

MARTIN MARIETTA

news

DENVER AEROSPACE

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Wind
Tunnel
Model

Denver Aerospace plays role in Voyager success

In the summer of 1977, the sixth and seventh successful launches of the Titan IIIE Centaur vehicle sent two Voyager spacecraft to rendezvous with Saturn. And with the spacecraft went other equipment provided by Denver Aerospace.

In the fall of 1980, Voyager reached Saturn and began transmitting data that gave scientists a different look at the planet.

In addition to building the Titan IIIE portion of the launch vehicle, Denver Aerospace integrated launch site activities and was the test conductor.

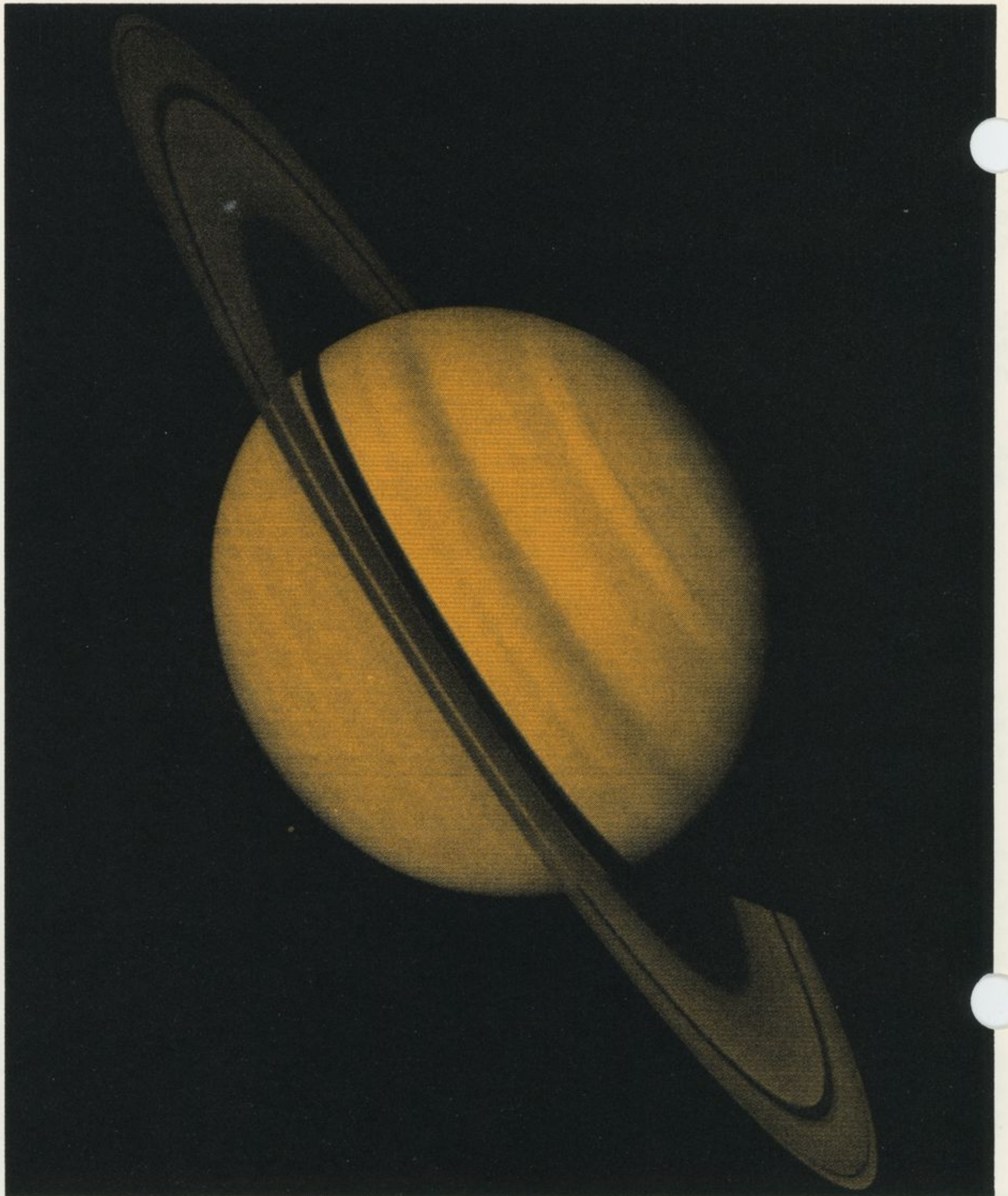
Significant contributions also were made to Voyager spacecraft hardware.

Equipment provided Jet Propulsion Laboratory, builders of the spacecraft, included the propellant control assembly for the Voyager propulsion system; the remote driver module that included the electronics to control valves and thrusters of the spacecraft attitude control system; the hybrid buffer and interface circuits (HYBIC), which are the input/output electronics for the spacecraft; and the memory access module that provided additional equipment to supplement the onboard computer.

Viking orbiter subsystem design was incorporated in the Voyager vehicle.

On the cover

The Missile X scale model shown in the cover photo is one of several designed and built here for supersonic and subsonic wind tunnel tests being conducted at Air Force facilities. The highly polished, stainless steel model is one-twentieth the size of the 71-foot ICBM. The tests are part of engineering development work on the missile flight tests. Checking the wiring from sensors mounted in the model are John Hope, left, model designer, and instrumentation engineer, Robert L. Kapus.



Voyager 1 was 21.1 million miles from Saturn when this photo was taken. It was made on the last day Saturn and its rings could be captured in a single narrow-angle camera frame as the spacecraft closed in on the planet for its nearest approach.

Application deadline near for Foundation scholarships

February 15 is the application deadline for scholarships to children of Denver Aerospace employees.

The scholarships, valued at \$3000 each year, will be granted to graduating high school seniors whose academic records qualify them for unconditional admission to an accredited college or university.

The Martin Marietta Foundation scholarships are renewable for 4 years based on the student's academic standing. Value of the scholarships has been increased from \$2000. The increase to \$3000 also applies to students who are attending school under scholarships granted in prior years.

Applicants should have completed the American College Test (ACT) or the Col-

lege Entrance Examination Board Scholastic Aptitude Test (SAT). Selection criteria used by the independent panel of education experts include academic records, test scores, extracurricular activities, and financial need.

Application forms may be obtained from the education and training office, Eng. 240.

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Special events set for employees in 25th anniversary year

Employee nights at Nuggets basketball games in February will be the first of several special events for employees and their families to commemorate the Denver Aerospace 25th anniversary.

Other major events already scheduled are the Shrine circus, a Denver Bears baseball game, and Family Day at Lakeside Amusement park. Consideration is being given to other events.

Request cards for Nuggets tickets have been mailed to employees and are to be returned by Monday, January 26. Games available are Friday, February 13, Portland; Sunday, February 15, Boston; Thursday, February 19, Phoenix; and Saturday, February 21, Kansas City. Tickets may be requested for family members living with the employee.

Dates and ticket plans for other events will be announced.

The special events are being coordinated by the recreation office under the direction of Leroy Hollins.

"While we are offering these special events in the year-long observance of our 25th anniversary," said Hollins, "we will continue to expand other regular athletic, club, travel, entertainment, and discount programs."

Hollins said he expects participation in these programs to increase. In 1980, nearly 21,000 employees and family members were involved in special events and company-sponsored activities. Another 2000 took part in club activities, and some 4800 employees participated in the sports programs.

"We estimate employees saved more than \$200,000 by using the discount services offered," Hollins said.

Recreation facilities include an archery range, softball fields, rifle and pistol range, jogging trails, a fitness room, club meeting rooms, locker and shower rooms, a covered picnic pavilion, picnic tables, barbecue pits, and a children's playground. More facilities are planned.

Professional, industrial relations becomes personnel

To conform with the renaming of the industrial relations function at Martin Marietta's corporate headquarters, the Denver Aerospace professional and industrial relations department has been designated the personnel department.



Standing in front of a Titan launch vehicle, Fitzroy Newsum, left, attaches an oak leaf cluster to the Meritorious Service Medal worn by Maj. Darwin L. Johnson. Newsum, manager of civic liaison and a retired Air Force colonel, was Major Johnson's first commanding officer when both were assigned to a Titan II missile squadron.

Eight long-service employees honored

Eight employees who completed 40 years with Martin Marietta in 1980 were honored here at a mid-December dinner.

Honored were: F. K. Quirolo, business management; R. N. Floyd and D. S. Jones, manufacturing; H. C. Bull and Frank Geesaman, electronics; E. L. Sipos, quality; M. F. Linthicum, materiel; and G. F. Gaebler, technical operations.

Corporation names new personnel head

Martin Marietta's board of directors has elected Bobby F. Leonard, an employee since 1956, as vice president personnel.

Leonard, 48, has been the senior corporate executive in this functional area since the retirement of Douglas V. Dorman. He joined the corporation's headquarters function in 1973 after holding a number of positions at Denver Aerospace.

The personnel function will embrace what has been called industrial relations, including executive and organization development, compensation and benefit policies, labor relations, safety and health, and industrial security.

Leonard earned a law degree at the University of Maryland in 1961 while a full-time employee at Baltimore.

EWI officer earns medal

When Maj. Darwin L. Johnson was told he would receive a Meritorious Service medal oak leaf cluster, he asked if his first commanding officer could make the presentation.

Arrangements were easy. Maj. Johnson is here on a 10-month Air Force Education with Industry (EWI) program. His first commanding officer, Col. Fitzroy Newsum (USAF Ret), is manager of civic liaison for Denver Aerospace.

Back in 1966, Maj. Johnson, a new second lieutenant, was assigned to the 381st missile maintenance squadron at McConnell Air Force Base at Wichita, KS. The squadron was responsible for maintenance of 18 Titan II missile sites.

"Buck took the time to put everything in perspective for me and the other new second lieutenants," Maj. Johnson said. "He instilled in us the goal of mission success and patiently trained us so that we could do our jobs in a responsible and dedicated manner."

Maj. Johnson said the management techniques and skills he learned from Newsum have helped him throughout his career. "It seemed only appropriate that the man responsible for me earning the medal should have the right to present it."

The medal was awarded Maj. Johnson for his work at the 3901st strategic missile evaluation squadron at Vandenberg Air Force Base.



Getting a preview of his trip to Hawaii, James R. Myers, left, discusses travel plans with Sue Schipper, Southglenn Travel. Myers, a Martin Marietta employee for 23 years, won the trip in the referral reward program drawing. All employees who successfully referred a candidate for a job opening were eligible for the drawing. Myers and his wife will spend an all-expense-paid vacation in Hawaii. Ms. Schipper is travel consultant for the recreation office travel programs.



Marian H. Bryant, electronics, is shown using the faston terminal installation tool she developed. She received a cash award for her invention.

Inventors receive awards for ideas

Fourteen employees have been selected by the Denver product development review board to receive cash awards for their inventions. Those employees receiving the awards:

William H. Tobey, systems engineering: Motor driven hinge for tubular members, and Dual catenary for tensioned membrane/mesh antenna edges.

Howard Ritchie, electronics: Scanning antenna with optical data link.

Andrew S. Kattke, engineering mechanics: Method for introduction of precise amount of contaminant-free catalyst to closed resin chamber.

Elvis D. Simon, engineering mechanics: Energy dissipator and flow straightener for diffusers, and a method for improving performance of Shuttle external tank diffusers.

Wayne E. Simon, engineering mechanics: A method for improving performance of Shuttle external tank diffusers.

Marian H. Bryant, electronics: Faston terminal installation tools.

Thomas A. Milligan, electronics: Hard-wire missile receiver coupler.

Paul D. Patton, electronics: Low frequency bandwidth extension of a bow-tie antenna element within a restricted size limitation.

James R. Beal, David D. Wilson, and William E. Echols, electronics: Beam blanked functional mapping circuit.

Lyle E. Johnson, engineering mechanics: Reversal of water vapor transmission to prevent corrosion of external propellant tank surfaces underneath spray-on foam insulation.

Roy J. Heyman, engineering mechanics: MX missile/canister lateral support pad flyout control.

Hal C. Hunter, electronics: Collet type friction lock for hydraulic elevator ram.

Recreation

Photography club—A six-hour seminar in basic photography will be held in two parts from 7 pm to 10 pm January 27 and January 29. Cost is \$7.00 for members and \$12.00 for nonmembers. The class is limited to 20 with club members given enrollment preference. The group will meet in DSC 200A. Call Gregory Bradt or Paul Headley, ext. 3388, to enroll.

Tennis tourney—Winners in the fall tennis tournament were: Men's singles, class A, Brian Gallagher; class B1, Martin Munley; class B2, Jack S. Ballard; class C, Theodore L. Barry; novice, Fred Neumann. Men's doubles, class A, David W. Quesenberry and Jon M. McKenzie; class B1, Tom Wertz and Martin Munley; class B2, Jerome Tussey and John Adamson; class C, John Frueh and John Lohring. Women's singles, Rosemary Turner. Women's doubles, Dottie Barnett and Kathy Pretty. Mixed doubles, class B, Craig Bradbury and J. Bradbury; class C, Prabhakara Rao and Revathi Rao.

Discount programs—Discount programs continuing in 1981 include: Theater tickets for Mann, General Cinema, and American Multi Cinemas; Heritage Square Opera House; Denver Nuggets; RTD bus tokens; Western Job Lot distributors; United Buying Service; Western Grocers; Cooper Tires; Magic Kingdom Club (Disneyland and Disney World); Adventurers Club (Knotts Berry Farm); Turn of the Century; Carriage Trade Dinner Club; and Gourmet Dining Club.



For the first time in 3 years, the AFPRO/Contractor Quality traveling golf trophy has been won by the Air Force. George McGee, Denver Aerospace quality assurance, presented the trophy to Col. Kenneth G. Haug, Air Force plant representative.

Supervisor's Handbook revised, distributed

Walter Martyneec, who prepared the revision, said employees who already have handbooks will receive the revised contents if they bring their loose-leaf binders and old contents to his office in Eng. 232D.

"Since handbooks were issued through the library, we must have each supervisory employee return the old book, check it in, and have it reissued," Martyneec said.

Employees who have questions or who believe they are eligible for a handbook should call ext. 4699 or ext. 6650.



The U.S. Treasury Department's Award for Patriotic Service was presented Leroy Hollins, second from right, for conducting the most successful U.S. Savings Bond campaign in Colorado in 1980. C. B. Hurtt, second from left, Denver Aerospace president, congratulates Hollins. Hurtt has been named Colorado state chairman for the 1981 campaign. Others in the photo are, left, Daniel Schipper, Colorado-Wyoming savings bond division regional manager, and, right, R. Michael Fugee Jr., savings bond division area manager.



Adamson



Polutchko

Two are named vice presidents

Richard G. Adamson and Robert J. Polutchko have been named Denver Aerospace vice presidents.

Adamson is vice president for business operations and controller. In addition to his role as controller, he directs contracts, materiel, facilities, and legal functions. Adamson joined Martin Marietta in 1960 as an instructor in the logistics training department during the Titan I and Titan II activation program. He became manager of the training department in 1965 and served in that position until 1971 when he became business manager for the Viking project. He was named technical operations business manager in 1976, assistant controller in 1977, and controller in 1978.

Polutchko is vice president for technical operations with responsibility for research and development, engineering, manufacturing, and quality control. He has been director of special programs, and held a number of key positions on the Viking project, including all Denver activities for the Viking flight team. Polutchko received the NASA Public Service Medal for his Viking work. He was the corporation's engineer of the year in 1972. Polutchko received his undergraduate and graduate degrees from MIT and was on the staff there six years.



Lompoc District Hospital's newest portable x-ray machine is discussed by William E. Diebner, hospital administrator, left, and Otha Jones, Vandenberg operations director, right. The x-ray machine recently was purchased with the assistance of a Martin Marietta Foundation grant.

New technology awards go to 15

The new technology evaluation committee has selected 15 employees to receive cash awards for technology developed on NASA contracts.

Those employees receiving awards and their new technology disclosures:

Philip Arvin and Victor V. C. Patton, electronics: New spiral reticle concept for reentry vehicle tracking.

Andrew S. Kattke, engineering mechanics: Methods for introducing a precise amount of contaminant-free catalyst into a closed resin chamber.

Philip Arvin and Deborah A. Strange, electronics: Dual dimensional interpolation calibration technique.

Gilbert M. Kyrias, engineering mechanics: Automated core sampling system.

Patricia A. Gould, Leonard J. Demchak, and Harry W. Harcow, engineering mechanics: POST processor for NASTRAN finite element load and stress analysis.

Daniel C. Van Hart and Dr. Benton C. Clark III, electronics: Captivated micro-sample preparation method.

Angelo J. Castro, system engineering: Titan probe—landing system concept.

John J. Chapter and Steven B. Rider, engineering mechanics: An automated procedure to calculate flow performance for surface tension propellant acquisition devices.

Gerald O. Olson, electronics: Clock loss circuit, and automatic tape recorder based on channel data rate.

Gerald O. Olson and Robert B. Kepp, electronics: Remotely programmable data synchronizer with a new phase detector.

Reports due from former DOD, NASA employees

Former employees of the Department of Defense, NASA, and certain military officers required to report aerospace and defense related employment must do so by February 15. The report covers the federal fiscal year October 1, 1979 through September 30, 1980.

Forms and information are available at Denver, Leroy Hollins, Eng. 125; Canaveral, Richard A. Freeman, MRL building; Michoud, Raymond J. Lacombe, Col. F3, first floor, building 350; and Vandenberg, Donald M. Lofats, room 72A, building 8401.



Discussing developments on high-rate, high-density tape recorders are Gerald O. Olson, left, and Robert B. Kepp, right, who recently received new technology awards for tape recorder work.

NASA honors Viking team

Five employees have received awards from the National Aeronautical and Space Administration for their contributions to the Viking continuation mission.

H. Mack Grant was selected to receive the NASA Public Service Medal for his exceptional contributions as chief of the orbiter performance analysis group.

The Viking continuation mission support team was recognized with the NASA Group Achievement award. Team members, in addition to Grant, are Alfred O. Britting, Mary Y. Cook, Jim L. Krug, and Donald W. Miller.

The awards were announced by Bruce Murray, director of the Jet Propulsion Laboratory, and presented at a December ceremony.



Ronald Hill has been elected to the board of directors for the American Society of Personnel Administration (ASPA). He is administrator of equal employment opportunity and personnel development at Canaveral operations. He has been an ASPA region seven district director; area two national college relations director; and second vice president of the Brevard County chapter. Hill is host-narrator of a Brevard community service radio program and has served on a variety of community boards and committees.

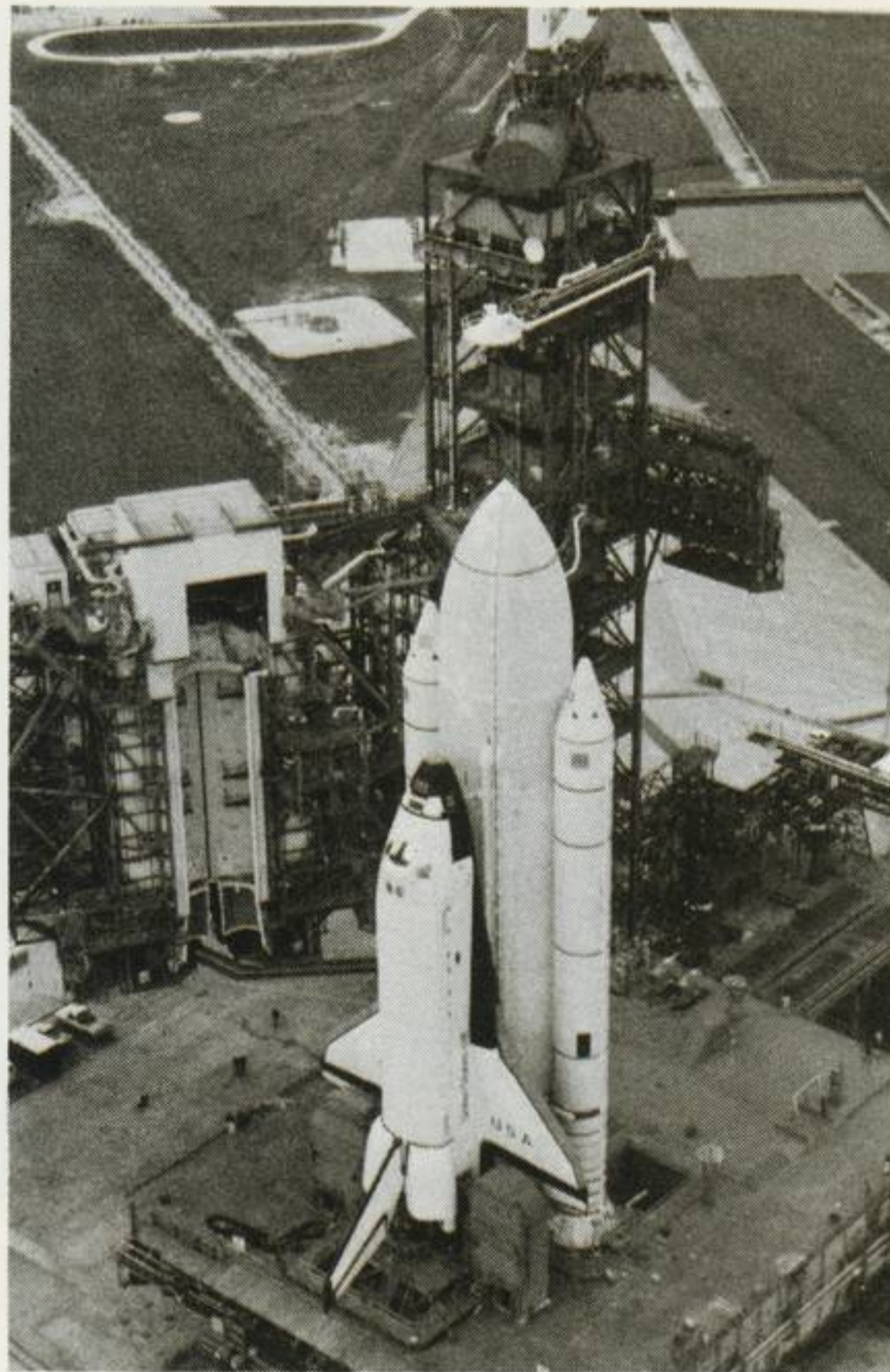
Space Shuttle moves to pad

Marking a major milestone in the space transportation system program, the first flight Space Shuttle moved from the vehicle assembly building at Kennedy Space Center (KSC) to its launch pad in late December.

The more than 11-million pound vehicle, platform, and transporter moved at less than one mile per hour. The three-and-one-half mile trip took more than 10 hours.

Two major milestones remain before the scheduled March 17 launch. In January, an autoload detank test will be conducted. During this test, the external tank will first be filled with liquid hydrogen and then drained. The tank will then be filled with liquid oxygen and drained. A practice countdown culminating in a 20-second firing of the Shuttle's three main engines is scheduled February 10.

The Shuttle's external tank is manufactured at Michoud with checkout and modification work being done at KSC.



The Space Shuttle was rolled out of the vehicle assembly building to launch pad 39A at Kennedy Space Center. The Shuttle, its mobile platform, and the crawler transporter, weighing more than 11 million pounds, took more than 10 hours to make the December 29 trip to the pad.

Canaveral employees cited for performance

Forty-four Canaveral operations employees were honored recently for "sustained superior performance" in support of space launch systems division efforts at Cape Canaveral and Kennedy Space Center.

C.E. Carnahan, the division's vice president and general manager, praised the individual effort of employees and noted that expendable boosters will provide challenge and opportunity for several years.

Silver replicas of the Titan 34D space booster were presented to:

Robert T. Matschner, Douglas N. Gilman, Mary C. Minor, Arch D. Smith, Joseph C. Lohman, Jack B. Gilbert, Frederick C. Marshall, Edward V. Stephenson, Kenneth R. Shipe, Forbes S. Hays, Richard D. Cromwell, Roy R. Hunter, Nicholas T. Geso, Thomas H. Munro, John C. Harris, Thomas J. Melcher, Richard A. Freeman, Clifton L. Gurr, Wilson O. Torrence, Eddie L. Roberts.

Donald W. Fleming, Martin S. Blankfield, Charles R. Kuhn, Herbert H. Hearne, James H. Mathena, Robert E. Williams, Donna R. Dean, Joseph A. DiGristine, Floyd C. Brown, James E. Madden, Abraham L. Freels, Morris S. Worland, Richard D. Olson, Colon E. Blackburn, Paul D. Daymude, Coe William Case, Murray E. Newsum, William L. Dimoush, Griffin D. Watkins, Roger L. Schmidt, Hermann R. Weinert, David F. McNeill, Leroy Wright, and Claude M. Corbett.

NASA extends contract for tank processing

A \$21,489,303 extension on the contract for processing the Space Shuttle's external tanks has been awarded the Michoud division by NASA's Kennedy Space Center.

The contract calls for the continued processing of the tank from its arrival at KSC through the prelaunch and launch activities.

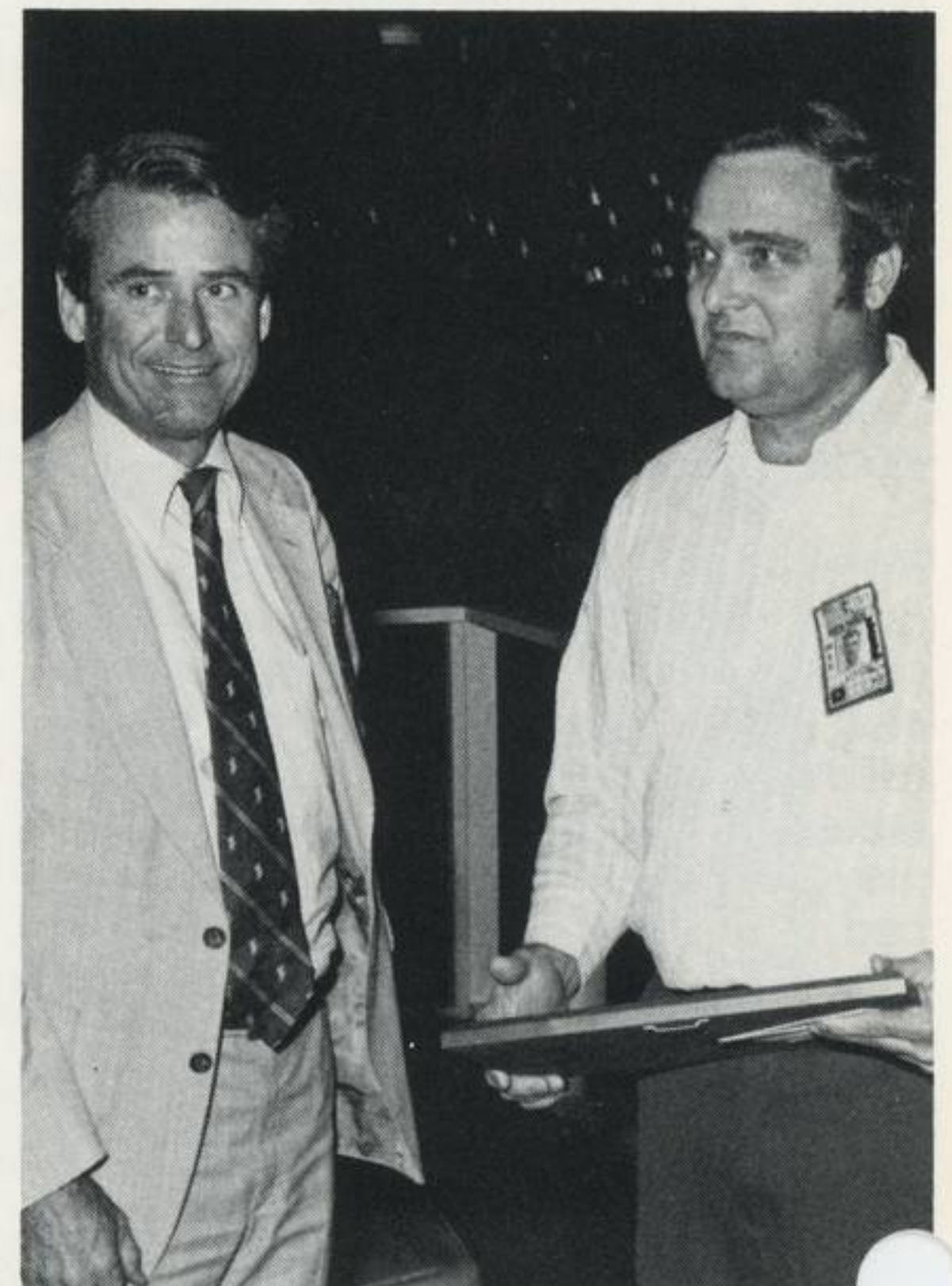
The cost plus award fee contract covers the period April 1, 1980 through March 31, 1982.

Employees honored for long service

Lawrence Cuppett and Louis Vittor recently were honored by the Canaveral operations Quarter Century Club. The two have been with Martin Marietta 40 years.

Both began work in 1940 in Baltimore and moved to Cape Canaveral in 1957 to work on the Vanguard program. While at the Cape they have participated in more than 100 Titan launches and have been involved with several missile development programs.

Cuppett is a propellant transfer and pressurization technician and Vittor is support operations chief for test operations.



Employee of the year at Michoud, Willie R. Lavigne, right, received a gold Shuttle pin, a bronze plaque, and a \$500 cash award from C. B. Hurtt, left, Denver Aerospace president. Lavigne, an "A" jig and fixture fabricator, has initiated many procedures contributing to safety and cost savings. He has earned many manned flight awareness awards.

Canaveral United Way campaign is success

The Canaveral operations' 1980 United Way campaign was a 100 percent success, with every employee participating.

The more than 300 employees pledged \$26,201.24 to United Way, an average of \$82.65 per person and a 12 percent increase over last year's contribution.

Fred Marshall, campaign chairman, and all employees were praised for their efforts by F.J. Scheffler, Canaveral operations director. He said, "Mr. Marshall has done a superb job in conducting an efficient campaign. I am very proud of our employees who so unselfishly recognized community needs and so willingly participated. The 12 percent increase in donations is a necessary commitment to offset the impact of inflation on United Way agencies."