# DENVER AEROSPACE

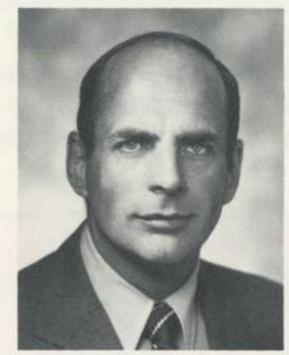
February 11, 1985 Number 3

# Augustine, Teets promoted

Martin Marietta Corporation announced on February 7 the promotion of Norman R. Augustine to senior vice president with executive responsibility for two rapidly growing businesses in the field of information and data management.

Augustine, 49, has been corporate vice president and president of Martin Marietta's space and strategic systems operation at Denver since 1982. He will move to Martin Marietta's Maryland headquarters, where he will have senior responsibility for the Corporation's newest operating entity, Martin Marietta Information & Communications Systems, and for Martin Marietta Data Systems, the Corporation's fastest growing segment. The presidents of those units will report to Augustine.

In announcing the change, effective March 1, Thomas G. Pownall, chairman and chief executive, said "Mr. Augustine's promotion to this senior management position underlines the emphasis Martin Marietta is placing on technology-intensive businesses where we see the greatest opportunity for growth." Augustine will report to the Corporation's president and chief operating officer, Laurence J. Adams, as do two other senior vice presidents.



Augustine



Teets

David C. Dressler, a senior vice president since 1983, will take over executive responsibility for Martin Marietta Basic Products, for Martin Marietta Ordnance Systems, and for the Corporation's majority interest in International Light Metals Corporation, a metals fabrication joint venture with Nippon Kokan KK of Japan.

Caleb B. Hurtt, also senior vice president, continues as principal executive for the Corporation's aerospace operations.

Martin Marietta also announced the promotion of Peter B. Teets, 43, to succeed Augustine as president of Martin Marietta Denver Aerospace, where he has been vice president for strategic and launch systems since 1982.

Augustine joined Martin Marietta in

1977 as vice president of aerospace technical operations. He became vice president of production operations and of strategic planning and development in 1980 before becoming head of the Denver operation in 1982. A native of Colorado, Augustine formerly held executive engineering positions with Douglas Aircraft Company and LTV Aerospace Corporation and served in government on two different occasions. most recently as Undersecretary of the Army in 1976. He holds bachelor and masters degrees from Princeton University, and is an Honorary Fellow of the American Institute of Aeronautics and Astronautics.

Teets joined the Corporation at Denver in 1963 and has held a succession of increasingly responsible engineering and management positions. He served as program manager for development of the Transtage, a restartable orbital stage of the Air Force Titan III space launch vehicle, and was the Corporation's Engineer of the Year in 1974. He holds bachelor and masters degrees in applied mathematics from the University of Colorado and a masters degree in management from Massachusetts Institute of Technology. Teets is a native of Denver.

## Peacekeeper test launch succeeds

The U.S. Air Force announced completion of the seventh test flight of the Peacekeeper missile from Vandenberg Air Force Base (VAFB), CA. The missile was launched at 2:15 p.m. on Fri., Feb. 1. The 30-minute flight of the research and development missile covered approximately 4,100 nautical miles to a target area on the Kwajalein Missile Test Range in the Pacific Ocean.

Denver Aerospace is responsible for assembly and flight testing of Peace-keeper missiles at VAFB under contract to the Air Force Ballistic Missile Office.

The missile carried six unarmed

Mark 21 (MK21) reentry vehicles, which are the baseline reentry vehicles for the Peacekeeper missile. This flight marks the third time MK21 vehicles were carried by a Peacekeeper test missile.

This flight, the seventh of 20 planned research and development test flights, is the second flight in Phase II of the four-phase test program. This phase, which will demonstrate the system in a more stressful environment, will include Peackeeper silo launches, and full integration of the MK21. Phase I emphasized missile functional performance and included initial validation of

the missile guidance system and booster performance.

The seventh test missile was launched from an above-ground canister on a concrete test pad. As currently planned, the next flight will also be launched in this manner. The final 12 research and development test missiles will be launched from modified Minuteman test silos, also located at VAFB.

The test flight missile, carrying a development instrumentation package, demonstrated its capability to perform an operationally realistic mission.



1984—Year in Review—Norman R. Augustine, Denver Aerospace president, talks to employees at Vandenberg Air Force Base, CA, part of his "Year in Review" presentation given to employees in Colorado, Florida, Louisiana, and California. Augustine discussed financial performance, new and follow-on contracts, prospects for the future, and praised all employees for making 1984 a record year for Denver Aerospace.

# Agreement signed with Japanese corporation

Martin Marietta has selected Japan's Marubeni Corporation as its exclusive partner in arranging joint efforts between Martin Marietta and Japanese space station contractors, for the joint U.S./Japanese space station program.

Marubeni will represent Martin Marietta in Japan for technologies related to space station and manned and unmanned space platforms. Martin Marietta director for international development, Kenneth J. Coughlin and Denver Aerospace director for space station international, Sherman R. Schrock will be responsible for working with Marubeni. They will negotiate the company's role in support of the Japanese space station effort.

Marubeni Corp. is a major Japanese trading company representing several international firms, including Nissan Motor and Hitachi, Ltd.

## Corporate digest

### Billboards to feature manned maneuvering unit (MMU)

Martin Marietta's manned maneuvering unit (MMU) and the Corporation's current advertising program will be featured during the month of February on more than 570 TIME magazine billboards and dioramas located in many of the nation's airports and railroad stations. The February posters, which picture astronaut Bruce McCandless flying the MMU, will appear in more than 50 major cities, and read, "TIME: Where Martin Marietta Demonstrates Mastermind Over Matter."

#### Martin Marietta declares dividend

The Corporation's Board of Directors has authorized a quarterly cash dividend of \$1.2188 per share on the \$4.875 Convertible Exchangeable Preferred Stock. This dividend is payable Mar. 15 to holders of record at the close of business Feb. 11.

#### Pownall appointed chairman of savings bond campaign

Thomas G. Pownall, chairman and chief executive officer of Martin Marietta Corporation, has been appointed chairman of the 1985 U.S. Savings Bonds Volunteer Committee.

"For the first time, new and outstanding Savings Bonds will be able to keep pace with market interest rates," Pownall said. "Bonds help companies such as ours by reducing competition for money market funds, thus allowing more money at lower rates for business development and growth...our employees' investments work to strengthen America's economy."

Martin Marietta will launch its campaign in March 1985.

### Early retirement now possible

Salaried employees may now retire at age 62 and receive unreduced benefits—just one of the changes in the Corporate salaried pension plan announced Jan. 31.

The improvements resulted in part from opinions expressed in the 1984 employee survey, and represent significant improvements in the retirement plan funded by Martin Marietta.

Other changes include greater benefits for employees who chose retirement from active service at age 55 to 61; a full calendar year's earnings assumed for those who retire at age 65; additional credited service for employees hired prior to age 25; credit for service in excess of 40 years, up to age 65; and greater protection for surviving spouses of employees who die before becoming eligible for early retirement.

New booklets containing greater detail will be distributed soon.

# Clausen named vice president I&CS operations

Robert J. Polutchko, president of Information and Communications Systems (I&CS), announces the appointment of Reid H. Clausen as vice president of I&CS operations.

Reporting to Clausen will be the departments of I&CS technical operations, production operations, and product assurance. Technical operations will be responsible for IR&D, engineering resources, audits, administration and engineering laboratories for I&CS programs. Production operations will be responsible for ground electronics production systems (GEPS), manufacturing, facilities, and selected program operations for I&CS programs. Product assurance will be responsible for mission success, quality control and systems safety for I&CS programs, and GEPS.

Henry J. Summers becomes director of I&CS production operations. Vernon E. Woodin becomes acting director of product assurance.

I&CS operations will be responsible for the I&CS interface with Data Systems and Denver Aerospace, as well as coordinating personnel and facility resources with Denver Aerospace during the transition period. Clausen and his operating departments will be located in Denver.

# Company unveils space station module mockup in New Orleans

Martin Marietta Aerospace unveiled a full-scale mockup on Feb. 4 of a space station "common" module, similar to the modules that one day will be built and outfitted as living quarters and laboratories in space.

The company is using the 38-foot-long mockup in company-sponsored engineering development and human factors studies to support NASA's space station development program.

Initially, the space station will have five common modules. Two will function as living quarters, one as a materials sciences laboratory, one as a manufacturing and technology laboratory, and one as a logistics module. NASA plans to have a permanently manned space station operational in low earth orbit early in the 1990s.

Martin Marietta heads a sevenmember industry team competing for a contract to define and do preliminary design for the pressurized common modules that will make up the space station. The modules will be delivered into space by the Space Shuttle, then

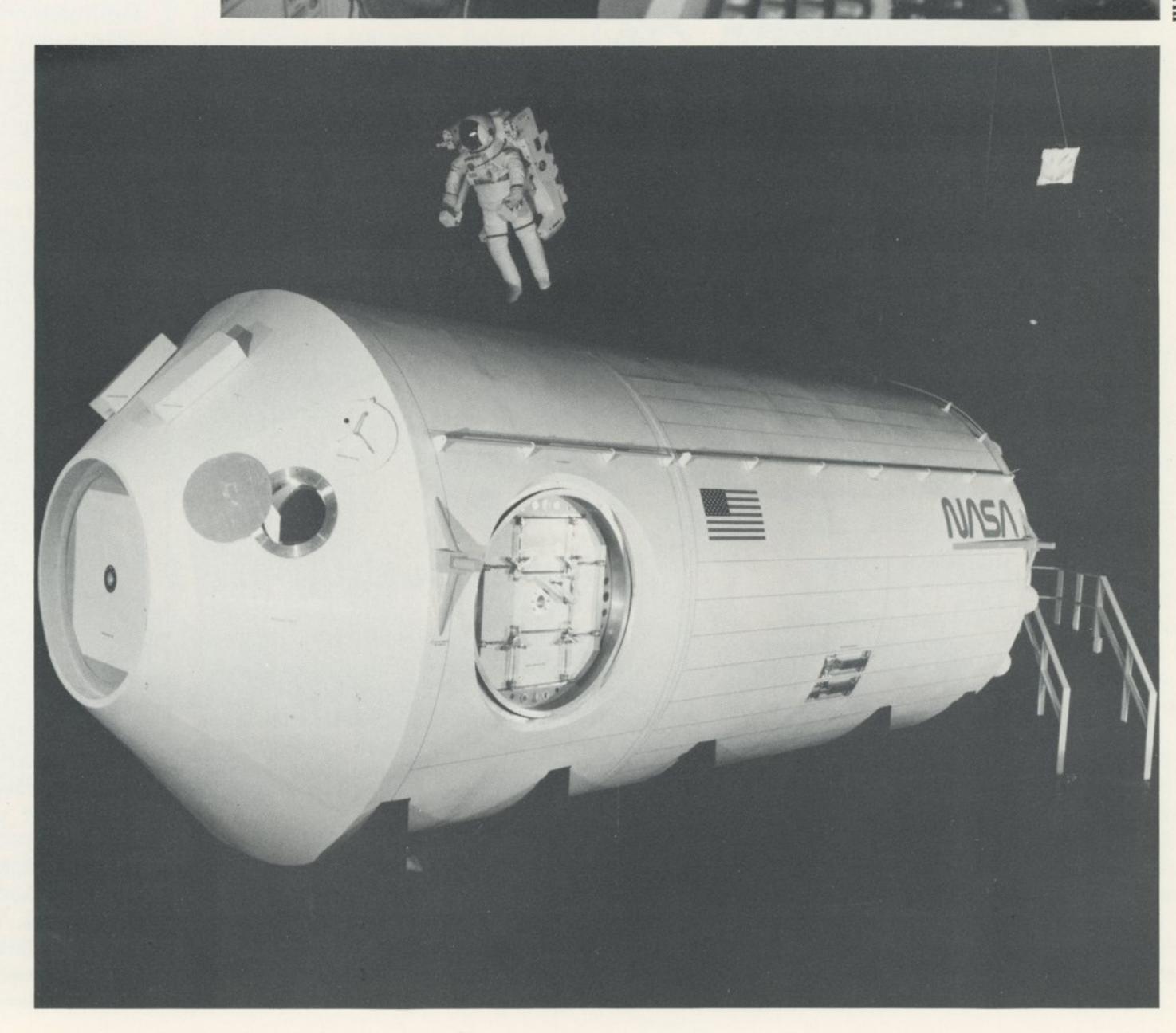


otos by Robert Perrin

Martin Marietta engineers, above right, inspect interior of full-scale mockup of space station common module. The company built the mockup at the Michoud Division in New Orleans for design studies.

Continued next page

An astronaut mannequin with a manned maneuvering unit (MMU) backpack, photo right, indicates the size of the 37 1/2-foot long, 14 1/2-foot diameter mockup. The section of the mockup to the right represents a manufacturing technology lab; the unit on the left is a berthing port section.



assembled with other elements of the space station. All the elements will be connected by collapsible trusswork that eventually will stretch to 400 feet long and 300 feet across.

The mockup consists of a cylindrical shell outfitted as a manufacturing and technology laboratory. It contains 13 racks housing simulated manufacturing experiments similar to those that would actually be conducted in such a lab.

The module, which measures 14 1/2 feet in diameter, also contains a test and work bench area to support daily housekeeping and maintenance chores, and a command and control console that shows some of the computers and systems used in the module.

The berthing section of the module contains four radial docking ports and one axial docking port. These will allow mating with other modules, and also will enable experiments to be placed into space and then retrieved.

Small round windows, or viewports, will allow crew members to observe externally-mounted experiments and other components outside the space station.

The Martin Marietta team is bidding pany had on a NASA work package managed by Marshall Space Flight Center in Hunts-conduct ville, AL. In addition to defining the NASA.

space station's common module, the work package includes definition and preliminary design of environmental control and propulsive systems; a plan for equipping a module as a laboratory and additional ones as logistics modules; and a plan for accommodating orbital maneuvering and orbital transfer vehicles.

Other members of the team and their responsibilities include: Hamilton Standard, Windsor Locks, CT, environmental control and life support systems; Wyle Laboratories, Huntsville, AL, user accommodations; McDonnell Douglas Technical Services Co., Huntsville, AL, outfitting a laboratory module; Honeywell Space and Strategic Avionics Division, Clearwater, FL, displays, control, and integrated sensors; Hercules Inc., Salt Lake City, Utah, studies on composite materials; and Hughes Aircraft's Microelectronics Division, Irvine, CA, internal communications.

Martin Marietta's space station efforts are directed by Denver Aerospace, with the Michoud Division assisting in overall planning. The company has been involved in the space station program since its inception, and conducted preliminary studies for NASA.



# Cook to head survey team

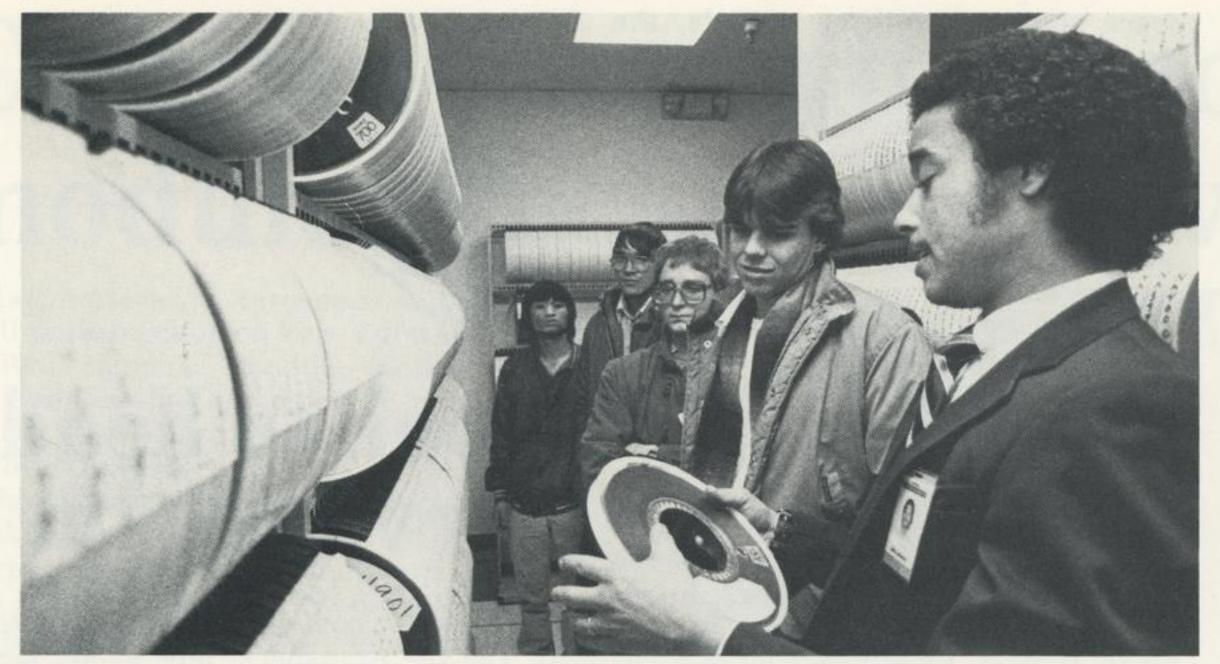
Dennis R. Cook, director of personnel for Denver Aerospace, now heads the company's employee survey implementation team.

The survey implementation team was formed as a result of the employee communication survey of salaried employees in 1984. Action planning meetings in each department continue throughout the company, giving employees opportunities to raise issues and identify solutions.

Cook replaces Kenneth P. Timmons, who retired from Martin Marietta in January.



Harness assembly fab team collaborates—Team efforts improved Peacekeeper cable building performance in six months by 50 percent. Team includes employees from manufacturing, quality, engineering, and training.



Explorer program underway—Steven Russell, far right, supervisor of computer operations, Data Systems, explains computer tape use and tape vaults used by Martin Marietta to Explorer students who toured the computer center recently. The company sponsors the Explorer program for students interested in careers in aerospace and computer operations.

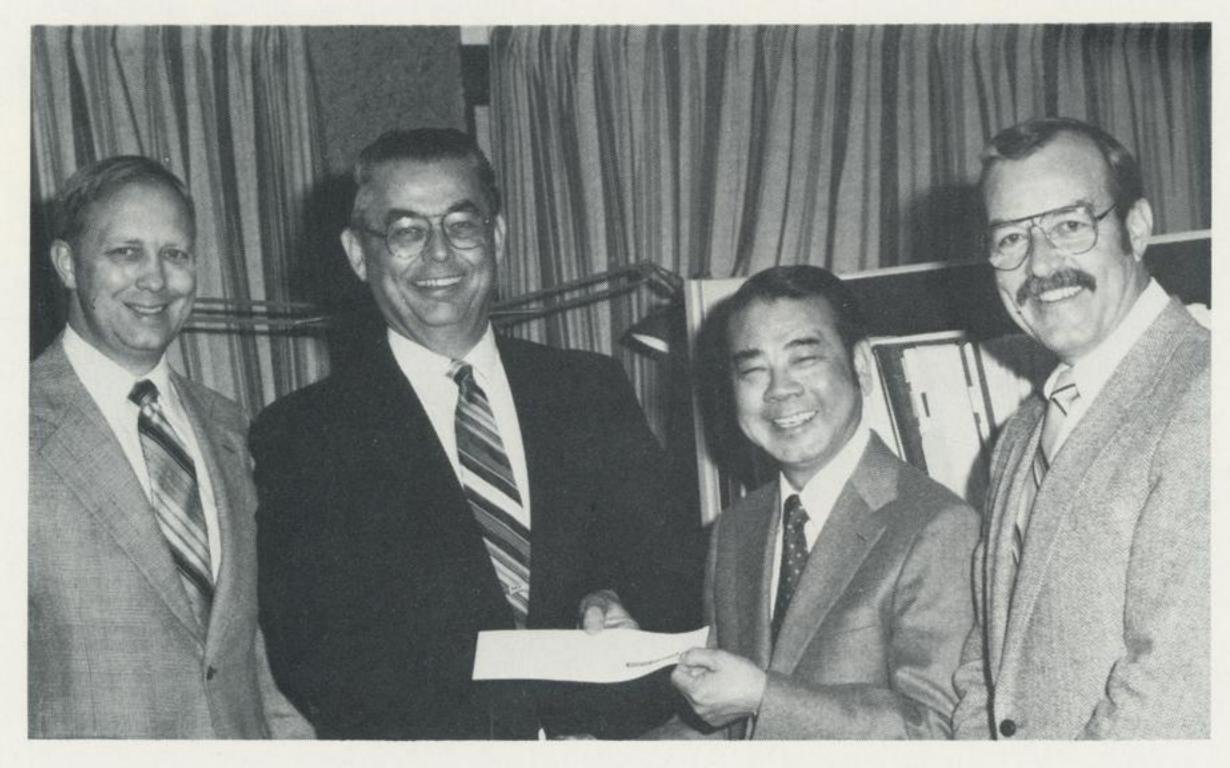
### Notes from security and safety

About 4,000 vehicles enter the gate at the Waterton facility each morning between 6:15 a.m. and 8:15 a.m. Such a heavy volume of traffic entering and leaving the facility requires safe driving practices and careful observance of pedestrian walkway signs.

The plant protection department asks employees to observe the 25 mph speed limit at the facility, and to watch for pedestrians.

Albert J. Sulzer, chief of plant protection, reports that employees who park illegally, blocking a pedestrian walkway, endanger employees forced to walk in the road. Tickets will be issued to violators.

If employees find it necessary to dodge a car in the walkway, plant protection asks that they call ext 4646 and report the licence plate number of the vehicle.



Suggestion avoids new tooling costs—Alfred S. York, second from right, senior manufacturing engineer on the Peacekeeper program, receives congratulations from Stan Albrecht, second from left, program director; Dr. Thomas Eller, far left, award fee monitor; and Rex D. Parsons, far right, chief, manufacturing engineering—all with the Peacekeeper program. York suggested retaining and modifying certain government-owned tooling built for the Phase 1 transportation and handling program, an estimated savings of \$500,000.

# Briefing

### Carpool deadline

Only 54 car pools have been recertified for 1985. After March 1, facilities will reduce Share-the-Ride spaces to reflect the actual number of car pools at the Waterton plant.

Employees who do not have the current yellow car pool certification card should certify their car pool immediately, to reserve an accurate number of Share-the-Ride spaces.

Employees may obtain the car pool certification from the Share-the-Ride office located in the Engineering Bldg., module 124 G, or call ext 6605 by Feb. 20.

### Federal, state tax forms available

Internal Revenue Service and Colorado state income tax forms for 1984 may be obtained at the following Denver Aerospace locations:

Main plant, employee service/recreation office, Engineering Bldg., module 124 G.

Academy Park, DSC II, module 167. Littleton Systems Center, in rack in the main hallway.

South Lincoln Facility, in the personnel representative's office.

Greenwood Commons—order forms will be available in racks at Greenwood; employees can mail forms to the employee service office Mail No. 1321 to receive IRS forms through company mail.

California and Louisiana state tax books may be obtained from Alan Bill, LSC, Mail No. 108B, ext 2571.

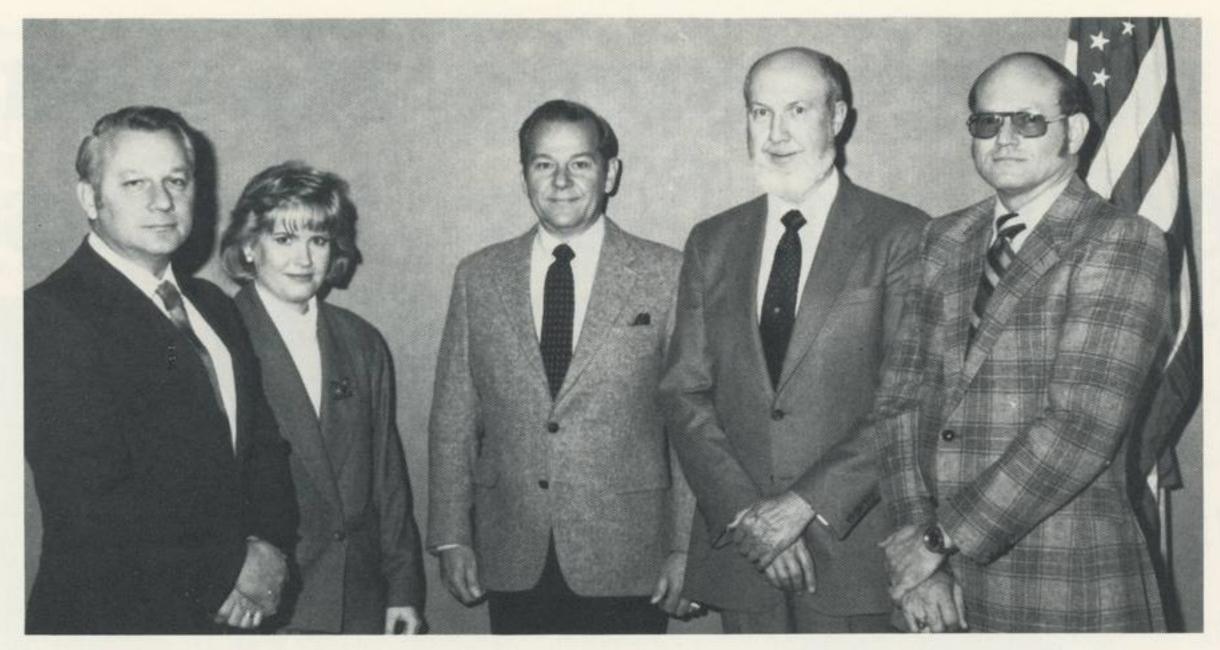
#### Cork board use

Employees may use cork bulletin boards located on the walls at all Denver Aerospace facilities as a means to sell or buy personal items, provide car pool information, and learn of activities sponsored by personnel services.

All employees, subcontractor personnel, and military and government employees working in Denver may use the bulletin boards. Special cards are provided at each board, and additional cards may be obtained from the employee service/recreation office.

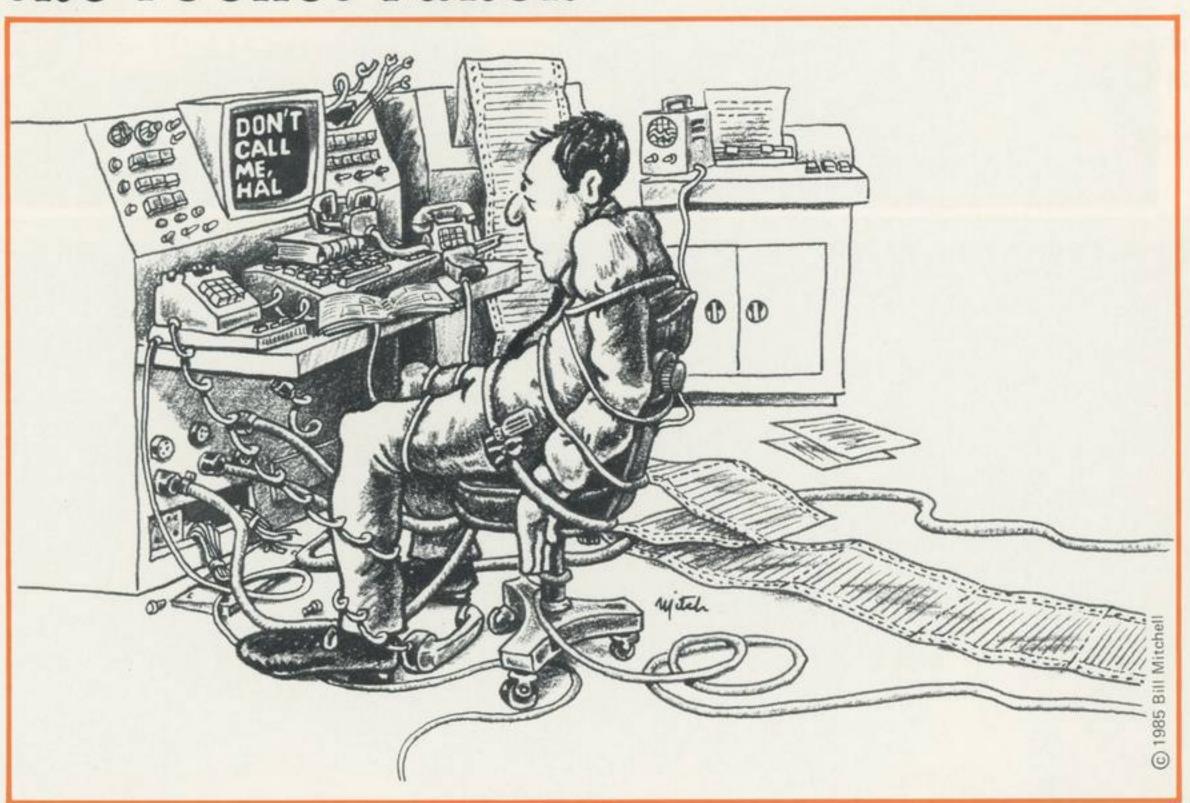
The personnel department will monitor each board, and advises that employees only advertise personal property. Advertising of commercial products or services, printed advertising, photographs or business cards is not permitted. Once an item is sold or purchased, employees should remove cards.

Company rules do not permit posting of advertising or other notices on walls, doors or in elevators.



Quality circle team idea approved—Space and Launch Systems Management Quality Circle members received approval and praise from top management in December for their concept of a suggestion system for Denver Aerospace. Team members include, left to right: Richard Hoffman, Susan O'Connell, George Podrasky, Leonard Horner and Jonny Ferguson. Not shown: Fred Hawley and Stan Sawicki. The suggestion system is expected to begin the second quarter of 1985. The team projects 3600 suggestions the first year by Denver Aerospace onsite employees.

### the rocket ranch



#### MARTIN MARIETTA NEWS

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Call Ext. 5364 with information or suggestions for articles, or call one of the following coordinators.

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DENVER AEROSPACE P.O. Box 179—Denver, CO 80201

February 11, 1985

### Nuggets basketball:

Distribution of tickets for the first company-sponsored family event of 1985 began Feb. 5. Department administrators will distribute tickets to those employees who selected a Nuggets' basketball game as one of their two choices of family events. All tickets should be distributed by Feb. 20.

Department administrators will also distribute tickets three weeks prior to each of the remaining family events, including the Ice Capades on Apr. 11, El Jebel Circus on June 15, and Lakeside Amusement Park on Sept. 7.

### Recreation

ALPINE—Rocky Mountain Alpine Club plans the following trips: moonlight telemarking, Sat., Feb. 9, Loveland Pass-call Marc Brideau, 7-8346 or 1-8346; annual tubing and cross-country skiing, Sat., Feb. 16, Jim Creek Trail—call Brian Gallagher, 7-2455; cross-country skiing, Sat., Feb. 23, Webster Pass Area—call Larry Espelage, 7-5376 or 1-5376.

BALLET—The Colorado Ballet presents Valentine's Winter's Eve, with guest artists Richard Fein, Tauna Hunter, Hilda Morales and David McNaughton on Feb. 15 and 16. Special ticket discounts for employees. To order, fill out coupons available from recreation racks and mail to Colorado Ballet.

BOWLING—Winners of the Martin Marietta Masters'/Corporate Games qualifying tournament held on Jan. 5, 6, and 12 included Al Hickman, first place, and Jim Martinez, second place.

Qualifiers for the Denver Corporate Games on June 1 include Al Hickman, Jim Martinez, Don Springer, Kathy Johnson, Shari Holliness, with Tom Marsh as substitute.

COMPUTERS—Employees with Commodore computers interested in forming a users group should attend an organizational meeting at 5:00 p.m., Thurs., Feb. 21 at GPL 180, room C, main plant.

DIVING—Fathom Dive Club will hold a general meeting at 5:00 p.m., Feb. 18 in the clubhouse at the recreation area (right turn at Union Carbide) to plan summer activities. Several short videos on scuba diving will be shown. Call Mitch Boggan, ext 7075. Prospective members welcome.

PARAPSYCHOLOGY—Club will meet at 5:15 p.m. on Thurs., Feb. 21 at the West Point Facility, room 660 (classroom I). Two Federal Heights Police Dept. investigators will discuss the use of parapsychology in solving a Colorado homicide case.

SKIING—Satellite Ski Club will meet at 7:00 p.m., Wed., Feb. 13, at the Millbrook Townhome Clubhouse, Depew and Platte Canyon, to discuss events and nominate officers. Call ext 3477.

The ski club's A Team took first place in three past races (Copper Mt., Vail, and Loveland); the club's B Team took third place in all three races.