

MARTIN MARIETTA

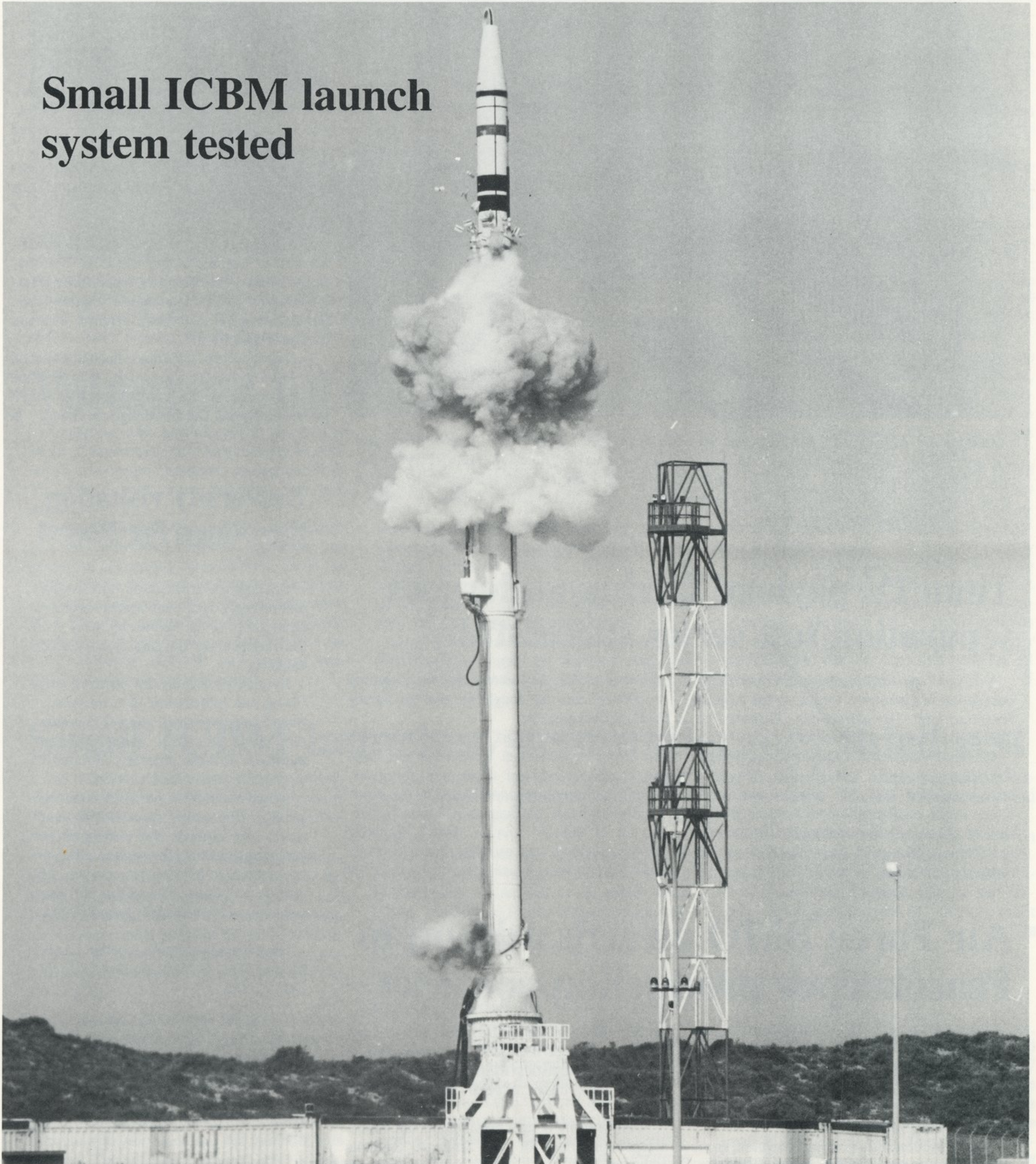
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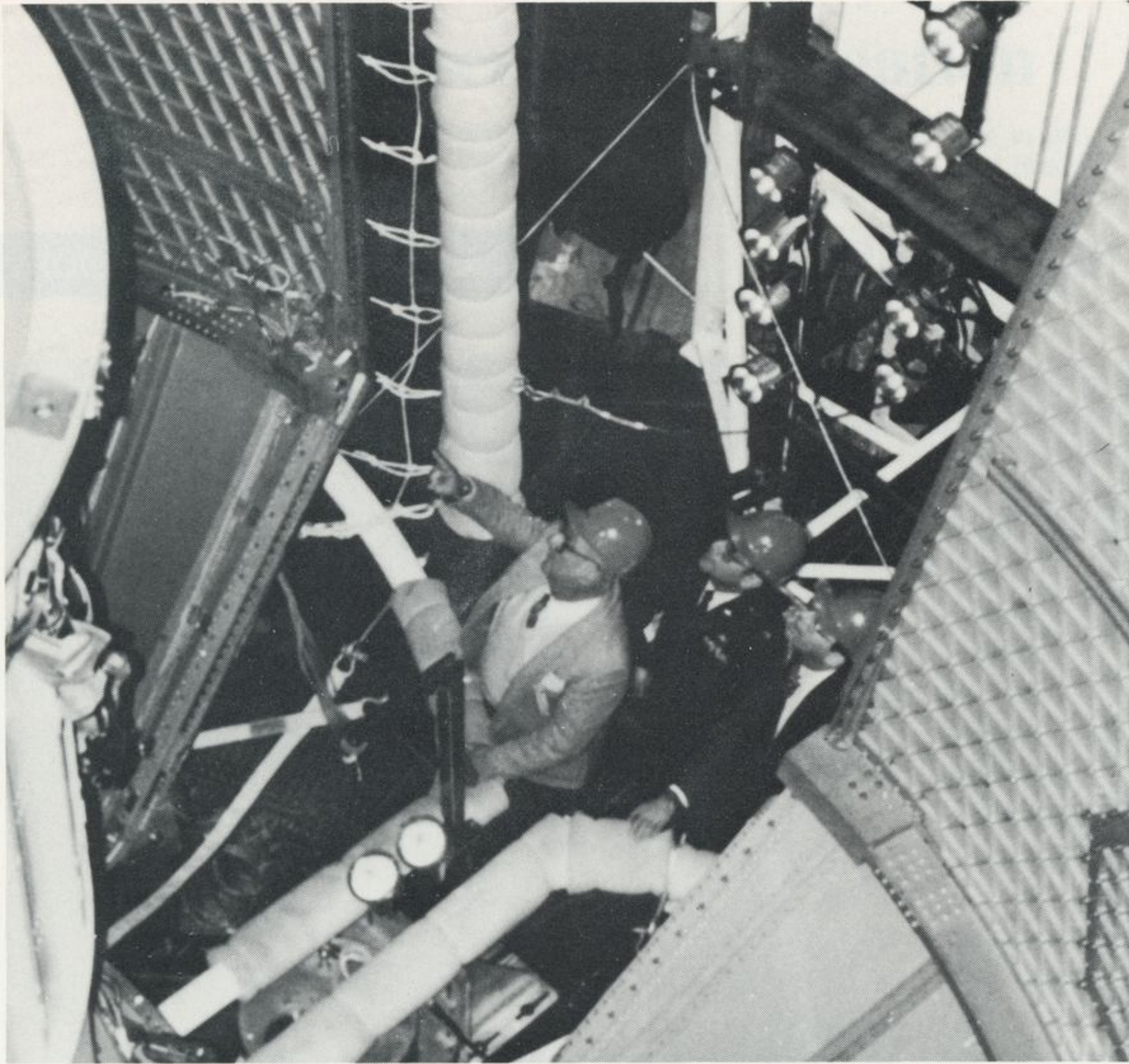
ASTRONAUTICS GROUP

April 22, 1988

Number 8

## Small ICBM launch system tested





*Examining the Titan IV payload fairing in the vacuum chamber in Tennessee after a successful test are, left to right, Alan Schaeffe, vice president and program director, Titan IV program, Space Launch Systems; Col. Sebastian Coglitore, director, Titan IV program office, Air Force Space Division, Los Angeles, Calif.; and James Parker, chief, Space Systems Division, AEDC/DOFS, Arnold Air Force Base, Tenn.*

## Titan IV payload fairing undergoes separation test series successfully

A Titan IV payload fairing in the first flight configuration completed testing at the Arnold Engineering Development Center in Tullahoma, Tenn., on March 8.

Two tests were run in a vacuum chamber at a simulated altitude of 300,000 feet. The first test, completed Jan. 23, demonstrated predicted flight configuration performance. The second test on March 8, demonstrated the off-nominal condition with only two-thirds of the ordnance operational. The payload fairing sep-

arated at 19 feet per second and was captured in series of nets that caught the five-ton fairing without damaging it.

Calspan Corporation, in conjunction with Air Force personnel at Tullahoma, provided the catch system and conducted the tests. Martin Marietta is responsible to the Air Force for development, production and launch services for 23 Titan IV vehicles. Alan L. Schaeffe is vice president and program director of the Titan IV program, Space Launch Systems. ■

## Air Force BMO awards add-on to Peacekeeper production contract

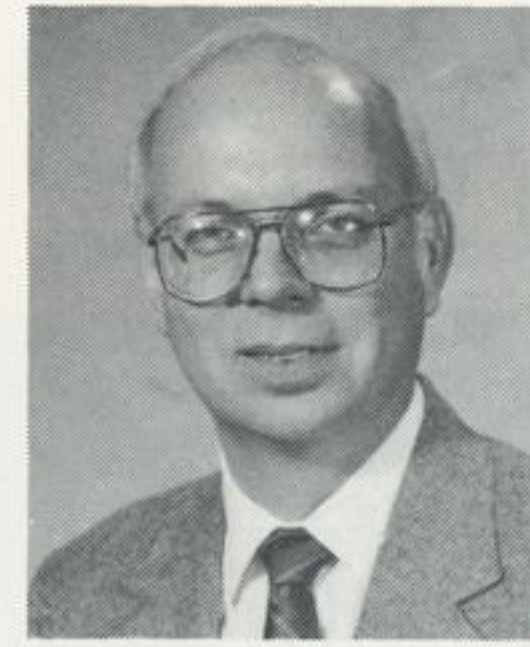
Negotiations have been completed between Martin Marietta and the Air Force Ballistic Missile Office (BMO) for a transportation and handling sustaining engineering contract, an add-on to the current Peacekeeper production contract with BMO.

The \$7 million add-on is for two years, from January 1988 through December 1989. Re-

sponsibility for the transportation and handling equipment then will be transferred to Ogden Air Logistics Center, Hill Air Force Base, Utah, under a prior agreement with BMO.

John Murphy is vice president of the Peacekeeper program for the Strategic Systems company. ■

## O'Connor receives top NASA award



*O'Connor*

The medal is NASA's highest, most respected award.

O'Connor served in a variety of functions during his 10 years with NASA before joining Martin Marietta's Canaveral Operations in May 1987.

During his Air Force assignment to NASA, he headed the Air Force office at Kennedy Space Center, Fla., that was responsible for all Department of Defense shuttle requirements. He also was the Air Force mission manager for Space Shuttle 51C.

In January 1986, O'Connor headed a special task force to handle the search, recovery and reconstruction of NASA's Challenger flight system following the Challenger accident. ■

Ed O'Connor Jr., Commercial Titan manager for Canaveral Operations, Fla., has earned the National Aeronautics and Space Administration's Exceptional Service Medal for his achievements during his employment with NASA.

## University visitation day slated for May 4

Counselors from area universities and colleges will visit Martin Marietta from 2-4 p.m. on Wednesday, May 4, in the Engineering Building second floor cafeteria.

Employees from the Astronautics Group and Information & Communications Systems with an interest in continuing their education under company auspices, or those presently enrolled in a program, are invited to attend.

If employees have questions about eligibility, admissions requirements, curricula and policies for undergraduate and graduate study, the session offers an opportunity to discuss and compare education programs. Counselors will have catalogs, schedules and general literature for distribution.

For more information, contact Cheryl Moore, Ext. 7-4050, or Beth Merrill, Ext. 7-3736.



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# Martin Marietta Scholarship winners announced

Twelve sons and daughters of Astronautics Group employees, 11 in Denver and one at Vandenberg Air Force Base, have been selected to receive Martin Marietta Corporation Foundation scholarships. They are among 50 selected throughout the Corporation.

Each \$3,000 scholarship awarded for the 1988-89 academic year is renewable for three years, provided the student maintains academic standards required by the university or college.

The chairman of the scholarship selection committee was Joshua R. Wheeler, retired former superintendent of Baltimore County Public Schools. Serving with him were Dr. Donald Maley, professor emeritus, Department of Industrial, Technological and Occupational Education at the University of Maryland; and Howard Staley, a retired executive from the Exxon Corporation.

The Foundation Scholarship Committee selects scholarship winners based on secondary school records, Scholastic Aptitude Test (SAT) scores, American College Test (ACT) scores, regional aptitude and achievement tests, letters of application, recommendations from school principals, headmasters and/or guidance counselors and others not associated with the Martin Marietta Corporation and financial need.

Scholarship winners are:



• **Marc Cordova** will graduate from Arapahoe High School this spring and major in electrical engineering in college. His hobbies include playing the guitar, weight lifting, fishing and playing billiards. He is the son of Mr. and Mrs. Jim Cordova. His father is chief, Mission Success for NASA Systems, Space Systems. Marc is a member of the National Honor Society, peer minister at St. Thomas More parish, and an Eagle Scout candidate.



• **Michael Conca**, the son of Mr. and Mrs. Vincent Conca, plans to major in computer science at Colorado State University after graduation from Green Mountain High School. His father is a senior engineer, Technical Operations. His extracurricular activities include astrophotography and computer programming. In addition, he built experimental interfaces for his computer, including a voice digitizer and speech synthesizer.



• **Kirsten Brumley** will graduate from Bear Creek High School this spring and plans to major in business administration in college. She is a member of the National Honor Society and Junior Achievement. Her activities also include art, piano and organ, marching band, dramatic productions, National Forensics League and the Science Bowl, of which she is student director. She is the daughter of Mr. and Mrs. Terry Brumley. Her father is a senior manufacturing engineer, Plant Operations.



• **Erik Habbinga** will graduate from Air Academy High School this spring and plans to major in engineering in college. He is the son of Mr. and Mrs. Richard Habbinga. His father is a senior information systems specialist, Materiel, Plant Operations. Erik is a member of the National Honor Society, and is a National Merit Scholarship Commended Student. His interests include the trumpet and bass guitar, varsity swim team, World Cycling championship, skiing, white-water rafting, camping, reading and repairing electronic equipment.



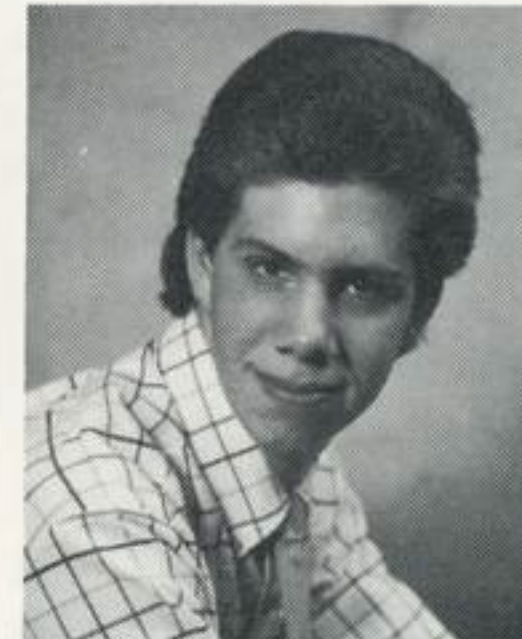
• **Jeanine Huntley**, the daughter of Mr. and Mrs. Gerald W. Huntley, will graduate from Lewis-Palmer High School in May. Her father is a senior design engineer, Systems Engineering, Space Launch Systems. Jeanine is active in the Pikes Peak Rangerettes horse drill team and the Lewis-Palmer Knowledge Bowl team. She also enjoys swimming, drawing, trail riding on horseback, playing clarinet in the school band, reading and woodworking.



• **Michelle Logue** is the daughter of Mr. and Mrs. William M. Logue. She will graduate from Douglas County High School this spring and plans to major in education (math/science) in college. Her activities include work as a teaching aide, teaching religious education, the church youth choir, three 4-H clubs and 4-H council. Michelle is a member of the National Honor Society, marching band, Skyline Honor Band and math club. Her father is a mechanical engineer, Defense Systems, Space Systems.



• **Noel Leibnitz** plans to major in political science upon graduation from Heritage High School this spring. He is a member of the National Honor Society, Key Club, Ecology Club, Students Against Drunk Driving, Youth in Government and the International Relations Club. Noel is the son of Mr. and Mrs. Dale Leibnitz. His father is a staff engineer, Mechanics, Space Launch Systems.



• **Douglas A. Kuehn** is the son of Mr. and Mrs. Dietmar W. Kuehn. His father is a senior creative illustrator at Vandenberg Operations. Douglas will graduate from Lompoc High School this spring. He is a National Merit finalist, winner of the Bank of America Foreign Language contest, plays the guitar, and is senior editor of the school's literary magazine.



• **Kimberly Neumann** plans to study mass communication after graduating from Evergreen Senior High School in May. She has studied dance since the age of three, and also taught dancing. Kimberly has held several offices in school organizations during high school. She is the daughter of Mr. and Mrs. Thomas Neumann. At the time of the award, her father was manager of Materiel, Strategic Systems. He is now director of Materiel for Data Systems.



• **Katherine Peltzer** will graduate from Fairview High School in Boulder this spring, after which she will major in mechanical engineering in college. Her activities in school include the Honor Society, Student Council, Spanish Club (president), Senior Women's Club, Talented and Gifted Program, Boulder Aquateens and Synchronized Swimming team (five years). Katherine is an intern for Cal-Wood Ranch, counseling fifth-grade students, a treasurer for her 4-H club, and is involved in the Safe Ride program of the Students Against Drunk Driving. She is the daughter of Mr. and Mrs. Robert G. Peltzer. Her father is an engineering manager for Defense Systems, Space Systems.

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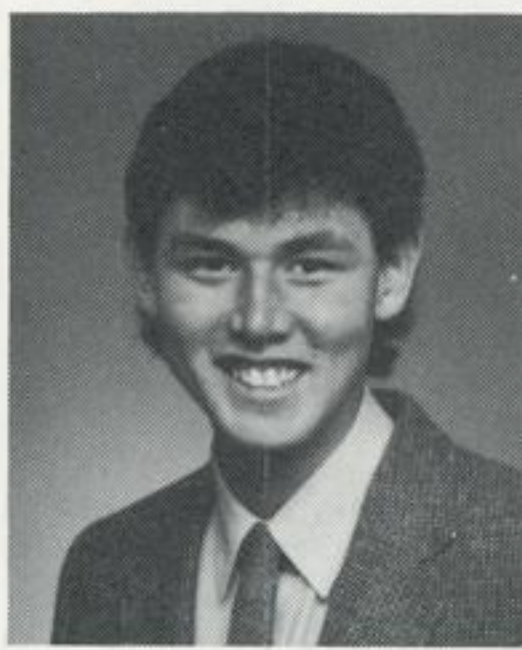
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• *Linda Shapiro* will graduate from Thomas Jefferson High School in June, and plans to study exercise science/pre-physical therapy. She is the daughter of Mr. and Mrs. Michael N. Shapiro. Her father is a senior instructional designer in technology

training for Personnel. Linda is on the school swim team, earned a varsity letter the past four years, and served as co-captain this past season. She is involved with the B'nai B'rith Youth Organizations, has held several offices and received awards from the organization.

Linda also will graduate from the Community High School for Jewish Studies this spring.



• *Christopher Tivel* plans to major in applied mathematics or aerospace engineering after graduating from Air Academy High School in May. His parents are Mr. and Mrs. Wesley Tivel. His father is a staff engineer, Defense Systems,

Space Systems. Chris also attends classes at the University of Colorado at Colorado Springs, runs a computer-based public service bulletin board system, and works at a local restaurant. He enjoys scuba diving and reading.

## Evacuation drills to begin April 27

Beginning April 27, the Plant Protection auxiliary fire/security personnel will begin conducting fire evacuation drills.

When alarms are sounded, all personnel must evacuate their work areas, unless specific arrangements have been authorized by management. Plant Protection and auxiliary personnel will direct employees to the exits and will monitor all areas to ensure complete evacuation of each building.

When the evacuation schedule conflicts with critical activities, management may reschedule the time and date of the drill by contacting Lt. Ted Housley, Ext. 7-3333 or 7-4646.

Fire evacuation drills are scheduled as follows:

- 4/27, 1 p.m., Space Support Building, North and North Addition (SSN/SSNA);
- 4/27, 2 p.m., Nearfield Test Facility;
- 5/13, 10:30 a.m., Littleton Systems Center;
- 5/13, 12 noon, SouthPark I;
- 5/13, 12:30 p.m., SouthPark II;
- 5/13, 1:30 p.m., Ground Electronic Production Systems I;
- 5/13, 2 p.m., Ground Electronic Production Systems II;
- 5/18, 12:30 p.m., Inventory Building;
- 5/18, 1:30 p.m., General Purpose Lab/Vertical Test Factory;
- 5/20, 1:30 p.m., Administration Building, Modules A,B,C Annex/Orb;
- 5/20, 2:15 p.m., Research and Development Lab;
- 5/25, 1 p.m., Space Support Building Modularity;
- 5/25, 2 p.m., Technical Support Building;
- 5/27, 1 p.m., Design to Produce Facility;
- 5/27, 2 p.m., Warehouse II;
- 6/1, 10 a.m., Factory;
- 6/1, 12 noon, Advanced Research Lab;
- 6/3, 1 p.m., Electronic Manufacturing Facility;
- 6/3, 1:30 p.m., Space Simulation Lab;
- 6/3, 2 p.m., Acoustic Vibration Lab;
- 6/8, 1 p.m., Terrace Towers Facility;
- 6/8, 2 p.m. Greenwood Commons;
- 8/10, 1 p.m., Deer Creek Facility;
- 8/17, 1 p.m., Engineering Building. ■



*J. Richard Cook, Technical Operations vice president, standing, far left, presents checks awarded to Paul Dal Pozzo, seated, far right, and Jerry Williams, school principal, standing, center. Seated are inventor Dr. Wayne Simon, and Don Dal Pozzo, Paul's father. Penny Wiedeke, far right, is coordinator of the Mentor Program.*

## Student's suggestion sparks idea for scientist Simon's invention

Thirteen-year old Paul Dal Pozzo received a \$1,000 savings bond to further his education, and a \$500 check went to his Wilmot Elementary School principal for suggestions last year that contributed to an invention by Dr. Wayne Simon, principal scientist, Space Systems.

J. Richard Cook, Technical Operations vice president, presented the awards recently to Dal Pozzo and Jerry Williams, Wilmot Elementary School school principal in Evergreen.

When Paul was in the sixth grade, he participated in the Mentor Program, a program that

matches adults with sixth graders who have a passionate interest in some field. Some of Paul's suggestions acted as a catalyst, Simon said, enabling him to invent a method for controlling the size of hydrogen ice particles during the manufacture of slush hydrogen using ultrasonic waves of a selected wavelength.

Paul is now a seventh grader at Colorado Academy. Simon received \$400 from the Intellectual Property Review Board for his invention, and continues to volunteer his time to the Mentor Program. ■

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April 22, 1988



Junior Achievement volunteers honored for their efforts include, left to right, front row: Rick Rokosz (standing), Lanny Fahlenkamp, Gerald Smith, Don Joy, Bud Bernier, David Murphy and Bruce Kostival. Back row, left to right: John Dwyer, Phil DeLeo, Ed Elliott, Ted Kellogg, Dave Bybee, Sadie Decker, Arnold Roane and Lori Sharp.

## Volunteer advisors honored

Employees who participated in the Denver Metro Chapter of Junior Achievement as advisors or classroom instructors during the 1987-88 school year were honored by their supervisors.

Junior Achievement is a national organization that provides economic education programs for elementary through high school students. Those honored for Project Business, one functional area of JA, included instructors Rick Rokosz, Lanny Fahlenkamp and Gerald Smith; JA advisors Don Joy, Bud Bernier and David Murphy (I&CS); and applied economics instructor Bruce Kostival.

Managers supporting JA advisors include John Dwyer, director, Technology Training; Phil DeLeo, manager, Command Media; Ed Elliott, senior engineer, Titan IV Airborne Structures Design; Ted Kellogg, manager, Subcontracts; Dave Bybee, manager, Product Assurance/Product Operations (I&CS); Sadie Decker, program manager, ELAN; Arnold Roane, director, Administration, Astronautics Group, and a member of the JA board of directors; and Lori Sharp, JA coordinator.

Employees interested in learning more about participating in Junior Achievement may contact Lori Sharp at Ext. 7-6605 or 7-6750. ■

## Small ICBM launch system undergoes third test

The third successful cold launch of a simulated small intercontinental ballistic missile (Small ICBM) took place April 7 at Vandenberg Air Force Base, Calif.

The Air Force Systems Command's Ballistic Missile Office (BMO) is responsible for the Small ICBM development program, and Martin Marietta Strategic Systems is conducting the tests under contract to the Air Force. Strategic Systems is the assembly, test and system support contractor to the Air Force for the Small ICBM.

This was the last of three intended to evaluate the performance of the Small ICBM launch eject system and the effects of a cold launch of an inert Morton Thiokol stage-one motor.

As with the first tests, canister assembly launch test program (CALTP) evaluated the cold launch system and the test launcher subsystems. The test also examined how the mis-

sile interfaces with the test launcher's subsystems, launcher components, the missile handling equipment and facilities at Vandenberg.

Using a gas generator launch system, the missile simulator, which is the same weight (37,000 pounds) and size as the actual Small ICBM, was ejected from a canister to approximately 400 feet and then returned in a pre-designated area within 100 feet of the launch pad.

Working with Martin Marietta Strategic Systems personnel, the Air Force gathered 177 airborne measurements from sensors on the missile simulator and then transmitted them to a launch support building via a "flying cable" connected to the front end of the simulator. In addition to 33 ground measurements, these 210 measurements evaluated ejection dynamics, pressures, temperatures, acoustics, launch seal separation, strain and vibrations

## Work measurement pays off on IFSS

An Air Force Ballistic Missile Office (BMO) team has given the Martin Marietta Astronautics Group high marks for improving performance and reducing costs through the use of work measurement as a management tool.

Michael McGrath, TRW, speaking for the BMO team, said actions taken on the Peacekeeper Instrumentation and Flight Safety System (IFSS) production contract to establish a meaningful work measurement program have "moved Martin Marietta to the point of leadership among BMO contractors." TRW acts as technical consultant to BMO on Air Force contracts.

Information was presented to BMO at the review held in Denver to demonstrate the Astronautics Group's ability to implement and conduct an effective work measurement program. The program involves measuring performance and using the results to make improvements wherever needed. Since the initiative began last July, there has been a 50 percent improvement in performance on IFSS production, department spokesmen said.

"We are very proud of our accomplishments on IFSS production," said Bill Johnstone, manager of Industrial Engineering for Strategic Systems. "We can now demonstrate to BMO that we understand and are using this powerful management tool," he said.

The review included a walk-through of the IFSS production area at the Electronics Manufacturing Facility in Waterton, conducted by Sherman J. Montover, EMF production manager for IFSS.

"There is another, more subtle benefit to having an effective work measurement program—a tangible improvement in work environment," Montover said. "These methods lead to timely problem resolution and foster innovation and pride of accomplishment at all levels of the work force." ■

## On the cover

The canister assembly launch test program, or CALTP, marks the third successful cold launch of a simulated Small ICBM on April 7 at 9:58 a.m. PDT at Vandenberg Air Force Base, Calif. This was the last of three tests scheduled to evaluate the performance of the Small ICBM launch eject system and the effects of a cold launch. ■

# Employee services/recreation

(Note: The Employee Services/Recreation office has moved to Room 242 on the third floor of the Deer Creek Facility, mail stop DC1344. The phone numbers remain the same: Ext. 7-6750 or 7-6605. The department plans a satellite operation at Waterton, at a time and location to be announced. Until the satellite office opens, movie tickets and bus tokens are available at Waterton from Marge Losey, Room 607, SSB, from 1-3:30 p.m. Purchase is by check only.)

**Swimming**—Dennis Casey won the 50-yard butterfly for the second year in a row at the Rocky Mountain Masters Regional Championship swim meet on April 10. Casey, a subcontract administrator for I&CS, also broke three 4-year team records, and swam in a team record-setting medley relay. He also won the 50-yard butterfly event in the Denver Corporate Games for the past two years, and will compete in this year's Corporate Games on June 4. Those interested in competing in the games should call Terry Heggy, Ext. 7-7498.

**Aeroriders**—The motorcycle club will meet at 5 p.m. on May 5 at recreation area picnic tables. Food and beverages will be provided. Contact Paul BETHAUSER, Ext. 1-5574.

**Basketball**—For the sixth time in the past eight years, McCain's Real Estate Company won the Martin Marietta Competitive Basketball League. The team included Larry McCain (coach), Mike Osborne, Clint Winterling, Dennis Long, John Adamson, Mark Willey, Phil Gentry, Geoff Obermeyer and Jim Motsinger.

**Radio Club**—The Waterton Amateur Radio Society will meet at 5 p.m., Tuesday, May 3, in the hamshack at the recreation area. Contact Jeff Owings, Ext. 7-6898.

**Saddle Club**—The club will meet at 7 p.m., Tuesday, May 3, in the SSB cafeteria. Contact Mary Smith, Ext. 1-8154, or Irene Woodzell, Ext. 7-5804.

**Softball Tournament**—The fifth annual Martin Marietta Pre-Season Softball Tournament will be held April 29, 30, and May 1, at the recreation area. A minimum of eight teams will be required in each co-ed, open and competitive division. The entry fee is \$100 per team, payable to the Red Rocks Federal Credit Union at registration. Payment and roster deadline is Friday, April 22, in the Recreation office, Eng. Bldg. 124, at Waterton. Registration forms are in the recreation racks.

**Golf**—The Martin Marietta Partner (Foursome Scramble) Best Ball Golf

Tournament will be held Saturday, May 21, at the Raccoon Creek Golf Course, 7301 W. Bowles Avenue, Littleton. Martin Marietta, I&CS, Data Systems, Air Force employees and retirees are eligible, and must register by May 6. (Note: Register early, before the tournament fills.) The \$35 fee per person is due at registration and includes greens fees, cart, lunch, flight and door prizes. Obtain entry forms from recreation racks Monday, April 25.

**Golf**—Martin Marietta employees *only* who are capable of playing in a "scratch" competition and want to represent Martin Marietta at the Denver Corporate Games on June 4 should contact Randy Sprague, Ext. 7-3878, before April 29 to register for a playoff May 7. Give name, badge, department and estimated handicap. Players will be responsible for their own greens fees. The winner's fees will be reimbursed.

**Denver Corporate Games Volunteers**—Employees and spouses are encouraged to volunteer to assist with the Denver Corporate Games that will be held June 3-4 at various locations in Lakewood. Volunteers are needed for the following events: track, 5-K race, bicycle races, swimming, and the post-games party. Interested employees need to contact Lori Sharp, Ext. 7-6605 or 7-6750, by Wednesday, April 27.

## PSP and SIP open enrollment for all employees slated for month of May

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

During this period, employees may change the percentage deducted from their paychecks for performance sharing. Salaried employees also may change their tax mix (before- or after-tax contribution). The changes become effective the first full pay period in July.

Certain changes 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.

Any salaried employee with at least six months of service is eligible to enroll in the PSP, while any hourly employee with at least 12 months of service by July 1, 1988, can enroll in the SIP. 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:

- Deer Creek, Benefits office, third floor, near south lobby
- DSC I, Personnel, Room 200
- EMF, Lunch room entrance
- Greenwood, Personnel, Building 6020
- Linpro 2, Table by guard station
- LSC, I&CS Benefits office, Room 201 E&F
- TSB, Fifth floor, southeast corner
- TTF, Lobby, near guard station
- SSB, Room 607

Send completed forms to the Employee Benefits office, Deer Creek Facility, Room 3B409, Mail Stop DC1343, no later than Tuesday, May 31.

## Association slates EEO Awareness Workshop

The Career Women's Association will hold an Equal Employment Opportunity Awareness workshop from 5-8 p.m. on Wednesday, April 27, in the MIC room, located on the second floor of Denver Systems Center I.

The workshop will cover awareness of sexual harassment and discrimination. Jerry Pitts, who works in the company's EEO and Affirmative Action office, will lead the workshop.

## People

- Michelle Harrison, math statistician for Quality Engineering, Space Launch Systems, was named Miss Englewood in the March 19 scholarship pageant, and received a \$500 scholarship award. She will compete in the Miss Colorado pageant June 23-25. Harrison will graduate in May from Loretto Heights College with a bachelor's degree in business administration.
- Michelle Andrea Lang, 22-year-old daughter of Anton (Toni) Lang, deputy manager for computer sciences for Defense Systems in the Space Systems company, recently won the Miss Denver scholarship pageant, and will compete in the Miss Colorado pageant in June. Her talent is vocal performance. She is a part-time student at Metropolitan State College, studying graphics.