

June 20, 1986

Number 12

Radio operators test new satellite





General Barry addresses Small ICBM group

Brig. Gen. Edward P. Barry, Jr., far right, talks with, left to right, James Gliozzi, manager of hard mobile basing (HMB) independent research and development project; James A. Sterhardt, vice president, Strategic Systems; and H. Edwin Sparhawk, director of the HMB program, as they stand in front of the hard mobile launcher crew cab mockup. Barry addressed employees of the Small ICBM assembly, test and system support program, and dedicated the new HMB program laboratory. The general is vice commander of the Ballistic Missile Office, Air Force Systems Command, and is program director for the Small ICBM.

Fall Air Force COR offers chance to excel

A team of Air Force representatives will conduct an intensive 2-week Contractor Operations Review (COR) of Denver Aerospace this fall.

Part of an extensive program by the U.S. Air Force Contract Management Division, the review involves major aerospace firms that serve the needs of the U.S. Air Force. Denver Aerospace underwent a similar review in February and March 1985.

Before the Air Force review, a senior executive team from corporate headquarters and other aerospace companies will review operations for 1 week beginning July 14.

Companywide actions to prepare for the Air Force review are guided by a team lead by Dr. James D. Porter, director, computer sciences department, and Gordon Stucker, deputy lead, and manager of contract technical requirements/configuration and data management.

"The Air Force Contract Management Division established COR teams which audit us in addition to local Air Force plant representative's office, the operation which continually monitors our activities," Porter said. "Since aerospace and the defense industry are under daily scrutiny, this audit offers us the opportunity to demonstrate to the American public that we are producing excellent products in the most economical fashion possible.

"The COR will examine whether our employees understand what our contracts require

and whether specific requirements are levied on our subcontractors.

"Then the review team will examine our command media (commonly called P³, for policies, procedures and practices) to ensure they adequately implement the prime contract requirements.

"We welcome the opportunity to prove to our customers that not only are we doing an excellent job on existing contracts, but that we are the best in the country and can do the best job for them on future awards," Porter said.

He advises employees to be certain they understand their job and know what the contract requires of them, what the appropriate procedures are and to use self-discipline to follow work instructions.

Leads for basic teams in each area include: Richard Hannum, quality assurance; Peter Schoonover, product integrity; Ron Halcomb, industrial safety and fire protection; Hatch Wroton, engineering and configuration management; Herbert Watkins, subcontracts; Gus Hubert, contracts; Milt Gray, industrial material management; Don Sutton, manufacturing; Dave Foran, administration; Patrick Hogan, legal; William Usher, personnel; Lonnie Wood, facilities; Frank McKenna, business; and Dennis Lage, planning.

Division teams include leads George Damstedt, Space Systems; Nicholas Van Dewerker, Strategic Systems; and Don Plomondon, Space Launch Systems. ■

Halley flyby shows comet's link to past

Onboard the European's Giotto spacecraft, which flew past Halley's Comet in mid-March, were a sunshade and light flash detector built at Denver Aerospace that helped scientists confirm long-held views on the chemical composition of the comet.

The Martin Marietta portion of the experiment was part of the particle impact analyzer (PIA) developed by the Max Planck Institute for Nuclear Physics in Heidelberg, West Germany.

The machine analyzed several thousand particles emitted by the comet to determine their chemical composition. Data analysis is now underway at laboratories in Europe and the United States.

The majority of these particles appear to contain the elements magnesium, silicon, iron, oxygen, carbon and sulfur, with roughly the same abundance pattern as these elements are found in the sun itself.

According to Dr. Benton C. Clark, a co-investigator for the experiment, this strongly confirms theories that comets are primitive bodies, leftover from the very beginnings of the solar system when the sun and planets were formed from the original nebula. The presence of a large amount of carbon suggests that organic compounds are present in the particles.

"In fact, some of these particles appear to be composed mostly or totally of an organic material made up of the elements carbon, hydrogen, oxygen and nitrogen," Clark said.

Other experiments proved that the cometary ice is mostly water, with indications that some frozen carbon dioxide (dry ice) is also present. This, combined with the relatively large amount of organic compounds found in the dust, means that comets already contain the ingredients thought to be necessary for the origin of life, except that comets themselves are too cold for the necessary chemical processes to occur, Clark explained.

Comets impacting the Earth and other planets may have supplied a substantial proportion of these substances onto their surfaces where the environmental temperature and atmospheric conditions may have been more ideal for the development of biological activity.

"These results also demonstrate that comets are excellent objects to study because of the view they provide into the past, yielding clues to the details of formation of the solar system from the nebular dust and gas cloud," Clark said.

"NASA is now studying a far more ambitious mission—one in which a spacecraft will actually rendezvous and fly in formation with a comet to permit very detailed studies of its nature and activity for periods of 2 years or more," Clark said. ■

News briefs

New personnel manager

David A. Whitmore has joined the personnel organization as manager, compensation and organization. He reports to Jim Rowland. Whitmore will be responsible for organization design, position evaluation, salary management planning, wage and salary administration, and management of Denver Aerospace Compatible Automated Personnel Payroll System (CAPPS).

Xerox show set for July 10

The Xerox Corporation will conduct an office automation show from 8 a.m. to 5 p.m. July 10.

Located in the sixth floor of the SSB presentation room, the schedule is as follows: 8 a.m. and 1 p.m.—professional workstation (6085); 9 a.m. and 1:30 p.m.—in-house publishing (XPS 700); 9:30 a.m. and 2 p.m.—PC network (XC22 and XC24); 10 a.m. and 2:30 p.m.—intelligent scanner (Kurzweil); 10:30 a.m. and 3 p.m.—computer-aided design (Engineering Information Systems); 11 a.m. to noon—products' demonstrations; noon to 1 p.m.—open; 3:40-4:40 p.m.—products' demonstrations; and 4:30-5 p.m.—open.



Company takes part in trade conference with China

Delegates from the People's Republic of China toured the Royal Gorge as part of the recent state High-Technology Trade Conference. They were accompanied by Nancy Dick, lieutenant governor, and Derrin Smith, fourth from the left, a senior engineer with Information & Communications Systems. Ten delegates from the Ministry of Astronautics and Hunan Provincial Economic and Technological Mission visited Denver Aerospace recently. They were aided during other tours, banquets and events by Alfred S. York, a senior engineer with Denver Aerospace. York participated in a similar visit to China in 1985.

Corporate news

Adams named AIAA president-elect

Laurence J. Adams was named president-elect of the American Institute of Aeronautics and Astronautics (AIAA) for 1986-87 at the annual business meeting held May 1. Former president and chief operating officer of the Martin Marietta Corporation, Adams retired April 1 after 38 years with the company.

Chiet promoted to vice president and tax counsel

Martin Marietta Corporation has announced the promotion of Arnold Chiet to vice president and tax counsel.

Chiet, who joined Martin Marietta as a tax attorney in 1965, has been director of the tax department since 1977 and previously served as assistant director of taxes for 9 years. A member of the New York State Bar Association, Chiet earned an accounting degree, a juris doctor degree and a master of laws degree in taxation from New York University.

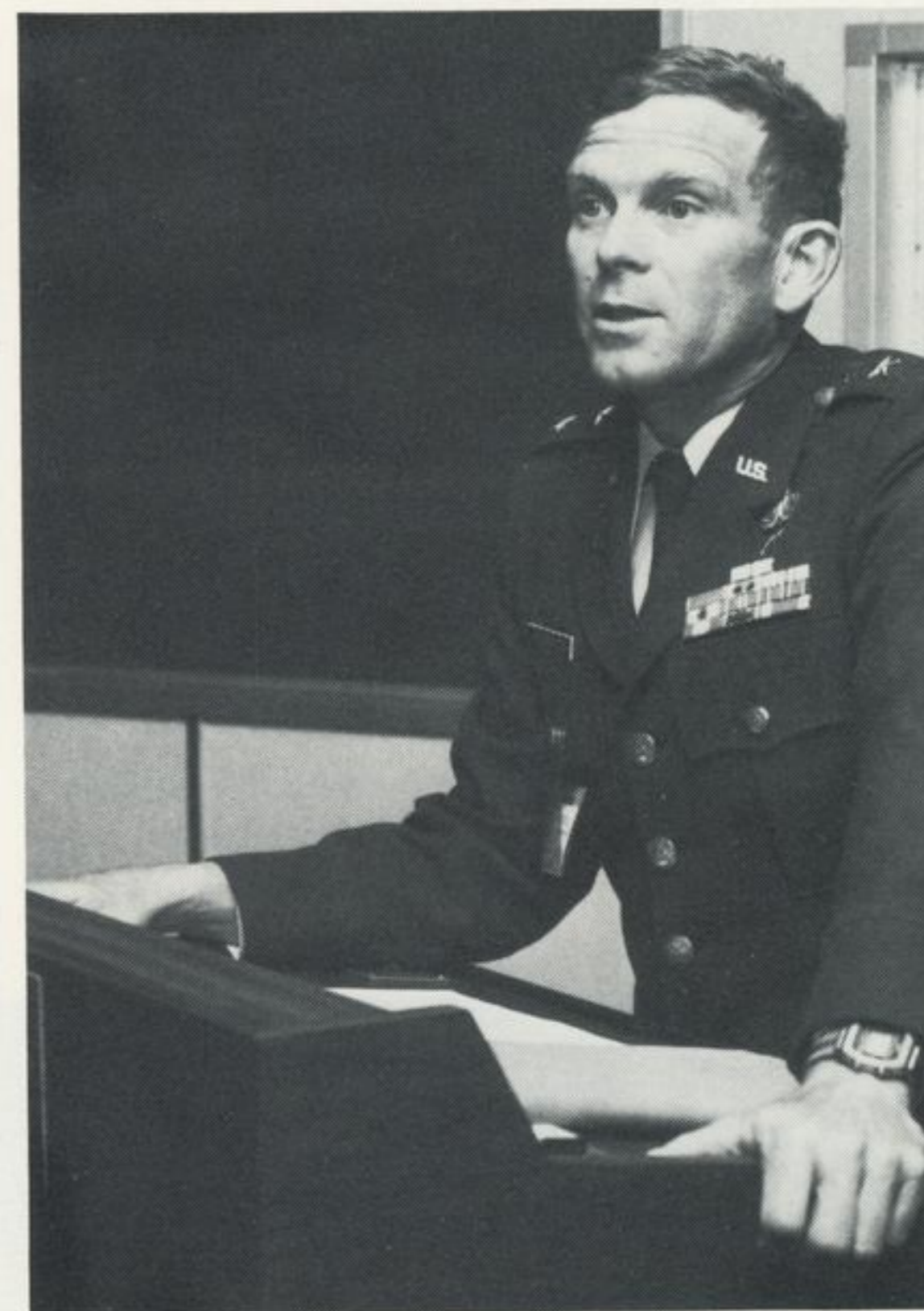
Thames named vice president/communications systems

Gerald W. Thames has been appointed vice president of communications systems for Information & Communications Systems, effective May 12. He will be responsible for new thrusts in the telecommunications and commercial communications markets as well as current corporation-wide responsibilities for communications.

On the cover

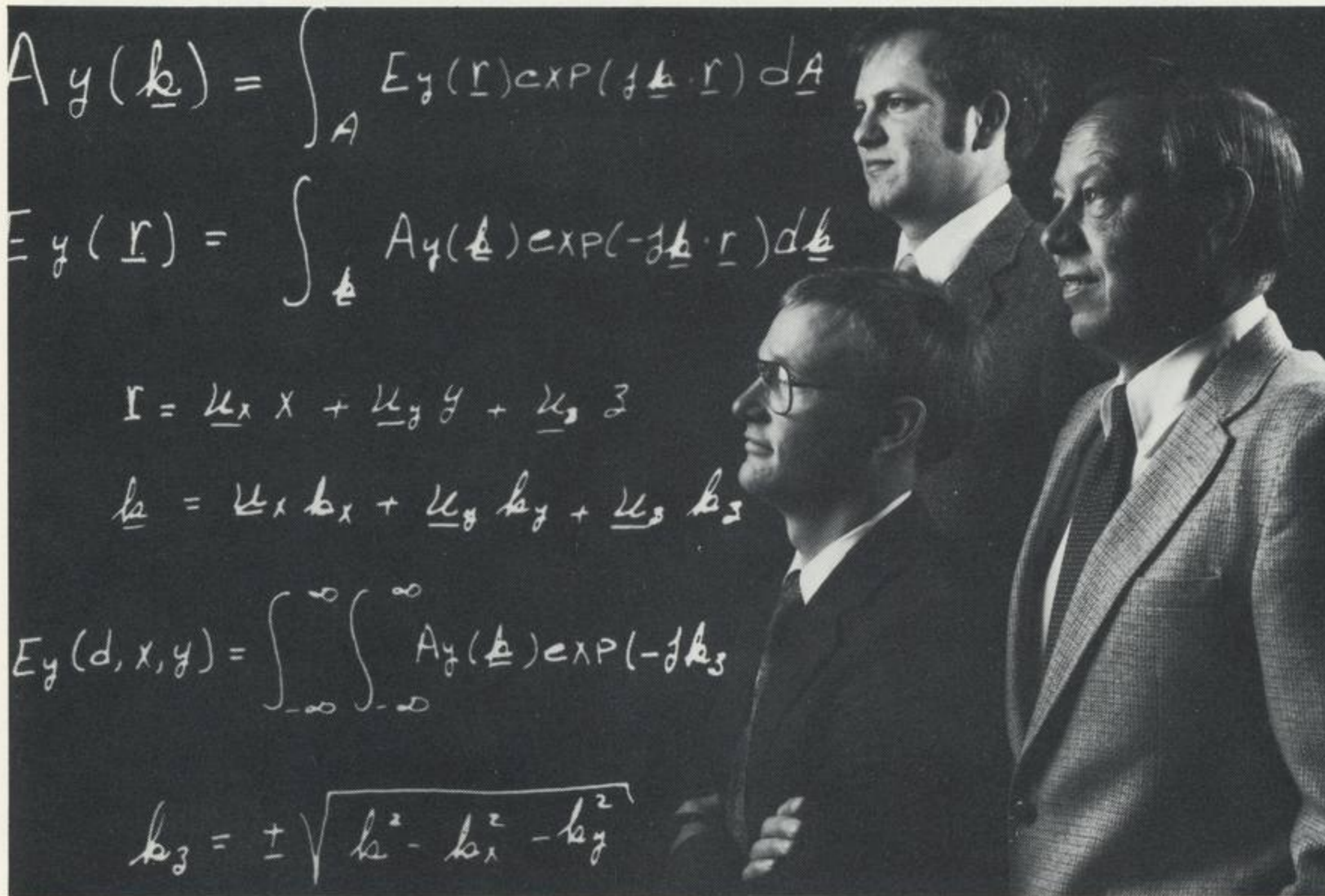
Checking the new Amateur Radio Satellite (AMSAT) after 8 days of testing in a thermal vacuum chamber are: Jan King, left, of Skylink in Boulder, U.S. project manager for AMSAT; Jack Crabtree, center, of Martin Marietta, AMSAT committee chairman and a member of the Waterton Amateur Radio Society; and Joe Flaska of Wheat Ridge, area coordinator for AMSAT.

The amateur-built radio communications satellite underwent thermal vacuum testing for 8 days in a special chamber at the Waterton facility, which was donated by Martin Marietta. An international team of amateur radio operators and space enthusiasts assembled in the Denver area to complete the integration and test of the satellite. It was built with funds provided by the non-profit organization.



General reviews programs at Denver Aerospace

Maj. Gen. Donald W. Henderson reviewed programs and addressed a special large staff meeting Denver Aerospace recently. General Henderson is commander of the Space and Missile Test Organization at Vandenberg Air Force Base, Calif., and is deputy commander of the Air Force Space Division in El Segundo, Calif. He manages test and launch activities of Air Force space and ballistic missile systems on both coasts.



Engineers John Hoover, seated, Neill Kefauver, far left, and Jim Osborn at the near-field laboratory bring theory to practice with their ideas for improving antenna performance. These ideas allow greater precision in large antennas. The techniques were used with the large space deployable antenna program for NASA Langley Research Center.

12 awards won for inventions

The following Denver Aerospace employees have received cash awards for their inventions as a result of decisions of the Denver Intellectual Property Review Board:

- Samuel B. Gates, electronics, and Arthur M. York, hardware and communications, I&CS, "Video Processor";
- Sid E. Riebli, electronics, "Planar Layout of a Conical Spiral";
- Dr. Robert B. Blizard, electronics, "Pulse Group Detection";
- John S. Hoover and Jimmie D. Osborn, electronics, and William N. Kefauver, test, "Inverse Method of Moments Diagnostic Technique";
- John S. Hoover and Jimmie D. Osborn, electronics, "Reflector Antenna Shaping on Near-Field Antenna Range," "Far-Field Antenna Range Modification for Diagnostic Capabilities," and "Precision Spaceborne Antenna Systems";
- Dr. Patrick C. Hardee, electronics, "RF Gaging of Dielectric Fluids in Tanks under Zero-g and Sloshing Conditions";
- Thomas A. Milligan and Jeannette C. McDonnell, electronics, "Design of Lenses in Rectangular Horns";
- Glen J. Dickman, advanced programs, SLS, "Spinning Tether System for Orbital Ascent and Transfer";
- Michael G. Thornton, electronics, "Compact Sample Storage Carousel";
- Edsel L. Walitalo, facilities, "Vibration Attenuator Trench Grating";
- Lyle E. Bergquist, electronics, "Calibrator for Gross Leaks in Small Components";
- Stefan Begej, computer sciences, "Intelligent Transponder for Determination of the Identity, Range, and Orientation of Objects." ■

Career women sponsor carnival

Martin Marietta's Career Women's Association (CWA) has completed its first community service project for 1986 by sponsoring a carnival on May 18 and 19 in conjunction with the Colorado Special Olympics Spring Games.

The event took place at the U.S. Air Force Academy near Colorado Springs, and was attended by more than 1,500 athletes and 2,000 coaches, cadets, volunteers and family members from throughout the state. The Special Olympics games provide competitive sports opportunities for mentally retarded individuals and is modeled after the International Olympics.

CWA was invited by the Colorado Special Olympics to organize the carnival and was given complete responsibility for its planning and implementation. "The results were well worth the effort," according to Donita Wolters, chairwoman of the planning committee for CWA.

"CWA's purpose in undertaking the carnival was to provide an opportunity for our members to contribute to the community," Wolters said. "And we received special support from Operation Santa Claus and from Martin Marietta—the carnival couldn't have happened without their help." ■

Vacation specials offered employees

Employee services announces three discount vacations available to employees.

American Hawaii Cruise Lines and the Ask Mr. Foster travel service offers a 15-percent discount for any 7-day cruise around the Hawaiian Islands for all sailings between July 1 and Dec. 13.

The travel service offers up to a 25-percent discount on an exclusive cruise to the Caribbean for employees only. Three- and four-person air/sea fares are available on the Royal Caribbean lines.

Call Ask Mr. Foster, 771-2275, for full details and sailing dates.

Keystone Resort is offering discounts on lodging to Martin Marietta and other corporations that belong to the Denver Aerospace Employee Services Recreation Association (DAESRA).

Keystone Condominiums offer a 50-percent discount off the nightly rate from June through October 1986 with a two-night minimum stay.

Keystone Lodge offers a 50-percent discount off the nightly room rate, valid Sunday through Thursday during June, July and August, without requiring a minimum stay.

Call the Keystone reservation office on the Denver toll-free number, 534-7712, identify yourself as an employee of Martin Marietta, and present company identification or a recent company paycheck stub at check-in time. ■

Pilot ergonomics program successful

A pilot ergonomics training program, sponsored by Peacekeeper technical publications and funded by the human resources development department, began in April.

It followed a presentation in August 1985 by the Wordsmiths Quality Circle. Ergonomics is the relationship between workers, their work and their work environment. The training, principally applicable to video display terminal users, is designed to improve methods of using terminals and ways to improve work areas.

Twenty-four logistics personnel graduated from the 10-hour course and report considerable improvements in rates of comprehension, work comfort and job confidence, as well as heightened psychological, visual and muscular-skeletal well-being. Anna Robinson-Romph said, "It was amazing to find that proofing turns up few errors now." Bruce Nogués, supervisor of technical illustrating, said, "For an Auto-trol user, the exercises learned are very beneficial."

Program graduates report that their individual job output is greater than the 5-percent increase anticipated by the Wordsmiths Quality Circle. A formal briefing and analysis of the training is planned for June. ■

30-35 years' service honored



Employees who achieved 30 or 35 years service with Martin Marietta between January and April 1986 were honored recently at the first of four service recognition luncheons scheduled this year. Those with 35 years are, standing left to right, Thomas Dolan, Dave Bock, James Orem and Maurice Stempnitzky. Sitting are Eugene Sullivan, Ralph Stansbury, Vernon Morris and Mike Kardos. Not pictured is Chuck Rissmiller.



Those with 30 years service are, standing left to right, Arthur Toney, Marvin Williams, George Scheirman, William Severson, Carl Hups, Richard Masteller and Jerry Allen. Sitting are Robert Demoret, Raymond Oppen, R. F. Wells, Rudy Judish, William Smull, Elmo Blackwell and David Davidson.



Those with 30 years service are, standing left to right, Kenneth Hopper, George Benway, Carl Hegarty, John Youtman, Mickey Sanderson, Edward Bain, Paul Fedec and Marvin Bryant. Sitting are Edgar Jeffres, Dale Swallow, Lois Flohr, Richard Krominga, Tibor Buna, John Aardrup, Fred Whitney and George Emerson. Not shown are Victor Kuchler, Richard Seibel, Thomas Dickson, Reed Dunbar, Sidney Russak, Warren Beery, Harry Sparhawk, Glenn Powers and Clayton Wilcoxson.

Ideas earn awards, repair problems

The Success Through Suggestion program awarded various gifts and checks to 13 employees recently for their problem-solving and cost-saving suggestions.

Marie Long, a data vault design clerk for Production Operations, submitted an idea to provide better ventilation in her area. The new circulation system for the enclosed two-floor area is scheduled for completion in July.

Margaret F. Horton, benefit analyst, suggested that because the benefits office has such a heavy volume of telephone calls, a code-a-phone would help. The new answering machine now relays specific messages.

Richard Melos and Damon Oswald, lathe operators in Production Operations, described the following situation: the first floor factory has four machines that require the use of certain collets or bands, stocked in 1/32-inch increments. The two suggested that stocking the collets in 1/64-inch increments would avoid nicks on parts and make properly matched sizes available and orderly.

Alex Esparza and Richard Melos, lathe operators in Production Operations, noted that the tool crib currently stocks 1/32-inch increment reamers. These must be modified in the grind shop for the 1/64-inch configuration requirement. The two suggested that the tool crib stock reamers in 1/64-inch increments.

John Waterman, staff engineer on Titan 34D-7/CELV, suggested a way to improve the company telephone directory. Currently, the directory contains a U.S. map imprinted with area codes. Waterman suggested adding a separate listing sorted by area code numbers.

Kenneth C. Beaudrie, a senior test engineer on Peacekeeper, recommended that all security guards receive instruction regarding U.S. mail deliveries at lobby areas.

Robert Pomeroy, a missile mechanic in Production Operations, described an operation for the Peacekeeper emplacer that requires a sealant application. Pomeroy proposed that a sealant bead-forming tool be used to reduce discrepancies.

Edward Funk, a senior software engineer for Information & Communications Systems, suggested placing signs offering information and direction in the main corridor of the Littleton Systems Center (LSC).

Robert S. Pearson, senior engineer for contract technical requirements, suggested ways to avoid cold air from entering Denver Systems Center (DSC) through the large double doors. Facilities has indicated that the problem is eliminated.

Angela Barkus, associate analyst for project integration, noted problems associated with employee name changes. She suggested initiating a procedure to assist employees with the necessary forms. Professional relations will modify Standard Procedure 2.8.

Donald Hodges, quality engineer for small missile support, described the procedure for sampling barrels of pure fuel. He suggested a different handling procedure. ■



Company athletes win Denver Corporate Games

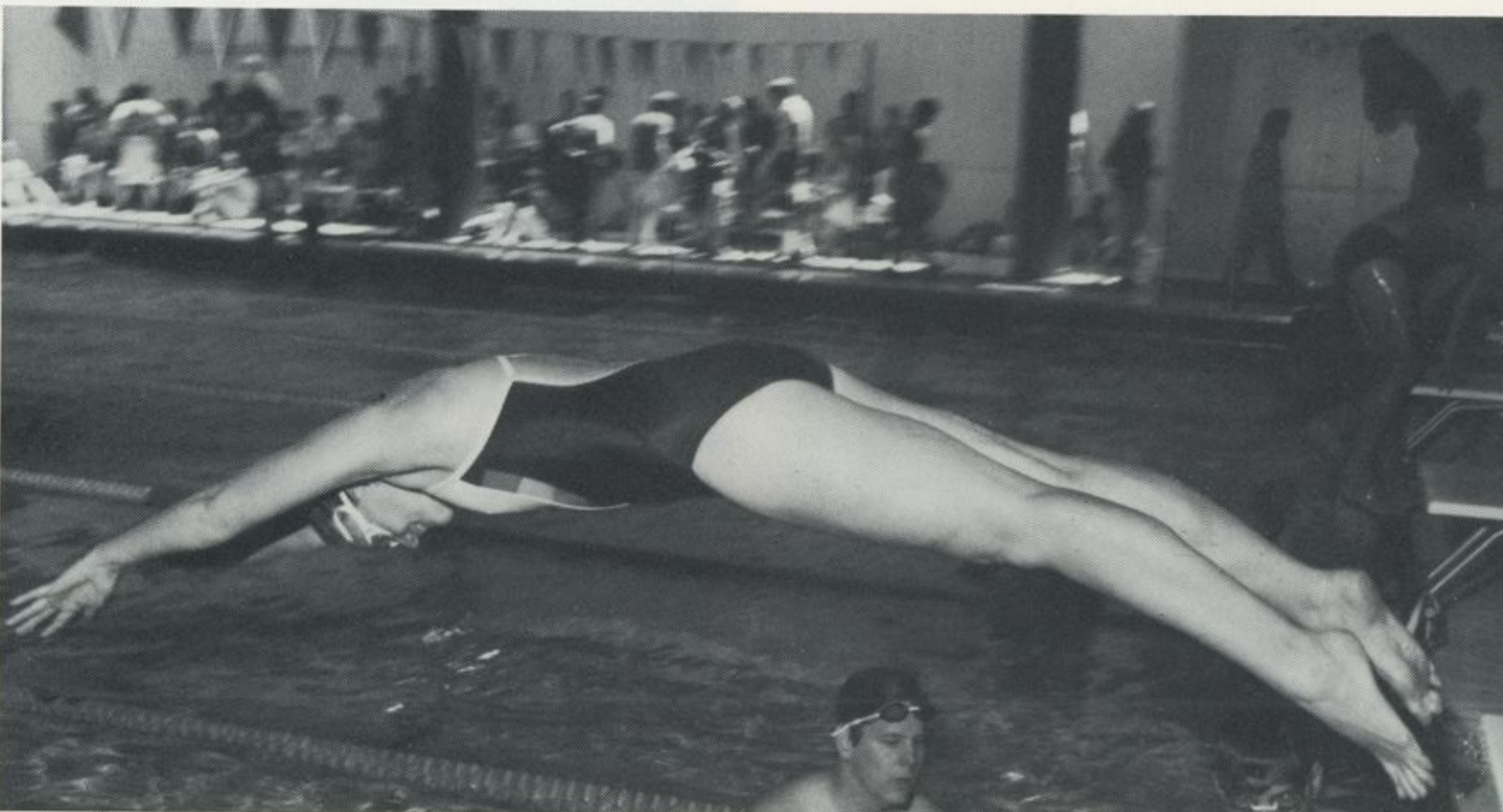
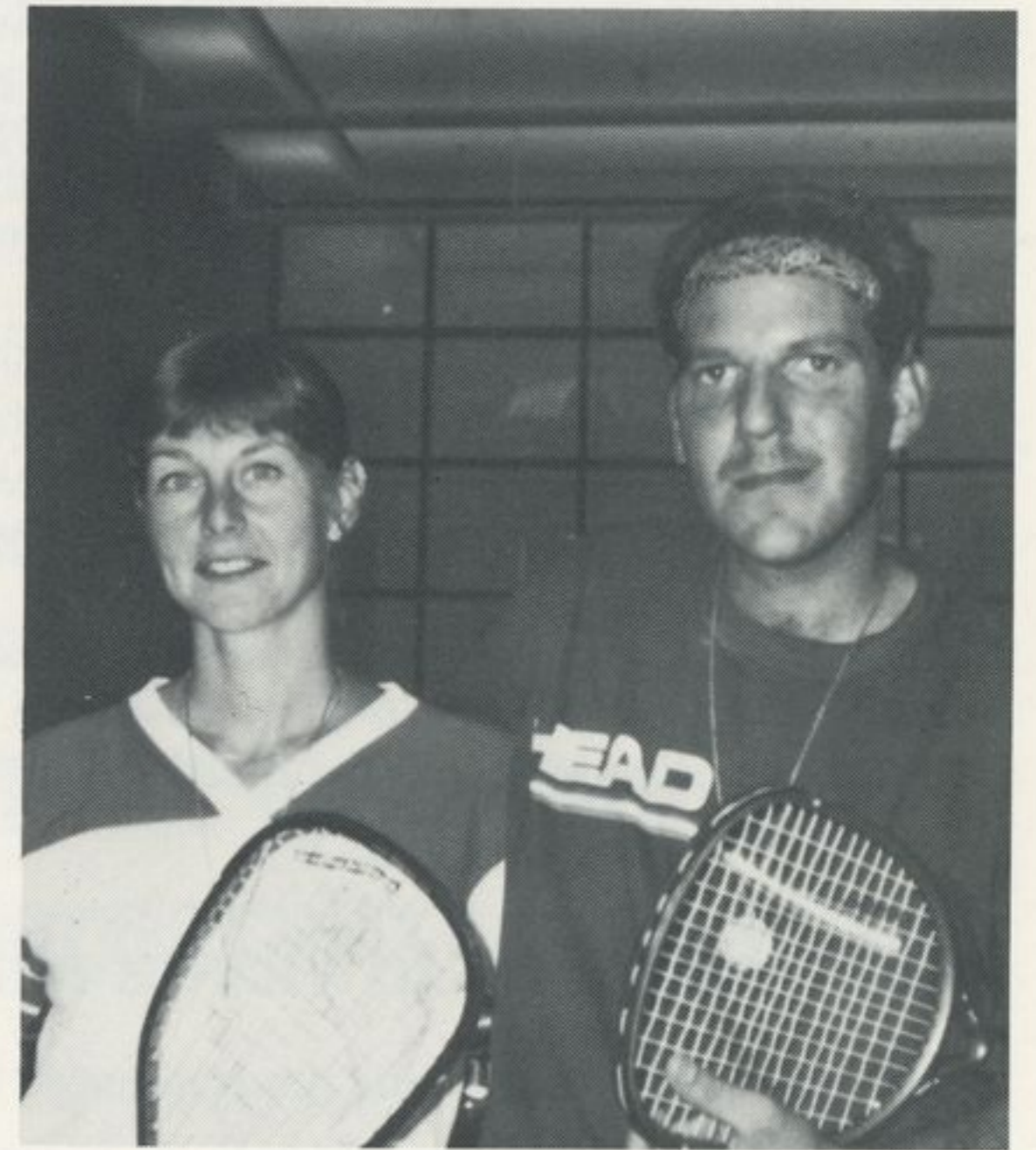
Martin Marietta athletes dethroned three-time winner Public Service Company of Colorado June 9 in the sixth annual Denver Corporate Games.

Athletes from Denver Aerospace, Information & Communications Systems, and Data Systems competed in track and field, a 5-K road race, swimming, golf, bowling, tennis, volleyball, cycling and racquetball. Martin Marietta athletes scored 266 points to become the overall winner in Division A for companies with 2,500 or more employees.

Approximately 3,000 employees from 30 Denver-area corporations participated this year. The Corporate Games are conducted each year to benefit the Colorado Special Olympics.

Martin Marietta previously won the Games in 1981 and 1982, with a second-place finish in 1983 and 1984, and a third-place finish in 1985.

The employee services and recreation department congratulates all participants, and thanks those who tried out, and the coaches, event coordinators and employees who volunteered.



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