

MARTIN MARIETTA

news

DENVER DIVISION

NUMBER 15/1974



R & D contracts could lead to teleoperator craft

A number of contracts now under work in Engineering, Research and Development may one day lead to the design and manufacture of remotely controlled, free-flying teleoperator spacecraft at the Denver division.

The small spacecraft envisioned by the National Aeronautics and Space

Administration (NASA) can be likened to a robot satellite or a mini-space tug capable of voyaging to other planets after launch from the Space Shuttle.

Marshall Space Flight Center is spearheading NASA's effort in developing such a spacecraft. It could have scores of uses in space, Department of Defense,

and commercial applications.

Nonspace applications include undersea, underground, public safety, and automated industrial operations.

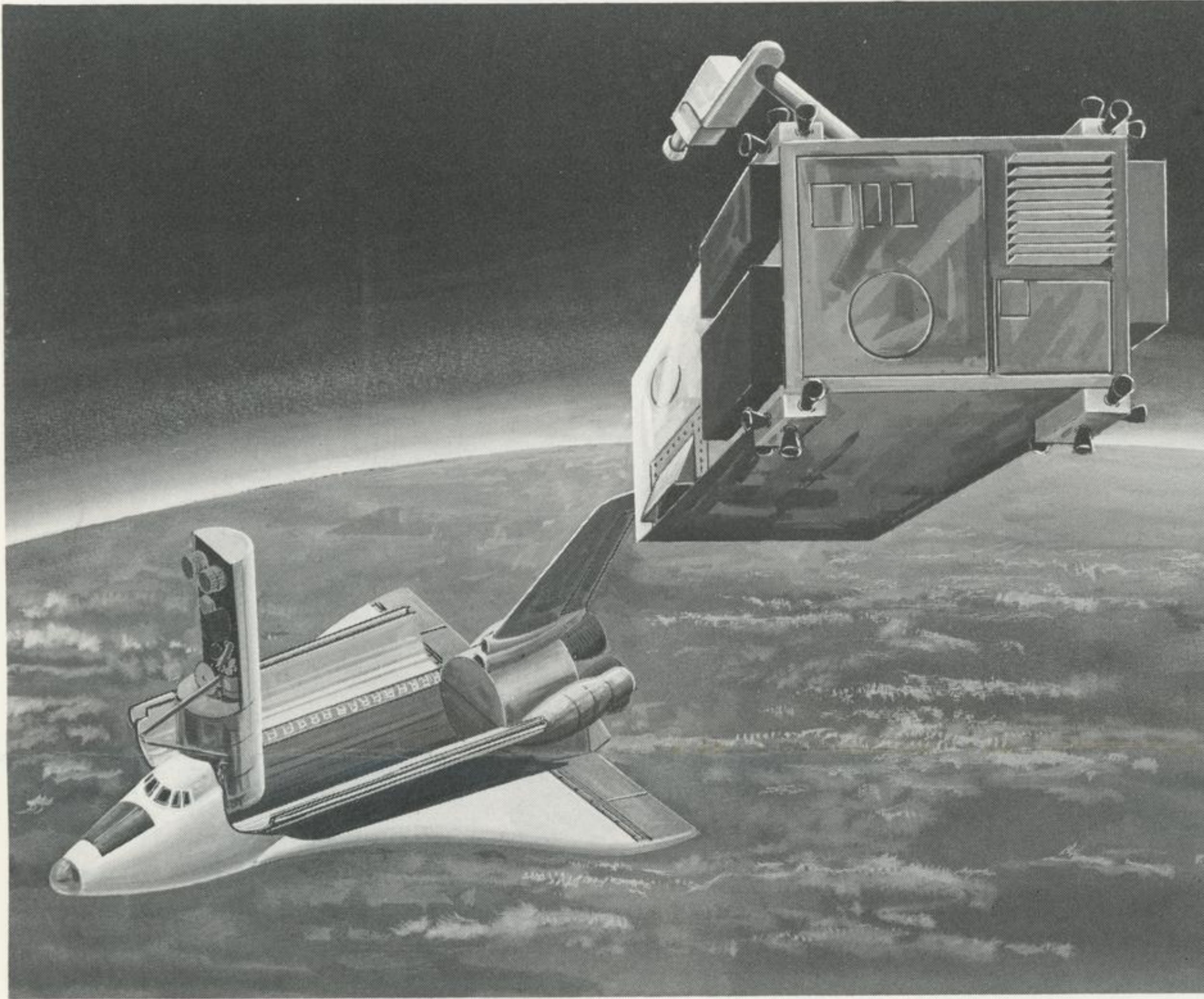
The teleoperator is an extension of the manipulator systems developed for operating in nuclear radiation and other hazardous environments on the ground, according to NASA.

G. W. Smith, science and applications department, said the Denver division has worked closely with both MSFC in Huntsville, Ala., and the Johnson Space Center in Houston on numerous contracts relative to development of teleoperator spacecraft and manipulative systems employed by them.

"Work on past and present contracts in this area and contracts being sought, will provide the division with a strong technology base in this particular field," Smith said. "As a result, our expertise in this area is almost certain to provide us an opportunity to bid on the hardware necessary for future teleoperator spacecraft," Smith added.

Eventually, such spacecraft will have advanced manipulator arms on them and will be able to retrieve or deploy satellites, repair them in orbit, dock with satellites, or get carried piggyback on the Space Tug for a deep-space mission.

Remotely controlled spacecraft can be operated by a man sitting behind a control and display console. The technician could either fly it in space from within the Shuttle, or he could control it from a ground-based station.



Artists rendition shows how a teleoperator spacecraft (upper right) might televise Shuttle

operations (load deployed) as it conducts space experiment or mission.

Holiday pay checks to be distributed early for division employees

Payday for both hourly and salaried employees of the Denver division will come early for the Thanksgiving and Christmas holidays.

Checks for hourly employees, normally distributed on November 29, will be distributed Wednesday, November 27, because November 28-29 are Thanksgiving holidays.

Paychecks for all hourly and salaried personnel at Christmastime will be distributed Friday, December 20, because all employees will be off Monday, December 23 through Friday, December 27 to celebrate Christmas.

Per capita giving grows 7.9%

A review of the recent 1974 United Way campaign has shown continued progress in per capita giving by Denver division employees.

The progress is reflected in 7.9 percent growth from \$33 to a current per capita of \$35.60. Annual payroll deductions and cash contributions totaled \$163,082.65.

While this didn't reach the goal of \$175,000, due to the drop in employment, it did reflect strong support by division personnel.

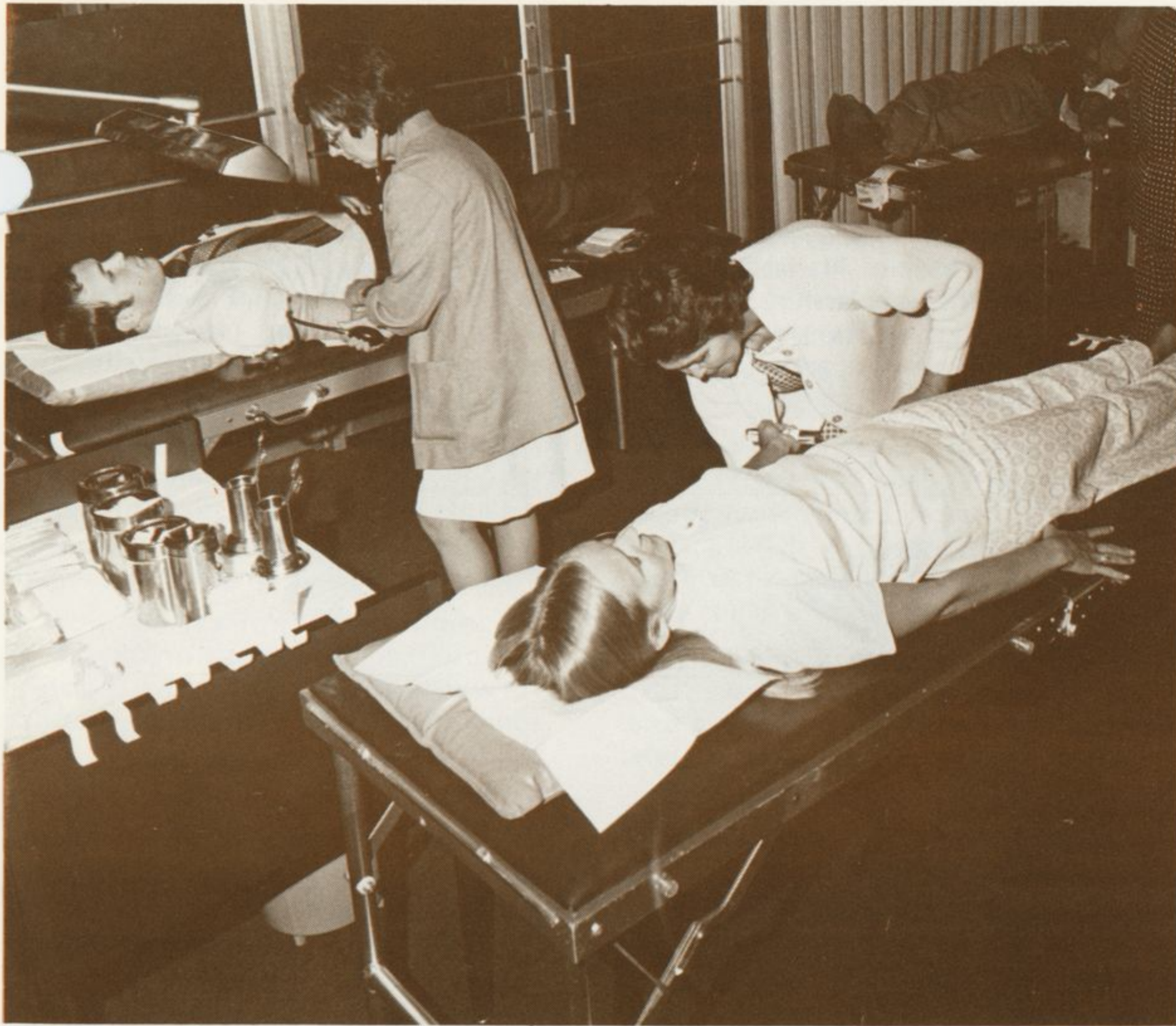
Participation increased from 95 percent to 97.2 percent.

Departmental coordinators and supervision were praised for their campaign efforts by R. E. Weber,

director of professional and industrial relations and division campaign chairman. Two departments cited for outstanding performance were:

Materiel, for showing the greatest increase of \$6.72 in per capita giving to a current \$85.81, and, professional and industrial relations, where 57.6 percent of the employees increased their pledge resulting in reaching 113.7 percent of their per capita goal and 107.9 percent of their dollar goal.

Contributions from the following four departments are 100% on the payroll deduction plan: executive, launch vehicles, Martron Systems, and materiel.



Bonfils Blood Mobile personnel minister to division employees during visit of the mobile

unit to the division in October. The unit makes four annual visits to the division.

Employees give 116 pints of blood in October; total nears 500 for 1974

Blood given to the Belle Bonfils Memorial Blood Center by division employees during 1974 neared 500 pints. Employees donated 116 pints in October.

Blood donated by employees is credited to the Martin Marietta account. This qualifies all division employees and their families to draw from Bonfils blood reserves on requests channeled through the division Medical Department.

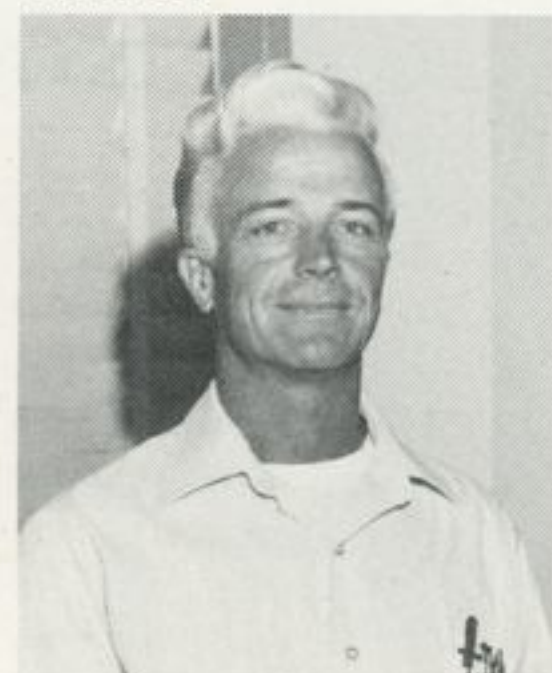
Trudy Dion, division coordinator for the program, said employee volunteers for the 1975 Blood Donor Program are now

Technology Awards

The New Technology Awards program was launched recently at Michoud Operations in New Orleans with check presentations to division employees William R. Garner, scientific applications and techniques, and Thomas L. Tedrow, quality laboratory.

Garner

Tedrow



being sought. Employees interested in giving blood should complete and mail the form below.

Special arrangements for second- and third-shift employees wishing to donate blood have been made with Bonfils. They may go directly to the Blood Donor Center, Colorado General Hospital, at 4200 East 9th Avenue to donate.

First-shift donors will contribute blood in January when the Bonfils Blood Mobile Unit makes the first of four visits to the division planned in 1975.

Since start of the blood donor program in 1973, 597 employees have donated almost 800 pints of blood.

Please Print

Name _____

Department No. _____

Telephone Ext. _____

Badge No. _____

Social Security No. _____

Mail To: 6360

Attn: Trudy Dion

Denver Data Center's Mary Ullmer is one of ABA's top 10 women

Mrs. Mary M. Ullmer, senior computer systems designer at the Denver Data Center, has recently been selected as one of the nation's Top 10 Women of the Year by the American Businesswomen's Association (see photo below).

First selected by the local Denver Trail Ridge Chapter as Woman of the Year, Mrs. Ullmer was then selected as one of the Top 10 Women of the Year from winners in 1100 local chapters throughout the 50 states.

A Denver Data Center employee for eight years, Mrs. Ullmer's duties involve designing, writing, maintaining, and modifying business computer programs. She holds a bachelor's degree in mathematics from Grinnell College in Grinnell, Iowa.

The American Businesswomen's Association, founded in 1949, has more the 70,000 members. It is an educational association designed to aid the continuing business education of working women.

Mrs. Ullmer is Educational Projects Committee chairwoman for the Denver Chapter of ABWA and is also past president and vice president of the chapter. She has chaired several committees.

Both Mrs. Ullmer and her husband, Joe, a systems analyst for the Colorado Department of Education, are involved in community affairs.

He is team captain, Southwest Denver Architectural Barriers Committee, Colorado Chapter of American Physical Therapy Association. The couple is working to eliminate architectural barriers for the handicapped in the Denver area.





Steven F. Hesprich, Denver Data Systems computer systems designer, was pulled to the side of the road during October by a Highway Patrol cruiser and given a traffic citation. And, he enjoyed every minute of it! The traffic ticket was a special citation from State Patrolman Joseph Mikita (left), who cited him for outstanding driving skill in avoiding an accident, and nominated him for a State highway safety award.

Children of employees may now apply for Corporation scholarships

Applications are now being accepted from children of employees who are eligible for Martin Marietta college scholarships. The scholarships, awarded annually by the Martin Marietta Corporation Foundation, are valued up to \$1500 per year.

All applicants are expected to complete the American College Test (ACT) or the College Entrance Examination Board Scholastic Aptitude Test (SAT). These tests should be completed no later than December of the applicant's senior year.

The employee whose child is a scholarship applicant must have been employed by the Corporation for a total of five years as of January 1, 1975, and

be on the active payroll at the time of the award. The student must be a graduating senior of a secondary school in the year of the award, and his academic record must qualify him for unconditional admission to a college or university.

Complete information and the necessary application form may be obtained from the management development office, module 117, Administrative Building, or from the equal employment opportunity office, module 111, Engineering Building.

A completed application with all supporting information must be forwarded to the local scholarship administrator, Mail C-6310, no later than March 1, 1975.

Executive Management Profiles

[Fourteenth in a series of sketches of division executive management.—Ed.]

Among the many Denver division employees whose efforts will soon help launch Viking to Mars is a soft-spoken, mechanical engineer who joined Martin Marietta Aerospace in 1952.

He is John D. Goodlette, deputy project director (technical) for the Viking spacecraft program.

Goodlette's conservative dress, and taste for subdued, matching colors fits well with his quiet personality, complementing his medium build and height. On first impression his high



John D. Goodlette

competence appears coupled with a nonaggressive nature; however, an underlying aggressiveness surfaces quickly once Goodlette starts discussing his involvement with the Viking program.

As deputy project director, Goodlette serves primarily as chief engineer for Viking. His basic duties involve the direction, coordination, and liaison necessary to insure flawless division performance in the design, concept, and

operation of the Viking spacecraft.

Highly enthusiastic about Viking, Goodlette quickly points out that "... we are in great shape," when asked about Viking's present status.

Born November 14, 1925 in Hazard, Ky., Goodlette was graduated from the University of Kentucky in 1949 with a BSME (Aeronautical) degree.

In 1955, Goodlette was assigned responsibility for aerodynamics, propulsion, and flight mechanics of the Ballistic Rocket Development Group and later participated in the development of Titan I at the Denver division, first as chief, flight mechanics, then manager, aeronautics department. In 1958 he was named technical director for the U.S. Army's Pershing weapon system development at the Orlando division, later becoming program manager for the R&D program.

When Pershing development ended, he was reassigned to the Denver division, serving successively as manager, propulsion and mechanical engineering department; manager, system, engineering department; technical director, planetary systems engineering; and was then named to his current assignment.

The Viking official's off-duty interests range widely. An avid fisherman, he is also a first tenor in his church choir and a heavy reader. In addition, he has been a licensed pilot since his youth.

He presently owns his own airplane, a Citabria, two-place acrobatic craft. Goodlette and his wife, Jeannette, reside at 5570 Blue Sage Drive, Littleton. They have two daughters and a son.

Next August, two automated Viking spacecraft will start their 400-million-mile journey to the planet Mars. Their goal will be the scientific exploration of the Red Planet with special emphasis on the search for life.

This goal will be achieved by 15 basic scientific experiments aboard the Viking orbiter and lander.

Starting in the December issue, *Martin Marietta News* will feature a description of each of the 15 scientific experiments.

Three entry experiments have the twin objectives of obtaining both the atmospheric profile of the planet as well as the composition of its atmosphere.

The Viking orbiter will conduct four experiments, including temperature, photographic, and water vapor mapping, and radio scientific experiments.

Eight basic investigations will be made by instruments on the lander. They include mass spectrometry, imaging, seismometry, meteorology, X-ray fluorescence analysis, biology, and physical and magnetic properties.

On the cover --

The exhaustive series of flight qualification tests recently completed at the Denver division on the two Viking spacecraft was unqualified success. While scientific technical monitoring of the tests was intense and all-encompassing, the personal involvement of the scientists, engineers, and technicians was even greater. The tenseness and keen interest of all observers is mirrored in the faces on the cover of some of those witnessing the tests.

MARTIN MARIETTA NEWS

Published by
Communication and Public Relations
MARTIN MARIETTA AEROSPACE
Denver Division
P.O. Box 179
Denver, Colorado 80201
November 1974