MARTIN MARIETTA
news
DENVER AEROSPACE

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MARTIN MARIETTA
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# Employees recognized for performance

More than 250 employees were honored at the Annual Awards Night banquet May 16 for their outstanding performance and contributions to the success of Denver Aerospace during 1980. The banquet was held at the Fairmont Hotel.

Receiving top awards were James R. Beall, C. Thomas Edquist, Grady L. Romine, and E. Doyle Vogt.

Beall, group engineer in charge of the failure analysis laboratory, was named inventor of the year "for having conceived and directed development of a process for generating schematics of microcircuits that facilitate test procedures."

Edquist and Romine, both senior staff engineers in the strategic systems division, were selected as co-authors of the year for their paper, "Cannister Gas Dynamics of Gas Generator Launched Missiles."

Engineer of the year honors were awarded Vogt, manager of mission analysis and operations in the defense systems division, for "outstanding performance in leading the mission analysis and systems integration team for defense systems."

A new category this year was principal investigator of the year for contributions to the indepemdent research and development program. Norman A. Osborne was selected as the first recipient for "advanced control system technology." A runner-up was also named in this category. He was John G. McCoy, who was cited for "advanced instrument technology."

Other employees honored were:

### Publication awards

**Distinguished contributors**: John E. Anderson, Ernest Berlinger, Benton C. Clark III, and David W. Clair, C. Thomas Edquist and Grady L. Romine, Wendel J. Maegley and Harry R. Carrol, William W. Pipes III, Roger T. Schappel and James W. Lowrie, Richard A. Spencer and J. Robert Tewell, and Terry L. Ward.

**Honorable mention**: David G. Beshore and Donna G. Raynor, Frank R. Clover, Ralph N. Eberhardt Jr. and Dale A. Fester; Matthew S. Imamura, Robert L. Moser, John A. Sanders, and Sidney Broadbent; Frank J. Jarossy, Joseph C. Pizzicaroli, and Ernest B. Ress; James W. Lowrie and John E. Myers, Allan M. Norton and Edward J. Tanner, and David A. Wilks.

### Inventor awards

**Outstanding contributors**: James R. Beall, William R. Britton, Lyle E. Johnson, and Donald A. Stang.

*Candlelight and helium-filled balloons graced the Imperial Ballroom at the Fairmont Hotel for the 25th Anniversary Denver Aerospace awards night.*

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**Distinguished contributors**: Satish K. Anand, James B. Beal, James R. Beall, Lyle E. Berquist, Frank R. Bilek, Marian H. Bryant, Neil J. Butterfield, Vincent J. Clishman, Eldon E. Constable, John V. Coyner Jr., Frederick W. Dawson, William E. Echols, William R. Garner Jr., Roy J. Heyman, Philip R. Horkin, Hal C. Hunter,

Frederick A. Jaeger, Lyle E. Johnson, Andrew S. Kattke, John R. Lager, Gene J. Lang, Thomas A. Milligan, Mohan S. Misra, Paul D. Patton, Robert W. Polen, Howard Ritchie, Ward D. Rummel, Fred R. Schwartzberg, Elvis D. Simon, Wayne E. Simon, Thomas L. Tedrow, William H. Tobey, David D. Wilson, and Donald R. Wipperman.

### New technology awards

Peter W. Abbott, Philip Avrin, Ronnie L. Campbell, Angelo J. Castro, John J. Chapter, Benton C. Clark III, Vincent J. Clisham, Donald S. Crouch, William C. Croucher, Leonard J. Demchak, Ralph N. Eberhardt Jr., John P. Gille, Patricia A. Gould, Ronald W. Graese, Harry W. Harcrow, Matthew S. Imamura.

Gustave K. Jung, Andrew S. Kattke, Robert B. Kepp, Gilbert M. Kyrias, Ernest G. Littler, John S. Marino, Bruce D. Maytum, George Morosow, Robert L. Moser, Joseph A. Muscari, Gerald O. Olson, Victor V. Patton, Steven B. Rider, Wayne E. Simon, Deborah A. Strange, H. Michael Thomas, Daniel C. Van Hart, and Charles W. White.

### Independent research/development

Aubrey J. Butts, John V. Coyner Jr., Matthew S. Imamura, James J. Kehoe Jr., James W. Lowrie, John G. McCoy, Thomas A. Milligan, Norman A. Osborne, William E. Pipes III, Robert B. Rice Jr., and Frank P. Witte.

### Technical achievement awards

Peter W. Abbott, Clive A. Arlingt[on], Robert Lee Boyce, Phillip C. Carney, W[illiam] liam Bates Carson, Paul Allen Christensen, Bobby R. Cooke, Alva Darrell Devers, Richard L. Donovan, Richard Edward Drieth, Ronald Drobnik, Gerald L. Dummer, Jon A. Dutton, Ka Lun Fogg, Barry L. Foley, Rod L. Fowler, M. W. Frohardt.

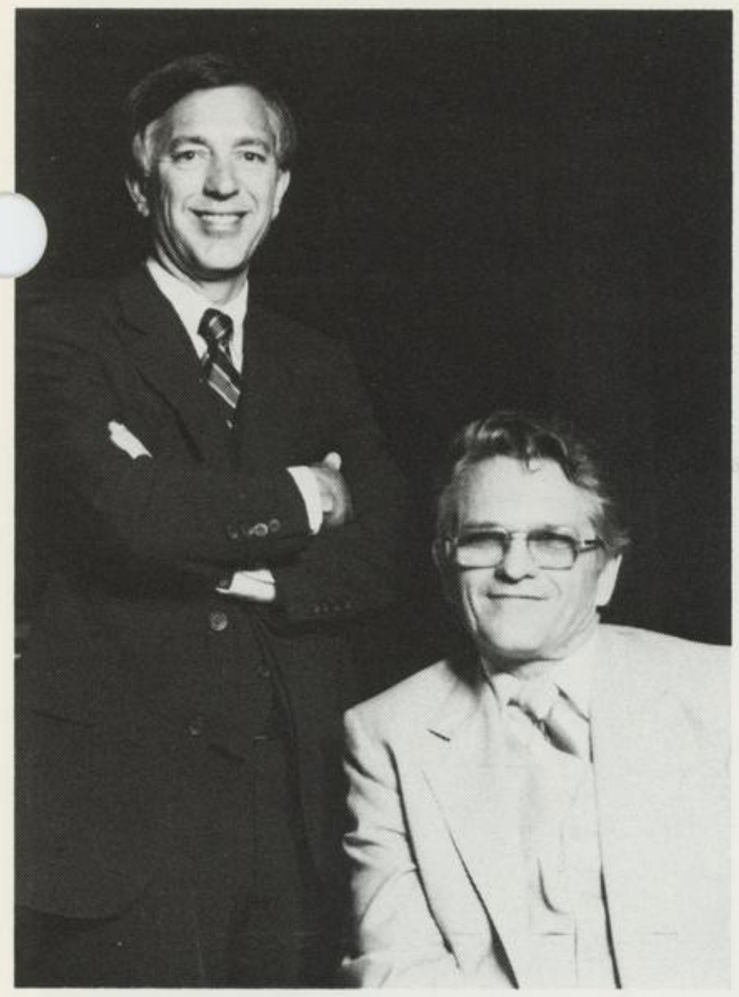
Daniel W. Greene, Benjamin V. Groninger, James H. Hall, Paul Robert Hanau, Richard G. Herzog, Roy James Heyman, Terry Lynn Hibbard, Larry Allen Hill, Kenneth H. Hopper, Paul Jack Jones, Michael Kardos, James T. Kenny, Gerald W. Knudsen, Robert J. LaBaugh, John Charles LaSharr, Harold E. Maddera, Wendel J. Maegley, Lyle L. Mason,

James R. McCandless, Willard James McCuaig, Thomas A. Milheiser, William Lyle Ockander, Alvan Hubbard Oldland, William J. Owen, William J. Perreault, Thomas Joseph Pighetti, William E. Pipes III, Daniel George Pottruff, William Paul Rader, A. M. Lex Ray, David B. Schwartz, Winston H. Sparks, G. Lamar Thomas, H. Michael Thomas, John Tsucalas, E. Doyle Vogt, Walter Weinrich, Robert L. Williams, Franklin H. Wilson III, and Ludwig G. Wolfert.

### Operational performance awards

Eugene F. Ahern, Walter F. Barker, Sa[muel] A. Boissonnault, J. O. Bunting, Billy H. Butler, Steve H. Buzzard, William G. Cheadle, Robert Wayne Cooper, W. H. Cox, Hugh Edgar Craig, George Damstedt, Beverley K. Dare, K. B. Davis,

*next page, please*



Norman A. Osborne, seated, was named the principal investigator for the year and John G. McCoy, standing, was runner-up in the new award category at this year's Annual Awards Night.

## Employees recognized

from preceding page

Mark Frederick Dezendorf, Joseph C. Dole, W. Edwin Dorroh Jr., Leroy J. Ducharme,

Paul H. Ebertz, Douglas M. Fain, Paul Stephen Fedec, Wendell Fields, Robert W. Gammill, Daphne R. Gillison, Anthony C. Globelnik, Kenneth W. Graham, M. Grogan, Irma Jean Guire, C. R. Gunnison, G. W. Hall Jr., Violet E. Hall, Beverly Hamdorf, John I. Hannigan, Jerry A. Hardiman, J. R. Hill, Leroy Hollins, Stanley R. Hurst, Ron W. Johnson, George Kenry Jr., Richard A. Kiley, Edward L. Koch, Floyd L. Kohut, John F. Koshak, F. J. Lewis, L. W. Lewis, L. W. Loechel, D. A. Mackey, Bobby G. Markham, W. L. Martinez, Charles B. McClure, George McCone, J. J. McDonald, Morris E. McLain, C. J. Meno, R. G. Morra, J. P. Murphy, A. J. Myers,

L. W. Norquist, Sharon S. Palmer, L. T. Park, Robert P. Parrish Jr., Robert W. Peak Jr., Zerl Perdue, T J. Perry, D. L. Plomondon, Richard J. Plugge, Ernest B. Ress, Ken L. Richardson, Terrill L. Roberts, William E. Rogers, A. A. Rosener Jr., James W. Rudolph,

John B. Sanderson, Alfonso M. Sandoval, John A. Sayers, Dwaine Schilling, H. K. Schue, Ray Schwindt, Ken E. Sedlmayer, C. W. Spieth, David R. Steele, William A. Steffen, Ralph L. Stegman, J. A. Sterhardt, William P. Stocking, John D. Swichard,

. G. Taigman, Jack D. Taliaferro, Claude A. Taylor, Beal M. Teague, Floyd R. Teiffel Jr., H. Wayne Terbush, R. J. Tortorich, Thomas R. Tracey, J. L. Tussey, N. J. Van Dewerker, James W. Watson, W. R. Weinrich, D. N. Wickersham, T. C. Wirth, Edwin H. Yoshida, and Arthur P. Young.

# Photo Club members take national award

Members of the Photo Club took four of the 12 top awards in the 1981 National Industrial Recreation Association photo contest.

Larry A. Root and Don L. Lorenz, both of the strategic systems division, took first place awards, and Root and Fred A. Luhman, of the space launch systems division, earned third place awards.

Thirty-nine local entrants submitted 105 entries to the contest. Nationally, there were 652 entries from 270 individuals representing 37 companies.

Root earned both his awards in the black and white print division. His "Yesteryear" was the top award winner and "Leroy Catalina Cat" placed third.

Lorenz was first in the color print division with "On a Clear Day."

In the slide division, Luhman's "The Big Chase" took third place.

To be eligible for division awards, the entries had to place first in categories within the division.

The local club was organized a year ago and this is the first time local photographers competed in the NIRA contest.

## Aerospace engineering degree program continues

The University of Colorado program with Denver Aerospace leading to a master's degree in aerospace engineering will continue during the 1981 summer session.

Aero 505, space flight dynamics, will be taught by Dr. Robert D. Culp, June 8 through July 3 from 3:00 to 5:30 pm, Monday through Friday.

Aero 547, computation of fluids, taught by Dr. C. Y. Chow, will begin in late July. The starting date has not been set.

Employees interested in enrolling in either class should contact Bette Wooster, ext. 5698.

## On the cover

Top awards winners at the Annual Awards Night are shown following the recognition banquet. Seated is Grady L. Romine, who was co-author of the year with C. Thomas Edquist, standing at left. In the center is James R. Beall, the inventor of the year. At right is E. Doyle Vogt, engineer of the year.

**Chief Nurse Helen Williams**

# *Chief nurse named nurse of the year*

Helen Williams, RN, chief nurse, has been named nurse of the year by the Denver Association of Occupational Health Nurses. She was honored as "the nurse who contributed the most to occupational health during the year."

Mrs. Williams, a nurse here for 11 years, also received the Schering Award presented annually to a nurse who makes a significant contribution to the profession and to the association. The award provides funds the association uses for educational purposes.

Among the work for which she was cited was the establishment of new medical facilities for Denver Aerospace, one opened at DSC and one soon to open in the Greenwood area.

She was president of the association for 1980-81.

# Recreation head elected to national office

Leroy Hollins, who heads the recreation office here, has been elected vice president of the National Industrial Recreation Association (NIRA).

NIRA is a non-profit organization dedicated to the principle that employee recreation, fitness, and service programs are essential to sound personnel management. Its members are the directors of such programs in business, industry, and government.

Hollins was co-founder of the Denver Metro Industrial recreation Council and is serving as president of that organization.

# Employee cited for life-saving efforts

John D. Bradley has been commended for "excellence in the execution of a single act — an act that undoubtedly saved the life of one of his fellow employees."

Using the Heimlich Manuever, Bradley dislodged an object blocking the windpipe of Carl L. Hups.

"I was eating a snack when a piece got lodged, not in my throat, but deep inside," Hups said. "I tried to dislodge it by drinking part of a soft drink. I couldn't breathe, I couldn't talk.

"I felt myself going limp," he added. "I managed to get my hands up on the drawing board and started tapping my fingers. It was the only way I could try to get someone's attention."

Bradley, who sits with his back to Hups, did hear the tapping.

"I looked around and saw Carl was in trouble," he said. "I didn't know what was wrong. My first thought was that he might be having a heart attack. Then I saw the snack and the soft drink."

Bradley rushed around the drawing tables, grabbed Hups and executed the Heimlich Manuever.

"I haven't had any formal training," said Bradley, "but my wife and I have discussed the method. I've also seen it demonstrated on television. I never thought I would use it."

Bradley and Hups, both senior design engineers on the MX launcher program at the Denver Systems Center, plan to take the Basic Life Support course offered by paramedics here.

And, almost in unison, they said, "Everybody should take it."

John D. Bradley, right rear, demonstrates the Heimlich Manuever — the lifesaving technique he used to revive Carl L. Hups, front left. Hups had stopped breathing when he attracted Bradley's attention.

## *Hunting, fishing club earns excellence award*

The Skyline Hunting and Fishing Club has earned the National Industrial recreation Association's certificate of excellence for its year around program for Denver Aerospace employees.

The top award for the outstanding program was presented at the association's 40th annual conference held recently in Chicago.

The Ridge Riders Saddle Club received an honorable mention for its program.

## *'Name Game' Las Vegas trips won by employees*

The first two trips awarded in "The Name Game" drawings have gone to Floyd L. Kohut and Jerry J. Schlesselman. Each receives a two-day vacation trip for two to Las Vegas. The drawing was held May 11.

Schlesselman is assigned to El Segundo and Kohut to Denver.

The winners were among those who submitted qualified referrals in "The Name Game" prior to the May 11 drawing. A qualified referral is one in which the candidate has been invited in and interviewed by personnel staffing.

## Employees should seek advice on corporate-paid study

Employees attending colleges and universities should seek counseling from the training, education, and employee development organization regarding qualifications of their study program and other criteria to study under corporate auspices.

Guidelines for submitting an "Application for Study under Company Auspices," should be followed. For example, employees should submit applications to their immediate supervisor at least three weeks before registration for each school term. The application also should reach training, education, and employee development at least two weeks before classes meet. Applications received later than these times will be automatically excluded from consideration for the current school term.

## United Way cites Denver Aerospace

Mile High United Way presented one of its Gold awards to Denver Aerospace at the organization's recent 1981 awards dinner.

The Gold Award was earned by firms that achieved more than 80 percent of their fare share potential suring the 1980 campaign.

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*Swedish Medical Center representatives received a Martin Marietta Corporation grant of $5,000 during a visit here. Robert C. Alexander, left, director of development and public relations for the center, and Deena Bubis, center, coordinator of development, accepted the check from John H. Boyd Jr., Denver Aerospace director of public relations. Swedish Medical Center will use the funds to assist in the purchase of a whole-body computerized tomography scanner adapted for neurological use. The equipment wil be shared with Craig Hospital.*

# Corporation matches employees gifts

Two Martin Marietta gift-matching programs provide financial aid to colleges and universities and to arts and cultural organizations.

Employees interested in making contributions may obtain application blanks and further information from the education, training, and employee development office, ext. 3395.

## *Corporation gives $2 to each $1 employee gives to schools*

Under the Martin Marietta matching gift program for colleges and universities, the Corporation will contribute $2 for each $1 donated by an employee. To be eligible to have a gift matched, the employee must be working fulltime and have at least one year of continuous service.

Junior or community colleges, colleges, and universities accredited by the appropriate regional accrediting organizations may receive the matching gift. The school must also be recognized by the IRS as an organization to which deductible contributions may be made.

Alumni funds or similar fund-raising organizations are eligible to receive gifts only if they are an integral part of the eligible school.

The minimum contribution that will be matched is $25. However, gifts may be either in cash or stock.

## *Arts gift program matches employee gift dollar for dollar*

In the matching gift program for the arts, Martin Marietta will contribute one dollar for each dollar given by an employee. The minimum employee contribution is $25 and the maximum is $1,000 during a calendar year. Gifts will be matched on a calendar year basis with no carry-over of gifts from one year to the next.

All full-time salaried employees with a minimum of one year's continuous service may participate in the program.

Generally, museums, opera companies, drama companies, dance companies, symphony orchestras, and certain arts and culture centers are eligible. They must be operated for the benefit of the general public, be located in the U.S. or its territories, and be tax exempt under IRS.

## *Firm to aid in 'Youth helping Youth' summer job program*

Denver Aerospace will aid the Colorado Alliance of Business in its "Youth helping Youth" summer job program by employing up to 150 young people — including those in the firm's college student summer program.

The program is being conducted by the CAB in conjunction with the office of Governor Richard Lamm and the Colorado division of employment and training.

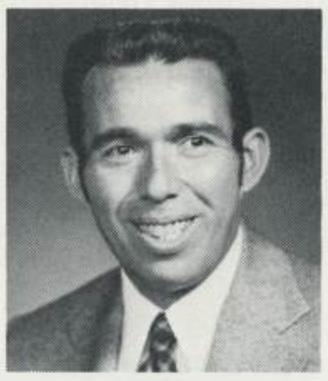
W. O. Lowrie, vice president and general manager of the space and electronics systems division, is chairman of the board of the Colorado Alliance of Business.

Robert G. Garcia, of the personnel department, is serving as a loaned executive with CAB.

The program is an attempt to find summer jobs throughout Colorado for 10,000 young people. Youth interested in the program may make application at the state's Job Service Centers. Young people working at CAB will match these applications with hiring pledges made by Colorado firms and help in placements.

## Aerospace appoints engineering vice president

Dr. Seymor L. Zeiberg has been appointed vice president of engineering for Martin Marietta Aerospace. He will be responsible for matters pertaining to research, engineering, and logistics with the Aerospace company headquarters.



Dr. Zeiberg, 47, has been deputy under secretary of defense for strategic and space systems in the office of the under secretary of defense for research and engineering. Before joining the Department of Defense in December 1977, he had been associate general manager of the Aerospace Corporation's advanced program division and was program office director for strategic studies with R&D Associates.

The new vice president of engineering holds a bachelor of mechanical engineering degree from City College of New York, and a master of mechanical engineering and doctor of engineering science degrees from New York University. From 1955 to 1962 he was associate professor of mechanical engineering at these schools. He is a fellow of the American Institute of Aeronautics and Astronautics.

## 'Know your referral,' Name Game rules state

One of the benefits of "The Name Game" referral program has been the referral of highly qualified candidates by employees. When the candidate's qualities are not known by the referring employee, the benefit is diminished.

Referral of candidates who are not known defeats one the primary purposes of the program.

The rules state you must know the candidate you are referring. When you submit a candidate's application, you attest that you are "responsible for referring (the) applicant and further that the individual is known to me and that I recommend him/her as a qualified candidate."

## Labor department presents OSHA award

The U.S. Department of Labor has presented Denver Aerospace a certificate of appreciation for voluntary compliance with regulations of the Occupational Safety and Health Administration (OSHA).

The certificate "recognizes the outstanding contributions to the programs and projects" of OSHA.

The presentation was made by Curtis A. Foster, regional administrator of the Labor Department, to Lawrence L. Fry and Lee E. White, members of the safety committee of United Aerospace Workers Local 766; and to Robert B. Morgan and Gary B. Jones, of the personnel safety department.

A certificate of appreciation also was presented to Robert T. Killian, president of UAW Local 766.

## Denver Public Schools present service award

The Denver Public Schools have presented a special service award to Denver Aerospace for its continuing support of science instruction in the schools.

The company was honored for providing "The Science Screen Report," a documentary film series that presents the lastest scientific developments in a variety of fields. This year the films covered the loss of crop land, robots in industry, the control of pain, offshore oil exploration, and weather forecasting.

The award was accepted by Fitzroy Newsum, manager of civic liaison. The public relations department has supplied "The Science Screen Report" since 1972.

# MX transport equipment demonstrated for Air Force

Demonstration tests of an unusual, new tractor trailer that will carry MX-missile stages and containers over highways were conducted recently in Arizona for the U.S. Air Force. The tests were performed by Denver Aerospace and Goodyear Aerospace. The stages will be moved from manufacturers in California and Utah to Vandenberg Air Force Base for flight tests of the missile beginning in 1983.

The trailer is unique to American highways because three of its five axles are independently steerable, enabling the 80-foot-long tractor-trailer rig to negotiate tight corners with minimal strain on the axles and wear on the tires. Trailers with steerable axles have been used for some time on the winding highways of Europe and in U.S. shipyards for moving large structures at slow speed, but have not been used at highway speeds on U.S. public roads.

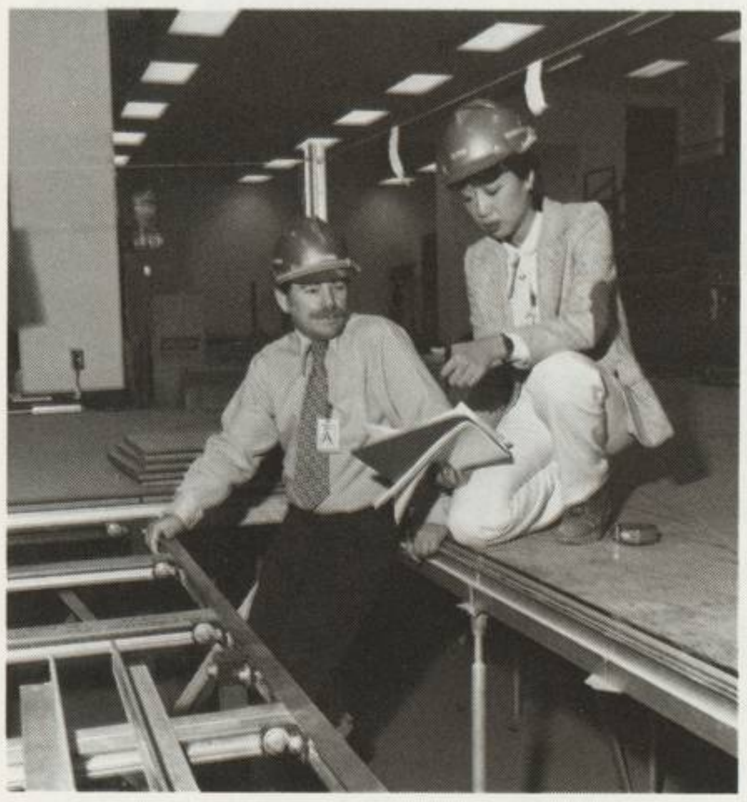
The forwardmost axle and the two rear axles of the trailer are steered by a hydraulic system activated by the truck tractor's fifth wheel. As the truck turns, a cam on the tractor's fifth wheel pushes against a hydraulic cylinder generating oil pressure to turn the trailer's axles.

The trailer is 57 feet long, 10 feet wide, and weighs 180,000 pounds loaded. Typical commercial trailers are 40 to 45 feet long, 8 feet wide, and loaded to 40-50,000 pounds. The larger number of tires and axles on the MX stage transporter enable it to meet highway weight limits.

Also being developed to pull the missile stage transporter is a unique tractor with a 600 horsepower engine that is the most powerful, commercially available motor meeting EPA emission standards.

By early 1982, Goodyear will build six trailers for a cross-country transport, and two more equipped with the off-loader for use within MX assembly areas. The tractor, trailer, and off-loader are part of an array of transport and handling equipment being designed and built under subcontract to Denver Aerospace by Goodyear and other subcontractors.


*A special 40-wheel tractor-trailer rig has been developed to carry MX missile stages over public highways. The rig, demonstrated recently for the U.S. Air Force, will carry 130,000-pound loads, compared to the 40-50,000-pound loads of the more usual 18-wheeler.*



*Reviewing installation requirements for Space Shuttle ground support system equipment are, left, Thomas R. Brown, senior installation engineer, and June L. Yee, resident engineer for ground support systems at the launch control center.*

## Woman resident engineer directs installations at Vandenberg operations

June L. Yee has attained a personal goal set when she became an engineer: to become a resident engineer.

In her job, she provides technical direction to installation subcontractors at the launch control center on Space Shuttle complex six.

Also, she has installation responsibility for the checkout, control, and monitoring subsystems (CCMS).

Ms Yee, a graduate of Oakland University in Michigan, joined Martin Marietta in 1980 as a software requirements engineer for the ground support systems at Vandenberg. She was named a resident engineer in March.

The launch control center houses the technical personnel that direct, control, and support the Shuttle vehicle activities on the launch pad, the processing of the external tank, the solid rocket boosters, and the payloads. The facility, called V-28, also is the central control station for the south complex at Vandenberg for Shuttle operations.

The building is a two-story concrete structure containing consoles and other elements of the launch processing system, communications systems, closed circuit television, hazard and security monitors, a maintenance area, and office space.

## Team measures Shuttle lift-off blast effects

A special instrumentation team from Denver, supported by Canaveral operations personnel, was at Kennedy Space Center during the recent Space Shuttle launch to measure the effects of the lift-off blast.

The data will be used to determine the effect of Shuttle launches on launch vehicles and spacecraft located at facilities near the Shuttle launch pad.

Those from Denver were Kenneth W. Howell, who headed the team, Douglas S. Slack and Eugene L. McKay. Assisting from Canaveral were Gerald E. Woodcock, August C. Huthmacher, Raymond E. Hall, Ralph J. Harriman, Donald Andres, Ronald L. Holcomb, and Theodore H. Allen.