

MARTIN MARIETTA

news

DENVER DIVISION

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THE UNITED STATES SPACE PROGRAM, featuring the Space Shuttle shown in the picture, was the topic of a discussion with Denver business leaders Tuesday night by Dr. George M. Low (center), deputy administrator of the National Aeronautics and Space Administration. At left is Denver Mayor

William H. McNichols Jr., and at the right is Laurence J. Adams, vice-president and general manager of Martin Marietta Corporation's space center here, sponsors of the dinner. Dr. Low outlined NASA's program for the future based on exploration and the application of technology knowledge gained.

Viking craft simulates Mars landing, actual mission set for next summer

The Viking spacecraft has passed its most crucial development test—a simulated landing on the planet Mars.

The nine-minute simulated landing sequence took the Viking from 800,000 feet above the surface of Mars to a soft landing on the planet. It was part of a month-long series of ground tests conducted at the Denver division.

Actual landing of the spacecraft on Mars, the most complex maneuver of the Viking mission, is scheduled in the summer of 1976. It will mark the first space program in which three separate systems are needed to slow and land a spacecraft—an aeroshell, a parachute, and descent engines. Failure in any one system would jeopardize the mission.

In the tests, division engineers required the Lander to perform each activity as though the landing were taking place.

Automatically it separated from the Orbiter, released its protective heat shield (the aeroshell), deployed the 55-foot diameter parachute which was then released, and extended the landing legs. To simulate actual touchdown, the Lander itself was dropped onto a simulated Mars surface.

The main communication antenna and several scientific instruments were also deployed, as they will be after touchdown. All this must take place in less than 15 minutes, the time needed in the actual landing process as the Lander travels from Mars orbit through the atmosphere to the Martian surface.

Application deadline nears for scholarship recipients

March 1 is the application deadline for scholarships available to children of Denver division employees.

The four-year scholarships, valued at \$1500 per year, will be granted to graduating high school seniors whose academic records qualify them for unconditional admission to an accredited college or university.

The employees must be on the division payroll at the time of the award.

Applicants should have completed the American College Test (ACT) or the College Entrance Examination Board Scholastic Aptitude Test (SAT). Selection criteria include academic records, test scores, extracurricular activities, and financial need.

Application forms may be obtained from the development and training office (Administration 117) or the EEO office (Engineering 111). Application procedures appearing on the form must be followed.

Rauth accepts position on Treasury committee

J. Donald Rauth, president and chief executive officer of Martin Marietta Corporation, has accepted appointment to the 1975 U.S. Industrial Payroll Savings Committee from Secretary of Treasury William E. Simon.

Rauth, serving as the aerospace industry chairman during the campaign, will foster the sale in the aerospace industry of Series E Savings Bonds through the payroll savings plan, encouraging employers to lead more campaigns to increase plan participation in their plants or offices.



J. Donald Rauth

Goal of the committee is to stimulate employee participation in the Payroll Savings Plan in businesses and industries nationwide. This year's national aim is the enrollment of at least 2,400,000 new savers and current savers who will increase their allotments.

Mr. Rauth received a bachelor of science degree in mechanical engineering from Drexel Institute of Technology (now Drexel University), Philadelphia, in 1940 and joined The Martin Company, the predecessor of Martin Marietta.

Mr. Rauth was vice president and general manager of the Denver division from 1961 until August 1969.

Employees donating time to Boy Scouts

More than 200 division employees are helping improve their respective communities in the Denver area by personal involvement in the national scouting movement.

Their various services aid youths in scouting to build greater self reliance, learn the importance of and acquire greater independence, strengthen individual patriotism, and learn the basics of good citizenship.

An example of the effectiveness of division employees in helping the scouting movement was recently demonstrated by 86 employees working in the three-county district comprising Arapahoe, Douglas, and Elbert counties.

Edward M. Bain, a member of finance and Arapahoe district commissioner in the Denver Area Boy Scout Council, explained that employees in his district recently participated in a highly successful scout recruitment program.

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New drive aims to cut telephone costs

An 11% reduction in 1975 telephone costs is the target of a new campaign at the Denver division.

Martin Bowland, chief, office services, said everyone's cooperation is needed to cut the phone bill by \$200,000 in 1975.

Bowland emphasized the division system (MARCOMNET) does not provide cost-free calls.

"Every call outside the Denver area costs the division and we pay for each and every minute of usage," he said.

Telephone service is provided for business calls only. Federal Communications Commission Tariff 260 prohibits personal use of our private line facilities.

Suggestions for streamlining long distance service costs include reducing the number and length of long distance calls; consolidating calls when possible; asking vendors to call the division; and using mail and message services when possible.

The division phone system includes MARCOMNET (Martin Marietta Communications Network), a leased service provided by the telephone company. Its cost to the division is tabulated on a straight usage basis, Bowland said.

Last year, the Denver division incurred 40% of the total cost of the system. Sixty percent was divided among 70 other Martin Marietta Corporation cost centers.



Employees of the Denver division were honored at an all-school pep assembly held at Columbine High School. The employees received Certificates of Appreciation for "... their combined efforts in manufacturing a special plastic chin guard for the football helmet of Brett Pruit," the team's quarterback. Pruit had been knocked out of action by a jaw injury. However, with the special chin guard, he was able to return to play and help Columbine High advance to the State AAA semifinals in only their second year of competition. Pruit is shown holding his helmet. Honored were (from left): Lyle Ecker, Charles "Buck" Reynolds, and John Aardrup, all from manufacturing; and Harry Bull from production control. The certificates were presented by Columbine High Principal Gerry Difford.



A group of 11 Russian journalists listens intently to a description of a test model of the Viking lander spacecraft from Walter O. Lowrie, center, vice president and Viking program director at Martin Marietta Aerospace near Denver. Before the tour at the space center, Lowrie spoke to the group about the

United States' program for the exploration of the surface of Mars. The Russian journalists are touring the United States as a reciprocal visit initiated last year by American journalists who visited the Soviet Union. The Viking lander will be launched from Cape Canaveral late this summer and land on Mars 11 months later.

Three-month observation of Mars from orbit and surface sites planned

[This is the first in a series of articles discussing scientific experiments to be conducted on Mars by the Viking Orbiter and Lander.]

The Viking spacecraft will make basically three investigations during a three-month observation of the planet Mars from orbit and from two sites on the surface.

The first is a photographic survey of the planet. This will be conducted by two high-resolution television cameras carried aboard each of the Viking Orbiters, and a pair of facsimile cameras on each Lander.

During the last 180 hours of the approach to Mars, each spacecraft will obtain a series of photographs of the globe from progressively closer range.

After entering orbit, the spacecraft will remain above the designated Lander sites to photo-map these regions for a number of days before and after the Landers are released to descend to the surface.

Then the Orbiters will leave their fixed positions above the Lander sites to photo-map almost the entire surface of the planet.

Orbiter photo-maps and thermal and vapor maps will be used to direct the

Landers to sites where conditions are most favorable to life and where landing hazards are less extreme.

Lander cameras will take high-resolution photos of the ground immediately next to the Landers, 360° panoramic views of the terrain and distant features, and long-range photos of Mars' satellites and other celestial objects. The rapid sequence vidicon cameras on the Orbiter will use 475-mm telescopes. Taken from the low point in orbit (930 miles), consecutive photos from one orbital path would show a 50x310-mile swath. Photos would be stored on magnetic tape for playback to Earth.

Identical facsimile cameras mounted three feet apart on top of the Landers would provide stereoscopic, black and white, color and infrared photos. The cameras will be able to view from the ground beside the Lander up to 40° above the horizon. Each uses a nodding mirror to scan a scene in tiny increments requiring 20 minutes for a full scene.

Light from the scene increments is converted into digital information bits that are radioed to Earth and reconstructed into a photograph.

Air Force WINning fight against inflation

Improvement in management and cost avoidance by the aerospace industry and the Air Force are increasing productivity and helping counter the effects of inflation.

That was the consensus after industry leaders, including Martin Marietta Aerospace, met recently at Kirtland AFB in Albuquerque, N.M. with Major General Abraham J. Dreiseszun, commander of the Air Force Contract Management Division.

"Our new management programs, developed and expanded over the last several years, have increased our confidence that the best interests of the government are being served at contractor facilities," General Dreiseszun said. "These programs are making it possible to identify problems early so we can find solutions together, before they impact on productivity and costs."

A part of Air Force Systems Command, Contract Management Division (CMD)

acts as the primary Air Force agency performing contract management functions at Martin Marietta's Denver division and 19 other major defense plants.

The CMD evaluates contractor management systems and practices to ensure efficient and economical operations, and supports Air Force system program directors and buying agencies of the government in the acquisition of major weapon systems and other equipment.

"Because of the cost squeeze and the need for quality weapon systems based on the best technology available," General Dreiseszun said, "industry and the Air Force must continue improving the new environment of cost conscious management we have created."

"Inflation, of course, continues to be the major challenge in an era of relatively fixed defense budgets. We must use the tools of better management to keep it from eroding national defense capabilities and the industrial base on which we depend for successful development and production of military equipment."

He said management improvements have included better joint overhead surveillance which resulted in calendar year 1974 savings in excess of \$24 million; improved accountability and increased attention to the proper use and maintenance of government-owned material and equipment in the hands of contractors; procedures to identify the correct errors before post-production inspection of hardware; and the up-grading of the skills of Contract Management Division personnel.

FICA takes more from '75 paychecks

Take-home pay of many Division employees has dropped appreciably since the first of the year because of an increase in the combined FICA-Medicare taxable wage base.

There is no increase in the combined FICA-Medicare tax rate of 5.8%. However, Social Security taxes for employees earning between \$13,200 and \$14,100 will total \$824.85 in 1975. This is \$52.05 higher than the \$772.20 deduction in 1974.

Over the past two years, Social Security taxes have risen 32% and have more than doubled in the past four years. Although the Social Security tax bite is bigger again this year, the increase is down from 1973, when it jumped \$140.40.

Executive Management Profiles

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

Public understanding and acceptance of the Denver division are two basic objectives continually pursued under the direction of John H. Boyd Jr., division director of Public Relations.

Critical to successfully achieving those two objectives, Boyd explains, is a third vital function of his staff—evaluating public attitudes relative to the company and its interests.

"Only after this is properly accomplished can programs be planned and executed to achieve understanding and acceptance of our policies, plans, and activities within the community and with the national news media," Boyd added.



John H. Boyd Jr.

Boyd is a former newspaperman who still harbors great affection for the reporting profession. "It will always hold a strong attraction for me," Boyd said, "and, is one of the stepping stones which led to my present position."

The skill and eagerness of an investigative reporter is evident in talking with Boyd. He listens intently to every word, letting the thought being expressed come out. Once it is out, Boyd is silent a few seconds, then his questions come in rapid fire succession. They seek one basic thing—facts and/or justification for the opinion expressed.

A close friend of Boyd's commented: "... if you have all your ducks in a row, you'll have no problem with Jack. If the feathers on just one of those ducks are ruffled though, it will never get off the pond."

The public relations executive, twice nominated for the Pulitzer Prize, pursues

divisional responsibilities with dogged determination. This determination is coupled with Boyd's philosophy that public relations efforts must be made with great thought and control.

"Martin Marietta Corporation's corporate personality is one of conservatism rather than flamboyance," he explains. "Because of this, our basic PR traits are candidness and consistency—permitting a low profile to fit this conservative nature. This profile is maintained (most often) by letting our achievements speak for us, rather than rhetoric."

Boyd's approach to his profession is both intense and highly professional. But, an air of animation surfaces when you hit his favorite topic, golf. A near-scratch golfer, Boyd admits to a pretty good game ... "I usually wind up in the low 70's."

Born September 15, 1932, in Springfield, Missouri, Boyd received a B.S. degree from Tulane University in 1958 with majors in psychology, political science, and English. An army veteran, he and his wife, Peggy, and their three sons reside at 2152 Crestridge Dr in Littleton.

Boyd has served as director of Public Relations at Denver since 1967. He joined the Canaveral division in 1960 as a public relations representative, then served as director from 1962 to 1967.

Before joining the Corporation, Boyd was a staff writer and an assistant night city editor on the New Orleans Times-Picayune, where he was twice nominated for the Pulitzer Prize.

On the cover --

VIKING I, scheduled to be the first United States spacecraft to land on the planet Mars, is prepared for shipment to its launch site from the Denver division. Encased in a white bioshield, and protected by a strong metal frame, Viking I is positioned on a shipping trailer before beginning the highway journey to NASA's Kennedy Space Center in Florida. Once secured to the trailer, the Viking is enclosed by the white container at left.