

# NEWS

## Newsletter has new look, approach

Welcome to the new *Astronautics Group News*.

It's no secret that communication is a major element of success in any business.

And, because we are in the midst of a cultural change that is crucial to our survival in an increasingly competitive defense industry environment, good communication becomes even more important. Initiatives like Total Quality Management must be explained in easy-to-understand terms, and information about our business, including long-term goals and strategies, must be easily available to all employees.

Therefore, welcome to a revitalized newsletter designed to better communicate issues of importance. As one of our primary employee communication tools, the *News* has been developed to serve you.

**“... more and better communication is needed.”**

We are excited about the *News*. The Public Relations, Graphics, Editorial, Film Services, and Reproduction departments have been working together for months to produce this new newsletter.

In the *News*, most of page two has been set aside for you either

to ask questions in a new question-and-answer column, or to express your feelings in a letters to the editor section. One of these features will appear each issue.

A cartoon titled “Rocket Ranch” will take a humorous look at how we operate in today's business world.

The popular Employee Services and Recreation column has moved inside the paper and now will be complemented by “Around Astronautics,” a page-seven feature containing a variety of employee interest items ranging from computer classes to honors and awards.

Find out more about the *News*, and its features, in today's question-and-answer column. From now on, we will answer questions from you.

Over the years, nearly every employee survey conducted by our Corporation, and others, has turned up the same results—

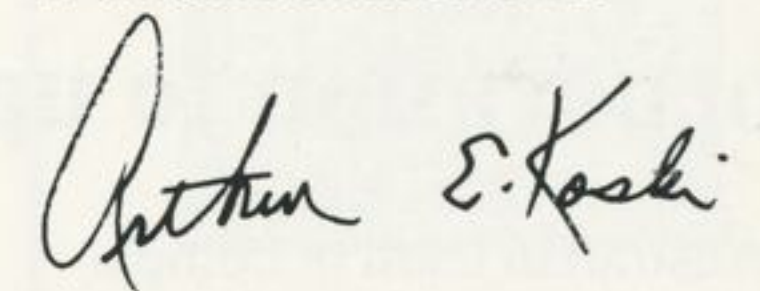
more and better communication is needed.

Since the last employee survey in 1988, an internal video system has been tested and soon will be in place at our major locations; supervisors have been urged to conduct more staff meetings; and more employee videos have been produced to help communicate long-range operating plans.

We recognize that the employee newsletter is only one of many tools for communicating to employees. You still need to get information face to face from your supervisors, but we feel

this newsletter can help promote that two-way communication.

Welcome to the *News*.



**Arthur E. Koski**  
Director, Public Relations

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(Editor's note: This issue's question-and-answer column explains details of the new News. In all future issues, you will have the chance to submit questions on issues that concern you.)

**Q.** What are the guidelines for the question-and-answer column?

**A.** The question-and-answer column will provide two-way communication, and will help you get answers to questions that concern you. Answers to the most often asked questions, or most important, will be ad-

ressed in the *News*. Other questions may be answered personally by the appropriate person.

**Q.** May I send a letter to the editor to express my thoughts instead of asking a question?

**A.** Yes, you may submit a letter, of less than 150 words, to the editor for publication. Like the question-and-answer column, space will not permit us to publish each letter, and some may be edited to fit. Submit questions and letters to mail stop DC1020 and please identify the specific column on the inter-office envelope. Questions may be submitted anonymously, while letters should be signed with employee badge number and phone extension. Names will be printed with letters.

**Q.** How can I submit a story idea to the *News*?

**A.** Story ideas are welcome and may be submitted to Chris Chavez, who will serve as the new editor, starting with issue two. Chris can be reached at

mail stop DC1020, Ext. 7-5364. You may either "pitch" an idea over the phone or send us brief, basic information in interoffice mail. Deadline for submitting most stories is two weeks before the desired publication date, though not every item submitted is guaranteed to be printed.

**"... to communicate information about key initiatives ..."**

**Q.** What types of information will I find in "Around Astronautics?"

**A.** "Around Astronautics" will contain a variety of items of interest, ranging from computer classes to honors and awards. It is oriented toward the kind of information you need to receive to do your jobs better (classes, etc.), as well as information you want to know about other employees (honors and awards, etc.) This page also will allow various departments and organi-

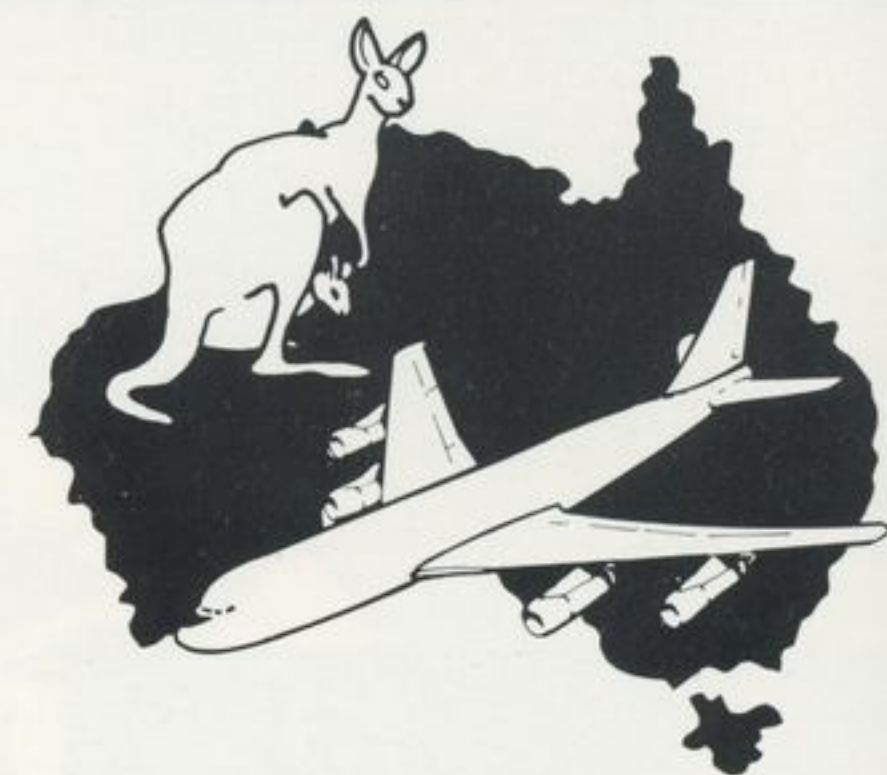
zations to publicize their news regularly and in a manner that is recognizable as theirs.

**A.** The last page of every issue will be used to communicate information about key initiatives or events in unique and creative ways. It might be devoted to the accomplishments of a High-Performance Work Team or a photo essay from family night at the ball game.

**Q.** How is the *News* produced?

**A.** Six Astronautics Group departments work together to get the *News* in the employee news racks. Public Relations writes and completes the stories about one week before publication. Then, Editorial proofreads the copy and passes it on to Graphics. That group takes the copy, along with photos from Film Services, and designs each issue. From there, on Tuesday and Wednesday of publication week, the camera-ready pages go to Reproduction, where 19,500 copies are printed and distributed via Mail Services.

**CORPORATE**



**Corporation to upgrade Australian air traffic system**

An Australian team of companies headed by Martin Marietta Australia Pty Limited has been selected as the systems engineering support contractor to assist Australia's Civil Aviation Authority (CAA) in modernizing that country's air traffic control system.

The three-year agreement is valued at approximately \$7.8 million. Martin Marietta Australia will provide overall

systems engineering and management support for the program and is teamed with an Australian company, Paxus ComNet, which will support computer-based development efforts.

Australia's passenger service has grown 40 percent since 1984, requiring the nation's 441 airports to handle 3.5 million flights annually. Sydney now is the world's sixth busiest airport outside the United States. The

CAA has begun a three-year, \$360 million capital investment program to replace and expand equipment and systems used to deliver air traffic services.

Since February 1989, Martin Marietta has had a contract to study air traffic control systems engineering and program management procedures, which the CAA now is implementing. The agreement is the latest in a

series of awards to the Corporation for air traffic control modernization. Since 1984, Martin Marietta has been the systems engineering and integration contractor for the Federal Aviation Administration's ongoing modernization of air traffic control, navigation, and communications systems in the United States.

# Magellan stops mapping for "superior conjunction"

Julie Webster will be holding her breath this week because the sun is interfering with her ability to talk to the Magellan spacecraft.

Webster, the lead telecommunications subsystem engineer on the Magellan program, is in charge of handling an orbital mechanics phenomenon called "superior conjunction," a period of time in the solar system when the Earth and Venus are on opposite sides of the sun. The alignment can cause either complete blockage or serious degradation of communications between the Earth-based spacecraft team and the Venus-orbiting spacecraft 158 million miles away.

"We've known this alignment would occur in late October since the mission was planned," said Magellan Deputy Program Manager Ken Ledbetter.

"During superior conjunction, the line of communication to Magellan passes extremely close to the sun," Webster explained.

"Solar activity will undoubtedly block out our S-band communication link—the primary link used for sending spacecraft engineering data back to Earth—and will likely seriously degrade Magellan's X-band link that relays radar mapping and engineering data."

That means Magellan mapping operations will stop—temporarily—this week. Because Webster cannot predict precisely when the communication link will begin degrading, the spacecraft team has already sent commands to the spacecraft that can be "turned on" to stop mapping whenever signal quality worsens.

*See Magellan on page 4*



*This photographic map of Venus is a mosaic of image strips made by Magellan during its orbit around the planet. About 14 percent of the planet has been mapped. The mosaic shows three large impact craters—with diameters ranging from 23 to 30 miles—in a region of fractured plains.*

## Stay tuned for facility closure information

If foul weather forces the Astronautics Group to close its facilities, employees will be notified in the morning on local radio and television broadcasts.

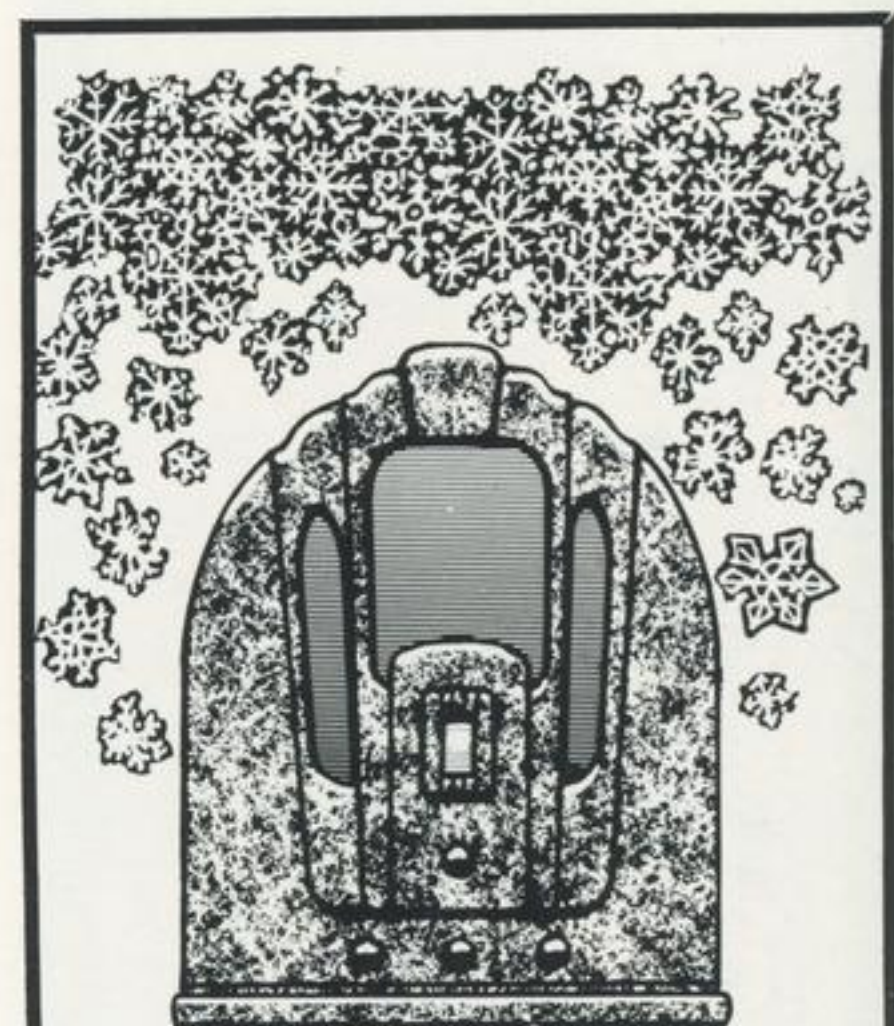
Paul Nordberg, director of Security, Safety, and Health, said conditions will be assessed at each of the Group's main locations, and there is a possibility that one facility will be open and another will not.

KCNC Channel 4-TV will broadcast closure announcements on its 6 a.m. news.

Should a closure be necessary after the normal business day has begun, announcements will be made on the Video Information System at the Deer Creek Facility and on employee bulletin boards at other facilities.

"Employees are encouraged to listen for their specific facility," Nordberg said.

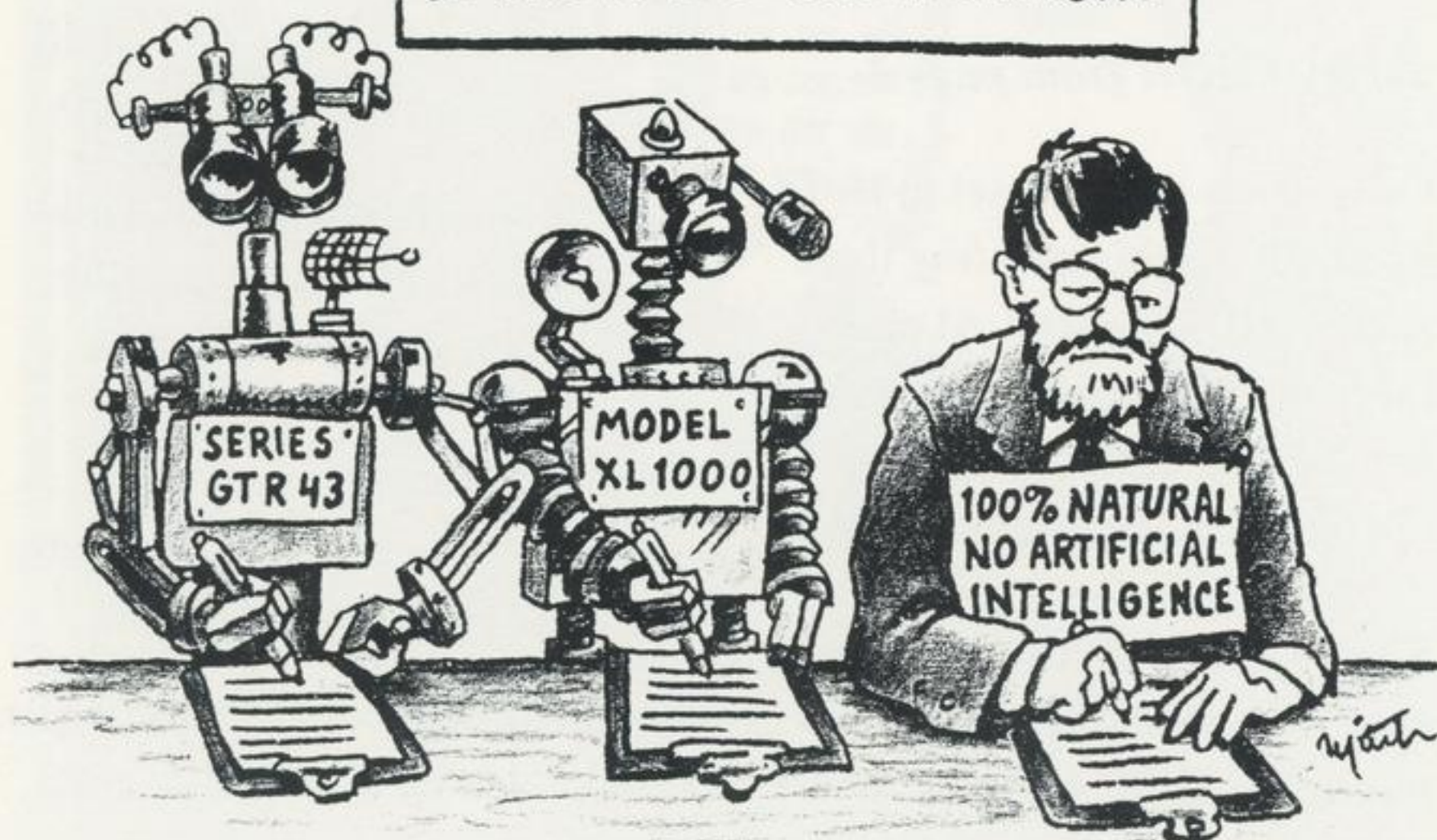
Emergency announcements will be broadcast beginning at 4:30 a.m. by the following radio stations:



KOA	.....	85 AM
KRXY	.....	1600 AM
		107.5 FM
KDEN	.....	1340 AM
KHOW	.....	630 AM
KSYY	.....	95.7 FM
KYGO	.....	950 AM
		98.5 FM
KLZ	.....	56 AM
KAZY	.....	106.7 FM

## Rocket Ranch

### EMPLOYMENT APPLICATIONS



# Security open-captions briefings for hearing impaired

While only a few employees use sign language or read lips to communicate, it is estimated that at least one in 10 Americans has a measurable amount of hearing loss—14 percent of those hearing impaired are considered profoundly deaf.

Theoretically, that could translate to roughly 1,300 Martin Marietta employees in Colorado with some level of hearing loss.

To help reach hearing-impaired employees, the Government Security department—in conjunction with the Colorado Center on Deafness—has implemented an open-captioning program to disseminate security information to new and existing employees.

The open-captioning program began at all facilities Oct. 17

with annual security rebriefings. Showings will conclude today at the Space Support Building's sixth floor presentation room.

According to Sharon McManus, security and education training specialist, the open-caption program addresses all employees.

"In security, we can make a difference with just one employee," McManus said. "Security is everyone's responsibility, and it takes only one act of espionage to place the security of the entire Corporation on the line. Open-captioning allows us to reach a new segment of our employees.

"Employees also will become more aware that not everyone out there has perfect hearing," she said.

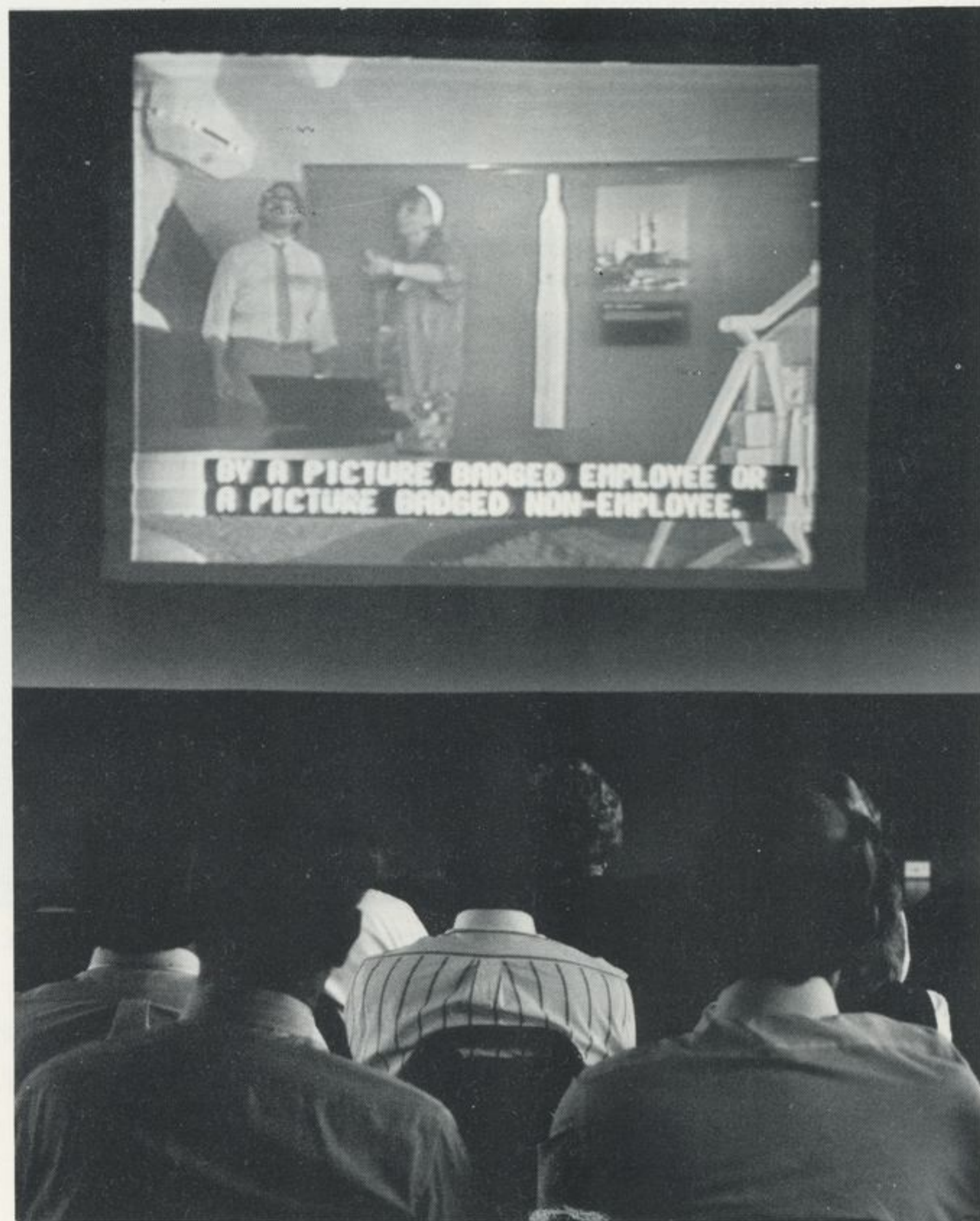
Randy Blasch, captioning program manager for the Center on Deafness, said Security's decision to implement open-captioning is a step in the right direction.

"Hearing impairment is on the rise," Blasch said. "We're living longer in a loud society. Captioning has been slow in coming, but finally people are starting to realize its value."

Unlike the closed-captioned system, open-captioning processes words without a decoder. A script or other spoken words is put into a computer verbatim and added to one line of videotape at the bottom of the screen. Colorado has set an example in the captioning crusade. The Astronautics Group, along with U.S. West and AT&T, is one of the first companies in Colorado to institute the open-captioning concept. Other Corporation departments also have expressed interest in captioning some of their video material.

Also, two of Denver's network affiliates—KUSA and KCNC—close-caption their news and captioned political debates.

"Colorado is head and shoulders above the rest of the nation," Blasch said.



*The Government Security department unveiled its first open-captioned videotape Oct. 18 during security rebriefings for employees at the Deer Creek Facility auditorium. The department's captioning program enables hearing-impaired employees to read spoken words verbatim.*

## Discounts offered from DAESRA

Martin Marietta is one of more than 160 companies in Colorado that belong to the Denver Area Employee Services and Recreation Association (DAESRA).

DAESRA has compiled a directory of its members who offer discounts on their products or services to employees of other member companies. These directories are free and may be obtained from employee stores or the recreation information racks.

### *Magellan from page 3*

Commands were preset to automatically begin operating the spacecraft yesterday. At press time, the spacecraft team was considering halting mapping operations as early as Oct. 26.

The communications interference is expected to last at least through Nov. 6. Although it is unlikely, Webster confirmed

that unusual solar activity could prevent mapping until Nov. 20.

During solar conjunction, while Magellan's radar is on standby, the spacecraft itself will continue to orbit Venus in a safe mode with heat-sensitive elements shadowed from the sun by the large High Gain Antenna.

Magellan will be programmed to continue to calibrate its orientation daily.



*The first wide-body Centaur upper-stage vehicle for the Titan IV program is shown being positioned in a General Dynamics thermal acoustic test chamber in San Diego. General Dynamics' Space Systems Division will roll out the vehicle on Nov. 13.*

## PSP, SIP open enrollment scheduled for November

In November, salaried employees may enroll in or modify their contributions to the Performance Sharing Plan (PSP), while hourly employees may adjust their Savings and Investment Plan (SIP).

Employees may change the percentage of pay they want deducted and also may change their tax mix (before- or after-tax contributions). Enrollment changes become effective the first full pay period in January 1990—Jan. 17 for hourly and NES employees and Jan. 18 for exempt salaried employees.

Any salaried employee with at least six months of service can enroll in PSP; hourly employees with at least 12 months of service by Jan. 1, 1991, can enroll in the SIP.

Employees who have withdrawn or suspended contributions, and have completed their waiting period, are required to fill out an enrollment form to resume contributions.

Enrollment forms are available at the following locations:

- Deer Creek Facility, Benefits office, third floor, near south lobby
- Electronic Manufacturing Facility I, lunchroom entrance
- Greenwood Commons, Building 6050, guard station
- Littleton Systems Center, Room 201
- Viewpoint I, Benefits office, Suite 206
- Waterton, Orb (building between Administration and Engineering buildings), second floor

- Space Support Building, Room 607
- South Park West I, Room 94J, next to employee store
- South Park West III, lobby

Send completed forms to the Employee Benefits office, Deer Creek Facility, Room 3B409, mail stop DC1343. Enrollment forms will not be accepted after Nov. 30.

Forms are available all year to change the fund mix for both plans although this type of change cannot be done more than twice a year. Open enrollment forms should not be used for these changes.



Unit values for the Savings and Investment Plan (SIP) for employees represented by the United Aerospace Workers (UAW) or United Plant Guard Workers of America (UPGWA) in September 1990 (August 1990 values in parentheses) are:

Fund A	1.1303579536
Indexed Equity	(1.1914119077)
Fund B	1.2510381872
Fixed Income	(1.2436381385)
Fund C	0.7721482514
Company Stock	(0.7118104754)



Unit values for the Performance Sharing Plan (PSP) for salaried employees in September 1990 (August 1990 values in parentheses) are:

Fund A	5.5486087685
Indexed Equity	(5.8406936777)
Fund B	3.6733303179
Fixed Income	(3.6469715359)
Fund C	4.0955543306
Company Stock	(3.7888198580)



*Dancers from the Cleo Parker Robinson Dance Ensemble perform at their Denver facility. This year Martin Marietta has donated about \$10,000 worth of surplus stage lighting to the organization.*



*Last week, John P. Murphy, vice president and program director for Titan IV, left, presented the "Titan IV Outstanding Performance Award" to the Astronautics Group's Production Operations team. Receiving the award is Justin Corbitt, factory inspector, as John R. Adamoli, vice president of Production Operations for Space Launch Systems, looks on.*

## DCF conference rooms get new look

Conference rooms at Deer Creek have been renamed to represent significant historical Astronautics Group programs. Photos and descriptions of those programs are posted outside each room.

Conference rooms with new names are: Viking for Wolf Creek, Titan for Independence, Skylab for Loveland, Voyager for Berthoud, Peacekeeper for Monarch, and R2P2 for Ebony.

New meeting rooms constructed on the first floor (north of the executive area) are called Magellan, SCATHA, Gemini, and Galileo, and new rooms on the third floor (south bridge) are called PRIME, TOS, MMU, and Space Shuttle.

To schedule one of these rooms, call Cheryl DiGiallonardo at Ext. 1-9529.



*Troop 400 uses a company contribution to construct new flag pole at Chatfield Arboretum.*

## Donation helps Boy Scouts raise the flag

Boy Scout Troop 400 used a \$500 Martin Marietta contribution to install a permanent flag pole foundation at the Chatfield Arboretum. And once the foundation was set, the troop conducted a flag-raising ceremony at the schoolhouse on the grounds. The Arboretum is managed by the Denver Botanic Gardens.

# Services and Recreation



**Hunter Education Classes**—Classes are set for 7 to 9:30 p.m. Nov. 5, 7, 8, and 12 at the VFW Hall, 3860 S. Jason St., in Englewood. The range date is from 8 a.m. to 1 p.m. Nov. 10 at the club's shooting range. Students must attend all class sessions and register at the first class. A minimum of 10 students is required to continue meetings. Cost is \$7. Employees, family members, and friends are welcome to attend.

**Fitness Classes**—The Wellness Center at Deer Creek offers a variety of fitness classes Monday through Friday at 11:15 a.m. and 4:30 p.m. If there is enough interest, a 5:30 p.m. class will be added. Employees interested in a 5:30 p.m. class should call the Wellness Center at Ext. 7-7575 or 7-7576. Class cards may be purchased at the Wellness Center between 11 a.m. and 5:30

p.m. weekdays. Twenty-use cards are \$27 and 10-use cards are \$15.

**Basketball Leagues Forming**—An organizational meeting for basketball team captains and interested players will be conducted at 5 p.m. Monday, Nov. 5, in the Deer Creek Facility cafeteria. Team rosters and information sheets describing nights and locations of league play are in the recreation racks. Completed rosters with payment of \$10 per player are due in the Deer Creek recreation office by Wednesday, Nov. 14.

**Hunting and Fishing**—The group will meet at 5 p.m. Monday, Nov. 12, in the recreation area clubhouse. For more information, call Mel Smith at Ext. 1-8682.

**Fathom Dive Club**—Club members and guests will meet at 6 p.m. Monday, Nov. 12, for a potluck dinner followed by a meeting and program at the Greenwood Point clubhouse, 5324 S. Broadway Circle in Englewood. For more information, call Wayne Cox at Ext. 7-6800 or Kristy Allison at Ext. 1-2265.

**Red Rock Bowmen**—Interested employees and club members

will meet at 4:45 p.m. Tuesday, Nov. 13, in the recreation area clubhouse. Prospective members are encouraged to attend. For more information, call Dave Unruh at Ext. 7-0477 or Mark Lyons at Ext. 7-5722.

**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, Monday and Friday, 6:30 a.m. to 3 p.m., and Tuesday through Thursday from 6:30 a.m. to 5 p.m., Ext. 7-9157; Waterton Engineering Building basement, Monday through Friday, 6:30 a.m. to 3 p.m., Ext. 7-3029; and Littleton Systems Center, west and south of cashier, Tuesday through Thursday, 6:30 a.m. to 3 p.m., Ext. 7-0560.

**Parapsychology Club**—The club will meet from 5 to 7 p.m. Thursday, Nov. 15, at South Park West I, MIC Room. To reserve a guest badge or obtain more information, call Madeline Fountain at Ext. 1-6867.

**Waterton Amateur Radio Society**—Those interested in learning more about amateur radio are invited to attend a

meeting at 5 p.m. Tuesday, Nov. 6, in the hamshack at the recreation area. For more information, call Tony Kehayas at Ext. 7-2013.

**Pre-Season Basketball Tournament**—A double-elimination basketball tournament is scheduled for Saturday and Sunday, Dec. 1 and 2, at the Sheridan Middle School, 4107 S. Federal Blvd. Rosters and a \$100 team registration fee are due by 4 p.m., Nov. 28, in the Deer Creek recreation office. Rosters sent through the mail to Recreation, mail stop DC1344, should be received in the office by Nov. 26. Rosters and information sheets are in the recreation information racks.



# Around Astronautics



## Students learn about Hubble

Maryland Instructional Technology has produced "Starfinder," a 30-part video series designed to teach seventh- through 10th-graders about the Hubble Space Telescope and related concepts in physics and earth science. It also features Hubble discoveries.

Hosted by Maggie Linton, below, the series was funded by Martin Marietta and is available to Colorado teachers through the State Board of Education. Teachers in Maryland also are using the series.



*Maggie Linton,  
Hubble hostess*

## Discounted candy, portraits available

Halloween and holiday candy is now on sale at Your Employee Store (YES).

Also, YES has extended the registration deadline for the family portrait to Oct. 31. Free 10x13 canvas family portraits will be taken Nov. 3 and 4 at the Holiday Inn at Hampden and Wadsworth.

Call Ext. 1-4288 between 8 a.m. and 2 p.m. to make a reservation and obtain pricing information for additional portraits.

## Weight tips offered for holidays

Tips for surviving holiday meals and parties without adding weight will be presented by the Wellness Center staff next month. Free sessions will be conducted from 11:30 a.m. to 12:15 p.m. as follows: Nov. 6, Deer Creek Facility Finance Conference Room, first floor, south end; Nov. 8, Space Support Building Presentation Room, sixth floor; Nov. 13, Engineering Building Presentation Room, second floor; and Nov. 15, Littleton Systems Center, Room 107. Employees are welcome to bring their lunch to the seminars.

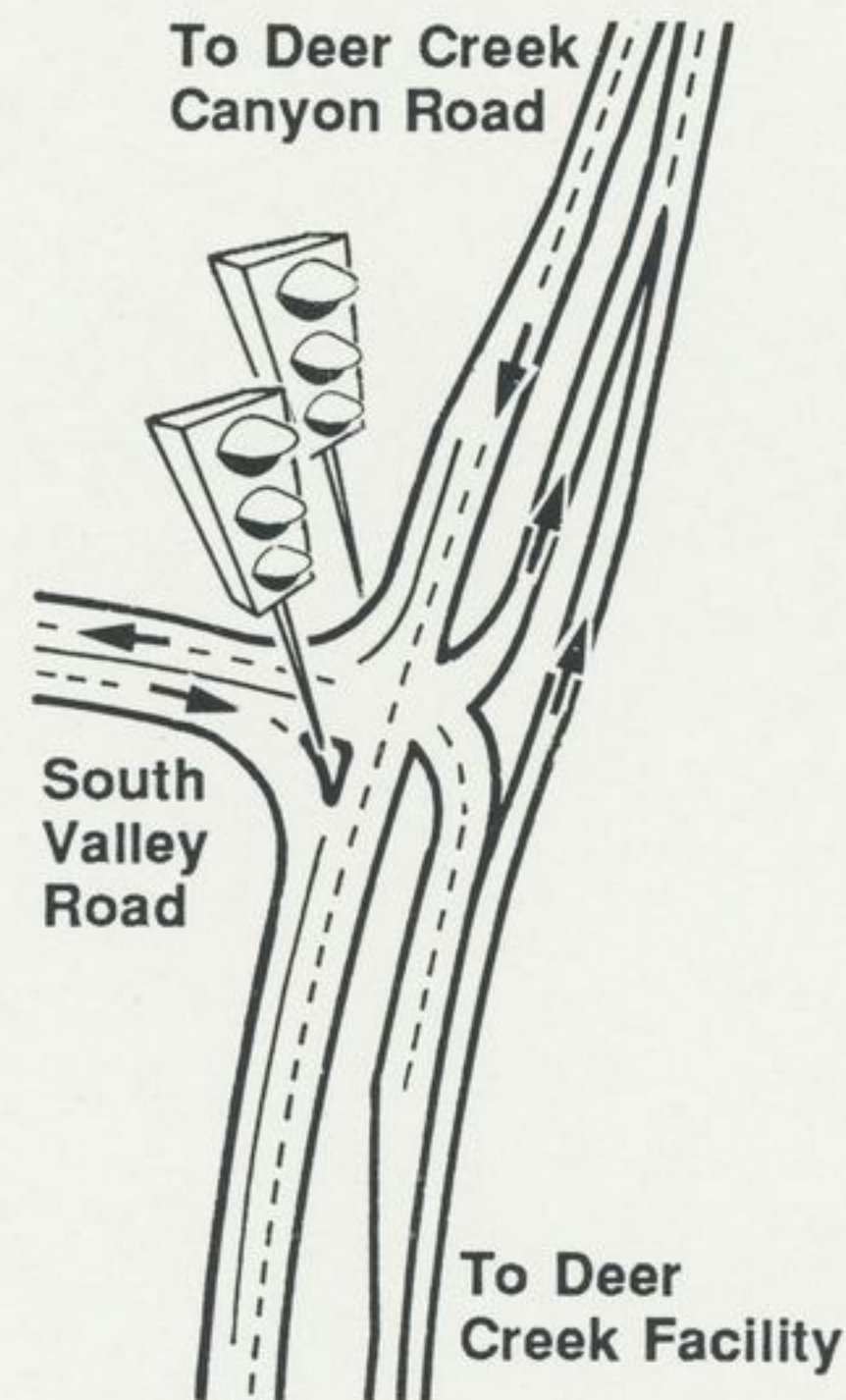
## Work continues on road to Deer Creek

Jefferson County will spend the rest of this year constructing a better, safer intersection at the Deer Creek access road and South Valley Road. A continuous right-hand lane is being constructed for traffic heading down to Deer Creek Canyon Road, while the existing road will be used for left-hand turns onto South Valley.

The county and Martin Marietta have worked together to develop this plan for safe, smooth travel. Construction should be done by year's end, weather permitting. Work on a new guard shack at the top of the access road will be done in early December.

Facilities Engineering encourages all Deer Creek travelers to

slow down while work to improve the road is completed. Cory Jackson from Facilities Engineering can answer your questions at Ext. 1-4929.



## Therapeutic massages reduce stress

Starting Nov. 7 you can reduce stress by getting a therapeutic massage.

The Wellness Center at Deer Creek will offer this service for \$5 from 11 a.m. to 5 p.m. on Wednesdays. The 15-minute massage will be conducted by a trained practitioner and will focus on tense upper body muscles. Call the center at Ext. 7-7575 or 7-7576 to schedule an appointment. This service soon will be offered at Waterton and Littleton Systems Center.

## Smoking cessation classes scheduled

Smoking cessation classes are set for Nov. 5, 8, 12, and 15. The sessions are from 5 to 6:30 p.m. at the Deer Creek

Facility's Gemini Room, first floor. This American Cancer Society "Fresh Start" program is offered free to all employees, spouses, dependents, and Air Force personnel. Call Ext. 7-6605 to register or complete the flyer in the recreation racks or the form in the Astronautics Institute catalog.

## Free blood pressure checks available

Blood pressure checks will be offered from 11 a.m. to 1 p.m. in different cafeterias each Friday during November as follows: Nov. 2, Littleton Systems Center; Nov. 9, Engineering Building, second floor; Nov. 16, Deer Creek Facility; and Nov. 30, Space Systems Building.

A Wellness Center staff member will administer the checkups and answer questions concerning general health, nutrition, and exercise.

## ASTRONAUTICS GROUP NEWS

Published biweekly by the Public Relations department, with the support of Graphics, Editorial, Film Services, and Reproduction, for employees of Martin Marietta Astronautics Group.

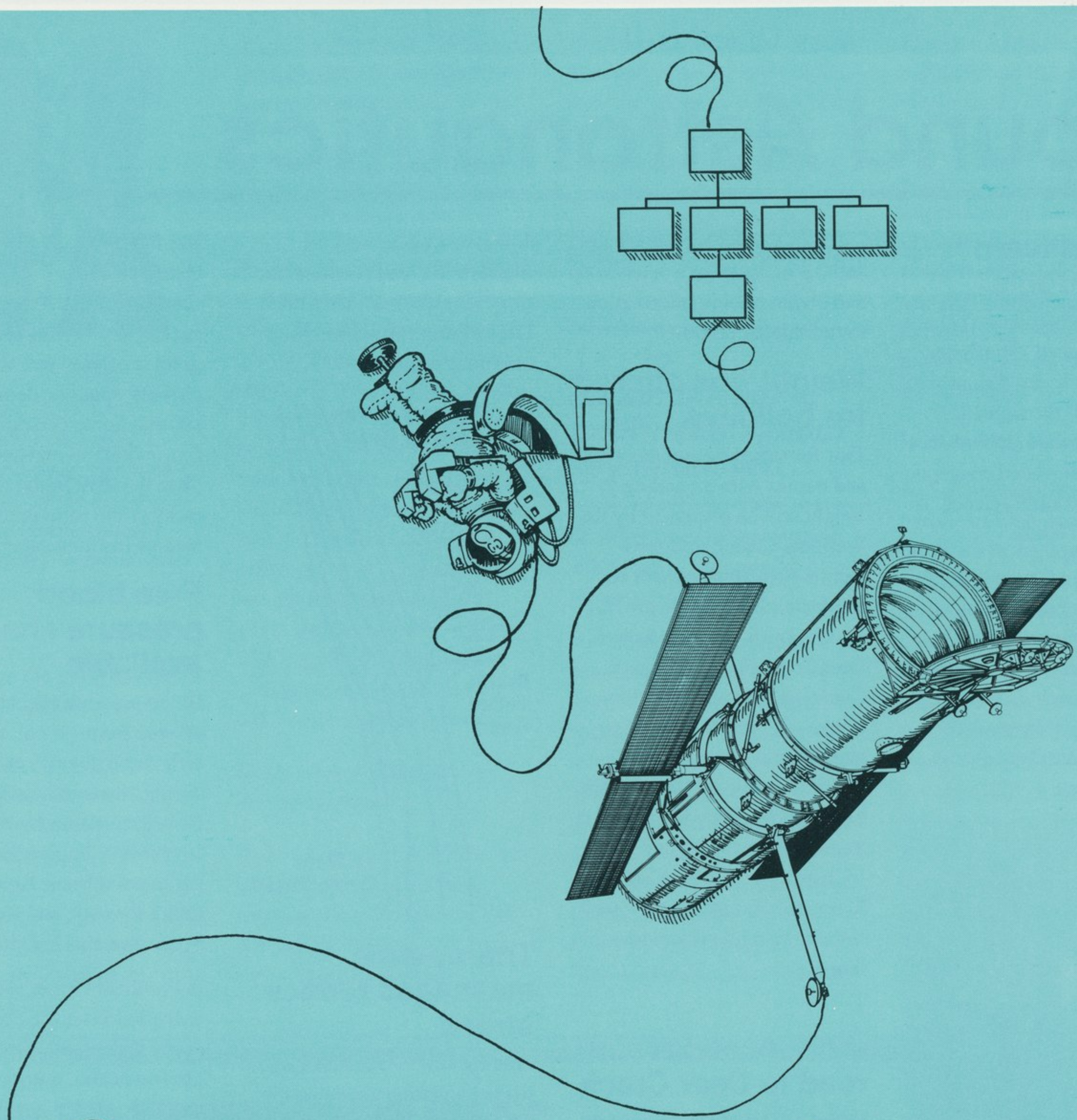
**Editor: Chris Talley**

Story ideas, letters to the editor, and questions are welcome and may be submitted to Public Relations.

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# Bottom Line...



...top line, or any line between —  
visual communication gets your attention.

You can draw from our in-house Graphics section for all your publication and presentation needs: Macintosh personal computer graphs and charts, humorous cartoons, technical line drawings, or full-color concept paintings. And, compared with the cost of trying it yourself, you'll have a better looking bottom line.

Admin Bldg, Ext 7-5787   TSB, Ext 1-9171   Deer Creek, Ext 1-5292   LSC, Ext 7-0211