

Company...
to bid NASA contract
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MARTIN MARIETTA

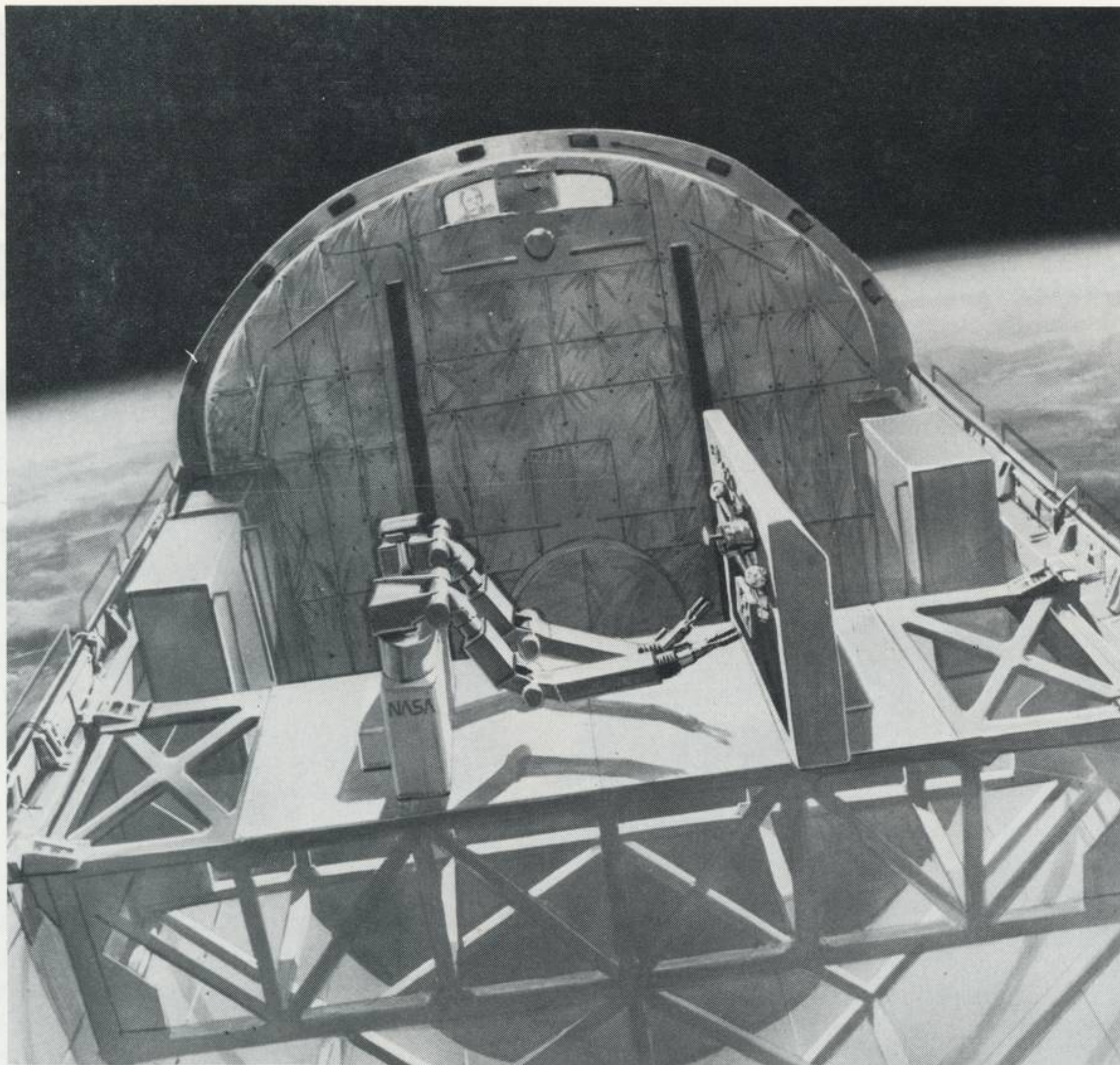
news

ASTRONAUTICS GROUP

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Titan II SLV takes inaugural flight





FTS receives funding for shuttle demonstration

The Flight Telerobotic Servicer (FTS) program in Space Systems has received a contract from NASA's Goddard Space Flight Center in Greenbelt, Maryland, to define a development test flight of key servicer technologies aboard a Space Shuttle flight in 1991. The contract, worth \$4.5 million, will run through June 1989. The test flight will test the ability of Space Shuttle crews to "teleoperate" the space robot from the Shuttle, directing it to accomplish complex tasks. When built, the FTS will help astronauts assemble the Space Station Freedom in the mid-1990s and eventually be able to autonomously service spacecraft. In December 1987 Space Systems was one of two companies awarded \$2 million NASA contracts for preliminary design of the system.

Titans launched from both coasts

Titans were launched from both coasts in the past week, including the first launch of the Titan II as an unmanned expendable launch vehicle.

On Sept. 5, a Titan II was launched from Space Launch Complex Four West at Vandenberg Air Force Base, Calif. The 110-foot booster carried a classified payload into space. It marked the first launch of a Titan II under a current contract Space Launch Systems has with the Air Force to refurbish 14 Titan II intercontinental ballistic missiles (ICBM) as space launch vehicles.

"This is the year of space launch recovery. Today's successful Titan II launch is the first of three new boosters the Air Force will launch in the coming year. The Titan II, Titan IV, and the Delta II are the new generation of boosters for the Air Force. Together they will ensure this nation's access to space for many years to come," said Edward C. (Pete) Aldridge Jr., Secretary of the Air Force.

Space Launch Systems has a nine-year,

\$638.7 million contract to refurbish the Titan IIs, which are able to place up to 4,200 pounds into low-earth orbit. Conversion includes modifying the second stage to accommodate a 10-foot diameter payload fairing, refurbishing the rocket engines, upgrading the inertial guidance systems, adding command-destruct telemetry systems, and manufacturing payload fairings and adapter rings.

"Using deactivated ICBMs modified into space boosters saved us two years and millions of dollars in terms of space launch recovery. Refurbishing the Titan IIs enabled the Air Force to escalate its ability to launch critical national security payloads and provides a more reliable and flexible launch capability for the United States," said Aldridge.

On Sept. 2, a Titan 34D carrying a classified military payload was launched from Cape Canaveral Air Force Station, Florida. Prior to this launch, the most recent 34D launch occurred from Cape Canaveral Nov. 30, 1987. ■

Company teams up to bid NASA contract

Martin Marietta Corporation has teamed with McDonnell Douglas Corporation to bid for the Science and Engineering Technical Support Contract at NASA's Marshall Space Flight Center in Huntsville, Ala.

The contract, expected to be awarded early next year, will provide overall engineering and technical support to seven laboratories at the NASA center.

Martin Marietta will serve as prime contractor for the proposal effort, with McDonnell Douglas assisting as the major subcontractor. Other companies on the Martin Marietta team include Science Applications International Corporation (SAIC), Madison Research Corporation, Applied Research, Inc., and Pratt & Whitney. McDonnell Douglas will provide overall engineering support for the team.

McDonnell Douglas Corporation currently employs more than 500 people in Huntsville who are involved in several contracts with NASA, including Spacelab integration work.

Martin Marietta has work underway on a number of programs for Marshall, including the External Tank for the Space Shuttle; the Tethered Satellite System, an experiment planned for launch on the Space Shuttle in 1991; and the Transfer Orbit Stage, an upper-stage vehicle for Space Shuttle payloads.

In June, Martin Marietta opened a new office in Huntsville for the Science and Engineering effort. About 100 people are now at work on the proposal, and throughout Huntsville, the corporation currently employs about 300 people. ■

Register to vote by October 14

To be able to vote in the Nov. 8 presidential elections, you must register by Oct. 14.

The process takes about ten minutes to complete, and you can register at any court house, city hall, drivers license bureau or county clerk's office (including branch offices) in your precinct. You must have lived in your precinct for at least 32 days prior to registration.

For more information, see the voter information pamphlets in the recreation racks.

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Employees help build Colorado Trail

Beginning at the mouth of Waterton Canyon near the main plant, the Colorado Trail winds through some of the most primitive areas of the Rockies: the Kenosha Mountains, Sawatch Range, Cochetopa Hills, and the mighty San Juans. It rises above Leadville and makes its way along the shadow of the Collegiate Peaks and continues parallel to the Continental Divide before descending to its end near the town of Durango in the southwest corner of the state.

Although the "golden spike" has been driven signifying the linkage and opening of

the trail, volunteers are still working to mark and finish portions of it. In August, Martin Marietta sponsored two Astronautics Group employees to act as leaders to a 24-member crew. Their task was to complete work on a 14-mile section of the trail above Lake City in the San Juan Mountains.

Jeanette Wilson and Rick Zepp, both in Small Programs Quality and Product Assurance at Waterton, participated in a week-long expedition to erect signs and create a path for Colorado Trail hikers. With a year's prior experience on the trail and through the coordi-

nating effort of the U.S. Forest Service, Wilson and Zepp headed up a volunteer group that ranged in age from 10-75 years old. As is the case with many outdoor excursions, Wilson hinted that the trip was a gratifying misery.

"We ran into rain for the first couple of days," she said. "But by the end of the last day I was so tired I didn't even pitch a tent. I didn't care if it rained or not."

Both Wilson and Zepp said they plan to continue volunteering every summer, however.

"It was beautiful," Wilson said. "We saw ferrets, marmots, deer, elk, and some signs of bears and mountain cats." She said the trail winds through meadows and around patches of mountain flowers, and provides beautiful panoramic views.

"Part of the thought when building the trail was to include some spectacular views," Zepp said. "From the trail you can see several peaks over 14,000 feet high."

"The work was tough," he said. "But I didn't think about it during the trip. I got to Spring Creek Pass at the end of the week, sat down, and thought about the tremendous amount of work I had just done. It was a super confidence builder. It really makes you feel good."

Last month, Martin Marietta co-sponsored a ceremony to celebrate the opening of the Colorado Trail's northern trailhead, which included ice cream and a 5-kilometer "fun run" before the event. The opening marked the end of a 15-year effort by the Colorado Trail Foundation to build the 470-mile long trail.

Martin Marietta also printed 5,000 copies of the official trail guidebook.

"Martin Marietta has been a tremendous help," said Roger Gerard, business coordinator for the Colorado Trail. "Under the direction of our publisher, they did all of the work (on the guidebook), and the requests for it have been tremendous. We've had mail orders from all over the U.S. and from as far away as England."

Colorado Trail maps, guidebooks, and merchandise can be purchased through a free catalog that can be obtained by writing: Colorado Trail Foundation, P.O. Box 260876, Lakewood, CO, 80226, or by calling Roger Gerard at 421-7853. ■



Jeanette Wilson (foreground), a Martin Marietta employee, goes to work as a crew leader on the Colorado Trail. The 470-mile long trail begins near Waterton Canyon and cuts through the Rocky Mountains to Durango in the southwest corner of the state.

Martin Marietta to sponsor PBS shows

Martin Marietta is sponsoring 26 programs on the Public Broadcasting Service KRMA-TV, Channel 6, from Oct. 28 to May 5, 1989. Company employees also volunteered for a telethon that raised \$15,811 for the station.

The "Great Performances" television shows will be aired Friday evenings at 9. The programs, described as "public television's premier showcase for music, drama and dance," include "The

Eagle," starring legendary silent-movie actor Rudolph Valentino, and "Nureyev's Cinderella," an innovative new production of "Cinderella" set in the art-deco world of Hollywood.

On Aug. 24, 27 Martin Marietta employees volunteered their time to answer phones and deliver mailings for Channel 6. The five-hour effort landed 317 pledged donations, and the company topped that off by donating \$1,000.

Skipton replaces Weiss as AFCMD commander

Major General Charles P. Skipton has been named Commander of the Air Force Contract Management Division at Kirtland Air Force Base in Albuquerque, N.M.

Formerly the assistant deputy chief of staff for logistics and engineering at the Pentagon, General Skipton will be replacing Major General Bernard L. Weiss, who is retiring after 33 years of service in the Air Force.

The change of command ceremony is scheduled for Sept. 27 at Kirtland. ■

30-year company service noted



Employees with 30 years' service honored at the June recognition luncheon included, standing left to right: Vern Palinckx, Harold Greenfield, Rod Thompson, Jim Deering, Leonard Jeski, Leland Diamond, and Wayne DeWitt. Seated, left to right: Carl Sappenfield, Patrick Vasey, John Frey, Adolph Gutierrez, John Kubik, and William Cliff.



Standing, left to right: Robert Dietz, Jack Branson, Vincent Corbett, George Manelis, Thomas Cassidy, and Carl Malott. Seated, left to right: Frank Brunner, John Quintana, Jerry A. Turco, Kent Koppenheffer, and Arlen Schlaht.

Martin Marietta named SLC-7 Phase One winner

Martin Marietta Space Launch Systems is one of four aerospace contractors to receive \$2 million contracts from the Air Force for Phase 1 studies of Space Launch Complex-7 (SLC-7) at Vandenberg Air Force Base. SLC-7 would provide an alternate launch pad for Titan IVs and accommodate newer, larger Titan configurations.

An announcement Sept. 1 from the Air Force Western Space and Missile Center identified Martin Marietta, General Dynamics, Lockheed and McDonnell Douglas as competitors during the six-month study to develop design concepts for the proposed Titan/Centaur launch complex.

For the past year, a team of about 25 Martin Marietta employees from Denver and Vandenberg has studied locations, configurations, and concepts to support the Air Force's request to develop the overall project (which was part of

the current Titan IV launch vehicle contract).

Concurrent with the concept studies, Martin Marietta was asked by the Air Force to outline its ideas for SLC-7 facilities. This involved defining site preparation, access roads, and power sources.

Once the initial study was completed, the Air Force decided to continue with the project under a two-phase contract.

The first phase of the contract calls for a six-month study to further define initial concepts and allow competitors time to "get educated" on SLC-7, according to Robert L. Robinson, director of the program. Manpower for this phase would be increased slightly.

The second phase will be awarded to a single contractor in mid-1989 and could be worth approximately \$500 million. Manpower in Phase 2 could increase by several hundred. ■

Sexual harassment courses required

All employees who have not yet attended sexual harassment awareness courses through the Equal Employment Opportunity/Affirmative Action Plan department are required to do so by the end of the year.

Sexual harassment is an unlawful employment practice, and Richard E. Weber, vice president of Personnel, has made the program mandatory for those who did not attend the upper management courses last year.

According to U.S. Equal Employment Opportunity Commission (EEOC) guidelines, unwelcomed sexual behavior, advances, requests for sexual favors, deliberate or repeated unsolicited communications or gestures, and other verbal or physical conduct of a sexual nature constitute sexual harassment when any one of the following criteria occur:

- Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment.
- Submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting the individual.
- Such conduct has the purpose or effect of interfering with an individual's work performance or creating an intimidating, hostile or offensive work environment.

"Lack of awareness of the law in this area is no excuse," said Jerry Pitts, EEO personnel administrator. "Prevention of sexual harassment is an important issue. Sexual harassment is unacceptable and cannot be condoned or tolerated in the workplace," she said.

An employee who believes he or she is subjected to sexual harassment should let the offender know it is unwelcome, Pitts said. If the behavior persists, employees should notify their supervisors, personnel management or the EEO department.

"Martin Marietta's top management is committed to eliminating sexual harassment, and (its elimination) depends on every Astronautics Group employee keeping the workplace free of this behavior or any other form of discrimination," Pitts said.

Managers and directors will soon receive training schedules for their employees. For more information, call Pitts at Ext 7-1811 or 7-1423. ■

Technique seeks dinosaur

An acoustic technique developed by scientists at the Oak Ridge National Laboratory (ORNL) for imaging underground features may help paleontologists pinpoint the bones of the longest dinosaur ever discovered—the 110-ft seismosaurus, partially uncovered in New Mexico.

ORNL has developed a computer-based method for creating high-resolution sonic images of buried objects. Dr. Alan Witten of Martin Marietta Energy Systems, which operates ORNL for the Department of Energy, originally devised the technique to locate and identify buried hazardous wastes. ■

Corporate news

Sammet named head of Corporate Ethics

George Sammet Jr. has been named head of the Corporate Ethics Office effective Oct. 1. Sammet, formerly vice president of Materiel for Martin Marietta's Missile Systems company since 1983, will succeed Winant "Si" Sidle, who plans to retire in October after 10 years with the corporation.

Sammet will be responsible for establishing ethics policy and monitoring performance under the corporation's Code of Ethics, for directing employee training in ethics, and for acting as ombudsman for employee concerns on matters of ethics. He will continue as a vice president and report to the president of the corporation.

Sammet will be located in Orlando where he will be available to all employees throughout the corporation at 1-800-338-4427. ■

Slaughter resigns as board member

Martin Marietta Corporation announced the resignation of Dr. John P. Slaughter from its board of directors.

In a letter to Chairman Norman R. Augustine, Dr. Slaughter cited the pressures of his new position as president of Occidental College in Los Angeles as one of his reasons for resigning.

Dr. Slaughter was elected to the Martin Marietta board on Dec. 4, 1986. His departure reduces the board's membership to 13. ■

Labs develop new circuit test process

Martin Marietta Laboratories in Baltimore have developed an artificial intelligence process that tests high-frequency integrated circuit components 20 times faster than methods currently used by electronic component manufacturers.

The technique will use an artificial intelligence computer program to locate potential problem areas on entire sheets, or wafers, of semiconductors that can contain hundreds of microelectronic circuits.

The process places test probes at various locations on a wafer and automatically analyzes the data from all the circuits. The test process will pinpoint faulty circuits, eliminating the need to scrap entire electronic sheets. The program's reliability is expected to cut manufacturers' testing requirements, as well.

The technique will support a component of Martin Marietta's and ITT Corporation's joint venture to develop high-speed circuits under a Department of Defense contract. ■



In July, the Magellan spacecraft underwent thermal vacuum testing at the Space Simulation Laboratory.

Magellan meets all milestones

In January of this year, the Magellan program at Space Systems signed with NASA to an ambitious schedule of milestones to ensure the spacecraft would be ready to launch next April. The timing is especially critical because Magellan, which is traveling to Venus, must be launched within a three-week "window" or wait two years for another launch opportunity.

To date, the program has met 32 milestones on or ahead of schedule. With less than a month left before shipment to Florida for processing, program officials are pleased with this perfect record.

"This is a tremendous testament to the hard work of the entire Magellan team," said Charles D. Brown, Magellan program director. "We set ambitious goals and we met them."

The milestones were comprised of a series of critical tests, including the acoustic vibration test, in which the spacecraft was put into the Reverberant Acoustic Laboratory and subjected to vibrations greater than that of a space shuttle launch. Another key test was the thermal vacuum test in the Space Simulation Laboratory, in which the spacecraft was exposed to the temperature and vacuum extremes it will experience during its 466-day trip to Venus.

The spacecraft currently is undergoing its pre-ship acceptance test, readying for an Oct. 3 departure by truck to Florida. Once at Kennedy Space Center, the spacecraft will be integrated with its radar, high-gain antenna, solar panels and solid rocket motor and prepared for launch. Magellan currently is scheduled to be launched on the Space Shuttle Atlantis on Apr. 28, 1989. ■

Junior Achievement instructors needed

Enthusiastic employees with leadership and business expertise can volunteer to participate in Junior Achievement (JA) programs during the fall school semester. JA is a national, not-for-profit organization that provides economic education programs to students in the 5th through 12th grades.

Employees can participate in one of three programs. "Project Business" instructors teach one hour a week in an 8th or 9th grade social studies class. Applied economics consultants teach one hour a week in a high school business class and guide students in forming a company and marketing a product. In the JA evening program, employees in the role of advisors assist high school students in the finance, production, and marketing aspects of a JA company.

Martin Marietta-sponsored JA companies in the '87-'88 school year won several awards, including Management Company of the Year and second place Company of the Year.

Training is provided for program volunteers. Employees interested in participating can obtain details by calling JA Coordinator, Lori Sharp, Ext 7-6605 or 7-6750 by Sept. 16. ■

Romer and Teets keynote speakers

Governor Roy Romer and Peter B. Teets are the keynote speakers for a Martin Marietta Denver Chapter of the National Management Association dinner, scheduled for Sept. 20, beginning at 5:30 p.m.

The topic is "Aerospace and the state of Colorado—A management challenge for the 1990s," and will be presented at the Hilton South, 7801 E. Orchard Road.

Admission is \$20 for members and \$22 for nonmembers. The evening includes a cash bar and dinner before the program. To make reservations contact one of the boosters in your area:

Hal Wallace,
Adm/Eng/Inv/Orb 977-4161
Jack Ballard, Deer Creek . . 971-7792
Dave Stover, EMF 977-3807
Jim Wolf, Inverness 790-3425
Dee Dickerson,
GCF/TTF 971-1596
Russ Chihoski,
LPF/DSC/WPF 971-5375
Dick Sides,
LSC/SPW/Viewpoint 977-2630
Richard Haywood,
SLF/SSB/SSL/SSN 977-6977
John Turcheck,
IGL/MFG/RDL 977-5912
Angela Stefanelli,
All Other Locations 790-3534

Employee services/recreation

Mile Hi L5 Space Society—The club will meet at 7 p.m., Friday, Sept. 9 at the South Park West facility. To register nonemployee guests, contact Barry Tuell at Ext 7-8137 or 973-7874.

Smoking Cessation Classes—This fall, quit for good. Free smoking cessation classes are available to all Martin Marietta and Air Force personnel, their spouses and dependents. Classes consist of four meetings from 5:00-6:30 p.m., Sept. 12, 15, 19 and 22 at Goddard Middle School. Classes will also be offered in October and November. To register, complete the form in the Martin Marietta education catalogue or obtain the "Fresh Start" flyer from the Employee Services racks.

Hunter Education Classes—Classes will be held Sept. 13-16, 7-9:30 p.m. at DSC I and Sept. 17, 8 a.m.-1 p.m. at the Skyline Hunting and Fishing Club Range. Those enrolled must attend all classes. A minimum of 10 students is needed at the first class to continue classes. The cost is \$7, and there is no need to preregister. October and November classes will also be offered—location to be determined. For more information, contact instructor Dick Benson at his home, 985-3728, or Recreation, Ext 7-6605 or 7-6750.

LSC Toastmasters—Improve communication skills and gain self-confidence. Attend Toastmasters Club meetings on Wednesdays at 4:30 p.m., Room 209G at LSC. For information, contact Jim Harrer, Ext 7-4588, or Alex Hubert, Ext 7-6520.

Satellite Ski Club—The club will have its annual picnic Sept. 16 at the recreation area for members and prospective members. ASA Skiamericards and Gold C books will be sold. For more information, see the flyers in the Employee Services racks, or call Steve Packard, Ext 7-3830, Jane Baumann, Ext 7-4977, or Ben Porter, Ext 1-1421.

Commodore Users Group—The club will meet at 5 p.m., Tuesday, Sept. 20 in the recreation area clubhouse. For further information, contact Dan Whittemore, Ext 7-6324, or Chuck Barton, Ext 7-9950.

Titan Toastmasters—The group meets 6 p.m. Mondays at Mission Trujillo Restaurant, 181 Ridge Road (Broadway and Ridge Road). Contact Mark Willey, Ext 1-6183.

Parapsychology Club—The group will meet from 5-7 p.m., Thursday, Sept. 15 in the cafeteria at LSC. Nonemployees are welcome to attend, but corporate policy requires a minimum age of 16. Employees must provide escorts for their guests and give names of guests to Janna Winkel, Ext 7-7814, or Helen Hussander, Ext 1-6887.

Scuba Club—The Fathom Divers Club will take a Thanksgiving dive trip to Cozumel, Nov. 19-26. The cost is \$825.00 for club members and \$850.00 for nonmembers. The trip includes round trip airfare from Denver, 7 nights lodging, 5 dives, and other extras. A \$150.00 deposit will hold a reservation. For additional information, contact Bob Rowe, Ext 7-6589, or Peggy Miller, 361-4924.

Renovations begin on factory's 2nd floor

As a result of the increased demand for Titan launch vehicles, a factory modernization team under Eugene Horak has developed an 18-month plan to reorganize and speed production on the assembly floor of the factory by installing new equipment and implementing new procedures.

By analyzing and identifying ways to simplify work processes, the team plans to reduce weld defects and repair time by installing new equipment, including a state-of-the-art central x-ray/process control system. The system will allow workers to check welds in their immediate work area instead of moving major flight hardware assemblies (which can be up to 40 feet long and 10 feet in diameter) to x-ray facilities on the opposite end of the assembly floor.

The outside vendors providing this equipment will assist the team during the implementation phase to ensure a smooth transition with minimal production interruption.

Other process assembly improvements include removing tools with no forecasted need and reorganizing tools to orient a "production-line" flow. The multimillion dollar face-lift also includes replacing all the old lighting fixtures with a more powerful lighting system, expanding the Booster Integrity Test (BIT) area, consolidating work centers, and cleaning the entire facility.

Specific areas to be upgraded are the electrical harness line, BIT area, and the hydro test facility. Other upgrades include refurbishment of the paint booth, a new automated storage and retrieval system, and new hand tools. ■

Employee survey results gaining attention

The results of the employee survey have entered the problem solving stage.

Presidents, vice presidents, directors and managers have met to receive their department's results. Some middle managers have met with their employees to discuss issues of concern and to identify ways to improve problems.

Martin Marietta Astronautics Group senior management will meet on Sept. 12 and 13 to discuss broad organizational concerns identified by the survey.

"Many managers and directors have reported that the survey meetings have proven to be valuable," said John Hallen, director of Organization and Management Development.

If you have a suggestion for action, it should be reported to the appropriate directors by the end of September. ■



Mile High
United
Way

AIDS videotape now available

A straightforward, information videotape examining AIDS is available for checkout from the Employee Services office. The 1/2-inch tape features the U.S. Surgeon General answering commonly asked questions concerning AIDS.

Employees interested in viewing this tape at home can obtain it from the Employee Services office, Room 407C, 3rd Floor, Deer Creek, Ext 7-6750 or 7-6605. ■

Sheep habitat burn postponed

A shortage of firefighters has caused the U.S. Forest Service to postpone the controlled burn of 1,000 acres in Waterton Canyon originally set for August.

The burn was planned to improve the habitat for a herd of Rocky Mountain bighorn sheep that live in the canyon. Martin Marietta previously assisted the Forest Service with controlled burns of the canyon in 1984 and 1986.

Todd Kisling, general foreman in environmental operations and project leader of the burn, said the Forest Service postponed the burn until next year because of the shortage of firefighters resulting from extensive forest fires in Wyoming and other western states.

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