc. and Subsidiaries, Years Ended December 31	1974	1973
	(Thousands of dollars)	
<b>SOURCES OF FUNDS:</b>		
Net earnings from continuing operations . . . . .	\$ 72,912	\$ 85,473
Add non-cash charges:		
Depreciation . . . . .	43,456	33,340
Amortization of deferred debenture discount, expense and premium, net . . . . .	362	426
Funds provided from continuing operations . . . . .	116,730	119,239
Net losses of discontinued operations . . . . .	(2,184)	(3,477)
Add non-cash charge—depreciation . . . . .	502	2,384
Funds used by discontinued operations . . . . .	(1,682)	(1,093)
Funds provided from operations . . . . .	115,048	118,146
Increase in notes payable and current maturities of long-term debt . . . . .	23,814	12,502
Decrease in receivables . . . . .	16,911	—
Decrease in inventories . . . . .	14,197	—
Disposals of plant and equipment . . . . .	18,908	667
Issuance of common stock . . . . .	8,375	14,417
Increase in long-term debt . . . . .	—	76,103
Other sources, net . . . . .	—	37,104
Total sources of funds . . . . .	197,253	258,939
<b>USES OF FUNDS:</b>		
Fixed assets expenditures. (Includes subsidiaries acquired: 1974, \$3,817; 1973, \$462) . . . . .	135,018	84,972
Decrease in long-term debt . . . . .	2,528	6,067
Increase in receivables . . . . .	—	39,212
Increase in inventories . . . . .	—	119,033
Dividends . . . . .	16,873	12,543
Other uses, net . . . . .	37,624	—
Total uses of funds . . . . .	192,043	261,827
<b>NET INCREASE (DECREASE) IN FUNDS . . . . .</b>	<b>5,210</b>	<b>(2,888)</b>
Cash and short-term investments		
Beginning of year . . . . .	47,244	50,132
End of year . . . . .	\$ 52,454	\$ 47,244

See accompanying notes to consolidated financial statements.

# Notes to Consolidated Financial Statements

**1. ACCOUNTING POLICIES:** Following is a summary of significant accounting policies followed in the preparation of these consolidated financial statements, which policies are in accordance with generally accepted accounting principles.

**CONSOLIDATION:** The consolidated financial statements include the accounts of the company and all majority-owned subsidiaries. All other investments in which the company ownership is 20% to 50% (affiliates) are carried on the equity method of accounting, and investments of less than 20% ownership (not material in amount) are carried at cost unless a permanent decline in value is deemed to have occurred. All significant inter-company accounts and transactions have been eliminated in consolidation.

**INTERNATIONAL:** The accounts of the company's operations outside the United States have been translated as follows: plant and equipment at currency rates prevailing when acquired; other assets and liabilities at yearend rates; and operating accounts at rates prevailing during the year except depreciation charges which are translated at the historic rates of the related assets. The net currency translation gain for the year was \$339,000 (\$2,443,000 in 1973) of which \$89,000 (\$1,661,000 in 1973) has been credited to earnings for the year and \$250,000 (\$782,000 in 1973) has been credited to deferred translation gains. At December 31, 1974, the total translation gain deferred and included in Accrued Expenses and Other is \$1,250,000 (\$1,000,000 in 1973).

The company's equity in undistributed earnings of non-U.S. subsidiaries and affiliates included in consolidated retained earnings at December 31, 1974 amounted to \$39,400,000 (\$26,904,000 in 1973). Certain of these earnings may be taxable in the United States upon distribution; however, it is intended that these earnings be permanently invested in operations outside the United States and accordingly, no provision has been made for United States taxes.

**INVENTORIES:** Inventories are valued at the lower of cost (first-in, first-out) or market. Market value of work in process and production materials is represented by replacement cost and for finished goods by net realizable value.

**INCOME TAX:** The company provides for income taxes based on income reported for financial statement purposes. Certain charges to earnings differ as to timing from those deducted for tax purposes. The tax effects of these differences are reflected in the consolidated balance sheets as Future Income Tax Benefits. Investment tax credits are recorded as a reduction of income tax expense in the year that the related assets are placed into service.

**PLANT AND EQUIPMENT:** Plant and equipment is stated at cost. The related cost and accumulated depreciation on property sold, retired or fully depreciated are cleared from the accounts with the net difference, less any amount realized from disposals, reflected in current operations. Depreciation is provided on the basis of the estimated useful lives generally by the declining-balance method for items acquired subsequent to December 31, 1953, and by the straight-line method for items acquired prior to that date. For income tax purposes, the company has elected the provisions of the Class Life Asset Depreciation Range System (ADR) permitting accelerated depreciation. The tax effect of the difference between book and tax depreciation has been provided as deferred income taxes in the accompanying consolidated financial statements.

**DEBENTURE DISCOUNT, EXPENSE AND PREMIUM:** Deferred debenture discount, expense and premium are included in Sundry Assets at unamortized cost. Amortization is being charged to expense over the terms of the debentures by the straight-line method.

**SHARE OPTIONS:** When share options are exercised, the proceeds received are credited to the common stock account to the extent of the par value of shares issued, and the excess is credited to Additional Paid-in Capital. The tax benefit the company receives from disqualifying dispositions by optionees of exercised qualified stock options is credited to Additional Paid-in Capital.

**RESEARCH AND DEVELOPMENT:** Expenditures are charged to operations as incurred.

**PRODUCT AND SERVICE WARRANTIES:** Anticipated costs related to product and service warranties are recorded at the time of the sale of the products.

**CHANGE IN PRESENTATION:** As of December 31, 1974, the company changed its presentation of the statements of consolidated changes in financial position from one which reflected changes in working capital to one which reflects changes in cash and short-term investments. The company believes that the new format is a more meaningful presentation of the changes in financial position. The statement of consolidated changes in financial position for the year ended December 31, 1973 has been restated to conform with the 1974 presentation.



2. At December 31, 1974 and 1973, net assets of consolidated operations outside the United States aggregated \$134,900,000 and \$116,500,000, respectively.

Export sales of U.S. companies, and sales and other revenues of continuing operations outside the United States, were 28% and 25%, respectively, of 1974 and 1973 consolidated amounts.

3. Long-term debt at December 31 consisted of the following:

	1974	1973
	(Thousands of dollars)	
Debt outside the United States:		
4½% convertible guaranteed debentures due July 1, 1983	\$ 12,487	\$ 16,066
8% guaranteed sinking fund debentures due March 1, 1987	25,000	25,000
Notes payable (generally at prevailing prime rates) due in installments to 1985	12,929	9,063
Debt in the United States:		
Revolving credit notes (at prevailing prime rates)	75,000	75,000
4¾% debentures due April 1, 1986 (net of \$1,000,000 in 1974, \$989,000 in 1973 debentures held by the company for sinking fund payment)	24,000	25,011
4¾% notes due in annual installments to 1976	1,000	1,500
Notes payable (generally at prevailing prime rates)	—	987
	<b>150,416</b>	152,627
Less current maturities, included in current liabilities	2,606	2,289
Net long-term debt	<b>\$147,810</b>	\$150,338

The 4½% convertible guaranteed debentures (issued by Motorola International Development Corporation) are convertible into common stock of Motorola, Inc. at the rate of 25.2 shares for each \$1,000 principal amount, subject to adjustment in certain events, and are guaranteed as to the payment of principal and interest by Motorola, Inc. The debentures are redeemable at various dates at redemption prices reducing from 103% to 100% of the principal amount thereof. In 1974, \$3,579,000 in debentures (\$2,782,000 in 1973) were converted into 90,176 shares (70,095 in 1973). At December 31, 1974, there were 314,729 shares (404,905 in 1973) of Motorola, Inc. common stock reserved for issuance upon the conversion of these debentures.

The 8% guaranteed sinking fund debentures (issued by Motorola International Capital Corporation) are redeemable at various dates beginning after March 1, 1977, at redemption prices reducing from 102% to 100% of the principal amount thereof. Annual sinking fund payments are required beginning March 1, 1977, in progressive amounts sufficient to re-

tire 76% of the issue prior to maturity. The issue is guaranteed as to payment of principal and interest by Motorola, Inc.

Under the terms of the revolving credit agreement, the company has the option of converting the notes to a four-year term loan on, or prior to, December 31, 1976 at the then prevailing prime commercial rate of interest plus ¼% for the first two years and ½% for the last two years. It is the intention of the company to maintain the availability of the revolving credit during 1975 and therefore the debt is classified as long-term debt.

The revolving credit agreement restricts the payment of cash dividends. At December 31, 1974, \$86,094,754 of retained earnings was not restricted as to dividend payments. It also requires the company to maintain consolidated working capital (as defined) of not less than \$275,000,000.

4. The provision for taxes on income from continuing operations includes \$12,898,000 in 1974 (\$8,760,000 in 1973) for other nations. The effective tax rate is summarized as follows:

	1974	1973
U.S. Federal tax rate	48.0%	48.0%
Increase (reduction) in tax rate resulting from:		
Investment tax credit	(3.5)	(1.5)
Taxes on earnings in other nations, net of tax benefits arising from net operating loss carryforwards, loss operations with no tax benefits and tax holidays	2.7	(3.0)
Tax benefits arising from tax holidays in Puerto Rico	(3.8)	(1.6)
State income taxes (U.S.)	2.2	2.0
Other	(.2)	2.0
Effective tax rate	<b>45.4%</b>	45.9%

5. Under the company's Employee Share Option Plans, shares of common stock have been made available for qualified or non-qualified option to employees of the company and certain subsidiaries. Options may be granted at not less than fair market value on the dates of grants, and become exercisable one year from the dates of original grants. Qualified options expire at the end of five years and non-qualified options expire at the end of ten years. During 1974, pursuant to written offers from optionees, existing options under the 1972 plan were cancelled, and replacement, non-qualified options (expiring November 11, 1984) were granted for the same numbers of shares which were subject to the cancelled options.

The exercise prices of the replacement options were not less than the fair market value of the shares on the dates of grants. Data on share options are summarized below:

	1974	1973
Options outstanding beginning of year . . . . .	968,698	963,836
Additional options granted . . . . .	6,850	333,215
Options exercised . . . . .	(138,585)	(318,353)
Options terminated for discontinued employment . . . . .	(45,180)	(10,000)
Options terminated for cancellation and regrant . . . . .	(611,575)	—
Options regranted . . . . .	611,575	—
Options expired . . . . .	(80)	—
Options outstanding end of year . . . . .	791,703	968,698
Shares reserved for possible future option grants . . . . .	564,775	526,365
Total shares reserved . . . . .	1,356,478	1,495,063
Aggregate exercise price of outstanding options . . . . .	\$36,053,000	\$50,108,000
Aggregate exercise price of exercisable options . . . . .	\$35,754,000	\$32,231,000
Excess of the option price over the par value of shares issued . . . . .	\$ 3,913,000	\$ 9,216,000
Tax benefit resulting from disqualifying dispositions by optionees . . . . .	\$ 1,135,000	\$ 2,457,000

6. An Executive Incentive Plan provides that the company and certain subsidiaries may reserve up to 4% of their annual consolidated pre-tax earnings (as defined) for the payment of cash incentive awards. Such awards are payable, except for awards of \$1,000 or less, generally in equal annual installments over a period of five years and are generally subject to the recipients' continued employment. Reserves of \$1,000,000 and \$4,114,000 (including \$206,000 applicable to discontinued operations) were provided in 1974 and 1973 for such awards, representing 1.3% and 4.0%, respectively, of defined earnings. In 1974, awards of \$3,176,000 were made for 1973 performance (\$2,577,000 in 1973 for 1972 performance). Awards for 1974 performance have not yet been determined. At December 31, 1974, \$3,207,000 was available for such awards (\$5,383,000 in 1973).

7. The company and certain subsidiaries have contributory profit sharing plans in which all eligible employees participate. The contributions to profit sharing funds in the United States

and other nations, based upon percentages of pre-tax earnings, as defined, were \$18,060,000 (including \$1,215,000 applicable to discontinued operations) in 1974 and \$21,906,000 (including \$3,154,000 applicable to discontinued operations) in 1973.

The company and certain subsidiaries have a voluntary, contributory pension plan. The company's policy is to fund pension costs accrued: \$3,300,000 (including \$54,000 applicable to discontinued operations) in 1974 and \$2,995,000 (including \$298,000 applicable to discontinued operations) in 1973. At December 31, 1973, date of the latest actuarial determination, vested benefits were fully funded.

It appears that no material change in the funding or vesting provisions of the plan will be required by the Federal Pension Reform Act of 1974.

In the event that the amount actually payable annually under the plan does not amount to 40% or more of an officer's rate of salary at retirement, it is the intention of the company (subject to certain qualifications and conditions) to make supplementary payments so that the total annual payments will aggregate 40% (or 30% in the case of payments to widows) of the officer's rate of salary at retirement. The company also provides for annual payments in the amount of 30% of the officer's salary rate to widows of officers who die while in active employment. The company is providing a reserve for these supplementary payments on a current basis.

8. The company is one of 21 defendants named in a lawsuit commenced on September 20, 1974 by Zenith Radio Corporation ("Zenith") in the United States District Court for the Eastern District of Pennsylvania. All other defendants are either Japanese television manufacturers or United States subsidiaries of such Japanese corporations. Zenith's complaint alleges conspiracies and other violations of the U.S. antitrust and antidumping laws.

The complaint also challenges, under the U.S. antitrust laws, the purchase by subsidiaries of Matsushita Electric Industrial Co., Ltd. of Japan (collectively with such subsidiaries, "MEI") of certain of the assets and business of Motorola's Consumer Products Division home television receiver business. (See note 9 relating to discontinued operations). Prior to the consummation of such purchase, the U.S. Department of Justice, at the request of Motorola and MEI, investigated the antitrust implications of the transaction. During such investigation, the Department of Justice was advised by Zenith of Zenith's objections to the sale. The Department of Justice took no legal action to prevent the sale.

For all such alleged violations Zenith claims monetary damages in the aggregate of more than \$300 million (and the trebling of that amount). It seeks a judgment against the defendants jointly and individually in that amount plus costs and

plaintiff's attorneys fees. It also seeks divestiture by MEI of the assets purchased from Motorola.

In the event a divestiture is ordered or litigation damages are assessed against MEI arising out of such purchase, Motorola has agreed to share to a limited extent certain of the dollar loss, if any, incurred by MEI. The maximum loss for which Motorola could be responsible to MEI under this agreement is \$20 million. Management believes that the company has acted properly throughout and will deny any conspiracy or other violation of law alleged by Zenith.

The company is a defendant in various other suits and claims which arise in the normal course of business and is obligated under repurchase and other agreements principally in connection with the financing of sales.

In the opinion of management, the ultimate disposition of these matters will not have a material adverse effect on the business or financial position of the company.

9. The sale of certain of the assets of the home television receiver business to subsidiaries of Matsushita Electric Industrial Co., Ltd. of Japan was accomplished during May, 1974.

The loss from operations of the discontinued businesses includes all of the Consumer Products Division except for certain specialized products which are being continued. The loss of \$2,184,000 in 1974 covers the period through March 12, 1974. The loss shown for the year ended December 31, 1973 covers the entire year. Sales of the discontinued businesses were \$37,861,000 through March 12, 1974, and \$244,551,000 for the entire year of 1973. Sales and Other Revenues from continuing operations include \$10,669,000 resulting from sales of other divisions to the discontinued businesses for the entire year of 1973.

The net assets of the television receiver business at December 31, 1973 were:

Current Assets	
Accounts receivable, net.....	\$ 49,401,000
Inventories.....	69,776,000
Other current assets.....	6,793,000
Total current assets.....	125,970,000
Total current liabilities.....	41,969,000
Net current assets.....	84,001,000
Plant and equipment, net.....	24,156,000
Other non-current, net.....	480,000
Net assets.....	\$108,637,000

The agreement with Matsushita provides for a sales price to be determined in part by an audit. The audit has been

completed, but Matsushita has taken significant exception to the determination of the sales price, and if the parties are unable to resolve the dispute, the agreement provides for arbitration of certain of the disagreements. The company expects that after the sales price is finally determined (by negotiation, arbitration or otherwise) the net proceeds from the disposition (including the net proceeds from the disposition of certain assets not being sold to Matsushita), less operating losses from March 13, 1974 thru May 25, 1974, will result in a net gain which has been deferred pending final determination of the sales price.

10. Rental expense of continuing operations under all lease commitments (including non-cancellable leases) totaled \$17,826,000 in 1974 and \$15,021,000 in 1973. If all financing leases were capitalized, the impact on net earnings would be insignificant. Commitments related to non-cancellable leases expire as follows:

	(Thousands of dollars)
1975.....	\$9,715
1976.....	7,144
1977.....	5,187
1978.....	3,707
1979.....	1,590
1980—1984.....	689
1985—1989.....	172
1990—1994.....	172
1995 and later.....	2,576
TOTAL.....	\$30,952

# Ten-Year Financial Summary

(Dollars in thousands, except per share figures)

OPERATING RESULTS FROM CONTINUING OPERATIONS	1974	1973
SALES AND OTHER REVENUES	<b>\$1,367,171</b>	1,203,217
Manufacturing and other costs of sales	<b>878,675</b>	755,720
Selling, service and administrative expenses	<b>285,035</b>	240,274
Depreciation of plant and equipment	<b>43,456</b>	33,340
Interest and amortization of debenture discount, expense and premium, net	<b>27,201</b>	16,194
Minority interest in earnings (losses) of majority-owned subsidiaries	<b>(794)</b>	(280)
Total costs & other expenses	<b>1,233,573</b>	1,045,248
Earnings before taxes on income	<b>133,598</b>	157,969
Total income taxes	<b>60,686</b>	72,496
EARNINGS FROM CONTINUING OPERATIONS	<b>72,912</b>	85,473
Discontinued operations—profit/(loss)	<b>(2,184)</b>	(3,477)
Net earnings	<b>\$ 70,728</b>	81,996
<b>PER SHARE DATA</b>		
Earnings from continuing operations	<b>\$2.60</b>	3.07
Net earnings from all operations	<b>\$2.52</b>	2.95
Dividends declared	<b>\$ .60</b>	.45
<b>BALANCE SHEET DATA</b>		
Working capital*	<b>\$ 412,335</b>	427,715
Property, plant and equipment*	<b>\$ 324,928</b>	250,591
Long-term debt*	<b>\$ 147,810</b>	150,338
Stockholders' equity*	<b>\$ 585,711</b>	523,481
<b>RATIOS AND OTHER DATA</b>		
Current ratio*	<b>2.31</b>	2.43
Return on equity (%)	<b>12.4</b>	16.3
Return on sales from continuing operations (%)	<b>5.3</b>	7.1
Employees (yearend)*	<b>51,000</b>	64,000
Shares outstanding (avg. in thousands)	<b>28,085</b>	27,823

\*1965-1973 data has not been restated to exclude discontinued operations.

## MANAGEMENT DISCUSSION AND ANALYSIS OF STATEMENTS OF CONSOLIDATED EARNINGS

Sales and other revenues from continuing operations increased 13.6% in 1974 and 33.4% in 1973 over the corresponding periods. The changes were due primarily to increases in unit volume in each of the four divisions as only modest price increases were implemented during these periods.

Manufacturing and other costs of sales increased 16.3% in 1974 and 24.4% in 1973 over the previous years. The 1974 costs were adversely affected by increased payroll and prices of purchased material which rose more rapidly than usual in 1974 due to high inflation. In 1973, costs rose less rapidly than the sales increase and, in addition, productivity gains tended to offset the more normal rate of inflation that occurred in 1973.

Selling, service and administrative expenses increased 18.6% in 1974 and 42.9% in 1973. Primary reasons for the increases in both years were expansion of the sales force and increased expenditures for engineering, research and development which were approximately \$112,000,000 in 1974, \$89,000,000 in 1973 and \$71,000,000 in 1972.

Depreciation of plant and equipment increased 30.3% in 1974 and 17.5% in 1973 over the previous periods. The change was due to a higher investment in plant and equipment which

1972	1971	1970	1969	1968	1967	1966	1965
901,883	717,177	670,189	666,019	559,030	449,926	412,651	342,964
607,695	469,583	451,821	437,439	376,972	301,826	280,064	227,672
168,116	155,248	123,463	121,211	102,548	76,631	71,498	64,177
28,376	25,028	21,745	18,514	15,612	13,237	10,793	8,032
10,299	7,613	9,332	11,121	7,731	6,488	4,995	1,922
(1,267)	279	(28)	—	—	—	—	—
813,219	657,751	606,333	588,285	502,863	398,182	367,350	301,803
88,664	59,426	63,856	77,734	56,167	51,744	45,301	41,161
41,103	29,878	33,339	42,108	28,954	23,851	20,813	18,740
47,561	29,548	30,517	35,626	27,213	27,893	24,488	22,421
4,477	2,202	(6,277)	(1,833)	1,048	(9,077)	8,465	9,418
52,038	31,750	24,240	33,793	28,261	18,816	32,953	31,839
1.74	1.10	1.15	1.44	1.11	1.14	1.00	.92
1.91	1.18	.91	1.37	1.15	.77	1.35	1.31
.312	.30	.288	.25	.25	.25	.25	.25
323,544	256,150	222,117	235,593	176,414	131,358	128,159	118,015
200,980	184,219	174,530	167,500	145,582	136,963	127,219	81,083
80,302	63,780	65,348	90,306	96,601	65,079	66,744	38,314
439,611	375,897	344,085	326,134	235,778	206,286	192,598	165,002
2.36	2.22	2.39	2.47	2.08	1.88	1.96	2.55
10.8	7.9	8.9	10.9	11.5	13.5	12.7	13.6
5.3	4.1	4.6	5.3	4.9	6.2	5.9	6.5
56,000	49,000	37,000	45,000	41,000	36,000	36,000	30,000
27,297	26,822	26,650	24,656	24,534	24,488	24,417	24,355

totaled \$324,928,000 at December 31, 1974 compared to \$250,591,000 in 1973 and \$200,980,000 in 1972. Expenditures for the purchase of fixed assets were \$131,201,000, \$84,510,000 and \$48,008,000 in 1974, 1973 and 1972 respectively.

Interest and amortization of debenture discount increased 68.0% in 1974 and 57.2% in 1973 due to increases in the rates of interest during 1974 and to increased debt. Total debt was \$238,001,000 at December 31, 1974, up 9.8% from 1973 while 1973 debt increased 61.5% from yearend 1972.

As the result of the above changes, earnings before taxes on income decreased 15.4% in 1974 while increasing 78.2% in 1973 from the previous periods.

Taxes on income decreased 16.3% in 1974 and increased 76.4% in 1973 as a result of the changes in earnings before taxes.

Earnings from continuing operations decreased 14.7% in 1974 and increased 79.7% in 1973 over the previous periods which is approximately the same as the pre-tax changes.

Additional comments on the 1974 operations may be found in the Letter to Stockholders and other sections of the annual report.

# Motorola Worldwide

## Major facilities in:

### Australia

Melbourne

### Canada

Midland and Willowdale, Ontario

### Denmark

Frederikssund

### France

Angers

Toulouse

### West Germany

Mainz-Kastel

Wiesbaden

### Great Britain

East Kilbride, Scotland

Stotfold and Warrington, England

### Hong Kong

Kowloon

### Israel

Tel-Aviv

### Italy

Rome

### Korea

Seoul

### Malaysia

Kuala Lumpur

### Mexico

Guadalajara, Jalisco

Mexico City

Nogales, Sonora

### Puerto Rico

Vega Baja

### South Africa

Bramley, Transvaal

### Switzerland

Geneva

### United States

Carol Stream

Chicago

Franklin Park

Lombard

Quincy and Schaumburg, Illinois

Mesa

Phoenix

Tempe and Scottsdale, Arizona

Fort Lauderdale, Florida

Arcade, New York

Austin and Seguin, Texas

Webb City, Missouri

Mount Pleasant, Iowa

### Motorola Executive Institute in:

Oracle, Arizona

### New production facilities were announced or under construction in 1974 in:

Taunusstein, West Germany

Penang, Malaysia

Fort Worth, Texas

# Motorola Products

## AUTOMOTIVE PRODUCTS DIVISION

Car radios

Stereo tape players

Alternator charging systems

Solid-state ignition systems

Electronic instrumentation

## COMMUNICATIONS DIVISION

Mobile and portable FM two-way radio communications systems

Radio paging systems

Communications control centers

Visual communications systems

Signaling and remote control systems

Car telephone systems

Microwave communications systems

Health care communications systems

Precision instruments

Component products

Electronic command and control systems

## GOVERNMENT ELECTRONICS DIVISION

Fixed and satellite communications systems

Space communications systems

Tactical electronics systems

Radar surveillance and display systems

Positioning and navigation systems

Countermeasures systems

Missile guidance and drone control systems

Missile and aircraft instrumentation

Secure communications

## SEMICONDUCTOR PRODUCTS DIVISION

MOS and bipolar integrated circuits

Linear integrated circuits

MSI/LSI integrated circuits

Semiconductor chips

Zener and tuning diodes

RF modules

Power and small signal transistors

Field effect transistors (FETs)

Microwave devices

Optoelectronics

Rectifiers

Thyristors

Varactors

Triggers

Suppressors

Functional circuits

Liquid crystal displays (LCDs)

## NEW VENTURES AND OTHER BUSINESSES

Training and educational films

Hotel/motel and medical group practitioner electronic management, communications and entertainment systems

Aerial remote sensing

Solar energy research

CRT displays for computer peripheral, coin-operated electronic games and closed-circuit TV applications



**MOTOROLA**

Motorola Inc.  
World Headquarters  
5725 N. East River Rd.  
Chicago, Ill. 60631

Motorola and  are registered  
trademarks of Motorola Inc.

**ANNUAL MEETING  
OF STOCKHOLDERS.**

The annual meeting will be held on Monday, May 5, 1975. A notice of the meeting, together with a form of proxy and a proxy statement, will be mailed to stockholders on or about March 25, 1975, at which time proxies will be solicited by management.

**TRANSFER AGENTS AND  
REGISTRARS.**

Harris Trust and Savings Bank  
111 W. Monroe St., Chicago, Ill. 60690  
First National City Bank, 111 Wall St.,  
New York, N.Y. 10015

**AUDITORS.**

Peat, Marwick, Mitchell & Co.,  
222 S. Riverside Plaza,  
Chicago, Ill. 60606



**MOTOROLA**

---