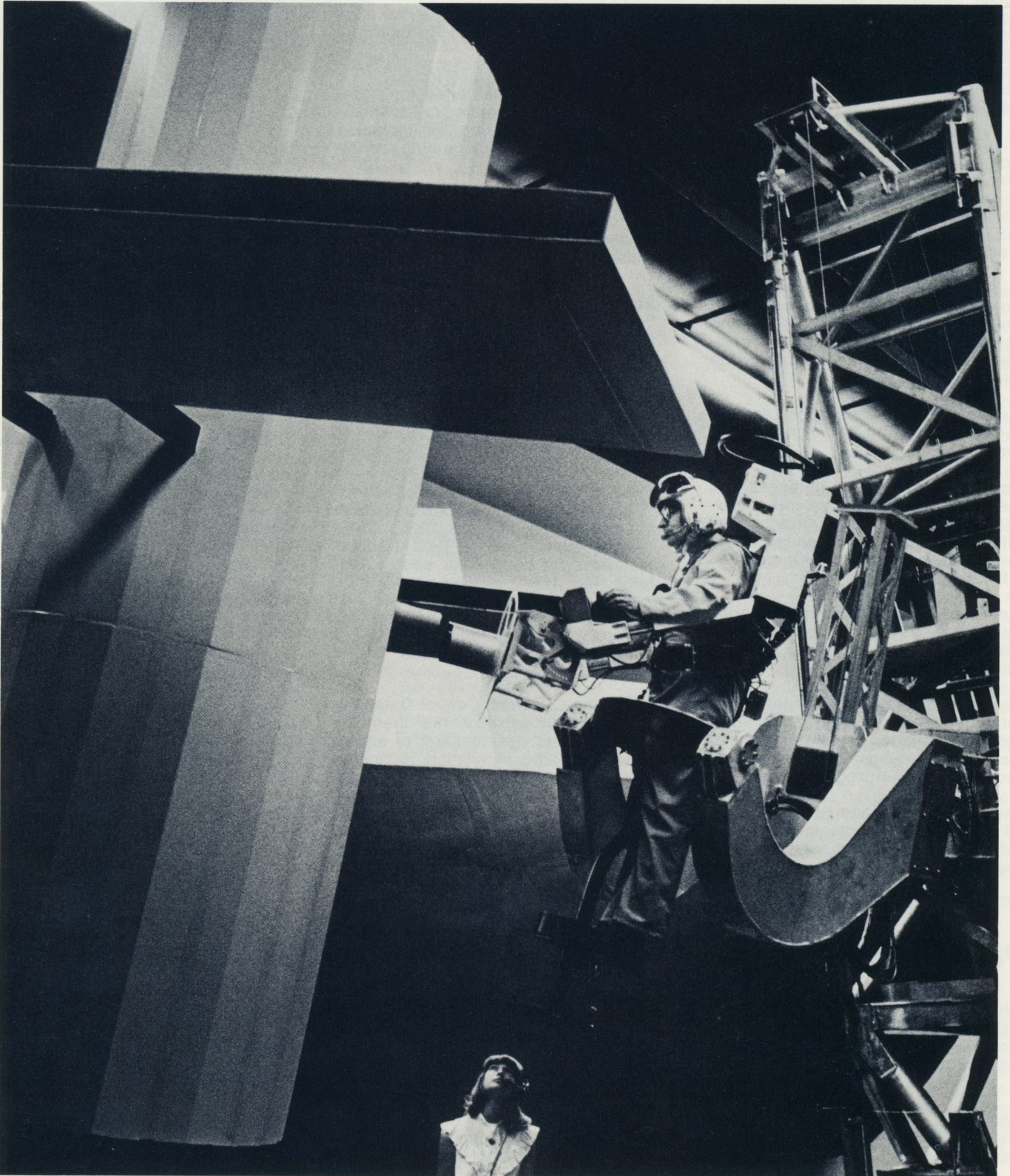


25th
ANNIVERSARY
DENVER AEROSPACE

NUMBER 9/1981

MARTIN MARIETTA
news
DENVER AEROSPACE



Denver Aerospace authors, engineer honored by Corporation

Three Denver Aerospace employees received top awards at the Martin Marietta Corporation Honors Night held in Washington, DC, June 27.

Named co-authors of the year were Thomas E. Edquist and Grady L. Romine. Dr. E. Doyle Vogt was named engineer of the year. Each of the three received silver Jefferson cups, symbolic of their achievements, and cash awards of \$3,000.

Edquist and Romine, senior staff engineers in the strategic systems division, were honored for their paper, "Muzzle Blast from Canister Launched Missiles," presented at the AIAA/SAE/ASME 16th Joint Propulsion Conference, July 1, 1980, at Hartford, CT.

Dr. Vogt, manager of mission analysis and operations in the defense systems division, was cited for "outstanding technical contributions to mission analysis and system integration in the defense systems area."

The three had previously been accorded top honors at the Denver Aerospace awards banquet.

Eleven other Denver employees and one from Denver Data Systems received the coveted Jefferson Cup for their outstanding performance and contributions to the success of the Corporation in 1980.

James R. Beal was honored for "originating and developing an improved failure analysis technique for microcircuits."

George Damstedt was cited for "dedication and leadership in determining and implementing quality measures that contributed significantly to mission success of special programs."

Keith B. Davis was named for "sustained excellence in cost management, estimating, scheduling, and cost risk analysis."

Charles R. Gunnison was recognized for "sustained outstanding performance in the acquisition of new business over the past 15 years."

Floyd L. Kohut was honored for "sustained excellence in the financial management of space launch systems contracts."

Charles J. Meno was cited for "contributions toward meeting critical staffing requirements during 1980, including management of an outstanding recruiting program."

Donald L. Plomondon received his award for "sustained outstanding performance as manager of the Titan III mission success program."

James A. Sterhardt was honored for "outstanding performance that contributed significantly to the acquisition of major new business."

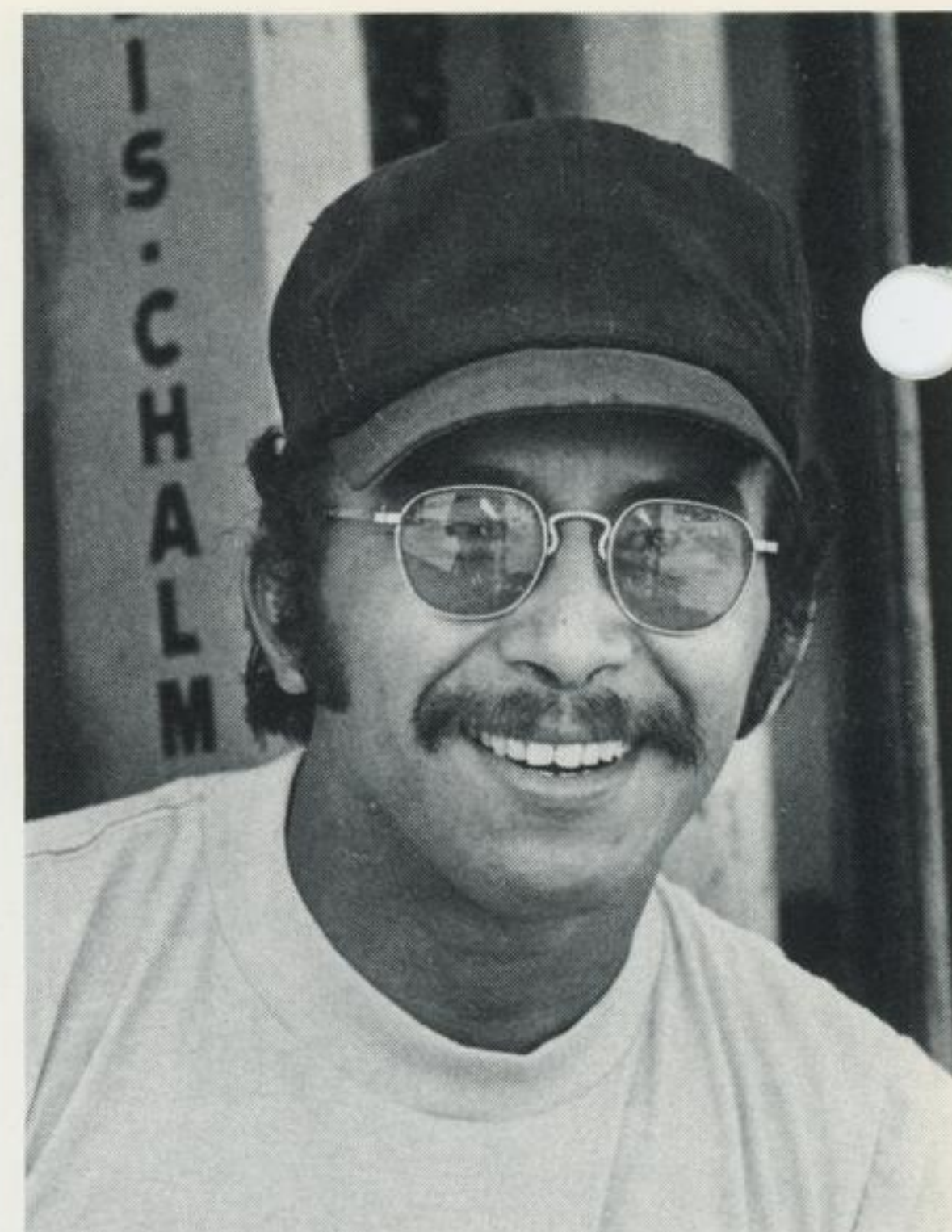
H. Wayne Terbush also was honored for his "outstanding performance that contributed significantly to the acquisition of major new business."

Thomas R. Tracey was cited for "outstanding technical contributions to the conception, analysis, design, and testing of a superior heat transfer technique for large solar energy systems."

Walter R. Weinrich was honored for "outstanding engineering effort in optimizing hardware performance."

Lawrence C. Jones, Denver Data Systems, was recognized for his "creativity in design and development of an advance real-time simulation technique for no-risk testing of complex man-machine systems."

The awards were presented by J. Donald Rauth, chairman of the Martin Marietta board.



David Padilla

Employee stops assault on fellow employee at city bus stop

David Padilla is observant and a man of action.

Driving to work recently he didn't see a woman at her usual bus stop. He slowed down, looked around, and discerned "a guy beating her up."

Padilla, a ground maintenance employee, stopped his truck and ran to her aid. Her assailant also ran and jumped into a vehicle. Padilla pursued him, kept him from driving off, and held him until police arrived.

Padilla learned after the incident that the woman was also an employee on her way to work. The woman, who prefers to remain anonymous, is off work, but is recovering from her injuries.

Performance Sharing Plan administrator is named

Christine K. Duncan has been named administrator of the Martin Marietta Corporation's Performance Sharing Plan for Denver Aerospace.

She will handle new enrollments, changes, transfers, withdrawals, and payments.

Questions regarding the plan should be directed to her at Ext. 4928 or 5609, or to Mail No. 1320.

She will be available to discuss the plan from 10:30 am to 12:30 pm and from 2:00 pm to 3:00 pm Monday through Thursday and from 9:00 am to noon on Fridays. The office is in Eng. 125.

On the cover

C. Ed Whitsett, NASA's program manager for the manned maneuvering unit, demonstrates the ability of the MMU space operations simulator to fly a repair mission to a full-scale mockup of a disabled solar maximum mission satellite. NASA is considering such a mission to repair the satellite in the Space Shuttle cargo bay, to which it would be returned by an astronaut using the MMU. Susan Madison, standing below the simulator, is performing the safety overseer function during the test.

Housekeeping is productivity aid

A number of things contribute to productivity in our business," said R. H. Snodgrass, director of facilities and services. "Not the least of which is housekeeping.

"The facilities and services organization has a commitment to improve the overall productivity of work areas," he added. "We are adding lights, watching the temperatures, rearranging work areas, and installing new equipment. Our maintenance people are also stepping up their cleaning efforts."

Employees can help keep facilities clean. Snodgrass suggests:

- Report housekeeping items that require maintenance attention.
- Dust cabinets, shelf tops, desks.
- Don't take trays, silverware, dishes from the cafeteria into work areas.
- Put lids on vending machine cups.
- Use ash trays and, if outside, proper receptacles.
- Don't drop papers and trash on floors or ground.

"Excess paper stacked on windowsills, tops of cabinets, and tops of bookcases is inefficient and unsightly," Snodgrass said. "We all need to purge our files.

"In short," he said, "if employees act here as they act at home, our housekeeping will improve and work areas will be better and more productive places to work."

IEEE forms local technical chapter

The Institute of Electrical and Electronic Engineers has organized an electromagnetic compatibility technical chapter in the Littleton area.

Abul Rashid, a staff engineer in the electromagnetic compatibility function here, was instrumental in forming the chapter and is serving as its first chairman.

The 1981-82 chapter program will feature technical meetings on grounding and bonding techniques, fiber optics, lightning, connectors, and other topics of practical interest to many Denver Aerospace employees.

Those interested in joining the chapter should contact Rashid at Ext. 7350.



Donald A. Ruscio, shown here in the INTELSAT V tank area, will appear on a television health series planned by Channel 6. Ruscio, program manager of the tank program, is recovering from quadruple bypass surgery.

Employee to be featured in television health series

Donald A. Ruscio, program manager for the INTELSAT V propulsion tank program, will become a television personality this fall—not because of his work on the tanks, but because of work he is doing on cardiac rehabilitation.

And the rehabilitation work he is doing is on himself.

Ruscio underwent quadruple bypass surgery earlier this year to correct a 100 percent blockage of the oxygen supply to the left side of his heart and an 80 percent blockage on the right side.

His recovery and rehabilitation will be featured as part of a series on health being planned by KRMA-TV, Channel 6, for telecast this fall.

"I did not have a heart attack," Ruscio said. "In fact, tests show my heart, as a muscle, to be quite good."

However, he had been suffering from angina pectoris for many years, although no specific diagnosis had been made. It wasn't until he had a company physical examination that it was suggested further study should be made.

"I made arrangements to have the additional testing done at the University of Colorado Medical Center," said Ruscio. "It was confirmed that I had a problem.

"At the time of my exam, the center had just begun a study of the treatment of

angina by exercise and medication," he added. "I became a part of that program."

His angina became more severe in January. Further tests indicated surgery was necessary to correct the problem.

The surgery was successful.

"Treadmill tests show my endurance level to be about three times what it has been before surgery," Ruscio said.

He is participating in a rehabilitation program at the center that is designed not only to build the body, but also "teaches you how to manage your life—how to handle stress."

Ruscio will be filmed while he is at the center, exercising at home, and while he is at work.

"I can't say enough good things about the treatment I have received," he said. "Nor can I thank the company enough for the physical and the insurance program that has covered the costs of my surgery and treatment."

MARTIN MARIETTA NEWS
Published by Public Relations
MARTIN MARIETTA AEROSPACE

Call Ext. 5364 with suggestions
for information or articles
Denver Aerospace

P.O. Box 179 • Denver, CO 80201

JULY 1981

Air Force officers complete EWI studies

Two U. S. Air Force officers completed Education with Industry (EWI) assignments at Denver Aerospace in late June.

Maj. Darwin L. Johnson and Capt. William N. Ochinero were honored at a luncheon and received graduation certificates from the Air University.

The EWI program is an individual graduate-level program for career officers administered by the U. S. Air Force Institute of Technology (Air University) at Wright-Patterson Air Force Base. During the 10-month program, the officers worked closely with people here to learn and understand production, procurement, and management problems shared by industry and its customers.

Major Johnson has been assigned to the Air Force test and evaluation center at Kirtland Air Force Base in Albuquerque, NM, as MX preservation of location uncertainty evaluator.

Captain Ochinero will go to the Air Force satellite control facility at Sunnyvale (CA) Air Force Station for an assignment in the cost management function.

Denver engineer is Aerospace intern

Richard F. Harris, group engineer on the MX launcher shock isolation system, has been selected for the Aerospace headquarters operation intern program for 1981-82.

During the one-year program, Harris will report to the vice president for operations located in Bethesda, MD. His responsibilities include study of Aerospace capabilities in selected technical disciplines, problems encountered in on-going contracts, and planning future business opportunities.

Harris joined Martin Marietta in July 1, 1975 and has held several engineering assignments. He has worked on SCATHA, the Space Shuttle external tank, reaction control system tanks, and MX. He has been a part of several proposal teams.

Harris holds a bachelor of science degree in aerospace engineering from Texas A&M and a master of science degree from the Massachusetts Institute of Technology in aeronautics and astronautics.

Early this year he was named to serve on a panel of independent experts on structures of the Federal Aviation Administration.



Stephen M. Pompea believes the nautilus shell he is holding can be an invaluable key to the history of the Moon.

Shell reveals lunar cycles

A sea creature that reveals little about itself in its natural habitat is providing clues to Moon-Earth relationships that existed as much as 500 million years ago.

Stephen M. Pompea, an engineer working on infrared imagery here, has been studying chambered nautilus shells since his undergraduate days at Rice University.

It is his hypothesis that the nautilus reflects two biological rhythms in the formation of its shell, preserving a daily and a lunar monthly cycle in its growth. Pompea, and his partner in the research, Peter G. K. Kahn, a Denver geologist and classmate at Rice, claim the cycles are light-induced and synchronized with light from the Moon.

In studying fossilized nautilus shells, the two have concluded that the Moon was closer and revolving faster in earlier times. They believe the Moon had a nine- or ten-day orbit about 500 million years ago instead of its present 30-day orbit.

They have determined the orbits by counting lines, representing the daily

cycle, and chambers, representing the monthly cycle, on the nautilus shell.

"It's almost like counting tree rings," says Pompea, "except we are dealing with two, shorter cycles."

The nautilus is almost impossible to study in its natural habitat in the southwestern Pacific Ocean. During the day, it lives 400 meters deep in the ocean, surfacing only at night to feed.

"We believe the information we have developed can be useful in the study of lunar dynamics," Pompea said. "If we can decipher the history of the Moon, we can decipher the history of the planets."

Pompea and Kahn have published several technical articles in the United States and in Europe, including the cover article for *Nature*. Although Pompea did his graduate work at Colorado State University and Kahn did his at Princeton University, they continued the work began at Rice. Now that the two are living in the Denver area, they are working more closely on the study, using an electron microscope and photography to document their findings.



Mr. and Mrs. Floyd L. Kohut were bound for Las Vegas when this photo was taken. Kohut won the two-day trip for two in the May 11 "The Name Game" drawing. He qualified for the drawing by referring a job candidate in the employee referral program.

Martin Marietta open tourney August 1, 2

The annual Martin Marietta Open 18-hole golf tournament will be held in two sections August 1 and 2 at the Meadow Hills golf course, 3609 South Dawson, Aurora. Denver Aerospace, Denver Data Systems, and Air Force employees and their spouses are eligible to participate.

The tournament has been scheduled over two days to accommodate as many golfers as possible. Entries will be limited to 120 on Saturday and 150 on Sunday. The first foursome will tee off at 11:00 am each day. Entry fee is \$15.00 per golfer and includes greens fees, electric cart, surprises, and a post-golf lunch. Tee times will be assigned in order of entry.

Two handicapping systems will be used to determine low net scores, with winners to be selected under each system. Golfers with verifiable handicaps from Martin Marietta golf leagues, other recognized golf leagues, or from country clubs will compete in one group. Others will compete under the Peoria handicapping system. Winners will be selected from scores posted during the two days. There will not be separate winners for Saturday and Sunday.

Entry blanks, available from the recreation office, must be returned no later than July 24. Up to four players may be entered on each blank. The \$1.00 fee for each player must accompany the entry. Checks only will be accepted and should be payable to Martin Marietta Aerospace and include the employee badge number and telephone extension.

Entries may be mailed to the recreation office, Mail No. 1321, or turned in at the office, Eng. 124G.

Employee athletes to compete in Corporate Games

Employees will compete in the first annual Denver Corporate Games today and tomorrow, July 10 and 11, to benefit the Special Olympics.

Thirteen Denver companies will field teams in seven events. Proceeds from the Corporate Games will benefit the Special Olympics, a program of athletic competition for developmentally disabled adults and children.

All events are open to the public and employees are invited to participate as spectators.

The events, times, and locations:

Tennis: Friday evening and Saturday at 11:00 am, Auraria Higher Education Center campus.

10,000 meter run: Saturday, 7:30 am, Washington Park.

1,500 meter run: Saturday, 9:30 am, Auraria track.

800 meter relay: Saturday, 10:30 am, Auraria.

Volleyball: Saturday, men at Auraria, women at Denver Athletic Club.

Bowling: Saturday, 8:00 am, 11:15 am, and 3:00 pm, Denver Athletic Club.

Racquetball: Saturday, 9:00 am and 2:00 pm, Denver Athletic Club.

Employees scheduled to participate:

Tennis: Brian Gallagher, Peter Rex, Ernest Berliner, Mary Ireland, Dwaine Robey, Margaret Condon, Helen Spindler, and Kay Heider.

10,000 meter run: Thomas Bailey, Dick R. Croteau, Michael McTague, David Crain, Laurie Fester, Cynthia Pickering, Susan Douglas, and Beth Wade.

1,500 meter run: Michael Kelly and Rochelle Baker.

800 meter relay: Ellen Marshall, Leslie Cheer, Clifford Adkin, and Steven Price.

Volleyball: David Wolff, Robert Williams, Neil Swanson, John Fisher, Gregory Drew, William Castor, Rex Farnsworth, Charles Blum, Barbara Wooley, Donna Van Dyke, Kathryn Hrouda, Mary Ann Baker, Linda Wilmot, Jean Stephens, Sheir Leonard, and Leslie Hanna.

Bowling: Robert Baker, Richard Watts, Terry Delp, Mary King, Kathy Johnson, and Judy Geilert.

Racquetball: Jennifer Hoette and Richard Truax.

Recreation

Information on all clubs and activities may be obtained from the recreation office, Eng. 124, Ext. 6750.

Soccer Club—The annual meeting of the Soccer Club will be held at 5:00 pm July 21 in the engineering building presentations room. Officers will be elected and the fall season will be planned. Those interested in playing should attend the meeting or call Larry J. Padgett, Ext. 3408.

Parapsychology Club—Glenn Carlson of the Jung Research and Education Center will be the speaker at the July 16 meeting of the Parapsychology Club. The meeting will be held at 5:00 pm in the SSB sixth floor presentation room.

Ridge Riders Club—The club will host an open O-Mok-See Saturday, August 1 at the club's arena. Belt buckles and ribbons will be awarded the best participants in pole bending, keyhole, flag race, barrels, and a special event. The event is open to all employees and their dependents. Spectators are welcome. Information and directions to the arena may be obtained from Bruce Torbeck, Ext. 5030, or Irene Woodzell, Ext. 4488.

New Clubs—Organizational meetings have been scheduled for new clubs: Sailing—Tuesday, July 14, 5:00 pm, DSC I, room 200K. Computer—Thursday, July 16, 5:00 pm, engineering building presentations room. Scuba—Tuesday, July 21, 7:00 pm, DSC II, room 354.

Hole in One—William Hughes, playing in the recreation-sponsored 19th Hole Golf League, had a hole in one on the seventh hole at Englewood Golf Course.

Discount Tickets—Elitch discount coupons, valid through July 19, are available from recreation representatives.

Career development program to be designed for non-exempt employees

A career development program for non-exempt salaried employees will be designed and managed by Barbara Sikorski who joined the organization and management development department July 6.

Ms. Sikorski, who has a degree in applied behavioral science, was a former

counselor/trainer for the Cherry Creek school district.

In addition to the non-exempt program, she will plan and conduct seminars and workshops, identify management development activity requirements, and work with managers to improve problem-solving approaches.

CCMS installation is under way at Vandenberg

The checkout, control, and monitor subsystem (CCMS) equipment that is part of the launch processing system at Vandenberg Air Force Base for Space Shuttle launches on the west coast, is being installed.

The launch processing system at Vandenberg will provide automatic checkout, launch control, and engineering and management support for Space Shuttle vehicle turnaround at Vandenberg. The system consists of an integrated network of computers, data links, displays, controls, hardware interfaces, and computer software.

There will be two launch processing system control centers, one each at North and South Vandenberg. The system will have the capability to execute the CCMS applications programs that control and monitor the Space Shuttle Vehicle, the solid rocket boosters, the external tank, the payload, flight article systems, and associated support equipment and facilities from the control centers.

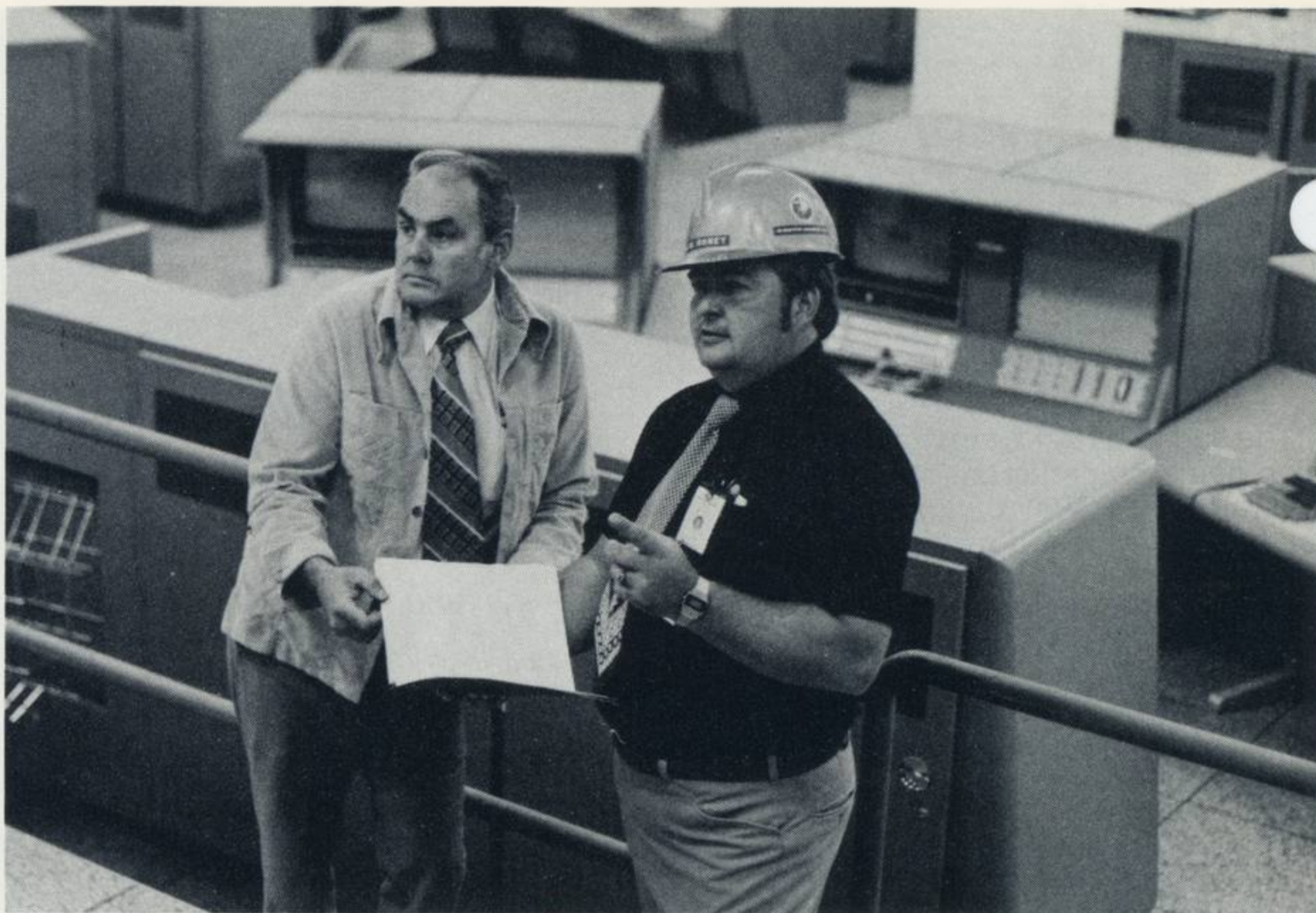
Changes made in engineering mechanics

Walter Barker, who has been manager of the engineering mechanics design section, has been assigned to manage the thrust reverser engineering activities. This is a follow-on assignment to work he did previously on the earlier Baltimore Aerospace thrust reverser model and now includes engineering for the fixed-cowl.

Barker's section is being divided into two groups. James Zimmerman will manage airborne design, which includes the MX launcher, and Ray Lyon will manage a new ground mechanical equipment design group that will include all ground support activities.



Kenneth P. Timmons, Michoud division vice president and general manager, has been elected to the board of directors of the Pendleton Memorial Methodist Hospital. The recently expanded hospital is four miles from the Michoud assembly facility and has a staff of 1000.



CCMS installation at the Space Shuttle control center on space launch complex six at South Vandenberg Air Force Base is discussed by Charles G. Winsell, CCMS operations chief, left, and James M. Money, launch complex site manager. CCMS is part of the Vandenberg launch processing system.

Ringling bells are for real

"Do you hear bells ringing? You are not imagining things, the bells are real and serve a distinct purpose," says T. M. Crawford, director of personnel safety and security.

The ringing bells alert employees to a potential or actual emergency situation.

Their meaning:

Continuous ringing: A potential or actual emergency exists; secure sensitive material and evacuate the building.

Thirty second ringing: Calls out auxiliary fire personnel.

Short rings: Time signals, lunch periods, testing of system, other nonemergency signals.

"If you hear continuous ringing, evacuate the building," Crawford said.

Outside buildings, a one to three minute siren blast will alert employees to an emergency. The siren also calls for area evacuation.

All emergency situations, such as fire or personal injury, should be reported immediately by calling Ext. 3333.

Management club sets July 15 meeting

The Denver Management Association open to Denver Aerospace and Denv Data Systems employees in salary grade 45 and above, will hold its second meeting July 15 at the Pinehurst Country Club.

Dr. Charles Hall, director of engineering mechanics, will speak on "Meeting Dynamics."

The club was formed, according to its president, Marshall W. Hendrick, a staff engineer in structural design, to open channels of communication and to provide training for potential managers.

"We expected to develop training programs that will aid career growth for our members," Hendrick said. "We are assessing the needs of our members and will work closely with the education, training, and development office to provide seminars and workshops that will meet the needs."

Other officers are Leon Taylor, administrator in solar programs, vice president; Debbie H. Francis, finance, treasurer; and Michael E. Draznin, staff engineer in propulsion, secretary. Those on the board of directors are Ray Lyon, Jerome Tussey, Roy Yamahiro, George McGee, Beverly Thompson, and Daniel Urbina.

Employees interested in joining the association should contact one of the officers or a board member. The initiation fee is \$5.00 and dues are \$12.50 per year.