

MARTIN MARIETTA

# news

ASTRONAUTICS GROUP

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Number 16



**We're there!**

# Magellan says hello to Venus in perfect style

Job satisfaction for Magellan employees came in the form of a single, very distant signal from space last Friday.

That signal, at 11:06 a.m. MDT, told them the spacecraft they designed, built, launched, and have flown for the last 15 months had finally arrived at its destination—Venus.

More than 60 members of the Martin Marietta Magellan spacecraft team crowded into the Magellan Mission Operations center at the Space Support Building Friday morning to gaze at computer screens, waiting for the signal that, for some, would be the best reward for years of work on a NASA program that was canceled, then resurrected in the early 1980s.

***"I love you guys!"***

***—Anthony Spear***

Magellan began life as the Venus Orbital Imaging Radar (VOIR) in 1977, but that program was canceled because of high costs. It emerged again as the Venus Radar Mapper in 1982, being built of spare parts and designs from previous NASA spacecraft. NASA christened it "Magellan" in 1986.

The real work Friday morning had already been completed by 6:45 a.m., when the spacecraft was turned to the proper orbit entry position and its solar panels locked down.

For the next few hours, there was nothing to do but wait. Then, on cue at 10:41 a.m., the team lost touch with Magellan as the spacecraft disappeared behind Venus and out of communication with Earth. The signal loss would last for 25 minutes.

The nervousness of 100 employees and guests, captured by local television camera crews, made the room jitter with expectation. As the clock ticked closer to 11:06 a.m., deathly quiet pervaded the room, everyone leaning toward the terminals, straining to hear the confirmation from the speakers wired directly to NASA's Deep Space Network station in Goldstone, Calif.

At precisely 11:06:26 MDT, the speaker blasted the word that the Deep Space Network had acquired a telecommunications signal from the spacecraft confirming that Magellan had made a perfect entry into Venusian orbit after its solid rocket motor fired at 10:32 a.m. MDT and burned for 83 seconds.

Like an erupting volcano, the room exploded with cheers, hugs, and tears. "I was jumping around, totally relieved that we didn't kiss it goodbye," said Ken Starnes, the lead engineer for the spacecraft's command data subsystem, referring to the fact that had the rocket not fired, Magellan would have cruised by Venus out into space.

Amidst the ensuing hoopla, team members donned T-shirts proclaiming *Turn and Burn*, and strung *Let's Make a Map* banners across the control room.

At the Jet Propulsion Laboratory, where additional members of the Magellan spacecraft team were stationed, JPL's Magellan project manager Anthony Spear told the Martin



## Teets congratulates Magellan team

*Astronautics Group President Peter B. Teets, left, congratulates Chuck Gay, attitude and articulation control lead engineer for the Magellan Mission Operation Team, on last Friday's successful Venus Orbit Insertion. Teets and several other senior executives visited the Magellan Mission Operations center at the Main Plant earlier this week to thank employees and obtain up-to-the-minute Magellan details.*

Marietta employees, "I love you guys!"

This week the Magellan team, still wearing huge smiles and weary faces, received just praise from Astronautics Group President Peter B. Teets and Space Systems President James W. McAnally.

"I want to thank you truly and genuinely for this terrific accomplishment," said Teets. "This is an extremely important feat and each of you make me proud to be a Martin Marietta employee. You personify that performing for the customer is very important and you have proved that we deserve to be involved in the space business with NASA."

McAnally commended the team's dedication and said, "To your spouses, your boyfriends, your girlfriends, we say thank you for the many long hours."

Immediately after the orbit entry was confirmed, the team went back to work, reconfiguring the spacecraft for orbit. Friday night, at about 7:30 p.m. MDT, the spent solid rocket motor casing was successfully separated from the spacecraft.

Orbital checkout began this week, with the first radar test scheduled Wednesday. Magellan obtained an orbit so close to the planned orbit that the team will not have to perform an orbit trim maneuver as expected. That means the real job satisfaction will come a few days early—on Aug. 29—when Magellan begins mapping the surface of Venus.

## Magellan orbit right on target

Magellan reached an orbit 9.9 degrees north of the equator with a 183-mile periapsis, the closest the spacecraft will come to Venus' surface. Target orbit periapsis was 171 miles, 10 degrees north. The spacecraft will circle Venus once every 3.26 hours, just a little longer than the projected 3.18 hours.

## On the cover

Smiling faces on Magellan employees last Friday in the Mission Operations center reflect the good news that their spacecraft had entered orbit around Venus. Computers and speakers wired directly to California were the focus of attention until 11:06 a.m. MDT, when confirmation that the Deep Space Network had acquired a signal from the spacecraft echoed through the control room and sparked the celebration.

## Corporation to go smoke free on Jan. 1, 1991

The Corporation is committed to preserving the health of its most important asset—its employees.

For that reason, on Jan. 1, 1991, smoking will be prohibited inside all company-owned or -leased facilities including on-site, off-site, and fieldsite locations. There will be designated areas outside the facilities for those employees desiring to smoke.

In a letter all employees will receive early next week, Astronautics Group President Peter B. Teets says, "This action is being taken to fulfill our obligation to provide a safe, comfortable, and productive work environment for all employees, and is consistent with recent trends in government health regulations that severely restrict or prohibit smoking in public access facilities."

Stanley F. Albrecht, vice president of Human Resources, said, "The bottom line is that we value our employees and their health. Medical

evidence proves that smoking can be harmful to both smokers and non-smokers, and that concerns us."

The Astronautics Group's first smoking policy was implemented in November 1985 and revised in June 1988. Those guidelines permit smoking only in specifically designated areas.

"All employees are asked to cooperate with the new policy," Albrecht said. "During the past couple of years, the Employee Services and Recreation office has received a number of letters from employees expressing their concern regarding this issue, and the lack of adherence to our current policy. Because it's important for the Corporation to have a healthy workforce, every employee must obey and help enforce the Corporation's smoking policy."

The new smoking policy will be enforced by Standard Procedure 2.7 under Employee Conduct. ■

## Assistance programs available for smokers

The Astronautics Group has a variety of free programs designed to help employees quit smoking. These programs have been and will continue to be offered throughout the year.

"With or without the new smoking policy, it's our intent to provide an abundance of services to employees as a means to stop smoking," Leroy Hollins, manager of Employee Services and Recreation, said. "Because we care about the health of our employees, we offer activities like the Wellness Fair and smoking cessation classes as a way of educating employees about the importance of maintaining their health."

Smoking cessation classes are offered free to all Martin Marietta employees, spouses, dependents, and Air Force personnel. The most popular service is the "FreshStart" program. It is conducted by the American Cancer Society and consists of four 1 1/2 hour classes.

Another cancer society class, called "SmartMove," also is offered free through the Wellness Center. This one-time smoking cessation program focuses on education, individual commitment, and action.

"As we get closer to the implementation of the new policy, Employee Services and Recreation will step up smoking cessation efforts and will do everything necessary to meet employee needs," Hollins said.

Moreover, the medical staff, Employee Assistance Program, and Wellness Center staff are committed to promoting healthy lifestyles. This includes counseling for exercise and nutritional education to control stress, one-on-one counseling to help employees adopt new lifestyle habits, and focusing on long-term support and follow-up to maintain abstinence and promote the process of quitting.

"Our efforts are wasted if employees go back to smoking," Hollins said. "The smoking cessation program is designed to help people quit smoking for good."

Stress management classes and "lunch and learn" seminars also are available to help employees maintain healthy bodies. And next month's Wellness Fair will feature lung and blood pressure screenings.

Employees with questions about these services should call the Employee Services and Recreation office at Ext. 7-6605 or 7-6750.

## Astronautics Group smoking policy details published

### **POLICY:**

It is the policy of the Martin Marietta Astronautics Group to provide a healthful, comfortable, and productive work environment for all employees. Therefore, a smoke-free environment shall be the policy at all Astronautics Group locations.

### **SCOPE:**

This policy applies to Martin Marietta Astronautics Group employees and tenants occupying Astronautics Group facilities.

### **GENERAL:**

Smoking is prohibited inside all Astronautics Group-owned or -leased facilities including on-site, off-site, and fieldsite locations. There will be designated areas outside the facilities for those employees desiring to smoke.

Employees and passengers shall not be permitted to smoke when traveling in company-owned or -leased vehicles, including aircraft.

Company meetings and functions whether on or off premises shall adhere to the non-smoking rule.

Astronautics Group provides smoking cessation programs through the Wellness Program for employees who want assistance to overcome smoking practices.

The success of this policy depends on the thoughtfulness, consideration, and cooperation of smokers and non-smokers. The provisions of this policy will become effective January 1, 1991.

**Peter B. Teets**  
Astronautics Group President

## Blood donors needed soon

The Belle Bonfils Blood Drive will be at Littleton Systems Center from 9 a.m. to 2:40 p.m. Aug. 28 in Room 107. To schedule a donation time, employees should call Ext. 7-6605 or Ext. 7-9424. Donors with appointments have priority over those who have not scheduled a time.

## Wellness Fair scheduled for September

Employees are encouraged to participate in the Sixth Annual Martin Marietta Wellness Fair, Sept. 11 through 14 and 17 through 20. The event will offer health tests, screenings, luncheon seminars, and an evening healthwalk clinic.

Health checks will include cholesterol, blood pressure, percent body fat, posture, lung function, skin cancer, diabetes, hearing, vision, and stress management techniques.

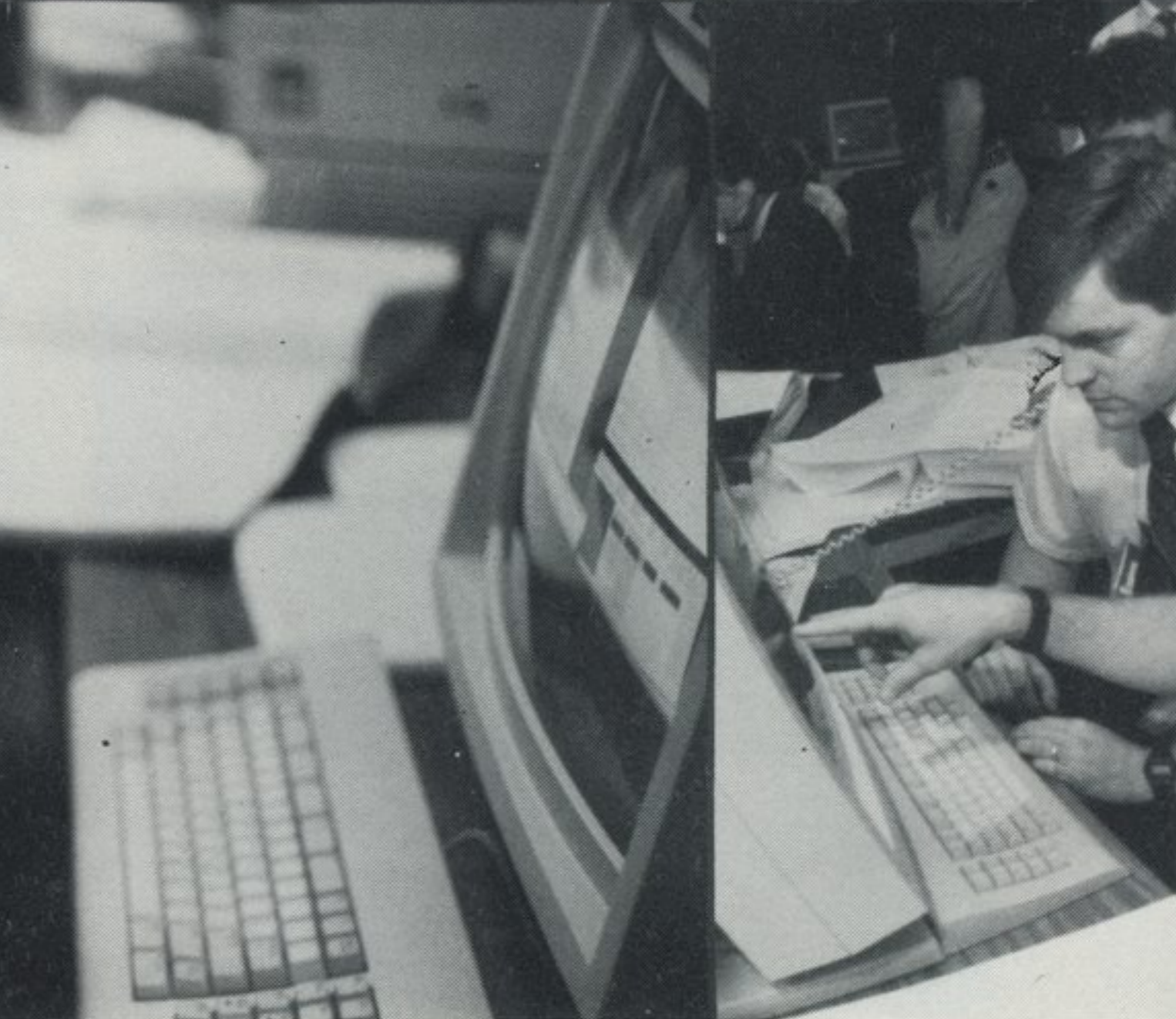
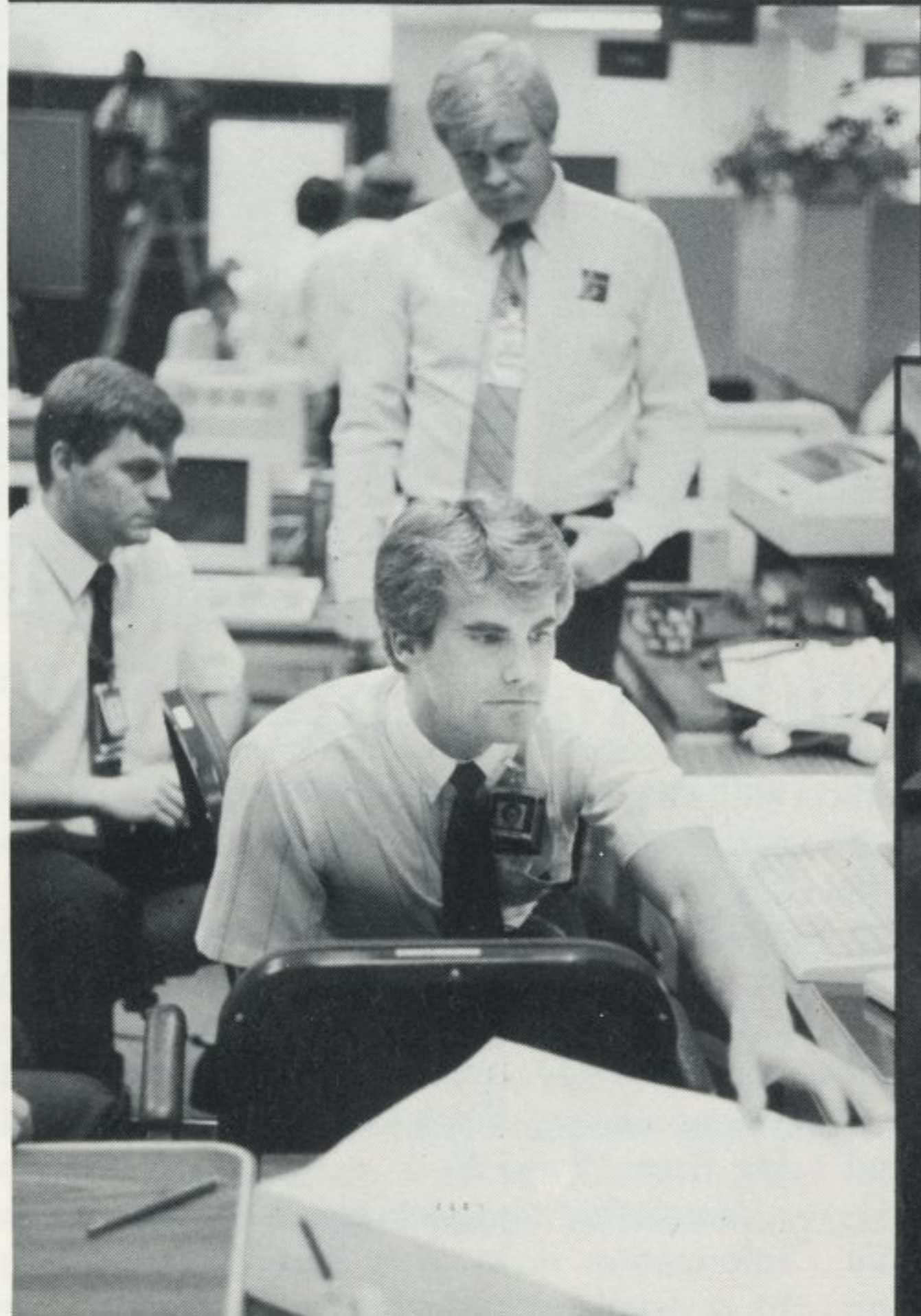
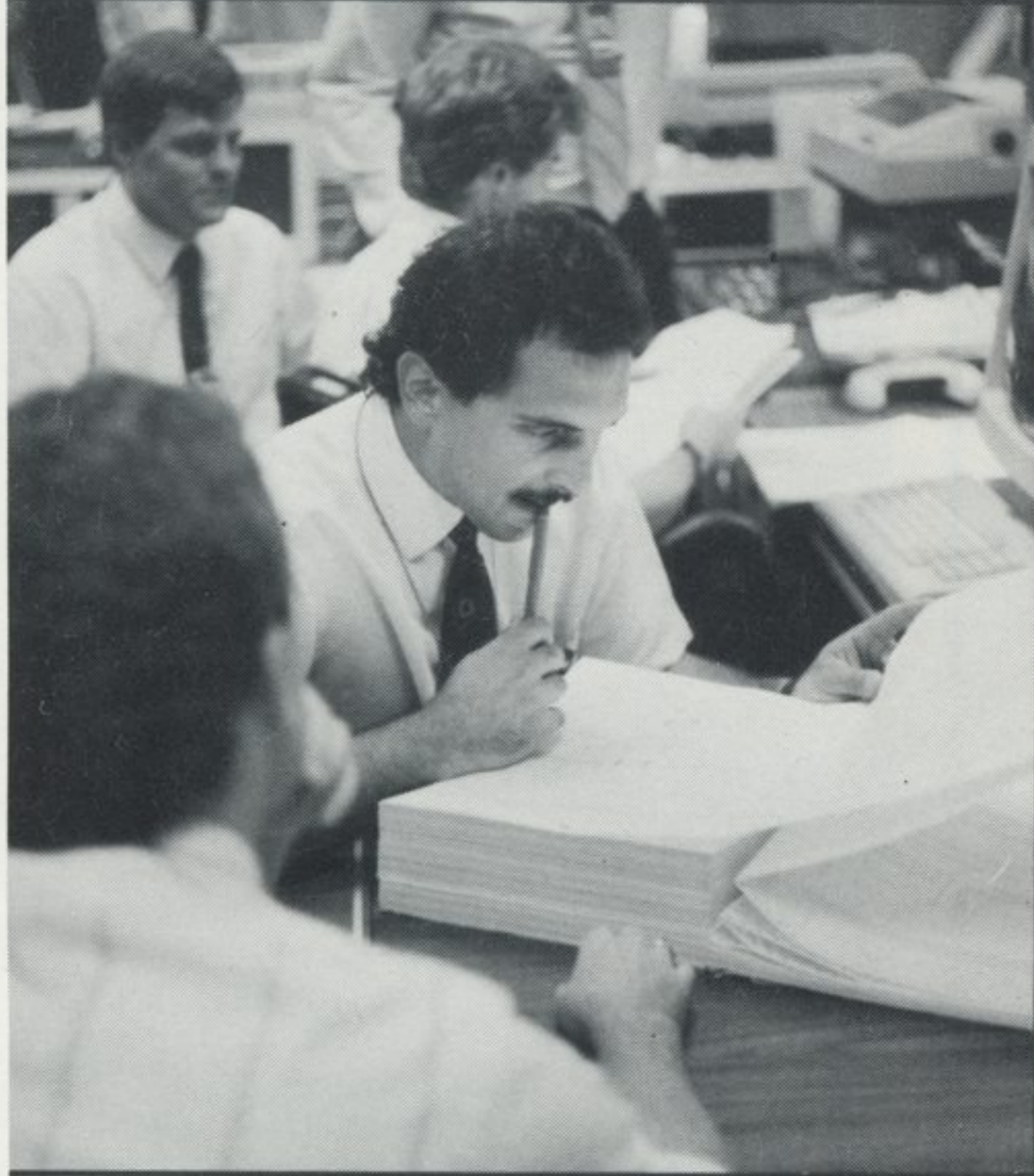
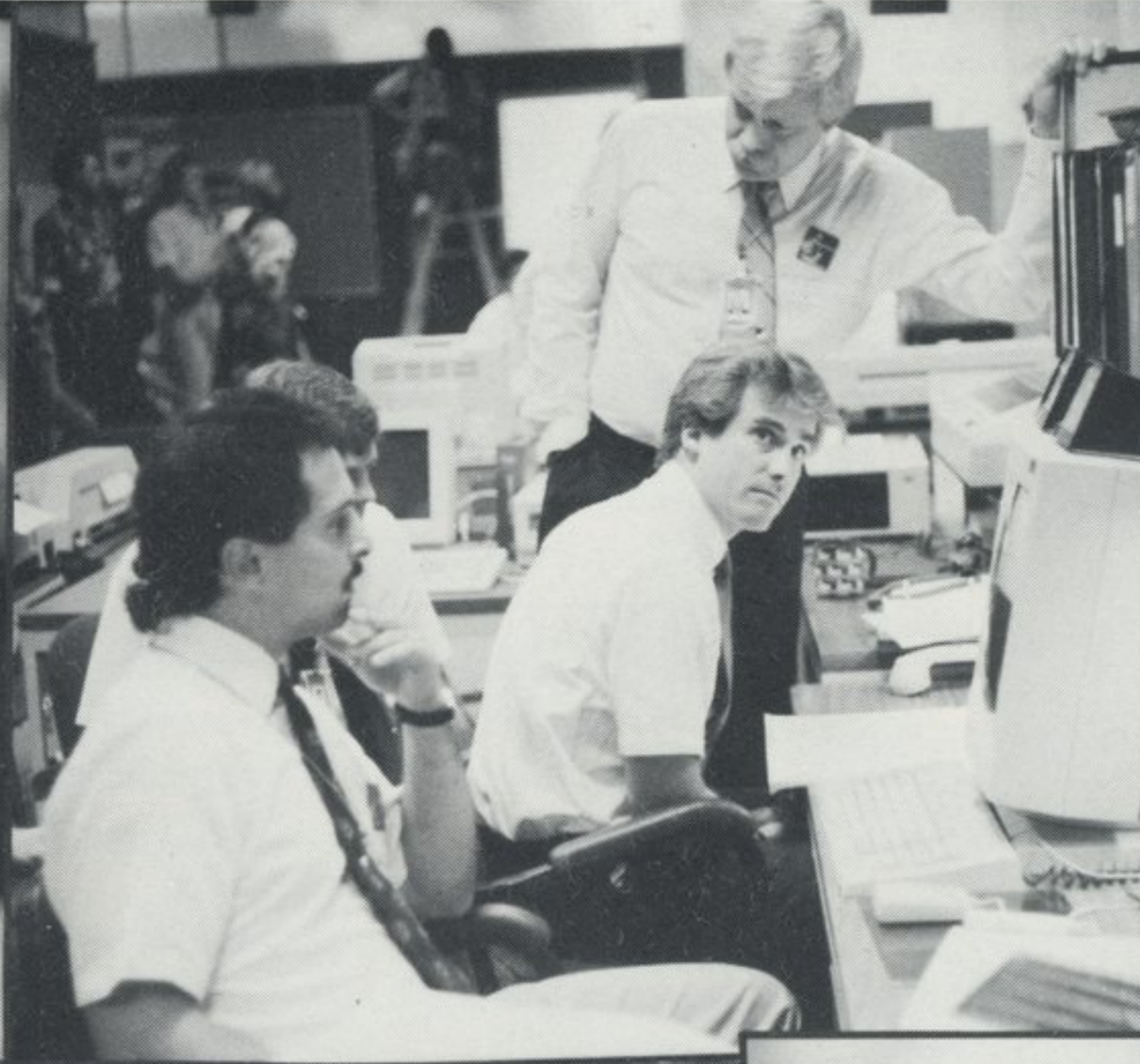
Luncheon seminars will address chronic fatigue syndrome, dual-career families, coping

with change, myths and truths about allergies, and teen intervention. There also will be a variety of health-related literature available.

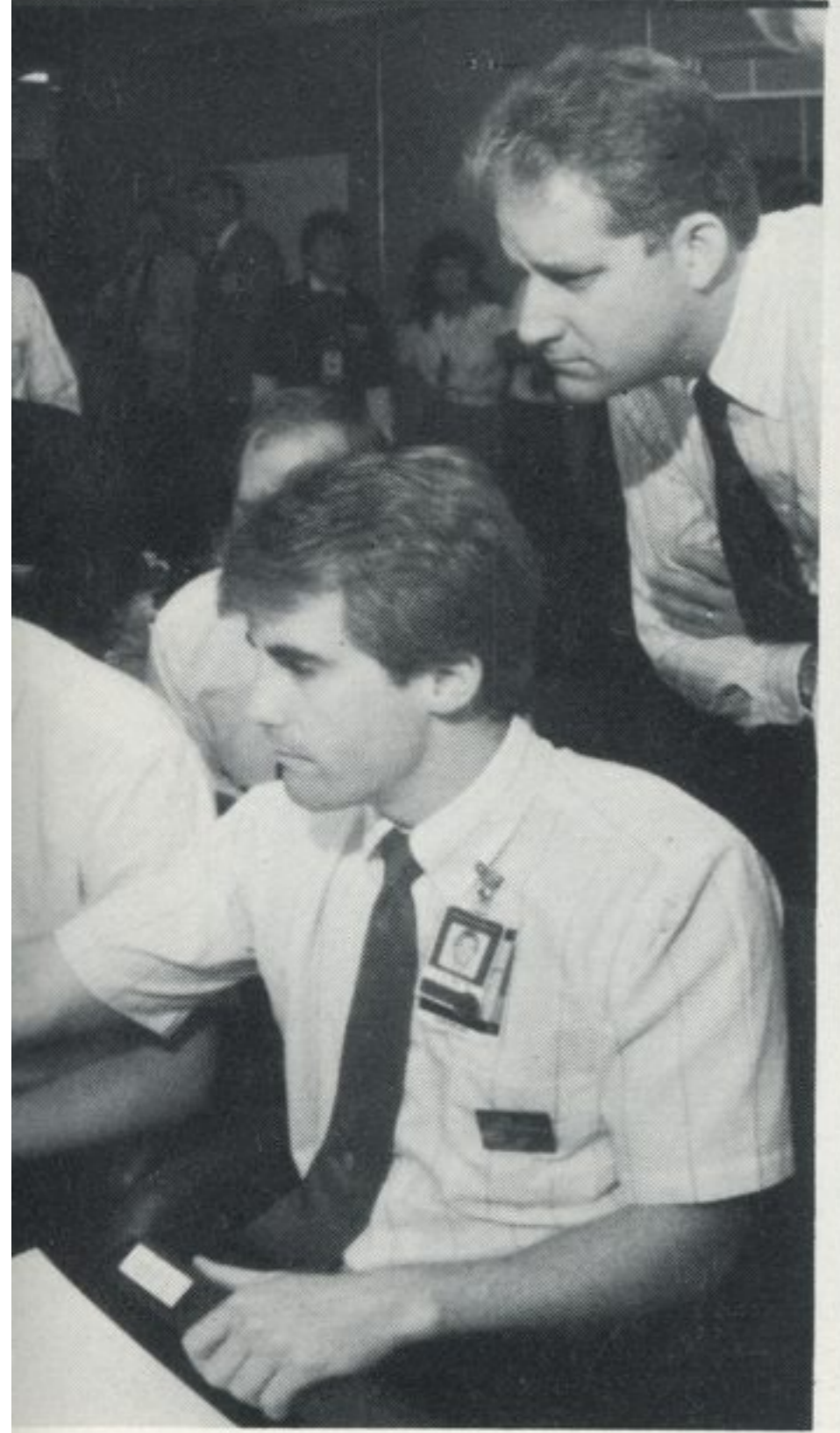
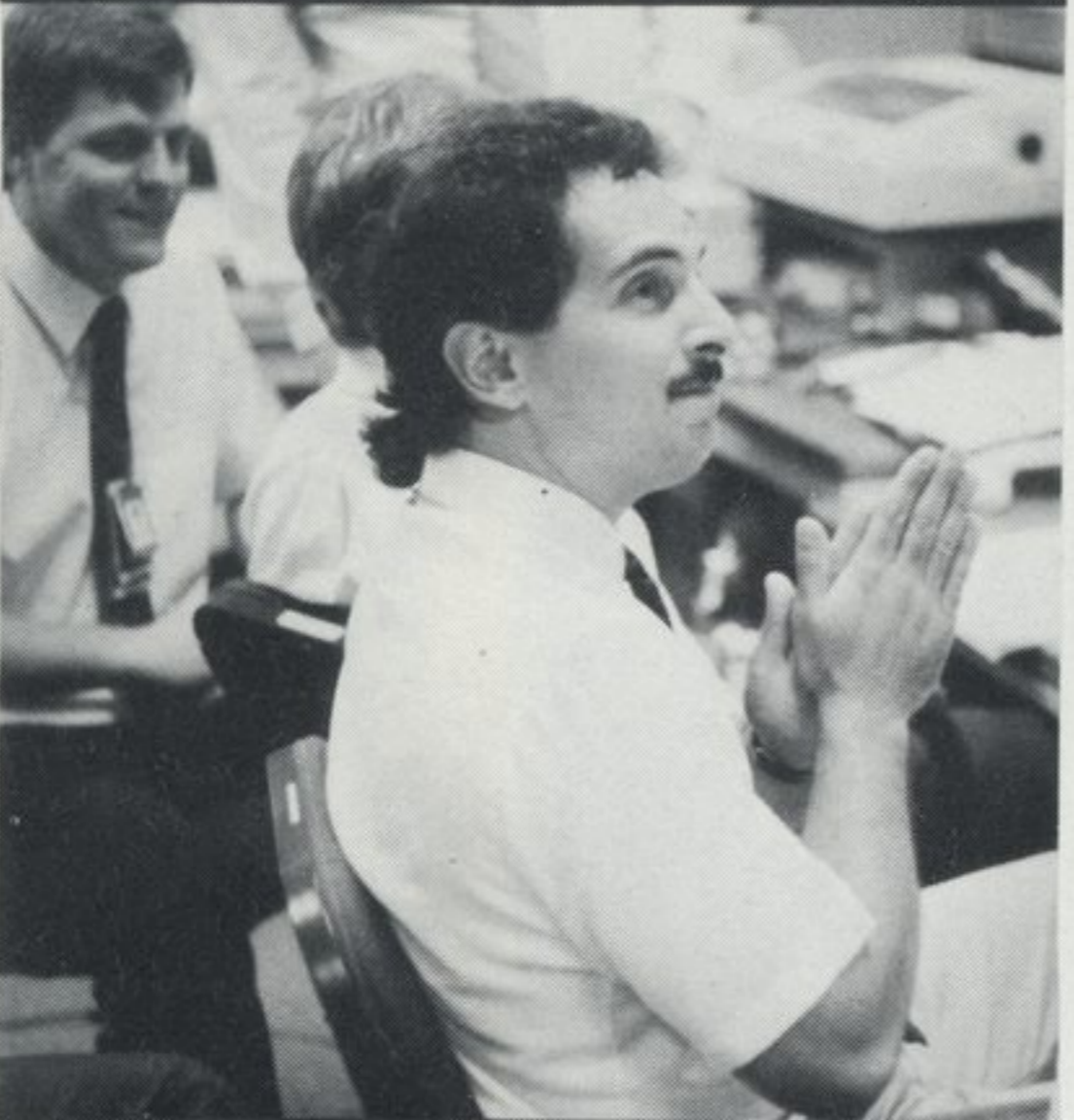
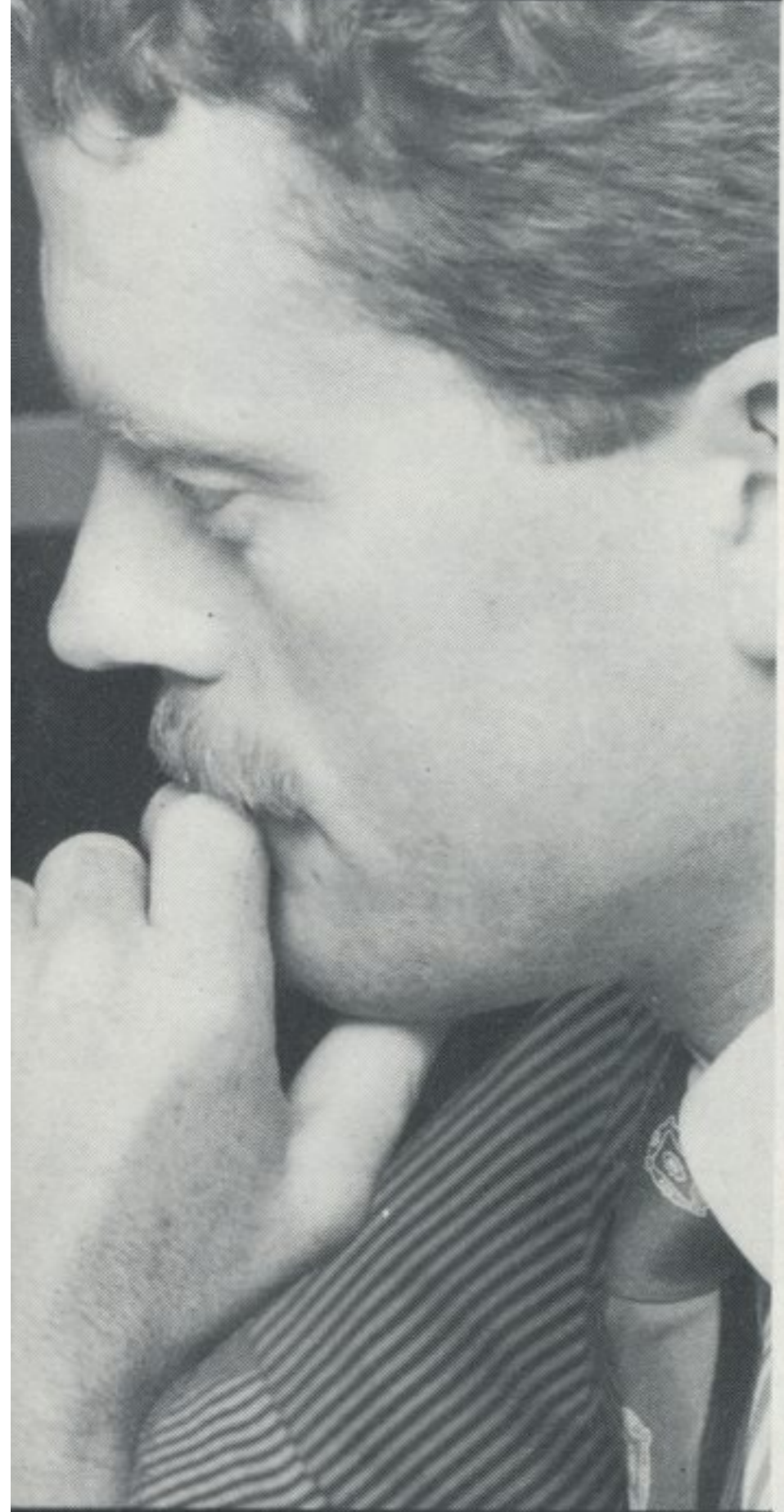
The Wellness Fair will be at the following locations: Waterton, Space Support Building (SSB), Sept. 11 and 12; Deer Creek Facility, Sept. 13 and 14; Littleton Systems Center, Sept. 17 and 18; and Waterton, Engineering Building, Sept. 19 and 20.

Employees may pick up a schedule from the information racks after Aug. 30 containing more details on screenings and seminars. ■

# Anticipation . . .



... Getting Close ...      ... Magellan Success



# Mile High United Way campaign nears completion

The 1990 Astronautics Group Pacesetter campaign for the Mile High United Way is nearing completion after several months of hard work and dedication by donors and volunteers alike.

For the first time ever, eight High-Performance Work Teams worked simultaneously to run the campaign. Also, 11 employees have lent their support by working full time as loaned executives to the United Way.

Currently, more than 170 new contributors have joined the campaign and more than 1,000 employees have increased donations. Approximately 30 percent of the pledge cards distributed have been returned.

Campaign Chairman Frank McKenna has asked all employees who have not turned in their pledge cards to please return them as soon as possible. They may be returned to clock location representatives, building representatives, or directly to payroll.

All cards returned today will be eligible for the final incentive drawing on Monday. Winner's names will be published in the next issue of the *Martin Marietta News*.

"We're having a fantastic campaign and I'm proud of our employees' commitment to the United Way," McKenna said.



## United Way supports community

Contributions to the Mile High United Way help agencies like the Denver Indian Center educate tomorrow's youth. The above photo was taken by volunteer Jeff Stine.



## DPRO tours ITB

Col. John B. McCabe, commander of the Defense Plant Representative Office (DPRO), left, and Lt. Col. Raymond Griffiths, deputy commander, center, listen to Cliff Whisenhunt, backbone team test conductor, right, describe some of the many features in the new Manufacturing Resource Planning (MRP II) Integrated Test Bed. The ITB, located on the fourth floor of the Technical Support Building, is run by a cross-functional, cross-company High-Performance Work Team chartered to produce validated software systems, operating instructions, and employees capable of training others on MRP II. "Establishing the ITB and the backbone as the major front end milestones to achieve MRP II Class A status by the first quarter of 1991 is a great team building decision," McCabe said. "Using the ITB team's enthusiasm, lessons learned, and momentum will provide great synergy to change the culture and gain efficiencies and cost reductions that will significantly enhance customer satisfaction."

## Company leads Denver in Big Brother recruits

Martin Marietta employs more Big Brothers than any other company in Colorado, Big Brothers of Metro Denver, Inc., reports.

A United Way Agency, Big Brothers currently has 18 Martin Marietta employees lending their time and support to boys and girls from single-parent homes.

Despite the company's high involvement, the organization needs more Martin Marietta employees to assist the more than 500 children waiting for a Big Brother.

Dan Ryan, a senior specialist in Finance, has been a Big Brother for more than two years. He said his nine-year-old little brother has added a lot to his life. "Ricky has given me a whole new view on life. We talk a lot, and sometimes I'm the only one there for him to talk to and share with."

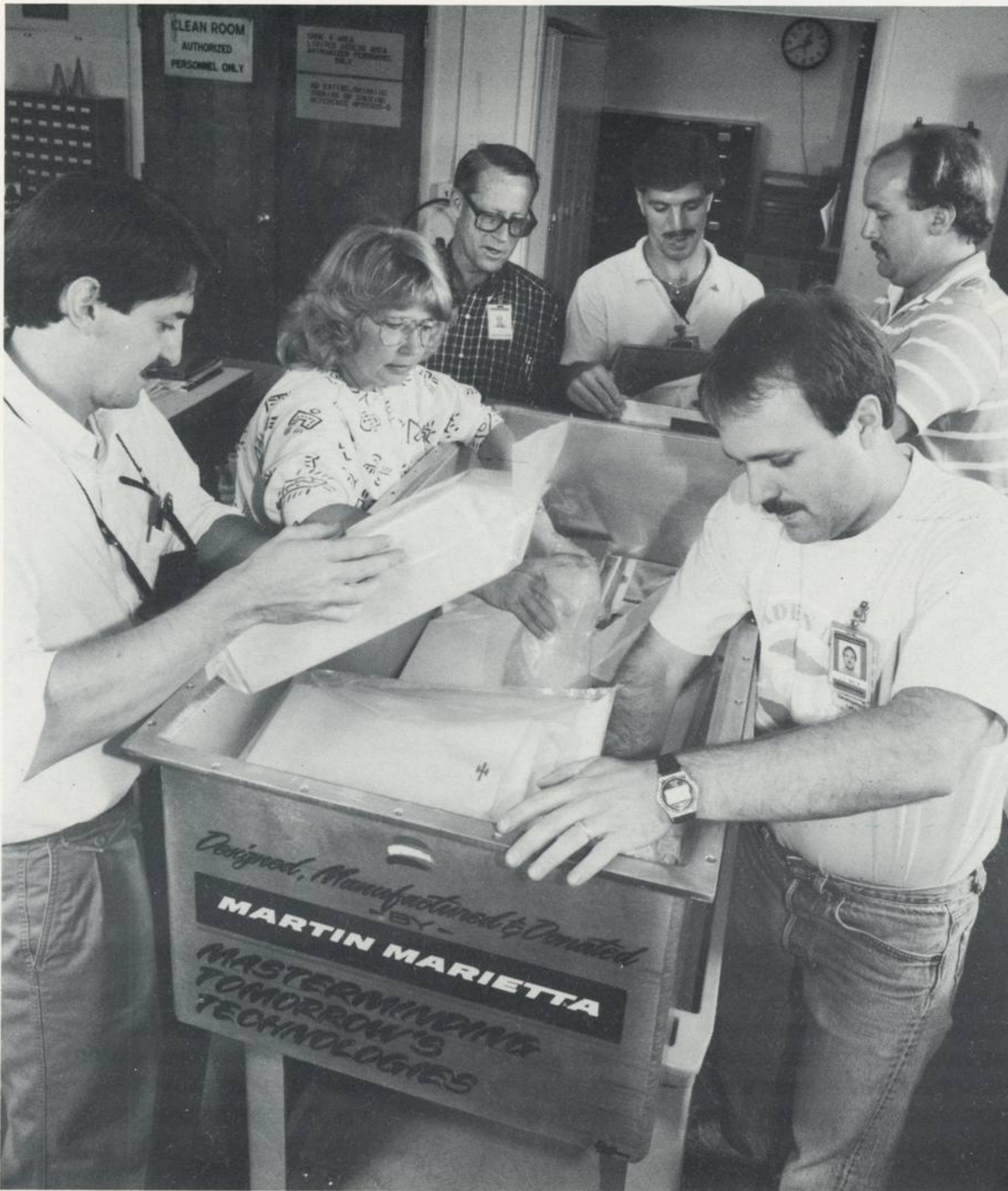
Ryan encourages others to get involved in the program. "Being a Big Brother is very satisfying. It's very rewarding knowing that you are doing something to help others."

Big Brothers are asked to spend between four and six hours each week with their little brother or sister doing things like washing the car, relaxing in the park, and mowing the lawn.

Big Brothers matches boys and girls between the ages of 6 and 13.

The children come from homes where there is little or no contact with the father.

To learn more about becoming a Big Brother, contact Ryan at Ext. 7-9323 or the Big Brothers of Metro Denver at 377-8827.



### Time capsule built for state

*Martin Marietta employees, from left to right, Dave Sheahan, Betty Snodgrass, John Plyler, Karl Groesser, Kevin Martin, and Dan Herman pack memorabilia into the hermetically sealed Capitol Time Capsule they built for the Cornerstone Centennial Celebration on Aug. 4 at the state capitol building. The ceremony commemorated the original dedication of the capitol cornerstone on July 4, 1890. The original 20-ton cornerstone contains a copper box filled with items representing the civic life of 1890 and is not meant to be opened as long as the building stands. Martin Marietta designed, manufactured, and donated the new 1990 time capsule. The time capsule was buried at the northeast corner of the capitol building, and contains messages and memorabilia from Coloradoans representing the current decade. It is meant to be opened by the people of Colorado in 2090.*

### AA meetings conducted at Main Plant and LSC

Employees who want to address personal alcohol/addiction problems can attend Alcoholics Anonymous meetings at two work locations. Group meetings at Waterton are at 11 a.m. Monday and Friday in the Engineering Building, Room 120. At Littleton Systems Center, meetings are at 11:30 a.m. Wednesdays in the Facilities Conference Room, located in the mezzanine above the maintenance shop in the back bay area.

Room locations sometimes vary based on availability. To confirm meeting locations and obtain more information, contact the Medical office at Ext. 7-4676. ■

### Cadkey demonstration planned next week

Cadkey Inc. will demonstrate its award-winning software for all employees from 8 a.m. to 3:30 p.m. Aug. 22 at the Deer Creek Facility's Loveland Conference Room. Employees are invited to stop by for demonstrations and hands-on testing. For more information, call Cadkey Colorado at 770-2024.

### Badge return guidelines changed at main gate

Starting next Monday, the badge return box in the center outbound traffic lane at the Main Plant will be closed from 3 to 6 p.m. on weekdays. This change is designed to help increase safety for everyone traveling in and out of Waterton during these peak hours.

Employees with temporary badges and visitors with paper badges should not stop when leaving the Main Plant during that time period. Badges may be returned by employees and visitor's escorts through the intercompany mail system to mail stop 1394. ■

### Engineering equipped for large remote print site

In an effort to increase Xerox turnaround, Internal Information Systems now has large laser printer support available at the Engineering Building in Room 208.

Xerox output with the class code "J" now will be printed on a Xerox 4050. Output may be picked up directly outside of Room 208.

For more information about this new remote print capability, please call Customer Service at 790-3256.

### Published articles should be submitted for award consideration

Employees who have published articles in the last year may submit their work before Nov. 1 to the Publication Awards Committee (PAC) for award consideration.

Articles should be published before the end of this year in professional, technical, or trade periodicals, journals, books, papers, or bound proceedings.

Forms for entering a published article in the competition are available from Betty Graham at Ext. 1-2217, mail stop DC0301.

For more information, please contact Graham. ■

### Open house set for Swallow Site

The Denver Chapter of the Colorado Archaeological Society (CAS) will conduct an open house for all Martin Marietta employees from 1 to 4 p.m. Aug. 26 at the Swallow Site, located east of the Deer Creek Facility.

CAS will provide refreshments, membership information, and specific details about this active archaeological excavation site.

To get to the site, head west up Deer Creek Canyon Road and look for the CAS sign before the entrance road to the Deer Creek Facility. No pets or low clearance vehicles will be allowed.

For more information, call Teresa Weedon at 792-8133. ■



### Murphy gets AIAA award

*Dr. J. Michael Murphy, Satellite Servicing manager for Space Systems, left, recently received the American Institute of Aeronautics and Astronautics' Wyld Propulsion Award at a conference in Orlando. Murphy received the honor for contributions to the field of liquid and solid propulsion technology and for leading the successful Shuttle Return-to-Flight "Propulsion Failure Modes and Effects Critical Items Evaluation" program. Astronautics Group employee and AIAA Vice President for Member Services Dale Fester, right, presented the award.*

## Junior Achievement seeks business consultants

Employees with business expertise are needed for a variety of Junior Achievement (JA) education programs.

Volunteers act as JA Project business and applied economic consultants and teach the concepts of free enterprise to junior and senior high school students in a classroom one day a week for 12 weeks. Training is provided for both programs, and interested employees should contact Lori Sharp, Ext. 7-6605, before Aug. 31. ■

## Employee stores continue discounts

Because of the success of the "Christmas in July" sale, Your Employee Store will continue to offer discounts of up to 55 percent on selected items.

The store will celebrate the end of summer with a Labor Day/Back-to-School sale offering discounted desktop items.

The employee store at South Park West III conducted its grand opening on Aug. 7. South Park III store hours are 7 a.m. to 3 p.m. ■

## Employee services/recreation

**Colorado Alliance of Business Bowl-a-Thon**—Employees are needed to form teams for the Colorado Alliance of Business Bowl-a-Thon, Sept. 8 and 9, at Celebrity Sports Center. The event is a fundraiser for the Alliance Youth Programs. Pledges and/or donations are optional. Those raising pledges or donations will be eligible for prizes. The five-member teams will have a choice of 9 a.m., noon, or 3 p.m. playing times on Saturday, or noon on Sunday. Interested bowlers and team captains should contact Mardi Rumin in the Employee Services and Recreation office, Ext. 7-6750 or 7-6605, by Aug. 17 to obtain a team registration form.

**Hunter Education Classes**—Class dates are set for 7 to 9:30 p.m. Aug. 20, 22, and 23 at the VFW Hall, 3860 S. Jason St., Englewood. The range date is from 8 a.m. to 1 p.m. Aug. 25 at the club's shooting range. Students must attend all class sessions. Registration will be taken at the first class, and a minimum of 10 students is required to continue meetings. The cost is \$7. Employees, family members, and friends are welcome to attend.

**Photography Club**—Platte Canyon photo club members, guests, and interested employees can attend the meeting at 7 p.m. Monday, Aug. 27, at the Public Service building, 10001 W. Hampden Ave. Professional photographer Charles St. John, who has presented programs at IMAX Theatre, will show slides of recent travels in Egypt. For more information, contact Bill Privratsky, Ext. 7-4969 or 7-3728.

**Mixed Bowling League**—Five men are needed to complete this league that bowls at 6 p.m. Tuesdays at Green Mountain Lanes. The

league will meet at 6 p.m. Aug. 28 in the lanes' meeting room. Interested employees should call Betty Leach, Ext. 7-3686.

**Sheepherders Running Club**—The fall race series will start at 5 p.m. Thursday, Aug. 30, in Waterton Canyon. Races are conducted every other Thursday for five weeks, covering a variety of distances. A handicapping system is used so all runners have an equal chance to win. Contact Corrina Perrone, Ext. 1-7112, for more information and to have your name added to the mailing list.

**Waterton Amateur Radio Society**—All hams and those interested in learning more about amateur radio are invited to attend the meeting at 5 p.m. Tuesday, Sept. 4, in the hamshack at the recreation area. For more information, call Tony Kehayas at Ext. 7-2013.

**Motorcycle Club**—The Aerorider Motorcycle Club will meet at 5 p.m. Thursday, Sept. 6, in the recreation area clubhouse. Contact Steve Taylor, Ext. 7-7731, or Paul Betthausen, Ext. 1-5574, for information.

**Winning Way To Lose**—Employees can begin this eight-week individualized weight loss program at any time. The program focuses on lifestyle change and includes measuring cholesterol, body fat, and blood pressure. Methods to achieve your personal goals are addressed during weekly consultations. To register, contact Diane Nolly at Ext. 7-7576. The fee is \$25.

**Child Care Selection**—A complimentary copy of "Choosing Child Care" is available from the Employee Services and Recreation office. The brochure, published by Arapahoe Community College, is a guide of important

issues to consider when selecting child care. To obtain a copy, contact the Employee Services and Recreation office at Ext. 7-6605.

**Dinosaur Discount**—\$1 discount coupons are available for the life-like robotic dinosaur exhibit set in a primeval swamp now showing at the Public Market in Aurora at Exposition and Sable streets. The show runs from 10 a.m. to 8 p.m. Monday through Saturday, and 11 a.m. to 5 p.m. on Sunday through Sept. 30. Coupons can be picked up at any Recreation information rack. For additional exhibit information, call 671-6103.

**Barber/Styling Shop Hours**—Convenient, professional, low-cost haircuts are available to all employees and Air Force personnel at the following locations: Deer Creek Facility, A-level, by south elevators, 6:30 a.m. to 3 p.m. Monday and Friday, and from 6:30 a.m. to 5 p.m. Tuesday through Thursday, Ext. 7-9157; Waterton, Engineering Building basement, 6:30 a.m. to 3 p.m. Monday through Friday, Ext. 7-3029; and Littleton Systems Center, west and south of cashier, 6:30 a.m. to 3 p.m. Tuesday through Thursday, Ext. 7-0560.

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