

Astronaut repaired broken satellite repair in

MARTIN MARIETTA

news

DENVER AEROSPACE

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New facilities, equipment to be added during 1982

Renamed the Littleton Systems Center, the Michelin building, purchased in late 1981, will be refurbished during the early part of 1982.

Using a portion of the \$35.3 million in capital funds allocated by the Corporation, facilities will concentrate on making some office space ready for use this summer in the new facility. The decision on the office space-manufacturing space mix will be made during the first quarter.

One building addition will be built at the main plant and another building will be designed in the capital spending program.

A three-story, 45,000-square-foot office addition will connect the administration and engineering buildings. When complete, the space will be used for offices.

An acoustics test facility planned for construction near the SSL will be designed this year.

Additional capital funds will be spent for equipment, including extensive improvements in the machine shop, laboratory instruments, and electronics test apparatus.

Refurbishment of offices and laboratories in the SSB and the engineering building will continue in 1982.

The \$35.3 million allocated to Denver is part of the Corporation's \$401 million capital budget for 1982.

J. Donald Rauth, chairman of the Corporation, said, "This high level of capital infusion carries on the pattern of recent years for expanding facilities and raising productivity and overall efficiencies in the several Martin Marietta lines of business. Including the 1982 authorization, our capital commitments within a five-year span have amounted to \$1.7 billion."

On the cover

William P. Coppfer, winner of two cash awards for outstanding contributions to solar energy systems technology, stands below the heliostat mirror assembly incorporating his solar pan design. The mirrors were bonded to the assembly with ceramic bonding tools of Coppfer's design. Both inventions were used on solar heliostat programs in Almeria, Spain, and Barstow, California.



A Martin Marietta check for the \$60,000 Corporate gift to Mile High United Way is presented by R. E. Burnett, director of personnel, right, to C. Wesley Schoelzel, general chairman of the 1981 campaign. Holding the poster showing the Martin Marietta \$527,200 contribution are Dominic Verrastro, manager of employee relations, and Dick Clark, Sr., senior vice president of Mile High United Way.

Inventors receive awards for ideas

Nine employees have been selected by the product development review board to receive cash awards for their inventions. Those receiving the awards:

William P. Coppfer, mechanical and structural manufacturing: ceramic bonding tools with control system for precision bonding of large mirror module assemblies, and a solar pan design.

Howard L. Paynter, Dale A. Fester, Ralph N. Eberhardt Jr., and James R. Tegart, engineering mechanics: passive propellant management design to provide precise center-of-mass control.

Mohan S. Misra, engineering mechanics: efficient metallization system for photovoltaic power system mounting substrate assembly.

Benjamin C. Chambers, engineering mechanics: LSS draw cord attachment bead.

William C. Croucher, electronics manufacturing, and Sidney Broadbent, electronics: solar cell/substrate soldering tool.

United Way campaign nets half million

Employee contributions to the 1981 Mile High United Way campaign were 18.5 percent higher than 1980 contributions.

Employee pledges, combined with the \$60,000 Corporate contribution boosted the total above the half-million dollar mark — \$527,200.

Eighty percent of the employees here contributed to the campaign.

The Mile High United Way supports 80 health and welfare agencies in the five-county metropolitan area. With the decrease in federal funding for some programs, the United Way agencies are taking on a greater responsibility for providing locally the services needed.

External tank, SRB are mated for third mission

With the mating of the external tank and the solid rocket boosters January 5 at Kennedy Space Center, work is on schedule for the third Space Shuttle mission.

The orbiter Columbia will join the external tank and SRB in early February.

The third mission is scheduled for launch the week of March 22.

Astronauts practice satellite repair in MMU facility here

NASA astronauts are using the space operations simulator to practice techniques for repairing satellites in orbit.

The techniques learned may soon be used to repair the Solar Maximum mission satellite, according to a possible plan recently outlined by NASA officials.

In the simulator, astronauts are trained to fly the manned maneuvering unit and can practice flight techniques against a full-scale model of the Solar Maximum satellite as well as portions of the Space Shuttle orbiter and the cargo bay.

Using the MMU in space, an astronaut would fly from the Shuttle to a disabled satellite, attach himself to it, and stabilize it by using the backpack's propulsion system.

For the Solar Maximum mission, the 50-foot remote manipulator arm in the Shuttle's cargo bay would be attached to a grapple fixture on the satellite to bring it into the cargo bay. The manipulator arm was successfully tested on the second Shuttle flight.

The Solar Maximum mission spacecraft was launched in 1980 to study solar flares, which may affect the Earth's climate and weather. The satellite successfully gathered data for several months, but then three fuses blew in the spacecraft's attitude control module. As a result, the satellite can no longer be accurately pointed at the Sun.

SMARTS program earns award fee

The stimulation, monitoring, analysis, reduction, and test system (SMARTS) program has earned a 92.5 percent award fee in its first evaluation period. Announcement of the award was made by the U.S. Air Force Tactical Air Command.

The SMARTS contract was awarded July 15, 1981. Under it, according to Curtis D. Brudos, who heads the tactical systems area in command and information systems, Denver Aerospace will build the first four increments of the program.

The first system is to be installed at Tactical Air Command headquarters at Langley Air Force Base, VA by January 1983. It will be used to test the compatibility and interoperability of command, control, and communications systems.



Astronaut Bruce McCandless positions the MMU simulator beside full-scale mockup of a disabled solar mission satellite.

Operation Santa Claus cheers needy families

Employees donated more than \$11,000 and hours of volunteer work to deliver toys, gift certificates, and groceries to the needy in time for Christmas.

The donations and the profits from the on-going wastepaper sales paid for the assistance to more than 100 families.

Contributions to Operation Santa Claus this year exceed those of previous years, according to Beverly K. Fuhrmann, secretary-treasurer of the employee-operated charitable organization.

Management development programs train for mission success

"The quality of leadership and management we have has a direct bearing on our mission success," said John F. Hallen, manager of organization and management development. "That's why our management development program is structured to help maintain these qualities."

The purpose of the program is to assure that the management team possesses a common management philosophy; understands the important values and norms of the Martin Marietta culture; shares a commitment to mission success; performs key management tasks at a high level of competency; and implements management tools, techniques, and methods in a consistent manner.

Courses offered are based on the content of management and the process of management.

The three basic courses are offered to employees who are nominated by their managers or director. The courses are Effective Supervisory Practices, Performance Management, and Project Management.

Information on the program and the requirements for participation is available from the organization and management development offices.

Competitive contract won for satellite monitoring system

Denver Aerospace has won a competitive contract to develop designs for modernizing the satellite monitoring system in NORAD's Cheyenne Mountain complex near Colorado Springs.

Wayne D. Faber has been named program manager for the one-year contract for the Space Defense Operations Center-Phase Four (SPADOC-4).

SPADOC-4, a high-speed computerized system, will begin operations in 1985. It will swiftly sort, analyze, channel, and display incoming data to allow SPADOC personnel to make decisions necessary for space defense. The manual methods of maintaining the status of satellites will be automated in new system.

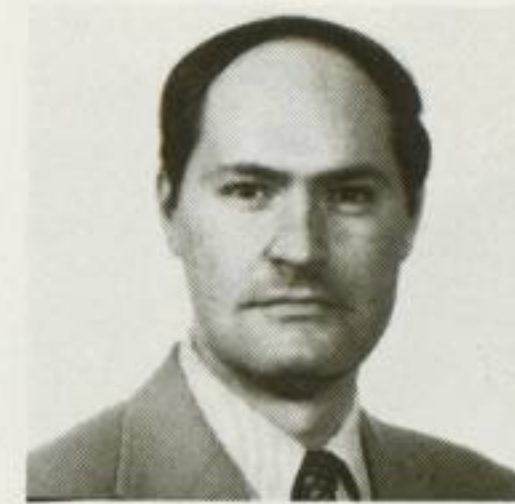
Denver Aerospace and the other contractor, Ford Aerospace, will submit designs to the U.S. Air Force System Command's Electronic Systems division late in 1982. One of the companies will then be selected as the prime contractor.

Working with Faber on the program are Dr. B. Clovis Landry, technical director; Jay L. McBride, mission operations lead; Allan R. Barger, systems engineering; Dan G. Howard, systems architecture and design; Dr. C. John Grewe Jr., software development; and D. W. Smetana, who will be liaison with Air Force Electronic Systems division.

Members of the SPADOC team that will play key roles on the program.



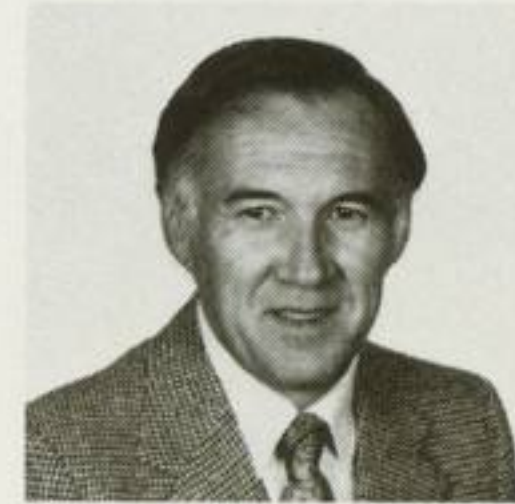
Wayne D. Faber



B. Clovis Landry



Jay L. McBride



Allan R. Barger



Dan G. Howard



C. John Grewe Jr.



D. W. Smetana

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DENVER AEROSPACE

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The Name Game ends with a high score

The final gun was fired in "The Name Game" program December 7, 1981. The score? More than 1580 professional employees hired during 1981 after being recommended through the program.

"It was a successful program," said Dwaine E. Schilling, chief of staffing support. "Employees responded by recommending some top-notch candidates for the open jobs, making our search for qualified people easier and helping us exceed our staffing goals."

"We thank all who participated," he said, "and encourage them to continue to recommend people even though the reward program has ended. Referral application forms are still available."

The breakdown of hiring through the referral program:

Denver: 792; Vandenberg: 565; Michoud: 206; Houston: 17; El Segundo: 4; and Kennedy Space Center: 2.

A modified referral program is currently in use at Vandenberg operations.

Reports required by former NASA, DOD employees

Former employees of the Department of Defense, NASA, and certain military officers required to report aerospace and defense related employment should do so by February 15. The report covers the federal fiscal year October 1, 1980 through September 30, 1981.

Forms and information are available from Leroy Hollins, Denver, Ext. 6750; Richard A. Freeman, Canaveral, Ext. 6066; Raymond J. Lacombe, Michoud, Ext. 3603; and Bruce E. Pherson, Vandenberg, Ext. 2445.



A chauffeur-driven Rolls Royce delivers 21-year Martin Marietta employee Vergie W. Dooley, center, and her husband Joe, left, to a retirement luncheon. Arrangements for the lunch and the ride were made and paid for by Mr. Dooley's fellow employees in the mechanical subsystems group. More than 50 members of the department joined the couple at lunch.

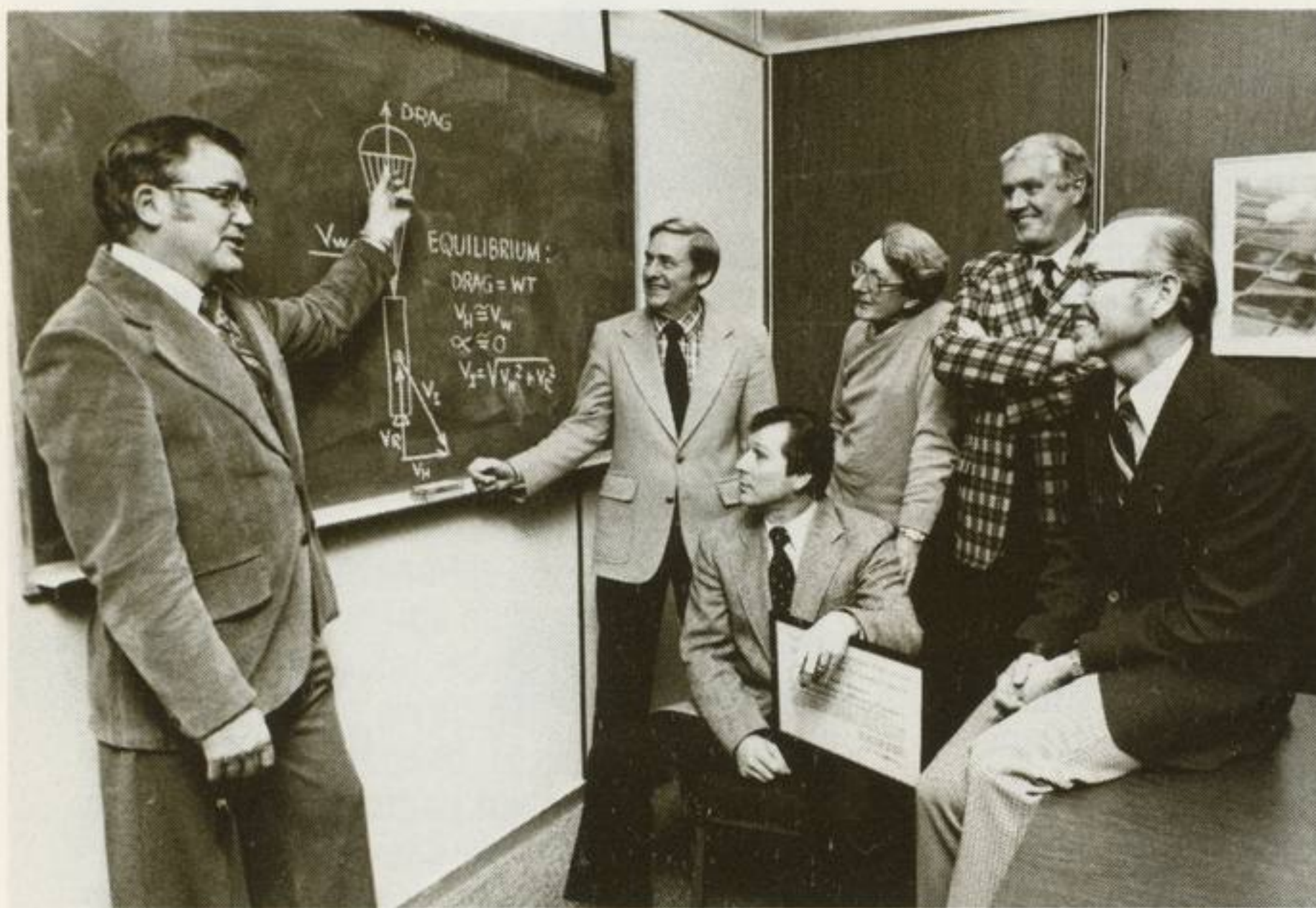
Eight employees earn NASA award

Eight employees — six from Denver and two at Kennedy Space Center — have received a NASA Public Service Group Achievement award for their work on the solid rocket booster recovery system.

The award was presented "for significant contribution to the success of the Space Shuttle program and for personal dedication, technical excellence, and professional expertise throughout the design, development, integration, and testing of the solid rocket booster recovery system."

Those honored from Denver were William R. Woodis, Richard D. Moog, Francis I. Tallentire, Ron F. Drobnik, Jim R. McCandless and Robert E. Vosbeek, Jr.

Honored from the external tank operations at Kennedy Space Center were Robert O. Ewart and Kenyon G. Eflin.



Reviewing details of the program for which they won a NASA Public Service Group Achievement award are members of the Solid Rocket Booster recovery team in Denver. In the photo are, left to right, William R. Woodis, Richard D. Moog, Ron F. Drobnik, Francis I Tallentire, Robert E. Vosbeek Jr., and Jim McCandless. Winners of the award at Kennedy Space Center are shown in the individual photos.



Robert O. Ewart



Kenyon G. Eflin

Credit union sets IRA rates, procedures

The Red Rocks Federal Credit Union is offering Individual Retirement Account (IRA) plans to members at a 13.5 percent fluctuating rate for the first two quarters of 1982 or at a fixed rate 12.25 percent for 18 months.

All employees are eligible to establish IRA plans even though they are covered by the Martin Marietta pension plan under tax laws that went into effect January 1.

Employees who are not members of the credit union may join by paying a \$5.00 non-reimbursed one-time entrance fee and making a minimum-deposit of \$5.00. An \$8.00 service charge is applied each year for each account.

As with all credit union accounts, the IRA account does not have to be terminated if the employee leaves Martin Marietta. The "once a member always a member" rule applies to these accounts as well.

Brochures explaining IRA accounts and additional information are available from the credit union office, or call Barbara Bonn, Ext. 6955.

Family fun events scheduled for 1982

Believing that all work and no play makes for dull living, the recreation office has planned three family fun events for 1982. The events are provided at no cost to employees and their families.

Scheduled for this year are family nights at Denver Nuggets basketball games in February, the Family Day outing at Lakeside Amusement Park June 19, and a Denver Symphony Pops concert in September.

Employees have been asked to select two of the three events for which they want tickets for their families.

The Nuggets games for which tickets have been made available are Saturday, February 13, San Diego; Friday, February 19, San Antonio; Sunday, February 21, Los Angeles; and Wednesday, February 24, Houston.