INTERCOM MEMOREX

A newspaper for Memorex people everywhere

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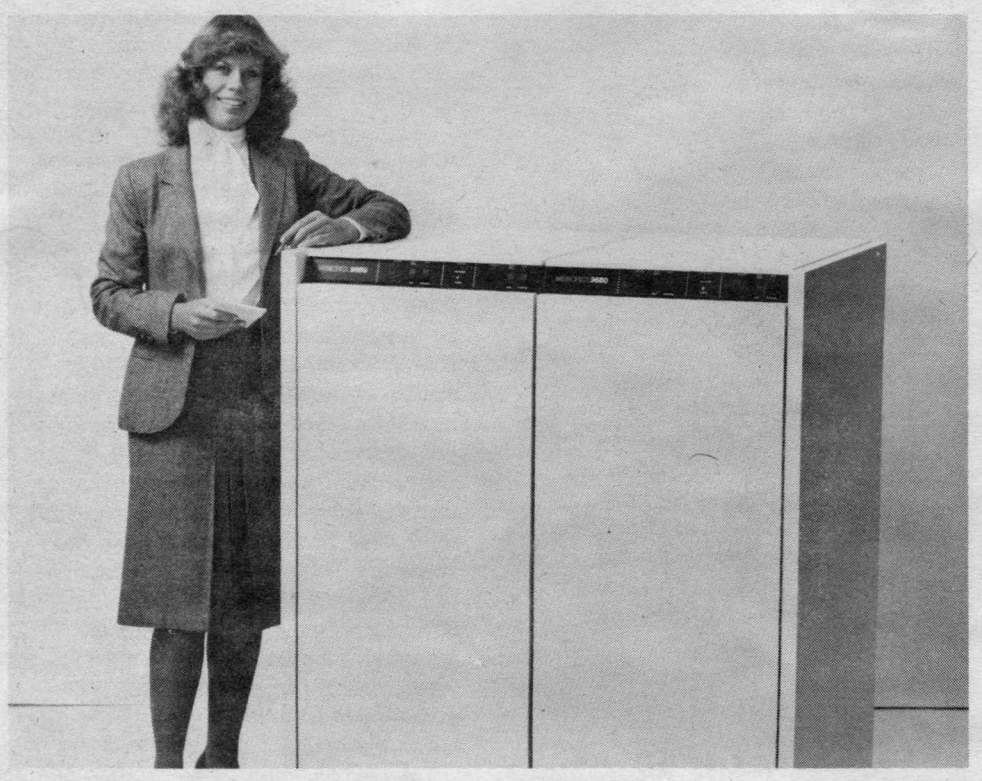
MEMOREX ANNOUNCES THIN-FILM STORAGE PRODUCTS



Jan Bathhurst, executive secretary, with the new Memorex 3680 Disc Storage Module.

Memorex hosts trade press and major industry analysts

A standing-room-only audience of writers, editors and industry analysts was on hand in Santa Clara September 8 to witness Memorex's introduction of the 3690, 3680 and 680 disc storage products.

Among those in attendance were representatives of the leading U.S. and Canadian electronics and computer trade publications, including Datamation, Digital Design, Information Systems News, Computer Systems News, Electronic Engineering Times, Canadian Datasystems and many others. Others represented at the news conference included Business Week magazine, the Gartner Group, Dataquest and other firms which analyze developments in the computer industry.

Following a brief reception and welcoming address from C.W. Spangle, those attending the news conference in the board room at Memorex headquarters heard three key presentations on the series of products which was being introduced. Dr. James Castle, executive vice president, presented an overview of the products and outlined the company's philosophy on product introduction credibility. The latter, he noted, was that Memorex does not introduce a product until there is an excellent probability of delivering the product to the marketplace at the announced price and within the announced time frame. Castle underscored that philosophy by informing those present that Memorex had, in fact, already delivered and installed 3690 disc subsystems, using Memorex thin-film recording heads, in selected international markets.

Wade Meyercord, president of the Storage Equipment Manufacturing and Development organization, then reviewed some of the key product features and enhancements of the 3680 subsystem. He was followed by Al Conover, vice president, Storage Equipment Planning and Program Management, who explained the advanced thin-film recording head and thick-substrate media technologies incorporated in the 3680 subsystem.

Following a question-and-answer session, conference participants viewed the new products and an exhibit on Memorex technology. Prior to a luncheon for conference attendees and Memorex managers participating in the event, the guests had an opportunity to visit Memorex laboratories to view first-hand the thin-film and other processes and techniques they had been informed about in the conference.

In addition to packets containing printed information and photographs of the products, conference attendees were provided with comparative samples of ferrite and advanced thin-film recording heads, embedded in lucite.

Product introduction news release packets also were distributed to the general news media, and news wire stories on the thin-film product introductions were distributed nationally.

Stories which began to appear in the general trade media, shortly after the news conference, indicated that Memorex's most significant product introductions of the past decade had been very well received.

Meyercord focuses on product features

At the recent press conference introducing the Memorex 680, 3680, and 3690, Wade Meyercord, president of Storage Equipment Manufacturing and Development, delivered one of the key addresses to representatives of the press. Excerpts from that address follow.

The 3690, which is already being delivered in the international marketplace, is a 571-megabyte disc file. In developing the 3690 we had three goals: one, to develop a product compatible with the IBM 3370—with equivalent storage capacities and data rates, and hardware and software compatibility.

Second, we wanted the product to maintain our already strong posltion in

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Castle underscores commitment to customers in key address

Dr. James Castle, Memorex's executive vice president, delivered one of the key speeches to representatives of the press at the September 8 press conference announcing Memorex's new 680, 3690, and 3680 disc drive products. Following are excerpts from Dr. Castle's speech.

As many of you know, news conferences are uncommon at Memorex. This morning, we are very proud to announce the introduction of a series of disc subsystems based upon new generation thin-film magnetic recording heads developed by Memorex.

Later on, I'll describe the specifics of this new thin-film product series; but first, I'd like to remark briefly on what a product announcement means at Memorex.

As representatives of the press, you are aware that commitments associated with product announcements frequently prove less than accurate over time. In our industry, these introductory statements are too often misleading pre-announcements.

A company which makes several delivery date changes or issues multiple price increases after announcing a product, but before the first customer shipment, is not making a serious commitment to perform as stated.

Memorex product announcements are different. Until a product or series of products is at the point in its development and testing cycle where we have a very high probability of achieving the promised performance, quality, delivery date and price, we will not announce. We believe that Memorex and its customers are best served by a history of announcement credibility and product quality.

We have followed this philosophy of announcement credibility and, consequently, we are the last plug-compatible manufacturer to introduce a disc subsystem based on thin-film read/write head technology. We are also now the first to deliver such a production level product—the 3690.

In fact, initial shipments of the Memorex 3690 thin-film technology, 571-megabyte, disc subsystem, were delivered to an international end-user customer last month. This subsystem, compatible with the IBM 3370, is the first in the series of new-generation, thin-film disc subsystems which we are introducing here today.

The second product in the series, the Memorex 3680, is compatible with the IBM 3380. Shipments of the 3680 will begin in the first quarter of 1983, with volume shipments worldwide scheduled for the third quarter of 1983.

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On Wednesday, September 8, Memorex Corporation made its most significant product announcement in recent years, introducing the first members of a new series of high performance disc subsystems based on thin-film read/write head technology.

Specifically, Memorex introduced two new subsystems for the end user market, the 3690 and the 3680, as well as its OEM version, the 680. The 3690 is compatible with the IBM 3370, while the 3680 is the functional equivalent of the IBM 3380 thin film product. The 680 is equivalent to the 3680 but has OEM interfaces. All subsystems utilize thin-film read/write heads which were developed and produced by Memorex's Recording Technology Center in Santa Clara, California.

Each of our subsystems incorporates unique Memorex features which enhance customer value, a hallmark of Memorex storage products for more than a decade. In the case of the 3680, additional storage can be purchased in single spindle increments after the minimum configuration is met. Memorex is the only vendor which offers this flexibility in a 3380-class thin-film device. Additionally, our Multiple Access Path Selection feature is an industry exclusive.

The 3690 is being marketed in selected international countries. This product represents an important step in the total program to develop subsystems featuring thin-film technology. In August, Memorex became the first independent supplier to ship subsystems utilizing internally developed and produced thin-film heads.

The 3690 program exemplifies Memorex's commitment to deliver product. And, in announcing this new series of disc storage subsystems, Memorex further demonstrates its ongoing commitment to the plug-compatible market and the integrity of its announcement policies.

This new generation of products once again establishes Memorex as a leader in state-of-the-art technology for data storage, something we at Memorex have known for a long time.

Congratulations are in order for everyone who has been involved in this project. However, much work is still ahead of us; we must bring the 3680 to market on schedule. I am confident we will.

C.W. Spangle

C.W. Spangle

SPORTSTALK

Perfect 10 wins again! First place winners in the Memorex Women's Intramural Softball League in 1981 and again in 1982, team members are shown above, bottom row, left to right: Dana Maples, Christie Massengale, Valli Cooper, Kathy Parara, Connie Hoze, and Vicki Baldinger (captain); top row, left to right: Michelle Murray, Gloria Hibbit, Vera Ragland, Debbie Hinton, Dorothy Woods, Diane Silva, and Betty Hale. Behind Hinton is coach Ollie Ragland.

"Perfect 10" repeats last year's softball victory

The two best teams in the Women's Intramural Softball League squared off for a best two of three elimination tournament at Prospect High School in San Jose recently.

The "Rainbow Flyers," with a season record of five wins and four losses, were the winners of the tournament in 1980. "Perfect 10," their opponents in this year's tournament with a season record of seven wins and one loss, won the championship last year. In light of that, the game promised to be a good one—and it was!

The Rainbow Flyers gave Perfect 10 a very rough time, both teams determined to win. One of the most exciting plays of the game was a line drive scooped up by Rainbow Flyers' pitcher Inez Torres as she stood on the pitcher's mound. The play literally took the fans' breath away.

With excellent defense and offense from both teams, it could have gone either way. But Perfrect 10, tough and determined, came through with stunning victories in both games with scores of 4-3 in the first game and 19-11 in the second game. Congratulations to two outstanding softball teams.

Time to change health plans

Once each year, Memorex offers Santa Clara employees and other employees in specific locations the opportunity to choose between the Memorex Medical Plan or a Company-approved Health Maintenance Organization (HMO).

This year's open enrollment period is from November 1 to November 12. If you elect to change plans, coverage in the new plan will commence January 1, 1983.

Your Human Resources representative will coordinate the open enrollment, and will make appropriate forms available for those of you who wish to change plans. If you take no action, you will automatically be re-enrolled in your present plan.

CTD, this year's winners of the Memorex Men's Intramural Softball Championships, are shown above, bottom row, left to right: Gilbert Gonzales, Albert Garcia, Tony Noriega, Vince Espino, Bill Espino, Greg Espino, and Larry Serrano. Standing are, left to right: Marty Serrano, Mac Pamanian, Darrel Guidry, Joe Meyers, Al Urquhart, and Mike Balderas.

"CTD" beats "On This" to win second softball tournament

In a best two-out-of-three tournament recently, CTD took the first two games with scores of 8-5 and 14-4. A three-run homer by Joe Meyers in the last inning of the first game clenched that one for CTD. In the second game, Mac Pamanian, also of CTD, batted in two three-run homers, adding 6 points to the score of the game.

Both teams played with fierce determination, looking more like professional athletes than Memorex employees who play just for fun.

"CTD," the men's softball team representing the Computer Tape Division, has won the Memorex Men's Intramural Softball Championship for the second year in a row, defeating the same team they played against for the championship for the last three years—"On This." Calling themselves "Dog's Lunch" last year, On This changed their team name this year, hoping for better luck. They had won the championship in 1980 against CTD, losing it in 1981 to that team.

Meyercord

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the 4300 series marketplace in Europe. Third, we wanted a product to introduce, and gain experience on, Memorex designed and produced thin-film heads.

We have accomplished all three of these goals.

In developing the 3680 subsystem, we had three goals in mind. First, of course, was to develop a 3380-compatible subsystem—one which would have 3380-equivalent storage capacities and data transfer rates, attach to the same processors and use the same software.

The second goal was to create a subsystem offering better reliability, availability and maintainability than can be obtained in current disc products.

The third goal was to provide value-added enhancements.

Memorex has accomplished all three of these program goals.

The 3680 subsystem includes the 3888 Dual Director Storage Control Unit, the 3683 Dual Path String Controller, and the 3680 Dual Actuator Disc File.

The Memorex storage control unit (the unit which acts as the subsystem data manager) has two storage directors. It has a unique, enhanced control interface to our string controller, which is providing single model architecture—compatible with IBM—but offers Memorex unique storage flexibility for the customer.

This is accomplished with simple microprogram changes, unlike the competition, no hardware changes are required. This means that the same storage control hardware can support attachment of either our new 3680 products, or our earlier 3650 series and 3670 series products. The ease of customer migration is obvious.

The Memorex control interface offers an enhanced protocol with improved fault detection on data transfers between the storage control unit and the string controllers. This gives customers yet another level of improved data integrity.

Other key features of the Memorex storage control unit include:

- *2-, 4-, and 8-channel switch. This allows hookup to the appropriate number of channels connected to the central processing unit.*
- *Speed-matching buffer. This allows attachment of 3680 subsystems to older central processing units with slower data transfer rates.*
- *Remote switch feature, allowing channel enable/disable switches to be relocated up to 400 feet from the unit.*

To our customers, these features mean improved system performance and configuration flexibility.

Each 3680 Disc Storage module contains one head disc assembly or (HDA). Each HDA has two actuators. The actuator is the mechanical mechanism which carries the heads back and forth across the surface of the discs. Because the heads on an actuator are mechanically fixed in relation to one another, it can only read or write so much information at once. The customer normally wants more than one actuator working at the same time, if possible.

Our string controller (the unit which manages the disc files) has two independent data paths that attach to the two directors within the storage control unit. Each of these data paths can control all of the actuators within the string. This is done through a feature we call "Maximum Availability Path Selection", or "MAPS" for short.

MAPS allows two simultaneous reads or writes per string at the actuator level. When any of the actuators in a string is streaming data, any of the other 15 actuators in the string can simultaneously stream data to or from the other string controller function of the 3683. This is a unique Memorex feature. In the case of IBM for example, if one actuator in a double spindle file is busy, the other three actuators are not available for customer use.

Each 3680 disc storage module (the unit that actually stores the data) remember, contains one HDA and two actuators. This gives a storage capacity of 1.26 gigabytes of data per module. The 3680 file for the end user market is identical to the 680 file for the OEM marketplace. This design gives us economy of scale and the accompanying lower manufacturing costs.

The disc file utilizes second-generation thin-film heads developed by Memorex's recording technology center, as well as thick-substrate advanced particulate media developed by our Rigid Media and Components Division.

Of all product entries in the 3380 thin-film head marketplace today, only our 3680 disc file has single-spindle architecture. This design is inherently more reliable. Each disc storage module is a complete stand-alone unit with its own power supplies, electronics, etc. Single-spindle architecture offers customers maximum configuration flexibility and cost-effectiveness.

Each device within the 3680 subsystem has its own microprocessor to facilitate diagnostics. Our customer engineers will use a small, hand-held monitor to plug into any module of the subsystem, to monitor and analyze operational problems.

Our competition does not have this flexibility. For example, the IBM hand-held device can be used only at the storage control unit level.

The distribution of microprocessors allows maintenance functions to be performed at the unit level—down to the actuator, if required, while the rest of the subsystem operates unimpaired. The point is to enhance data availability by limiting the impact of diagnostics and maintenance on the overall system.

In addition to being microprocessor controlled at the unit level, the subsystem has remote diagnostic capability. The storage control unit contains an RS232 interface which enables the subsystem to be connected to a telephone circuit for remote diagnostic assistance.

To the user, all this means better maintainability and reliability.

Did we meet our goals in the development of our 3680 subsystem? You bet we did. One, the 3680 is system compatible with IBM. Two, we have greater reliability and servicability than is currently available in any disc product.

Third, we have provided many value added enhancements:

- *Reliability*
- *Single-Spindle Architecture*
- *Microprocessor in each unit*
- *Single model storage control*
- *Maximum Availability Path Selection*
- *Storage control flexibility*

That's our 3680 subsystem—a system based on advanced Memorex technology and offering significant cost benefit enhancements for the 3380 marketplace.

Castle

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The 3690 subsystem, intially marketed in selected international markets, has a single HDA with a horizontal axis. It uses fixed block architecture, makes extensive use of LSI circuitry, and has an average access time of 20 milliseconds. Most importantly, the 3690 is now installed and generating revenue in a customer location.

The Memorex 3680 has been designed with a lower profile than other drives with equivalent capacity. It also requires less overall floor space for comparable configurations.

The 3680 is the only thin-film head, single-spindle product offering currently in the 3380 marketplace. The 3680's unique single-spindle architecture makes it the only drive in its class which allows users to add data storage in 1¼-gigabyte increments. This gives 3680 users the most cost-effective means available of meeting their storage requirements.

In addition to the 3690 and 3680 subsystems which we are introducing today, the Memorex 680, an OEM version of the 3680, is scheduled to ship to OEM customers in the same time frame that the 3680's are shipped next year.

These three subsystems—the 3690, the 3680, and the 680—are the first three in a planned series of end-user and OEM disc products based on Memorex's advanced thin-film technology. Effective immediately, we are taking orders for these products.

INTERCOM

WESTLAKE/WINNIPEG SPECIAL REPORT

In March 1982, Burroughs Corporation transferred the management of its Peripheral Products' manufacturing and engineering facilities to Memorex Corporation because of related work in the area of storage equipment. Those facilities included plants in Westlake Village, California, and Winnipeg, Manitoba, Canada, which are both now part of Memorex's Storage Equipment Manufacturing and Development (SEM & D) organization. The general managers of those two plants, Ed Trost in Winnipeg and Gary Hodgman in Westlake Village, report to Bill Krehbiel, vice president of off-site operations for SEM & D.

Neighbors include "Little House"

Westlake Village, California sits in the beautiful Conejo Valley about 40 miles northwest of Los Angeles and just above the western end of the great San Fernando Valley. The famous Malibu Beach is only 10 miles south of Westlake Village.

Nests of large, opulent homes hug the hillsides of the small valley, dotting its slopes in increasing numbers. Several television shows are filmed in the Conejo Valley, among them "Dukes of Hazzard" and "Little House on the Prairie." If you've ever seen either of those shows, you should have an idea of the geography of the area.

An average of 100 new businesses per year are moving into the valley, representing extremely rapid growth. Interestingly, Burroughs' Westlake was the first company to establish a manufacturing plant in the valley, where it sat alone for several years before other businesses recognized the advantages of locating there.

The Westlake facility opened in 1968. The one-story building is 405,000 square feet, situated on a 30-acre site. One of the largest employers in the valley, the Westlake plant has over 800 employees.

Now part of Memorex, the facility houses an outstanding computer peripheral manufacturing team which draws on the support and experience of an engineering design force as well as support groups and tenants.

The manufacturing group at Westlake represents a significant base of knowledge and experience associated with the assembly and test of magnetic peripheral devices. Westlake has approximately 300 production employees dedicated to the production of high quality products including magnetic tape drives and head-per-track disc drives, as well as removable disc pack drives.

In addition to the product-oriented capabilities that Westlake has within its

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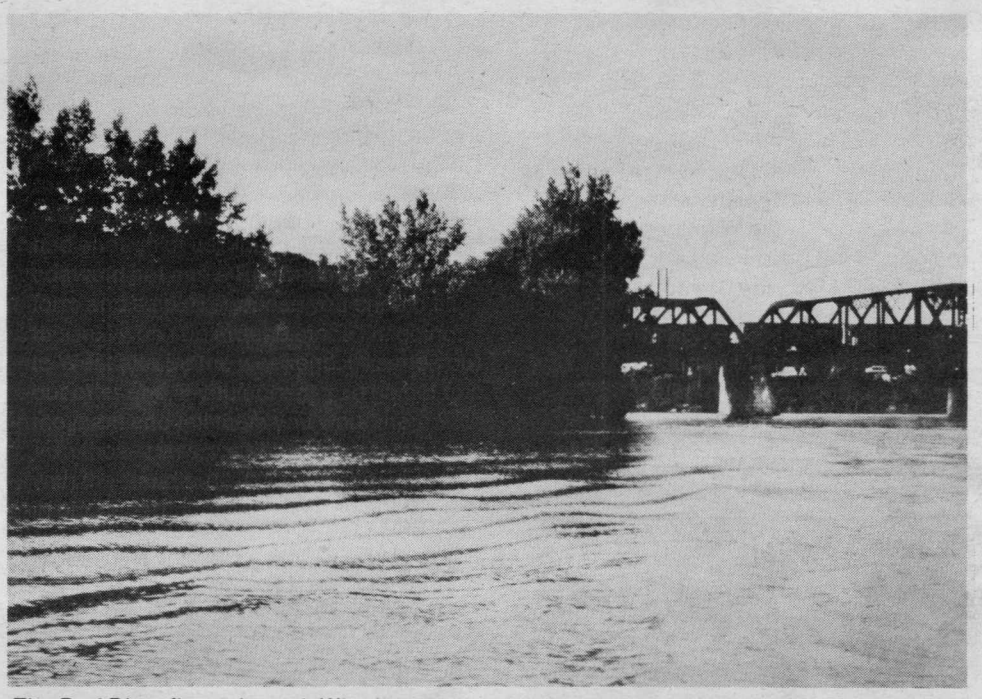


The Red River flows through Winnipeg

All roads lead to Winnipeg

Winnipeg, Manitoba is located in the center of Canada and nearly dead center in the middle of the entire continent of North America. Since all roads from Eastern to Western Canada pass through Winnipeg, it is a major transportation center with the largest railyards in North America.

Home of Assiniboine and Cree Indians, the area was originally settled by people from France and Scotland then, after the turn of the century, by people from Asian and European countries. Immigrants originally settled in separate areas of the city but are now fully integrated.

The city lies in the Red River Valley, through which flow the Red River and the Assiniboine River. Originally supported by extensive fur trading, the area has since become famous and prosperous as a great agricultural area, specializing in grain crops. The city also boasts many diversified manufacturing industries and is known as the cultural center of Western Canada, with acclaimed ballet, theater, art, and symphony centers.

With a population of over 600,000, Winnipeg is the capital of the province of Manitoba. Major industries represented include: food and beverage, clothing, farm implements, transportation equipment, construction, and chemicals, among others.

The Winnipeg climate has very marked seasonal changes. The average high and low temperature in January ranges from -13.4 degrees Celsius to -23.2 degrees Celsius; whereas, in July, it is +25.9 degrees Celsius to +13.5 degrees Celsius. Because the climate is so dry, it tends to moderate those extremes and gives Winnipeg the most hours of sunshine per year of any other major Canadian city.

Winnipeg has professional hockey and football teams and a major race track. It is also a recognized major center for medical research, offering its residents outstanding health and social services.

Westlake/Winnipeg employees benefit from ESP program

The Employee's Suggestion Program in the Westlake and Winnipeg plants is designed to provide personal recognition for employee's innovative ideas and to encourage greater pride in their work through the satisfaction of seeing their suggestions implemented.

For the Company, the program is designed to use the innovations of employees to obtain dollar benefits, improved product quality and output, as well as an improved work environment. It also serves to promote two-way communication between employees and management and to improve employee morale.

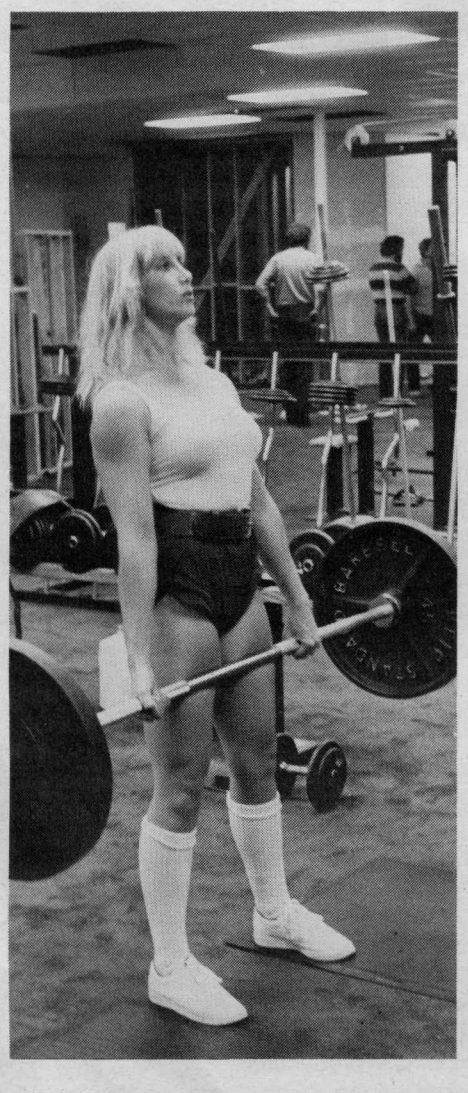
Cash awards for implemented suggestions are the Company's way of sharing the benefits that result from their suggestions. Award winners in both plants are:

Winnipeg

Mel Costello
Marco Venturini
David Webster
Heather Maurice
Lorraine Gill
Myrna Collette
Inayat Nasim
Anurasiri DeSilva
Ron Kozachok
Tariq Nazeer
Outra Persaud
John Peters
Joe Krupnik
Gille Cloutier
David Kanceruk
Doug Webster
Murray Braun
Surinder Puri
Zennen Oudt
Robert Langdon
Peter Drake

Westlake

William Robertson
Jeff White
Edward Hamm
Walter McDougall
Juanita Palafox
Luis Gomez
Donaly Vineyard
Jerry Zelenka
Salvador Salas
Pauline Lerma
Nancy Bernard
Alfonso Lerma
Jose Villagas
Rose Marie Aceves
Carita Fletcher
Robert Wiley
Beverly Childers
Carmen Pena
Ursula Baker
Harriet Reisman
Maria Guerrero
Peggy Doyle
George Mullen
Rafael Mojica
Mary Jeffrey
Daniel Grindle
Judith Dent
Zinia Kikala
Bobbie Taylor
Sharon Tatman
Virginia Savarese
Norma Sumner
Marc Hanley
Ban Ngoc Vu
John Butchko
Cheryl Smith
Tranh-Van Thi Tranh
Tammy Sumner
Daniel Padilla



Sheila Herman—powerlifter, writer, and Burroughs engineer

"Your only point of reference should be your previous performance. You shouldn't compare yourself with others, especially national champions," says Sheila Herman, Burroughs engineer, free-lance writer, and champion powerlifter.

Claiming that hard knocks have made her even more determined and ambitious than she would have otherwise been, Herman has had a measurable positive impact on the new sport of women's weight lifting.

According to her, there are three categories of weight lifting:

- powerlifting—includes the bench press, squat, and deadlift, and relies mostly on strength;
- bodybuilding—includes the development and presentation of the physique; and
- Olympic events—includes the snatch and clean-and-jerk.

Herman concentrates on powerlifting but also judges women's body-building contests and has written the Constitution for the American Federation of Women Bodybuilders.

Raised in Howell, Michigan, she moved to Arizona when she was 14 and, subsequently earned a BS in engineering mathematics at Arizona State University in 1979. About five years before that, she started working out in a local gym just to get in shape and, within two months, was lifting 100 pounds on the bench press and the Universal Gym. Two months later, she was lifting 160 pounds at the free bar.

Realizing her potential, she began to train with a coach in Colorado in early 1979. Later that year, she entered a men's powerlifting competition and placed third against the male competition.

Though Herman entered several more contests after that, her real interest lies in writing. She has published over 20 articles in "Muscle and Fitness" magazine and recently published an article in a technical journal on read/write system analysis for optical memory systems.

Aside from her writing and powerlifting activities, Herman works at the Westlake Plant as an engineer on the research and development of Optical Memory Systems. Married to another engineer, she is now pregnant with her first child and will continue to work out as usual.

Herman placed fourth in the 1980 Women's Powerlifting Nationals. Her official lifts are: 160 pounds at the bench press, 315 pounds at the deadlift; and 225 pounds at the squat.

Winnipeg manufactures drives and develops test equipment

by Grant Nelin, personnel manager, and Eric Nernberg, human resources manager

Responsibility for the direction of the Winnipeg plant officially transferred from Burroughs to Memorex in March 1982. The Winnipeg plant originally commenced operations in April 1975 in a leased building at the Winnipeg airport. The plant was functionally part of the Peripheral Products Group and was assigned the responsibility of designing and manufacturing computer disc memories. A new facility of 106,000 square feet, located on a 19-acre site in the suburb of Southdale, was occupied in October 1976. Although functionally a part of Memorex, the Winnipeg facility remains in the Corporate structure as part of Burroughs Inc., the Canadian subsidiary of Burroughs Corporation.

Two disc drive products have been manufactured in the Winnipeg plant. The first was a 206 removable media drive which has now been phased out of production. The second is the 207 fixed media drive, currently in production.

The 207 operates with 6500 bits per inch of recorded track and over 700 tracks to the inch. Each cabinet manufactured contains eight discs to give a capacity of 3200 million bits of information. The 207 was designed by the Winnipeg engineering group and, in 1980, won the Province of Manitoba's Award for Design Excellence. The plant also currently produces the Disk Drive Electronic Controller B1955. This is an in-built controller for the Burroughs B1900 medium-sized computer.

The Winnipeg plant currently employs about 360 people with a 49-person strong engineering group. With the transfer to Memorex, the plant is now part of the Storage Equipment Manufacturing and Development organization of Memorex. General manager Ed Trost reports directly to Bill Krehbiel, vice president of off-site operations for SEM & D. New areas of involvement for the engineering group are development of specialized test equipment for the 3680 program and product support of small disc engineering.

The Winnipeg management team is shown above, left to right: Steve Roth, management systems manager; Greg Melnyk, manufacturing operations manager; Eric Nernberg, human resources manager; Dick Dilawri, controller; Ed Trost, general manager; and Chris Greaves, product assurance manager. Not shown is Dan Card, product engineering manager.

Nernberg assists unemployed in labor training program

The Winnepeg Core Area Labour Training Program is an employment preparation project whose long-term goal is to integrate unemployed by employable core area (meaning downtown area of Winnipeg) residents into the labor force by teaching them specific metal-working skills in a work environment. The skills will allow persons to compete in the labor market for basic entry-level positions.

One of the anticipated results of the program is that it will aid the economy of the area because those people will get off social assistance and become income-earning, tax-paying citizens.

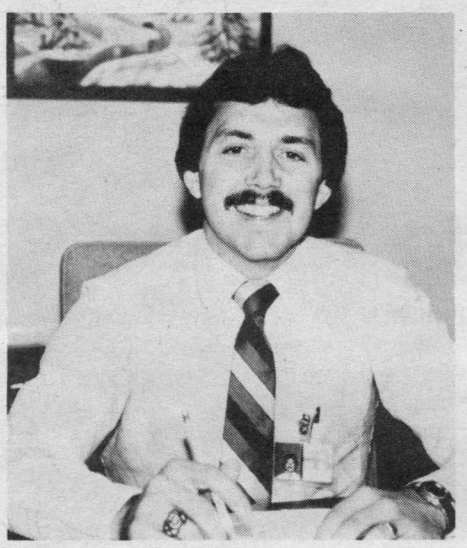
The Program was established based on the recommendation of a commission appointed by the Winnipeg Chamber of Commerce to study the situation of unemployed core area residents. On that recommendation, the Chamber of Commerce formed the Program Board in April 1980 to implement the project. Eric Nernberg, human resources manager in the Winnipeg plant, was named Chairman of that Board.

Nernberg joined the company in October of last year. Prior to that, he was with Versatile Corporation, Raytheon Canada, Marsland Engineering, and Canadian General Electric—all in human resources positions. Nernberg holds a BA in psychology and, along with all his other activities, is working toward his MBA from the University of Manitoba.

The Board's mandate was to begin the development of an industrial training program which would teach basic industrial skills to currently unemployed persons who could then be employed in local industry. The Board determined that the initial area for training should be metal work since there was a constant shortage of metal workers in industry, salaries were fairly high, and the basic skills could be taught in a relatively short time.

Candidates are expected to be "ready, willing, and able," according to Nernberg, and must meet the following criteria: they must be functionally literate, must be sincerely interested in finding long-term employment, must have major social problems under control, and must have the potential to benefit from the program.

The program is supported by grants from federal government agencies. The Board itself has representatives from local businesses, social agencies, legal firms, and accounting firms. Any results are yet to be seen or measured as the first trainees started classes in September of this year and none have graduated yet. Nernberg and the Board have great hopes for the success of the program.



Committee focuses on safety issues

Westlake is keeping a sharp eye on safety, according to Russ Severn, human resources representative and chairman of the Westlake Safety Committee. The Committee comprises representatives from manufacturing, quality, engineering, human resources, and the Optical Memory Program.

Some of the major problems they're contending with are back problems from improper lifting; injuries from on-the-job accidents, and chemical handling and disposal.

By increasing the awareness of all employees about the importance of safety, the Committee has reduced and, in some cases, eliminated those problems. As part of their program, the Committee is educating supervisors about safety issues who, in turn, are expected to educate their employees about safety issues.

Another aspect of the program is a seminar called "Backs and Bucks" presented by the Wausau Insurance Company. The seminar addresses back problems which, according to Wausua, costs companies a lot of money in insurance premiums and medical costs.

The third part of the safety awareness program at Westlake is evacuation drills which are held approximately once every six months. Employees are assigned a "buddy" whom they must locate **after** they've left the building in an emergency. If the "buddy" cannot be located, the employee is instructed to report the missing person to the proper authorities. In that way, all employees can be accounted for within minutes after the emergency evacuation.

The Committee also conducts "safety walks" throughout the Westlake facility (which is over 400,000 square feet) on a quarterly basis wherein they identify any safety problems. Those problems are assigned to a member of the Committee whose responsibility it is to find a proper resolution. Severn reports that injuries are now at an all-time low in the Westlake plant.

Westlake

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manufacturing operation, it also boasts specialized talents in plated disc fabrication and flying head technology.

Engineering design expertise encompasses several fields including electrical and mechanical engineering, physics, chemistry and computer science. The three product engineering groups are concentrating on plated media technology, tape engineering, and disc engineering.

In addition to all this activity, the Westlake facility rents space to four other Burroughs' organizations including: Technical Information Organization (TIO), Optical Memory Program, Corporate Industrial Design, and Disk Media, Inc. (DMI).

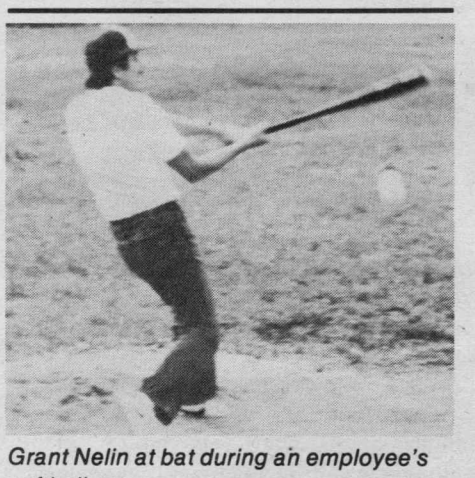
TIO is an essential link between Westlake's engineering/manufacturing and Burroughs' marketing. They provide assistance to customers of all Westlake's products by maintaining a close working relationship with engineering, manufacturing, and product assurance.

Optical Memory is dedicated to the design and development of a large capacity, fast access, compact, and stable computer system by means of laser devices. The success of this program represents a tremendous advancement in the state of the art.

Corporate Industrial Design services 15 plants, concentrating on the visualization and design of products. Their main concern is the external appearance and human-factor features of the equipment produced, having already designed the Memorex 659 to resemble Burroughs' products. They will continue to work with additional Memorex products as they are produced.

Disk Media, Inc. is a joint venture company between Memorex and Control Data Corporation which intends to begin engineering media and building prototypes beginning late 1982 at Westlake.

All these activities are essential to the Burroughs/Memorex future, which promises to be exciting, prosperous, and innovative.



Grant Nelin at bat during an employee's softball game.

Reuter and Haran celebrate 35 years with Burroughs

Westlake employees Arnold Reuter and Frederick Haran were recently honored at a Burroughs Service Award luncheon for 35 years of service to the Company. Reuter, a native of Detroit, began his career with Burroughs as an accounting clerk in 1947. Following several accounting assignments, he was appointed supervisor of defense costing at the Plymouth, Michigan plant. He subsequently held positions as senior financial analyst, manager of manufacturing accounting, and controller for the Westlake plant.

Haran, a native of Ireland, started with Control Instrument Company in 1947. That company became a subsidiary of Burroughs in 1950. His first position was prototype assembler and machinist after which he became assistant foreman of the model shop in 1951. In 1955, Haran transferred to the Electro-Data Division as logistics supervisor for field engineering. He subsequently held positions as special product supervisor, supervisor of engineering technicians R & D and product support, then transferred to Westlake in 1970 as production supervisor. During his 12 years at Westlake, Haran has worked with all disc and tape products in production.

Product engineering has tough assignment

The purpose of the product engineering department at the Winnipeg plant is to design new products and to solve design problems with current products, according to mechanical engineering manager Alan Davenport.

A potential new product now in testing at Santa Clara by Winnipeg personnel, is the DMA 5/5, a very advanced high-technology 5¼-inch Winchester disc drive. This unique drive has a capacity of 10 megabytes of storage, with 5 megabytes fixed and the other 5 megabytes in a removable cartridge. Memorex has obtained license agreements to manufacture and market the drive from DMA Systems Corporation in Santa Barbara, CA. Memorex plans to market the drives worldwide, except in Japan and certain Far East countries, according to the contract signed by representatives from both companies. The agreements provide for product purchase by Memorex and a license for Memorex to use DMA Systems' technology to manufacture the drive.

The product engineering group in Winnipeg is currently testing the DMA product, which represents, "really first class, high-technology steps forward," according to Davenport.

"Compared to a flexible disc," he adds, "this product lasts longer, has less degradation, and more reliability. In short, it's a large-scale storage device in miniature."

The Westlake plant has shipped the first four units of 677-33 disc drives, "clearly demonstrating Memorex's Westlake ability to perform as scheduled," according to Andy Leon, 677-33 program manager.

He added, "To learn, assemble, test, quality assure, and sort out documentation for shipment in six weeks is an achievement. I want to thank you and the 677-33 team members for your support and dedication."

Hodgman identifies purpose of Westlake Village plant

The purpose and objectives of the Westlake plant are designed "to ensure the success of the plant in terms of stability and job satisfaction by providing excellent, best quality products and engineering that meets the needs of our customers and by being an invaluable complement to Santa Clara manufacturing and engineering," according to Gary Hodgman, general manager of the Westlake plant.

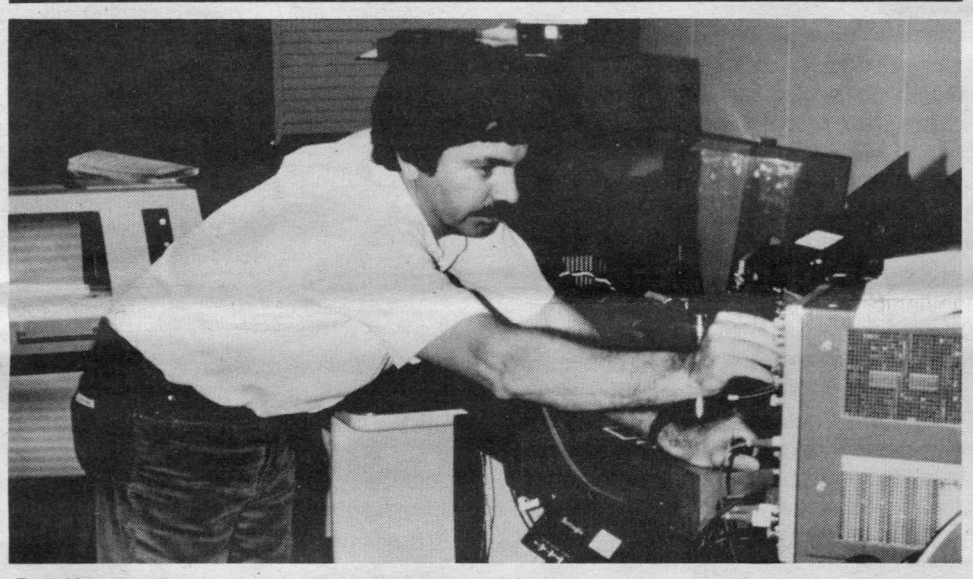
The Plant Purpose comprises four aspects:

- Teamwork, wherein employees working as a team do all that is necessary to make the plant successful. That includes the free flow of relevant, honest communication between all levels and based on responsive management, and by career and work-related personal development of all individuals in harmony with the plant's goals and purposes.
- Working toward measurable goals that lead to the accomplishment of the Plant Purpose. That includes thorough investigation of all aspects of a project, preparing plans and critical path analyses, executing those plans then, subsequently, measuring, tracking, and reviewing the results to ensure that goals are met.
- Being the best in quality in all that is done by continuously reviewing goals and plans, implementing changes when needed, and conforming to all officially implemented procedures and specifications.
- Maintaining first-hand knowledge of customers and their needs, competitors and their products, and latest developments and trends in the industry.

Hodgman contends that in order to make the plant successful in terms of stability and job satisfaction, all employees must concentrate on excellence and quality in every task. He believes that the mental attitude of each and every employee is directly reflected in the success of the entire operation. "The essence," says Hodgman, "is each person's attitude."

Communication is a key to changing the attitudes of employees. To that end, Hodgman plans to ensure that policies, procedures, and specifications are documented, understood, and agreed upon. In addition to that, he meets daily with all his direct reports to communicate essential information both ways. Those direct reports are expected to communicate that information to their reports, and so on throughout the plant.

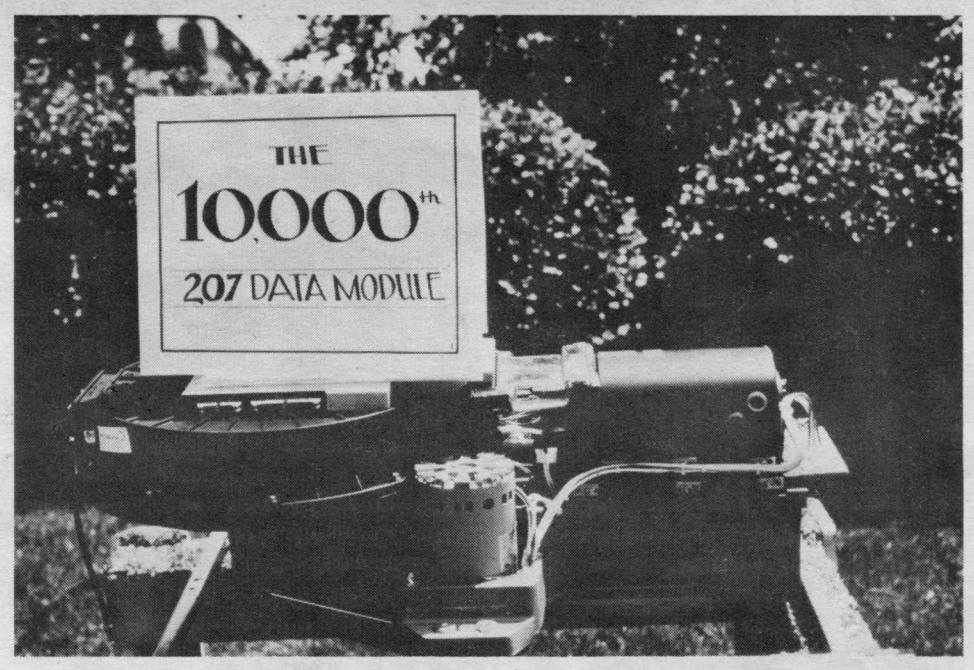
Committments to excellence and highest quality work are being acquired from the top down. Hodgman feels that when management has made those committments, the rest of the employees will follow suit. He says, "I want them to know that it is basic to their survival, my survival, and the survival of the plant."



Bob Hazel, advanced techniques manager at Westlake, tests a read/write board in an optical memory.

Roberto Custodio, Westlake material handler, assembles a capstan motor.

Inspecting circuit boards at Westlake are, left to right: Reba Collins, Myrna Lundsford, and Irene Jones.



Winnipeg celebrates production of 10,000th 207 Data Module

"For their dedication and effort," employees of the Winnipeg plant were recently honored for producing the 10,000th 207 Data Module. All employees were summoned to the lawn outside the plant where Ed Trost, general manager, presented the employees with a plaque and thanked them for their accomplishment, considered "a milestone for the Winnipeg plant."

Special recognition was given to the employees of the Module Room for their significant contribution to the effort. Accepting the plaque for employees were George Bruce and J.R. MacPherson, Module Room production supervisors.

Trost informed employees that their work on that module represented more than 500,000 hours of labor. Following that, Trost was presented with a Burroughs' baseball hat by the president of the Employee's Social Club, George Bruce.

Lasers burn holes in optical media

Many storage media customers require a large capacity, long-term storage system. For example, banks and many other businesses must keep all account records for seven years to comply with IRS regulations. This requirement is usually met by storing data on magnetic tape or magnetic rigid discs.

However, there are a number of drawbacks in storing data for such a long time on magnetic media. The media must be stored in a temperature and humidity controlled environment which is shielded from magnetic fields. Also, data retrieval can be a slow process with computer tapes. The tapes themselves can be bulky and multiple back-up tapes must be kept to reduce the chance of errors or data loss due to environmental factors.

Burroughs and Memorex have determined that a market exists for a large capacity, fast access, compact, and stable storage system to meet the needs of those customers.

The 14" disc is made of aluminum with a proprietary coating and is similar to the laser video disc systems currently on the market. A laser beam is used to melt small holes in the coating, creating a reflective spot. Where holes are not burned on the surface, it remains nonreflective.

When the area is read by the sensor, the areas of high and low reflectance are read as either 0's or 1's, representing pieces of data.

The holes are approximately 30 microinches in diameter (about a millionth of an inch) which provides the opportunity to store 2000 megabytes per disc with a transfer rate of 1.5 megabytes per second. In short, that's very large capacity.

The media is not affected by magnetic fields, temperature, or humidity, since it is just a coated disc with a series of holes and spaces.

The optical media has a continuous hole-free surface when it is manufactured. The customer burns the holes onto the surface to represent the data being stored, which is permanent, similar to a record album that can be played over and over again, but on which no new music can be recorded.

Burroughs anticipates product announcements for the system sometime in 1983, according to Ed LaBudde, general manager of the Optical Memory Development Program at Westlake.

George Bruce, production supervisor and president of the Winnipeg Employee's Social Club.

"Curling Bon Spiel" tops social events

The Employee's Social Club at Winnipeg is "a tool to bring the different groups together, enhance communication, and build better morale," according to Club president George Bruce. Formed two years ago, the Club sponsors a wide variety of activities for employees including: golf tournaments, baseball tournaments, the Christmas dinner/dance, basketball teams, and the annual Company picnic.

The most popular event sponsored by the Club is the "Annual Curling Bon Spiel," a Scottish sports event similar to shuffleboard, but played on ice. The "curling rock" is slid along the ice which has been sprayed with water to make the surface pebbly. This event is attended by more employees than any other social event and over half of the participants are awarded prizes for playing.

The Club also sends cards to ill employees, sells Burroughs' baseball hats and, once a quarter, holds a raffle including all member's names for the prize of a $25 gift certificate.

As a gift to employees, the Company recently assisted the Social Club in installing a baseball diamond on Company property right behind the plant. Participation in the co-ed baseball games has increased considerably since then. Plans are to continue to upgrade the playing field as funds are available, possibly with benches for spectators and lights to allow teams to play after dark.

The Club is supported by membership fees from the current 127 members and from fund-raising events put on throughout the year. Voluntary membership entitles members to discounts at all Club-sponsored activities and an opportunity to serve on the Board or as an area representative. The Board comprises: George Bruce, president; Joan MacRae, secretary; Bob Chapman, treasurer; Gwen Stone, vice president; and Donald MacAulay, membership chairman. Area representatives are: Nelda Francisco, Verla Pearson, Rick Selby, Trent Westwood, and Jeff Bowers.

Emma Carrillo, Westlake production assembler, assembles printed circuit boards.

David Borowiec, Winnipeg industrial engineering technician, is shown using a logic probe to verify the logic integrity of integrated circuits.

Hue Laughter, Westlake production assembler, is shown assembling hub discs.

Thompson takes job to kill time –ends up in top management

Nevilee Thompson, Westlake production manager, came to work at Burroughs in 1968 just to kill a little time until she and her husband left for a long-awaited trip to Hawaii. After a primary career of homemaking and raising two daughters began to wind down, she had found herself with a lot of free time.

Having heard about the new company starting up in Westlake Village, Nevilee applied for a job "building little gadgets," as she puts it.

To her surprise, she really enjoyed building the "little gadgets" and working with the people at Westlake, and took advantage of all the available training offered to production workers. As a result, she has risen through the ranks to various supervisory positions and is now production manager, responsible for all production workers and supervisors.

Nevilee is firm, but friendly and supportive to her reports. "I make it a point to get out on the line every day and to say good morning to people. Sometimes it's rough because I have a lot of things to do, but some time during the day, I get into the departments."

She also holds crew meetings with supervisors and production technicians once a week and attends all meetings of the first line supervisors. Her door is always open and so is her mind, making her a very popular and effective manager.

When asked how her male counterparts react to her being in a management position, she replies, "They no longer stand up when I walk into a meeting. That's a good sign."

Talbot reminisces about Winnipeg's early days

by Jim Talbot, product engineering drafting supervisor

As one of the original group who helped to usher in Winnipeg's computer age with the advent of Burroughs in 1975, I think some of you may be interested in a few reminiscences about the early days at Burroughs Winnipeg.

The young company rented space in some old World War II vintage buildings at CAE Aircraft, near the airport in St. James. Several departments consisted of only one or two people, and many of our engineers were still in Westlake. It was all very new and informal. Company standard practices were in the process of being written; the whole thing was something like playing baseball and making up the rules as we went along.

I joined Burroughs in December 1975. Even being hired in those days could be a unique experience. Human Resources was "The Personnel Department" and the personnel department was a young fellow named Jim Vanderleeu. Jim was, I believe, out of town, so I didn't see him until about a week after I started work. My job interview (and I use the term loosely) started out in my future department manager's living room about 7:00 p.m. one cold winter evening and wound up in his rec-room very much later, as we two Air Force veterans vainly tried to outdo each other and Ripley, in tales of past glories of our respective services, the US Air Force and the Royal Air Force.

When, eventually, his good lady had had enough of us, Joe handed me my coat and hat and a Burroughs' application form and said, "I suppose you should fill this in. I won't be around since I'm going to Westlake for the weekend. I'll send you our offer and, if you accept, just go out to the plant and tell them you work there."

In those days, we shared a cafeteria with the "landlord" (CAE Aircraft, Ltd.) but in our department coffee breaks were inevitably heralded by the mysterious appearance of a conglomeration of coffee pots, percolators, electric kettles, and mini-immersion heaters, as well as all kinds of coffee and tea bags. Coffee breaks were consequently inclined to be more like a steamy sojourn in the Casbah than anything else. I remember when the new building (our present home) was ready, a terse well-worded memo from "Personnel" made it quite clear that whatever else was to be moved to the new building, circuit-breaking coffee makers were not. In future, it was to be "the cafeteria or nothing."

Many of us sadly realized that the writing was on the wall (or at least on the bulletin board). From that point on, Burroughs meant business. I mean, having proper procedures for leaving and entering the plant, controlling stores, and building a product—that's one thing. But shutting down our steam factory, that was something else again—that was heavy stuff. We were suitably impressed.

New management approach a hit at Winnipeg plant

by Carole Postnieks, training and development manager

Performance management is a systematic, data-oriented approach to managing people. It is systematic in that the manager identifies the results desired, pinpoints the behavior or activity required to attain those results, and plans positive consequences for the results achieved.

It is data-oriented in that the manager ensures that the pinpointed activity is measurable, observable, and reliable, and is used as a basis for feedback and positive reinforcement to employees.

Essential to Performance Management is the analysis of the current situation. After an area is identified as being in need of improvement, a baseline is identified, detailing where things stand. Next, goals are established—always in concert with all employees involved.

To provide up-to-date effective communication on progress being made, feedback is used, most often in the form of graphs. As part of feedback, deliberate conscious efforts are made to express appreciation to all employees and an emphasis is placed on positive reinforcement.

Techniques for employee reinforcement include sincere, specific, immediate and personalized recognition. Reinforcement is expected to be given upward, downward, and sideways, with consistent feedback as one of the most important techniques.

As a result, Performance Management creates both increased productivity and improved interpersonal relationships between employees and management. Employees who know their specific tasks and results expected of them, who are given daily feedback on their performance, and who receive positive consequences for those performances, are highly productive and satisified.

A Performance Management system allows employees to do much self-monitoring of their own daily performance, ultimately allowing the manager to do more decision-making and less direct supervision. In other words, Performance Management is an organized strategy for managers.

All managers and supervisors have received intensive training in Performance Management and since the system was implemented at Winnipeg in November 1981, results have been significant.

- One scrap reduction project effectively reduced the average weekly scrap cost of a specific part from $6,500 per week to $2,400 per week, and is still dropping!
- Graphical feedback of one project clearly identified a relationship between captive failure and room temperature and resulted in upgrading of the air conditioning system in this location.
- A project pinpointed to increase area output effectively increased the average output 5.6 to 6.5 over a five-week period.
- A project designed to increase yield in one area pinpointed a need for training. A training program was set up and conducted for all employees in this area. Result: 7% increase in yield after three weeks.
- A new and innovative data system set up in an area never previously measured allowed for systematic feedback and recognition to employees resulted in an increase in productivity.
- A project relating to rework on I.C. inspection saved 215.2 hours inspection time over six weeks.
- Two projects pinpointing an increase in accuracy rate resulted in an increase from 93% to 96% accuracy in six weeks.

Several of the projects were joint efforts between departments and resulted in strengthened lines of communication and cooperation among employees.

With encouraging results such as these, we are now moving into Phase II—Performance Teams—the next step in Performance Management. Our focus is on Quality—"Do it Right the First Time", and our teams are called "Quality Teams". Members of a Quality Team will have the chance to have input in decision-making and final results.

We are already underway. Our Quality Council, made up of our senior management staff, along with 18 Team Leaders have completed 16 hours Team Training. Teams have been formed in Purchasing, In-Process Inspection, the Module Room and Final Test. These teams have completed their training and are just preparing for their first meetings.

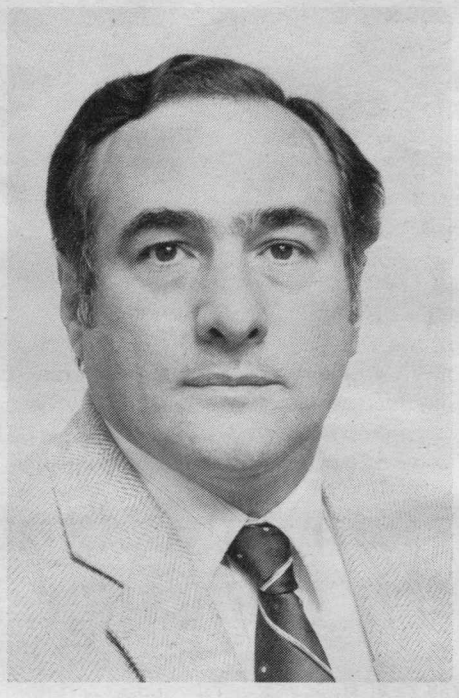
Team topics will cover such areas as quality, productivity, scrap, safety, process improvements, yields, housekeeping, paperwork, etc.

Bob Milo promoted to new GM post south of the border

Robert Milo has been promoted to the newly-created position of general manager of the Tucson/Nogales/ Magdalena facilities, reporting to Bill Krehbiel, vice president of off-site operations for Storage Equipment Manufacturing and Development.

Milo has been involved with the Mexican Operations for the last three years while it has grown to include over 1,000 employees. During that period, according to Krehbiel, manufacture in Mexico has contributed strongly to reduced manufacturing costs of Memorex products, both in disc drives and in Communications products.

Milo joined Memorex in 1979. Prior to that, he had been president of Burcliff International and had held key positions with the Molex Corporation as director of manufacturing, director of materials, and plant manager. He holds a BA in business and Spanish from Wayne State University.



Thin-film technology sets new Memorex products apart

Memorex-developed thin-film recording heads are the components which distinguish the first three entries in a new series of products introduced by the company on September 8, setting them apart from the current generation of disc storage products.

The new products are the 3690 subsystem, the 3680 subsystem and the 680 disc file.

The 3690 subsystem, already installed and generating revenue in customers' shops outside the United States, includes a disc file called the 3690, and a disc file and controller unit called the 3693. Each unit has a single head disc assembly (HDA) with a disc which rotates in a vertical position, and each has a data storage capacity of 571.3 megabytes (MB). The HDAs each have two independently addressable actuators, each of which can get at half of the storage space. The units transfer data at a rate of 1.86 MB per second, and their average access time is 20 milliseconds. The 3693 contains interface, power and control circuits, as well.

Delivery and installation of the 3690 made Memorex the first independent supplier of plug-compatible disc storage subsystems to actually deliver production-level devices using advanced thin-film recording heads developed and produced on an in-house basis.

The 3680 subsystem includes a storage control unit called the 3888, a string controller called the 3683, and, in the minimum configuration, two 3680 disc files.

Current disc storage products use ferrite recording heads to read and write data. Ferrite heads are manufactured by a mechanical process, and the copper wires of their transducers have to be wound by hand.

Thin-film recording heads are manufactured and tested in batches, using semiconductor-type processes to "grow" the heads on wafers made of a proprietary material with properties similar to glass. Photolithographic techniques are used, along with various semiconductor-type processes, to deposit the components of the heads on the wafer. Machining and other mechanical processes, including hand winding of copper wire, are eliminated. A key advantage of the thin-film process is that much tinier dimensions can be achieved, and this is a principal factor in increasing the amount of data which can be packed into a given space on a magnetic disc.

As a result, the 3680 subsystem offers four times the storage capacity of the Memorex 3650, and twice the capacity of the dual-density Memorex 3652, while requiring less floorspace.

The 3680 subsystem has a storage capacity of 1.26 gigabytes (billions of bytes), an average access time of 16 milliseconds, and a data transfer rate of 3 MB per second. It utilizes "thick-substrate" media, meaning that its aluminum platters are twice as thick as a standard 14-inch disc. This, in addition to a horizontal spindle supported at both ends (rather than the usual vertical spindle supported only at the bottom), gives the media enhanced stability and improves the reliability of the disc file.

A major feature of the 3680 disc file is its single-spindle architecture. This unique feature allows strings of disc files to be configured in odd, as well as even, numbers of spindles beyond the minimum configuration. To date, Memorex is the only company to introduce an advanced thin-film-head disc file with single-spindle architecture to the 3380 marketplace.

The 3680 subsystem offers a wide array of enhancements designed to improve throughput, availability, reliability and serviceability. These include microprocessors in each unit of the subsystem, to facilitate diagnostics; a telephone interface to allow remote analyses and diagnostics; and features such as Maximum Availability Path Selection (or "MAPS," for short), which allows two simultaneous read/writes per string at the actuator level.

The 680 disc file is identical to the 3680, but it will have OEM interfacing. Shipments of both the 3680 and the OEM 680 are scheduled to commence in the first quarter of 1983, with volume shipments of production units scheduled for the third quarter of 1983.

O'Reilly managing Clondalkin plant

Derrie O'Reilly has been promoted to managing director of Memorex's magnetic media plant near Clondalkin, Ireland, southwest of Dublin. O'Reilly reports to Brendan Staveley, vice president and general manager of the Flexible Disc Media Division, whom he succeeded in the top management position at the Ireland facility.

O'Reilly joined Memorex in 1979 as industrial relations manager with the start-up team for the Clondalkin facility. Prior to that, he had been industrial relations manager for Becton Dickinson's surgical instrument manufacturing plant and for Antigen Pharmaceutical; managing diretor for W. O'Brien Plant Hire, Inc. and a partner in a motor business; all in Ireland.

Moynahan recognizes efforts of 3680 production teams

Microprocessor diagnostics built into Memorex's recently introduced 3680 disc storage subsystem have proven very useful to those who have worked on the design and testing of the subsystem, according to Dennis Moynahan, 3680 program manager.

The hand-held monitor—designed for eventual use by customer engineers who will use it to plug into any of the 3680 subsystem devices for diagnostic purposes—"has been one of the principal things which Design Engineering has used for debugging" of the subsystem components, Moynahan said.

Microprocessor-based diagnostics built into the 3680 devices have been "valuable in debugging pre-Production hardware," he said.

A Product Test Team, headed by Chris Christman, is guiding the 3680 components through design validation testing, Moynahan said. This provides an impartial evaluation, he said, since members of the team are people who were not connected with the design of the product. "Having this different set of eyes and ears is deliberate," he said.

Much of Memorex's progress on the 3680 project, Moynahan said, is owed to the efforts of Jack Osborne's Magnetic Head Recording Programs Group, better known as "the thin-film pilot line," and of Don Johnson's Rigid Media and Components Division engineering team, which developed the thick-substrate media for the 3680.

Osborne's group developed the second-generation thin-film heads used on the 3680 disc file.

Leon Sarringhaus, currently the acting general manager of Disc Media, Inc., contributed a great deal to the 3680 program as assistant program manager, with a special emphasis on the media, Moynahan said. Sarringhaus was loaned from the 3680 program to head up the media joint venture company established by Memorex and Control Data Corporation. Memorex's RMCD currently provides media to the 3680 program for pilot activity, under contract from DMI, the joint venture company headed by Sarringhaus, Moynahan said.

Moynahan, who has been with Memorex for 11 years, reports to Al Conover, vice president, Planning and Program Management.

"Commuter Saluter" month announced

The month of October is soon to be named "Commuter Saluter Month" in Santa Clara County by the Board of Supervisors who are putting together a resolution to that effect. A flurry of activities is being planned in conjunction with that which will take place throughout the Valley and at Memorex.

The purpose of the program is to encourage and reward commuters who bus, train, carpool, or vanpool to work. To support that, the Santa Clara County Manufacturing Group Transportation Task Force and the San Jose Mercury-News are co-sponsoring a contest about which details will be posted throughout Memorex Santa Clara facilities during October.

Other events taking place during October are the opening of the Southern Pacific (SP) Lawrence Expressway station, the completion of the new San Tomas Expressway commuter lanes, and exhibits at several Valley companies on past, present, and future transportation modes. The exhibit will be on display at the Memorex San Tomas cafeteria from November 2 through November 12.

Transit information displays will also be set up during the first week of November at the San Tomas cafeteria, the Memorex Drive cafeteria, and the Communications Group cafeteria where employees can get commuter information.

As an added incentive, County Transit is offering reduced fares on six bus express routes during the month of October. Those discounted tickets will be available at the MAG store Monday through Friday, 11:30 a.m. to 4:00 p.m. As soon as the new Lawrence Expressway SP station is open, train tickets will be available at the MAG office, as well. A "Free Fare Day" is being sponsored by KEEN Radio. Watch MAG bulletin boards for further information during the months of October and November.

Bowlathon winner

Howard Self, senior engineer analyst in the Large Disc Drive Division, was the winner in the recent Junior Achievement Bowl-A-Thon, a fund-raising event for JA in Santa Clara Valley. Self won by collecting more pledges than any other bowler, raising a total of $1,238. For his efforts, Self was awarded with a new bowling ball and a gift certificate. Congratulations, Howard.

Dates set for UW campaign

Our 1982 United Way Campaign will be held from October 24 to November 5. All Memorex employees will have the opportunity to help the many people who cannot help themselves. When we give to United Way, we're helping others and we're helping ourselves the United Way.

Because we know you think United Way is important, we set aside time, during normal working hours for you to attend United Way information meetings. Additional information will be distributed during October about the 1982 Memorex United Way Campaign.

Castle announces reorganization

"In order to more efficiently address the marketplace for our equipment businesses and take full advantage of the opportunities it represents," Dr. James Castle, executive vice president, has recently announced the following organizational changes.

The marketing activities for the domestic end-user Storage Equipment business will transfer from U.S. Equipment Sales and Service into Storage Equipment Planning and Program Management. As a result, Sam Spadafora, manager of the marketing organizaton, will now report to Allan Conover, vice president of Storage Equipment Planning and Program Management. Spadafora will have responsibility for industry marketing, product marketing, major account programs, marketing communications, and marketing services.

The sales support activities, managed by Woody Hancock, will report directly to Bob Berry, vice president of U.S. Equipment Sales and Service. The systems engineering activities, managed by Larry Miller, will also report to Berry.

The Corporate Design Center, managed by Al Schuler; Guest Relations, managed by Harold Stanley; and Special Events and Exhibits, coordinated by Cindy Fischer, will all transfer from U.S. Equipment Sales and Service into the Corporate Business Development organization managed by Michael Haltom, vice president of business development.

According to Castle, "these organizational changes are important in structuring our equipment marketing activities to address their respective markets and our sales and service activities to address our common equipment customers."

NEWSMAKERS

Perrill is new tax manager

Meredith Perrill has recently joined Memorex as Corporate Tax Manager, reporting directly to Jack Silverberg, Corporate tax director for Burroughs, and indirectly to Tom Stevens, vice president of finance at Memorex. Perrill is a CPA and, over the last seven years, has been tax planning manager and domestic tax manager for Levi Strauss & Co. in San Francisco. Prior to that, she was the chief financial officer of the San Francisco Giants and tax manager for Price Waterhouse & Co. Perrill holds a bachelor's degree in business administration from the University of Iowa.

Biswas rejoins human resources

Bashker Biswas has recently rejoined Memorex in the position of compensation manager, reporting to Larry Chamberlin, vice president of human resources. Biswas' previous assignments with Memorex included manager of Corporate compensation programs and manager of international compensation and benefits. In addition, he has over 13 years experience in compensation administration with Control Data, Bechtel, Medtronic, and PG & E. Biswas holds a post-graduate diploma in industrial relations from Xavier Institute of Labor Relations in India and an MBA in personnel management from the University of Wisconsin.

Wong promoted in CE operations

Patrick Wong has been appointed to the position of customer engineering headquarters operations manager, reporting to Ron Steen, vice president of customer engineering for U.S. Equipment Sales and Service. Wong joined Memorex in 1979 as a senior financial analyst, then joined the customer engineering management team in 1980 as manager of financial planning and analysis. After that, he was named manager of customer engineering planning and programs. Prior to joining Memorex, Wong held financial analysis positions with TRW and Mattel. He holds an MBA In finance from UCLA and an AB in economics from Stanford University.

Drummey new manager in MFC

Karen Drummey has been named contract administration manager for the Memorex Finance Company, reporting temporarily to Hal Krauter, president of MFC. Krauter is also serving as acting treasurer until that open position is filled. Drummey comes to MFC from Thayer, Ringoen, and MacDonald, where she was program manager responsible for computer mainframe leases, remarketing programs, and financial closings. Prior to that, she had been marketing administrator at Itel Capital Corporation. Drummey holds a BA from the University of Massachusetts.

Ketner in LDDD quality group

Joe Ketner has joined the Large Disc Drive Division quality organization as manager of heads/HDA quality assurance/quality engineering. Ketner will be reporting to Cleayton Mills, quality assurance manager for LDDD. Ketner was most recently with Ithaco, Inc. as corporate quality assurance manager, and has also been an instructor on quality management, quality circles, general management, and project management. He holds a BSEE from Grantham College of Engineering.

Masson promoted at Westlake

Bernard Masson has been appointed engineering manager at the Westlake plant, reporting to Gary Hodgman, general manager. Masson has been with Burroughs since 1973, when he joined the Patin, France office as an engineer. Since then he has been engineering manager for the Plainfield, New Jersey plant and subsequently held the same position at the Jacksonville, Florida facility until his recent appointment at the Westlake Plant. Masson holds a master's degree in electromechanical engineering.

Straight moves up at PPD

Roy Straight has been named manufacturing manager in the Precision Plastics Division in Irvine, California, reporting to Wayne Cunningham, vice president and general manager. Joining Memorex in 1978, Straight had been manager of material and production control until his recent promotion. Prior to that, Straight was director of material at Landau Motor Homes. He holds a BS in production management and an MBA in finance from California State University at Long Beach.

Glinka promoted in SDDE

Werner Glinka has been named digital engineering manager in Small Disc Drive Engineering, reporting to Bill Scales, electrical engineering manager. Glinka has been with Memorex one year designing and developing digital hardware/software for small disc drive products. Prior to that, he was with Nixdorf Computer in West Germany developing hardware and software in the Peripheral Equipment Division. Glinka attended Fachhoch Schule Bochiem in West Germany majoring in control systems and communication systems.

Longchamps now at Memorex

Don Longchamps has been appointed domestic traffic manager, inbound materials, reporting to J.M. Gilleland, manager of domestic traffic and warehousing. Longchamps joins Memorex from Xidex where he has been corporate traffic manager for the past two years. Prior to that, he held a variety of traffic and transportation related positions with U.S. Lines, Burnham Van Lines, and Delcher Intercontinental. He holds a BS in business administration from the University of Maryland.

McKie joins Winnipeg staff

Eric McKie has recently joined the Winnipeg plant as digital engineering section manager, reporting to Dan Card, product engineering manager. McKie had previously been analog design section leader in the Glenrothes, Scotland facility. He holds a BS in electrical and electronic engineering and a master's in digital techniques, communications, and control theories.

Clarence Hamm, left, is congratulated by his supervisor, Otto Kralicek, contract administrator, for 20 years of service with the Computer Tape Division.

Hamm celebrates 20 years with the Computer Tape Division

During his 20 years with Memorex's Computer Tape Division, Clarence Hamm has done "everything but slitting," including production work, warehousing, gardening, janitorial work, quality control, document control, and a few other tasks.

Joining the Company in August of 1962, Hamm started out as a warehouseman but claims everyone did a little bit of everything at the small, fledgling computer tape manufacturer.

Now a material control specialist reporting to Otto Kralicek, Hamm remembers when a lot of the production work now automated was almost totally manual back in 1962. Some machines had to be watched all the time in case anything went wrong, and it frequently did. There were quite a few accidents involving mixture all over the floor.

All reels were cleaned by hand back then. They were put into an alcohol cleaning solution then blown dry with an air hose held by an employee. Now the reels are cleaned automatically then sent through an automatic blower.

The only thing he misses about the old days at Memorex is that everybody knew everybody else. The highest level managers, including Memorex's founder Larry Spitters, played ping pong on the lunch hours with whoever wanted to play and sometimes stayed after work to play basketball behind the building (there was only one building then).

One early employee that Hamm remembers well was a packager who liked to put little notes in the boxes of computer tape that said, "Help, I'm being held prisoner." Undoubtedly, the employee was amused. Unfortunately, customers weren't and sent the boxes of tape back to Memorex.

Since Hamm is only 44, he looks forward to many more years of working and, to that end, is continuing his education by taking classes at Mission College in writing and business administration. Always eager for more training and responsibility, Hamm remains ambitious and continues to look around for more ways to make a contribution to Memorex *profitability* and excellence.

SEPTEMBER ANNIVERSARIES

15 YEARS

Al Ching, Computer Tape Division
Dennis Merrill, Corporate Physical Distribution
Dianna Grijalva, Magnetic Recording Head Programs
Howard Geddie, Computer Tape Division

10 YEARS

Ronald Ferg, U.S. Equipment Sales & Service
Lorraine Scofield, Rigid Media and Components Division
Ida Debert, Rigid Media and Components Division
John Byron, Communications Group
Lucille Zielie, Eau Claire
Chester Kiernicki, U.S. Equipment Sales & Service
Jacqueline Maloney, Large Disc Drive Division
Adele Muzzio, Corporate Staff
Roy Chadwick, Large Disc Drive Division
William Eaton, U.S. Equipment Sales & Service
Thomas Lambert, Corporate Physical Distribution
Jeanne Nyden, U.S. Equipment Sales & Service
David Barker, Large Disc Drive Division
Maurice Ferranti, Communications Group
Robert Huck, U.S. Equipment Sales & Service
Paula Tiggemann, Rigid Media and Components Division
Robert Umberger, U.S. Equipment Sales & Service
Nicole Castreuil, Leige
Christine Van Nerum, Liege

WANTADS

FOR SALE: Moped, '80 Garelli, like new, 200 miles, $350. Call Cheryl at (408)243-2444.

FOR SALE: Competition folding golf cart with seat, lightweight, easy rolling, $20. Call Sue at (408)262-1016.

FOR SALE: two women's 10-speed bikes, 24" and 26". $60 each. Call Betty at (408)269-5865.

FOR SALE: Skis, Dynastar "Starglass," 180 cm. with Tyrolia 260D bindings and brakes. Excellent condition; little used in two seasons. $180. Call Larry at (408)225-4781.

FOR SALE: Ladies' AMF Roadmaster 3-speed bicycle, needs cleaning and some renovation, $25 or best offer. Call Sue at (408)262-1016.