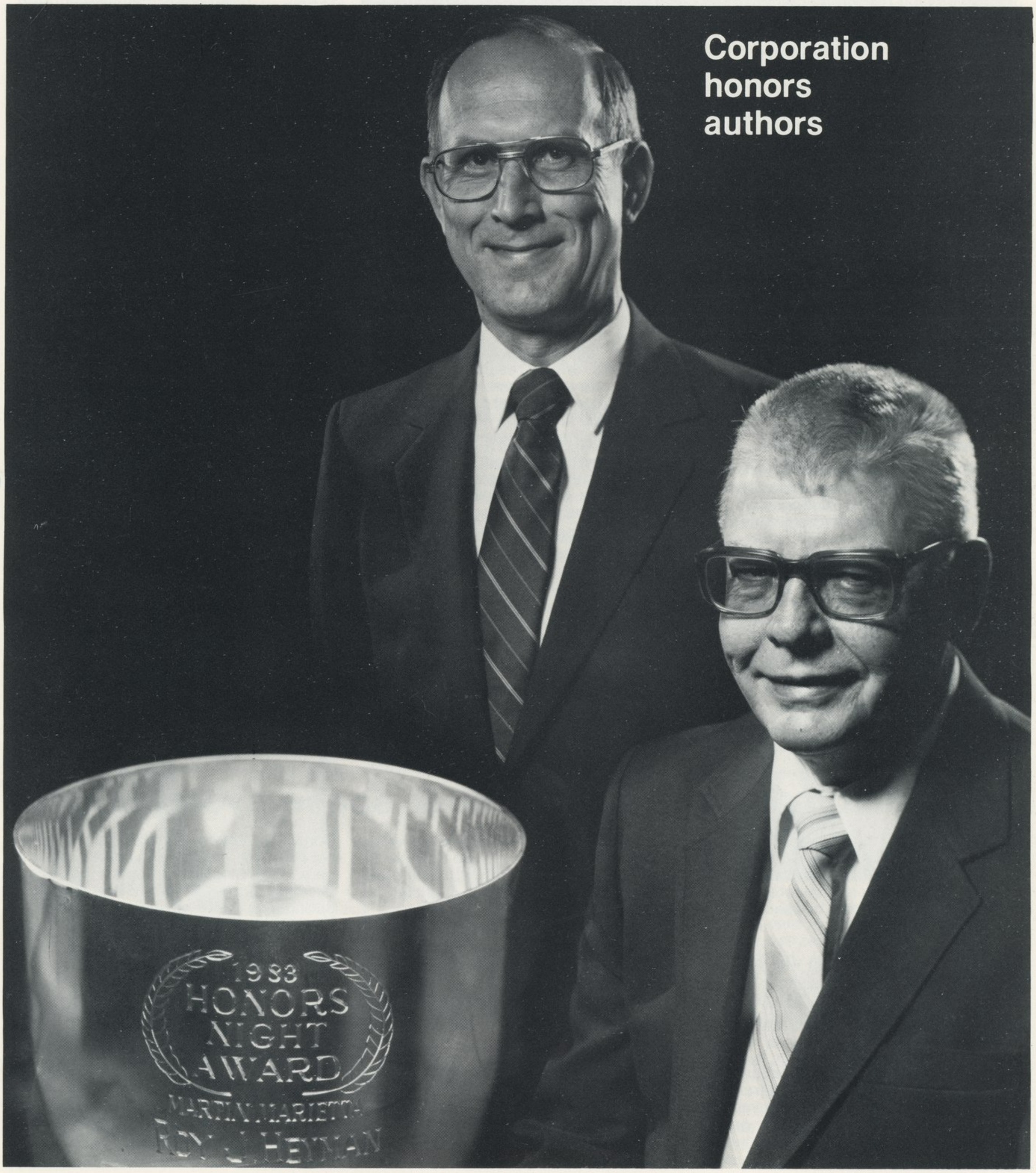
MARTIN MARIETTA
news
DENVER AEROSPACE

NUMBER 14/1983

Corporation honors authors



Corporation honors Denver Aerospace employees

Fifteen Denver Aerospace employees have received the Corporation's highest honor—the Jefferson Cup—for their work during the past year.

Three of those employees were singled out for special honors. Named authors of the year were Stephen G. Alexander, Roy J. Heyman, and Durwin A. Schmitt. They received the award for their paper, "Base Heating on a VOIR Aerobraking Configuration in Rarefied Flow," presented at the American Institute of Aeronautics and Astronautics/American Society of Mechanical Engineers 1982 Joint Conference on Thermophysics, Fluids, Plasma, and Heat Transfer and published in the proceedings of that conference.

The paper was a basic part of the Venus orbiting imaging radar proposal. That was the second time it had been accepted for publication. It was withdrawn the first time because of a delay in the VOIR program. The aerobraking maneuver around Venus is a key function of the mission to map the surface of the planet.

Alexander is on educational leave working on a doctor's degree in physics at Penn State.

Heyman, who was a Corporate honoree during 1970, is now assigned to the Peacekeeper project working on the blast loading of various basing components.

Schmitt is helping to develop an ice suppression system for the external tank to be used for launches of Space Shuttle California's from Vandenberg Air Force Base.

The Jefferson Cup was fashioned for architect, engineer, inventor, author, and statesman Thomas Jefferson, third president of the United States. Each year Martin Marietta presents silver replicas of that cup to employees who have attained preeminence by virture of superior contributions to the progress and movement of a great corporation.

Others honored from Denver at the 22nd Annual Honors Night June 24, were:

The Jefferson Cup awarded Roy J. Heyman is identical to those received by other employees honored by the Corporation.

Jon A. Dutton (Michoud)—For outstanding contributions to the Shuttle lightweight external tank program, including selection and implementation of analytical techniques, which resulted in a design 4000 pounds under specification weight, and definition of the test program that verified internal loads and ultimate strength capability in the lightweight tank.

Louis S. Favata (Michoud)—For outstanding contributions to the development of the complex software used to load propellants on the external tank.

Arthur E. Homewood—For contributions to the development of a new message processing and communications system for the U.S. Army, the first two units of which were designed, assembled, tested, and delivered to the field 30 days ahead of schedule.

Richard B. Hooley (Vandenberg)—For sustained professionalism and continuous contributions to the successful record of the Titan space launch vehicle program, including the 100 percent mission success record of the Titan III D-1 series.

Thomas H. Munro (Canaveral)—For an outstanding performance as the test conductor for the flight of the first Titan 34D, integrating all launch base testing requirements between the customer, contractors, and two new major subcontractors.

Tommy J. Perry—For sustained performance in the development and administration of the Denver Aerospace Affirmative Action Program, resulting in satisfactory compliance reviews, acceptance of action plans by applicable government agencies, and achievement of all significant objectives.

William P. Pratt—For leadership of several proposals for new business, including a technical volume in a proposal for Space Station, rated by the National Aeronautics and Space Administration as one of the best submitted.

Terrell L. Roberts—For outstanding technical and management contributions to the successful first flight of the Titan 34D, including development of 20 software test tools.

Raymond F. Schwindt—For exceptional contributions to the success of the special programs department of the Space and Electronics Systems division through management innovation, personal dedication to ensuring hardware performance, adherence to schedules, and sound fiscal management.

Robert H. Snodgress—For development and implementation of a superior capital expenditures plan, resulting in excellent cost control and schedule performance on major projects.

John H. Vowells—For outstanding leadership of the model shop, which provides critical technical support to Denver Aerospace projects.

Gerald A. Zionic—For outstanding contributions in identifying and winning a major new program to upgrade a critical defense information system.

Workshop panels explore tether space systems use

More than 150 scientists and engineers from the United States and abroad met recently in a National Aeronautics and Space Administration-sponsored workshop to study the future of space tether systems.

The three-day workshop at Williamsburg VA explored potential applications of the system beyond the initial Denver Aerospace Shuttle-based tethered satellite system.

Among the space tether applications discussed were Space Station construction, orbit transfer of spacecraft, delayed deorbit of external tank, and power generation using electrically conductive tethers.

The workshop was divided into six working panels including electrodynamic interactions, transportation, artificial gravity, constellations, science applications, and technology and test.

Denver Aerospace played a significant role in the workshop with representatives from the tethered satellite team, space systems, payload and sensors, propulsion, Michoud division, and program development.

Exhibits for the workshop were provided by the public relations department and included a Shuttle model with integrated tethered satellite system, and a large display board illustrating the evolutionary growth of space tether systems.

Donald S. Crouch, tethered satellite project manager, said, "I anticipate there will be a continuing flow of space tether application study and technology contracts during the next several years. These could lead to the development of futuristic tether augmented systems that will extend the state-of-the-art of the current tethered satellite contract."

On the cover

Top Corporate authors are Durwin A. Schmitt and Roy J. Heyman, shown on the cover. Stephen G. Alexander, who shared the honor, is on educational leave and was not present for the photograph.

A common interest in Space Shuttle is discussed by high school student Sean Amberg and astronaut Francis R. Scobie. Amber is developing an experiment scheduled for Shuttle's 11th mission; Scobie has been assigned to mission 14.

Student prepares experiment for Space Shuttle flight

Nebraska high school senior Sean Amberg is spending his summer vacation growing corn plants at Denver Aerospace.

Working with physical chemist Dr. Harold Papazian, Amberg is developing an experiment to study the effects of a zero-gravity environment on the gravity sensing mechanisms in the root tips of corn plants. The project is planned as part of the January 1984 mission of Space Shuttle 11.

Control experiments are now under way, while Amberg and Papazian plan and schedule each phase of the experiment.

Amberg will cut off the root caps of some of the corn plants eight to ten hours before they are launched into space.

"We'll see what happens as they grow back with no gravity to influence them," Amberg said.

As the plants grow in the weightless environment, they will be chemically stopped or "fixed" at various germination stages. The cellular structure of the roots will be studied using an electron microscope once the plants are returned to Earth.

"Sean is an excellent scientist," said Papazian. "He's been released from his high school schedule one day each week for the last two years to work in the botany department at the University of Nebraska. He's well in advance of his peers."

The design, assembly, and test assistance he has received at Denver Aerospace may have influenced his career plans. After graduation next year, he hopes to attend Massachusetts Institute of Technology, possibly to major in aerospace engineering.

Amberg is one of 20 winners selected from 2800 high school entries submitted nationwide to the National Aeronautics and Space Administration and the National Science Teachers Association for the Shuttle Student Involvement program.

While in Denver, Amberg is living in the home of Dale G. Nielsen, quality and safety.

Denver Aerospace awarded NORAD system contract

Denver Aerospace has been awarded a contract worth about $2.5 million to design a replacement internal communications system for the NORAD Cheyenne Mountain Complex at Colorado Springs.

The Space and Electronics Systems Division will start immediately and continue through the next 10 months to design the improved communications system.

The replacement system is needed to provide reliability and availability, as well as flexibility for growth through the end of this century.

Proposals for the implementation phase of the contract are due January 1984 and a single contract will be awarded during mid-1984.

Opera group to honor company for grant

Tonight—July 15—is Martin Marietta night at the Central City Opera.

The designation comes in recognition of the Corporation's $25,000 gift to the Central City Opera House Association—a gift that helped make possible the opera's 50th anniversary festival.

Giuseppe Verdi's *La Traviata,* opening opera for the season, will be performed on the stage of the historic Opera House.

The festival's golden anniversary is celebrated with that opera in honor of the 1932 first festival that featured Lillian Gish as the heroine in *Camille,* the story of *La Traviata.*

The 50th anniversary festival runs through August 6.

Bond drive ends, participation is up

The 1983 U.S. Savings Bond campaign has ended with a 12 percent increase in participation.

Nearly 14,000 employees participate in the U.S. Savings Bond payroll deductions program.

Participation increased from 70 percent to 82 percent during the 1983 savings bond drive.

As in previous years, Cape Canaveral and Michoud employees were the pace setters with 93.8 percent and 91.8 percent participation, respectively.

Vandenberg employees boosted their participation from 60 percent to 76 percent.

In Denver, 78 percent of all employees have signed payroll deduction cards, up from 71 percent at the start of the campaign.

Employees still may sign payroll deduction cards, available from recreation, engineering 124E.

Credit Union offers new car load rates

Red Rocks Federal Credit Union is offering a 12.75% annual percentage rate on new car loans for qualified buyers through August 31. Call 977-6000 for details.

Data conferencing—a new way to conduct business

There are meetings today at Denver, Bethesda, and Orlando—and one Denver Aerospace employee needs to be at all three.

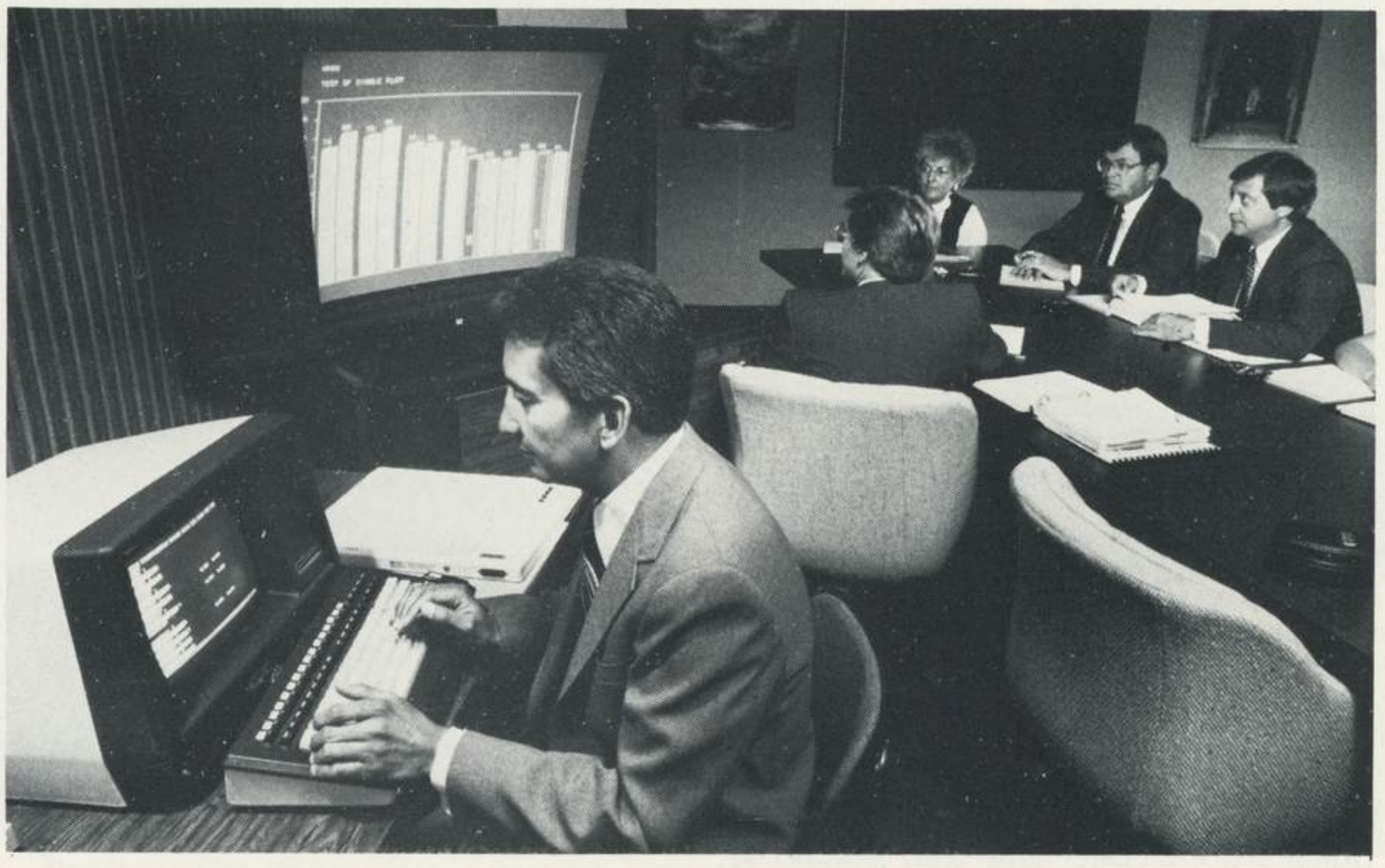
Impossible?

Not with data conferencing.

Using a technique being tested by the accounts division advanced technology group of Martin Marietta Data Systems, the busy individual can travel the 6000 miles to the meetings without leaving the office.

Data conferencing allows people in various locations to meet, using voice and simultaneous online graphics, including pictures, drawings, and documents.

John Ortiz, manager of systems design and planning for the Data Systems Aerospace account, is coordinating a "beta test" that links the major Martin Marietta Aerospace locations. Hardware and software are available at Aerospace headquarters at Bethesda and at Baltimore, Denver, and Orlando. Data System's advanced technology group in Greenbelt is part of the network for test monitoring.



Data conferencing participants John Ortiz, foreground, David Schweibold, Virginia A. Ballast, Howard W. Anderson, and Max McGarr check effectiveness of new meeting technique.

"The equipment is portable," Ortiz said. "It takes only a few minutes to set up a data conferencing session, and we don't need an elaborate meeting room. The busy manager can use his own office if he has the proper telephone equipment," he said.

During the test period, scheduled to run to the end of 1983, Ortiz is asking that those scheduling meetings consider data conferencing when travel is involved.

"A two-hour meeting in Bethesda, for example, averages about $1000 per person for those traveling from Denver," Ortiz said. "That's just travel expense. It doesn't include the intangible cost of the time lost in travel."

While the reduction in travel is one benefit, another is the ability to exchange information too complex for a simple phone call, yet not significant enough to warrant a trip.

Data conferencing also permits more people to attend the meeting.

"You can call in the experts even while the conference is going on," Ortiz said. "That can ensure the success of a meeting."

Production and schedule reviews, problem-solving sessions, sales conferences, and general program briefings are all candidate subjects for data conferencing.

"With live voice transmission and a real-time data change capability," said Ortiz, "everyone has instant access to newly generated information resulting from the meeting."

Ortiz points out that data conferencing does not try to eliminate face-to-face meetings, saying that once the art of conferencing is understood, it will supplement those first-hand meetings. The data conferencing meeting works well if at least one person in the group has met a person in each of the otner locations.

"With many locations able to data conference, we just might change the way we conduct business," Ortiz asserted.

To set up a data conferencing session or to obtain more information, meeting planners can call Ortiz, 790-3403. Rolly J. Rounds, Jr., ext 7-4187, is the Denver Aerospace data conferencing coordinator. Anesa McCleanon and Tami Huerta are system administrators here for Data Systems.

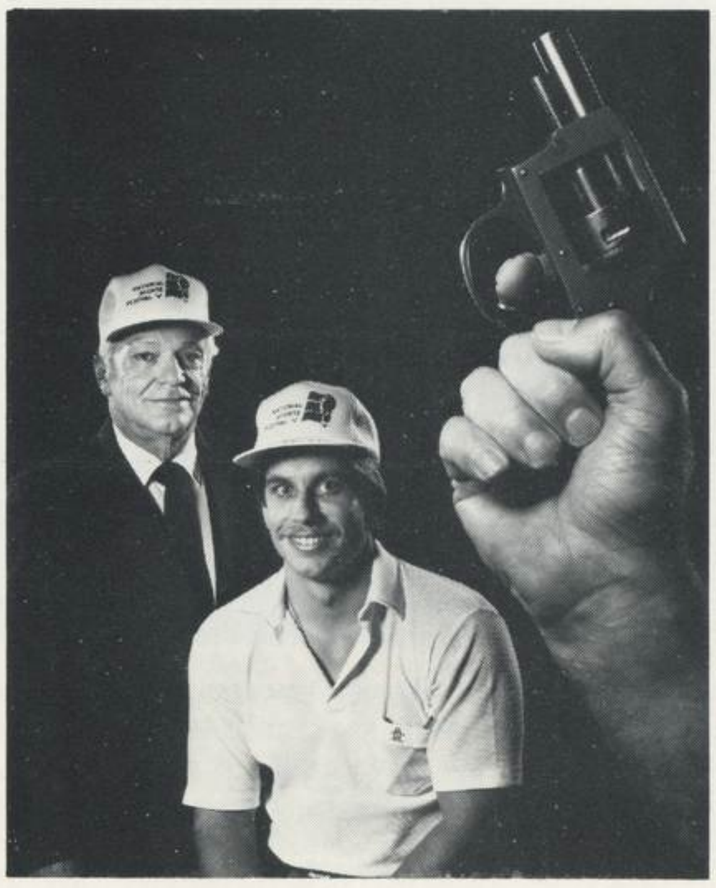
Father, son officiate as track records fall

New world records for the 100 meter dash were set while Denver Aerospace employees Ned and Vince Stephenson officiated during the National Sports Festival V at Colorado Springs July 1-3.

A former sprinter himself, Ned Stephenson, chief of photographic services, was starter for the track events. His son, Vince, payroll, worked the long jump and triple jump .

"It's a real thrill to be part of an event when world records fall," said Ned Stephenson. "The announcement of Evelyn Ashford's world record in the women's 100-meter dash was made as we were setting up the men's 100. Calvin Smith won it in world record time. That's two new world records set in less than 15 minutes!"

More than 2600 athletes took part in the Sports Festival sponsored by the U.S. Olympic Committee. Top contenders will go on to the world games this year and aim for the 1984 Olympic Games at Los Angeles.



Ned and Vince Stephenson

Ned Stephenson is a certified starter for the Athletic Congress of the United States. He works 12 to 15 meets each year. Vince, currently working on certification, often serves as recall starter for his father.

Both Stephensons know the importance of their contribution to amateur athletics. "The officials serve one purpose—to make sure every competitor has a fair event. We help each athlete do his or her best."

Ironically, the only false start to occur while Ned Stephenson held the starter's pistol was caused when a photographer triggered the autowind on his camera.

Ned Stephenson has been a volunteer starter for Colorado track events for 20 years. He joined Martin Marietta during 1941. Vince has been with the company five years.

Symposium Features "Project Cost"

Top-level government and industry speakers were featured in a recent one-day "Project Cost" symposium in California, sponsored by the Vandenberg Air Force Base Chapter of the National Contract Management Association.

Forty-five Vandenberg Operations employees participated in the educational conference that covered affordability, stability, and program management accountability.

The conference was based on recent efforts by Gen Robert T. Marsh to develop a sense of "absolutely superb stewardship" in the allocation and use of scarce national resources for the nation's defense. The general is commander of Air Force Systems Command at Andrews Air Force Base, Washington, D.C.

Speakers included Brig Gen Donald W. Henderson, commander of the Space and Missile Test Organization at Vandenberg and Robert F. Trimble, vice president for contracts, Martin Marietta Aerospace.

Discussing Department of Defense contract cost policies at a recent "Project Cost" symposium were, left to right, Roger F. McGough, manager of ground support systems contracts at Vandenberg Operations; John P. Murphy, director of Vandenberg Operations; Brig Gen James C. Dever, Jr., deputy chief of staff for contracting and manufacturing, Air Force Systems Command, the keynote speaker; and Robert F. Trimble, Martin Marietta Aerospace vice president for contracts.

Set your brakes

Several parking lot accidents involving unattended cars has brought this advice from plant protection:

"Set the parking brake on your car before you leave it."

Although damage has been minor in the reported accidents, it could be serious with the possibility of cars going over embankments or hitting pedestrians.

The Gold Knight of Management award, the National Management Association's highest, was presented recently to Herman L. "Monty" Davidson, manager of quality and safety at Vandenberg Operations.

Employee contributions provide sports equipment

How do you spell soup? Fourth graders at Florida's Enterprise Elementary School spelled it a variety of ways in thank-you letters to Canaveral Operations' Robert A. Pelzel, quality; John C. Stiene, and Charles F. Cartee, test operations.

Whether "camble," "cambellsoup," or just plain "soup," students expressed their gratitude for approximately 2100 labels collected by Canaveral employees in electrical, electronics, mechanical propulsion, quality, and instrumentation. In addition to athletic equipment, the children received six extra supervised physical education programs for gathering the most labels.

Enterprise fourth grade teachers, Claudia Platt and Nancy Grant, said this year's drive resulted in the purchase of two footballs, four basketballs, two volleyballs, and a stopwatch. The new equipment will be used next year to support athletic programs for all 750 students.

The teachers wrote, "We are grateful for the fine contribution made by Martin Marietta employees toward better public education. We appreciate their efforts and willingness to help us provide the best we can for our young people."

MARTIN MARIETTA NEWS
Published by Public Relations
MARTIN MARIETTA AEROSPACE

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DENVER AEROSPACE
P.O. Box 179—Denver, CO 80201

July 15, 1983

External Tank Operation's Space Shuttle efforts were recognized recently when a plaque was presented "to Tom Wirth and the Martin Marietta team with many thanks for your outstanding support," by Astronaut John Young, right, commander of the first Shuttle mission. Thomas C. Wirth, left, director of External Tank Operations at Kennedy Space Center, accepted the plaque on behalf of all employees. The plaque, which included an STS-1 crew patch and an American flag flown aboard the orbiter Columbia on its maiden voyage, was signed by Young and Robert Young, pilot on STS-1 and commander of STS-7.

CCMS team earns NASA award KSC

The checkout, control, and monitor subsystem (CCMS) installation and test team at Kennedy Space Center (KSC) has earned a National Aeronautics and Space Administration Team Award for its outstanding peformance.

The team installed the CCMS hardware in the flight crew training building; hypergol maintenance area; firing rooms, 1, 2, and 3; Orbiter processing facility; mobile launchers 1 and 2; and the complex control room in the launch control center.

Richard G. Smith, NASA center director at KSC, presented the award.

The award-winning CCMS installation and test team at Kennedy Space Center gathered recently to receive NASA recognition for its work. Left to right, seated, are Edwin Barnes, Thomas Rokicki, James Snook, and Joseph McCracken. Middle row, standing, are Ronald Bragg, Roger Wright, Alan Kotyk, Steven Reed, Michael Miller, Hurlie Brown, Don G. Shigley (manager CCMS field operations), and James Amster (NASA contracts technical manager). Standing in the third row are Richard G. Smith (KSC center director), George Zaffery, Charles Biby, John Poole, Matthew Tucker, Jimmie E. Strickland, G. Wayne Hazel, and John Young.

June retirees named

Employees who retired during June, with their length of service, are:

June 1

Willy Barnes, 20 yr and 7 mo.; William K. Johnson, 13 yr and 1 mo.

June 10

Mary P. Armstrong, 20 yr.; Clarence A. Bosse, 27 yr.; Bill Hicks, 23 yr and 7 mo.

June 17 Lawrence Edie, 24 yr and 5 mo.; Kenneth E. Sedlmayr, 23 yr and 11 mo.; Charles Segobiano, 12 yr and 3 mo.

June 20

Joseph R. Zaleski (Michoud), 5 yr and 3 mo.

June 30

Edna C. Yamada, 20 yr and 8 mo.; Lee A. Woods (Cape Canaveral), 11 yr and 7 mo.

Recreation

Alpine—The Rocky Mountain Alpine Club stages a free basic rock climbing seminar July 17 at Oscilott Rocks near Conifer. Call Marc Brideau, ext 8190, for details. Also planned is a full moon backpacking and overnight camping trip to Pitkin Lake near Vail July 22-24. The trip is limited to 18 people. Call Brad Meachum, ext 4001, or Brian Gallagher, ext 7281 to reserve your place.

Employee bowler cops state tournaments

Richard Watts missed the Colorado state bowling tournament record by a single pin with a 776 three-game series to finish first in scratch (without handicap) singles.

He was second in handicap singles at the end of the three-month tourney.

In another tournament that followed the longer state event—the one-day Colorado State Classic—Watt was first with a 748 three-game nonhandicap count.

Watt, a software test engineer in Defense Systems software test, bowls twice a week in winter bowling leagues, but takes the summer off "because there are too many other things to do."

He did participate in one event this summer, however, as a member of the Denver Aerospace team that placed second in the Corporate Games.

A $4000 donation was music to the ears of Jim Hicks, third from right, executive manager and vice president of the New Orleans Philharmonic Symphony Orchestra. The Martin Marietta donation was presented by Kenneth P. Timmons, vice president and general manager of the Michoud Division. Also present are four employees who sing with the New Orleans Symphony Chorus, left to right, Jan Garrett, public relations; Lorene Blaylock, thermal analysis; Steve Ryan, research and development; and Alan Sathyedev, stress analysis.

Vandenberg employees win commander's run

Two employees won their divisions in the 1983 Commander's Run at Vandenberg Air Force Base, CA. Course distance was 4.8 miles.

Patricia Graham-Lewis won the women's division in 32:53, and John F. Coffey won the over-40 division with a time of 30:43.

Also placing in other divisions were: James G. Batterson, second in the 30-39 age group with 29:53; and Russell A. Sharer, fourth in 18-29 age group with 28:21.

Colonel Earl J. Farney, commander of the 4392 Aerospace Support Group, presented plaques to the winners. The race attracted 110 military and civilian runners.