



ENTER ROOM

**“A Significant Milestone
In Our History”**

New Memorex Computer Systems Announced--

Memorex announced its entry into the computer systems marketplace with the introduction of two new computer systems—the MRX/40 and MRX/50—during a press conference held last month.

Attended by over 60 representatives of the business, financial and data processing community, the press conference marked an event of "singular significance in our corporate development, perhaps rivaled only by the founding of our company in 1961 and our decision in 1967 to produce OEM equipment," according to President **Laurence L. Spitters**.

The new systems offer technological advances never before available to users of small to medium size systems. They feature large data storage, comprehensive communication capabilities, and an innovative systems architecture which provides speeds twice those of competing systems.

"We are entering this marketplace with some unique advantages," said **J. Garrett Fitzgibbons**, president, MRX Sales and Service Corp. "More than 2500 IBM installations across the country know and respect Memorex equipment because we have peripheral equipment installed. We've surveyed these and other users and have found a need for a computer of the size and type of the MRX/40 and 50. This survey also showed

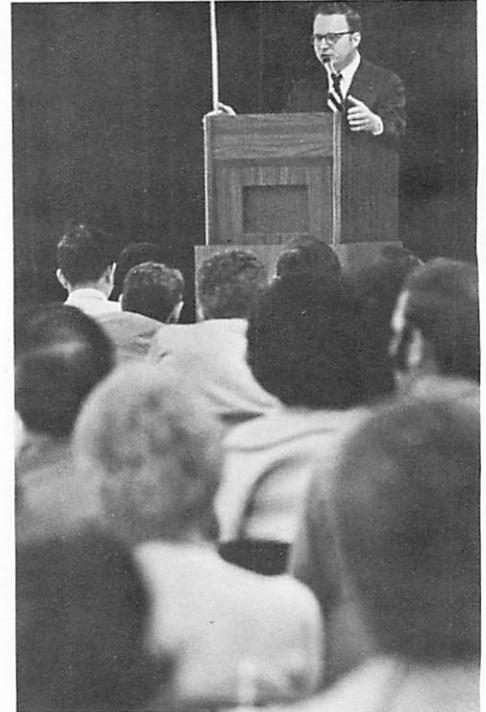
that these computer users are willing to replace their present equipment with Memorex Systems."

"We have already completed eight to ten systems and have a backlog of 30 firm orders or letter of intent from customers," said **D. James Guzy**, executive vice president. "We will deliver the first system in August, and will fill the last of these current orders by year-end."

"The announcement culminates the past five years of building our equipment business," said Spitters. "Our enthusiasm and optimism for these new system products reflect our confidence that we have satisfied the prerequisites for entry into the systems business and that we have a significant contribution to make to the computer industry. Our confidence, as Mark Twain described it, is 'the quiet confidence of the Christian who holds four aces'."

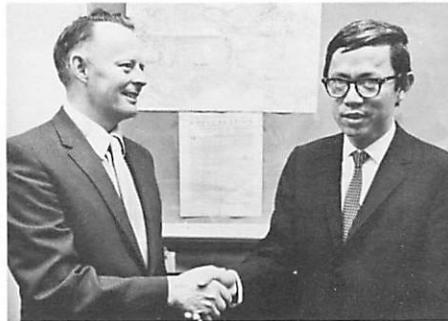
Following the introduction, Fitzgibbons narrated a slide presentation outlining the system's price and performance advantages, stressing the increased function with ease of use possible with the new systems.

Later, following a question and answer session led by **D. James Guzy**, the guests were given a demonstration of a working system by **Carl Hansen**, manager of operations and applications.



Reaction to the announcement was positive and immediate as the **Wall Street Journal**, the **New York Times** and other major publications carried stories reporting our announcement. Local publications also reported the story favorably, with articles appearing in the **San Jose Mercury**, **Palo Alto Times**, the **San Francisco Examiner** and **Chronicle**.

Wang Becomes Citizen



Born half a world away in mainland China, **Stanley Wang** (r), development engineer in recording electronics, is congratulated on receiving his U. S. citizenship by **Ian Graham**, department manager and a naturalized U. S. citizen from Australia.

Intercom

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Editor: Dave Williams

ABOUT THE COVER

Representatives of the more than 300 people from Midwest Systems and Memorex Santa Clara directly responsible for our recently announced computer systems are (l to r) **Don Malcolm**, president, Midwest Systems; **Stan Stegemeyer**, director of manufacturing; **Bart Ott**, director of programming; and **Marv Green**, director of engineering.

Why We're Entering The Computer Marketplace

WHY WE'RE ENTERING THE DATA PROCESSING SYSTEMS MARKETPLACE

Entry into the data processing systems market is a new and significant opportunity for Memorex, and promises to be a substantial area for growth, Memorex President **Laurence L. Spitters** told the press conference announcing the company's entry into the computer systems marketplace.

Here is a digest of his remarks to the press:

"All of us have experienced the excitement of a launching of a space probe, when planning, logistics, development, manufacturing and all of the myriad details critical to the launching are put to test to take advantage of a window of opportunity.

"We too, have had the countdown for this launch into the systems business, and our systems—the MRX/40 and MRX/50—are go! Our enthusiasm and optimism for these new system products reflects our confidence that we have satisfied the prerequisites for entry into the systems business and that we have a significant contribution to make to the computer industry.

"The prerequisites for success for a new entrant to the systems business include a strategy, a major investment, a corporate commitment, knowledge of the industry, technology, facilities, and an established position in the computer marketplace.

SYSTEMS STRATEGY

"Our systems strategy began in 1967 with the start of Memorex's disc storage drive

development, which led to the manufacturing of disc drives for other computer manufacturers' systems in 1968. In this phase, Memorex successfully achieved two necessary objectives: demonstration of our ability to develop and manufacture high quality disc storage devices, and the generation of significant amounts of cash to finance growth.

"Our strategy further advanced in late 1969 with the introduction of plug-compatible peripheral devices which were offered on a rental basis directly to end users. Again, we achieved vital objectives: the establishment of a sizeable lease base, the development of a broad product line of peripheral equipment, and the creation of a worldwide field sales and service organization.

"Attainment of these objectives has made us the largest independent plug-compatible peripheral equipment manufacturer in the world, and served as a launching platform from which we now launch our first system products.

\$100,000,000 INVESTMENT

"During this time, Memorex invested heavily in product development and marketing activities related to our computer equipment operations. In the three years from the first shipment of peripheral equipment to an end user in 1970 to the first shipment of our system scheduled for the fourth quarter of 1972, we will have spent \$100,000,000 in development, marketing and facilities.

"This spending is probably the highest investment ever made by any new entrant into

the computer systems business prior to its first customer shipment of a computer system. This spending is testimony to our commitment to the computer business and to our determination to be in the front rank.

"Another prerequisite to successful competition—knowledge of the computer marketplace—is a consideration which has sometimes been overlooked by other major corporations when entering the systems market."

"Memorex technologists and marketing people have spent all of their working careers in the computer business, and they know its risks, dependencies and exposures.

"Successful competition in the industry also requires an integrated and customer-responsive product development program, efficient facilities, and extensive market coverage.

"Our development activities have been planned to exploit state-of-the-art technology in disc storage and communications systems. These two areas have been the backbone of our plug-compatible business and are fundamental to the sector of the computer market we are entering. Of prime importance has been our commitment to software development. Approximately 70% of development spending in the systems program during 1971 and 1972 will be in the development of powerful software systems.

"In addition, we have one of the most modern facilities in the computer industry

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Dulgar Named Zone Manager Of The Year

Jim Dulgar, San Francisco Zone Manager for Consumer Products, has been named "1971 Zone Manager of the Year," in national competition to select the man who contributed most outstandingly to Consumer Products' rapid growth during the year.



"Dulgar led the nation in shipments of tape, in new account development, and in the amount of cooperative advertising space run by his accounts," said Barry Berghorn, director of sales in presenting the award. "He was first selected in regional, then national competition as top manager out of a total of 35 zones entered in the competition."

Also selected as top zone managers in their respective regions for 1971 were: **Ed Auty** (East), **George Travers** (Central), and **Stu Johnson** (South).

Jim Dulgar (l) receives a plaque and congratulations on being named Zone Manager of the Year from **Barry Berghorn**, director of sales for Consumer Products.

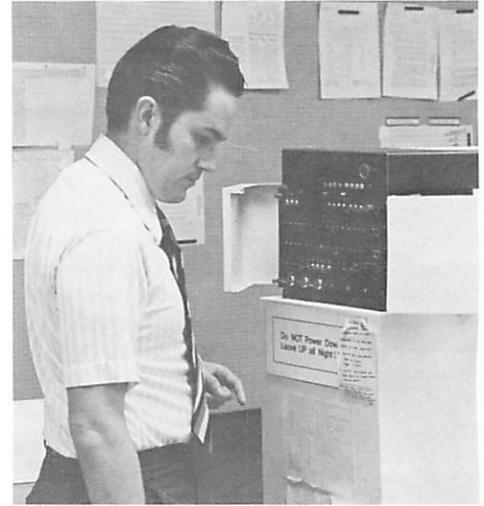
The People Behind Our New Systems

Midwest Systems

Pete Madsen
 Dan Fish
 Don Lucas
 Don Buettner
 Ken Helget



Dick Kimmes Bob Jablonski Harold Hamilton



Dick Schroedel

Don Rogness Ken Helget



Dean Winkelman Bob Twardy

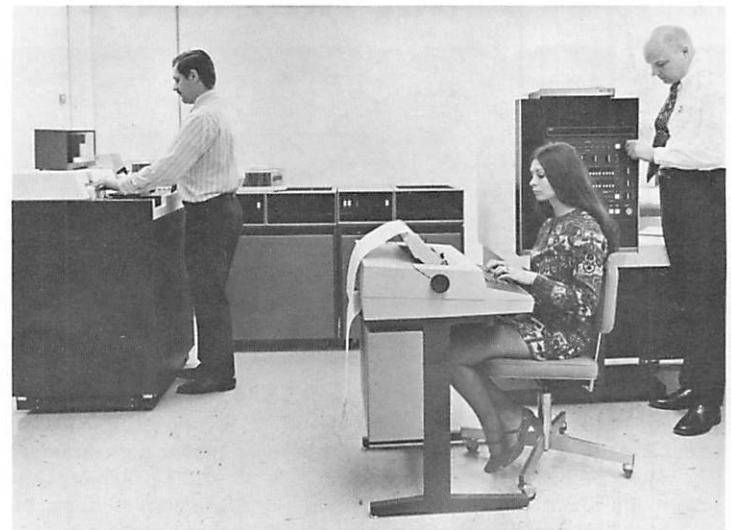


Memorex Santa Clara

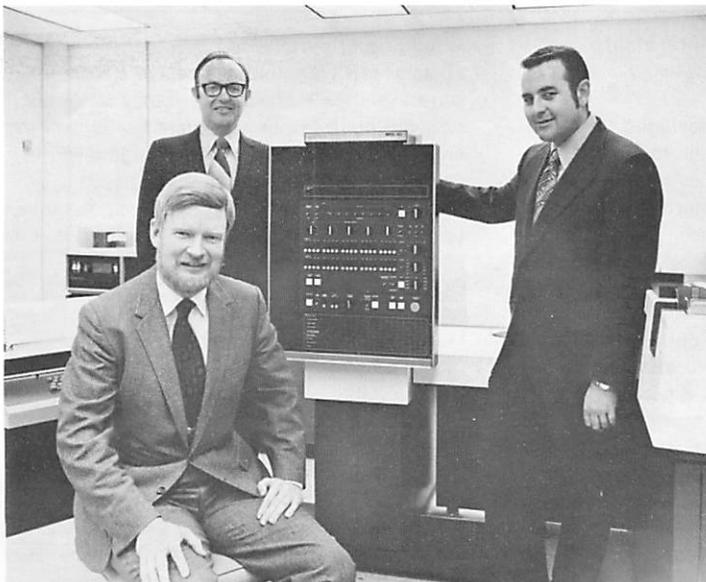
Some members of the Santa Clara systems launch group responsible for introducing our new systems to the field are (standing, l to r): Howard Rathbun, education; Bill Howard, market planning; Terry Brown, education; George Campbell, market planning; Harry Morris, market planning; Ev Rogers, education; and Marty Dasher, education. Seated (l to r) are: Suzanne Strid, education; and Barbara Sundin, Merle Goff and Kathy Opray, secretaries.



Fielding questions from the floor during our recent press conference is D. James Guzy, executive vice president.



Mark Jadus, operations supervisor
Kathy Opray, secretary
Carl Hansen, manager of computer operations and applications



Demonstrating some of the capabilities of our new MRX/40 computer system to guests are Bob Loudon (standing at line printer), director of programming; George Fraine (seated), manager of machine language programming; and Carl Hansen (with flip chart), manager of operations and applications.

Bob Loudon,
Sherbie Gangwere,
Bart Ott.

Special Tester Developed

Keeping a jump ahead of the 670 disc drive production, Quality Engineering and Test Engineering have developed a tester for the 670 read/write heads.

"We had to figure out a way to make sure the read/write heads used in our new 670 were up to standards," said Joe Starnes,

magnetic head quality assurance manager. "The heads were a new design, so in order to adequately test them before assembly with the 670 drive, we had to develop a tester that would identify many of the 670's



characteristics, and test for parameters not normally required in production testing."

Using a basic Development Engineering design, the QA and Test Engineering people designed the layout, set the testing standards, then built the device, said Starnes. "Now when the 670s go for final test, we can assure that the heads meet or exceed engineering requirements."

"The success of the tester is due in large part to the effort of Roy Tsukida, George Baker, and Larry Ro, who put in many long hours of hard work and effort above their normal job responsibilities."

Shown discussing the new 670 head being tested in the Q.A. department are (l to r): Al Osterlund, director of quality assurance and test engineering; Roy Tsukida, quality engineer, and George Baker, staff test engineer.

New Product Round-Up



Pictured above are members of the development group for our new 650 Flexible Disc File. The 650 is a compact, direct access unit which enables original equipment manufacturers to simplify the storage and handling of digital information, and is also used in the 671 control unit for our 3670's. Using a flexible disc material

produced by the tape plant, the 650 gives higher performance than possible with cassettes or other comparably priced file on the market today. Members of the development group are (l to r): **Dave Stoddard, Andy Leon, George Anderson, Jugi Tandon, Eric Katz, Linda Rohrer, Dave Brown, Knute Magerkurth, John Connors, Ron Holladay and Jim Hook.**

Discussing our new toner for IBM copiers as it comes off the production line are Ed Briggs, production supervisor and Rich Broughman, size reduction operation, Business Products. The new toner meets or exceeds all IBM specifications, and outperforms competing toners in the number of copies produced per pound of toner.



Systems Offer Many Advances

The new Memorex computer systems—MRX/40 and 50—offer technological advances never before available to users of small to medium size systems. They feature large data storage, comprehensive communications capability, and an innovative system architecture which provides speeds twice those of competing systems, according

to **N. David Wheeler**, vice president, processing systems.

The MRX/40 and 50 are designed to meet the remote processor requirements of geographically dispersed companies as well as the user of small commercial systems.

Memorex Systems feature architecture which utilizes multi-processor states. They offer 16,000 to 128,000 bytes of MOS memory, 29 to 232 million bytes of on-line removable disc storage and integrated adapters for a broad range of peripheral devices. The multi-processor concept, normally available only on much larger and more expensive computers, greatly increases the speed with which Memorex Systems can handle many tasks. The MRX/40 is available with 16,000 to 64,000 bytes of memory and the MRX/50 offers 16,000 to 128,000 bytes of memory.

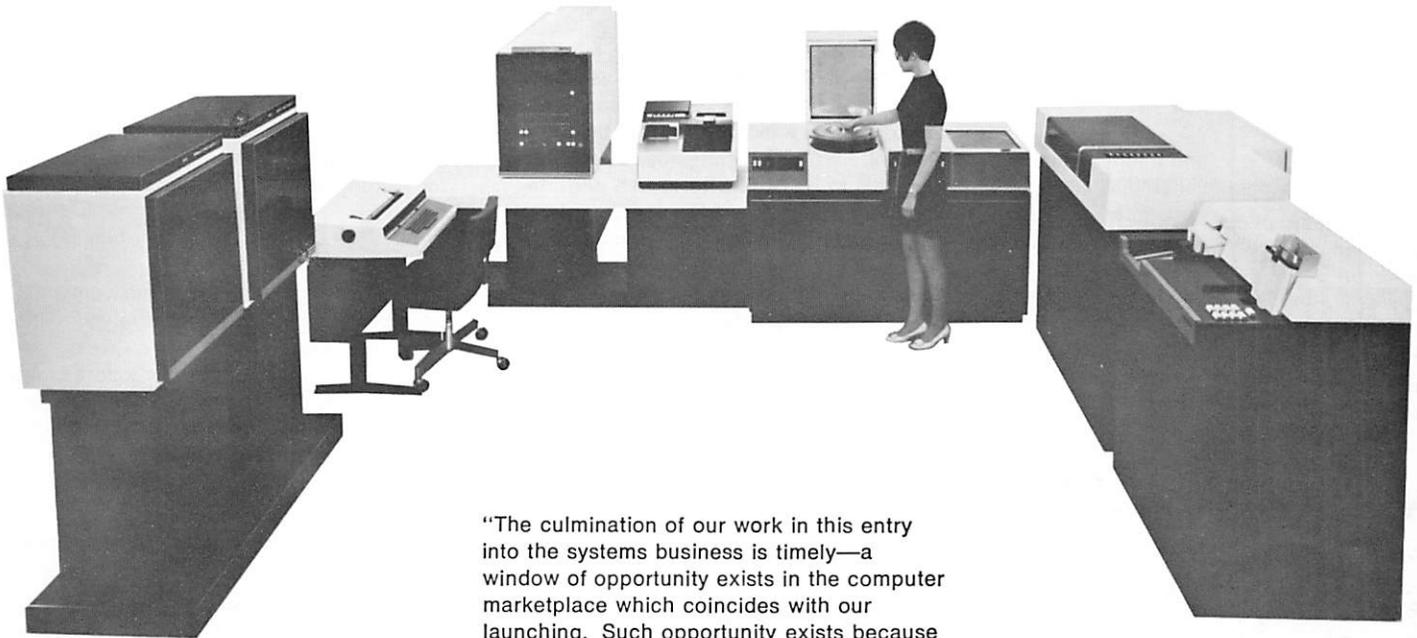
A full line of peripheral equipment is available for MRX/Systems. The systems software includes features previously available only on much larger systems. Particular emphasis has been placed on high performance, disc oriented data management systems and an easy to install telecommunications programming support. Four major compiler languages are provided—RPG, COBOL, FORTRAN and assembler—with a full range of utility programs, as part of the Memorex operating system.

Compatibility with IBM System 360, Model 20 is available to facilitate conversion of Model 20 users to Memorex Systems.

Both models of the new Memorex Systems will be available in the third quarter of 1972. Rental prices for the systems will range from \$2500 to \$12,000 per month.

Why We're Entering The Computer Marketplace

A typical configuration of the MRX/50 computer system shows our complete line of systems peripherals, including (l to r) tape drives, console, central processor, card reader, disc drives, line printer and card read/punch.



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for the equipment product development, manufacturing and marketing. The efficiency of this facility contributes significantly to our ability to produce diverse product lines of high quality in substantial production volume and at low cost.

MARKET COVERAGE

"Finally, a large, loyal customer base, satisfied by previous products and support, and coverage of a broad sector of the computer marketplace is another key to our successful launching of a new product in today's computer market.

"In approximately two and one-half years, Memorex has established a base of some 2500 users of our equipment products, and a base of an additional 5000 Memorex computer tape and disc pack customers. Our computer market coverage is extensive, with our international sales and service organization established in over 75 cities and in 23 foreign countries.

"Application of substantial capital, an unqualified corporate commitment (which translates into management's willingness to accept short-term losses to achieve a permanent and viable competitive position and long-term profitability), computer industry insight and experience, peripheral equipment products, emphasis upon working software when hardware is delivered, customer base and market coverage—these are the prerequisites we have satisfied in order to make a creditable and prospective entry into the systems business. No other entrant of the past decade has matched our running start.

"The culmination of our work in this entry into the systems business is timely—a window of opportunity exists in the computer marketplace which coincides with our launching. Such opportunity exists because we can contribute in a very real way to the satisfaction of computer users' needs.

"Data processing systems can be distinguished into three distinct classes of computers—small, medium and large scale. These classes are distinguished by monthly rental ranges and data processing power. Historically, there has been and still remains, a distinct barrier between the small-scale systems and the others, in terms of unique programming languages and differing disc data storage formats. Specifically, this is exemplified by the IBM System 360/20's. Although a member of the 360 family, the model 20's are not compatible with higher, larger 360 models (Systems 360/30 and above.) Thus, users with 360/20's face an incompatibility barrier should they wish to upgrade their systems or to tie-in with larger systems. This is our 'window of opportunity'.

OPPORTUNITY FOR GROWTH

"Significant growth within the next three to five years is generally projected for the small-scale systems market, not only in the number of customer sites, but in applications involving telecommunications and large data bases. In addition, medium and large-scale systems users will require small-scale systems, like the MRX/40 and 50, with powerful compatible software and remote communication processing.

"In response to these needs for a small-scale computer with improved performance and total compatibility with larger systems, Memorex has introduced the Systems/40 and 50.

"We have spent a good deal of time, money and thought in creating an outstanding programming system, one superior in function to IBM's, and available at rentals significantly below the rental of comparable IBM systems. In addition, we are also introducing a set of card readers, card reader punches, line printers, and a full range of communications adapters for support of our 1240 and 1280 terminals, as well as the teletype series. Also, because of our interest in marketing our computer to communications-oriented accounts, we are offering a wide range of telecommunication programming systems support to assist in the marketing and installation of our computer systems.

MEMOREX'S EXPANDING HORIZON

"Let me emphasize that everyone of us should look upon the Memorex entry into the systems business as expanding Memorex's corporate horizons and your own opportunity for individual career growth. This new extension of our business represents challenges to us, not only as a

corporation, but to each of us as individuals. The systems business is complex, it requires extreme attention to detail, personal commitment, and just plain hard work. But its potential rewards are also immense and our success in the systems business will make of Memorex a great company. I am looking forward with enthusiasm to the opportunity of meeting the challenges, and I know everyone here is also."

INTERCOM COM-LINE



COM-LINE is an open and anonymous communications channel available to all Memorex employees. Every legitimate question received along with an authoritative answer will appear in INTERCOM every month. Questions are limited only to those regarding company policy and practices, and must be within the bounds of good taste. Other questions of limited or special interest should be directed to INPUT/OUTPUT. INTERCOM reserves the right to edit questions in conformance with our editorial style and for readability, however, the basic intent of questions received will not be changed.

To participate in COM-LINE, simply write or type your questions and send it via inter-office mail to Editor, INTERCOM, mail stop 12-33. There is no need to identify yourself. Your question, along with an authoritative and complete answer will then be published in a succeeding issue. If you have any questions, you can call the Editor at 7-2200.

In recent public statements, L. L. Spitters has intimated that the Media Group has lost money, and is a major cause for the 1971 loss suffered by the company. I do not believe this to be true. The overall performance of the computer tape operation has dramatically improved. The whole plant was responsible for this achievement, and it was accomplished despite reorganization and reductions in force. We can tell our people of their achievements and try to keep them motivated, but when recent statements blame this division for the corporate problems, what chance do we have?

Your question was referred directly to the president. Here is his answer:

"Our public statements and letters to shareholders are necessarily summary in content, and therefore, cannot give the level of insight into our operations that your question reflects. It is true, as publicly stated, that our media business in total was a contributor to our 1971 loss, particularly in the fourth quarter.

"This overall result, however, does not denigrate the significant contributions to manufacturing yield and productivity which were accomplished by computer tape plant personnel, as pointed out in your question. All the people involved in that operation are to be congratulated for their individual contributions to that success, without which our 1971 result would have been worse.

"The losses experienced in our computer tape business in 1971 were due, as pointed out in the Annual Report, to a revenue shortfall which resulted largely from price degradation. These market problems obviously were unrelated to manufacturing performance, and Media personnel can be justifiably proud of their achievements in 1971."

MAG Calendar

SPRING DANCE—Sat., April 29. This year's Spring Dance will be held at Rickey's Hyatt House in Palo Alto. In keeping with the luau theme, the entertainment from 7 to 9 p.m. will include Hawaiian musicians and dancers. The highlight of the show should be the Hula Contest. Everyone is invited to dress Hawaiian style and prizes will be given for the best costumes. George Barry's Orchestra will provide rock and standard music from 9 until 1. An assortment of finger rolls, sandwiches, and hot hors d'oeuvres will be served throughout the evening. Only 500 tickets will be available, so watch the bulletin boards for ticket sale announcements.

GIANTS VS. ATLANTA—Sat., May 20 will be Memorex Day at Candlestick Park. MAG has a block of 500 reserved seats which will be sold for \$1.50 each. The seats are located on the lower level between third base and home plate. Tickets will be sold here in early May.

ROARING CAMP FAMILY DAY—Reduced rates will be available to Memorex families on Sat., June 17 for the stream trains at Roaring Camp in Felton. More details at a later date.

DUPLICATE BRIDGE BOARDS—Anyone interested in using the MAG duplicate bridge boards at work should contact **Fred Phillips** (7-1417) in Building 14.

TENNIS CLASSES—Free tennis lessons are now being given twice a week by two Memorex employees, **Doug Smith** (7-2315) and **Tony Van Gestel** (7-2163). Classes are held from 4:30 p.m. until dark on Wednesdays and noon until 3:00 p.m. on Saturdays. The courts are located at Benton Park on Benton between Pomeroy and Lawrence in Santa Clara. Bring your own rackets; balls are supplied by MAG.

AIKIDO CLASSES—Free aikido classes are being offered for employees and spouses who would like to learn this Japanese martial art. Classes are held at the Wilcox High Wrestling Room from 6:00 to 7:30 p.m. on Wednesdays and from 7:30 to 9:00 p.m. on Thursdays. For further information call Joe at 7-3644.

SELF DEFENSE CLASSES—Lessons are now being given to Memorex employees and spouses who would like to learn Japanese martial arts. Classes are held at the Wilcox High Wrestling Room from 6:00 to 7:30 p.m. on Wednesdays and from 7:30 to 9:00 p.m. on Thursdays. For further information call Joe at 7-3644.

INDUSTRIAL SOFTBALL (MEN'S)—MAG has entered a slow pitch softball team in the Santa Clara "C" League. If you'd like to get on the team, contact **Ed Horn** at 7-2181.

SHUFFLEBOARD—The equipment cabinet for the three shuffleboard courts between the Cafeteria and Building 14 are now open from 11:00 a.m. to 1:00 p.m. For use at other times, please contact Margie at 7-2357 or Doug at 7-2315 to get the key.

In Case Of Fire . .

Putting out a fire can be as easy as ABCD, provided you know which fire is which, according to **Joe De Luca**, safety administrator.

"We have different types of extinguishers for different types of fires," he said. "The class of fire—either A, B, C, or D—determines the

type of extinguisher you should use. Extinguishers are plainly marked according to the types of fires they are designed to handle."

"All you have to do is use your head in fighting a fire. Just keep in mind that all fires require fuel, air and heat to maintain combustion. Remove any of these factors, and the fire will go out."

Fires and their extinguishers are grouped according to the type of material. Class A

fires are paper, wood and other ordinary combustibles; Class B are flammable liquids such as gasoline; C are electrical and D are alkaline metal fires such as magnesium.

"The way to handle a fire is not to fight it alone," said De Luca. "There is too great a danger of being overcome by smoke. Your best bet is to first evacuate the area, then get helping by dialing our emergency Santa Clara hotline, 7-3333. Once help is on the way, and provided the risk is not great, you can then try to fight the blaze yourself."