

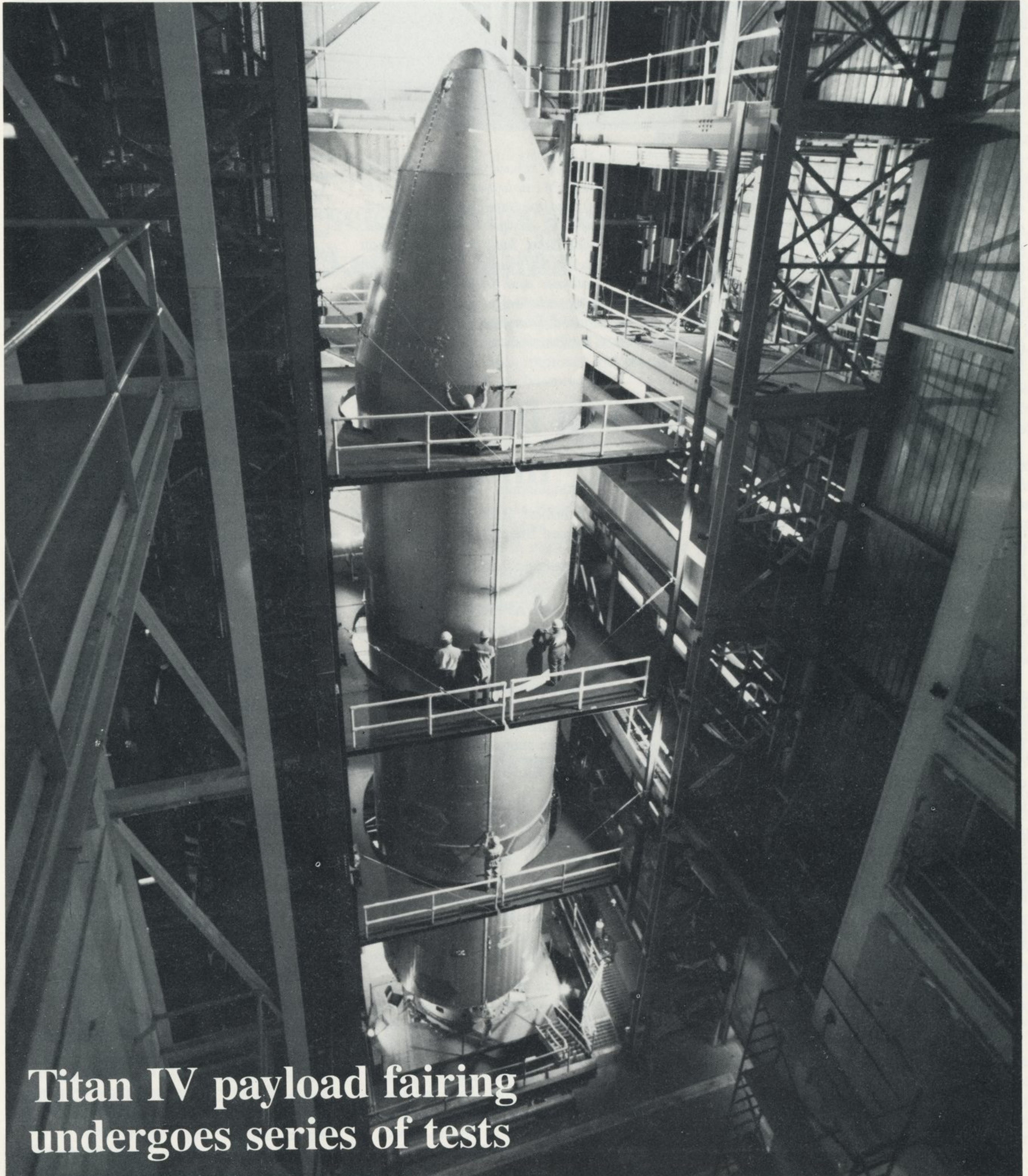
MARTIN MARIETTA

# news

ASTRONAUTICS GROUP

October 23, 1987

Number 21



**Titan IV payload fairing  
undergoes series of tests**



### Junior Achievement participation recognized

Volunteers who participated in Junior Achievement during the 1986-87 school year were honored recently at the JA recognition breakfast. Those standing support their employees' involvement in JA. Left to right are Lori Sharp, JA coordinator; Arnold Roane, director, Administration, Astronautics Group, and a member of the JA board of directors; Rob Nicol, Advanced Programs lead; Frank Silva, supervisor, Engineering Administration, Commercial Titan, Inc.; John Rohe, audit manager, Corporate Audit; Sadie Decker, program manager, ELAN; Bill Hunter, manager, Titan Structures. Seated, left to right, are Astronautics Group employees and JA volunteers Mike Caslin, Mike Montgomery, Leslie Montgomery and Mark Dunning, advisers for the evening high school program; Bruce Kostival, Project Business instructor, and Don Joy, JA adviser. Not pictured are advisers Tom Elbring, Dave Spangler, Adrian Lafitte, Susan Lafitte and Mark Hooper, Project Business instructor.

## Martin Marietta first in industry to embrace 'Get SPEC' initiative

As a result of the cooperative effort between the Astronautics Group Product Assurance, Contracts, Peacekeeper program management, and the local Air Force Plant Representatives Office (AFPRO), Martin Marietta has become the first of 26 Air Force Contract Management Division contractors to sign a memorandum of agreement (MOA) for the "Get SPEC" initiative.

Get SPEC, for Get Specified Product End Conformance, began when the Air Force Systems Command, commanded by Gen. Bernard P. Randolph, Andrews Air Force Base, Md., defined an initiative to reduce non-conformances and lower costs on Air Force production contracts.

"Under the direction of Peter B. Teets, president, Astronautics Group, we began Get SPEC negotiations in August on the Peacekeeper Instrumentation and Flight Safety System (IFSS) contract to establish an appropriate preliminary agreement for the Get SPEC program. Final agreement was reached in Sep-

tember," said Robert P. Klein, manager of Product Assurance Integration for the Astronautics Group.

The Get SPEC assessment process begins with a monthly report of non-conformance data submitted to the AFPRO. Each measured non-conformance that exceeds the stated target will be assessed at a designated dollar value.

The Quality Improvement Program council will monitor progress of the Get SPEC program. The council, comprised of senior management from the AFPRO and Martin Marietta, will meet monthly under the direction of Teets and Col. John McCabe, AFPRO commander.

At the specified completion date of the MOA, the council will review accumulated data. If the company has not met the stated improvement goal, it will make a monetary adjustment to the specific Air Force contract.

"We anticipate no adjustments to the Peacekeeper IFSS contract. We intend to meet our goals," Klein said. ■

### On the cover

Martin Marietta is testing the payload fairing for the Titan IV space launch vehicle, which it is building for the U.S. Air Force. The 86-foot-long, 200-inch diameter fairing, built by McDonnell Douglas Astronautics Co., has been installed in a vertical test fixture in Denver. It was subjected to a modal survey test to determine dynamic characteristics, and will undergo a structural test to verify structural capability and an ambient separation test to verify that the fairing will unlatch and separate from the launch vehicle. Space Launch Systems has an Air Force contract to build and launch 23 Titan IVs.

## Applications due for scholarships

The application deadline for Martin Marietta Foundation scholarships for sons and daughters of employees for the 1987-88 academic year is Feb. 1, 1988.

To be eligible, an applicant's parent must have been employed by the corporation for at least two years as of Jan. 1 of the award year, and be on the active payroll at the time of the award.

Applicants must be secondary school graduating seniors in the year of the award and have academic records that unconditionally qualify them for admission to a regionally accredited college or university. Send applications and supporting evidence directly to the Scholarship Selection Committee at Bethesda, Md. Applications will be evaluated and winners selected by a committee of three persons not associated with the corporation. The committee is chosen by trustees of the foundation from academic and business communities.

The \$3,000 scholarships are renewable for three years, contingent on the student maintaining a satisfactory academic level as required by the college or university.

All applicants are expected to complete the American College Test (ACT) or the college entrance examination board Scholarship Aptitude Test (SAT). When registering to take either of these tests, applicants must indicate the program code number 2801 on the ACT registration form and the code number 0091 on the SAT registration form to ensure that test results are forwarded to the selection committee at Bethesda.

Application forms and information about the scholarship program may be obtained from Bette Wooster, Management Development/Organization Development department, Ext. 7-6650. ■

## Graduates of firefighter training program feted

Sixteen members of the Plant Protection fire cadre were honored at a ceremony recently for successfully completing requirements for state certification as firefighter I or II.

The fire training program, administered by Sharon Baker, Human Resources Development training and certification senior instructor and a firefighter II, is modeled after the National Fire Protection Associations' requirements for firefighters. After completing the Martin Marietta training, the cadre members paid for and took the state examination on a recent Saturday.

Fire cadre members honored at the recent ceremony include Lt. Kyle Corray, Cpl. Bill Pickett, Cpl. Steve Eckhoff, Cpl. Frank Encinas, Cpl. Pat Keena, Cpl. Jerry Kendall, Cpl. Rick Hernandez, Insp. Mike Lewis, Cpl. Wayne McKelvey, Cpl. Jack Prather, Cpl. Robert Jones, Cpl. Darrell Root, Cpl. Larry Rounds, Cpl. Roger Thorpe, Cpl. Auric Wallen and Cpl. Dan Wessels.

In the next two weeks, four more fire cadre members should attain state certification. ■

# Martin Marietta wins 'smart weapons' technology contract

The Astronautics Group will work with Orlando on a contract to develop and demonstrate "smart weapons" technology that would improve the ability of U.S. armed forces to find and destroy ground targets.

The 30-month, \$14.5-million contract was awarded by the Defense Advanced Research Project Agency.

The technology would support a system in which an unmanned aircraft would locate and destroy mobile targets. Such an aircraft would perform reconnaissance and target identification and automatically launch munitions. Technology developed from this contract also could be incorporated into existing weapon systems.

Martin Marietta Electronics & Missiles

Group in Orlando will develop the advanced avionics concepts and software necessary for the system. Approximately \$3.5 million of the work will be done by the Astronautics Group.

The work will use the company's technology in artificial intelligence, automatic target recognition, advanced processors, and infrared and millimeter wave sensors. It also will demonstrate Martin Marietta's extensive experience in packaging advanced technologies into a missile system.

The Orlando operation will focus on perception, while Denver will focus on planning—the technology that allows a vehicle to determine where it should go and what it should do.

Richard A. Luhrs is the Denver program manager. ■

# Dornier to build payload carrier assembly for Commercial Titan

Martin Marietta has awarded a contract to Dornier System GmbH of Friedrichshafen, West Germany, to manufacture the payload carrier assembly for the Commercial Titan launch vehicle.

Under the initial contract, Dornier System will provide five 13.1-foot (4-meter) diameter payload carrier assemblies for use on the Commercial Titan, including two single-satellite assemblies, two dual-satellite assemblies and one test unit.

A payload carrier is a device used on top of the Commercial Titan vehicle to cradle the spacecraft until it reaches orbit. When two satellites are launched, the carrier also keeps them separate from each other.

The estimated value of the initial contract is approximately \$18 million, with four follow-on options that could bring the total contract value to approximately \$45 million.

Beginning in 1989, Dornier System will de-

liver the lightweight graphite epoxy payload carriers to Martin Marietta at Cape Canaveral Air Force Station, Fla., for installation on launch vehicles. The first flight of the carrier on the Commercial Titan is scheduled for 1989.

"The selection of Dornier for this key launch vehicle element further illustrates the new international character of the Commercial Titan vehicle," said Richard Brackeen, president of Martin Marietta Commercial Titan, Inc. "The Dornier payload carrier assembly, along with the payload fairing being developed by the Swiss firm, Contraves, will provide the Commercial Titan vehicle with enhanced payload capability based on the most advanced proven technologies in composite materials."

Martin Marietta has two firm contracts for satellite launches on Commercial Titan. Martin Marietta also has six other launch reservation agreements. ■

# Company helps 'Great Performances' launch 15th season on new schedule

Scheduling of "Great Performances," the longest-running performing-arts series on television, has changed in Colorado. The initial program began on Thursday, Oct. 22, on Channel 6. Entitled "The Music Makers," the program saluted America's 20th century composers and lyricists in a 90-minute presentation.

Martin Marietta Corporation has joined "Great Performances" as a new corporate underwriter, "and Public Broadcasting Service stations all across the country have committed to a greater share of the financial responsibil-

ity," said Jac Venza, executive producer and creator of Great Performances. "Everyone has rallied since Exxon announced it is leaving at the end of this season."

"Thanks to our friends at Martin Marietta, who joined us in May, and our PBS stations, programming scheduled for the 1987-88 season can proceed," Venza said.

The next "Great Performances," featuring Mikhail Baryshnikov and Valda Setterfield, is scheduled to appear on Thursday, Oct. 29. Continue to check local listings for date and time changes. ■



## Blecher gets award from Ball Aerospace

Steve Blecher, a product integrity engineer, was presented a dolphin award by Ball Aerospace Systems Division recently for his outstanding work as customer representative. The dolphin award goes to those who characterize principles of intelligence, adaptability team work and communication in their work with Ball Aerospace. Blecher is the technical monitor of a subcontract to Ball Aerospace to produce two-axis gimbals for use in a laser communication subsystem for Special Programs.

## SIP values

Unit values for the savings and investment plan (SIP) for employees represented by United Aerospace Workers (UAW) and United Plant Guard Workers of America (UPGWA) in August (July values in parentheses) are:

Fund A:	
1.1852393182	
(indexed equity)	(1.14421076916)
Fund B:	
1.0185110825	
(fixed income)	(1.0152477136)
Fund C:	
1.0994619453	
(company stock)	(1.0428818905)

## PSP values

Unit values for the performance sharings plan (PSP) for salaried employees in August (July values in parentheses) are:

Fund A:	
5.3552683298	
(indexed equity)	(5.1535580898)
Fund B:	
2.7491925140	
(fixed income)	(2.7264191739)
Fund C:	
5.5385843153	
(company stock)	(5.2367336563)



Gary W. Girardi, numerical control machinist, directs the new machining center from the control panel. The new machine is part of the continuing Manufacturing modernization.

## New computer-controlled machining center part of modernization plan

A new computer-controlled machining center has been installed on the first floor of the factory. It is the second major new piece of equipment in the company's broad move toward modernization.

The Kearney and Trecker computer numerical controlled machining center is a four-axis machining center fully controlled by a computer numerical controller. In addition to moving in the three basic axes, a rotary table allows either four faces of a cube to be machined or will allow four detail parts to be prepared for machining.

The machining center can perform milling, drilling and tapping operations on a cube, and eliminates several conventional steps and com-

bines previous numerically controlled steps into one operation.

The detail shop equipment selection employee team specified and implemented the new machining center. The team included Jim Clark, machine tool maintenance; Tony Hughes, capital planning; Grant G. Farrow, chief of numerical control; Geoffrey W. Garner, operations planning; Paul S. Konrath, project lead; Mike J. McIntyre, general foreman, machine shop; George Nelson, senior buyer; and various customer representatives.

The team will continue to recommend the best equipment for the Manufacturing modernization. ■

## Association honors Albrecht and McGarr

In appreciation for enthusiastic support and guidance, the Martin Marietta Denver Chapter of the National Management Association recently awarded its annual Executive of the Year award. Co-recipients for 1987 were Stanley F. Albrecht, vice president, Plant Operations, Astronautics Group, and G. Max McGarr, vice president, Data Systems' Denver Account. The award was determined by a unanimous vote of the chapter's board of directors.

Albrecht and McGarr have been instrumental in spearheading the direction and success achieved by the Denver Chapter. "We are very appreciative of the volunteer spirit put forth by both executives," said Anesa McCleanon, president of the Denver Chapter. "Their personal involvement has given us the freedom to expand our offerings, and their continued efforts will assure our organization's future strengths."

The Martin Marietta Denver chapter serves local employees as a dedicated source for personal and professional development. Affiliated with the National Management Association, Martin Marietta is one of five chapters in Colorado.

Any employee interested in career advancement may become a member. Activities focus on management education opportunities, access to national management resources, interaction with companies throughout Denver, and informal channels to exchange management ideas and concepts.

The chapter has dinner meetings the second Tuesday of every month, featuring guest speakers from within and outside the company. For information on membership or further benefits of the organization, contact Anesa McCleanon, 790-3321.

—Kyle Hultquist

## Deer Creek address set

The address for Martin Marietta's Deer Creek facility will be:  
12999 Deer Creek Canyon Road  
Littleton, CO 80127.

The post office box remains the same for all the Astronautics Group:

P.O. Box 179  
Denver, CO 80201.



## Credit Union Clips

### Credit union sponsors special used car sale

The Red Rocks Federal Credit Union will sponsor a members-only used car sale, in conjunction with Budget used car sales, from 8:30 a.m. to 8 p.m. Friday, Oct. 23, and 8:30 a.m. to 6 p.m. Saturday, Oct. 24.

"We'll have special pricing on all late model foreign and domestic vehicles," said Susan Webb, loan officer, "and a low rate of 10.5 percent available for this sale only."

For a preapproved loan, members must submit loan applications with the most recent copy of their paychecks. Warranties and extended service contracts are available.

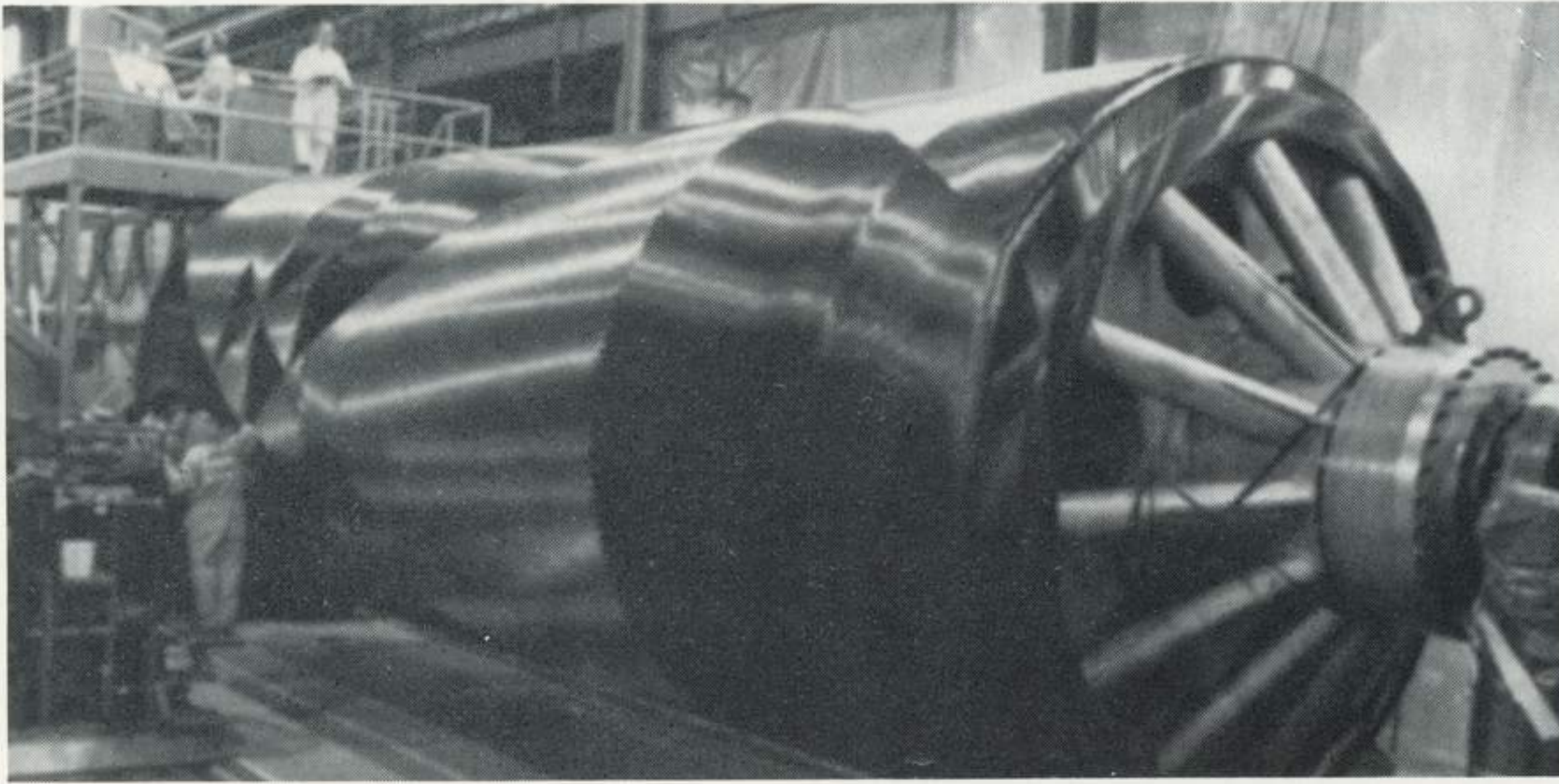
The sale will be conducted at both Budget car sale locations at 8125 W. Colfax Ave. and at 833 S. Havana St. Credit union loan officers will be present to help with financing. For more information, call 797-2900.

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*Technology developed by Hercules Aerospace for the space shuttle all-graphite filament-wound case will be used for Titan solid rocket motor upgrade.*

## Martin Marietta selects Hercules to produce solid rockets for Titan IV

Martin Marietta has selected Hercules Aerospace Company to develop and manufacture upgraded solid rocket motors for the Titan IV launch vehicle.

The contract, which is to be negotiated, is expected to exceed \$500 million for the development program and 15 sets of solid rocket motors.

The upgraded three-segment motors will be six inches larger than the 120-inch diameter, seven-segment motors planned for the initial Titan IV launches.

The Hercules motors will increase the Titan IV payload capability from 10,000 pounds to 12,500 pounds to geosynchronous orbit. Lightweight graphite composite materials will replace steel used in the motor cases and a high-performance propellant will be used.

"This new technology motor will improve further the Titan IV vehicle, both in performance and reliability," said Gareth D. Flora, president of Space Launch Systems.

Design changes and automated manufacturing of Hercules motors will increase reliability of the Titan IV launch vehicle. The motor case joint design has been improved and the quantity of field joints has been reduced.

The new motors will incorporate updated and flight-proven thrust vector control systems similar to those used in man-rated and strategic boosters.

Hercules will manufacture the upgraded Titan IV motors at its Bacchus West facility near Salt Lake City, Utah.

Titan IV, the newest, most powerful member of the Titan family, is an outgrowth of the Titan III, which has a 96.3-percent success record in 135 operational launches.

Martin Marietta has an Air Force contract to build and launch 23 Titan IVs, with an initial launch planned for late 1988. Titan IVs with upgraded solid rocket motors are expected to be available for launching by late 1990. ■

## PSP and SIP open enrollment set for November for all employees

During November, employees may enroll or modify their investments in the Performance Sharing Plan (PSP) for salaried employees, and the Savings and Investment Plan (SIP) for hourly employees.

Employees may change the percentage amount of payroll deductions. Salaried employees also may change their tax mix (before or after tax contribution.) The changes become effective the first full pay period in July 1988.

Elections in both plans, such as investment option changes for future contributions or transfer of funds from one account to another, may be made twice a year at any time. These changes become effective at the end of the month in which the request is processed.

Salaried employees with at least six months

of service are eligible for the PSP. In the SIP, any hourly employee with at least 12 months of service by Jan. 1, 1988, is eligible. An employee who has withdrawn or suspended contributions and has satisfied the waiting period must complete a form to resume contributions.

Forms are available at the following locations: Waterton facility—Engineering, Room 125; SSB—Room 607; TSB—Room 515, Personnel Management; EMF—lobby; LSC—Room 133; SPW—executive area: Terrace Towers—lobby; Greenwood—Personnel, Building 6020; Linpro 2—near Mail Room; and DSC 2—Room 200.

Send completed forms to the Benefits office, Mail Stop 1343, no later than Monday, Nov. 30. ■

## United Way goal should exceed 1986

Last year, Martin Marietta employees made the largest contribution to the Mile High United Way: more than \$1.6 million. Everyone who contributed can be proud of that achievement and about the needs that were met as a result of those contributions.

Now, the Astronautics Group, Information & Communications Systems (I&CS), and Data Systems employees are in the middle of the 1987 United Way campaign. This year's goal is \$1.9 million. Most employees are interested in knowing where the money goes and how it is used. According to Chuck MacLeod, United Way associate campaign director, less than 15¢ of every dollar is used for administration and fund raising. That makes United Way the most efficient such organization in metro Denver, MacLeod said.

The funds collected are not distributed by the president of United Way to pet projects, MacLeod added. Instead, approximately 200 volunteers spend more than 5,000 hours each year evaluating agencies that apply for United Way funding. These volunteers represent a broad cross section of the Denver-area population: blue- and white-collar workers, retirees, homemakers, Hispanics, blacks, whites, and the developmentally disabled. Volunteers make all decisions on which agencies United Way funds and how much each receives.

United Way funds 76 affiliated agencies and 22 venture grant programs. Agencies such as the Colorado Foundation of Dentistry for the Handicapped provided preventive care to more than 1,700 developmentally disabled persons last year. The Mile High Child Care Association helped provide more than 163,000 days of care. United Way agencies provided hot meals to more than 10,000 senior citizens. The Denver Public Schools Pupil Assistance Fund provided clothing to low-income youths so that they could attend school.

Employees who have a particular interest in one agency can designate that agency as the recipient of their United Way contribution. Ask the United Way campaign key worker in your department for the form to complete.

Dan Amerman, of Personnel, and Jim Schaefer, of the Strategic Systems company, are coordinators for the Astronautics Group United Way campaign. Both have spent many hours on the campaign. Schaefer has driven more than 1,000 miles to deliver materials and meet with employees.

"It's worth it," Schaefer said. "I've had the chance to visit a few United Way agencies, to meet several employees who are served by United Way and some who provide volunteer service. United Way is amazingly comprehensive in meeting needs in our community. I've really been moved by this experience."

Amerman said, "The more I learn about United Way, the more committed I become. We encourage all employees to attend a group meeting to view the videotape on United Way. Their contributions will be going to a very worthy cause."

—Evan McCollum

# Employee services/recreation

**Denver Symphony Orchestra**—Martin Marietta employees can receive a 50-percent discount to all 1987-88 classical, pops, chamber and family concerts (Great Artist recitals not included). Obtain coupons from the recreation racks. Tickets may be ordered in advance by mail or the coupon can be redeemed at the symphony box office. Tickets are subject to availability.

**Ada Users Group**—The Martin Marietta Ada Information Network (MAIN) will meet at 5 p.m., Wednesday, Nov. 11, in the DSC brown bag room. All Ada enthusiasts are invited to attend. For more information, call Sushma Bockhorst, Ext. 1-6513.

**Basketball**—The 1987-88 Martin Marietta men's and women's winter basketball leagues are forming. The organizational meeting is set for 5 p.m., Wednesday, Oct. 28, in the SSB cafeteria. The competitive league is for skilled, competitive players. The A League is for experienced players who were in the playoff schedule last year. The B league is for those interested in improving skills in a less competitive setting. If there is enough interest, an all-women's league will be formed, as well as a men's over-40 league. A minimum of six team rosters and a minimum of 10 players per team will be required to form one of the new leagues. Cost is \$5.00 per player. Leagues are open to all Martin Marietta employees, Air Force personnel, spouses and eligible dependents age 18 or older. Entry blanks are due Nov. 2 and can be returned to Recreation, Mail No. 1344, or courier stop—Recreation, Engineering Building. Rosters and fees will not be accepted at the organizational meeting.

**Amateur Radio**—The Waterton Amateur Radio Society will meet at 5 p.m., Tuesday, Nov. 3, in the Hamshack, west of the recreation area.

**Riding**—The Ridge Riders Saddle Club will meet at 7 p.m., Tuesday, Nov. 3, in the club meeting room at the recreation area.

**Denver Center Theater Company**—Coupons offering 25 percent off the price of two tickets to any fall production are available in the recreation racks. "Koozy's Piece" and "Vets" run through Oct. 31; "Guys and Dolls," Oct. 16-Dec. 19; and "The Price," Nov. 19-Dec. 19.

**Titan Toastmasters**—The group meets at 6 p.m., Mondays, at Abe's Cafe, 2489 W. Main St., Littleton. Contact Mark Willey, Ext. 1-6183.

**LSC Toastmasters**—The group meets at 4:30 p.m., Wednesdays, in Room 217 at LSC, a new location. Contact Kathy DeWitt, Ext. 7-0397.

**Funplex Discount**—Coupons offering one free activity (bowling, skating or miniature golf) with the purchase of the same activity at full price are available from the Recreation office, Room 124, Engineering Building, from 10:30 a.m. to 12:30 p.m. and 1-3:30 p.m. daily and from volunteer recreation representatives.

**Ski Discounts**—The Steamboat Club Card offers a daily \$6 discount on skiing at Steamboat all season. The card offers more than \$600 in savings with a special coupon book, including discounts for ski school, \$17 ski days, racing programs, restaurant specials, ski rentals, lodging and more. The club card is sold at Steamboat, and is availa-

ble to all Denver Area Employee Services and Recreation Association (DAESRA) member company employees for \$5 through Dec. 13. To obtain the offer, present a copy of the flyer "Ski Steamboat at the Half Day Rate," with proof of employment at the Steamboat ticket office. Employees can obtain the flyer from the Recreation office or from volunteer recreation representatives.

**Aspen Lodging Discount**—The Inn at Aspen, located at the base of Buttermilk Mountain, is offering \$25 off the regular room rate to Martin Marietta employees when they present a \$25 coupon at check-in. Employees can get the coupon from the Recreation office. The coupon is valid until Dec. 24, and again after Jan. 3, 1988. The reservation number is 1-800-826-4998.



## Russo commended for improving scheduling procedures

*Debra Ann Russo, a scheduler for facilities, submitted an idea to the Success Through Suggestions program and has received a commendation and a cash award from her management. Russo suggested a record-keeping system that saves time and money by reducing duplication of maintenance efforts by refrigeration mechanics. Seated next to Russo is Richard E. Weber, vice president of Personnel. Standing, left to right, are Arthur L. Arndt, manager for plant maintenance; Charles C. Bird, facility foreman; and Bobby R. Cooke, director, facilities.*