MARTIN MARIETTA
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DENVER DIVISION

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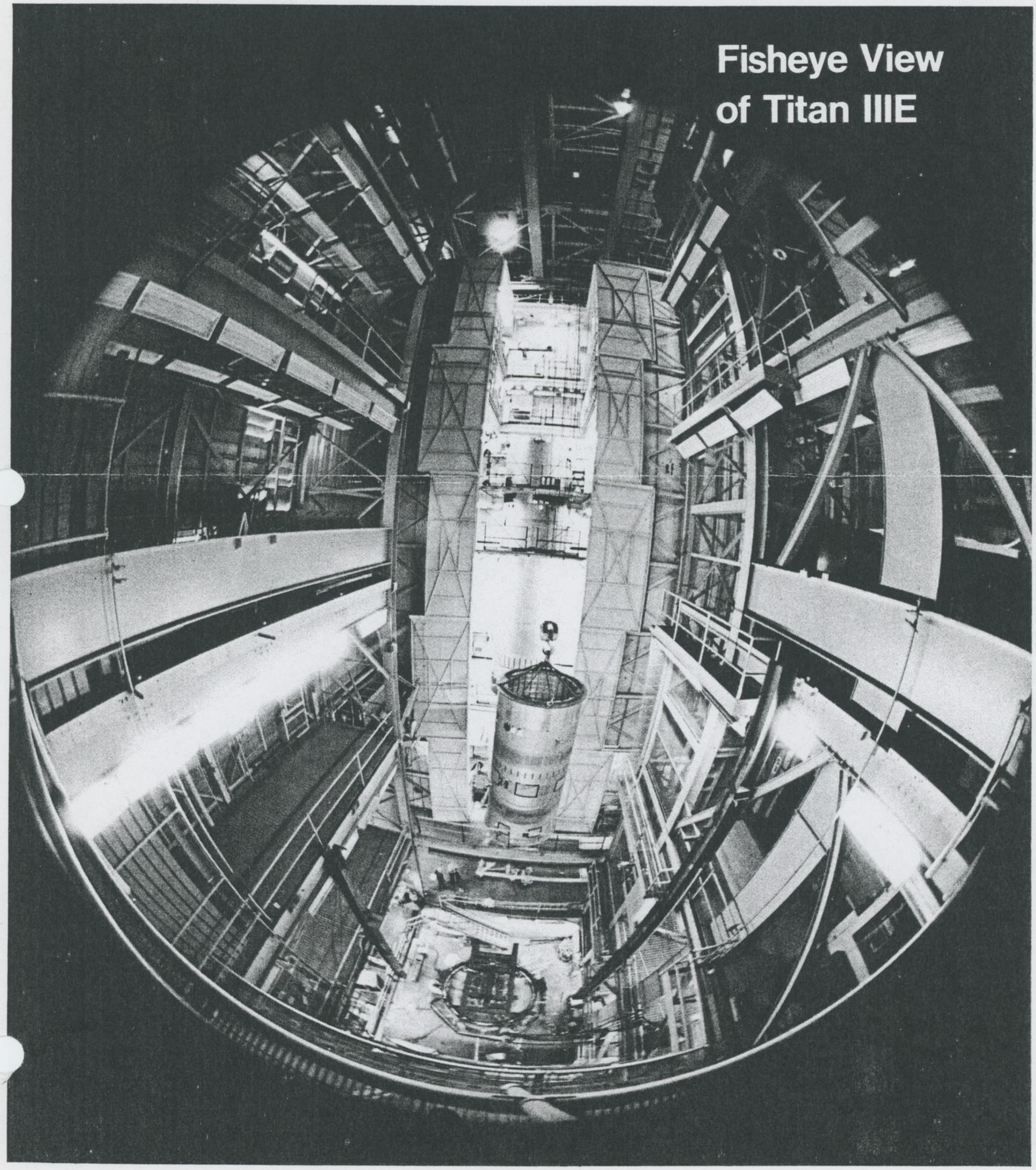
Fisheye View of Titan IIIE



SOLAR ENERGY RESEARCH MIRRORS reflect the images of Soviet Union scientists visiting Martin Marietta Aerospace in Denver to review research currently underway to develop solar energy for heating and cooling buildings. These large, curved, concentrating heliostatic mirrors are the fundamental building blocks of a solar thermal power system being studied by Martin Marietta under a National Science Foundation grant. Left to right are: Floyd A. Blake, manager for solar power systems, Martin Marietta, and USSR scientists Dr. D. I. Tepliakov, Dr. Y. N. Malevsky, Dr. I. N. Voronkin, Dr. Rozak Baronova and Dr. Andrew Illine.

Viking program gains momentum as tests start proving systems

Rocks, sand dunes, turtles and snakes were all part of the scenery recently for extensive science tests conducted with Viking lander cameras.

In a wide variety of terrains and situations, the scientist-engineer teams put the cameras through a series of tests that prove they can handle any situation which might be found on Mars.

Sometimes rising at 3:30 a.m. to take early morning photographs of Venus or other celestial objects, the teams took pictures in color, black and white, infrared and stereo. Photos were taken at many different sun angles and distances. Several tests involved the surface sampler boom in simulated operations.

Many of the scientists brought new and different experiments to the test sites to verify camera operations. Dr. Sidney Liebes, Stanford University, ran tests to study camera computer mapping in stereo. Dr. Carl Sagan, Cornell University, brought turtles, a snake, and a chameleon to study ways the cameras can detect motion. He also studied the effects of winds on sand dunes, and the ways cameras detect these changes.

The tests were conducted over a 4-wee. period at various plant sites and at the Colorado Sand Dunes National Monument.

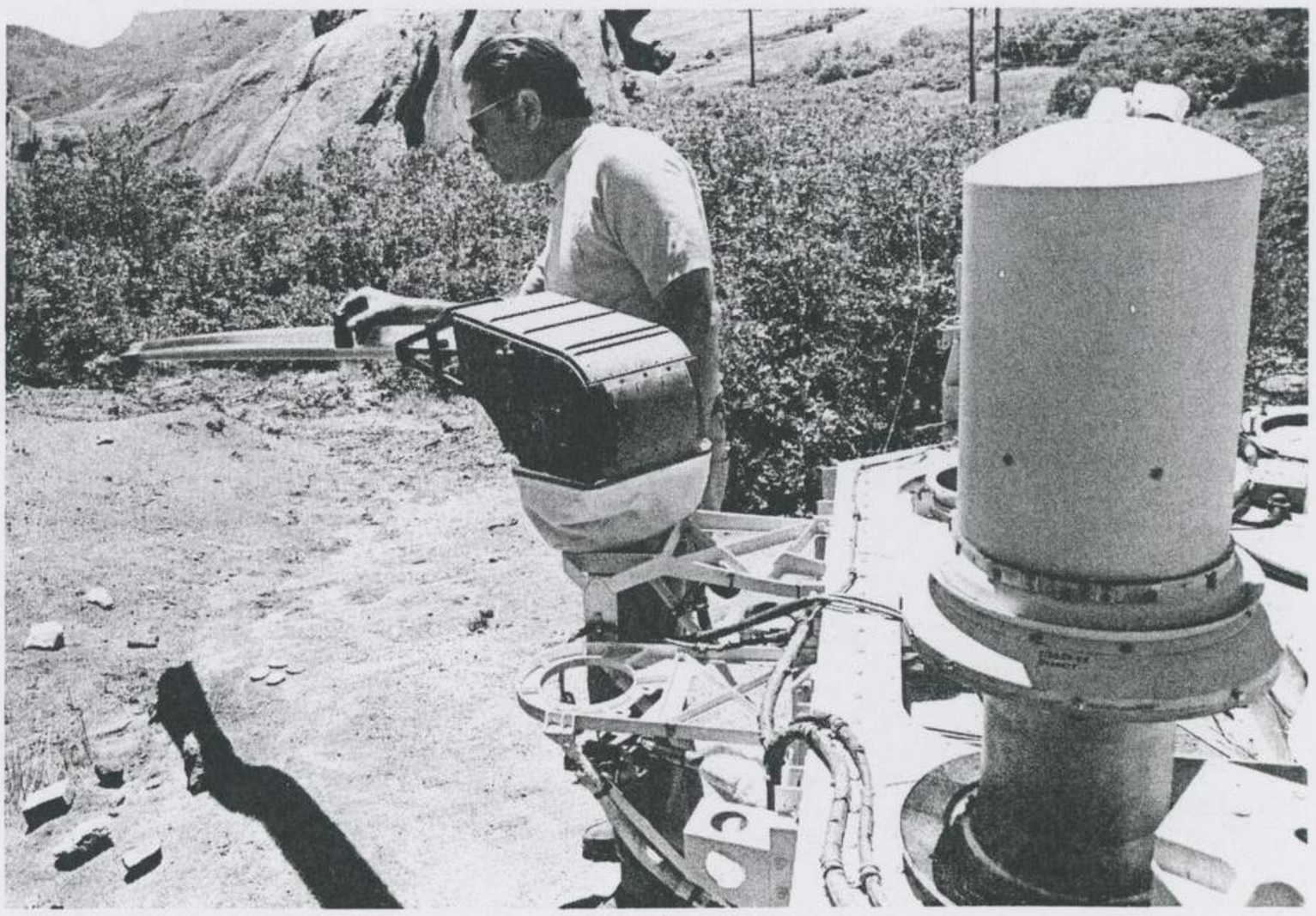
Here are facts to paste in your hat

The Senate Appropriations Committee has summarized some truths about defense spending and its relation to other government costs. Main points are:

- In Fiscal 1964, defense absorbed 42.8 percent of federal outlays. The figure for Fiscal 1974 is 29.4 percent.
- Over the past decade, government costs have gone up 127 percent. Defense costs have gone up 57 percent. As a percentage of total outlays, they have gone down 13 percent.
- If we separate the costs of defense from the costs of the rest of government, the 57 percent increase in defense compares with a 176 percent increase in costs for all other activity.
- Twenty years ago, defense spending was double that of all other federal agencies. Today, the other agencies spend more than twice what the Pentagon spends.
- Twenty years ago, defense spending was double that of all state and local governments combined. Today, the situation is reversed.
- Twenty years ago, about 49 cents out of every tax dollar—Federal, state, and local—went for defense. Today, the figure is 19 cents.
- Defense spending, for the first time in American history, is today below prewar levels in terms of what the dollar will buy. That is true either after or during a war.

(Reprinted with permission from February 1974 issue of Air Force Magazine, 1750 Penna Ave, N. W. Washington, D. C. 20006.)

Angle of the Viking surface sampler boom is measured below by Dr. Elliot C. Levinthal, Stanford University, during recent camera science testing activities at the division.



Peter B. Teets
Engineer of the Year

Benton C. Clark III
Inventor of the Year

Engineer, Inventor of Year awards won by Peter Teets, Benton Clark

Four division employees were awarded top honors at Martin Marietta's Corporate Honors Night, June 21, at the Mayflower Hotel in Washington, D. C.

Peter B. Teets was named Engineer of the ...r and Dr. Benton C. Clark III was ...ed Inventor of the Year.

Special recognition was accorded two other division employees, Charles E. Carnahan and James W. McCown.

The four men, along with other award winners at the banquet, received replicas of a silver cup fashioned by silversmith John Letelier for Statesman Thomas Jefferson, also recognized as an architect, inventor and author. In addition each received a $2000 check.

Teets won Engineer of the Year honors for his "... outstanding professionalism, technical expertise, and personal involvement in winning, implementing, integrating, and successfully demonstrating, on Flight C-26, a new guidance system for the Titan IIIC."

Dr. Clark was named Inventor of the Year for "... development of an energy dispersive, X-ray, fluorescent spectrometer that will characterize elemental composition of surface materials on Mars."

Carnahan was honored for "... sustaining excellent performance as director of Launch Vehicles and director of Vandenberg Operations."

McCown was also accorded special recognition for "... superior performance as the individual primarily responsible for developing our winning position and managing the Space Shuttle External Tank Proposal."

...n the cover --

The Denver division's vertical test assembly area is seen through the fisheye camera lens during erection of a Titan IIIE. A section of the rocket is shown being lifted into place.

Denver area colleges schedule counseling sessions at division

Representatives from nine Denver area colleges and universities will provide professional college counseling for division employees July 30—August 1. Employees who desire information regarding college policies, courses, admission, or other information for themselves or members of their family are invited to the counseling sessions.

All sessions will meet in the Engineering building second-floor cafeteria from 2 to 4 p.m., except for the State of Colorado Professional Engineers Board.

The Engineers Board will meet in the presentations room on the second floor of the Engineering building on August 1 from 10:30 to 11:30 a.m. and from 1:30 to 2:30 p.m.

Counselors from the following colleges will be at the Denver division on the following dates: University of Colorado, Boulder and Denver campuses, Colorado School of Mines, and Regis College, Tuesday, July 30; Arapahoe Community College and Colorado State University, Wednesday, July 31; University of Denver, July 30—31; Community College of Denver, July 31—August 1; and Metropolitan State College, July 30—August 1.

Two Denver division firemen provide cardio-pulmonary assistance to Resusci Anne, newest addition to the personnel, safety and security department. The life-size, metamorphic dummy is used as a vital tool in training fire and security personnel in resuscitation techniques. At left, G. A. Benway Jr applies cardiac massage to restore pulse and blood pressure in a simulated emergency. Simultaneously, Joseph Anselmo administers pulmonary resuscitation to restore breathing. The dummy is specially equipped for teaching mouth-to-mouth resuscitation. Proper application of both pulmonary and cardiac resuscitation is indicated by dials attached to the dummy. Almost one-half of the 69 members of the safety and security force at the division are qualified to administer cardio-pulmonary resuscitation.

Executive Management Profiles

ighth in a series of sketches of the division executive management.—Ed.]

In a very real sense, the pulse beat of Martin Marietta's Denver division is monitored constantly by a man whose basic way of life appears to reject the formal organization of a large corporation.

However, this apparent weakness is perhaps one of the greatest strengths possessed by the division's new Vice President of Operations, Dr. George W. Morgenthaler. He enjoys inquiring as to why things are done in a certain way in order to seek improvement, and does not hesitate to break new ground.

Morgenthaler's management covers approximately 3,000 division employees and six major operational areas. These include: engineering, R&D, manufacturing and test, procurement, quality control, planning and control, and interface with the Denver Data Center.

Morgenthaler's basic function is "...to marshal and manage the central technical resources of the division."

"This includes," he explains, "the maintenance, improvement and development of skills, laboratories, and facilities necessary to successfully support our present programs and to achieve the new business goals of the division."

To implement this charter he is a keen promoter of acquisition of building block technology contracts by the departments.

George W.Morgenthaler

Possessing a host of academic degrees, Morgenthaler was already established in university teaching when he joined the division in mid-1959. After various assignments, he left the division for a Sloan Fellowship at MIT in 1969/1970. Subsequently, he served as Corporate Director of Research and Development beginning in 1970. He assumed his present position April 1.

Morgenthaler's medium build and solid frame responds to a nervous energy belying his academic background. However, a professorial touch is readily evident in his ability to cut quickly to the heart of a subject, pinpointing both problems and solutions.

While interested in many sports during his student days, his greatest satisfaction now comes from foreign travel and family camping. He also has ranching and investment interests.

"That is why I am so thankful. I truly enjoy my career as a professional manager in high technology and aerospace and living in Colorado offers many opportunities for outdoor life and entrepreneurial activity."

Morgenthaler and his wife, Luella, reside at 4958 Tule Lake Drive in Bow Mar South, Littleton. They have four sons.

Merger action makes Aluminum company Corporate subsidiary

A merger action has been concluded making Martin Marietta Aluminum Inc. a wholly owned subsidiary of Martin Marietta Corporation.

The Corporation previously owned 82.7 percent of Martin Marietta Aluminum stock. Aluminum company shareholders, at a special meeting in New York City, formally approved the transaction, in which the Corporation acquired the remaining ownership in an exchange of common stock.

Each of the Martin Marietta Aluminum shares publicly owned is exchanged for 1.15 shares of Martin Marietta.

Ray Facchinello was named Supervisor of the Month at Michoud operations for his outstanding efforts in the control of spares support for the company's various test facilities. Facchinello, shown with R. S. Williams, vice president and director of Michoud Operations, joined Martin Marietta in 1957.

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Five years ago, on July 20, 1969, an estimated one-sixth of the people on Earth listened as a dream of the ages was fulfilled. "Houston, Tranquility Base here. The Eagle has landed." Astronauts Neil A. Armstrong and Edwin E. "Buzz" Aldrin Jr, had landed on the Moon. It was 4:18 p.m., Eastern Daylight Time.

"Evening at Pops" TV show sponsored 13 weeks by Corporation

The summer television series, "Evening at Pops," is being sponsored for the thir consecutive season by Martin Mariett Corporation. The first show was aired coast-to-coast Sunday, July 7.

The program line is: July 14—The King of Swing, Benny Goodman; July 21—Jose Molina's fiery dance troupe; July 28—Miss Peggy Lee; Aug. 4—The Carpenters, pop vocalists; Aug. 11—The Gershwin Show with piano virtuoso Earl Wild; Aug. 18—Modern Jazz Quartet; Aug. 25—Pianist Ana Maria Vera; Sep. 1—Opera star Eileen Farrell; Sep. 8—Pianist Roger Williams; Sep. 15—Sing-a-Long, Old Timer's Night; Sep. 22—PDQ Bach, musical crazyman; Sep. 29—Miss Ella Fitzgerald in POPS plus.

Blood donations by few on July 24 to benefit all

All division employees and their dependents will benefit July 24 when approximately 150 division personnel donate blood to the Belle Bonfils Memorial Blood Center.

Employees scheduled July 24 will be notified as to the time and place for their donation, one week prior to that date.

The donated blood, credited to th Martin Marietta account, qualifies a employees and their dependents to draw from Bonfils blood reserves after the blood request is released through the Martin Marietta Medical Department.