

February 23, 1990 Number 4

Mars vehicle studied



Group denies health department charges

(Editors note: The following is the Astronautics Group's response submitted to local media regarding the compliance order filed by the Colorado Department of Health.)

"On Feb. 16, Martin Marietta received a compliance order from the Colorado Department of Health citing 22 alleged violations of hazardous waste laws. Martin Marietta categorically denies each and every one.

"Martin Marietta is committed to full compliance with the letter and spirit of all environmental laws and regulations."

—Peter B. Teets

"The alleged violations stemmed from the removal of sludge from a formerly used aeration pond at our main plant at Waterton. We have carefully analyzed the sludge and know it is not a hazardous material. Nothing in the sludge makes it a hazardous waste and

nothing in it would constitute a threat to public health or the environment.

"To allay concerns expressed by the Colorado Department of Health, we did send the waste to a licensed hazardous waste facility as a precautionary measure. The health department stated on Oct. 13, 1989, that, 'Because the sludge was disposed of at a hazardous waste facility, the Department does not believe an illegal disposal under the Colorado Hazardous Waste Act has occurred.'

"Martin Marietta is disturbed by the charges from the health department, since we have been working with them and having technical discussions on this issue since last year. It must be emphasized that this matter relates to administrative interpretations of complex environmental regulations, and in no way presents a current or future threat to public health or the environment.

"Martin Marietta is committed to full compliance with the letter and spirit of all environmental laws and regulations," said Peter B. Teets, Astronautics Group president.

"We have spent more than \$50 million over the past several years modernizing and operating our environmental management systems."

Preventive drug program started

Early this month, the Astronautics Group initiated the newest phase of a corporate-wide program to deter the use of illegal drugs. This is the implementation of a Preventive Drug Test Program. Initially, this program provides for the unscheduled and unannounced testing of individuals who are classified as vice president and above, as well as all members of the executive staff. The first tests were conducted on Feb. 5, and it is anticipated that the program will be expanded later to include other members of the Astronautics Group.

Personnel switches to Human Resources

The Corporation has changed the name of the Personnel organization to Human Resources, effective immediately.

According to an internal announcement about the name change, the new title more aptly reflects the strategic planning and management focus required to carry out this significant organizational responsibility.

Stanley F. Albrecht is the Astronautics Group's vice president of Human Resources.

Corporate news

Corporation receives \$194.4 million contract

The Corporation has received a \$194.4 million U.S. Air Force contract for 120 additional electro-optic targeting pods for the LANTIRN system, which enables fighter pilots to strike ground targets at night with unprecedented accuracy.

LANTIRN, the Low-Altitude Navigation and Targeting Infrared System for Night, consists of two pods mounted on F-15E and F-16 fighters. The targeting pod, an advanced technology fire control system, is used in conjunction with a navigation pod that allows pilots to fly safely at low altitudes in total darkness and in poor visibility weather at speeds exceeding 500 mph. Since 1983, Air Force pilots have flown more than 6,400 LANTIRN missions.

U.S. Air Force orders for LANTIRN now total 561 navigation pods, 441 targeting pods, and 26 field support systems. Electronic Systems has delivered 102 navigation pods, eight targeting pods, and nine support systems to the Air Force, all on or ahead of schedule.

Derivative systems employing LANTIRN technology also have been approved for sale to Israel and to the Arab Republic of Egypt.



Small ICBM seminar conducted

Gareth D. Flora, president of Strategic Systems, left, and Don Eagen, Small ICBM program director for Strategic Systems, middle, meet with Col. William F. Moore, Small ICBM program director, Ballistic Systems Division, during a Small ICBM subcontractors seminar this month. Eighteen subcontractors for the Small ICBM program met to discuss Total Quality Management initiatives, including teamwork, at the Deer Creek Facility.



Students explore FTS

Dan Demcak, a CAE/CAD/CAM Technical Support Coordinator for the Flight Telerobotic Servicers program, center, demonstrates a computer-aided design system for FTS to students from Denver-area schools. As part of the Career Exploring Program, the company sponsors more than 100 students in two programs: those who desire careers in computer engineering and students interested in aerospace engineering.

United Way volunteers needed to tell stories

The Astronautics Group is looking for employees who have benefited from a United Way agency's services, or from volunteering, to tell their stories in a special video for the upcoming 1990 Pacesetter campaign.

Employees interested in sharing exciting United Way experiences should contact Barb Riney at Ext. 1-5308 or Jane Dolin at Ext. 1-4620.

This year's video will feature employees' first-hand stories about United Way involvement and the importance of supporting local agencies through donations of time and money.

Galileo passes over Venus

The Galileo spacecraft passed about 10,000 miles above Venus earlier this month, taking pictures, looking for lightning, and studying gases in the atmosphere.

Space Systems built the attitude and articulation control system electronics and three of the six instruments on board its probe, which now is traveling at about 88,740 mph relative to the sun toward a Dec. 22 Earth flyby. The spacecraft will pass the Earth one more time, in December 1992, before completing its six-year trip to Jupiter.

Take time to check off for homeless prevention

The stereotyped image of the homeless is one of people ravaged by substance abuse, mental illness, and long-term unemployment. But the realities are very different.

In Colorado, more than 66 percent of homeless citizens were productive wage earners who lost their homes because of sudden tragedies like long-term layoffs.

Now, thanks to a bill passed by the Colorado legislature, taxpayers can contribute a portion of their tax refunds to groups dedicated to preventing homelessness.

Simply check the designated box on the state income tax form and specify a specific donation amount.

These dollars will be used to provide emergency rent, counseling, and employment services to needy families.

Long periods of time spent in shelters makes it difficult to maintain appearances. That makes job hunting tough.

People who run homeless shelters say that the emotional toll is devastating, and searching for jobs is very hard.

They add that keeping a family from becoming homeless usually means making a rent payment of about \$450 to pull things together.

Trailblazer testing eases launch processing puzzle

Testing conducted by members of a Titan IV Trailblazer team has enabled the corporation to save time and money by identifying satellite interface problems and solving them before arrival at the launch site, said Clint Turner, Titan IV payload integration engineer.

One specific example of this successful testing is the identification of an operational damage risk to payload fairing acoustic blankets near the satellite and upper stage mating interface. If this situation had been encountered at the launch site, and blankets were damaged, the program would be delayed for several hours or days while the blankets were repaired or replaced.

Turner said, as a result of Trailblazer testing, several solutions to this blanket problem have been considered and it appears that all Titan IV payload fairings will eventually use a new, more durable acoustic blanket material.

The testing, conducted last year at the Vertical Test Facility (VTF), focused on simulating satellite, upper stage, payload fairing, and facility launch processing operations as they exist at Cape Canaveral. The VTF, composed of several test cells, has one test cell dedicated to Titan IV Trailblazer testing. The cell simulates high-fidelity flight hardware and unique access platform and diving board mock-ups.

"...we have eliminated numerous questions and problems that in turn can produce more efficient launch processing activities."

—Clint Turner

Other significant findings included the need for additional protection for sensitive upper stage wiring and avionics components and a new requirement to protect satellite vehicle solar arrays during ground processing. Moreover, testing allowed the satellite contractor an opportunity to finalize methods for difficult propellant loading operations.

"We've found that without this testing we would have been at the Cape encountering these problems, but without the solutions Trailblazer testing has uncovered," Turner said. "Quite obviously that could have resulted in major cost and scheduling problems."

"By spending time at the VTF, we have eliminated numerous questions and problems that in turn can produce more efficient launch processing activities."

Turner also said that Trailblazer testing produces "the kind of advanced planning and Total Quality Management effort required to produce launch operations that support our customers' accelerated launch rate requirements."

Approximately 75 Astronautics Group and Space Launch Systems employees teamed with more than 125 Air Force, aerospace, satellite, upper stage, and payload fairing personnel for this unique testing opportunity.

On the cover

Shown on the cover is graphic artist Bob Murray's concept of the Nuclear Rocket Using Indigenous Martian Fuel that the Astronautics Group is studying as part of the Earth-Moon-Mars initiative. This ascent, descent, and exploratory vehicle is designed to use martian atmospheric carbon dioxide as a propellant, allowing exploration of a variety of different parts of the planet. From the top of the concept down is a parachute compartment, control deck, habitation deck, carbon dioxide compressors, main carbon dioxide propellant tank, and a reactor surrounded by a coaxial propellant tank for extra shielding.

One-hour Macintosh training available

The Internal Information Systems' Denver Account Training & Education department now is presenting one-hour focused Macintosh computer training on specific high-interest topics.

In the past, computer training opportunities for most employees have been limited to the regular, comprehensive, all-day classes or after work through the Evening Institute. As a result, there has been an expressed need for additional on-site, in-depth training as many employees have a difficult time taking a whole day for regular training.

The new one-hour sessions are designed for experienced Macintosh users and are not meant as a replacement for the more comprehensive all-day classes or similar training that is essential for beginning users or introductory levels of new software.

Currently, the one-hour modular training is conducted in conference rooms where the instructor presents information on a Macintosh computer with overhead projection. At the same time, up to ten active participants can use lab computers to follow along and reinforce the hands-on presentation.

For additional information and specific class schedules, please contact the Training & Education department at 790-3634. ■

Augustine to address CWA annual dinner

Norman R. Augustine, chairman and chief executive officer, will be the featured speaker at the Career Women's Association's annual dinner March 15 at the Hyatt Regency Hotel, Denver Tech Center.

Employees and guests are invited to attend the dinner for \$25 per person. Seating is limited, and required reservations can be made by contacting Rita Soto at Ext. 1-7355 or Sherri Clint at Ext. 1-2286.

Augustine earned bachelor and masters degrees in aeronautical engineering in 1957 and 1959, respectively, from Princeton University.

BSD consolidated with SSD

As part of a Department of Defense-wide effort to further streamline acquisition management, the Pentagon has announced that the Air Force Systems Command's Ballistic Systems Division will be disestablished effective early this year.

Major program functions (Peacekeeper, Small ICBM) currently managed by BSD will become part of the Air Force's newly created Program Executive Officer structure. Reorganizing BSD's major program management is designed to streamline acquisition efforts under

the auspices of DOD's Defense Management Report.

BSD's remaining program development and support functions will be consolidated under Space Systems Division headquartered at Los Angeles Air Force Base, Calif. Integrating the remaining BSD functions into SSD will create a streamlined AFSC product division charged with acquisition and development of space launch and ballistic missile systems, the Air Force said. ■

30 years of service



Employees achieving 30 years of service in 1989 were honored recently at luncheons. Honorees include, standing, left to right: Jack Malloy, Neil Reese, Robert Krause, Bill Bevington, Harry McMurtry, and Luther Archuleta. Seated, left to right: Marge Losey, Charles Hysaw, Lou Wiggins, George Larrabee, and Mike Kess.



Standing, left to right: Bob Przekwas, Tom Callan, Bobby Cooke, Chuck Bird, Wayne Cooper, and Loren Martin. Seated, left to right: Ilene Burkitt, Dick Seymour, Irma Jean Guire, Herb Stertz, and Jerry Reynolds.

Corporate audit set for March 5

An audit team from Bethesda will conduct a week-long technical audit beginning March 5 at the Astronautics Group.

Last year, the Astronautics Group got a perfect eight greens during an Air Force Contractor Operations Review (COR) audit.

The upcoming audit, affecting all facilities, will have five objectives:

- To see if the company is complying with corporate policies and operating instructions;
- To determine the status of the Astronautics Group companies' P³ (policies, procedures, and practices);
- To evaluate the attitudes, training, and day-to-day operations of the work force in carrying out assigned functions;
- To verify the completion of the findings, observations, and action items from the corporate audit conducted in September 1988;
- To provide a "readiness check" for any future Air Force COR audits.

The corporate audit, conducted in the same fashion as an Air Force COR, will be run by a 53-member audit team headed by Art Welch, vice president of Product Assurance, and Richard Greenspun, director of Corporate Technical Audits.

The team is made up of people throughout the corporation who are experts in the areas they audit. This year, at corporate's invitation, the local Air Force Plant Representative's Office will provide 10 audit team members.

The corporate audit has eight categories: engineering and design management, industrial material management, manufacturing operations, quality assurance, product integrity, safety, subcontract management, and contract administration.

During the review, auditors will visit employees in numerous work areas, asking questions regarding specific work methods. The questions are designed to determine the adequacy of the Astronautics Group's P³ and how well individuals follow policies and procedures.

"Our command media and our commitment to TQM require that we be in a constant state of preparedness for audits, including CORs," James A. Sterhardt, vice president of Production Operations, said. "This year the audit will provide a 'snap-shot' of the Astronautics Group's processes and procedures.

"I'm confident the results of the corporate COR will help us improve our operations," Sterhardt said. ■

Things to remember for corporate reviews

As with any review, a few basic guidelines will help ensure a successful audit.

For next month's corporate audit, James A. Sterhardt, vice president of Production Operations, stresses the importance of keeping work areas clean. He also has provided some do's and don'ts to prepare for the audit.

- Purge your area of unnecessary items such as excess paper and hardware.
- Do not stack shelves in such a manner that the load is top-heavy or can shift. If it looks shaky, it probably is unsafe.
- Put chemicals in proper storage containers, appropriately identified, and in designated storage areas.
- Use common sense when it comes to neatness. Your work area reflects your professionalism.

By following these simple steps and performing a personal audit to self-check areas, the Astronautics Group should have no problem continuing its excellent record.

Credit Union celebrates 10th anniversary

With more than 11,500 members and about \$27 million in assets, the Red Rocks Federal Credit Union has concluded a successful first decade of serving Astronautics Group employees.

Established on Valentine's Day in 1980, and named for unique rock formations at the Main Plant, the credit union was opened because of high interest voiced in a 1979 employee survey.

Within the first three years, the credit union obtained more than 4,000 members and had \$2 million in assets. Since then, three new locations, with more than 20 employees, have been created to serve members.

All employees of the Astronautics Group, Internal Information Systems, Information & Communications Systems, the Air Force Plant Representative's Office, and the Defense Contract Audit Agency, and their immediate family members are eligible to join the credit union.

The credit union offers share (savings) accounts, share draft (checking) accounts, IRA accounts, certificates of deposit, first mortgages, home equity loans, all types of consumer loans, and credit and debit cards with check guarantee and overdraft protection.

Accounts up to \$100,000 are federally insured by the National Credit Union Administration.



Red Rocks celebrates

The Red Rocks Federal Credit Union celebrated its 10th anniversary earlier this month with a cake cutting ceremony and refreshments. During the past ten years, the credit union has established itself with more than 11,500 members and about \$27 million in assets. Several members of the credit union's board along with Astronautics Group management participated in the gathering. From left to right is: Leroy Hollins, manager of Employee Services; Doug Campbell, board member; John Meredith, chairman of the supervisory committee; Bill Kamsler, vice chairman of the board; Peter B. Teets, Astronautics Group president; Bernie Delaney, credit union president; Stanley F. Albrecht, vice president of Human Resources; Blair Davis, credit union chairman; Ken Byers, credit union treasurer; Barrie Smith, credit union secretary; Gordon Egger, board member; Bob Lumley, board member; and Jim Nimmer, board member.

New location added for fitness classes

Employees, their spouses and dependents (18 years and over) can participate in fitness classes beginning March 5 at HEALTHBEAT Athletic and Rehabilitation Club, 151 W. Mineral Ave.

To participate in these new classes, employees should obtain a class information flyer and medical history form from the information racks. A completed medical form must be submitted with a check to purchase a class card. A \$30 card is valid for 20 classes and a \$15 card is good for 10 classes.

Aerobics classes will be offered at 4:30 p.m. Monday, Wednesday, and Friday and at 5:30 p.m. on Monday and Wednesday. A body toning class will be conducted at 4:30 p.m. on Tuesday and Thursday.

The class cards, valid through June 29, are good for these fitness classes only and do not represent club membership. Class cards can be purchased at the locations listed on the information flyer, and questions can be answered by calling Ext. 7-6605 or 7-6750. ■

1990 family event cards due

The family event choice cards that were due in the recreation office Feb. 14 are still being accepted and processed.

Employees who haven't completed their cards should do so immediately.

Selections include performances of the Ice Capades 50th anniversary show on April

10, 11, and 12; a Denver Zephyrs game on July 14; and exclusive days at Lakeside Park on Aug. 18 and 25.

Blank cards for Astronautics Group employees also are available in information racks or from the Recreation offices at Deer Creek and Waterton.

Deer Creek Wellness Center continues to serve employees

Many employees are taking advantage of the free and low-cost services at the Deer Creek Wellness Center.

The facility, located on the A level, south end, is open from 5:30 to 9 a.m. and 10 a.m. to 8 p.m., Monday through Friday, and Saturday from 7 a.m. to 6 p.m.

The facility features treadmills, bicycle ergometers, rowing machines, bioclimbers, weight machines, free weights and benches, and punching and speed bags.

Shower, locker, and sauna facilities are available for men and women. ■

Also, employees can join aerobics and body toning classes at any time by completing a medical assessment form and purchasing a \$15 or \$30 class card. Forms and cards are available from the Wellness Center staff between 11 a.m. and 5:30 p.m.

Staff member Diane Nolly, R.N., is available to meet with individual employees to prescribe an exercise program or discuss weight loss, nutrition, stress management and smoking issues.

For more information, call the center at Ext. 7-7576 or 7-7575. ■

Employee services/recreation

Photography Club—All photography buffs are invited to attend the Platte Canyon Photography Club meeting at 7 p.m. Feb. 26 at the Public Service building, 10001 W. Hampden Ave. Don Emmerich, award-winning photographer, popular lecturer, and author is the featured guest. He will discuss his distinctive style of photography as applied to portraiture, wedding, and commercial assignments. Contact Bill Privratsky, Ext. 7-4969, for details.

Smoking Cessation Classes—Be "Heart Smart" and get a "Fresh Start" with the American Cancer Society's stop smoking program. Martin Marietta and Air Force personnel, their spouses, and dependents can participate in the program free of charge. Classes consist of four meetings from 5 to 6:30 p.m. March 5, 8, 12 and 15 at Goddard Middle School. Another session will be offered in April. Participants can obtain registration forms in the company education catalogues or from the recreation racks. Call Ext. 7-6605 for more information.

Your Employee Store (YES)—The company store is conducting diamond seminars to help employees increase their knowledge and confidence when purchasing diamonds. The sessions will teach participants how to use a microscope and how to evaluate clarity, cut, color, and carat weight. The one-hour seminars will be conducted at 4 p.m. in the cafeterias as follows: March 5, Space Support Building; March 6, Deer Creek Facility; March 7, Littleton Systems Center; and March 8, Engineering Building, second floor. A special sale of diamond jewelry, wedding ring sets, and loose diamonds will be conducted from 7:30 a.m. to 4 p.m. March 15 at the Waterton employee store in the

Engineering Building. Also, a certified gemologist and a custom design expert will be on hand to consult employees.

Copper Mountain Discount Week—Martin Marietta employees can take advantage of discount corporate rates at Copper Mountain from March 4 to 11. The adult lift ticket will cost \$23, compared to \$26 at Front Range outlets. Students, ages 13 to 18 years, can ski for \$18, and tickets for children, ages 4 to 12 years, will cost \$12. The group lesson fee will be only \$20, a \$10 savings. To obtain these special lift ticket and lesson rates, employees must go to a special registration on the third floor of the center building at Copper Mountain. One person per group must show proof of Martin Marietta employment and purchase discount tickets for the group. Reduced lodging rates, based on availability, can also be obtained by calling 1-800-458-8386 and asking for the corporate ski week rate.

Mile High L5—The group will meet at 7 p.m. March 5 in the Public Service building, first floor meeting room, at Kipling and Hampden. For details, contact Mark Schloesslin at Ext. 1-9057 or 779-5692.

Saddle Club—Ridge Riders club members will meet at 7 p.m. March 6 in the recreation area clubhouse. For details, contact Mary Smith at Ext. 1-8154 or Irene Woodzell at 688-9676.

Radio Club—The group will meet at 5 p.m. March 12 in the clubhouse at the recreation area. For more information, contact Mel Smith at Ext. 1-8682.

Funplex Discount—Coupons offering one free activity (bowling, roller skating, miniature golf, or bankshot) with the purchase of the same activity at full price are available

from the Employee Services offices at Deer Creek and Waterton, the company stores (Deer Creek, Waterton and LSC), and from volunteer representatives at SSB, South Lincoln, Viewpoint I, and Greenwood Commons. The coupons expire June 15 and do not include rentals. Individuals are limited to one coupon per person per day.

Toastmasters Clubs—LSC Toastmasters meets at 4:30 p.m. Wednesdays at LSC, Room 209G. Call Michele Stillman at Ext. 7-3582 or Marti Friend at Ext. 1-1806 for more information. Titan Toastmasters meets at 6 p.m. Mondays at Mission Trujillo Restaurant, 181 Ridge Road (Broadway and Ridge Road). Contact Mark Willey at Ext. 1-6183 for details.

Waterton Amateur Radio Society—All hams and those interested in learning more about amateur radio are invited to attend the monthly meeting at 5 p.m. March 6 in the hamshack located at the recreation area. Dave Cowdin will discuss his experiences from a trip to French Guiana where four amateur satellites were launched. Also, Dave Crabtree will discuss operational aspects of new amateur satellites. For more information, call Tony Kehayas at Ext. 7-2013.

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