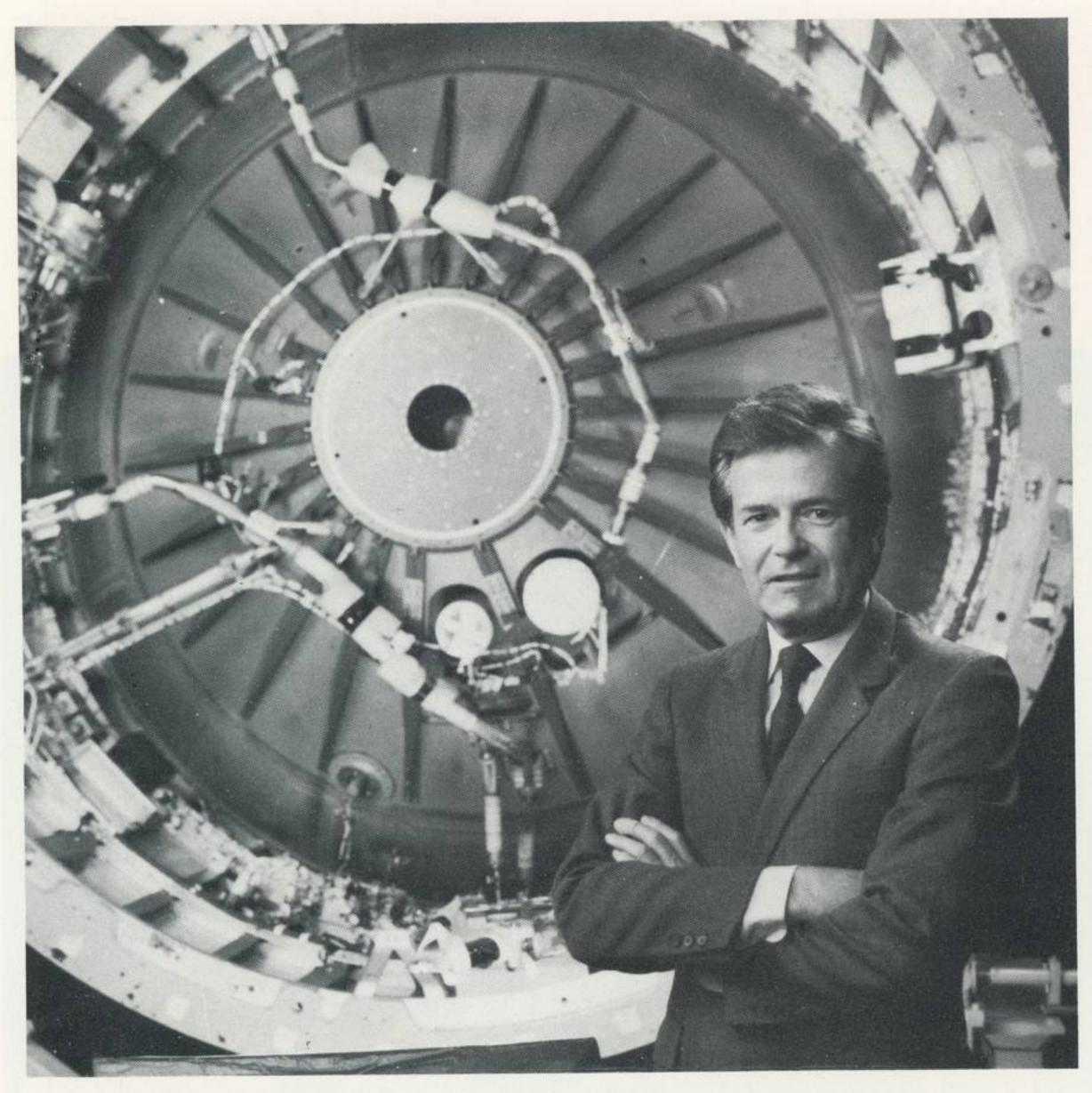
MARTIN MARIETTA

May 8, 1987

Number 9

DENVER AEROSPACE





Brackeen stands in front of Titan II in Waterton factory

# Brackeen heads new company; markets Commercial Titans

Martin Marietta Corporation announced April 30 the formation of a new organization to market commercially the Titan space launch vehicle, and named Richard E. Brackeen president of the unit.

The new organization, Martin Marietta Commercial Titan Systems, will focus on commercial sales of a modified version of the highly successful Air Force Titan III space launch vehicle. Brackeen, who has been vice president of Space Launch Systems for Denver Aerospace, will be responsible for marketing, contracting, and business development of the Titan as a national and international launch vehicle for commercial satellites. He will report to Peter B. Teets, vice president of Martin Marietta Corporation and president of Denver Aerospace.

Commercial Titan, with its large-diameter (four meters) payload fairing, can deliver two satellites totaling 31,000 pounds into low-Earth orbit. Its launch record is 130 successes in 135 attempts over the past 20 years. The latest successful flight was February 11, 1987.

INTELSAT, the International Telecommunications Satellite Organization, has announced that it will purchase two commercial Titans to launch INTELSAT VI satellites, and Martin Marietta also is negotiating with another inter-

national satellite consortium for Titan launches. A number of others have made \$100,000 deposits, reserving positions for commercial Titan launches in the 1989-90 timeframe, including Federal Express Corporation, Hughes Communications, Inc., Ford Aerospace, and the European consortium.

Martin Marietta also produces the Air Force Titan IV heavy space launch vehicle and is converting deactivated Titan II intercontinental ballistic missiles into space launch vehicles for the Air Force.

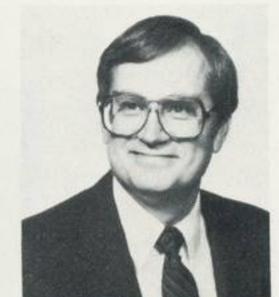
Brackeen is a veteran aerospace engineer and business development executive. He joined Martin Marietta in 1967 and has held a succession of management positions, including vice president of strategic planning at the corporation's headquarters, president of Martin Marietta International, and for the past two years was vice president for Space Launch Systems.

He is a native of New Mexico and holds an engineering degree from the University of Oklahoma and a master's degree in aerospace engineering from the University of Southern California. Brackeen also has a master's degree from the Massachusetts Institute of Technology's Sloan School of Management.

# Martin Marietta promotes four

Martin Marietta Corporation has announced the promotion of four senior executives resulting from its formation of a new organization for the commercial sale of the Titan space launch vehicle.

Richard E. Brackeen, 48, who has headed Space Launch Systems at Denver Aerospace since 1985, was named president of the new unit, Martin Marietta Commercial Titan Systems. He will be responsible for marketing, contracting, and business development of the commercial version of the Titan space launch vehicle, reporting to Peter B. Teets, Denver Aerospace president.



Flora

Gareth D. Flora succeeds Brackeen as vice president of Space Launch Systems. Richard G. Adamson will replace Flora as vice president of Business Development for the corporation at Bethesda headquarters. Philip J. Duke, head of

Finance at Orlando Aerospace, will succeed Mr. Adamson as vice president of Finance and Business Management for the corporation, also at Bethesda.

Flora, 48, assumes the Space Launch Systems position in Denver Aerospace after having been vice president for Business Development at corporate headquarters. In his 27-year career with Martin Marietta, Flora has held management positions of increasing responsibility, including head of the Titan launch activity at Vandenberg Air Force Base, Calif.; and vice president of Business Development at Denver Aerospace from 1984 until he moved to his present corporate position in 1986. He holds the corporation's silver Jefferson Cup for contributions to launch vehicle programs.

Adamson, 54, who becomes vice president of Business Development for the corporation, joined Martin Marietta in 1960 at Denver. He held technical, financial and management positions before moving to the corporate staff in 1984, where he held responsibility for financial aspects of both existing business and new business pursuits. He also served as president of Martin Marietta Data Systems in 1985. For his contributions to the Viking program, which placed two landers on Mars in the mid-1970s, he received the NASA Public Service Award.

Duke, 41, has been vice president of Finance at Orlando Aerospace since he joined the corporation in 1978. Previously, he held senior financial positions with Ford Communications Corporation. Duke received his degree in accounting at the University of Oregon, and his master's degree in business administration from Northwestern University Graduate School of Business.

#### PROJECT CHALLENGE

(Editor's note: The following update by John Dwyer introduces the training section of Project Challenge. Dwyer is training director for Project Challenge.)

Project Challenge will require basic changes in the whole culture at Denver Aerospace, and extensive training is planned to help make those changes.

We need to educate our people in two basic areas: (1) technical areas such as manufacturing resources planning (MRP II), computeraided engineering (CAE), computer-aided design (CAD) and computer-aided manufacturing (CAM); and (2) cultural areas—how these concepts will change the way we do business.

Training requirements will be met for all employees and all functional groups. As addressed in previous articles in the *Martin Marietta News*, Project Challenge will provide the basic tools and computerized systems enabling us to make the dramatic transition into a modern, low-cost, high-quality environment.

When properly used, these tools enable us to compete aggressively in today's aerospace market. However, the tools are only as good as the people using them; thus, a major training program. With limited time and money, the training program itself will be a challenge. Success depends on each of us recognizing that our future, and the future of Denver Aerospace, is linked directly to the success of Project Challenge. If we are not cost competitive, we are not in business. Increased productivity means more contracts and more jobs.

The secret of success will rest on three simple principles:

- Our training will encourage all employees to feel proud that they are trained, qualified and certified in the effective use of Project Challenge tools.
- Our training will encourage all managers to recognize that qualified employees who also are certified in the use of automated tools are more valuable employees.
- Our training will encourage all managers to recognize that their future depends on their ability to manage programs using computerized systems.

We will minimize disruption of ongoing training activity during these early phases of the project, while we monitor and evaluate pertinence to an ultimate integrated training program. Training related to Project Challenge functions has been conducted by various central departments, project functions and the evening institute for several years, with support from Data Systems and outside agencies. We will build on that which is pertinent, and add, integrate, and develop ways to provide a complete and effective training program. Management recognizes that automation without proper training is money wasted.

A program as ambitious and far-reaching as Project Challenge requires the support of every employee, and the support of every department. We ask for a cooperative effort to assure our collective future.

Project Challenge doesn't have all the answers yet, but collectively, all of us at Denver Aerospace do. Therefore, we solicit your thoughts and suggestions for making the transition to our future way of doing business.

-John Dwyer

#### A Titan tradition lives on as Titan IV develops

(Editor's note: This article by George Lawrence, manager, Titan programs manufacturing, begins a series of articles and photos following a Titan IV through production.)

Since 1956, when the Denver Division was first established here in Colorado, the Titan launch vehicle has been continuously in production.

Throughout its 31-year history, the Titan has set reliability and accuracy records for manned missions as well as spacecraft placement, and this tradition lives on in the form of a new and even larger version of the rocket, the Titan IV.

For the past year, the manufacturing department has been fabricating thousands of piece parts that will become a Titan IV launch vehicle, capable of being launched from Vandenberg Air Force Base, Calif., or Cape Canaveral Air Force Station, Fla.

Under the leadership of C. T. (Buck) Reynolds, detail manufacturing personnel will spend approximately 16,000 hours cutting, sawing, bending, forming, machining, drilling and chemical milling all types of aluminum raw material into finished engineered structural components. Some of the parts weigh more than 6,700 pounds, such as the Stage I

oxidizer tank barrel panels. Others, such as the internal valve components of the delicate fuel control system, may weigh only a few ounces.

In the weeks to come, follow the build progress of Titan IV, as the first of this new breed of aluminum rockets moves down our aerospace assembly line. Observe the hardware as it progresses, along with the personnel responsible for making it all happen. Follow history in the making as yet another Titan is added to an already impressive family of Titan vehicles.

-George Lawrence



John Haney forms a Titan IV detail in a rubber box die.



J. L. Bryant operates the skillmill during a final check of the Titan skin.

### 1986 United Way dollars go a long way

With the money raised by Denver Aerospace in the 1986 Mile High United Way Campaign, the following services could be provided:

 Venture Grant programs in the Douglas County area. This includes the Adult Learning Source/Literacy Learning Center, providing literacy services for uneducated and economically disadvantaged adults; Arapahoe Mental Health Center, with education and awareness seminars for prevention of youth suicides; Castle Rock Community Inter-Church Task Force, an all-volunteer organization that provides emergency assistance to transients and other people temporarily stranded in Douglas County; Douglas County Council on Aging; which supports senior visitor services, to identify the needs of lonely and ill seniors throughout the county, and connect them with existing services; Visiting Nurse Association of The Denver Area, which provides skilled, supportive medical and nonmedical services aimed at the prevention of institutional care and assistance, and case management services aimed at preventing abuse and/or neglect of high-risk elderly people living alone or geographically isolated with limited support systems; and Women's Crisis Center of Douglas County, to continue 85/86 funding instrumental in starting the program.

The money also went for 2,529 days of emergency shelter, 3,826 contacts for job placement, 2,620 days of quality child care (as used by Olivia Williams, who works in production control), 489 youths matched with a Big Brother (as in the case of Liz Rodrigues' son Alex and Mike McGann, of the benefits office), and 1,988 hours of meaningful work for the handicapped (similar to the services

provided to Data Systems manager Bill Seefeldt's father when he lost his sight).

The \$1,634,188 raised by Martin Marietta in the Denver area went to, in addition to the six Venture Grant Programs in the Douglas County area, 20,656 days of emergency shelter; 31,252 contacts for job placement; 21,407 days of quality child care; 3,996 youths matched with a Big Brother; and 16,323 hours of meaningful work for the handicapped.

## Air Force gives excellent award

After a thorough evaluation of Martin Marietta's performance on the Small ICBM system support contract, the Air Force's Ballistic Missile Office (BMO) rated Denver Aerospace excellent for the second evaluation period, with a 90 percent award fee.

"Your system support contract personnel have been strong team players and worked well with the entire Small ICBM team," reported Edward P. Barry, Jr., Brigadier General and commander of BMO.

"I am highly pleased with your performance," Gen. Barry continued. "The professionalism and 'can do' attitude of the system support team has been instrumental in the successful coordination and integration of BMO/TRW and ASCON efforts. This systems engineering support across the Small ICBM program was especially helpful during the busy JRMB/FSD contract source selection cycle.

"In addition, your highly responsive and timely engineering analysis support, particularly loads cycle effort, contributed significant savings to the Small ICBM program. The NH&S/EMC and system test area received high marks for technical competence and for cost reduction recommendations relating to test deletions," Barry said.

# Special accident insurance sets open enrollment schedule

Employees not yet enrolled in the Special Accident Insurance Plan or who wish to increase their levels of coverage may do so now, with changes becoming effective June 1. For changes made June 1 or later, coverage becomes effective December 1, 1987.

The plan is supplemental life insurance coverage that provides benefits in case of death, dismemberment or total disability because of an accident on or off the job.

All active full-time employees are eligible to

participate. Employees may select coverage from \$20,000 to \$250,000 (or to a maximum of \$500,000 if it does not exceed 10 times annual earnings). By selecting family coverage, employees can insure their spouse and dependent children. Employee insurance costs \$0.09 per week per \$10,000 of coverage. Coverage for the employee and dependents is \$0.14 per week per \$10,000.

For additional information, refer to the Special Accident Insurance booklet or contact the Benefits office.

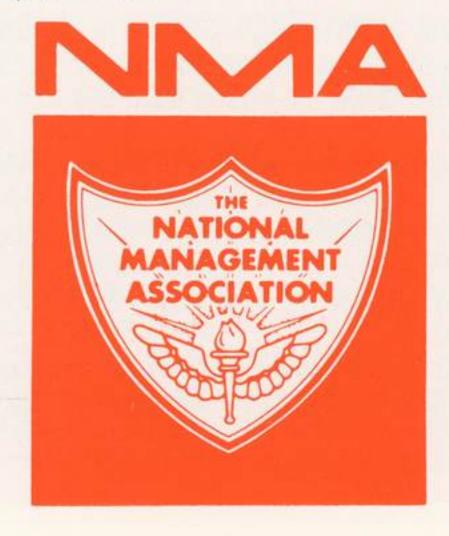
# Management association starts new membership campaign

The Martin Marietta Denver Chapter of the National Management Association (NMA) began an intensive membership campaign on May 1 that will continue through September 15.

"Growth through Mutual Strength" is the campaign theme, with a goal of each existing member attracting at least one new member to the organization.

The association can provide a means to communicate and socialize with managers across the three Denver-area companies and with other local NMA chapters; an environment in which to develop and share management skills; and an opportunity to control career growth. NMA also provides 2,000 hours of continuing educational units. Many of these courses have and will be taught through the Martin Marietta Evening Institute on a membership-first basis.

For more information regarding membership and benefits, contact Bernie Wenninger, membership drive chairman, Ext. 7-4021; or Adrian Payne, membership committee manager, at 790-3519.



## MARTIN MARIETTA NEWS Published by Public Relations Editor Jan P. Timmons MARTIN MARIETTA

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

Business Management	Daphne R. Gillison	7-3155
Defense Systems	Norma I. Emerson	1-8089
Military Space Systems	Mary Lou Motsinger	7-6461
NASA Space Systems	Austin E. Fehr	7-5775
Personnel/Recreation	Leroy Hollins	7-6750
	Lori A. Sharp	7-6605
Production Operations	Guy R. Coombes	7-6911
Space Launch Systems	John H. LePenske	1-1400
Space Station	David J. Hughes	1-5946
Strategic Systems	Richard L. Kline	7-7475
Technical Operations	Floyd R. Teiffel Jr.	7-6872
Canaveral Operations	Robert V. Gordon	7-9108
Vandenberg Operations	Robert L. Ruck	7-2202

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Senator Tim Wirth visits Denver Aerospace

U. S. Senator Timothy E. Wirth, right, talks with Peter B. Teets, Denver Aerospace president, during a recent visit for briefings and a tour of the facility. Wirth, elected in 1986, serves on the Armed Services, Budget, and Energy and Natural Resources committees.

## Success Through Suggestions sponsors environmental awareness competition

The Success Through Suggestions program has begun a special contest to promote employees' environmental awareness. Employees should submit ideas for areas where hazardous waste can be reduced and risks to the environment from the use of hazardous chemicals can be minimized.

Employees may earn these bonus prizes:

1st Prize—Pentax Camera Package
2nd Prize—Panasonic Microwave Oven
3rd Prize—5 in. B/W TV and AM/FM Stereo Radio/Adapter

#### Guidelines:

- The top three ideas adopted will be selected by a special committee to receive bonus prizes.
- 2. All hazardous waste and chemical risk minimization ideas eligible for the suggestion "special" will be accepted between May 1, 7:30 a.m., and May 29, 1987, 4:00 p.m.
- 3. Waste and risk minimization ideas will be evaluated in accordance with Standard Procedure 5.2.

#### On the Cover

Martin Marietta technicians inspect the first Small ICBM postboost vehicle system development unit that was completed April 28. Pictured above are, left to right, Louella Curtis, Bob Shoedel, and Steve Huck, three members of the 11-person team that completed the unit.

Final assembly of the first postboost vehicle, as well as future postboost vehicles, will be done in the Design to Produce Facility (DPF) high bay area where ordnance installation and propellant loading also will take place. This piece of hardware has been moved to the Reverberant Acoustics Lab (RAL) where it will undergo the first in a series of tests that will lead to the completion of the first ground test missile for use as a pathfinder for the first flight test, scheduled for the third quarter of 1987.

Martin Marietta assembles, tests and conducts the missile flight test program during pre-full-scale and full-scale development, builds the postboost vehicle, and provides system support for the Small ICBM program.

# Excellent award fee granted GSS

The Ground Support Systems program at Vandenberg Air Force Base, Calif., earned an excellent rating for its eighth award fee determination from the U.S. Air Force. Major General Donald L. Cromer, commander of Headquarters Space and Missile Test Organization (AFSC), said the award fee period, from October 1, 1986, to March 31, 1987, merited an overall performance rating of 97 percent.

The primary factors that contributed to the award, Cromer said, were "an outstanding job in the initial integration and consequent support of the hydrogen disposal system effort; commendable support to the 51-L cargo operations reviews; timely, innovative and responsive support to program options, e.g., the superb support to the alternate use planning on V-19 (orbiter maintenance and checkout facility); outstanding cost control prior to official modification for descope which led to a significant cost savings to the government; solid support to the transition process—the accelerated schedules were met, and very responsive efforts in support of the V-19 transition to SPC (shuttle processing contractor)."

"I am particularly gratified at General Cromer's recognition of the outstanding contributions and professional performance of our GSS employees under particularly trying circumstances," said Otha Jones, acting director of GSS. "Gen. Cromer's personal expression of confidence has been a factor in the continued high morale of this program."

Martin Marietta Denver Aerospace is the integrating contractor for the DOD Space Transportation System (STS) Ground Support Systems (GSS) at Vandenberg Air Force Base (VAFB), Calif.



Governor Romer addresses staff

Colorado Governor Roy Romer visited Denver Aerospace recently for a briefing by Peter B. Teets, president, and an address to the large staff on economic development and how businesses can help foster that development.

### Employee services/recreation

Denver Corporate Games Update— Employees will compete June 5 and 6 in the seventh annual event that benefits the Colorado Special Olympics. The following time trials will take place: swimmers interested in vying for a spot on the Martin Marietta swim team can try out Saturday, May 9. Female swimmers are needed especially. Contact Terry Heggy, Ext. 1-5849, for details. Bicycle racers' time trials will be at 5:30 p.m., Thursday, May 14, in Chatfield State Park. Participants cannot hold a USCF card. A three-member team will be selected to compete in the 13-mile criterium, and a male and female will be chosen for a 10-mile timetrial race. Track time trials will be at 5 p.m. on May 21 at Columbine High School. Interested employees can contact Todd Myers, Ext. 7-4101. It's not too late to compete. Employees are encouraged to participate.

Hunting—The Skyline Hunting and Fishing Club will meet at 5 p.m., Monday, May 11, at the club meeting room in the recreation area.

Archery—The Red Rock Bowmen Club will meet at 4:45 p.m., Tuesday, May 12, at the clubhouse in the recreation area.

LSC Toastmasters—The group meets at 4:30 p.m. on Wednesdays in Room 103 at LSC. Contact Henry Evans, Ext. 7-0575.

Hunter Education—The Skyline Hunting and Fishing Club will have hunter education classes in May, June and July. Class dates are May 26, 27, 28, 29, 30 and June 1.

Platte Canyon Photo Club—The club will meet at 7 p.m., Wednesday, May 13, at the DSC facility, Room 200C. The guest speaker is John Fielder, a nationally acclaimed wilderness landscape photographer. There will be a \$2 fee for nonmembers and guests (\$1 will

be applied to membership). Contact Bill Privatsky, Ext. 7-4969.

Scuba—The Fathom Divers Scuba Club meeting will be held at 7:30 p.m. on Wednesday, May 13, at Governor's Ranch Club House, 9050 W. Prentice Avenue. (Map on flyer in recreation racks.) The agenda includes two films, "Introduction to Scuba Diving" and "The Island of Cozumel," registration for scuba diving classes, club membership registration, Cozumel dive trip in September, and nominations for club officers. There also will be refreshments and a chance to win a free scuba diving class. RSVP to Marty Chrastil, Ext. 1-7075, or 979-4244 (home) by Monday, May 11.

Singles Together—The Martin Marietta Singles Club May social function will be held from 5 p.m.-8 p.m. on Thursday, May 21 (rather than May 14), at the club house in the recreation area. Enjoy meeting new friends in a casual setting. Speaker and topic will be announced soon. \$2 members, \$3 nonmembers.

Commodore Users—The group will meet at 5 p.m., Tuesday, May 19, in the clubhouse at the recreation area. Contact Chuck Barton, Ext. 7-7430, or Joe Presta, Ext. 1-6957.

Weight Watchers at Work-Learn nutritious eating habits and how to make sensible food choices. Join the next eight-week Weight Watchers class from 4:30-5:30 p.m. on Tuesdays, Exec. Dining Room II, Eng. Bldg. at the Waterton facility, starting May 26. New students pay a \$5 registration fee and \$56 class fee. Renewal students pay \$56 class fee only. Pick up a registration form from a recreation rack or from the employee services/recreation department and return it with full payment by May 19, to: Employee services M/S 1344. (Checks should be made out to Weight Watchers.)

Tournament—Send a completed entry form, available from the recreation racks, to the recreation office, M/S 1344, by May 20. The tournament begins with receipt of pairings forms, which will be mailed June 10. Classes include A, B1, B2, C, and novice, singles, doubles, and mixed doubles. The tournament format will be round-robin. Call recreation, Ext. 7-6605, for more information.

The Denver Champions of Golf Tournament—Discount tickets and badges are available at the employee services/recreation office, or by mailing a check payable to Denver Champions of Golf, with a ticket-request flyer, to the recreation office, M/S 1344. The event takes place May 26-31 at Plum Creek Golf Course in Castle Rock. Tickets good for any one day are \$7.50 (regular price \$10.) The full-week pass is \$24.50 (regular price \$30), and the full-week pass that also provides access to the clubhouse is \$40 (regular price \$50).

Lakeside Amusement Park—Discounts on unlimited ride tickets are valid any Friday night in May or Monday through Friday nights between June 4 and August 28, are available from the recreation representatives, and can be found in the recreation racks. The reduced rate is \$5.00 (regular price \$6.50).

Shrine Circus—Tickets are available for \$4.50 at the employee service/recreation office. The circus will be held from 2 p.m. to 7 p.m. at the National Western Stock Show Arena, June 9 through 14. Employees not located at the Waterton facility can send a written request for tickets, with a check payable to Martin Marietta, to the recreation office, M/S 1344.

#### Augustine honored by two societies

Norman R. Augustine, president and chief operating officer of Martin Marietta Corporation, has been honored by two prestigious technical societies. He received the 1987 Gold Medal of the Society of Manufacturing Engineers (SME) and was named an Honorary Fellow of the Society for Technical Communication.

The SME citation honors Augustine for "applying engineering excellence to aerospace development and manufacturing. For the past 30 years he has given copiously of his technical and management expertise to assure our country's international stature."

Augustine earlier was unanimously elected

an Honorary Fellow of the Society for Technical Communication (STC) by that group's board of directors, who will confer the honor on Augustine during the 34th International Technical Communication Conference for the society May 10-13 in Denver.

The Rocky Mountain Chapter of STC includes George E. Hoerter, the conference deputy general manager and Denver Aerospace publications manager; Timothy B. Brenner, printing manager and Denver Aerospace graphics chief; and Beth Higuera, registration manager and Denver Aerospace writer/editor. Hoerter also is the incoming society treasurer.

