

**MARTIN MARIETTA**

# news

**ASTRONAUTICS GROUP**

**July 9, 1990**

**Number 13**



**Commercial  
Titan delivers!**



# Third Commercial Titan flawlessly launches communications satellite

In the warm humidity of an early Florida Saturday morning, hundreds of spectators held their breath as smoke and flame appeared beneath the third Commercial Titan, and the giant rocket lifted from Launch Complex 40 at Cape Canaveral.

Within seconds it was thundering across the sunny sky into the billowing clouds and was lost to sight. Several minutes later, the launch commentator announced successful solid rocket separation.

Still, the viewers glanced skyward, anticipating the moment when the second stage of the Titan would release its 10,193-pound INTELSAT VI payload. At 25 minutes into the launch, with confirmation of successful separation, the cheering and smiles broke out like the sun from behind a cloud.

"It was a perfect launch, an example of good teamwork," said Commercial Titan President Ed Browne. "Everybody (in the Mission Control Center) whooped when we got the confirmation of the separation of the second stage from the payload."

Officially, the launch occurred at 7:19 a.m. EDT on June 23, right at the beginning of a 32-minute launch window. It was the third launch of a Commercial Titan, the second carrying an INTELSAT VI communications satellite for the International Telecommunications Satellite Organization (INTELSAT).

The Commercial Titan flawlessly placed the communications satellite into low-Earth orbit and several hours later it was boosted into a geostationary transfer orbit by its own propulsion system.

Late Thursday, INTELSAT announced that the satellite had reached its final geosynchronous orbit 22,300 miles above the Atlantic Ocean, where it will simultaneously relay up to 120,000 telephone calls and three television channels.

Frederick Ormsby, spacecraft mission director for INTELSAT, told reporters at a post-launch press conference that "the first words I have to say is to thank Martin for a super ride."

"Today was a good day, and a normal day," Browne said. "We expect all our future launches to be like this one."

Commercial Titan will have a two-year launch hiatus while the Air Force refurbishes Launch Complex 40 so it can be used for both Titan III and Titan IV launches. The next Commercial Titan launch—carrying NASA's Mars Observer satellite—is scheduled for September 1992. ■

## On the cover

Martin Marietta's third Commercial Titan lifts off "right on the money" from Cape Canaveral Launch Complex 40, Saturday, June 23. It carried an INTELSAT VI communications satellite into orbit for the International Telecommunications Satellite Organization (INTELSAT). INTELSAT will use the satellite to simultaneously relay up to 120,000 telephone calls and three television channels.



### Cadet receives space award

When cadet Jennifer Moore graduated from the Air Force Academy this summer, she took home a sculpture of an eagle and its fledglings, an award for being the Class of 1990's outstanding cadet in space operations. The award was sponsored by Martin Marietta Astronautics Group in memory of Lt. Col. Robert C. Rounding, an associate professor of mathematics at the Air Force Academy in the 1950s and 60s. Rounding was killed in an air crash in California in 1968. Gareth Flora, president of Strategic Systems, presented the award to Cadet Moore at Air Force graduation ceremonies May 30th.

## Littleton celebrates 100

The city of Littleton begins a week-long celebration marking its 100th anniversary today by kicking off its Centennial Summerfest and a Taste of Littleton. The extravaganza features food and entertainment on Main Street in historic downtown Littleton. Martin Marietta is a contributing sponsor of the event, the proceeds from which will be donated to the Mile High United Way, the Rocky Mountain Heart Fund for Children, and other local charities. Admission to Summerfest is \$1.00. Tickets for concerts are priced separately at \$10.00.

The Festival Highlights are:

- A carnival featuring one of the world's largest traveling ferris wheels at the intersection of Santa Fe and Bowles—Daily, July 10-15 from 10 a.m.-10 p.m.,
  - A Taste of Littleton featuring food from 18 Littleton restaurants—Friday from 6-12 p.m. and Saturday and Sunday from 11 a.m.-12 p.m.,
  - Nightly entertainment including Firefall, Nelson Rangell, Images, Dave and Don Grusin, and Kenny Rankin—Friday-Sunday evenings,
  - Hot-air balloon rides, health fair, golf tournament, street dancing, and bicycle tours throughout the festival.
- For more information call 795-2009.



Mile High  
United  
way



# Astronautics joins corporations, agencies, interest groups to prevent pollution

Martin Marietta went public last week with a proactive program against pollution, announcing that it has joined forces with several other major Colorado corporations, state and federal agencies, and public interest groups to reduce the emission of industrial and household chemicals in the state.

"During the past several years, we've learned a great deal about the adverse effects these chemicals have on our environment and we've also learned a lot about replacing them with safe substitutes," said Bob McMullen, director of Environmental Management.

McMullen said the company has joined with the Colorado Department of Health, the Environmental Protection Agency, Hewlett Packard, Adolph Coors Company, Public Service Company, the League of Women Voters, and the Colorado Public Interest Research Group to form the Pollution Prevention Partnership (PPP).

At a news conference last week, the group announced that it's first effort will be to reduce the use and emissions of an ozone-depleting chemical called trichloroethane (TCA). TCA is a solvent widely used by industry to clean parts and equipment. It is also found in many household products such as typewriter correction fluid and some automotive spray cleaners. The chemical is harmful to the Earth's ozone layer and can cause health problems if handled improperly.

Martin Marietta already has a program to reduce its use of solvents, including TCA, and to use substitute products in its own manufacturing activities. Martin Marietta, Coors, Public Service, and Hewlett Packard have committed to cutting combined TCA use by at least 70% by 1992.

"We hope that the success of our efforts will encourage other companies and individuals to cut their own uses of these harmful chemicals," McMullen said.

The partnership, funded by the four industry members and the EPA, will share information about how they have reduced their own solvent use with smaller companies that may not have the resources to conduct their own research. Initially PPP will focus on two industries—metal fabrication and microelectronics. Companies will be encouraged to participate in an environmental audit to identify how much TCA is used and PPP will recommend new procedures and substitute products to reduce its use.

If efforts to reduce TCA emissions are successful, PPP plans to target other harmful solvents, such as methyl ethyl ketone, chlorofluorocarbons, toluene, acetone, benzene, isopropyl alcohol, and dichloromethane.

"This is an unprecedented effort by Colorado companies," McMullen said. "We are prepared to share our technological successes if they can help in the common goal of cleaning up our environment." ■



## Out to launch

Twenty-nine hopeful rocket scientists lined up at the Waterton recreation field June 22 to launch homemade rockets as part of the Colorado Minority Engineering Association's Summer Enrichment Program. The two-week workshop, designed to encourage junior high students to consider engineering as a career choice, gives students practical hands-on experience in engineering, mathematics, and the sciences. It includes a rocket construction project in which they must use basic principles of aerodynamics, physics, and mathematics to build and launch a model rocket. Martin Marietta gave the students a plant tour and lunch before the launching began.

## Tests show Kassler water safe for children

*(Editor's Note: The following article by J.P. McDaniel was published in the Southwest Community Courier on June 20, 1990. It is reprinted with permission from the newspaper.)*

Results from a recent study conclude the Kassler water service area is not associated with higher cancer and neonatal death rates when compared to all of metro Denver. The Denver Water Board has filed the results in U.S. District Court in conjunction with a health hazard investigation of the Friendly Hills subdivision near Quincy and Simms Streets in South Jeffco.

Plaintiffs, in a case pending in federal court have claimed, for more than three years, that contaminants from the Martin Marietta aerospace plant near Waterton polluted the water from the Kassler Water Treatment Plant, causing childhood cancers, seizures, and deaths in at least 12 Friendly Hills families. The plant supplied water to Friendly Hills and other South Jeffco neighborhoods until its closure in 1985, when the Air Force announced chemical leakage from wells on Martin land near the Kassler plant.

From 1984 to 1986, there were 15 deaths of children in Friendly Hills from cancer and birth defects. Residents are claiming the Denver Water Board knew of chemical pollutants in the water prior to 1985 and did nothing to correct the problem.

A report from Steven Piantadosi, M.D. and Director of Biostatistics at the Oncology Center of John Hopkins University in Maryland, concluded there is no elevated risk of childhood cancer or deaths associated with residence in the Friendly Hills subdivision, and that the source of drinking water in the Denver system has no effect on cancer rates within the Denver Water Department service area.

Testing came from a 1980 census for 401 tracks in the Ken Caryl, Meadowbrook, Platte Canyon, and Southwest Metro water districts, all of which received water from the Kassler plant from 1975 to 1985.

Rates of childhood cancer and neonatal deaths before 1984 were compared to those following 1984. No statistically significant trends were found. The results of the tests revealed Friendly Hills does not have an elevated rate of childhood cancer or neonatal deaths when compared to the larger Denver metro area. The report also stated there is some evidence the Kassler water service area is associated with lower, but not significantly so, cancer and neonatal death rates, compared to the Denver metro area.



## Group completes feasibility study; EPA releases proposed cleanup plan

Members of the public and other interested parties have a chance to comment on a proposal to clean up groundwater and soil contamination at the Main Plant. The U.S. Environmental Protection Agency released the proposal on June 27, and a 60-day public comment period is underway.

The EPA's proposal follows an Astronautics Group feasibility study, completed last week, that evaluated the technologies that could be used to clean up the contaminated areas and identified several alternatives for cleanup. The areas of contamination were located last year during a remedial investigation of the site.

"In conducting the study, we have not found any locations on or around the 5,200-acre Waterton site that present unacceptable health risks to Martin Marietta employees or the public," Dr. Willard Haas,

manager of Remedial Programs, said. "The feasibility study evaluated several methods to clean up onsite waste disposal areas that were used in the 1960s and 70s."

The EPA proposes cleaning contaminated soils by treating them on site. Some waste will be treated off site. Contaminated soil will be excavated and treated by a thermal (heating) process. Treated soil will be placed back into the excavation area and capped. EPA proposes to pump the contaminated groundwater and treat the contaminants before reinjection to the ground or release to surface water on the site.

Haas said the Astronautics Group would review the EPA proposal and submit detailed comments during the public comment period. After the comment period ends, a final cleanup remedy will be selected by EPA.

## Employees receive Jefferson Cups in Washington

Nine Astronautics Group employees received the Jefferson Cup, the Corporation's highest honor, June 29 at the 1990 Honors Night dinner in Washington, D.C., and two were singled out for special honors.



Fields



Grotheer

**Wendell E. Fields**, director of Canaveral Operations, earned special recognition as the Astronautics Group "Manager of the Year," and **Herbert Grotheer**, manager of Design Engineering, Space Systems, was singled out as "Engineer of the Year." Each received a cash award and a plaque, in addition to Jefferson Cups—which are sterling silver replicas of the one originally fashioned for Thomas Jefferson.

***A select group of 46 employees from throughout the Corporation received Jefferson Cups at the black-tie celebration of excellence.***

Fields was named "Manager of the Year" for leadership contributing to the 100 percent successful launches of the first Titan IV and the final Titan 34D, preparation and completion of the launch of the first Commercial Titan,

implementation of multiple-program controls, and meeting profit objectives.

Grotheer received "Engineer of the Year" for outstanding technical leadership of the company's design, development, verification, and launch operations for the Magellan spacecraft.

The other Denver honorees awarded Jefferson Cups and checks were:

**Charles D. Brown**—For outstanding leadership of the company's Magellan spacecraft program.

**Stephen J. Ducsai**—For outstanding leadership that contributed significantly to winning the Flight Telerobotic Servicer contract.

**Debra Ann Keith**—For implementation of a product excellence program in Titan II development, which has demonstrated significant reductions in engineering design, analysis, and software errors.

**Alan L. Schaeffle**—For leadership contributing to a 100 percent successful flight of the first Titan IV space launch vehicle.

**Roy Sedgwick**—For leadership contributing to the Titan IV follow-on buy, including related contractual activities.

**Dr. George F. Sowers Jr.**—For contributions to the invention of the generalized acoustic simulation.

**Robert E. Vosbeek Sr.**—For outstanding performance and management on the Transfer Orbit Stage program cost containment effort and for significant contributions to program cost, schedule, technical performance, and customer satisfaction.

A select group of 46 employees from throughout the Corporation received Jefferson Cups at the black-tie celebration of excellence.

The awards dinner is an uninterrupted tradition that originated in 1962, the first full year of the Corporation's existence as Martin Marietta. Since then, more than 1,400 employees have been honored for superior performance. ■

## A Word of Caution . . .

The fire danger is very high all over the state, and the area surrounding Martin Marietta's facilities is no exception. There has already been one fire in Deer Creek Canyon this past weekend. We don't want another! Employees are urged to be extremely careful with cigarettes and other potential fire starters. To quote Smokey the Bear, "Please—only YOU can prevent fires!"

## SIP

Unit values for the Savings and Investment Plan (SIP) for employees represented by United Aerospace Workers (UAW) and United Plant Guard Workers of America (UPGWA) May 1990 (April 1990 values in parentheses) are:

Fund A	1.3314425017
Indexed Equity	(1.2163727416)
Fund B	1.2201467310
Fixed Income	(1.2122512365)
Fund C	0.8797088938
Company Stock	(0.8238395915)

## PSP

Unit values for the Performance Sharing Plan (PSP) for salaried employees in May 1990 (April values in parentheses) are:

Fund A	6.5008866392
Indexed Equity	(5.9269174616)
Fund B	3.5652298054
Fixed Income	(3.5379424681)
Fund C	4.6611263181
Company Stock	(4.3639107419)

## Call for volunteers

Martin Marietta and the Black Effectiveness Support Team (BEST) employees are sponsoring a 5k race Sunday, October 28, as a benefit for the homeless in Denver. The race will be in Denver's Washington Park and will include a "Trick-or-Treat Crawl" walk for children. The event is separate from the July 15 Homerun for the Homeless 5k race Astronautics is also sponsoring.

Volunteers are needed to help organize the October event. Interested employees should call Ext. 1-5000 and leave their name and telephone number. A BEST representative will contact volunteers with additional details.





### Nurses assist elderly

A nurse from the Visiting Nurse Association of the Denver Area Inc., checks out a patient's ear during a recent on-site visit in the above photo by Mark Archer. The association is a United Way agency specializing in in-home nursing services, in-home personal care, serving seniors, and a teen pregnancy and parenting skills program.

## Pledge cards distributed at clock locations

(Editor's note: The following is an updated version of an article written by Jane Dolan, Astronautics Group's 1990 United Way co-lead, and Johnnie Smith, a 1990 team lead for the campaign, for the June 1 Secretarial Newsletter. It explains the upcoming campaign and specifically, the details for distributing pledge cards via clock locations.)

The Astronautics Group has long been one of the major corporate contributors to the Mile High United Way. That says something about the people who work here.

This year, we have assembled a High-Performance Work Team to develop a strategy for the 1990 Astronautics Group Mile High United Way campaign. The team has been subdivided into several mini High-Performance Work Teams to work concurrently on several topics. A major change from recent years is that we have assembled a team that represents all of the Astronautics Group. This will help us cut duplication of effort in terms of time and cost.

Another major change for this year is the distribution of pledge cards through clock locations. A High-Performance Work Team has been specifically working on the subject of distributing the United Way cards by clock location for all of the Astronautics Group. This team has two objectives: (1) development of an Astronautics Group-level systematic approach for the distribution of United Way cards to all areas, ensuring 100 percent card distribution; and

(2) the successful retrieval/disposition of 100 percent of the cards distributed.

A team of volunteers will sort the cards by clock location and distribute a package to each clock location representative at the same time pay checks are distributed. This will ensure that each person at the clock location receives a card.

The clock location representative will then distribute a United Way package to each person as checks are handed out on July 20. As a part of this package, each clock representative will receive an alphabetical listing of each person in that clock location.

Each employee will be responsible for completing the pledge card and returning it to the clock location representative. The clock location representative will simply mark on the provided listing that the card has been returned and forward the card to a United Way building representative.

For this year's campaign to work smoothly, we are asking for the support of employees and all clock location representatives. This will ensure that each employee receives a pledge card and that each employee has had the opportunity to make a decision. It will also ensure that each contributor will be included in this year's incentives program.

Clock location representatives will be provided with a set of instructions as part of the package they receive with paychecks.

Employees should call Johnnie Smith at Ext. 1-5549 with questions and concerns. ■

## United Way rallies kick-off campaign

During the next two weeks, Gov. Roy Romer and three employee-initiated kick-off rallies will provide the momentum for the Astronautics Group's 1990 Mile High United Way Pacesetter campaign. The official employee campaign runs Jul. 23 through Aug. 17.

Tomorrow, Gov. Romer will address Peter B. Teets' large staff, and kick-off rallies are scheduled for 11 a.m. to 1 p.m. as follows:

- July 13, Engineering Building, front lawn
- July 17, South Park West I, parking lot
- July 19, Deer Creek Facility, patio

The rallies will feature food, entertainment, and educational information about this year's campaign. During the last four months, several High-Performance Work Teams have joined to implement the campaign, including one that has been working solely on the kick-off rallies.

Last year, the Astronautics Group raised more than \$2 million with the help of 13,000 employee's support. And, the Mile High United Way is proud to say that 84 cents of each dollar donated goes directly to serving the community.

Therefore, the Astronautics Group's support helped more than 660,000 people last year.

In addition to the High-Performance Work Team campaign format, this year's campaign will also include at least 60 group meetings featuring the 1990 campaign film, a new distribution system for pledge cards (see story, bottom left), and an incentive program for all employees contributing to the Mile High United Way.

Four drawings are scheduled for prizes like movie tickets, travel certificates, and a trip to Vail. Winners will be drawn from participation cards. Look for more United Way details on employee notice boards and in the next issue of the *Martin Marietta News*. ■

## Mile High United Way announces summer events

The Mile High United Way has scheduled a variety of entertaining special events this summer.

- **Littleton Centennial Celebration**, July 13 through 15, Main Street, Littleton—A portion of the proceeds will benefit United Way.
- **Ride the Range Bicycle Tour**, Aug. 11 and 12—Weekend tour of 150 miles for 1,000 riders—For information, call 278-3818.
- **Pacesetter Recognition Reception**, Aug. 23, Sheraton Denver Tech Center.
- **FamilyFest**, Sept. 8—This large event kicks off the fall campaign and thanks the community for its support. United Way agencies and corporate volunteers will gather for a full day of free entertainment, games, and 25-cent food and drinks.
- **Thunder in the Rockies**, Sept. 15 and 16 at the Jefferson County Airport—This family event, benefiting United Way, features top national acts such as the Blue Angels, Team America, Shockwave, and many other air shows. More than 150 planes will also be on ground display. ■



## Summer activity discounts available

Discount coupons are available to all employees for several summer activities, thanks to the Recreation department.

The discounts include: Lakeside Amusement Park, save \$2.25 on an unlimited ride ticket, Sunday through Friday; Elitch Gardens, save \$2.25 on an unlimited ride ticket, Monday through Friday; Funplex, two activities for the price of one; Denver Zephyrs, two \$6 adult reserved grandstand seats for the same game for the price of one ticket; and the Royal Gorge Bridge, save \$2 on passport tickets.

Employees can request the coupons from the employee stores at the Engineering Building, Littleton Systems Center, South Park West I, and Deer Creek; from the Employee Services/Recreation offices at Waterton and Deer Creek; or from volunteer recreation representatives at SSB, Greenwood Commons, Building 6070, Viewpoint I, South Lincoln, and South Park West I.

## Pre-game activities planned for family night at stadium

Eddie Feigner, better known as The King and his Court, will take on the winner of the Martin Marietta all-star softball game June 14 at Mile High Stadium. Both games will take place before the Denver Zephyrs game 6:35 p.m. on Martin Marietta family night.

Department administrators are distributing tickets to employees who reserved them earlier this year.

The gates open at 4 p.m., and the tickets are reserved by section, with open seating available within the specified section. ■

## Classes continue at HEALTHBEAT

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

To participate, employees should obtain a class information flyer and medical history form from the information racks. A \$27 card is valid for 20 classes, and a \$15 card is good for 10 classes. Aerobics classes are offered at 4:30 p.m., Monday through Friday.

The class cards are good for these classes only and do not represent club membership. You may purchase class cards at the locations listed on the information flyer and direct questions to Ext. 7-6605 or 7-6750. ■

## Employee stores offer movie rentals/sales

While supplies last, free beverage squeeze bottles will be given away with movie video rentals from the company stores at Deer Creek, South Park West I, and Waterton.

There is a limit of one bottle per customer.

The big Christmas in July sale starts Monday, July 16.

Look for savings of 20 to 50 percent for the last half of the month at all locations.

## Employee services/recreation

**Hunting and Fishing**—The group will meet at 5 p.m. Monday, July 9, in the clubhouse at the recreation area. For more information, contact Mel Smith, Ext. 1-8682.

**Waterton Amateur Radio Society**—All hams and those interested in learning more about amateur radio are invited to attend the meeting at 5 p.m. Tuesday, July 10, in the hamshack at the recreation area. For more information, call Tony Kehayas at Ext. 7-2013.

**Red Rock Bowmen**—Security briefings are scheduled for 4:45 p.m. July 10 and Aug. 14 in the recreation area clubhouse. All members must attend this briefing. Prospective members are encouraged to attend and join the club. For more information, contact Dave Unruh at Ext. 7-0477 or Mark Lyons at Ext. 7-5722.

**Hunter Education Classes**—Classes are set for 7 to 9:30 p.m. July 16, 18, and 19 at the VFW Hall, 3860 S. Jason St., Englewood. The range date is from 8 a.m. to 1 p.m. July 21 at the club's shooting range. Students must attend all class sessions. Registration will be taken at the first class, and a minimum of 10 students is required to continue meetings. The cost is \$7. Employees, family members, and friends are welcome to attend.

**Commodore Users Group**—All interested employees can attend the group's meeting from 5 to 6 p.m. Tuesday, July 17, in the recreation area clubhouse. The contact is Dan Whittemore, Ext. 7-6324.

**Photography Club**—Platte Canyon Photo Club members, guests, and interested

employees should attend the next meeting at 7 p.m. Monday, July 23, at the Public Service Building, 10001 W. Hampden Ave. Contact Bill Privratsky, Ext. 7-4969 or 7-3728, for details.

**Chess Tournament**—The Chess Club will host a five-minute championship chess tournament at 6:30 p.m. Tuesday, July 31, in the Space Support Building cafeteria. All interested employees should bring chess sets and clocks. Trophies will be awarded for the top three places in the upper and lower divisions. For more details, contact Robert Kelso on Ext. 7-9932.

**Barber/Styling Shop Hours**—Convenient, professional, low-cost haircuts are available to all employees and Air Force personnel at the following locations: Deer Creek Facility, A Level, by south elevators, Monday and Friday, 6:30 a.m. to 3 p.m., and Tuesday through Thursday from 6:30 a.m. to 5 p.m., Ext. 7-9157; Waterton Engineering Building basement, Monday through Friday 6:30 a.m. to 3 p.m., Ext. 7-3029; and Littleton Systems Center, west and south of cashier, Tuesday through Thursday, 6:30 a.m. to 3 p.m., Ext. 7-0560.

**Breathe a Sigh of Relief**—This summer get a "FreshStart" and break away from nicotine dependency. Smoking cessation classes will be offered in July at Deer Creek Facility, Monarch Room, R Level. Each class consists of four meetings from 5 to 6:30 p.m. Class dates are July 16, 19, 23, and 26. This American Cancer Society "FreshStart" program is

free to all Martin Marietta employees, spouses, dependents, and Air Force personnel. Call Ext. 7-6605 to register for the July class or complete the flyer in the information racks.

**Beat the Heat**—Exercise this summer in the cool, scenic setting of the Wellness Center at Deer Creek. Aerobic and body sculpting classes are offered at 11:15 a.m. and 4:30 p.m., Monday through Friday. Employees can purchase a class card, good for 20 classes. The cards do not have an expiration date and can be used for any class. They can be purchased by mail or between 11 a.m. and 5:30 p.m. at the Wellness Center. A fitness class registration form is in the information racks. Exercise equipment at the Wellness Center can be used by employees free of charge. The center has treadmills, bicycle ergometers, Concept II rowing machines, bioclimbers, paramount weight machines, free weights and benches, and punching and speed bags. Shower, locker, and sauna facilities are also available.

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