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On the cover:

The view of the earth signifies the company's growing strength in providing customers with quality information storage and communications products around the world. In 1978, international revenues were nearly half of total revenues.

Financial Highlights*

For the year ended December	1978	1977	Difference
Revenues	\$633,266,000	\$450,112,000	\$183,154,000
Depreciation and amortization charged to operations	40,187,000	27,629,000	12,558,000
Income before extraordinary credit	41,948,000	33,869,000	8,079,000
Extraordinary credit	8,249,000	22,094,000	(13,845,000)
Net income	50,197,000	55,963,000	(5,766,000)
Average number of common shares and equivalents	7,198,000	6,613,000	585,000
End of year			Circles Carl
Cash and temporary investments	28,372,000	12,021,000	16,351,000
Total assets	487,649,000	330,256,000	157,393,000
Notes payable	83,472,000	47,734,000	35,738,000
Convertible subordinated debentures	54,752,000	65,687,000	(10,935,000)
Shareholders' equity:			
Preferred stock	65,912,000	65,912,000	AMERICAN TELESCOPE
Common shareholders' equity	141,264,000	46,157,000	95,107,000
Total shareholders' equity	207,176,000	112,069,000	95,107,000
Number of employees	11,085	8,823	2,262

^{*}Please refer to the financial statements included in the 1978 Financial Report which is an integral part of the 1978 Annual Report.

Additional financial highlights are on the last page of the Annual Report.

Letter to Shareholders

1978 was another good year for Memorex. It was a year of strong market growth. It was a year of shortages of skilled personnel, material, and facilities. It was also a competitive year—old competitors became more aggressive and new competitors entered or announced plans to enter the markets we serve. Revenues of your Company grew by \$183 million. This means that the increase in revenue in 1978 was greater than the Company's total revenue in 1973.

In addition to rapid growth, the year featured our trial with IBM, the acquisition of Telex Europe, increased emphasis on technology, facilities expansion, decentralization of operating responsibilities, marketing of new products, and a major financing program.

Managing the growth while concurrently posturing the Company for the future has made this a strenuous year. The strains imposed on the business were intensified when the IBM litigation and the Telex Europe acquisition were added to demanding operational objectives. It is a tribute to the dedication of Memorex people that they delivered a 41 percent revenue increase and a 24 percent profit increase despite the magnitude of the challenge.

Revenue was \$633 million—an increase of 41 percent. Some of this growth is the result of the acquisition of the Telex operations in Europe. Their 1977 revenue was approximately \$39 million.

Income before extraordinary credit was \$41.9 million, an increase of \$8 million or 24 percent. Net income after extraordinary items was \$50.2 million, a decrease of \$5.8 million from the prior year. The extraordinary credit in 1977 was \$22.1 million, due to tax loss carryforward benefits. The extraordinary credit in 1978 was reduced to \$8.2 million because Federal tax loss carryforwards had been utilized by mid-year.

Earnings per common share before extraordinary credit on a fully diluted basis were \$5.64, an increase of 8 percent over the \$5.22 figure for 1977. The number of shares and equivalents increased from 6.6 million in 1977 to 7.2 million in 1978, a gain of 9 percent, due principally to the public offering of common shares during the year.

Cash requirements continued at high levels. In order to provide adequate long-term financing for future growth, three major actions were taken:

- \$50 million was borrowed from two leading insurance companies and the Bank of America credit agreement was restructured.
- \$42 million in cash was obtained through a new common stock offering and the exercise of the majority of outstanding warrants.
- An \$80 million revolving line of credit with nine major international and domestic banks was established in January 1979. \$49 million was made available for borrowing at the time of the agreement and the remainder will be available as the Company generates additional earnings.

Debt at the end of the year was \$153 million, compared with \$128 million at the end of 1977. Virtually all of this debt is long term.

Especially gratifying was the increase in shareholders' equity to \$207.2 million from \$112.1 million. The debt to equity ratio improved to 0.7 at year end from 1.1 at year-end 1977. Retained earnings became positive for the first year since 1970, and at year end were \$43.2 million compared with a deficit of \$4.2 million at the end of 1977. Your Company's financial position is excellent.

Although operating performance was good, with substantial gains in most areas, the real story of 1978 was that of the investments made to build the future.

- Perhaps the most significant single area of investment was in people and in organization. A basic decentralized organization structure was put in place late in 1977. During 1978 it was strengthened and modified. The communications business was elevated to Group status in recognition of its importance to our future. New divisions were established in the General Systems Group to serve customers for rigid and flexible disc drives.
- The decentralized organization has provided opportunity for personal growth. During the past year there were over 860 internal promotions. The "business team" approach enables Memorex to retain its warm, friendly, and personal environment as it grows. This is important in ensuring the career dedication of all employees.
- During 1978 Memorex made substantial progress in technology. Centers of Excellence for Recording Technology and for Magnetic and Chemical Technology were expanded. Their primary mission is to establish the technical feasibility of innovative approaches that will enable future products to maintain leadership in customer value.
- The Company announced many new products. Our 3770 Disc Cache is particularly significant since it represents an industry first, which can mean substantially enhanced values for our customers. It consists of a microprocessor and advanced semiconductor memory devices. When placed in front of our 367X disc drives, it has the potential of providing faster access time and more efficient use of the main computer. Another innovation which can provide substantial customer benefit is our new operating software package for IBM System/3 users. It permits on-line operation for some computers that were previously limited to batch processing.

- The acquisition of Telex Europe has increased our customer base and our ability to serve customers effectively in most major European countries.
 Capabilities to maintain, repair, refurbish and train were strengthened. This process will continue through 1979. The end result is a Memorex presence in Europe which has much greater capability to serve our growing customer base.
- Facilities expansion occurred at a number of locations. Our Communications Group moved into a leased facility. A new and efficient printed circuit board facility was dedicated in Eau Claire, Wisconsin. Warehousing, refurbishing, and training facilities were expanded in the United States and Europe. Further expansion of manufacturing facilities outside California is planned for 1979.
- Two significant affiliations occurred during the year.
 A joint venture was established with Bell and Howell Company for effective production of home video cassettes. In Japan, a joint venture with Teijin Limited, a major manufacturer, will produce flexible discs for the growing Japanese market.
- The jury trial in our litigation against IBM was completed in early July when the judge declared a mistrial after the jury deadlocked 9 to 2 in favor of Memorex. He subsequently directed a verdict in favor of IBM. Despite the judge's decision, we came close to winning a substantial award. We are confident that we will ultimately prevail and are vigorously pursuing a new trial. We believe it is important that our customers be assured of freedom of choice in their information systems.

Throughout 1978 your Company contributed significantly to our society. It contributed to employment by adding 1,900 jobs. Affirmative action plans for equal employment opportunity were carried out. Export sales were strong, with benefits both to jobs and our balance of payments. Participation in community activities increased and contributions to worthy causes were substantially above those in 1977.

The outlook for 1979 is generally favorable. Just how favorable will depend largely upon international events, the effectiveness of our government, and the actions of IBM. Recent developments appear to have increased the probability of energy shortages, higher inflation rates, and an economic slowdown. During the fourth quarter of 1978 and continuing into 1979, IBM has sharply reduced prices and introduced a number of new products, technologies and services.

Assuming energy availability, the markets for Memorex products should be strong. Our products generally contribute to productivity and efficiency—thus they tend to be recession-resistant. IBM's recent aggressive actions have caused a slowdown in order placements. However, there is a strong underlying market for our products and order placement is expected to improve. 1979 should be a good revenue year for Memorex.

Our anticipation of competitive disc drive technology has been generally sound. Our efforts in 1979 will be directed to product leadership, consolidation, and margin improvement. We look forward to delivering good results while strengthening the base for continued growth in the '80s.

Tobat C Wilson

ROBERT C. WILSON President, Chairman, and Chief Executive Officer



Memorex Technology

Memorex made substantial investments in advanced technology during 1978. Expenditures for in-house research and development grew 23 percent over the previous year to a record \$23.6 million. At the same time, cost improvement and quality enhancement programs were expanded worldwide. These investments contributed to increased customer values in the Company's products and technical services.

In R&D, technical staffs were strengthened in the scientific and engineering disciplines critical to product leadership in data storage and communications. These covered all technology levels, from raw materials through systems and communications software. R&D capabilities were further enhanced with the expansion of the two corporate centers in Santa Clara for research and application of emerging digital recording and magnetic coating technologies.

These centers greatly extend the company's skills in advanced product development. The Recording Technology Center focuses on digital recording concepts such as thin films, bubble memories, charge-coupled devices, and advanced microelectronics.



Steven H. Puthuff, Vice President, Engineering, discusses new test procedures in Memorex's Engineering Computer Laboratory. Here, engineering models must pass rigid performance and quality tests before being certified for manufacture.



