

MARTIN MARIETTA

news

DENVER AEROSPACE

NUMBER 5/1982



Martin Marietta gives \$250,000 to CSU

Future engineering students at Colorado State University will have the most up-to-date facilities in which to learn the use of computers in the design, manufacturing, and testing processes thanks in part to a recent gift by Martin Marietta.

The Corporation has given \$250,000 toward the development of the engineering college computer center.

C.B. Hurtt, Denver Aerospace president, said the donation is the result of an 18-month cooperative study between CSU and Martin Marietta.

The check was presented to CSU President Dr. Ralph E. Christoffersen in ceremonies in the office of Colorado Governor Richard Lamm. Also participating were Colorado Senate President Fred E. Anderson, Colorado House of Representatives Majority Leader Ronald Strahle, Paul Salas of the Colorado State Board of Agriculture, CSU Engineering Dean Lionel V. Baldwin, and CSU Executive Vice President Mrs. Rebecca Stafford.

Governor Lamm called Martin Marietta "one of our greatest employers."

"As we move into a whole new world of calculating, communicating, and computers, manpower still remains a serious problem facing the growth of the electronics industry," the governor said. "That is why I am particularly pleased . . . to have Martin Marietta make this kind of donation. I also understand it is the largest gift ever made by Martin Marietta in the state of Colorado."

Senate President Anderson said, "I am pleased and I want to thank Martin Marietta for the gift. It will be a great help. The gift also points out that the private sector is willing to become a partner with the state so that we can meet the demands of the future."

"We are grateful," said Majority Leader Strahle, "and we will endeavor to make certain that Martin Marietta receives as many times as possible its money back in the production of qualified engineers and scientists who can help with the tremendous projects they have going."

"We are extraordinarily gratified by the generosity of Martin Marietta," Dr. Christoffersen said. "This donation of a quarter of a million dollars will play a major role in helping us establish the center for computer-assisted engineering."

"We wish to be a leader in this area, and it is only with the significant assistance and cooperation of corporations like Martin Marietta that we will be able to bring such an outstanding teaching facility to fruition."

In addition to the financial contribution, Martin Marietta will assist in the selection of equipment for the computer center, as well as interchange company applications specialists with instructors and students.

In presenting the check, Hurtt also pointed out the steady growth of technology along the Rocky Mountains in Colorado, and stressed the



A check for \$250,000 to help finance the engineering college computer center was presented CSU President Dr. Ralph E. Christoffersen, right, by Denver Aerospace President C.B. Hurtt, left. At far right is Governor Richard Lamm, in whose office the presentation was made. Also participating in the ceremonies were, at far left, House of Representatives Majority Leader Ronald Strahle, and, in the background, Senate President Fred E. Anderson.

need for a continued spirit of cooperation between the private and public sectors.

"Martin Marietta's own case is a striking example of the intertwined relationship," Hurtt said. "We have 1212 graduates of Colorado colleges and universities on our payrolls."

"During 1980-81, we hired 800 new college graduates, of whom 25 percent were from Colorado schools. Sixty percent of our 150 summer interns were studying at CSU or the University of

Colorado. During that same period, 400 of our new hires were residents of Colorado. And, of our 9300 employees, a large percentage have children in Colorado colleges and universities."

Hurtt concluded, "We believe there are significant, long-term benefits to helping maintain a large, qualified professional resource in our 'back yard.' We want to look forward to hiring locally educated women and men who have been prepared with the latest tools, such as computer-aided design and manufacturing."

Proposal ready for solar mission support

Denver Aerospace will submit a proposal March 15 seeking to assist in the repair of the disabled Solar Maximum mission satellite.

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 altitude control module. As a result, the satellite can no longer be accurately pointed at the Sun.

The proposal was requested by the NASA Goddard Space Flight Center to aid in the integration of hardware aboard Space Shuttle when plans are completed for the retrieval, repair, and redeployment of the satellite.

Denver Aerospace will supply systems engineering and systems integration support.

Work on the proposal has been under the direction of William O. Nobles and William M. Miller.

Martin Marietta declares regular quarterly dividend

Martin Marietta directors have authorized a quarterly dividend of 48 cents per share (\$1.92 annualized) on the common stock of Martin Marietta Corporation, payable March 31 to shareholders of records as of March 8.

Project Management course scheduled for late March

Project Management, the third in the core series of three courses being offered in the management development program, will be held March 22-26.

Dr. Arnold Ruskin, co-founder of the Claremont Consulting Group, Claremont, California, will be the instructor for the sessions. More than 40 participants are expected to attend. Dr. Ruskin has worked in project management, systems engineering, program planning, budgeting, life-cycle cost analysis, management evaluation, process engineering, and technical feasibility analysis. He holds a bachelor's degree in chemical engineering, a master's in organization and administration, and a PhD in engineering materials.

Emphasis of the class is on the content of management. Participants will gain a common view of mission success, an understanding of project requirements, a knowledge of project variables, and a consistent set of project management techniques.

The five-day session will be offered again in June, September, and December. Information on the Project Management course, as well as other management development courses, is available from the organization and management development office, Ext. 6620.

Report accidents, employees are urged

Employees involved in traffic accidents while driving on company business should report these accidents immediately.

All such accidents should be reported to the personnel safety department. When there is a personal injury, or a fatality, a report should be made to the legal department.

These reports are to be made in addition to those required by local and state governments.



G. Max McGarr has been appointed director of the Denver Aerospace account for Martin Marietta Data Systems replacing Richard Laughbon. Before joining Data Systems, McGarr was president of his own consulting firm specializing in data processing equipment selection, software evaluation, strategic planning, and high technology new business planning.

50 homes available locally for purchase through company

Residential properties purchased by Martin Marietta from employees transferred to other communities are available for sale to Denver Aerospace employees.

As of March 2, there were 50 homes, ranging in price from \$20,000 to \$200,000. There are periodic additions to and deletions from the available list.

For more information on the specific list of residences and on conditions pertaining to employee purchase of these properties, call Dale Phelps, Ext. 4408.

As a general rule, there is some advantage for employees in purchasing homes through the company from this inventory. The homes also are being offered through licensed brokers for sale to any qualified buyer.

Recreation

Photography—Employees and their families may enter the photo contest sponsored by the National Employee Services and Recreation Association and Guardian Photo. Two photos may be entered in each of the three divisions, color slides, color prints, or black and white prints. Entries will be accepted at the recreation office April 14 and 15 from 4:30 pm to 6:00 pm.

Skiing—Satellite Ski club trips have been scheduled for Breckenridge, March 21; Park City, March 26-28; and Vail, April 18.

Softball—Softball team managers will meet March 15, 5:00 pm, in the second floor cafeteria of the engineering building to form a men's competitive and a coed open recreation division. An orientation session will be held March 16, 5:00 pm, for softball umpires in the West Point building orientation room.

Women's Fitness—Preregistration forms are available for the six-week women's fitness classes that begin March 15 in 200K, DSC.

Parapsychology—Florence Michael, a UFO investigator, will speak to the March 24 meeting of the Parapsychology club to be held at 5:00 pm in the West Point orientation room.

Information on these and other recreation activities may be obtained from the recreation office, Eng. 124G, Ext. 6750.

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Published by Public Relations
MARTIN MARIETTA AEROSPACE

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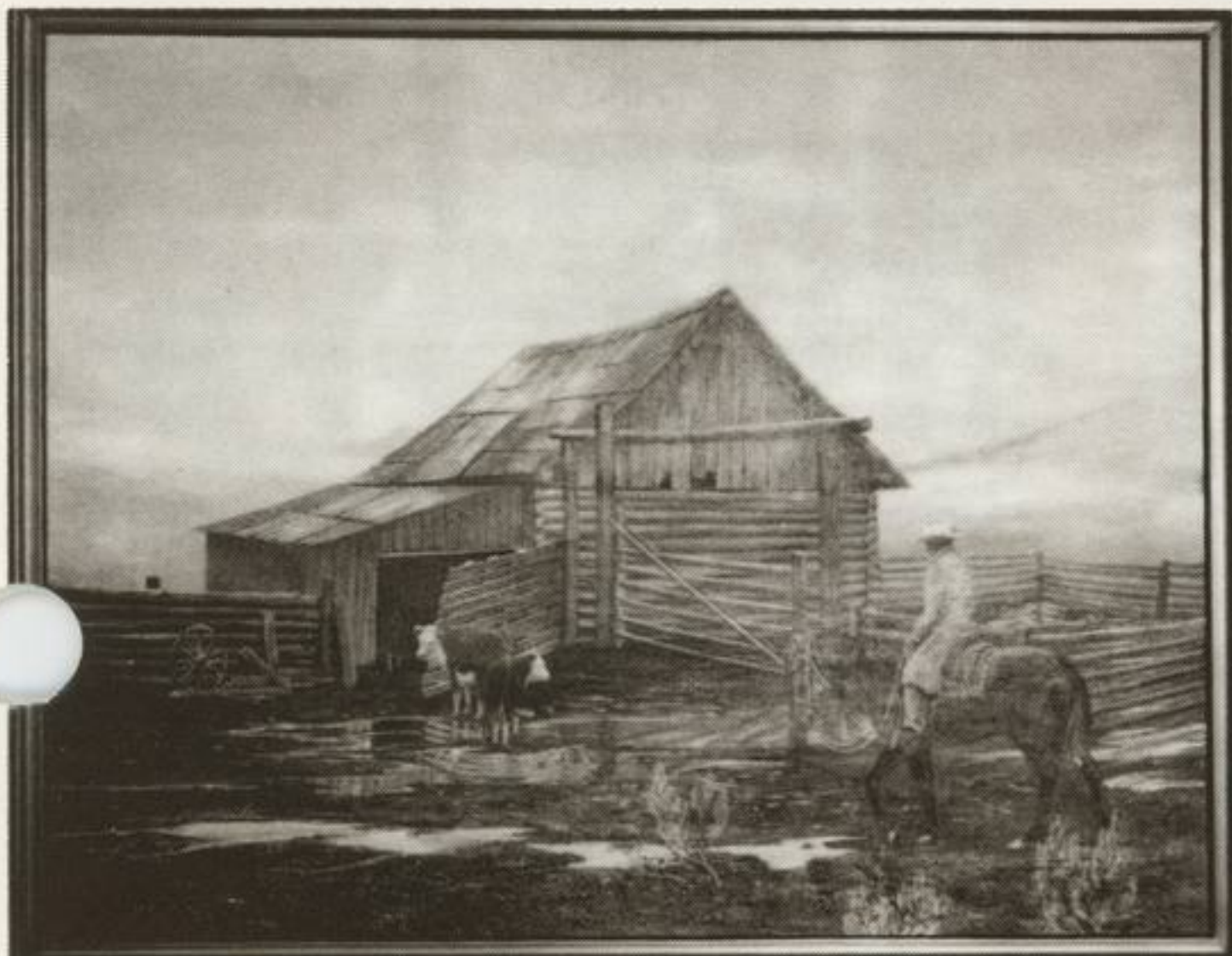
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DENVER AEROSPACE

P.O. Box 179—Denver, CO 80201
March 12, 1982

On the cover

The work of three Denver Aerospace artists has been selected to add a western motif to the executive offices in the engineering building. The three, from left, are Wayne L. Williams, Philip H. Hayward, and Charles O. Bennett. Bennett and Williams joined the company in 1956 and Hayward came in 1970. The paintings selected were done in their own studios during offhours. They are all senior illustrators in graphic services. The paintings below are among those hanging in the executive offices. From left to right they are the work of Bennett, Hayward, and Williams.



Applications available for intern program

An opportunity to work for a year at Martin Marietta Aerospace headquarters awaits the successful applicant in the operations intern program.

Employees who have been with Martin Marietta Aerospace at least three years are eligible to apply for the program which begins in August. Candidates are expected to have either a bachelor's degree or an advanced degree in a technical field.

Purpose of the program is to "identify, select, and train a promising employee qualified in a technical field to take on significant future responsibilities within Martin Marietta Aerospace." The one-year program exposes the selected employee in a wide range of activities at the senior management level.

Forms and information on the program are available from R.W. Walker, Ext. 3395.

Final selection of the intern will be made from among the nominees by a committee headed by Norman R. Augustine, vice president of operations at Aerospace headquarters.

All completed applications must be sent to Walker with a director's or a vice president's approval.

Junior Achievement company among marketing finalists

Galaxy, a Junior Achievement company with Denver Aerospace employee advisers, was among the top five finalists for marketing company of the fall semester. The company had tow strap sales of more than \$2,350.

Advisers for the company were R. N. Hansen, R. A. Zehnle, L. A. Root, and Leonard Franzblau.

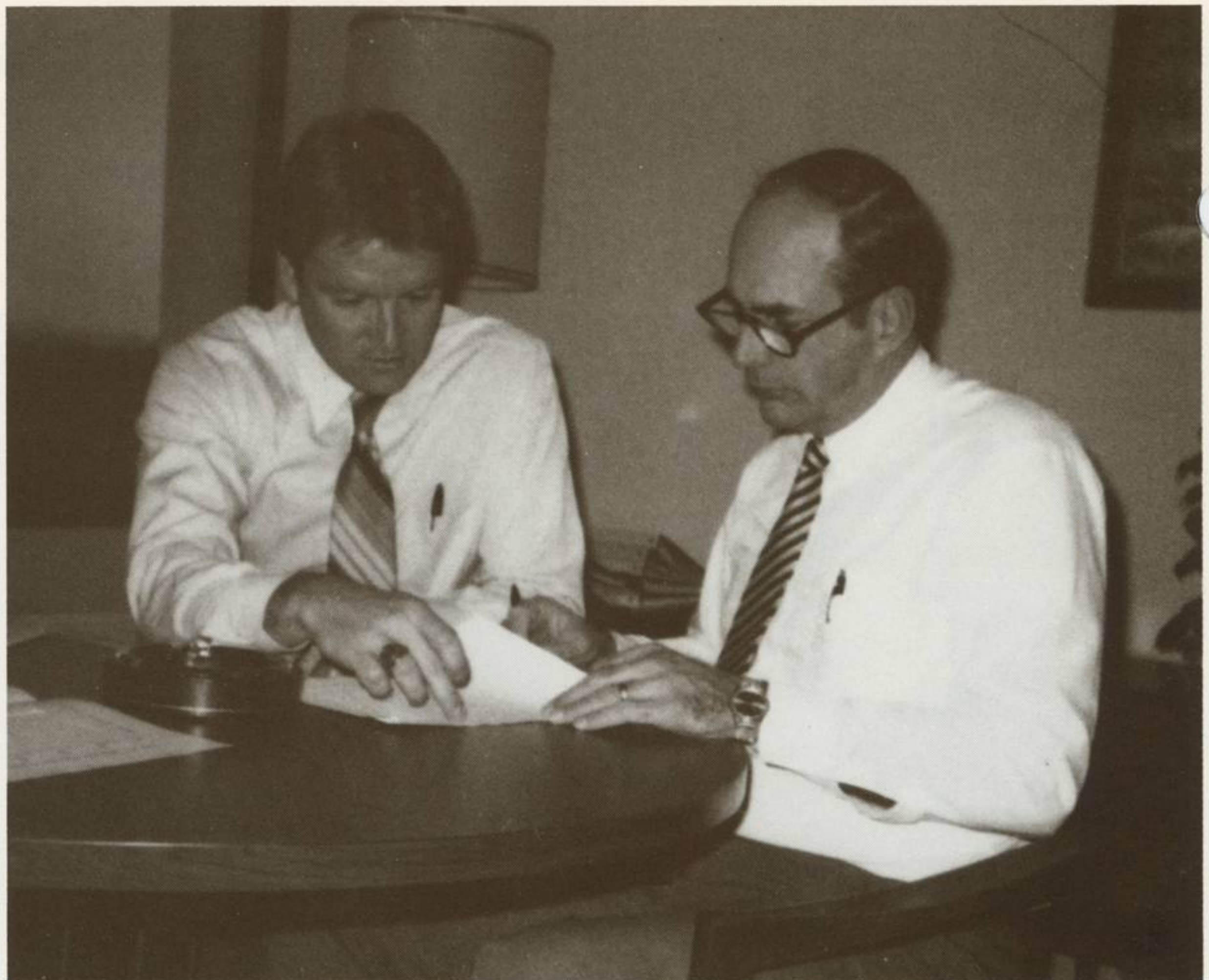
Two spring semester companies have been organized with Denver Aerospace advisers. R. A. Wilkerson, N. T. Nagai, Leonard Franzblau, and W. H. Chun are advising The Glass Works, a company marketing decorative glass pictures. Hang 'em High, manufacturing and marketing a Shaker peg coat rack, is being advised by L. A. Root, R. J. Cecil, and Julie Justin.

Employee is member of touring rugby team

Glyn Ottoffly, who played on the Air Force Academy football team that beat Stanford in the Sugar Bowl, has turned to a different kind of football now that he is working for Denver Aerospace.

He is a member of the Denver Barbarians, an amateur team in the United States Rugby Football Union. The Barbarians finished third in the union's national competition and toured England, Ireland, and Wales last fall to meet rugby teams in those countries.

Otoffly, who is contract administrator for contract technical requirements in the space launch systems division, plays prop forward on the team. While at the Air Force Academy he was a varsity offensive guard for three years.



Discussing one of the tasks performed as the 1981-1982 operations intern at Aerospace headquarters are, left, Richard Harris, the intern, and Norman R. Augustine, vice president for operations. Harris, a Denver Aerospace employee, has been exposed to a wide range of activities at the senior management level, both inside and outside the company.

Employees urged to guard against conflict of interest

"All employees have a continuing responsibility to conduct themselves in accordance with the highest standards of integrity, honesty, and fair dealing and to preclude any conflict between their personal interests and those of Martin Marietta," said Michael A. Steuer, legal counsel.

Steuer's statement came as he urged employees to avoid any conflict of interest that might "have the appearance of compromising an employee's judgment or performance."

He said a conflict of interest occurs when an employee permits the prospect of direct or indirect personal gain to improperly influence the way the employee conducts the company's business.

"I cannot list all the situations that might lead to a conflict," he said, "but there are some common ones that should be avoided."

He cited:

Acquisition or sale of property, facilities or materials, or services by the company where there is direct or indirect compensation to an employee or a member of the family.

Acceptance of a loan, guarantee of a loan, payment, service, excessive entertainment, travel, or a gift of more than nominal value by an employee or a family member from anyone doing or seeking to do business with the company.

Employment by a competitor, regardless of the nature of that employment.

Placement of Martin Marietta business of any kind with a company owned or controlled by an

employee or his family—unless the placement is by competitive bidding.

"These are just a few examples," Steuer said. "I urge employees to avoid these. I would also urge employees to seek our advice before entering into any arrangement in which the potential for conflict exists. Doing so can avoid problems for the employee and the company."

Spring quarter courses set on Arapahoe campus

Employees who want to pursue a business management degree program or a non-degree business leadership program can enroll in several courses being offered at Arapahoe Community College during the spring quarter.

In Linkage, a business management degree program in conjunction with Loretto Heights College, courses being offered are accounting III, personnel management, and algebra of functions.

After-hours non-degree courses include business law (corporations) and a group stress management course.

Those enrolling in the Linkage program should register March 23, 2:30 pm in the second floor cafeteria in the engineering building. Registration for other courses will be at the first class meeting.

Employees wishing to study under company sponsorship should complete their applications immediately.

Call Ext. 4548 for details and applications.

Titan IIIC makes final flight; to be succeeded by Titan 34D

The Saturday, March 6, flight of an Air Force Titan IIIC marked the successful conclusion to 17 years of service by the Denver Aerospace built unique "workhorse" of the nation's space launch vehicles.

Since 1965, the Titan IIIC (the C version of the Titan family of vehicles) has launched 82 Defense Department and NASA payloads in space totaling more than 111,000 pounds of spacecraft. The Titan IIIC is being replaced by an improved version called the Titan 34D, scheduled for maiden flight late this year.

The Titan IIIC was produced under an Air Force contract by Denver Aerospace, the program's integrating contractor, builder of the liquid propelled core stages, and launch operations contractor at Cape Canaveral, Florida. Titan III was an outgrowth of the highly successful Air Force Titan I and Titan II intercontinental ballistic missile programs, and the then expanding solid rocket booster technology.

The resulting Titan IIIC was the first launch vehicle designed to combine the advantages of solid rocket technology with liquid propelled booster stages, and a restartable orbital transfer stage. The nation's first standard launch vehicle has placed satellites in low orbits (100 to 250 miles), in highly elliptical orbits (4,700 by 60,000 miles) and in geosynchronous orbits 22,000 miles above the Earth.

Three times among its notable achievements, the Titan IIIC boosted eight communications satellites into orbital station with a single flight. An additional 42 satellites were launched into orbit in groups of two to six.

Spacecraft types launched by the Titan IIIC include an orbiting laboratory, Tactical Communications Satellite, the Vela nuclear detection satellite, application technology, and Defense Satellite Communications Systems.

There have been five versions of the versatile Titan standard space launch vehicle. The Titan IIIB remains in the Air Force inventory for polar military launches from Vandenberg Air Force Base, California. The roles of the other models, Titan IIIA & D, and Titan Centaur, have given way to technological progress embodied in the development of the standard Titan 34D.

The Titan 34D is designed to meet tomorrow's needs for expendable boosters. It was developed using the same building-block type elements making up the five configurations of Titan IIIC.

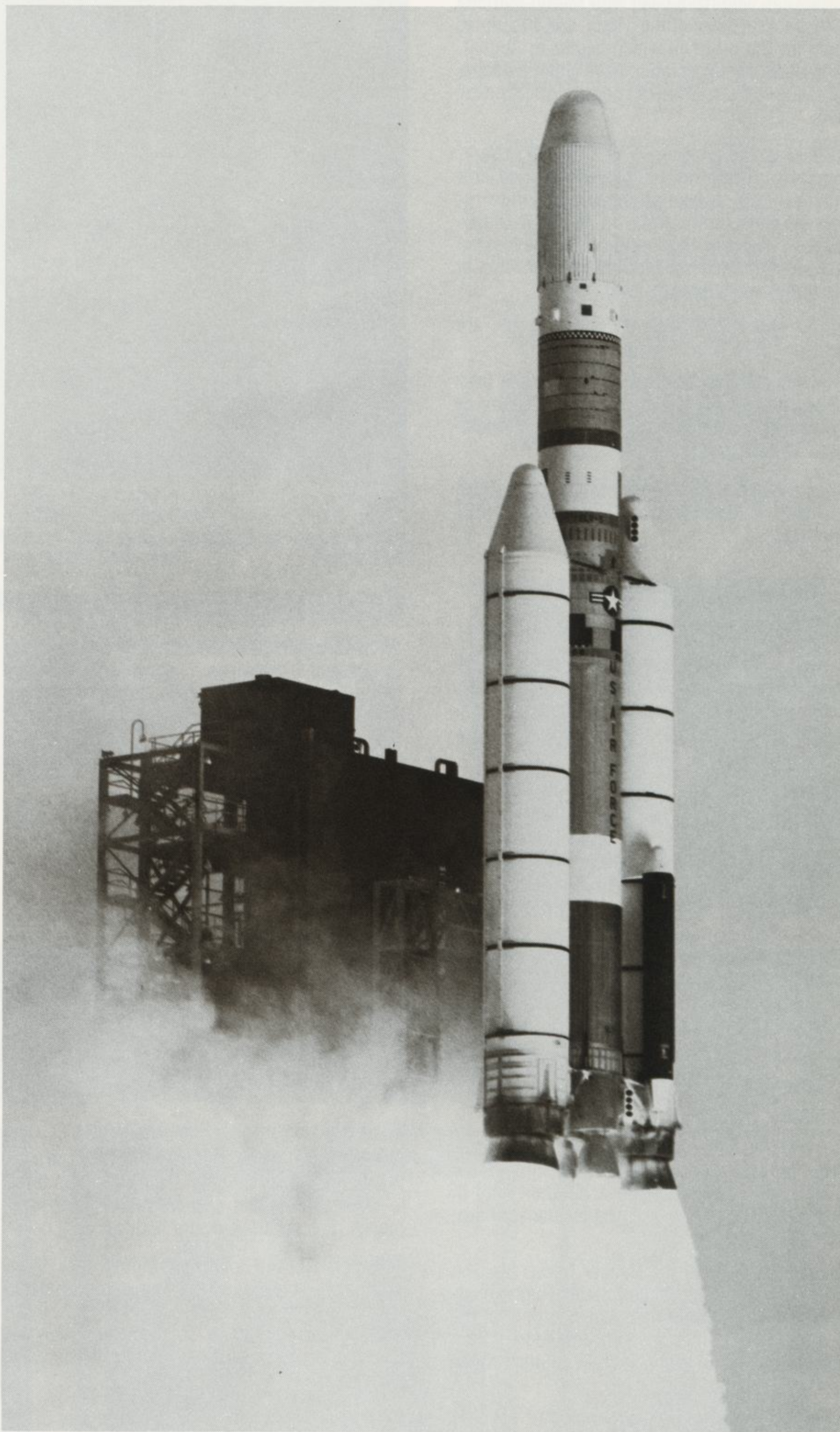
The newest member of this successful launch vehicle family will serve the U.S. Air Force during the early Space Shuttle period, and will provide a back-up vehicle to launch defense payloads. Titan 34D will be launched from both Cape Canaveral, Florida and Vandenberg Air Force Base, California.

The Titan 34D consists of two liquid-propellant stages with twin 10-foot (3.3-meter) diameter solid rocket motors attached to each side of the first stage. The vehicle will accommodate a number of upper stages.

The solid rocket motors and liquid fuel core

stage of the 34D were lengthened 69 inches to provide more fuel and longer powered flight. In addition, the inertial upper stage developed for use with the Space Shuttle under a separate contract will be used with the Titan 34D at Cape

Canaveral. This will provide the capability for in-space maneuvering of satellites and the necessary additional thrust for interplanetary flights.



The last Titan IIIC, the nation's "workhorse" space booster for the past 17 years, was launched March 6 at Cape Canaveral, Florida. Later space launches will use the similar, but more powerful Titan 34D booster. The famous IIIC was used in such space program launches as the Viking mission to Mars and the two Voyager flights that returned spectacular photographs from Jupiter and Saturn.

Shuttle Columbia readied for third mission

With the completion of what observers called "one of the smoothest yet tank/de-tank tests" of the external tank, the Space Shuttle Columbia moved a step closer to the scheduled March 22 launch.

In the two-part test the external tank's hydrogen tank was filled first with 380,000 gallons of liquid hydrogen and a simulated countdown launch was performed. The liquid propellant was then drained back into the storage tank. The same procedure was followed with 143,000 gallons of liquid oxygen in the oxygen tank.

The test is used to prove compatibility of all systems, check the thermal qualities of the external tank, and verify software procedures.

A primary objective of the seven-day mission is to put the orbiter through thermal tests. Accordingly, the orbiter's altitude will be changed several times during the mission to expose its various surfaces and experiments to the heat of direct sunlight.

Scheduled to be aboard the orbiter for the third mission are the Office of Space Science pallet with eight experiments, as well as several other experiments, sensors, and monitors.

Also on board will be a student experiment, "Insects in Flight Motion Study," devised by Todd E. Nelson, an 18-year-old senior from Adams, MN. Insects to be examined are the velvetbean caterpillar moth and the honeybee drone. The object is to study these two species under uniform conditions of light, temperature, and pressure; the only variable being the absence of gravity in space.

Engineering mechanics has new director

Dr. J. O. Bunting has been appointed director of engineering mechanics. He succeeds Dr. C. A. Hall who has been named vice president for technical operations at Baltimore Aerospace.

Dr. Bunting, who reports to Robert J. Polutchko, vice president for technical operations, oversees fluid management, ground mechanical design, propulsion engineering, propulsion laboratory, thermophysics, airborne structure design, dynamics, materials engineering, and stress.

He has been with Martin Marietta for 12 years and has been propulsion engineering section manager since 1979. Before that he was involved in a wide variety of small programs and in various support efforts for major projects.

Dr. Bunting received his Doctorate of Philosophy in 1967 from Stanford University in aeronautics and astronautics. He has bachelor's and master's degrees in aeronautical engineering from the University of Virginia.



These two veteran astronauts will be prime crew for Space Shuttle Columbia's third mission scheduled to begin March 22. They are Jack R. Lousma, left, commander, and C. Gordon Fullerton, pilot. Lousma was pilot on the second mission to visit the orbiting Skylab space station in 1973. Fullerton was pilot for three free flights in the Space Shuttle Enterprise during approach and landing tests in 1977.



Dr. J.O. Bunting

Ongoing paper drive benefits community

"Employees are to be congratulated for keeping Santa Claus alive in their hearts all year," says Walter Martynek Jr., who heads the paper drive for Operation Santa Claus, an employee-operated assistance program.

"More than two-thirds of the funds provided needy organizations and individuals come from the sale of waste paper collected throughout the plant. Last year, more than 400 tons of used bond paper, tab runs, and computer cards were converted into money for relief—money that might have literally gone into the trash," he said.

Employees are urged to put recyclable bond paper, tabs runs, and computer cards in the collection boxes and carts that are emptied by volunteers. These three types of paper are the only ones accepted by the recycling firm. Regular card stock, colored paper, and other waste — such as newspapers — are not acceptable and have to be sorted out if they are put into the collection boxes and carts.