

To our shareholders

This is my first report to you at the end of an exciting first year.

It was the year of our organization, personnel recruitment, the establishment of physical facilities. These tasks are now behind us, and we have announced our first product—an advanced computer memory device, highly sophisticated in design and fabrication, which achieves a performance capability surpassing anything presently on the market.

This has also been a year of market testing of our initial product. Presentations were made to all the major computer manufacturers. We were well received and our contention confirmed that very high-speed memory will be of major significance to the next generation of computer equipment. A capabilities brochure was distributed to all segments of the electronics industry. The breadth of the response was very gratifying and indicated application for our high-speed memory in many ancillary areas.



Products, however advanced and attuned to demand, do not alone make a successful company. Companies are people, and in our field, they must be people of the highest technical expertise and accomplishment. We have been very fortunate in attracting people who are not only highly trained in the sophisticated computer technologies, but who also have the dynamic outlook and desire for identification with a company which is so essential to corporate growth and success.

We are specifically fortunate in that we have been able to obtain Mr. Fred Ordemann, who was appointed Vice President of Systems in November. Fred has an extremely strong background in memory systems, having spent fifteen years with IBM, where at one point in his career, he was responsible for all System/360 memories.

It is a saying that the first year in any endeavor is the hardest. Perhaps this is true. We have grown from five to seventy-five people. We have established our capabilities in circuit design, circuit and system packaging, integrated circuit fabrication, testing and all the disciplines necessary for the memory business. From here on, additional investment required to develop new memory products is relatively small.

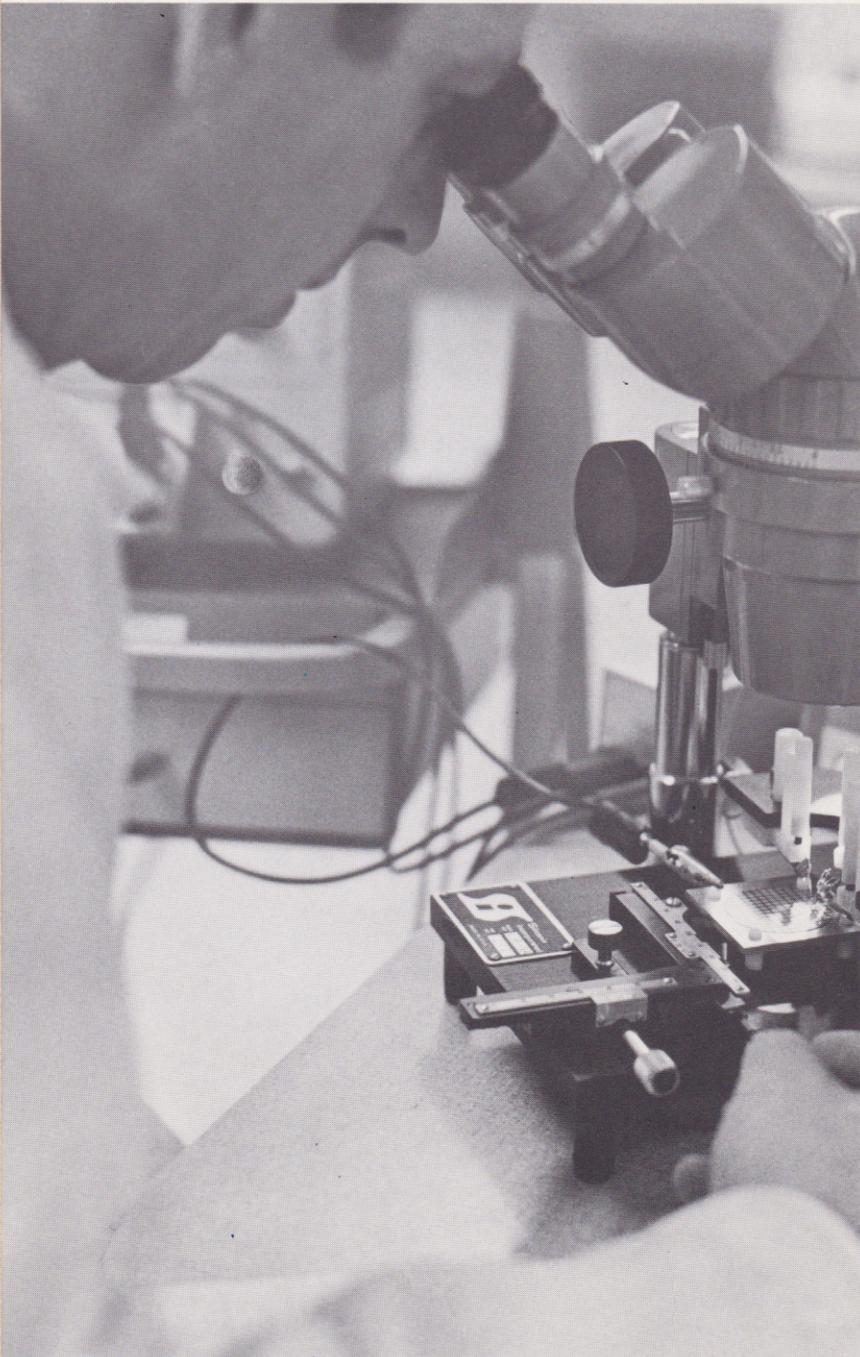
But the second year, I believe, is the one of real challenge. The groundwork has been laid. Now it means even harder work toward the fulfillment of objectives. For us, it means the aggressive development, production and marketing of a number of new products. It means a continual expansion of staff and services to

support our world-wide marketing efforts. It means the emergence of Advanced Memory Systems into an advanced industry leadership position that will reward us not only as employees and stockholders, but as members of the general public.

Sincerely,

A handwritten signature in dark ink, reading "Robert H. F. Lloyd". The signature is written in a cursive, flowing style.

Robert H. F. Lloyd, President



ADVANCED MEMORIES . . . A NEW DIMENSION IN COMPUTER TECHNOLOGY—We live in an era of technological excitement. Yesterday's fantasy has become today's reality. During the past ten years, we have witnessed a seemingly endless cavalcade of brilliant scientific achievements: controlled nuclear power . . . inertial navigation . . . human organ transplant . . . men walking on the moon.

In each of these cases, years of painstaking research and experimentation were augmented by computer simulation and synthesis. Man and his machines worked together to reach their goals faster, more economically, more directly.

As the problems became more complex, so did the computers. Speed, information handling capacity, reliability and economy became critical operating parameters, both individually and collectively. Computer systems were upgraded to keep pace with the technical advances that computer technology helped bring about.

As multi-function semiconductors—integrated circuits—were developed and refined for volume usage, it became apparent they held considerable promise for improving the method of storing digital information in a computer. Compared to ferrite cores, long the standard element for computer memories, I/C memories are up to ten times faster, and when used in quantity, more economical. Their inherent small size permits dense packaging, and because many functions can be designed into the basic structure of the I/Cs, all the control, operational and checking characteristics

can be batch fabricated to assure uniform performance.

Thus the stage was set when Advanced Memory Systems was incorporated in 1968. A technological change—integrated circuit memories—was in the offing for the data processing industry . . . a change that would dramatically alter data processing. Integrated circuit memories were better. Their performance would permit the design of newer, higher speed, data processing systems—more powerful systems to solve problems of ever-increasing complexity more economically.

Advanced Memory Systems will capitalize on integrated circuit technology becoming the major technology for computer memories. The AMS founding group and initial key employees were drawn from IBM, Motorola, Fairchild Camera, Collins Radio, Hughes, Memorex, and Crucible Steel. These men were specifically chosen for their skills in integrated circuits and memory systems design and computer architecture. They have the abilities and experience necessary to produce full memory systems and to intelligently select which segment of the market to initially pursue. The personnel hired since reflect a similar breadth of capabilities as those represented by the original group.

RAPIDLY EXPANDING MARKET

Data processing is the fastest growing industry in the world. In 1960, it was estimated that the value of all computers in the world was approximately one billion dollars. This figure doubled in 1965, and by 1968 annual sales were more than six billion dol-

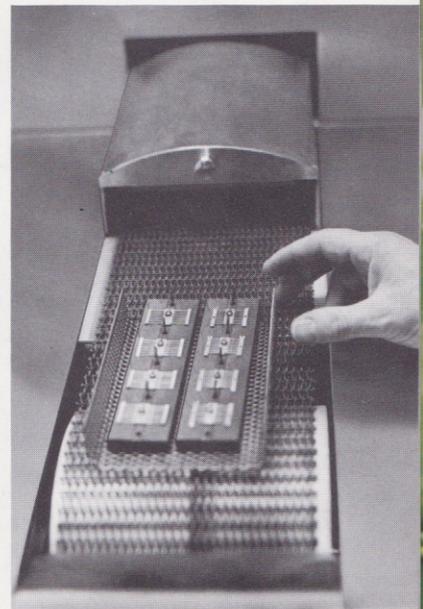
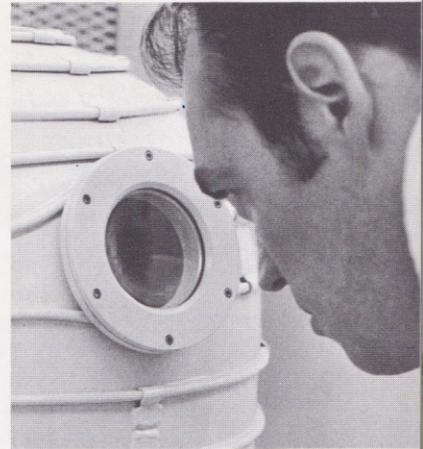
lars. By 1975, it is estimated that sales will reach the twenty billion dollar figure, a growth rate of over 20% per year.

Because of the trend to more memory per computer system, it is estimated the memory market has been growing at 35% per year. The change-over to semiconductor memory will further increase the size of the non-captive market since most of the users do not have the highly specialized skills to produce this new technology. Since very high-performance memory has not been available in the past, the growth in this portion of the market will be significantly higher than 35%.

THE MEMORY SYSTEM—The main memory is an integral part of a computer's central processor and represents a significant portion of its cost. The size of the memory is measured by its information storage capacity. The smallest unit of digital data is commonly termed a "bit." Memory systems vary in size from those with a capacity of a few thousand bits to those with a capacity of many millions.

A memory system consists of many storage circuits mounted on modular printed circuit cards with peripheral electronics to perform other important functions such as detecting and correcting errors, amplifying output information signals and supplying power.

INITIAL AMS PRODUCT—On December 20, 1969, we announced our first memory product. It is a high-performance memory configured into four versions of a memory printed circuit card containing integrated





circuit memory storage elements and support electronics. Performance of these cards is ten times faster than anything available. This card is aimed primarily at the small, high-speed memory requirements both in the digital computer market and auxiliary applications such as digital communications, instrumentation and test equipment.

Ultra-high speed memories were chosen as the initial product area for our company for three important reasons:

- 1 The founders of AMS have unique experience in the very high-performance area;
- 2 Recent computer architecture innovations emphasize the need for extremely high-speed memories;
- 3 This is an area where no technology could compete with semiconductors.

The response to a capabilities brochure distributed in late 1969 has confirmed our original premise that the application areas for very high-speed memory spread far beyond the computer market. Within the computer market this high-speed memory is intended for applications such as buffering, main memories, high-speed control memories, scratch pads, register replacements within the processor, storage protect memories, etc. In digital communications memories, these speeds can be used for data buffering and de-multiplexing. In test equipment a typical application is for input data generation for testing digital subsystems. This initial product was fabricated using integrated circuit memory devices containing 16 bits per chip. Our product evolution in this market area will be towards an

increased number of storage bit positions per chip. This will result in further performance improvements concurrent with cost reductions.

One of AMS's major competitive advantages is a computer-aided design and test capability unmatched in the industry. Our design approach involves complete simulation of a memory system modeled down to the transistor level. This allows tremendous gains in memory performance by optimizing processing and circuit parameter tradeoffs while minimizing the manufacturing difficulty of making such high-performance products.

EXPANDING FACILITIES—An 18,000 square foot facility was leased by AMS in January, 1968. Initially a 12,000 square foot area was designed to serve as a basic production area and office space. In December, 1969, the remaining 6,000 square feet were utilized to expand the ultra-clean room area and to provide a memory subsystem assembly and test area.

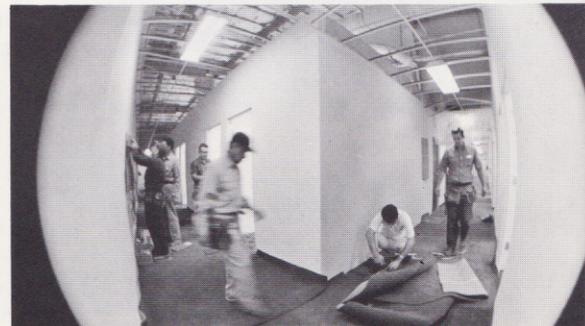
Our clean room facilities represent the ultimate in environmental control to eliminate contamination, which is the key to lower costs through high yields in large-scale integrated circuits. An elaborate filtering, temperature and humidity control air processing plant feeds air to the room at such a rate that a complete change of air occurs every 1½ minutes. In addition to this cleanliness control, all operations are conducted inside laminar flow hoods which contain their own absolute filtering systems for further contamination control. The laminar flow hoods are arranged

in such a manner that the integrated circuits in process can be passed directly from one to the next without ever going into the room atmosphere. The wisdom of these precautions has been demonstrated in the very favorable production yields achieved in our semiconductor processing activities to date.

Our organization has been built to the level where it is now one of the largest devoted solely to semiconductor memory. Our plant is fully operational and presently producing our announced high-speed bipolar memories and experimental MOS memories.

SALES ORGANIZATION—Sales offices are presently being established in major market areas. These offices will be augmented by manufacturers' representatives in the rest of the United States, Europe, Japan and Canada.

FINANCIAL HISTORY OF THE COMPANY—Three weeks after founding, private financing of \$500,000 was accomplished. The two major sources of this private money were Diebold Technology Venture Fund, Inc., and Value Line Development





Capital Corp. After obtaining this financing, a lease line of credit was obtained from the Bank of America for \$410,000 to be used for the purchase of our processing equipment. Further, as part of our building lease agreement, the leaseholder provided \$210,000 for leasehold improvements.

The building when rented was a shell and required a total of \$250,000 to outfit. On July 29, 1969, a public offering of stock was made which netted the company \$3.387 million.

LONG-TERM GOAL—The long-term goal of AMS is to be a major force in the computer memory market supplying memory products over the full price/performance spectrum.

Our high-speed memories utilize a type of integrated circuit referred to as bipolar. This process is similar to that used to make the transistors and logic circuits used in all present-day computers. A second form of the technology called MOS—Metal Oxide Semiconductors—has recently become commercially feasible. The MOS technology will be used by AMS for our planned slower-speed, more-cost sensitive memory products.

With our reputation of performance and delivery established in the high-speed area and the resulting financial health, we will rapidly expand in other specifically selected segments of the memory market. Our long-term competitive advantage will be derived primarily from product specialization which, when coupled with the development, production, marketing and management team now assembled, will make AMS a major force in this dynamic industry.

AMS OFFICERS

Robert H. F. Lloyd, President of the firm, was previously with IBM for nine years, where he held positions ranging from applications engineering to manager of a systems technology development department. Prior to that, he spent three years at RCA's Semiconductor Division. He attended Tufts University and Stevens Institute of Technology and holds a BSEE degree from the former. He has filed ten patents and written numerous articles on computer technology. He is a member of the IEEE Solid State Circuits Committee.

Andrew Berding, Vice President of Engineering, comes to AMS fully versed in memory development after many years of such work at IBM. He worked on core memory system development for the System/360 and on development projects involving thin-film buffer memory, high-speed integrated circuit memory and logic circuits. He received his BSEE degree from Rensselaer Polytechnic Institute and pursued graduate studies at Stanford and the University of Santa Clara.

L. Brent Dickson, Vice President of Manufacturing, spent six years with Motorola Semiconductor in various positions of responsibility in device development and production, including pilot line manager for LSI. He holds a BSEE from Brigham Young University and an MSEE from Arizona State University.

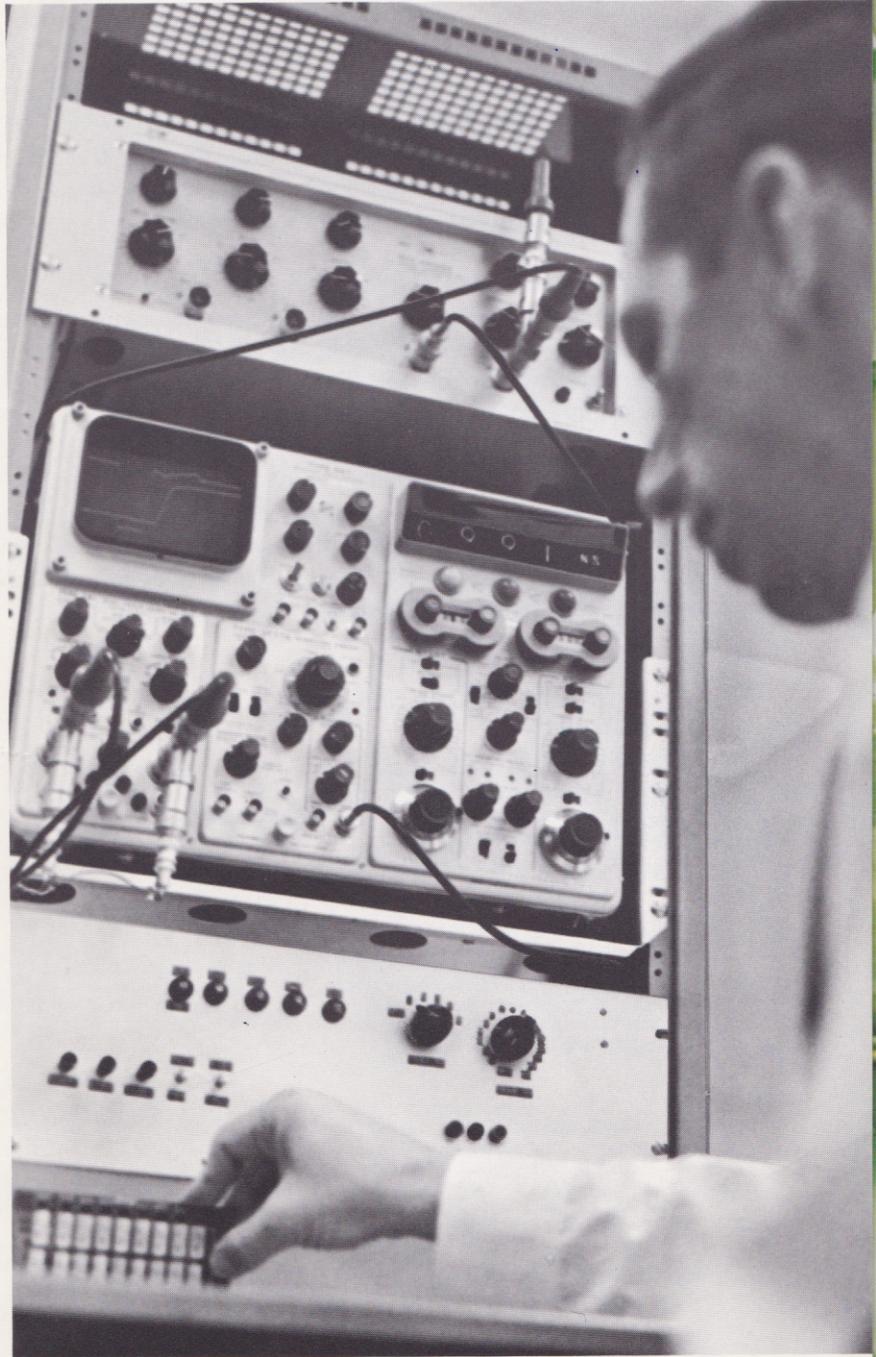
Charles Fa, Vice President of Technology, brings a wealth of microelectronics experience to AMS. Over the past eleven years he has held positions as senior technical specialist or equivalent at RCA, Hughes Aircraft, Westinghouse, Autonetics Division of

North American Rockwell, and Collins Radio. He received a BS in electrical engineering and mathematics from California Polytechnic, continuing his studies at the University of Pennsylvania and the Stevens Institute of Technology.

Sol Kershner, Vice President of Finance, was previously Vice President, Finance, and Controller for the Crucible Stainless Steel Division of Colt, Inc. Before that he was with the American Bridge Division of U. S. Steel, where he held positions ranging from systems analyst to director of general accounting. He holds a BS and a JD from New York University and did graduate work at the University of Pittsburgh. He is a member of the New York Bar.

Jerome D. Larkin, Vice President of Marketing, comes to AMS with seven years of experience as product marketing manager for several product lines at Fairchild, including digital integrated circuits, custom circuits, memory and LSI. He received his BSEE from Manhattan College and continued his studies at Adelphi University and the Drexel Institute of Technology.

Fred A. Ordemann, Jr., Vice President of Systems, spent many years with IBM where he was manager of memory development for IBM 360 and memory product engineering for IBM's 7000 series. A University of Illinois graduate where he received a BSEE, he was also on the design team in charge of I/O development for the IBM 360 model 67 time-sharing system. Most recently he was in the systems architecture department, managing a Data Base Systems Requirement Study.



Advanced Memory Systems Financial Review

The Board of Directors and Stockholders
Advanced Memory Systems, Inc.

We have examined the accompanying balance sheet of Advanced Memory Systems, Inc. at September 30, 1969 and the related statements of cash receipts and disbursements, and stockholders' equity from October 25, 1968 (date of incorporation) to September 30, 1969. 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.

As explained in Note 1 the Company is in the development stage, and accordingly its costs are being deferred. Realization of the unrecovered preoperating costs is dependent upon future developments, including the ability of the Company to achieve a level of operations which would permit such recovery. The eventual outcome of these matters cannot be determined at this time.

In our opinion, subject to the ultimate recovery of the preoperating costs described in the preceding paragraph, the statements mentioned above present fairly the financial position of Advanced Memory Systems, Inc. at September 30, 1969 in conformity with generally accepted accounting principles and its cash transactions from October 25, 1968 (date of incorporation) to September 30, 1969.

November 4, 1969

Arthur Young & Company

Balance Sheet September 30th. 1969

Assets

Current assets:

| | | |
|--|-----------|------------------|
| Cash | | \$ 105,294 |
| Time certificates of deposit and marketable securities, at cost (which approximates market) | | 3,160,900 |
| Interest receivable | | 21,893 |
| Inventories, at the lower of average cost or market: | | |
| Raw materials and supplies | \$ 42,888 | |
| Work-in-progress | 34,094 | 76,982 |
| Prepaid expenses | | 5,349 |
| Total current assets | | <u>3,370,418</u> |

| | | |
|---|--|--------------------|
| Note receivable—due after one year | | 6,225 |
| Machinery, equipment and leasehold improvements, at cost less depreciation of \$2,887 | | 65,092 |
| Lease deposits (Note 4) | | 68,625 |
| Deferred financing costs (net of amortization of \$3,320) (Note 3) | | 24,570 |
| Organization expense, at cost less amortization | | 3,600 |
| Unrecovered preoperating costs (Note 1) | | 575,503 |
| | | <u>\$4,114,033</u> |

Liabilities and Stockholders' Equity

Current liabilities:

| | | |
|--|--|----------------|
| Accounts payable | | \$ 180,085 |
| Accrued liabilities | | 32,465 |
| Installment note payable—due within one year | | 1,200 |
| Total current liabilities | | <u>213,750</u> |

| | | |
|---|--|---------|
| Installment note payable—due after one year | | 4,300 |
| 6½ % Convertible notes payable (Note 3) | | 500,000 |

Commitments (Notes 4 and 5)

Stockholders' equity:

| | | |
|---|-----------|--------------------|
| Capital stock, \$.10 par value, 1,600,000 shares authorized (of which 276,995 shares are reserved for issuance), 844,755 shares issued (Notes 2 and 6) | \$ 84,476 | |
| Capital in excess of par value | 3,315,807 | |
| Less cost of 33,000 shares in treasury | (4,300) | 3,395,983 |
| | | <u>\$4,114,033</u> |

See accompanying notes.

Statement of Cash Receipts and Disbursements

From October 25, 1968 (date of incorporation) to September 30, 1969

Cash receipts:

| | | |
|---|-------------|------------------|
| Sale of capital stock, net of underwriting expenses of \$61,892 | \$3,400,283 | |
| Less note receivable received in connection therewith | (6,000) | |
| Less cost of shares held in treasury | (4,300) | \$3,389,983 |
| Proceeds of loan, net of financing costs of \$27,890 (Note 3) | | <u>472,110</u> |
| Total cash receipts | | <u>3,862,093</u> |

Disbursements (accrual basis):

| | |
|--|-------------------|
| Preoperating costs (note 1): | |
| Salaries | 289,339 |
| Raw materials and process and other supplies | 112,665 |
| Travel and personnel recruitment | 86,134 |
| Payroll taxes and benefits | 20,922 |
| Space and equipment rent (Note 4) | 29,154 |
| Taxes, insurance, legal and other | 83,568 |
| Depreciation and amortization | 7,007 |
| Interest income, net | (19,192) |
| | <u>\$ 609,597</u> |

Applied to:

| | |
|---|----------------|
| Work-in-progress inventory | 34,094 |
| Unrecovered preoperating costs (Note 1) | 575,503 |
| | <u>609,597</u> |

| | | |
|--|---------|--------------------|
| Raw materials and supplies inventory | 42,888 | |
| Lease deposits | 68,625 | |
| Machinery, equipment and leasehold improvements | 67,979 | |
| Organization expense | 4,400 | |
| Total disbursements (accrual basis) | 793,489 | |
| Accrual adjustments | 197,590 | |
| Total cash disbursements | | <u>595,899</u> |
| Cash time deposits, and marketable securities at end of period | | <u>\$3,266,194</u> |

See accompanying notes.

Statement of Stockholders' Equity

From October 25, 1968 (date of incorporation) to September 30, 1969

| | Capital Stock | | Capital in Excess of Par Value | Treasury Stock | Total Stockholders' Equity |
|--|----------------|-----------------|--------------------------------|------------------|----------------------------|
| | Shares Issued | Par Value | | | |
| Shares issued: | | | | | |
| To the Company's founders pursuant to a preincorporation and subscription agreement dated October 21, 1968 | * 438,750 | \$43,875 | \$ 14,625 | \$ — | \$ 58,500 |
| To purchasers of 6½% convertible notes payable | * 75,000 | 7,500 | 2,500 | — | 10,000 |
| To directors | * 2,250 | 225 | 75 | — | 300 |
| To the public | 270,000 | 27,000 | 3,298,107 | — | 3,325,107 |
| To underwriter | 30,000 | 3,000 | — | — | 3,000 |
| On exercise of employee stock options | 28,755 | 2,876 | 500 | — | 3,376 |
| Shares acquired for treasury (33,000) | — | — | — | (4,300) | (4,300) |
| | <u>844,755</u> | <u>\$84,476</u> | <u>\$3,315,807</u> | <u>\$(4,300)</u> | <u>\$3,395,983</u> |

* Adjusted to reflect a 3 for 2 stock split in March 1969.

See accompanying notes.

Notes

September 30, 1969

1. Preoperating Costs

Since the Company has been in the development stage, all costs incurred have been deferred. As of September 30, 1969 the Company had developed what it considers a saleable product and accordingly, commencing October 1, 1969, the Company will begin amortizing these costs against operations on the basis of sales over the next three years. At least one-third of these costs will be amortized in any single year.

2. Capital Stock

The Company was incorporated October 25, 1968 with authorized capital stock of 800,000 shares, \$.20 par value. In March 1969, the Company increased its authorized capital stock to 1,600,000 shares, \$.10 par value and effected a 3 for 2 stock split. All share information in the accompanying financial statements gives effect to this stock split.

The Company has reserved for issuance 93,750 shares for conversion of convertible notes payable (Note 3) and 183,245 shares for issuance pursuant to stock option plan. See Note 6 for additional information concerning stock options including shares which were issued upon exercise.

3. 6½% Convertible Notes Payable

During the period ended September 30, 1969 the Company issued 6½% convertible notes in the principal amount of \$500,000 due December 10, 1975 with interest payable semi-annually commencing June 10, 1969. The notes are subject to prepayment by the Company at any time on or after December 10, 1970 by payment of principal

and interest to the date of call. Each note (principal amount—\$25,000) is convertible at any time prior to maturity into 4,687½ shares of capital stock (an aggregate of 93,750 shares if all notes are converted).

4. Lease Commitments

The Company has leased office and manufacturing space for the ten years ending December 31, 1978, with an option to renew for an additional five years. Lease rentals for the above described facilities will be approximately \$53,000 annually through December 31, 1978 (\$32,000 annually through 1983).

The Company has also secured a commitment to lease production and test equipment and office furniture having a cost of up to \$490,000. Leasing costs will vary from approximately \$190 to \$290 annually per thousand dollars of value of equipment leased. The leasing cost varies with the life of the equipment and the term of the leases. At September 30, 1969 production and test equipment in an amount equal to the maximum commitment (\$490,000) had been leased at an approximate annual rental of \$118,000. The lessor has required a \$60,000 security deposit refundable after the Company has reported profitable operating results for twelve consecutive months.

Subsequent to September 30, 1969 the Company has secured a commitment to lease additional equipment costing up to \$320,000. Until such time as a firm lease agreement can be consummated, the Company has deposited \$320,000 with the potential lessor as security.

5. Employment Contracts

The Company has entered into five year employment agreements with six of its officers, four of whom are also principal stockholders, providing for annual salaries aggregating approximately \$143,400.

6. Stock Option Plan

On December 3, 1968 the Board of Directors adopted a qualified stock option plan (amended June 16, 1969) under which options for a total of 212,000 shares may be granted to key employees. The option price must be at least 100% of the fair market value on the date of the grant. Options may run for a maximum term of five years from the date of grant. Options may not be exercised to the extent of more than 40% of the shares covered thereby in each of the first two years.

During the period ending September 30, 1969 options on 168,800 shares had been granted at prices from \$.10 to \$11.00 per share (an aggregate of \$149,935) and options at \$.10 and \$.1333 per share were exercised to the extent of 28,755 shares for a total of \$3,376. The excess of the proceeds received over the par value of the shares of stock issued was credited to capital in excess of par value.

In October 1969 the Company granted additional options on 9,550 shares having exercise prices of \$10.75 to \$16.50 per share for a total exercise price of \$130,425. Options on 810 shares having a total exercise price of \$8 were cancelled by termination of employment.

Directors

Robert H. F. Lloyd

President

Orest J. Bedrij

President, Securities Council, Inc.

Poughkeepsie, New York

Robert J. Domenico

Vice President, Iomec, Inc.

Santa Clara, California

Dr. Sidney Fernback

Head of the Computation Department

Lawrence Radiation Laboratory

Livermore, California

Sol Kershner

Vice President

Harry Wasiele, Jr.

General Manager, Brand-Rex Division

American Enka Corporation

Willimantic, Connecticut

Officers

Robert H. F. Lloyd

President

Andrew Berding

Vice President

L. Brent Dickson

Vice President

Charles Fa

Vice President

Sol Kershner

Vice President

Jerome D. Larkin

Vice President

Fred A. Ordemann, Jr.

Vice President

Transfer Agent and Registrar

Chase Manhattan Bank

(National Association)

New York, New York

Counsel

Rea, Frasse, Anastasi, Clark & Lewis

San Jose, California

Auditor

Arthur Young & Co.

San Jose, California



