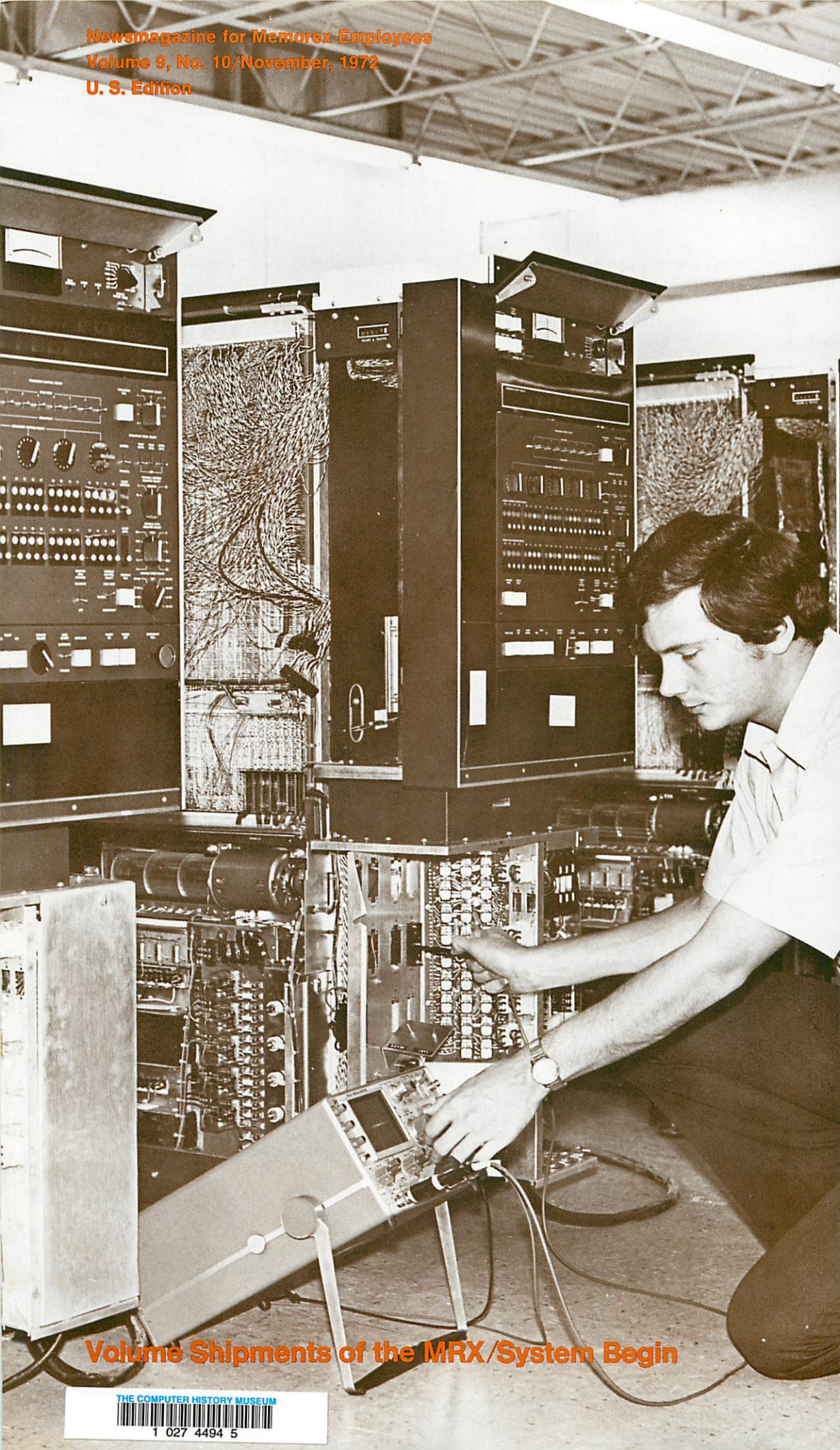


Newsmagazine for Memorex Employees  
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U. S. Edition



# INTERCOM

Volume Shipments of the MRX/System Begin

THE COMPUTER HISTORY MUSEUM



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# Memorex Continues Profitability-- Reports 31% Revenue Increase

Memorex Corporation continued its reversal of last year's results and reported combined net income of \$582,000 or \$.15 per share for the nine months ended September 30, 1972, it was announced by **Laurence L. Spitters**, president and board chairman. In 1971, Memorex reported a combined net loss of \$5,276,000 or \$1.35 a share for the first nine months of 1971.

Combined computer equipment rental and service revenues for the nine months ended September 30, 1972, were \$57,374,000 or almost double the \$30,027,000 comparable figure for 1971. Combined net sales and other revenues were slightly lower for the 1972 period than a year earlier, \$48,605,000 for the first nine months of 1972 compared to \$50,600,000 for the comparable period of 1971. Combined total revenues for the nine months were \$105,979,000, a 31% increase over \$80,627,000 combined total revenues in the same period of 1971.

Income from operations (before interest and taxes) for the nine months was \$15,884,000 or a 15 percent ratio to total revenues. Income from operations for the comparable period of 1971 was \$728,000 or a ratio to total revenues of less than one percent.

"The impressive year-to-year increase of rental revenues recorded for the first nine months of 1972 reflects the growth of the combined Memorex/ILC base of computer equipment for lease," Spitters said. "The continued profitability of our business during the Third Quarter is evidence of the stability of results of this large leasing business and it is especially satisfying because profits have been maintained in spite of the fact that a major transition has been made in our equipment manufacturing business to new computer products."

"Also important to Memorex's corporate development is the fact that in recent weeks, Memorex has attained vital objectives which have been long-term corporate commitments. These include the initial shipments of production units of both the new MRX/40 and 50 Computer and 3670 Disc Storage System, acquisition of 100% ownership of ILC Peripherals Leasing Corporation, and a substantial reduction in interest costs of ILC's debt," Spitters said.

A major transition in Memorex's computer equipment manufacturing operations has

been effected with the ending of production of 3660 Disc Storage System products, the beginning of production of next generation 3670 equipment and of production of the new MRX Computers. The 3660 product line has been the backbone of Memorex's business of manufacturing and leasing computer equipment to end-users. During its two years of production more than 10,000 units were placed on lease in more than 2,500 worldwide locations.

"The 3660 equipment continues to enjoy an excellent demand by lessees," Spitters said. "Its on-rent status approximates 95 percent on a worldwide basis, which is probably the 'fully-on-lease' potential because some of the equipment will always be off-rent after initial leases expire to permit Memorex to re-habilitate and reconfigure disc file systems for subsequent lessees.

Production of the 3670 Disc Storage System, which is marketed to users of IBM 370 computers, will be scaled up during the Fourth Quarter. The first 3670 production unit was shipped to a lessee at the end of October. Memorex possesses a substantial backlog for this product line and the backlog's requirements have committed the company's scheduled manufacturing capacity until the second half of 1973. In August, IBM made several product announcements relating to IBM 3330-type disc files which were essentially a repackaging of the IBM equivalent of the 3670 and a repricing of some IBM configurations. As previously announced, Memorex's programs for marketing the 3670 product line have not been changed by the IBM announcements, Spitters said.

The transition in equipment manufacturing has also encompassed initial production of the MRX/40 and 50 Computer Systems which represent Memorex's entry products in the systems business. The MRX/40 and 50 are high-performance general purpose computers for small scale commercial data processing applications. First shipment to an outside customer occurred on schedule at the end of September, culminating a three-year development program. MRX/Systems for some months have been successfully used internally by the company for data processing, testing, and software development. The MRX/Systems production program will involve shipments of a modest volume in the Fourth

Quarter of 1972 and a projected production rate related to actual orders during 1973.

Memorex Data Centers are now operational in Santa Clara, Minneapolis, Washington, D.C., and London, for the purpose of demonstrating the new MRX/Computers to prospective customers and for benchmarking its performance against competitive computers, foremost of which are the comparably priced IBM 360/Model 20 and the much higher priced IBM 370/Model 125. Extensive software which enables customers to convert easily to the new MRX/Systems from other computers and to utilize effectively the hardware's inherent performance capacity, is now available and has been shipped with the first systems.

Coincident with the first shipments to customers of production units of the MRX/System and the 3670 Disc File System, Memorex has ceased deferring development costs of these products consistent with its established policy of deferral accounting. Amounts deferred on these projects prior to first shipments approximate two-thirds of the balance of Memorex's deferred research and development costs. The deferred costs are scheduled to be amortized against expected unit shipments during the next three years. In light of achieving commercialization of these products and the excellent backlog of orders, Memorex has concluded that there will be no change in its deferral accounting policy.

Memorex's media business during the Third Quarter exhibited firm price levels and customer demand for computer disc packs although prices remain unsatisfactory for computer tape because of intensive competition. Initial shipments of Memorex's new Mark X Disc Pack, the removable storage media for IBM 3330-type disc files, were also achieved and the manufacturing process has been scaled up to meet anticipated demand in the Fourth Quarter.

Improved diversification of the media business has also progressed in recent months because of increased sales of video tape and consumer cassettes over the preceding quarter's results. Memorex's consumer audio tape cassette is now solidly established as the second leading volume product in this relatively new area of business for the company.

# Memorex Acquires 100% Voting Control of ILC

Negotiations undertaken by Memorex with other owners of ILC Peripherals Leasing Corporation more than six months ago have been successfully concluded and Memorex has acquired 100% ownership of ILC. Memorex acquired the 80% equity of ILC heretofore held by others in exchange for 300,000 shares of Memorex Common Stock. ILC owns and leases a substantial portion of Memorex-manufactured computer equipment in the United States and Canada.

Concurrently with the acquisition, Memorex and lenders to ILC have agreed to modification of ILC's \$85,000,000 outstanding loans, including a reduction in the rate of interest which ILC negotiated with lenders in the tight money market conditions of 1970.

Effective October 1, the interest rate to ILC was lowered from approximately 12% to a floating rate equal to the prime commercial bank rate plus 1.5%. At the prime rate now in effect, the floating rate of ILC is

7.25%. The new ILC rate is subject to a minimum of 6.75% and a cumulative maximum of 7.75%. Based upon the schedule of loan balances projected by the company to be outstanding during 1973, ILC's interest cost savings next year are expected to be about \$3.3 million.

The agreement also provides that a \$7.5 million installment of the loan due in 1975 will be convertible into 375,000 shares of Memorex at \$20 per share. To the extent that lenders do not convert prior to repayment, Memorex will repay the 1975 installment and issue warrants expiring in 1985, exercisable to \$20 per share, for the unconverted number of shares.

The agreement also makes available to ILC a \$12 million credit in the first half of 1973. ILC's total debt level will not increase above the \$85 million which will be outstanding after the acquisition, however, because

takedowns of the new credit cannot exceed repayments of the existing loan. The \$12 million credit will bear the new reduced interest rate to ILC. The amount of credit which may be used will be limited to the equivalent amount of rentals of firm leases of new MRX/Systems and peripheral equipment.

Availability of the \$12 million credit is subject, under terms of the agreement, to the condition that Memorex increase its subordinated capital by \$10 million. Memorex intends to offer common stock or subordinated securities in a private sale, which will not involve a public offering, to satisfy this condition. No commitments for such sale have yet been solicited or obtained.

As a result of Memorex's acquisition of 100% of ILC, the benefits of ILC's future interest cost savings and other economies expected to result from the sole ownership will accrue entirely to Memorex's benefit.

## Memorex Wins Packaging Award

Memorex has recently won the 1972 National Flexible Packaging Association's President's Award for its cassettes and open reel recording tapes.

The President's Award is the prestige award in the flexible packaging industry. The association bestows the honor to the package which is "best in show" in marketing performance, structural excellence and printing proficiency.

The Memorex tape package has an overwrap that's as shiny and smooth as a rigid plastic, but has neither the weight, breakage, or cost characteristics of that type of package.

Presenting the NFPA's President's Award for packaging excellence to Robert Jaunich II (r), vice president and general manager of Consumer Products Division, is Hal Kuehn, vice president and general manager of Milprint, Inc., which produced the package for Memorex.



## INTERCOM

### THE COVER

The MRX/40 and 50's are currently in volume production at the Memorex manufacturing facility at Minneapolis and are being shipped to commercial users in the United States and Canada. (Story page 4)

# First Customer Shipment of MRX/System

The first MRX/System was shipped to a customer recently and was up and running within five hours of arrival at the customer's site according to **Dave Sant**, systems product sales manager. The customer, a major U.S. corporation, has ordered a number of additional systems.

Included in the first shipment were an MRX/40 CPU, disc and tape storage subsystem, 80-column card reader and reader punch, high-speed printer and a 1240 communication terminal.

"Actual shipment of the first customer system is the culmination of a long and arduous period for the people involved in the development and manufacture of the MRX/Systems," said **E. D. Larson**, vice president of manufacturing. "Also many months of training for Field Service Representatives and Systems Engineers preceeding shipment of the first system."

MRX/40 and 50 systems are being shipped to commercial users in the United States, Canada and Europe from the Memorex manufacturing facility in Minneapolis.

Production is proceeding as scheduled. The Minneapolis operation is primarily an assembly and final systems integration facility. The entire system, as specified by the customer, is completed as a working unit and fully tested at Minneapolis prior to shipment.

As production reaches a peak at Minneapolis, a second, parallel production capability will be developed at Memorex, Santa Clara in the first quarter of 1973. The Santa Clara facility will also provide MRX/Systems for both domestic and international customers.



Ray McCauslin, Senior Field Service Representative, stands in the customer installation with the first Memorex CPU to be installed. McCauslin and the other Memorex personnel handling the installation had the MRX/40 up and running within five hours of its arrival at the customer facility.



(Above) The MRX/System arrives at the customer's site via a climate controlled moving van.

(Below) The Memorex equipment is wheeled into the customer's site. The shipment and installation of the system was handled efficiently, without any problems.



(Below) The MRX/System is readied for unpacking and testing.



# Volume Shipments of 3670 Disc Drive Begin

The first customer shipment of a 3670 Disc Storage Subsystem was made last month. Mark X Disc Packs were also included in the first shipment.

"The first customer shipment of the 3670 was the culmination of a massive team effort by the people involved in its development and production," said **E. D. Larson**, vice president of manufacturing. "Without the team effort and cooperation of all the people involved with the 3670, the delivery could not have been made in such a short time."

The first 3670 installed at a customer site was a 100% complete product with all functions, three levels of diagnostic support, fully trained Field Service Representatives and Systems Engineers from the local Memorex branch office and complete support documentation."

The present backlog of orders for the 3670 extends well into 1973—the largest backlog Memorex has ever had for a new product, according to **D. James Guzy**, executive vice president.

"The size of the backlog indicates that customer acceptance of the 3670, with its key features of reliability, maintainability and performance, is an established fact in the marketplace," Guzy said.

"The 3670's reliability, maintainability and performance, combined with the increased market for disc storage products that will be provided by the virtual memory capabilities of the new IBM computers, indicate that the 3670 will be the most successful product in Memorex's history."

"International acceptance of the 3670 has also been high, with first shipments to these customers to begin this month," Guzy added.

The Memorex 3670 is the new performance standard of the industry with an average access time of at most 27 milliseconds—a 10% reduction over the fastest IBM equivalents. The 3670 provides a primary data storage medium for System/370 computers and, with optional features, for System/360, models 65 and above.

The 3670 Subsystem—the 3670 Disc Drive Modules and the 3671 Storage Control Unit—are designed to allow ease of operation, ease of maintenance, and long-term reliability.



A few members of the 3670 manufacturing group stand near the 3670 Disc Drives and 3671 Controller, just before the equipment is readied for shipment.

(Below) The 3670's are up and running at the customer's site.





# Comdata

A 700-ton "Blue Monster" and a 375-ton "Pink Lady" are just two of twenty-one huge multi-colored injection molding presses that heat and mold plastic into more than 150 different products at Comdata, a Memorex subsidiary located in Santa Ana, California.

Comdata's molding presses, which operate around the clock, seven days a week, produce more than 47,000,000 components and products annually, according to **Elwain Trunec**, production manager.

Comdata's automated facility starts its operation with raw plastic pellets, which are pumped from a supplier's truck into a large silo. From the silo, the pellets flow through an automated material loading system to each mold press and are stored in a small bin and fed into each machine as needed. The pellets are heated, at temperatures up to 600° F, to a liquid state and forced under pressure into a steel mold which forms a product or component into its final shape.

High-volume items, such as reels and canisters, are automatically removed from the molds and placed on stackers. From this point, the components are assembled, then electronically tested, packaged, and shipped to customers.

"The degree of automation allows more attention to be placed on the quality of Comdata's products, since these products must be manufactured to the same stringent tolerances as the computer tape drive systems on which they are loaded and must meet critical environmental and operational standards," said Trunec.

"With Comdata's highly efficient automated production operation, it now manufactures major plastic and metal products for less than 50% the unit cost paid by Memorex in the mid-60's," said **Howard Earhart**, Comdata's general manager.

"Planning and the team effort of Comdata's work force are the major reasons that Memorex can look to Comdata for a continuing supply of high quality, low cost components for both current and future products," said Earhart.

## History

Comdata's beginning dates back to 1965, when Memorex formed a small metal fabricating facility in Southern California to meet an urgent need for precision metal tape reels. Comdata was destined to play a significant role in the overall success of Memorex, which was then an "infant tape manufacturer."

During the next five years Comdata's production increased substantially due to the increased demand for magnetically recorded data during the early phases of the NASA Space Program. Comdata also began its start-up operation for the production of plastic component parts, during this period of time.

Early in 1970, the present plant was completed and began manufacturing both plastic and metal tape reels and canisters. These products were followed in rapid succession by video tape components, disc

pack components, MT/ST cartridges, micrographic cassettes and cartridges, and a complete array of audio tape components.

Since 1970, Comdata has grown from a small manufacturer of metal reels to a major manufacturer of over 150 different precision plastic and metal products and components. It catapulted Memorex into a leading position as a manufacturer of plastic and metal tape components throughout the world. Products are now being shipped to both the European and Japanese facilities of Memorex.

A number of Comdata products, such as the broadcast video shipper, have won national awards for outstanding design and performance in the market place, thanks to the efforts of the "design group" in Santa Clara and the engineering personnel of Comdata.

Comdata extends an invitation to all Memorex employees to visit its Southern California operation.



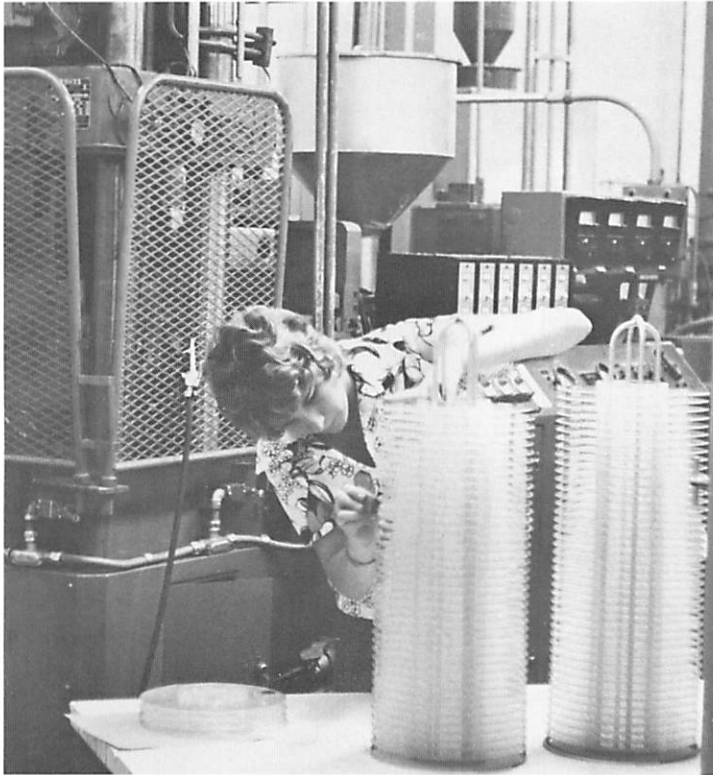
The tape canister is inspected as it comes from the vertical molding machine by Jane Aguinaga, molding machine operator.



Visual inspection and cleaning is performed on the computer reels by (l to r) Susie Enyeart, Esperanza Ferra and Mandy Eldred, assemblers.



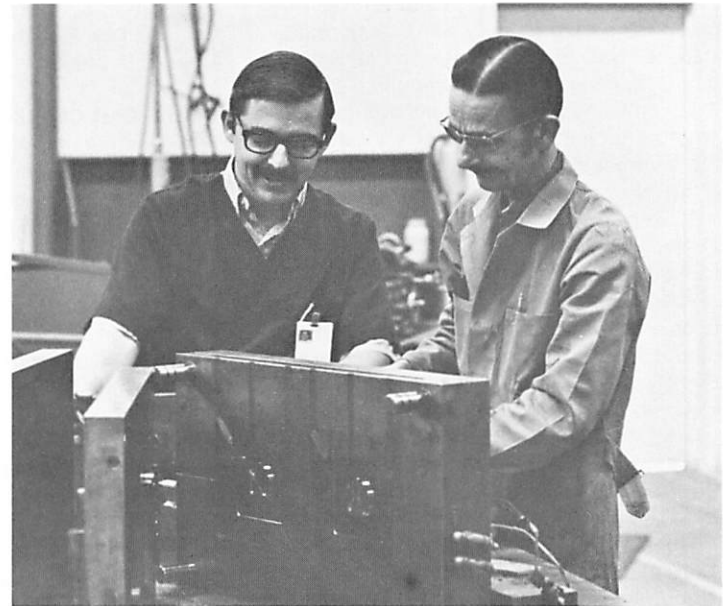
After assembly, plastic computer reels are inspected and tested before final packaging by Elena Heinzman, assembler.



Margaret Marsh performs countersink operation on a metal flange used on the broadcast video and TIAC computer tape reels.



Carol McMullin puts the finishing touches on computer reel flanges just hot off the press.



Creation of a particular plastic part begins with the building of a mold. Here the MT/ST mold is given a final check by mold makers Bob Burns (l) and Bill VonBadinski.

## Promotions

**Judith Baird** to Production Controller, Expediter/Dispatcher  
**Ivan Butgereit** to Branch Manager, Birmingham  
**Richard Chueh** to Principal Engineer  
**Robert Clapham** to Branch Manager, Hartford  
**Beverly Clawson** to Inprocess Inspector C  
**Ray Cook** to Regional Media Specialist  
**Charles Corbin** to Department Technician-Fabrication Testing  
**Raymond Crumb** to Department Manager, Engineering  
**David Fisher** to Department Technician-Fabrication Testing  
**Orlando Garza** to Department Supervisor, Warehouse  
**Deloris Green** to Mechanical Technician C

**Sandor Hegedus** to Maintenance Technician A  
**Richard Hoehnle** to Manager, Operations Research  
**Sue Hose** to Accounting Associate  
**Tom Idemoto** to Engineering Specialist  
**Tomi Ito** to Engineer II-Electronics  
**William Jahr** to Manager, Technical I  
**Michael Janto** to Department Manager II, Manufacturing  
**Gerald Johnson** to Electronic Technician B  
**Russell Kakaio** to Department Technician, Fabrication Testing  
**Timothy Kearney** to Department Technician, Assembly  
**Earl Kiel** to Field Support Branch Manager  
**Milton Lamansky** to Department Manager II, Manufacturing  
**Robert Louden** to National Systems Engineering Manager  
**James Malone** to Commission Administration  
**Ronald Martin** to Department Technician-Fabrication Testing  
**Alice Mazur** to Inprocess Inspector C

**Dudley Meyer** to Branch Manager, Atlanta  
**Cyril Motichka** to Field Support Representative  
**Allen Nanna** to Senior Spare Parts Planner  
**Barton Ott** to General Manager, Software  
**William Phillips** to Engineer I, Mechanical  
**Ronald Reams** to Engineer II  
**John Rehlau** to Department Technician-Fabrication Testing  
**Thomas Rogers** to Department Technician-Fabrication Testing  
**Frederic Sischka** to Manager, Technical I  
**Michael Studulski** to Department Technician-Fabrication Testing  
**Rhonda Taylor** to Associate Programmer  
**George Travers** to District Manager, Consumer Products Division  
**Jan Visser** to Department Manager, Engineering  
**Palmer Waterman** to Engineering Specialist  
**Erik Werner** to Associate Engineer, Manufacturing  
**Dennis Yoshida** to Western Regional Media Special Representative



# MAG Calendar

## MAG CHRISTMAS PARTIES

This year's MAG Christmas parties will be held at two locations. The first party will be held on Saturday, December 2 at the Palo Alto Hills Golf and Country Club. Entertainment will be provided by two George Barry bands—one standard band and a rock group. The second party will be held at the Cabana Hyatt House in Palo Alto on Saturday, December 9. Johnny Vaughn will provide continuous entertainment with his 10-piece orchestra. A rock group called "Scorpio Rising" and a light show by "Northern Lights" will also perform. Tentative plans are set for a complete buffet dinner at both upcoming parties. Tickets for both events are \$6 per couple and \$3 for singles. Tickets will be available for 450 people at the December 2 party and for approximately 750 people on December 9. Tickets will go on sale November 20-30. You may pick up your tickets from the following Memorex employees:

### San Tomas Site:

Celia Moyle or Margie Whitnah .....7-2292  
or 7-2357

### Tape Plant:

Sandi Gallo .....7-2770

### Disc Pack:

Ed Sutter .....7-2815

### Consumer Products:

Betty Binford .....7-1044

## CHILDREN'S CHRISTMAS PARTY

### "HAPPINESS IS SHARING CHRISTMAS"

Saturday, December 16 is the date set for the MAG Children's Christmas party at the Santa Clara County Fairgrounds Pavilion Room. All children of Memorex employees 12 years and under are invited to attend. Tickets are available from the Christmas Dinner Dance ticket sellers starting December 4. The popular play "You're a Good Man Charlie Brown" will be performed. Gifts and refreshments will be provided, and Santa will visit with the children. Admission is free with the donation of a can of food, which will be given to the Santa Clara Santa Project. Your help and ideas would be appreciated as volunteers will be needed to distribute toys, serve refreshments, decorate and entertain. Any employees or their families who would be interested in helping should call Margie Whitnah at 987-2357.

## GOLF NEWS

The next tournament of the MEG Golf Club will be at Carmel Valley on November 25. Green fees are \$10.00. Another MEG tournament will be held December 16 at San Jose Muni. Green fees will be \$5.00. For registration deadlines and further information call Don Monahan at 7-2057 or Ken Lowe at 7-0466.

## CABLE CAR CLASSIC

MAG has purchased 100 of the very best seats for the December 8 and 9 Cable Car Classic. This college basketball favorite features two games each night between the University of San Francisco, Santa Clara University, Duke, and LaSalle. We have 50 seats for each night in the first four rows at center court. Tickets will be sold for \$5.00 (normally \$6.00) starting November 13. Call Margie Whitnah, 7-2357, to reserve your tickets.

## INTRAMURAL BASKETBALL

Intramural basketball will tentatively start in December. Teams and individuals wanting to sign up should call Margie Whitnah, 7-2357. A league director is needed to schedule teams.

## 5-Year Anniversaries

The following employees have marked his or her fifth anniversary with Memorex. Each employee will receive a five year pin in recognition of their contributions to the company.

Celia Alvares  
Wilfred K. Anderson  
Frank J. Battaglia  
Joseph J. Bonneau  
Judyth A. Bruno  
Gary L. Bunas  
Shirley Cox  
Robert H. DeVore  
Tomas Dupree  
Henk J. Evenhuis  
Helen M. Henard  
Helen L. Holcomb  
Thelma P. Hunter  
Gerald Kleveter  
Leonard R. Konopacky  
Richard J. Loomis  
Donald A. Lucas  
Richard W. Martin  
Shirley Medina  
David N. Pedersen  
Michele K. Pray  
John M. Shinn  
Mabel A. Ward

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