# MARTIN MARIETTA DENVER AEROSPACE

#### September 6, 1985 Number 18

# Peacekeeper launched from silo for first time

A Peacekeeper intercontinental ballistic missile (ICBM) was successfully launched from an underground silo for the first time Friday, Aug 23, marking the beginning of a new phase in the Peacekeeper development program.

The launch, which occurred at 9:39 a.m. PDT, was the ninth successful Peacekeeper test flight from Vandenberg Air Force Base, CA, and the first from a modified Minuteman test silo. The first eight test flights were from an above-ground canister, while the remaining 11 scheduled test launches will be from silos.

"It was a perfect flight," according to Gen Aloysius Casey, commander of the Air Force Ballistic Missile Office. "The booster performance was within one-tenth of one percent of planned accuracy... all six reentry vehicles also performed as planned."

Friday's launch is important because it signals a transition from test pad launches, in which missile development is the primary objective, to the operational basing development phase, in which the complete Peacekeeper weapon system is tested. The Peacekeepers will be deployed in existing Minuteman silos in Wyoming and Nebraska.

The missile was placed in its silo by the emplacer designed and built by Martin Marietta. The emplacer is capable of lowering and raising the four Peacekeeper stages (a total of about 100 tons) in and out of the silos for assembly and test before launch.

Denver Aerospace is responsible for assembly, test, and system support for the Peacekeeper flight test program at Vandenberg under a contract with the U.S. Air Force's Ballistic Missile Office.

A total of 20 launches are scheduled in the flight test program before deployment begins in early 1986 at Francis E. Warren Air Force Base in Cheyenne, WY. An initial operational capability of 10 missiles is planned for late 1986.

### Workers build Transtage in record time

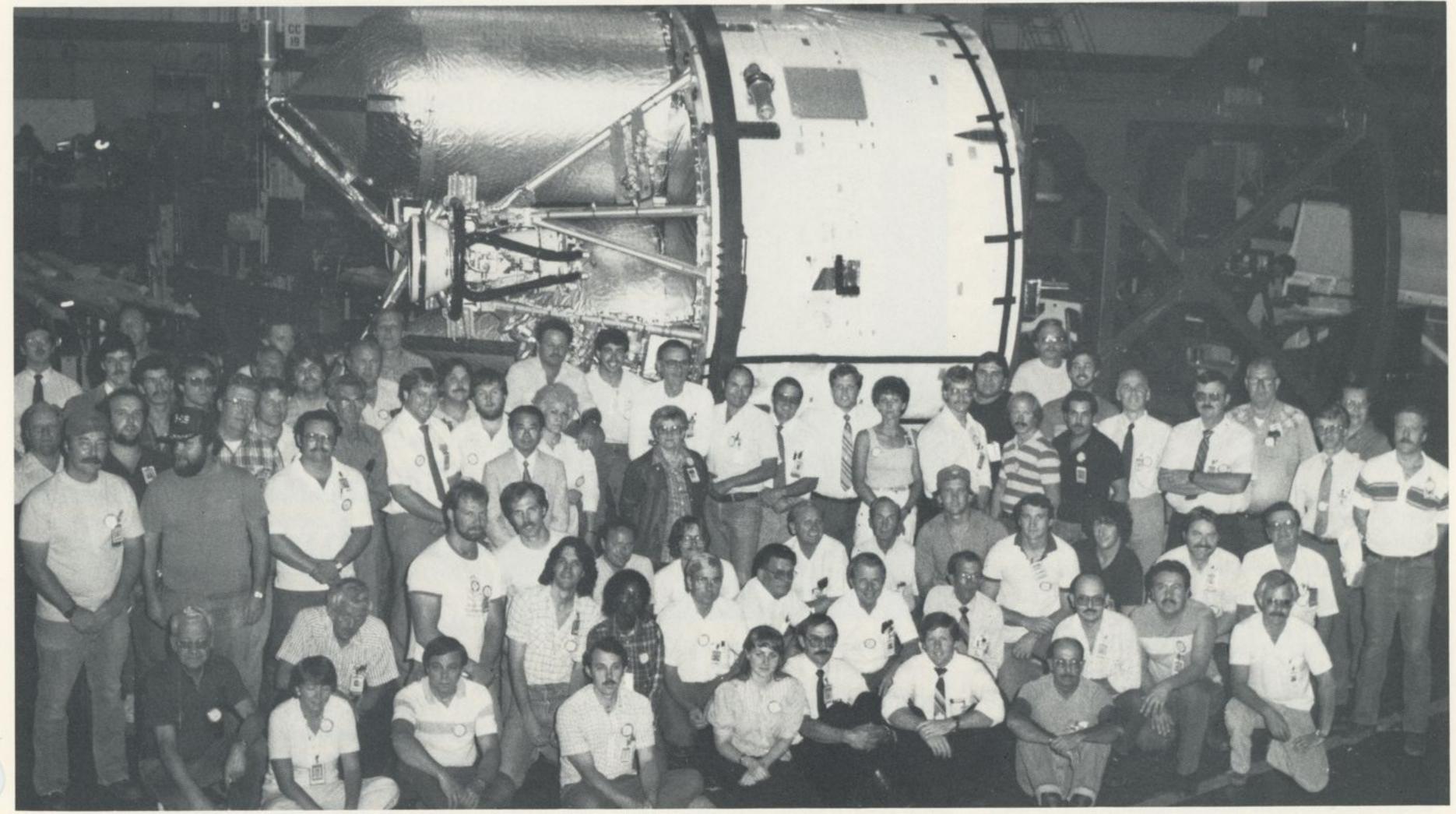
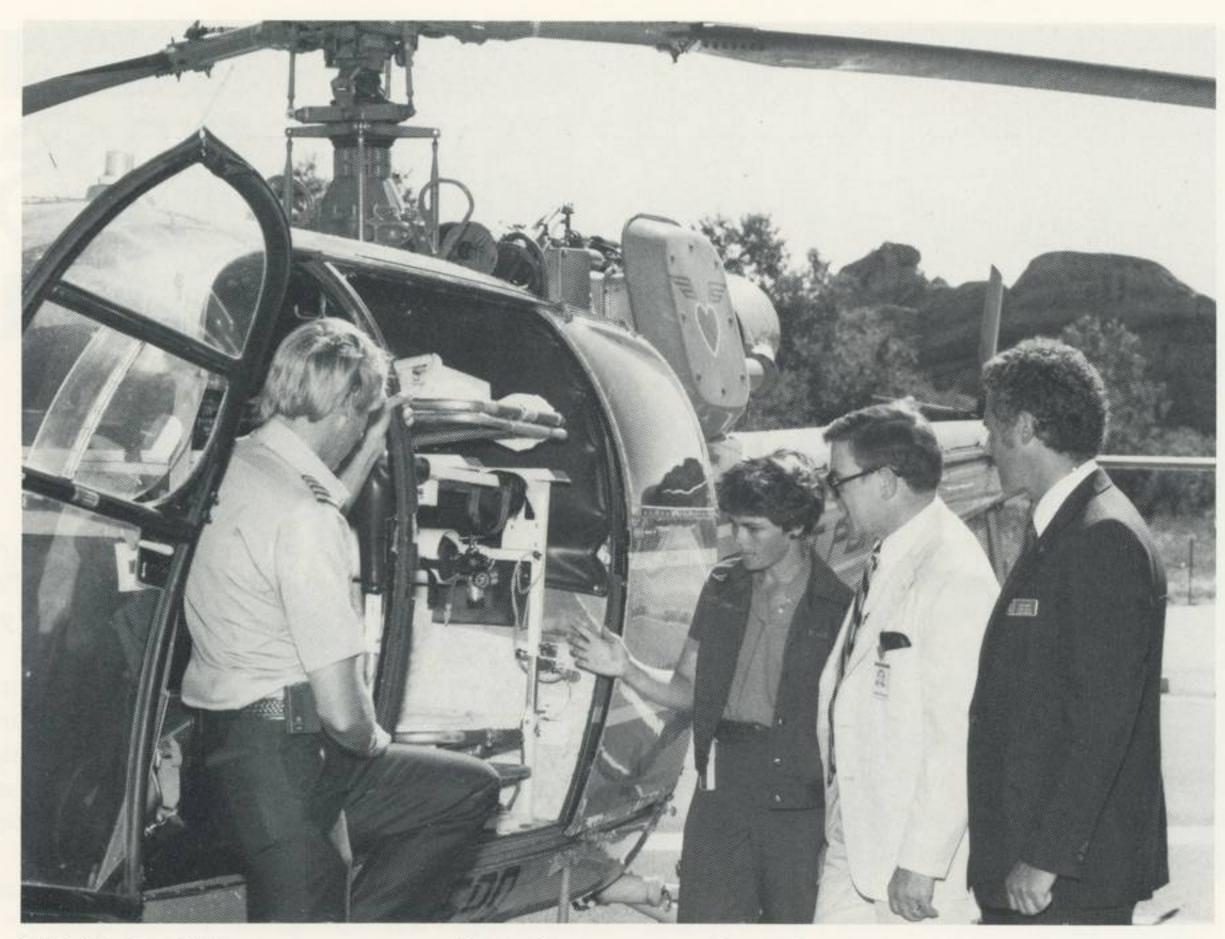


Photo by Don Shacklette

Called a "super effort" by management, more than 250 employees joined forces to fabricate the most recent Transtage for delivery to the Air Force. The group built the Transtage in

14 months to meet the Air Force's accelerated schedule. Employees gather by the Transtage to celebrate the Sept 3 rollout.



Flight for Life program receives Corporate donation

Mike Antonelli, far left, Flight for Life pilot, discusses the rescue helicopter from St. Anthony Hospital with Arthur E. Koski, second from the right, director of Denver Aerospace public relations. Flight nurse Paula White and Don Reich, director of flight operations, are also pictured. Koski presented a \$5000 check from the Martin Marietta Corporation Foundation to Reich for the Flight for Life program.

# Vandenberg employee uses CPR training to save life of friend

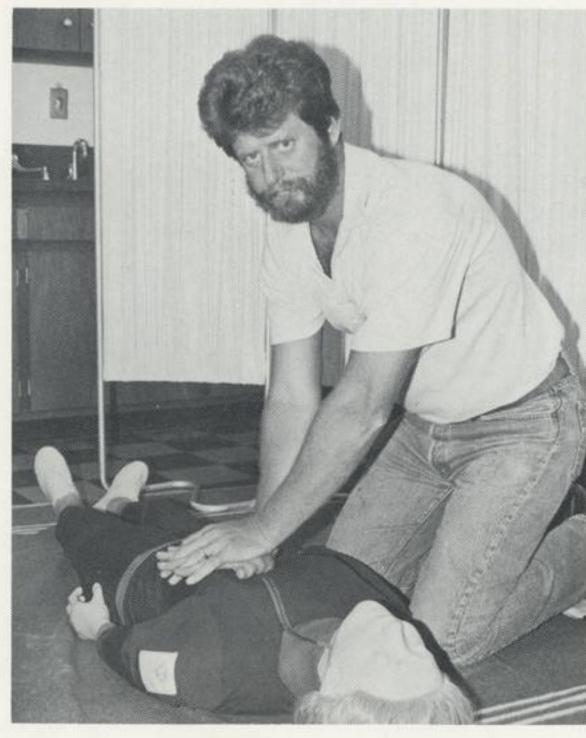
"There was no hesitation—we knew just what to do from the training classes. My wife administered the breathing and I did the chest compressions," recalls Stanley W. Downing, a Titan maintenance and propulsion technician with Vandenberg Operations in California.

Downing and his wife, Shari, a supervisor in the Social Services department for Santa Barbara County, did something while vacationing in Maine this summer that few have done: they saved a man's life.

A family friend who was repairing a truck inadvertently hit a lever that lowered the vehicle, pinning the man's head and neck between the truck's frame and body. The Downings stopped two well drillers who were driving by and the group managed to lift the truck and pull the victim, 38-year-old Dennis Grover, from underneath the vehicle.

Grover had no pulse at that point, and the Downings immediately began cardiopulmonary resuscitation (CPR). "All I could think was 'don't stop breathing again!" Downing said. "I've seen Martin Marietta training films and exercises for five years. I'm sure glad I did!"

It took about a minute to restore Grover's breathing, but he was still un-



Downing demonstrates CPR

conscious. Paramedics arrived about seven minutes from the time they were called.

Grover regained consciousness about nine hours after the accident. Not only did he live to tell about his July near-death experience, but, through the local fire department, has scheduled a CPR class for all his friends and relatives.

## News briefs

# Strategic Systems expanded; executive changes announced

Strategic Systems has been expanded under James A. Sterhardt, Jr., and now includes the Small Intercontinental Ballistic Missile program (SICBM). Sterhardt, formerly vice president and program director for the SICBM program, will direct the expanded operation as vice president of Strategic Systems.

John R. Adamoli, formerly director of missile flight, assembly and test for SICBM, was appointed program director of the SICBM assembly, test & systems support (AT&SS) program, and will report to Sterhardt. Donald G. Gray, formerly deputy director on the SICBM program, was appointed director of engineering for the expanded Strategic Systems operation.

J. Richard Cook, formerly vice president of Strategic Systems, will transfer to Orlando Aerospace to become vice president of the TADS/PNVS program there.

Peter B. Teets, Denver Aerospace president, announced the changes on Wednesday, Aug 28. "The expansion will consolidate all of our strategic programs and enable us to serve our customers more efficiently," Teets said.

#### Cafeteria to serve dinner

In the recent hourly employee survey, second-shift employees at the Waterton facility indicated an interest in dinner service.

Phyllis Montgomery, manager of food and vending services, said the cafeteria, located on the second floor of the Engineering Building, will offer dinner from 7 p.m. to 7:45 p.m. beginning Sept 16.

The menu will include soup, one entree, three vegetables, breads, salads, sandwiches, beverages, and desserts—all served a la carte. The "meal deal" includes an entree, vegetable, roll, butter, and coffee, or tea.

# Company's stock gets high rating

Andrew Leckey, investment advisor for the Denver Post, reported positively on Martin Marietta stock in his Aug 20 column.

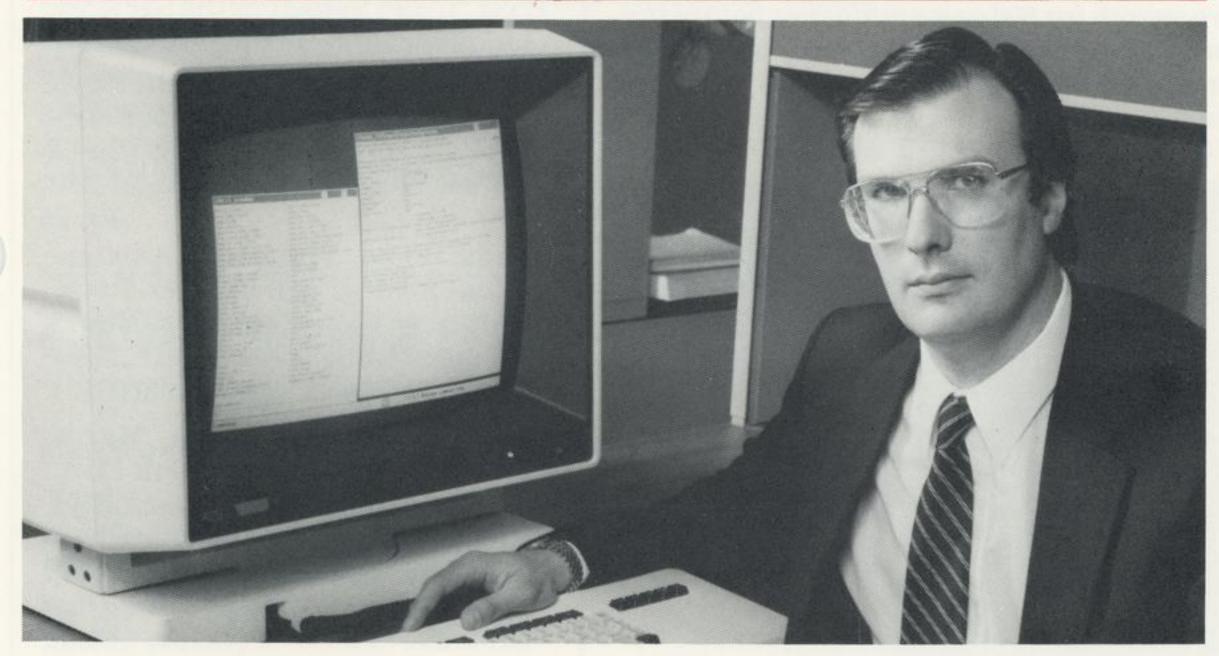
"In light of the fact that Martin Marietta's fundamentals are improving, but its price has declined, now would be a good time to buy this speculative stock, analyst Edmund Greenslet of Merrill Lynch & Co. believes.

"He considers Martin Marietta one of the best companies in the aerospace group in potential and diversity."



#### Serious about safety

Martin Marietta employees at Cape Canaveral Air Force Station assemble part of a Titan rocket at the facility's vertical integration building. The workers have accumulated more than 2,196,833 workhours as of July 31 without a lost-time accident, a record that recently was recognized by the National Safety Council. About 300 Martin Marietta employees support the Air Force's Titan program.



Philip C. Daley's work allows computer users with varying skill levels to use the equipment more easily.

# Daley named one of top innovators in the country by *Science Digest*

Philip C. Daley, program manager of the software department, joined an elite group of scientists and engineers recently when *Science Digest* included him in its annual list of the country's top 100 innovators.

The magazine's list includes innovators fields ranging from medicine and agriculture to aerospace research. Daley's work involves the rapid prototyping of future software and artificial intelligence.

"The work on rapid prototyping is innovative because it attacks the problem of creating an online system to aid the creative process of conceiving, defining, and proving complex, time-sensitive systems that must support human cognitive processing," said Ron A. Bena, IR&D program manager. The work can reduce the development time and risk of extremely large command, control, communications, and intelligence (C<sup>3</sup>I) systems by a factor of 10, Bena added.

Daley has a bachelor of science degree in physics from Trinity College, Conn., with graduate courses in computer science from Rensselaer Polytechnic Institute, in New York, and systems engineering from Colorado State University. He currently is pursuing a master's degree in mathematics from the University of Colorado.

# Cost-saving services now standard

A new team of health care consumer advocates will help employees find quality medical care at reasonable prices.

The team will help employees receive plan benefits and suggest possible alternatives to hospital care, such as outpatient surgery, home health care, and emergency centers and similar free-standing units.

The team, entitled the preadmission certification and continuing stay review (PAC/CSR) panel, becomes part of the Martin Marietta group medical plan for salaried employees' medical plan on Oct 1. When a doctor recommends hospital care, the panel will confirm the treatment or make another recommendation. They will also offer advice about the length of the hospitalization.

The team of specialists will offer free advice to help employees avoid unnecessary costs, discomfort, and risks, and take advantage of the medical plan features.

Packets describing this new provision have been mailed to all employees. This information should be carefully reviewed because it can affect the level of an employee's benefits coverage.



#### Hill wins referral drawing

Michael J. Hill, manufacturing engineer for Peacekeeper, referred Doug Brown to the company and won the Project Referral drawing in July. Hill can attend a space shuttle launch this year as a guest of Martin Marietta.

# Close encounter of Comet Halley to include company equipment



Benton C. Clark with Martin Marietta's sunshade and light flash detector.

Earth next March, sophisticated equipment built by Martin Marietta will provide new information on the composition of these relatively unknown bodies.

Flying aboard the European Space Agency's Giotto spacecraft, which was launched July 2, is a light-flash detector and sunshade built by Denver Aerospace. The equipment is part of an experiment that will be used to detect dust grains from the comet.

The experiment will analyze and transmit the chemical composition of several thousand grains of dust on impact with a platinum target foil before the possible destruction of the spacecraft. Each particle will explode because of the fast flyby of the comet at a relative speed of 150,000 miles per hour.

When Halley's Comet flashes past the Comets are thought to be leftover remnants of the primitive materials from which planets, moons, and asteroids were formed, explained Dr. Benton C. Clark, project manager for the Martin Marietta equipment and a coinvestigator for scientific analysis of the data. "These relatively small chunks of ice and dust may have also contributed importantly to forming the Earth's ocean and atmosphere, making possible the existence of life as we know it," Clark said.

> Giotto will join Soviet and Japanese spacecraft to form one of the most intensively concentrated studies ever performed on a celestial object. Principal investigator of the experiment is Dr. J. Kissel of the Max Planck Institute in Heidelberg.



In Denver to review the OIS-D program are, left to right, William Queen, director of electronics at KSC; Ray Herbert, program manager at OIS-D; operational intercom system-digital, Dave Julseth, deputy program manager OIS-D; Terry Greenfield, NASA division chief, network engineering division; Don Lovall, contract technical manager, communications branch; and Peter Minderman, director of engineering development at KSC.



#### Barry assumes position in Ballistic Missile Office

Brigadier Gen Edward P. Barry, Jr., has been named vice commander of the Ballistic Missile Office and deputy commander for Small ICBM, Space Division, Air Force Systems Command.

Barry had been serving as deputy commander for launch and control systems, Los Angeles Air Force Station, Calif., since March 1985. Barry replaced the late Brigadier Gen David B. Englund.

## New intercom system reviewed by NASA

"It sounds great," according to Peter Minderman, director of engineering development for NASA's Kennedy Space Center (KSC).

And, because sound is the prime requisite of an intercom system, it was ample praise for Martin Marietta representatives at the recent Operational Intercom System-Digital (OIS-D) program review at the Ground Electronics Production System (GEPS) facility.

Following an explanation of the system by Dave Julseth, OIS-D deputy program manager, NASA officials and Martin Marietta personnel donned headphones for a demonstration of the intercom system that will be installed in KSC's mobile launch pads in November and the Centaur Payload Operations Control Center (CPOCC) next summer.

Ray Herbert is program manager for the OIS-D program. The contract was awarded to Martin Marietta in May 1984 for the design and development of a state-of-the-art digital intercom system. It will be used for voice communications to support prelaunch, launch and postlaunch activities and hazardous activities at the center. When completed, the intercom will be able to handle 500 voices at once on as many channels.



#### Quality circle suggests better equipment to save time

The Planetary Sciences Laboratory Quality Circle includes, left to right, Mike Thornton, Judy Cook, Ruth Amundsen, and Pat Thompson. The group presented data to management that indicated more appropriate equipment for research and development and prototype work would result in more effective use of time. Industrial engineering reviewed and approved the estimated annual savings of about \$8,000.

### CORPORATE NEWS

#### Corporation underwrites public television series

Martin Marietta Corporation has provided a major grant for production of ten "On Stage at Wolf Trap" specials for public television at Wolf Trap Farm Park in Virginia. The series, hosted by Beverly Sills, premiered Sept 2 with a one-hour special featuring the Preservation Hall Jazz Band, and continues through the spring of 1987.

"We are delighted to be associated with Beverly Sills and Wolf Trap—this country's only national park for the performing arts," said Thomas G. Pownall, chairman and chief executive officer of Martin Marietta. "The series will enable millions of Americans to share in the enjoyment of this national treasure through public television," Pownall added.

From 1972 to 1977, the Corporation provided funding for the Evening at Pops series, with the late Arthur Fiedler and the Boston Pops, and from 1978 to 1982 for Wall Street Week with Louis Rukeyser.

Additional programs introduced by Beverly Sills that will appear this fall are Mstislav Rostropovich and the National Symphony Orchestra in a performance of Shostakovich's Fifth Symphony on Wednesday, Sept 25; and a performance by Ella Fitzgerald and Oscar Peterson on Tuesday, Nov 26 (check local listings).

# Martin Marietta acquires 25% interest in Equatorial Communications

Martin Marietta Corporation and Equatorial Communications Company have completed a previously announced \$50-million agreement under which Martin Marietta has purchased an equity position in Equatorial Communications, a provider of satellite-based data communications networks.

Equatorial, headquartered at Mountain View, CA, provides small, low-cost micro Earth stations, satellite transmission capacity, and packet-switched network services that enable companies to construct and control their own private data communications networks. It is a publicly held corporation, trading over the NASDAQ national market under the symbol EQUA.

#### Air Force grants high award fee

The Air Force has granted Denver Aerospace an award fee of 93.5 percent for the Peacekeeper assembly, test, and systems support (AT&SS) program, noting that the flight test program's success was an important factor in the excellent evaluation.

The award is for the first period of the new contract (13 1/2 months), from mid-June 1984 to July 31, 1985. The second award period will include the successful launch of a Peacekeeper from an underground silo Aug 23, and will be for a 12-month period from Aug 1, 1985 to July 31, 1986. The third period begins Aug 1, 1986 and ends July 1987.

# Bertuzzi, Burris named directors

Santo B. Bertuzzi has been appointed director of planning, and J. Lee Burris, director of special projects for Denver Aerospace. Both will report to Steven E. Story, vice president of business management.

Bertuzzi replaces Walker L. Fleming, who became director of division audit and management services in April. Bertuzzi previously was director of planning for SICBM. Burris previously was manager of personnel administration.

#### **PSP** values

Unit values for the Performance Sharing Plan (PSP) for July are as follows, with June figures in parentheses for comparison:

- Fund A (indexed equity)
   2.8703296124 (2.8814495500)
- Fund B (fixed income)
   2.1829254732 (2.1616482170)
- Fund C (company stock fund)
   3.91187901285 (3.8410866311)
- Fund D (TRASOP) 1.5416709833 (1.5086252609)

## Titan 34D fails in flight Aug 28

The United States Air Force has confirmed that a Titan 34D launched from Vandenberg Air Force Base, CA, at 2:20 p.m. PDT Aug 28 failed in flight. An investigation is being conducted to determine the cause. The Titan 34D was carrying a classified payload.



#### Hopefuls swarm Martin Marietta job fair

More than 4000 people turned out for Martin Marietta's Career Fair '85 Aug 24 and 25 as Denver Aerospace began its intensive search for 900 new employees before the year's end. Just three hours after the fair began, 1,500 people already had come through the door, said personnel staffing manager Chuck Meno.



Photo by Don Shacklette

#### Survey drawing awards 30 free meal tickets

John Ellegood, a quality laboratory x-ray technician, presents his free lunch ticket at the Waterton facility to Mary Boyle, cashier. John was one of 30 winners drawn from the names of 550 employees who responded to a questionaire that focused on items of concern identified by employee surveys. The 30 winners are Harold Hamblen, Sher Cunningham, Barbara McLean, Bobbie J. Johnson, Betty Jemison, Robert Kimak, L. L. Rudd, Lyle Fellows, Dennis Teusch, Mike Nolan, A. P. Haberkorn, Carol Carson, Marie von Seekamm, Gail M. Ryan, Michelle Valencia, P. Albert, E. H. Richardson, James Kenny, Bonnie Larson, Glen Glass, D. P. Diederich, John G. Brenizer, B. Nickle, David Hollis, Kendall Sevits, B. Schultehenrich, John Ellegood, Jimmy Stoffer, Jim Helton, and Margie Sanchez.

#### Recreation

Volleyball—The fall volleyball season begins Sept 30 and continues through December. Leagues will include Co-ed Competitive from 7-10 p.m. Monday; Co-ed Semi-Competitive from 9-11 p.m. Thursday; Co-ed Recreation from 6-9:30 p.m. Tuesday and Thursday; and the Open League from 7-10 p.m. Friday. Rosters available on recreation racks after Sept 10. Teams must turn in rosters to MS 1304 by Sept 18.

Weight Loss-A seminar on burning excess body fat will be conducted at 5:15 p.m. Monday, Sept 16, in the second floor presentation room of the Engineering Building. Preregistration is not required. Call 7-6605.

Hunting and Fishing-The Skyline Hunting and Fishing Club, Inc., will conduct hunter education classes Sept 17-20 and 23 at DSC I, and Sept 21 at the SH & FC range for a fee of \$7. Preregistration is not necessary. Employees may register Sept 17 and must attend all five evening classes and the range class to complete the course.

Radio-The Waterton Amateur Radio Society will meet at 5 p.m. Sept 10 at the club radio shack in the recreation area. Call Dave Cowdin, 7-6961, for information.

Runners-The following Martin Marietta employees took first place in the corporate team division of the seventh annual Channel 6 10k Road Race Aug 18: Bill Partmentier, Tom Kelecy, Dick Croteau, Paula Perkins, Doug Haas, Alan Lind, Sally Cuffin, Bo Rodriguez, and Jeff Findle. More than 700 runners participated.

#### 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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Photography by Pat Corkery