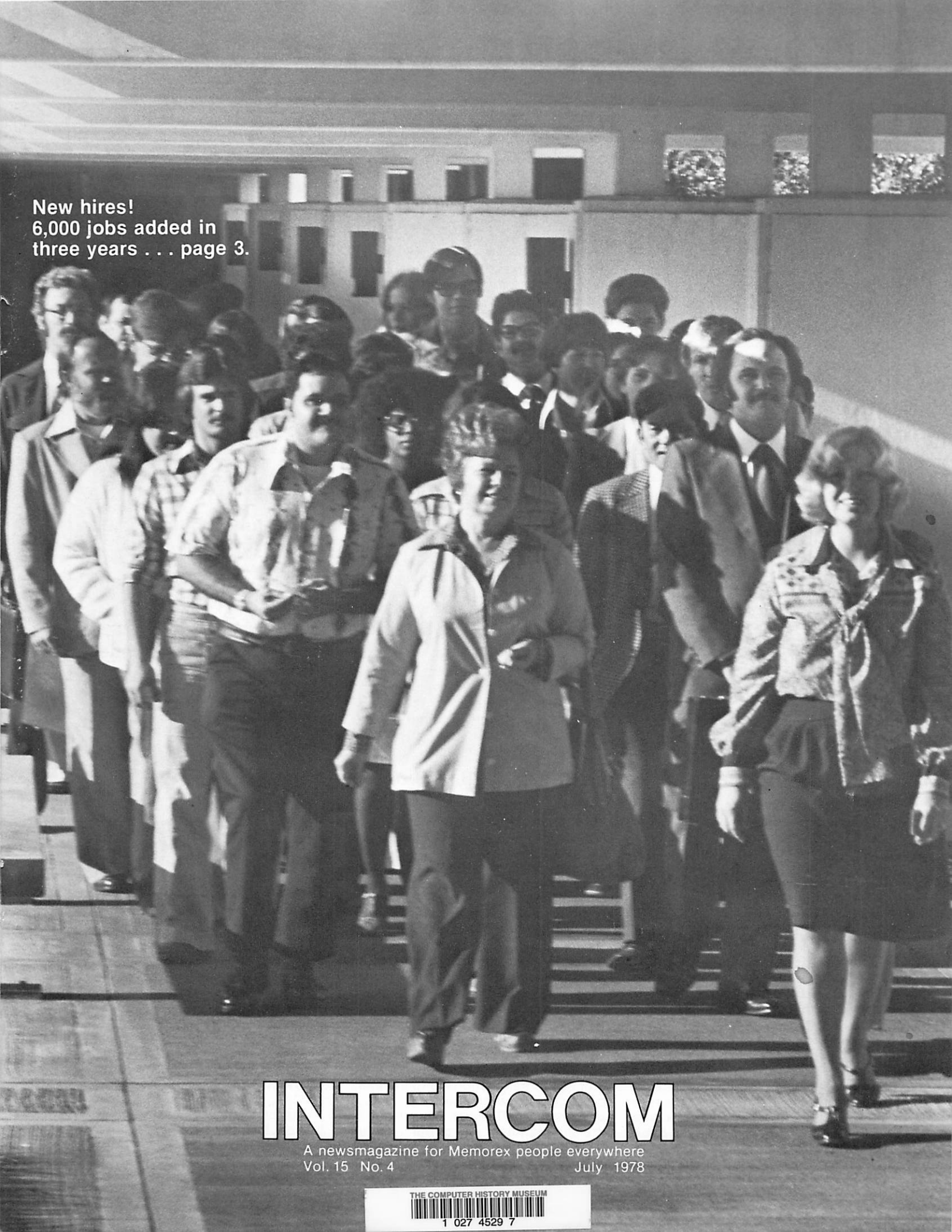


New hires!
6,000 jobs added in
three years . . . page 3.



INTERCOM

A newsmagazine for Memorex people everywhere
Vol. 15 No. 4 July 1978

THE COMPUTER HISTORY MUSEUM



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Judge declares mistrial in IBM suit

On July 5, Federal Judge Samuel Conti declared a mistrial in Memorex's antitrust suit against IBM in U.S. District Court in San Francisco. The trial, which began on Jan. 16, ended when the 11 members of the jury reported they were deadlocked 9 to 2 in favor of Memorex after 20 days of deliberation.

In response to Judge Conti's decision, the company issued a statement which said:

"Memorex is disappointed at the jury's inability to reach a verdict. The court made several reasonable suggestions for possibly breaking the deadlock, but IBM refused to accept any of them; as a result the court was left with no alternative than to declare a mistrial. It appears to us that IBM

clearly did not want a jury verdict.

"We were pleased that nine jurors apparently agreed, not only that IBM has a monopoly power, but also that it used that power improperly against Memorex. It is our opinion that the kinds of actions which IBM took that were aimed at Memorex cannot be condoned if there is ever to be effective competition in the data processing industry.

"We think we know the reasons why the jury could not agree and believe those things can be addressed in a new trial. The company has made a significant investment in the case in terms of both time and resources, and it is our intention to proceed with a new trial as soon as that reasonably can be done."

Memorex joins Bell & Howell in video tape cassette venture

Memorex has entered into a joint venture with Bell & Howell to manufacture high-quality video tape cassettes in a half-inch format for home video sets. The project is aimed at maximizing the considerable opportunities in this growing worldwide market.

The firms plan to deliver the new product by next summer in both the two-hour Beta and four-hour VHS type cassettes, which are compatible with virtually every brand home video device now available. The venture combines

the two companies' substantial resources and positions both companies as major forces in the home video industry.

Bell & Howell is a manufacturer of video equipment and a leading duplicator of prerecorded video tape products, while Memorex is a leading manufacturer of blank video tape for professional applications. Bell & Howell plans to use the new half-inch cassette for its prerecorded tape duplicating business, and Memorex will market blank cassettes.

Borrowing capacity increased by \$20 million

The Company has arranged two new loan agreements which provide the financing strength and flexibility needed to support continuing growth, Chairman Robert C. Wilson announced late last month.

The first is a \$50-million loan from two major insurance companies. It is an unsecured, 12-year loan. Bearing interest at 9¾-percent, the loan provides a more permanent financing base than previous debt. It also provided the basis for renegotiating the Bank of America Credit Agreement.

The new B of A agreement is the second major change in the company's financing arrangements. In the previous arrangements with the B of A, the bank had a security interest in all of Memorex's assets (similar to a mortgage), which restricted Memorex's flexibility. The new loan agreement is unsecured. It simplifies the debt structure by combining

several previously separate agreements and eliminating one of the credit lines for financing leased equipment.

Borrowings from the B of A can be made in dollars or any foreign currency and can be repaid (or borrowed back) on a daily basis, depending on the needs of the company. A total of \$56 million is available from B of A, with interest charged at the prevailing prime (or minimum) rate. This amount declines by \$2.25 million a month until July 1980, when the arrangement terminates.

These two new transactions do not mean that Memorex has borrowed the sum of the two loans. Instead, the effect of the transactions is to increase current borrowing capacity by approximately \$20 million. This is due to the elimination of one of the previous B of A credit lines. Both loan agreements do, however, permit additional borrowing.



On the cover: New hires use covered walkway on their way from employment area in building 10 to morning orientation program in auditorium of building 12 in Santa Clara. In recent months as many as a hundred new employees a week have been attending the sessions held each Monday and Wednesday.

INTERCOM

IBM jury deadlocked 9-2 in favor of Memorex

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Company enters video tape joint venture

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New financing arranged

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New hires!

(Continued from page 3)

ing costs such as advertising and relocation of new hires. Growing competition for quality personnel in the computer industry and a consequent increase in recruitment of persons from other areas of the country have meant a doubling of relocation costs.

Chairman Robert C. Wilson repeatedly has emphasized the importance being placed on human resources as a result of the growth at Memorex and throughout the industry. At the annual managers meeting earlier this year he



Jim Chatman and Sally Johnson display award presented to Memorex for "advancement of women."

stated: "In evaluating all of the factors that will influence our performance in 1978 and future years, it is clear that one stands out above all others. That one is human resources—people. Our

Record 2d quarter revenue

The company has reported a strong second quarter, with revenue totaling a record \$158.5 million, a gain of 47 percent, or \$50.3 million, over the 1977 figure of \$108.2 million.

Income for the period was \$10.2 million, or \$1.43 per share, before extraordinary credit, an increase of 30 percent from the second quarter 1977 total of \$7.9 million, or \$1.23 per share, before extraordinary credit. The increase in earnings per share represents a 16-percent gain.

Second quarter 1978 net income was \$13.5 million, or \$1.96 per share, including an extraordinary credit of \$3.3 million, or 53 cents per share, from utilizing tax loss carryforwards. This is a four-percent increase in net income and a five-percent decrease in net income per share from 1977 figures for the same period of \$13 million, or \$2.06 per share, including an extraordinary credit of \$5.1 million, or 83 cents per share from utilizing tax loss carryforwards.



Keith Rosheim, center, and staff members Cheryl Gargano and Ed Kennedy discuss recruitment interviewing program which has been expanded to evenings and weekends.

revenue growth and the prosperity in our total industry has created a shortage of human talent. In this environment it is essential that we, the management, do an outstanding job of attracting, retaining and motivating people."

During a recent interview, Employment Manager Keith Rosheim discussed specific programs aimed at carrying out this management policy of making Memorex an attractive place to work. They include:

- Two employe stock ownership plans (see page 5).
- The practice of making internal advancements whenever possible, which resulted in 1,714 promotions and job upgrades in 1977.
- More than 30 management and professional training courses designed to help employes grow and to develop important skills.
- An aggressive Equal Employment Opportunity and Affirmative Action program to increase female and minority employment in managerial and professional positions.

For the company's work in the last area, the California Federation of Business and Professional Women's Clubs presented Memorex with a Top Hat Award for "outstanding contributions to the advancement of women." EEO and Affirmative Action Manager Jim Chatman accepted the award for Memorex. Participating in the ceremony was Sally Johnson, Finance Department audit specialist and BPW district president.

At the time of his interview, Rosheim said his staff was working on a list of requisitions for nearly 300 jobs, including engineers, programmers, financial analysts, technicians, hourly production employes and administrative personnel. In searching for qualified people to fill these jobs, he estimated his staff was handling applications, telephone inquiries and visits from prospects at a rate approaching 200,000 a year. Despite this large number on contacts, he says, it is sometimes difficult to fill vacancies

for two reasons.

"First, there are far more technical and engineering jobs than there are persons with the training and experience to qualify for them. Second, primarily because of the high cost of housing in the Santa Clara Valley, qualified persons from other parts of the country find it difficult to move here."

In addition to using employment agencies and advertising in newspapers and trade publications, Rosheim's department has been dispatching teams consisting of a recruiter and a technical representative to other parts of California and to other states. When outside agencies could not keep up with the need for temporary clerical persons, the company set up its own pool of 32 fulltime temporaries, who rotate to areas where they are needed.

"Expanding our interviewing to evenings and weekends has drawn as many as 150 applicants in a single evening," says Rosheim. "And when the company held its first Career Day on a Saturday in April, the open house program drew 650 prospects. From these we hired 37 professionals and engineers plus six technicians—much better than we expected."

The employment manager says the company also is encouraging all employes to ask any qualified prospects they know of to contact the Memorex employment office in building 10 for information on current openings.

Though competition for quality personnel is increasing, Rosheim says he is optimistic about the future.



At right, IR Specialist Sharon Winfield and General Systems Quality Manager John Delasaux answer questions during highly successful Career Day.

"Management's commitment to making Memorex a good place to work, the good publicity we've been getting in the press and our growing reputation as a quality corporation—these things are helping our recruiting programs draw more people than those of our competitors."

Shareholders vote approval for employe stock plans

During their annual meeting in April, shareholders approved two stock plans which enable employes to acquire Memorex common stock at no cost to them. The plans are called the Memorex Share Plan and the Tax Reduction Act Stock Ownership Plan (TRASOP).

While introducing the motion to approve the plans, Industrial Relations Vice-President Robert Malcolm explained that their primary objectives are to:

- Enable employes to acquire an interest in Memorex through stock ownership.
- Increase employe interest and participation in the company's growth and profitability.
- Promote the best interests of all shareholders by aiding in the recruitment and retention of quality employes.

The plans were developed with the help of Towers, Perrin, Forster and Crosby, nationally known employe benefit consultants. Bankers Trust Company is the trustee for both plans.

Under the share plan, employes with one year's service or more as of Jan. 1, 1978 become participants. Memorex contributes shares of its stock to a trust in an amount equal to two percent of a participating employe's salary up to the Social Security wage base and four percent of his earnings above that. The 1978 Social Security wage base is \$17,700.

Company contributions depend upon profits remaining above a certain level specified in the plan, and employes are 100-percent vested—they own the stock—after four years in the program.

The TRASOP is a program which benefits both employes and Memorex by allowing the corporation to claim a tax credit if the amount of that credit is contributed to a trust for the benefit of employes in the form of company stock or cash used to purchase company stock.

Employes are automatically enrolled in the TRASOP after completing three years' service. Eligible employes are fully vested in the amount credited to their accounts without additional years of service. The Tax Reduction Act is in effect until 1980, when Congress may continue, cancel or revise the legislation.



Mr. Wilson responds to shareholder's question.

Chairman Wilson stresses importance of human resources at annual meeting

The company's future growth depends on its ability to recruit and retain skilled employes, Chairman Robert C. Wilson told shareholders during the Memorex annual meeting April 26 at the LeBaron Hotel in San Jose.

"Our human resources are the limiting factor in our ability to grow on a quality basis," he said.

In remarks accompanied by slides showing typical newspaper help wanted sections filled with ads for technology related jobs in the Santa Clara area, he continued, "Competition for these skills is more intensive than any time in my memory. In this environment it is our objective to make Memorex the preferred place to work and to earn career dedication from all employes."

Mr. Wilson said the competition for

quality employes is one of a number of challenges facing the company in 1978. Another is cash.

"Cash will be a challenge for the right kind of reasons," he said. "It is needed to finance our growth. Our investments in futures continue to accelerate. Our acquisition of Telex Europe required cash. We have largely used up our tax loss carryforwards, so our tax payments will be substantially increased. Our interest is now paid in cash, and not in preferred stock.

"Our preference would be to finance our operations entirely from internal sources. However, our growth rate and opportunities make that unlikely. We will probably arrange for long- or medium-term debt during 1978."

(Continued on page 6)



Shareholders register before meeting at San Jose's LeBaron Hotel.



Corporate secretary and executive vice-presidents share dais with Mr. Wilson.



Mr. Wilson chats with a guest.

'The opportunities for 1978 are great ...'

(Continued from page 5)

He said cash requirements for 1977 were very high. "Revenues increased by \$105 million. Financing this growth used a lot of cash. Debt service required \$32 million in cash. Future investments were at record levels.

"In addition, an arrangement was

made with the Bank of America allowing us to repay our loan while still being able to borrow it back if needed. \$26 million was used for this purpose.

"Thus, our cash on hand dropped from \$44 million at the beginning of the year to \$12 million at the end.

"In summary, we financed rapid growth, paid off a substantial amount

of debt and invested in our future—all with internally generated cash. This is quality cash management."

Mr. Wilson said other challenges in 1978 include: managing the company's growth while continuing to excel in quality, continuing the emphasis on technology leadership and winning the IBM trial.

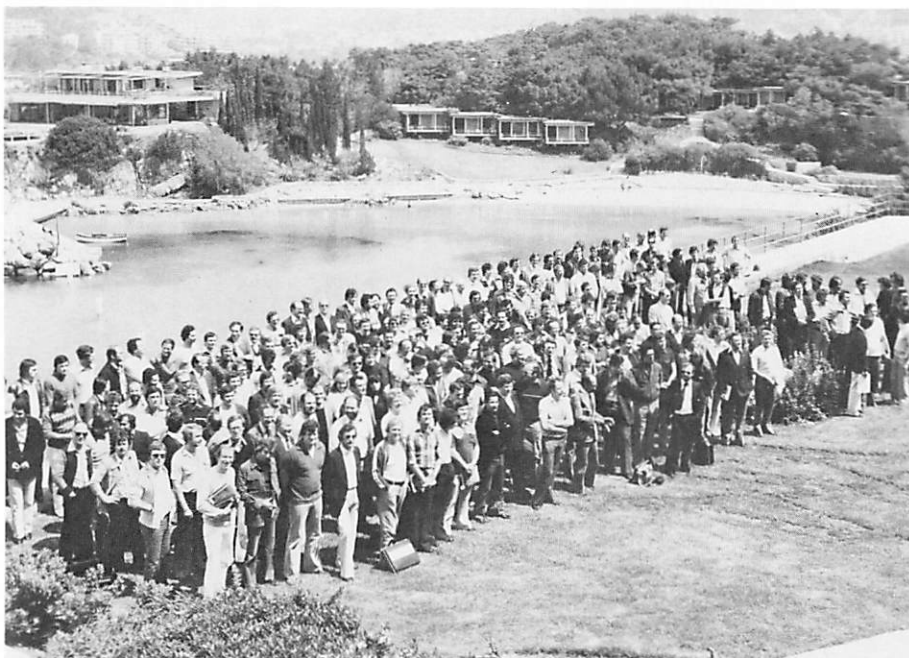
"The opportunities for 1978 are great," he said. "Although there are a number of challenges, the people at Memorex are becoming increasingly proficient at meeting—and overcoming—challenges."

Expanded European sales force holds rally, launches quota club for EUMEA personnel

With the acquisition of Telex Europe, Memorex's European sales force has grown to more than 300. These sales persons recently met at Vouliagmeni Beach near Athens Greece, where EUMEA Vice-President Reto Braun thanked them for their efforts so far this year and urged them on towards the achievement of even

better results for the rest of 1978.

Most of the quota-bearing sales persons in Europe attended the rally. The meeting's agenda included the official launching of a quota club for Europe, the EUMEA Memorex-excellence Club. The quota club serves as a means of recognizing outstanding achievement by sales personnel.



Memorex's European sales personnel attend meeting at Vouliagmeni Beach near Athens, Greece.

12 receive LSS awards

Twelve managers received Quality Excellence plaques for outstanding achievement in nine key business result areas during Large Storage Systems' first management conference in April. Marcelo Gumucio, group vice-president and general manager, personally thanked each winner for his individual contribution to the group's outstanding first quarter.

Winners were:

Manufacturing—Harold W. Carlson, asset management; Robert V. Larson, productivity; Richard M. Loftness, attitude; and Paul M. Ryan, futures investment.

Quality Assurance—Vincent Carter, personnel development.

Engineering—Alton B. Christman, productivity; Thomas E. Idleman, product leadership; and Syed H. Iftikhar, profitability.

Marketing—Mark A. Lutvak, market position; and Wayne O. Millies, customer service.

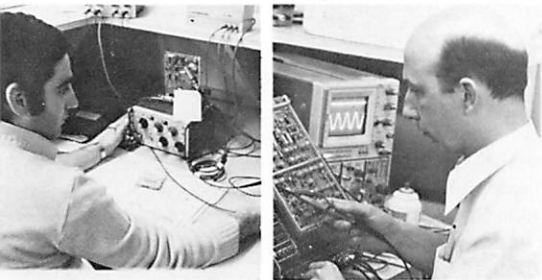
Memories—Howard W. Rathbun, customer service

Finance—Marsha A. Washburn, cash management.

News**makers**

It was a case of Memorex teamwork long distance when Engineer **Roger Stevens** and Technician **Claude Libert** volunteered to spend April in Santa Clara. The two traveled almost 6,000 miles from their jobs at the company's plant in Liege, Belgium, to work in the PCB test area in building 10.

The unusual connection occurred after LSS Production Operations



Belgians Stevens, left, and Libert lend a helping hand with PCB testing in Santa Clara.

Manager Jim Ferenz put out the word he needed some experienced help during a particularly busy period. Liege Plant Manager Joe Renard responded by lending Stevens and Libert to Ferenz for one month.

"Both men were already familiar with our products and the PCB operation, so they had no trouble fitting in," says Ferenz. "It was a super gesture on Joe's part."

The two Europeans spent the month testing PCBs for 367X products and familiarizing themselves with other manufacturing procedures in Santa Clara. They said they will apply this new knowledge when they return to their jobs in Liege.

In addition to \$100 honorariums, employees publishing technical artic-



From left, Puthuff presents certificates to Newman, Campbell, Withop, Tsui and Katz.

les now receive official company certificates of merit for their contribution to Memorex's reputation as a quality corporation. Engineering Vice-President **Steve Puthuff** recently presented the first certificates to **John Newman** of Disc Pack Engineering and to **Art Withop, Robert Tsui, Thomas Campbell** and **Eric Katz** of the Recording Technology Center.

Doug Cook, Environment and Energy manager, has been appointed to the advisory council of the San Francisco Bay Area Air Pollution Control District. District officers set standards and regulate air pollution control in nine area counties.

As one of 20 persons on the advisory council, Cook assists district officers with technical matters involving industrial standards and regulations. He was appointed to serve the remaining nine months of a former advisor's two-year term.

Tim Scholz, Field Engineering service planning representative, has been elected 1978 president of the Central Pacific Chapter of the Association of Field Service



Scholz

Tyson

Managers. He succeeds 1977 president **Jim Tyson**, Field Engineering operations manager. AFSM is a national professional organization with more than 500 members.

Large Storage Systems' Component Engineering staff recently celebrated the completion of 18 months' work on Memorex's first comprehensive Standard Parts Catalog. Key contributors among 30 employees who worked on the project are: **Robert Collier**, systems and procurement analyst; **George Mathew**, staff engineer; **Fred Watt**, equipment standards manager; and **Bruce Frauman**, administrative assistant. **Dorothy Staebs** and **Phyllis Rankin** of the Technical Publications Department also contributed to the project's success.



Members of LSS component engineering team that put together Standard Parts Catalog are, from left: Collier, Mathew, Watt and Frauman.

The new catalog lists prices and specifications for nearly 6,000 parts and materials used in Memorex products. Initially, 400 copies of the 450-page catalog will be printed for distribution throughout the company.

Memorex will save some \$55,000 in natural gas and electricity costs during the next two years as a result of suggestions made by four winners of the company's Trim Our Energy Waistline contest held earlier this year.

The four employees, who received savings bonds totaling \$200 for their recommendations for reducing energy costs, are:

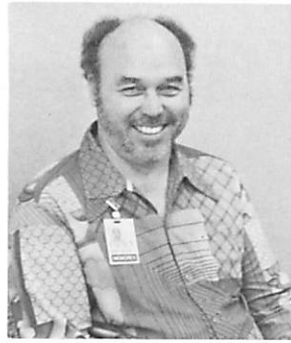
First place, \$100—**Frank Freeman** for suggesting waste heat from the solvent recovery system be used to heat the tape plant.

Second place, \$50—**Cecilia Lopes** for recommending disc stacking machines at Disc Pack be shut off when not in use.

Third place, \$25, to each of two winners—**Marge Allen** for recommending light fixture covers be cleaned regularly and **Russ Tanner** for his idea to install strips of material above frequently used doors to keep warm air in during the winter and cool air in during the summer;

"The response to the contest was very encouraging," said **Jerry Cook**, Environment and Energy facilities engineer who helped decide which ideas were feasible. "We intend to continue looking for ways to reduce energy use at Memorex, and with the help of our employees we will achieve that goal."

3 employes join ranks of 10-year veterans



Norbert Broussard
Maintenance Technician
Computer Tape



Daniel Malesic
Inprocess Inspector C
Computer Tape



Harry Tekawa
Manager, International Traffic
Corporate

New Assignments

Because of space limitations, Intercom lists only organizational promotions, not transfers or upgrades. Industrial Relations defines the organizational promotion as "characterized by an immediate, significant change in an individual's assigned job duties." Appointments are in Santa Clara unless otherwise noted.

AMERICAS & ASIA GROUP

Jacqueline Getek to Sales Administrator

COMMUNICATIONS GROUP

John Baker to Associate Engineer
Sherry Foss to Word Processing Center Coordinator
Theresa Getman to Inprocess Inspector C
Carlos Gonzales to Manager, Manufacturing Engineering
Robert Haynie to Senior Systems Programmer
James Huffman to Staff Engineer
Henry Jordan to Software Consultant
Tony Lopez to Material Handler
Luz Santiago to Senior Sub-Assembler
Edward Theis to Manager, Quality Assurance
Daryl Tilley III to Manager, Warehouse Receiving
Paul Torres to Product Tester
Maurice Turner to Engineering Specialist
William Walker to Senior Engineer, Quality Control
Hewitt Wright to Software Consultant

COMPUTER MEDIA GROUP

Eugene Adan to Chemical Technician
Nancy Agustyn to Sales Rep., Boston
Natalie Borges to Material Handler
Karen Brown to Associate Product Test Technician
William Bruce to Manager, Test Equipment
Diane Christiansen to Telephone Sales Rep., Philadelphia
Stephen Ferketich to Product Planning Analyst
Teresa Finnegan to Material Handler
John Freer to Mechanical Engineer
Leah Harbinson to Material Handler
Patrick Heaviside to Maintenance Technician
Randy Jeglum to Maintenance Technician
Hermalinda Martinez to Associate Product Test Technician
Alice Mazur to Test Technician
James McGrane to Manager, Regional Sales, Baltimore
Jorge Morelos-Zaragoza to Sales Rep., Los Angeles
Regina Robinson to Associate Product Test Technician
Joan Schmalz to Associate Contract Administrator
Mary Snipes to General Clerk A
Benjamine Valenzuela to Associate Product Test Technician
Bryan Willard to Engineer II
Robert Woodhouse to Product Analyst

CONSUMER & BUSINESS MEDIA GROUP

Melinda Bonasera to Associate Inventory Analyst
David Cortis to Electronic Technician B
Jerel Gedecke to Senior Engineering Technician
Larry McAlister to Inprocess Inspector C

Delia Pena to Test Lab Technician C
Jayne Perry to Inprocess Inspector C
Charles Saylor to Supervisor, Test Lab
Robert Sheffield to Manager, Finance, Video
William Sholes to Chemical Technician
Leonard Stone to Supervisor, Technical Process
Denise Vanleemput to Process Control Inspector

CORPORATE

Donna Certo to Supervisor, Expense Accounting
Elisabeth Crum to Technical Librarian
Deborah Duda to Accounting Specialist
Jonelle Ekstrom to Supervisor, Accounts Payable
Dawn Kubiak to Accounting Clerk A
Troy Lofties to Supervisor, Data Processing, Swing Shift
(Correction of error last month: Larry Nelson to Manager, Reproduction & Office Services)

FIELD OPERATIONS GROUP

Phillip Atwood to Manager, Branch Field Service, St. Louis
Richard Belschner to Manager, Branch Sales, Greenwich, Conn.
William Brown to Territory Supervisor, McLean, Va.
William Colestock to Manager, Branch Sales, Detroit
Richard DuPree to Manager, Branch Sales, Dallas
Marlene Galvan to Sales Administrator
Richard Holdren to Senior Engineering Change Analyst
John McGuire to Senior Field Support Rep., Pittsburgh
Richard Payne to Field Support Specialist, Miami
Harold Peters to Senior Field Support Engineer
Kevin Rooney to Packaging Specialist, Philadelphia
Clarence Shannon to Manager, Regional Field Engineering, Detroit
Delmar Show to Manager, Regional Finance Customer Service
Gary Spaier to Manager, Branch Sales, Detroit
Gary Steinfeldt to Manager, Branch Sales, Hartford, Conn.
James Thomas to Sales Rep., Detroit
Ralph White to Accounting Clerk A, Chicago

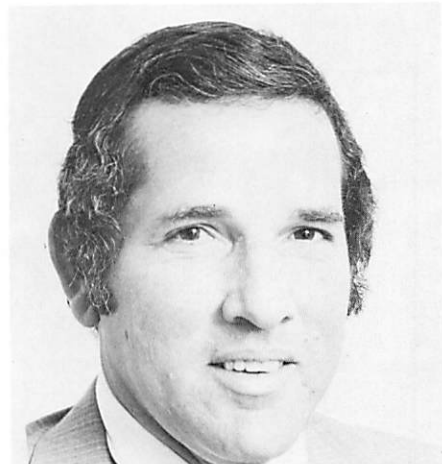
GENERAL SYSTEMS GROUP

Edwin Barba to Technical Associate
Germaine Clark to Sub-Assembler
Martin Cooper to Product Sales Support Analyst
Bonnie Fernandez to Associate Product Test Technician
Joseph Gordon to Product Control Expeditor
Sharon Henry to Senior Accountant
Daniel Mayberry to Electronic Technician A
Mary Paynter to Sub-Assembler
Barbara Rapkin to Order Correspondent A
James Wong to Electronic Technician A
Norman Wulferdinger to Senior Engineer

LARGE STORAGE SYSTEMS GROUP

Corrine Adams to Supervisor, Head Manufacturing
David Benjamin to Manufacturing Dispatcher
Katheryn Bird to Product Tester

Luis Luhring heads new Puerto Rico subsidiary



Luhring

The company has established a subsidiary in San Juan, Puerto Rico, for the direct sales and service of its information storage and communications products. Luis Luhring, formerly general manager of Reliance Universal in Puerto Rico, has been named general manager of the new operation.

"The expansion of our worldwide marketing and field engineering organization to Puerto Rico will enable Memorex to offer more products and more responsive service to data processing users in this rapidly growing market," says Richard W. Martin, vice-president and general manager of the company's Americas

and Asia Group.

Luhring began his career with IBM as a marketing representative for computer products and later was a division manager for NCR, both in Puerto Rico. The new Memorex organization he heads is located in the Mercantil Plaza Building, Suite 707-08, Hato Rey, Puerto Rico. Memorex previously served this market through distributors.

The A&A Group also has announced appointments of new country managers for Mexico, Brazil and Venezuela. Alberto Silva is the new country manager for Mexico, Carlos A. Caldas da Silva for Brazil and Ernesto Kolster for Venezuela. The three report directly to A&A Vice-President Martin.

Silva comes to Memorex from Sperry-Rand Mexicana, where he had been employed since 1968. He served as marketing director of the Sperry Univac Division. Earlier, from 1965 to 1968, he worked in sales and marketing for IBM. He has a solid background in finance, administration, sales and marketing.

Caldas da Silva joins Memorex from Univac. The positions he held there included national director of marketing for the Univac Division of Sperry-Rand in Brazil. He has 20 years of managerial experience with international firms in Brazil, including Shell Oil and Honeywell.

The new country manager for Venezuela, Kolster, formerly worked for Burroughs Corporation as district manager of branch operations for its large account force. Prior to his job at Burroughs, he held a number of supervisory posts with Singer Sewing Machine from 1965 to 1969.

Two new disc storage products improve access to data and system flexibility

Memorex has introduced two new disc storage products which provide customers with faster access to stored data and greater system flexibility. The products are the 3770 Disc Cache and the Dual Intelligent String Control (DISC).

The Disc Cache transfers frequently used data from storage discs to a special cache, where it can be retrieved faster. The DISC improves system performance by allowing as many as 32 disc drive spindles to be attached to the Dual Intelligent Interface. It also provides installation flexibility because control units can be attached to the string controller from as far away as 200 feet.

Other new products introduced by Memorex in recent months include:

- BSD's Super 3 software and cont-

roller package for System 3 users. The package consists of a Local Display Controller and an Information Display System, which allows the System 3 to go on-line in hours while retaining full-batch capabilities.

- Large Storage Systems' 6331 and 6332 semiconductor memories, additions to the company's 6300 line. The new memories offer users up to 10 megabytes of external main memory in a single cabinet.

- Computer Media's Mark V Disc Cartridges for use on minicomputer and other small computer systems. The new cartridges offer storage densities of up to 6060 bits per inch.

- Word Processing Division's correctable film ribbon with lift-off correction tabs for use in automatic typewriters.

William Carlton to Engineer I
Gloria Consani to Manufacturing Engineering Aide I
Don Davis to Senior Engineer
Ronald Davis to Production Control Expeditor
Debora Deandreis to General Clerk A
Dora Devilliers to Chemical Technician C
Rich Dias to Associate Product Test Technician
Robert Dillon to Senior Staff Engineer
Clayton Doolittle to Senior Engineering Technician
Andrew Espinoza to Manufacturing Dispatcher
John Geddes to Maintenance Technician Trainee
Joseph Ginger to Receiving Inspector
Robert Hall to Manager, Advance Floppy Disc Project
David Hill to Electronic Technician
Roger Holen to Senior Systems Programmer
David Kingsolver to Supervisor, Production Testing
Lou Martin to Supervisor, Equipment Manufacturing
Dennis Matuzek to Maintenance Technician Trainee
Thomas McDaniel to Maintenance Technician I
Michael McIntyre to Product Test Technician
Maurice Mikkelson to Senior Electronic Technician

Rodney Morissette to Process Department Technician
Gloria Morrison to Product Tester
Gerald Mosby to Supervisor, Equipment Manufacturing
Frank Navarro to Supervisor, Production Test
Michael Nieto to Draftsman
Yvonne Olszewski to Process Control Analyst
Sandra Orsborn to Sales Administrator
Stan Pearson to Maintenance Technician Trainee
Leonard Pimentel to Senior Financial Analyst
Daniel Pomales to Supervisor, Production Test
Emma Ramirez to Manufacturing Engineering Aide I
Edward Ray to Manager, Engineering Services
Neil Regan to Engineering Specialist
Kenneth Shelton to Quality Control Engineer
Joyce Thomas to Supervisor, PCB Assembly
Leslie Thomas to Supervisor, Head Manufacturing
Kenneth Tinsley to Manufacturing Dispatcher
Frederick Toombs to Senior Financial Analyst
Shirley Watkins to Supervisor, Assembly Quality Control
William Weavers to Test Lab Technician A
Chester Westergart to Test Engineer

Ten recognized as Quality Performers

Each month, five Quality Performers are chosen from Large Storage Systems, General Systems and Communications. These ten outstanding employees are Quality Performers for February and March.

February

Pete Olsen, Mechanical Receiving Inspection, has exceptional expertise as an inspector of purchased materials. Not one of the 3650/601 spindle or slide assemblies he accepted was found defective.

Fidela Carasco, PCB Assembly, has had only one reject in the last six months working with class A surfaces and the more difficult PCB sub-assembly tasks.

Herman Rice, LSS Prototype, consistently builds high quality test equipment for 3650, 601 and 1380 products.

Raquel Piccolo, 651 Head Final Test, has a 100-percent quality control acceptance record for the past 18 months.

Dorothy Peavey, PCB Operations, is a scheduler for PCB assembly who flawlessly tracks hundreds of part numbers. Also, her suggested change



Olsen



Carrasco



Rice



Piccolo



Peavey



Yu



Nichols



Jahr



Haskell



Barber

in the PCB Engineering Change area saved thousands of work hours.

March

Raymond Yu, Disc Drive Final Test, has solved troublesome drive problems. If a machine fails, he repairs it or sees to it that corrective action is taken.

Kay Nichols, Ferrite Area Quality Control, does an outstanding job monitoring and training quality control inspectors and has volunteered to work with swing shift inspectors.

William Jahr, Quality Assurance Support Services, spent five weeks working long hours with swing shift employees to implement new quality standards in the PCB area.

Richone Haskell, PCB Assembly, has only 11 rejects in four months in her work in the Engineering Change area, where the average is 15 a month.

Cal Barber, Procurement Quality Engineering, kept production on schedule by voluntarily working on a weekend to correct a procurement problem with a supplier.

Managers discuss strategy to improve quality organization

Quality Assurance managers from each of the company's divisions met recently at the Ramada Inn in Santa



Ed LaChance explains new program during quality managers meeting.

Clara to plan a new program which will standardize and upgrade Memorex's entire quality organization. These managers and their staffs are responsible for establishing, monitoring and evaluating quality standards.

Ed LaChance, manager of Corporate Quality Assurance, who presided at the meeting, said the purpose of the new approach is to establish a consistent total quality systems program throughout the corporation.

Such a program enables each function in each division to recognize and to perform all the actions required "to make a product right the first time," he said. "The result is greater customer satisfaction with our products and an enhancement of our 'memory excellence' reputation."

The total system concept covers 10 key areas: preproduction quality

New quality section

These two pages are the beginning of a special section of articles on Memorex quality which will appear in *Intercom*. This corporate-wide feature, which replaces the quality publication *Commitment*, is one more indication of the company's total dedication to quality.

definition; product and process quality planning; incoming material planning, evaluation and control; product and process evaluation and control; post-production service; quality training; quality information equipment; quality information feedback; special quality studies and quality system management.

LaChance said division quality managers will design programs utilizing this concept to meet the individual needs of each division.

Keeps flawed parts out of Memorex products

Electron microscope focuses in on defective ICs

How do you assure that a miniature electronic circuit—more intricate than a city road map yet so tiny it can be mounted on a fiftieth-of-a-square-inch surface—will be working years after it is installed in a Memorex equipment product?

That was the problem facing Garry Johnson six months ago when he joined the staff of the company's Materials and Process Services Lab in building 10 in Santa Clara. The problem was a critical one from a quality control standpoint. The company buys 20 million of these tiny integrated circuits, called ICs, each year, and they are among the most important electronic components used in nearly every equipment product Memorex manufactures.

'It is imperative that defective ICs are discovered before they get into our products.'

Today, Johnson and Lab Technician Dora Devilliers have solved the problem with the help of a \$35,000 scanning electron microscope. Their solution is a visual inspection of ICs at the time of purchase. The inspection reveals pinholes, metal smears, hair particles and other contamination which would cause eventual failure.

"It is imperative that defective ICs are discovered before they get into our products," says Senior Engineer Johnson, who came to Memorex after 17 years with Rockwell International,



Garry Johnson shows Dora Devilliers photo of defective integrated circuit taken with new scanning electron microscope.

where he helped develop a similar IC inspection program for the Minuteman Missile project. "Not only does it cost about \$200 to replace a defective IC in the field, but if our equipment goes down, it makes our customers unhappy. That's something we can't afford."

The scanning electron microscope being used to inspect ICs produces an image by a process similar to that of a television set, at a magnification hundreds of times greater than that of a conventional optical microscope. Also, the magnified projected image can be rotated 360 degrees to further

'The real test of quality is time. If an IC is manufactured to meet Memorex quality standards, it will last indefinitely.'

facilitate examination. The most minute defects are made clearly visible, then photographed by the microscope's built-in camera.

"The photos provide the evidence needed to show suppliers what went wrong," says Lab Manager Robert Fee. "We want to be fair to our sources of supply, but, at the same time, they have to meet our standards."

As a routine part of Johnson's inspection program, three ICs are randomly selected from certain shipments received and examined with the micro-

scope. If defects are discovered, additional samples are taken and examined. Then, if it seems certain that Memorex quality standards are not being met, the entire lot will be scrapped or rejected.

"The real test of quality is time," says Johnson. "If an IC is manufactured to meet Memorex quality standards, it will last indefinitely."

Audio Division begins vendor award program

The Audio Division's Quality Assurance group has begun a yearly awards program to recognize vendors for their part in helping Memorex manufacture quality audio products.

In June, four vendors received plaques proclaiming, "Memorex quality begins here," and their employees were presented with the well known "Memorex will bust your glass" T-shirts.

The plaques and T-shirts were awarded to the vendors for having the best quality, price and service for parts provided during the year. "This is our way of telling vendors that their efforts are appreciated and encouraging them to continue the good work," says Les McClane, Audio Division quality manager.



Photo of black ant taken with microscope impressed employees' families during lab's open house.



176 finish four-mile run

A total of 176 employees, many of them first-time participants in an organized long-distance run, sprinted, jogged or walked across the finish line to complete a taxing four-mile course during the first company-sponsored Fitness Run. Friends and family members who unofficially joined in the event, held May 13 at West Valley College in Saratoga, swelled the number of runners to well over 200. Kathleen Campbell, Memorex Activities Group senior recreation administrator, and run coordinator Dave Branning report the event was so successful it will be held again next year.



FITNESS RUN WINNERS

Winning team with best combined time for top five finishers: Computer Media

Under 23	23-29	30-37 Women	38-44	Over 44
Susanne Cerkoff 27:16 Veronica Patlan 30:39 Tammy Alvarado 33:35	Linda Jenkins 33:20 Rosalie Aiello 34:27 Janie Calhoun 35:01	Sally Branning 27:59 Patricia Bell 36:06 Jane Tongate 39:35	Judy Pifer 36:44 Muriel Holshevnikoff 40:25	Betty Rubly 48:27
Chuck Defflorio 27:13 Bill Wevers 27:43 Tom McDaniel 29:18	Drew Lance 20:28 Enrique Jimenez 21:52 Charles Swanson 22:46	Dave Branning 22:24 Rich Therell 23:04 Bob Stenger 24:40	Mike Paradis 23:10 Bob Jaunich 24:14 Andrew Blash 26:53	Carmen Ochoa 25:12 Don Antonietti 29:56 Bob Spelleri 30:16