MARTIN MARIETTA
news
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NASA chief visits at Michoud

Martin Marietta earns industry's highest award

Federal Reserve Bank officials received a close-up look at a Titan III in the final assembly area last week. The group also saw demonstrations of an aircraft controller simulation model and the manned maneuvering unit. They were the guests of Martin Marietta Aerospace President C. B. Hurtt, at right.

The Martin Marietta Corporation has been awarded the 1981 Collier trophy, the industry's highest honor for achievement in aeronautics and astronautics for its role in the development of the Space Shuttle.

Martin Marietta Aerospace President C. B. Hurtt accepted the trophy, thanking the thousands of company employees and subcontractors "whose tireless dedication to mission success has been rewarded with three spectacularly successful Shuttle flights and this magnificent trophy."

The award, given annually by the National Aeronautics Association, was presented at a special ceremony in Washington, D.C. May 14.

The trophy was awarded Martin Marietta and the entire government and industrial team responsible for development of the Space Shuttle and the concept of manned reusable spacecraft.

Hurtt attributed the success of the Space Transportation System to the many people who labored for years to bring about the era of the Space Shuttle.

"The team gathered here tonight represents the nation's finest technological heritage and dedication to mission success," he said.

"The dedication of the nation, the administration, and the Congress to space flight will continue to keep the United States first in aviation and space," Hurtt said.

CCMS earns top performance rating

The checkout, control, and monitor subsystem (CCMS) has earned its tenth superior rating and a 100 percent fee in the most recent incentive award period. The program has also earned three excellent ratings.

The CCMS, built by the ground electronics production systems organization, is used to check the Space Shuttle orbiter, initiate test programs, and monitor its performance. The equipment controls ground support equipment and monitors its performance. The CCMS operates up to and during launch.

The equipment performed flawlessly during the first three Shuttle launches, according to E.F. Haeger, director of ground electronics production systems.

"We have recently turned over to the Air Force the CCMS equipment at South Vandenberg for support of Shuttle flights there," Haeger said. "And we turned it over eight weeks ahead of schedule."

Galileo work earns incentive award fee

The team, lead by W. Edwin Dorrah, Jr., that is working on the attitude and articulation control subsystem for the Galileo program has earned an 88 percent superior rating in the first incentive award fee period. The superior rating is the highest attainable.

The award was made by the Jet Propulsion Laboratory, the customer for the Galileo-Jupiter probe spacecraft components.

In making the award, a JPL spokesman said, "Martin Marietta has shown an excellent overall understanding of the design details and demonstrated exceptional capabilities in the redesign of the memory controller that had previously been attempted by two other contractors."

On the cover

NASA Administrator James M. Beggs, center, discussed progress in reducing the weight of the Space Shuttle external tank while standing in front of the first lightweight tank at the Michoud division. The tank weighs about 6000 pounds less than the one used for the first Shuttle launch. Shown with the head of NASA are, left, Kenneth P. Timmons, Michoud division vice president and general manager, and, right, Dr. William R. Lucas, director of NASA's Marshall Space Flight Center.

JPL awards contract to update equipment

Work will begin here in June on a contract to update the command modulator assembly, part of the support equipment for the deep space network.

The thirteen-month contract, worth more than $1 million, was awarded by the Jet Propulsion Laboratory which is responsible for the upgrading effort on the deep space network.

Program manager for the work is Lloyd Thayne. Involved is an upgrading of several racks of digital electronics equipment, some of which is 15 years old.

Denver Aerospace also has bid on a contract with JPL to make improvements in some of the radio frequency and voice transmission equipment for the deep space network.

NASA administrator visits, praises Michoud

The external tank operations at the Michoud facility in New Orleans "is turning out an obviously good effort. . . is going to be here for a good 20 years, or perhaps longer. . . and is going to be able to achieve production rates and do the job."

So said NASA Administrator James M. Beggs following his first tour of the plant May 6.

Visiting the Michoud division for the first time since his appointment as administrator of NASA in July 1981, Beggs met with company and NASA officials to review production plans for the large external tank and to familiarize himself as much as possible with the manufacturing process at the 44-acre NASA facility.

The highlight of the tour for the head of the world's most prominent space agency, was inspection of the first lightweight external tank which had just been assembled in the vertical assembly facility there. The new lightweight version of the tank will be some 6000 pounds lighter than those flown in early Shuttle missions.

Beggs pointed out that since the tank is the only expendable part of the Shuttle system, its cost is extremely important to NASA. The costs saved by cutting weight, combined with increased payload capacity add up significantly, especially for sales of Shuttle space to domestic and foreign concerns.

Martin Marietta managers responsible for different aspects of the tank's production briefed Beggs on the intricacies of external tank manufacture as well as on advances and improvements that have been made in the efficiency of its construction.

He said that NASA is moving up now, or ramping, to higher production rates to meet future demand for Shuttle flights. The Shuttle will fly five times next year, 10 in 1984, and Beggs said that he hopes between 13 and 15 in 1985, and up to 18 or 20 in 1986, with as many as 24 per year thereafter. At that time the agency will take a reading of the market before increasing to 30 to 40 flights per year.

"There's good effort obviously being turned out by the workers at the Michoud division," Beggs said. "We're very confident that we're going to be able to achieve production rates and do this job."

Shuttle-derived launch vehicle designs studied

The Michoud division has been awarded a NASA contract to study designs for two Shuttle-derived launch vehicles. The goal of the study is to increase the Space Shuttle payload capacity by the end of the decade.

The conceptual designs were selected for study by NASA as an outgrowth of an 18-month analysis at Michoud of four design considerations to meet requirements for space payloads that will be too large for the present Shuttle system.

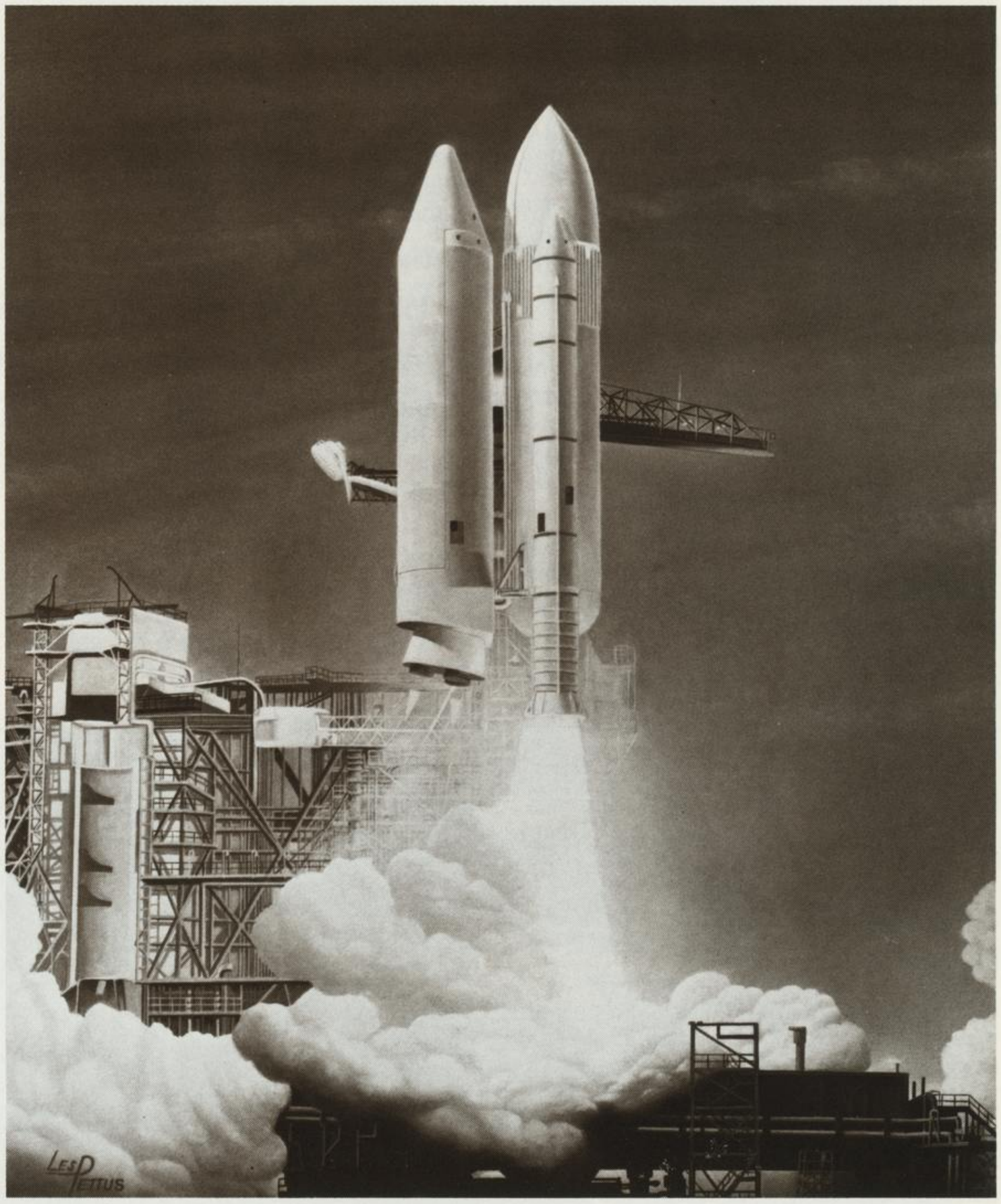
NASA also has asked the company to assess near-term minimum technology large cargo carrying systems, and a hybrid rocket replacement for the solid rocket boosters.

The Shuttle-derived vehicle study includes concepts for both manned and unmanned vehicles. Under consideration is a design that adds an aft cargo carrier to the external tank, as well as one that replaces the orbiter with an unmanned reusable propulsion/avionics module incorporating three Shuttle main engines. Both versions would use two standard solid rocket boosters essentially like those on Space Shuttle.

The aft cargo carrier would double payload volume and have the advantage of orbiter and astronaut accompaniment for mission related space work.

The second design's payload capacity of 150,000 pounds more than doubles the 65,000-pound ability of the present Shuttle. Launch cost would be about the same as current orbiter launches.

An objective of the work is to build upon the basic Shuttle concept by using the system's existing elements to accomplish a number of space efforts and possibly reduce the number of Shuttle flights to meet NASA-forecasted mission requirements.



A Shuttle-derived launch vehicle concept developed at the Michoud division lifts off from Kennedy Space Center in this artist's illustration. The launch system depicted here includes an external tank and twin solid rocket boosters like those on the existing Shuttle. The airplane-like orbiter, however, is replaced by a large cargo carrier—an unmanned payload module with reusable avionic and propulsion module incorporating three Space Shuttle main engines. The vehicle would be capable of carrying more than 150,000 pounds of cargo into low earth orbit.

Company products to be at AIAA exhibit

The multiple Space Shuttle roles of Denver Aerospace are being featured in a 1200-square-foot exhibit at the annual meeting of the American Institute of Aeronautics and Astronautics in Baltimore next week.

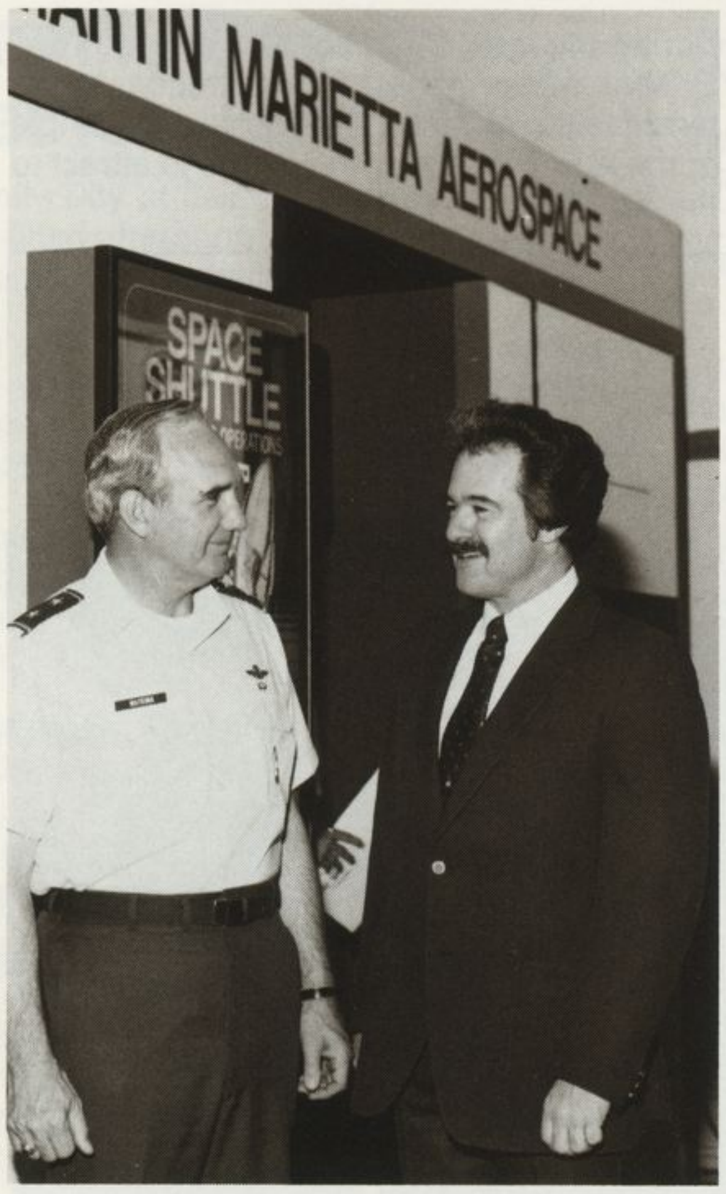
A 12-minute slide show describing mass production of the external tank at the Michoud division will highlight the many Shuttle roles of Denver Aerospace. The slide presentation also will update visitors on the progress being made on Shuttle launch facilities for the Air Force at Vandenberg Air Force Base, and the company's responsibilities at the Kennedy Space Center.

Static displays in the 20-by-60-foot exhibit are devoted to the manned maneuvering unit, the teleoperator maneuvering unit, large space systems, and the Venus mapper.

Norman R. Augustine, Denver Aerospace president, is AIAA president-elect for 1983-84. He will be chairman of a session on New Directions at the meeting.

Program chairman for the annual meeting is Seymour L. Zeiberg, engineering vice president for Martin Marietta Aerospace.

The manned maneuvering unit, shown in this artist's concept being used by an astronaut to repair the solar maximum mission spacecraft, will be a part of the company's exhibit at the annual meeting of the American Institute of Aeronautics and Astronautics.



A Martin Marietta exhibit at the Ballistic Missile Competition at Vandenberg Air Force base has been praised and an audiovisual specialist has been commended for his work. Maj. Gen. Jack L. Watkins, commander of the Air Force First Strategic Aerospace division is shown congratulating Roger Isabel from Martin Marietta's Bethesda headquarters for his super effort in connection with the display.

Coordinators named for bond campaign

Department and area coordinators are available to assist employees in signing up in the 1982 U.S. Savings Bond campaign.

Goal of the campaign is 90 percent employee participation.

Employees can earn up to nine percent interest on their investments in the U.S. Savings Bonds and can pay for them through payroll deduction.

Coordinators and the areas they will cover:

John Leonard, electronic manufacturing; Cheryl Howard, business operations strategic systems; Jennifer Milillo, business management; Irene Woodzell, executive; Mary Stirling, personnel; Beverly Thompson, quality; Leon Taylor, solar; Geneva Purdy, software; Betty Purkey, manufacturing; Donna Peterson, space and electronics systems; Beverly Egger, mechanics; Nadine Holder, technical operations strategic systems; Jeremiah Turco, technical operations administration; R. W. Hall, electronics; Horace Clair, test; Jane Dolan, strategic systems hardware design and fabrication, system integration and test, and the executive area; Norma Patterson, strategic systems program development.

The campaign will run until June 11.

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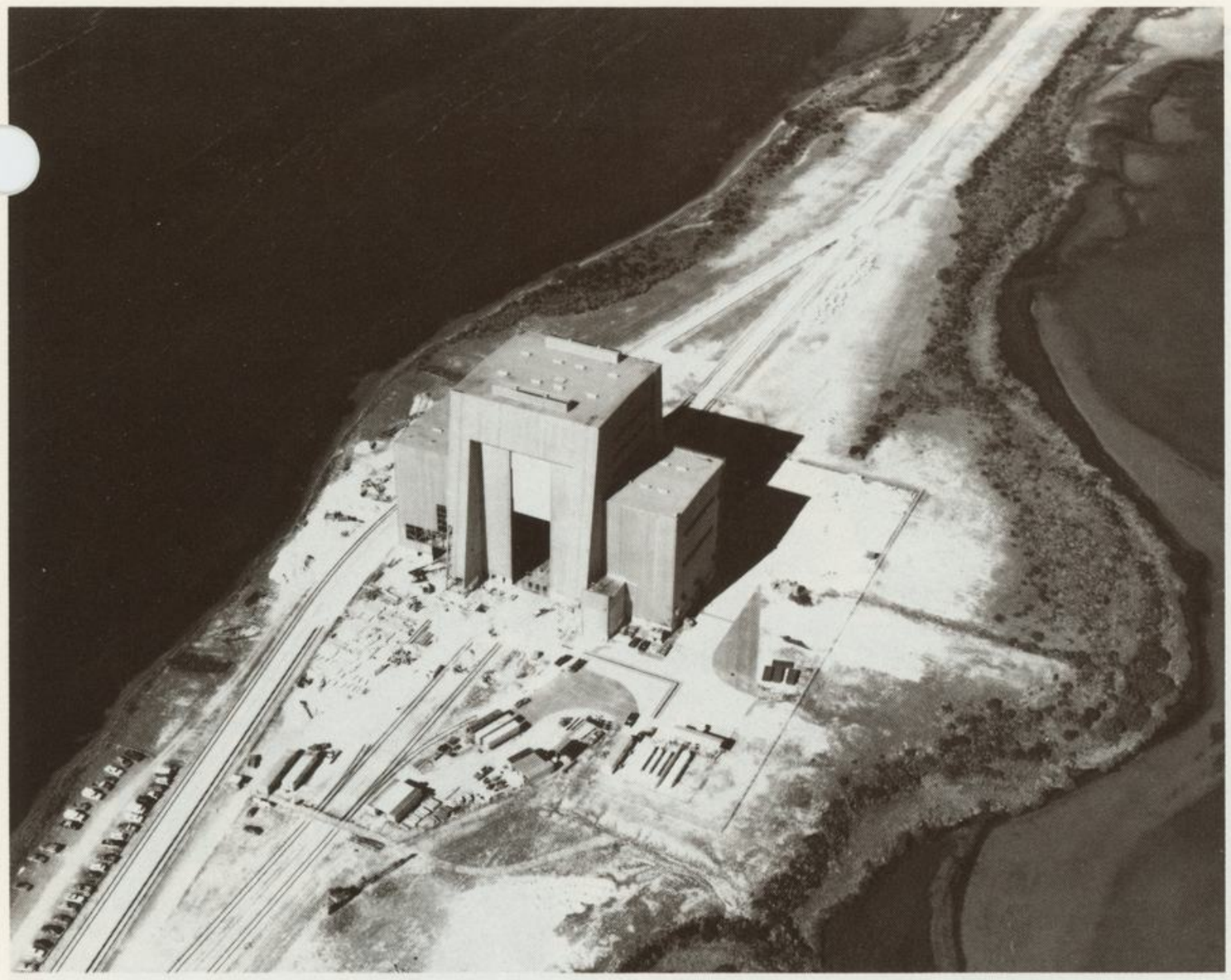

Part of the solid rocket motor assembly building at the Cape Canaveral Air Force Station is being modified for use as the payload integration facility for Space Shuttle.

Shuttle facility work is underway at Cape

Work on the Shuttle payload integration facility (SPIF) at Cape Canaveral Air Force Station is on schedule with the first use planned for January 1983. Full operation is expected in September 1983.

The facility will provide a safe, secure environment for integrating—testing and mating with upper stages—Department of Defense spacecraft to be launched by Space Shuttle. SPIF systems will electronically and mechanically simulate the Shuttle orbiter, allowing off-line verification of spacecraft and orbiter compatibility without jeopardizing Shuttle launch schedules.

Martin Marietta is responsible for major portions of the SPIF ground support equipment. In Denver, employees are designing and fabricating the fuel and oxidizer systems that provide propellant for the spacecraft propulsion system and will provide the radio frequency transmission system used to verify spacecraft/Shuttle interfaces. Canaveral operations employees will be responsible for the installation and checkout of those systems. Canaveral operations is also responsible for the access control system—the computerized system used to control and monitor personnel access into the various areas of the SPIF.

The new facility is in the west low bay of the solid rocket motor assembly building which has long been used for stacking and mating Titan IIIC and Titan/Centaur solid rocket boosters. The center high bay will continue to be used to process boosters for the Titan 34D program. The east low bay has been modified to become the checkout facility for the inertial upper stage that will be used with the Space Shuttle and the Titan 34D programs.

Executive to speak at engineers conference

Kenneth P. Timmons, vice president and general manager of the Michoud division, will speak to the annual conference of the American Institute of Industrial Engineers May 25 in New Orleans.

More than 3000 are expected to attend the conference.

Other scheduled speakers include Colby Chandler, president of Eastman Kodak; Louis Kornfeld, former chairman and president of Tandy Corporation; and Dr. W. Edward Demine, famous for his statistical quality control work with the Japanese.

Top business leaders tour Michoud division

The Michoud division and the New Orleans Chamber of Commerce recently hosted a top-level group of businessmen who are considering building industrial facilities in New Orleans.

Each of the business leaders represented out-of-state companies who plan to expand in the near future. The Chamber hopes to persuade them to locate new facilities in New Orleans.

During the visit, Chamber officials and New Orleans Mayor Ernest Morial frequently referred to the Michoud division as an example of the kind of industry they hope to attract to the city.

A tornado touched down recently in the Titan III launch area at Cape Canaveral. The upside-down trailer and the leased car near it sustained the only damage. The trailer had been the temporary offices of the Shuttle payload integration facility staff. The twister struck at 4:47 pm, 17 minutes after normal office hours. No one was injured. Building in the background is the solid motor assembly building that will house the Shuttle payload integration facility.

A suggestion to use word processing equipment to produce planning schedules has earned a cash award for Kimberly H. Coley, seated, and Lisa J. Perry. Their idea, which reduces manhours and produces cleaner, more legible schedules, was submitted in the space launch systems division cost reduction program at Canaveral operations.

New Performance Sharing Plan option added

Employees will have a third investment option available as part of the highly successful Performance Sharing Plan. Beginning June 1, employees may elect to have plan contributions invested in the Martin Marietta Stock Fund.

Fund C, as it will be called, will be comprised entirely of Martin Marietta Corporation common stock.

Employees may elect to have contributions invested wholly in Fund A, the equity fund, Fund B, the fixed income fund; or in Fund C, the Martin Marietta Stock Fund. Investment may also be made in a combination of any of the three funds.

A Benegram and a prospectus describing the Performance Sharing Plan and the new option have been mailed to employees.

Questions and requests for change in Performance Sharing Plan investments should be directed to employee benefits, Ext. 5609.

Fire-fighting employees battle woods blaze

Eighteen Martin Marietta auxiliary firemen, directed by Chief Arthur Vos and plant protection's Lt. Sharon A. (Casey) Norman, worked eight hours to control a blaze on Plymouth Mountain near company property May 4.

The employee fire-fighters assisted the Inter-Canyon Fire Department in fighting the lightening-caused sage brush and high scrub oak fire that came within about two miles of wooded company property.

The team arrived at the fire by bus shortly after noon and stayed until 8:00 pm. The fire fighters had to walk in to the fire area carrying portable water packs, shovels, and other gear.

The Inter-Canyon Fire Department had the fire under control but needed relief and help to keep it controlled. Several outbreaks did happen after the fire-fighting Martin Marietta employees arrived.

"When they need help, we try to respond," Lieutenant Norman said. "When we need help, we know they will respond."

Family Day is set for June 19

Family Day at Lakeside Amusement Park, a fun-filled afternoon for employees and their families, will be held Saturday, June 19.

The park will be reserved for the exclusive use of employees and their families from noon to 6:00 pm. Rides, except for the speed boats and the sky slide, will be free.

Other entertainment planned for the day includes Rare Moment, a song and dance group; Cosmic Circle Puppets; the Denver Concert Band; and the El Jebel clowns.

Department administrators will pick up Family Day tickets June 3 or June 4 from 9:00 am to 4:00 pm in the recreation office, Eng. 124G.

Credit union gets high marks in exam

An outstanding rating has been awarded the Red Rocks Credit Union by the National Credit Union Administration, a governing agency of the federal government.

John J. Smith, president of the employee-operated organization, said that the rating was especially noteworthy since the Credit Union has been in existence for only two years.

As a result of the rating, the Red Rocks Federal Credit Union will be listed with the National Credit Union Administration as a source of information for those in the process of forming credit unions.

"A great deal of credit for the outstanding rating must be given to all the volunteers who have spent long hours making tough decisions to get the Credit Union going," Smith said.

Employee cited for life-saving act

Herbert L. Bolton, a mechanic and propulsion technician at Vandenberg operations, has received a commendation for action he took that saved the life of a worker there.

A subcontractor employee suffered a suspected stroke at Vandenberg. Bolton was quick to react, using all necessary life-saving techniques.

Bolton's treatment of the stroke victim demonstrated technical expertise and professionalism, according to C.D. Moore, MX system safety chief.

Employees and employees' wives listen as Lori Sharp, recreation, makes the opening remarks at "Feeling Good and Looking Well," a four-hour fashion and fitness show. More than 175 women heard presentations on diet, nutrition, exercise, and career-conscious fashions.