

MARTIN MARIETTA

news

DENVER AEROSPACE

NUMBER 12, 1982

Men of
the year



Employees honored for top performance

More than 300 employees were honored at the Annual Awards Night banquet June 5 for their outstanding contributions to the success of Denver Aerospace in 1982. The banquet was held in the Colorado Ballroom of the City Center Marriott Hotel.

Receiving top awards were Lawrence W. Norquist, Remi C. Engels, Harry W. Harcrow, Mohan S. Misra, and Douglas B. Cross.

Norquist, manager of ET systems integration branch at Michoud, was named engineer of the year. He was cited for "technical excellence on the design, development, and qualification of the external tank propulsion system, and for outstanding contribution to the highly successful Space Shuttle flights.

Engels and Harcrow were selected as co-authors of the year for their paper, "A New Payload Integration Method." Engels is a technical operations staff engineer assigned to the MX program, and Harcrow is a group engineer on the technical staff for analytical mechanics.

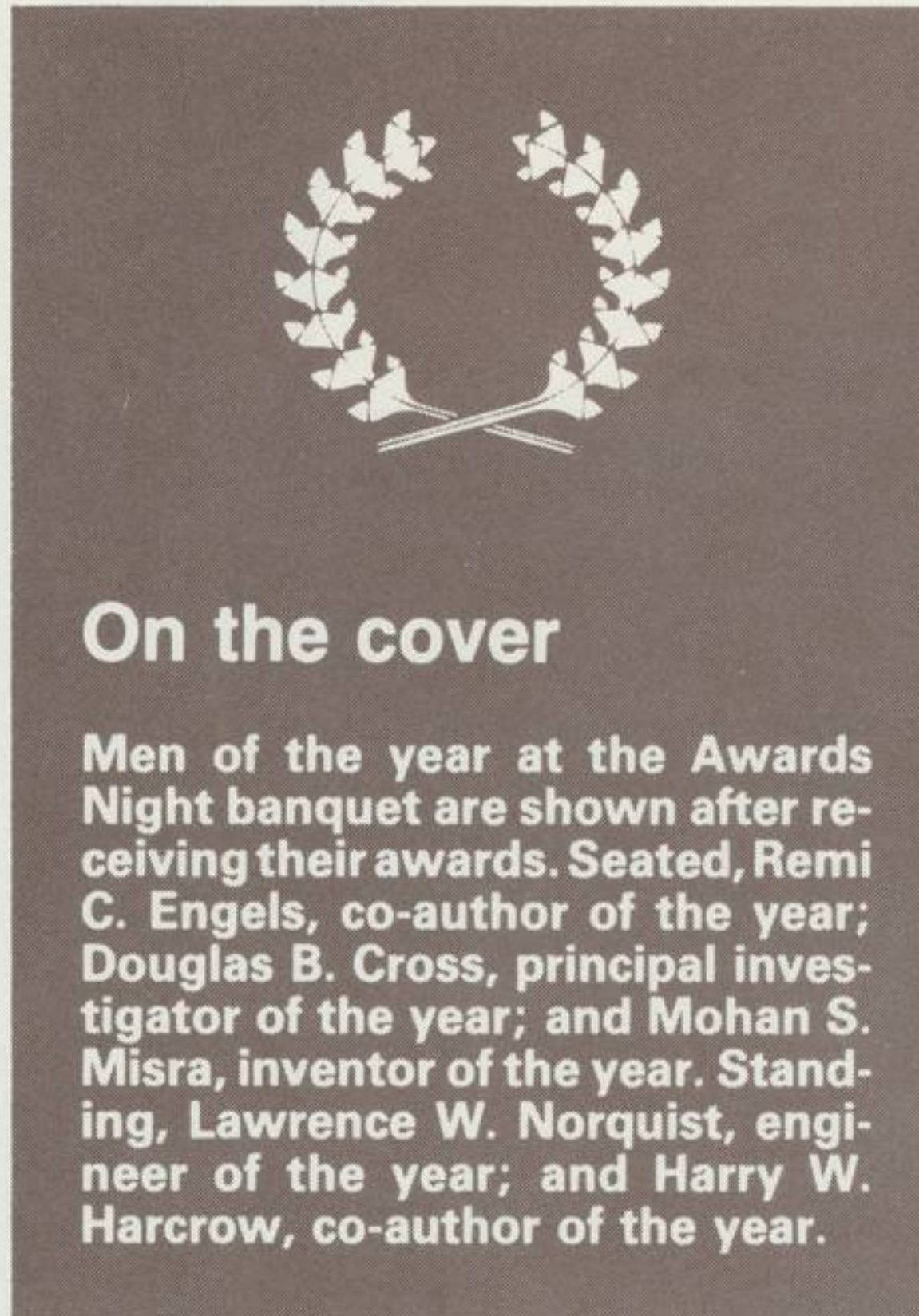
Inventor of the year honors went to Misra for "contributing several significant inventions in the field of metallurgy in response to critical contract performance requirements." He is a senior group engineer and unit head of the new technology unit in technical operations.

Cross, senior staff engineer in mission design and analysis in the space and electronics systems division, was named the principal investigator of the year for the independent research and development programs. He was honored for his aerobraking research.

Others honored at the banquet:

Publications awards

Distinguished contributors: Robert L. Berry, Leonard J. Demchak, and James R. Tegart; Philip C. Carney; Benjamin C. Chambers, John V. Coyner Jr., and Carl L. Jensen; John V. Coyner Jr., Ralph H. Dergance, and Rob I. Robertson; Sam M. Dominick and James R. Tegart; Ralph N. Eberhardt Jr. and Dale A. Fester; Remi C. Engels and Harry W. Harcrow; Paul M. Hart and Eugene J. Walsh; John E. Montague.



Honorable mention: Jerry W. Anderson and J. Robert Tewell; John E. Anderson and Y. gendra S. Chadda; Donald A. Bolstad, Fran. R. Clover, and Larry W. Loechel; Sidney Broadbent, M. Thomas Howerton, and John A. Sanders; Aubrey J. Butts and Patrick C. Carroll; John V. Coyner Jr. and William H. Tobey; Ralph H. Dergance and Keith M. Hamlyn;

Ben F. Elam; Wayne C. Foster, R. Paul Headley, and David A. Nichols; George E. Hoerter; Matthew S. Imamura; Owen P. Litt; James W. Lowrie; Fred E. Lukens and Robert L. Moser; J. Franklin McKinney and Jimmie D. Osborn; Prabhakara P. Rao; Raymond D. Rempt; H. Michael Thomas; Frank L. Williams.

Inventor awards

Outstanding contributors: William P. Coppfer, John V. Coyner Jr., William L. Leonard, Mohan S. Misra.

Distinguished contributors: Eric E. Bachtell, James C. Beblavi, Frank V. Bilek, Sidney Broadbent, Marian H. Bryant, Clarence E. Bunnell, Edward T. Campbell, Benjamin C.

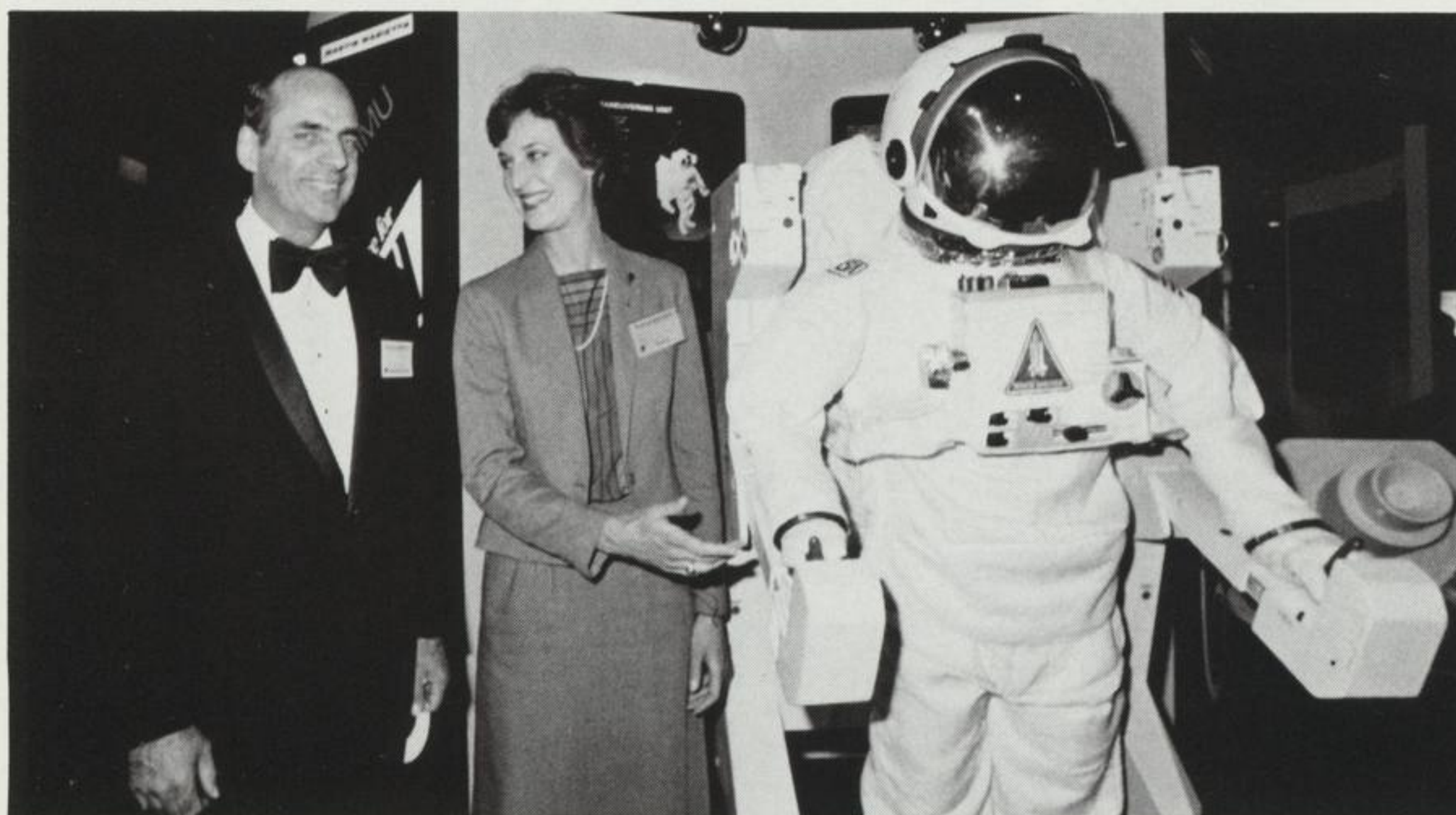
Chambers, Benton C. Clark III, William P. Coppfer, Anders Corell, John V. Coyner Jr., William C. Croucher, Ralph N. Eberhardt Jr., Dale A. Fester, Jerry J. Finch, John C. Flemming,

William J. Gardner, Harold L. Gariety, Russell G. Hanish, Philip R. Horkin, Lyle E. Johnson, Kenneth A. Karki, William L. Leonard, Robert H. Mann, Mohan S. Misra, Nolan N. Pass, Stanley E. Podlaseck, Robert B. Rice Jr., Robert J. Richardson, Ward D. Rummel, Wayne E. Simo, Richard H. Sterrett, Thomas L. Tedrow, James R. Tegart, H. Michael Thomas, Michael G. Thorton, William H. Tobey, Edsel L. Walitalo.

New technology awards

Lyle E. Bareiss, Robert L. Berry, John V. Coyner Jr., Leonard J. Demchak, Remi C. Engels, Richard G. Goble, Jeffrey L. Hayden, Frank J. Jarossy, Carl L. Jensen, Joseph P. Martin, Joseph F. O'Dell, Joseph C. Pizzicaroli, James R. Tegart, Michael E. Wakefield, Charles W. White, Frank E. Winner, Arthur M. York.

continued on page 4



Manned maneuvering unit mockup at the American Institute of Aeronautics and Astronautics exhibit is discussed by Norman R. Augustine, left, Denver Aerospace president, and Donna Sexton, senior engineer in simulation support for the MMU project. The MMU was one of the company products exhibited at the annual AIAA meeting in Baltimore.

Shuttle to begin 7-day mission on June 27

The fourth flight of the Space Shuttle Columbia is scheduled to begin with an 11:00 am launch Sunday, June 27.

Landing is set for the morning of July 4 at Edwards Air Force Base in California. An exact time for touchdown will not be established until after launch.

The seven-day, 112-orbit mission is the first in which the NASA orbiter will carry a Department of Defense payload.

Astronauts Henry W. Hartsfield and Thomas K. Mattingly will conduct experiments for the defense agency in addition to working a biological materials producing unit that could

continued on page 5

Message processing system being built for U.S. Army

Denver Aerospace was recently awarded a \$6 million contract by the U.S. Army Communications and Electronics Command at Ft. Monmouth, New Jersey, for six automated staff message processing centrals (ASMPC).

The systems will be delivered by February 1983. The U.S. Army Europe will deploy two of the machines in each of three locations—V Corps, VII Corps, and USAREUR Headquarters.

The contract follows long-term involvement by the command and information systems (CS&IS) product area with the Army in test planning and exercise participation, according to O.E. Cummings, C&IS program development.

The automated staff message processing centrals are shelter-mounted tactical field units that reduce message processing time to less than one-sixth of today's processing time. The system satisfies an urgent requirement for automated message processing as identified by the U.S. Army in Europe. It has been approved as interim equipment to the Army's forthcoming modular tactical communications center and, as such, has wide recognition as a needed system throughout Army organizations.

"The contract has excellent growth potential because of this relationship and the continuing automation needs being identified by the Army in Europe," Cummings said. "It is another significant step in the command and information systems product area participation in battlefield command, control, and communications systems."

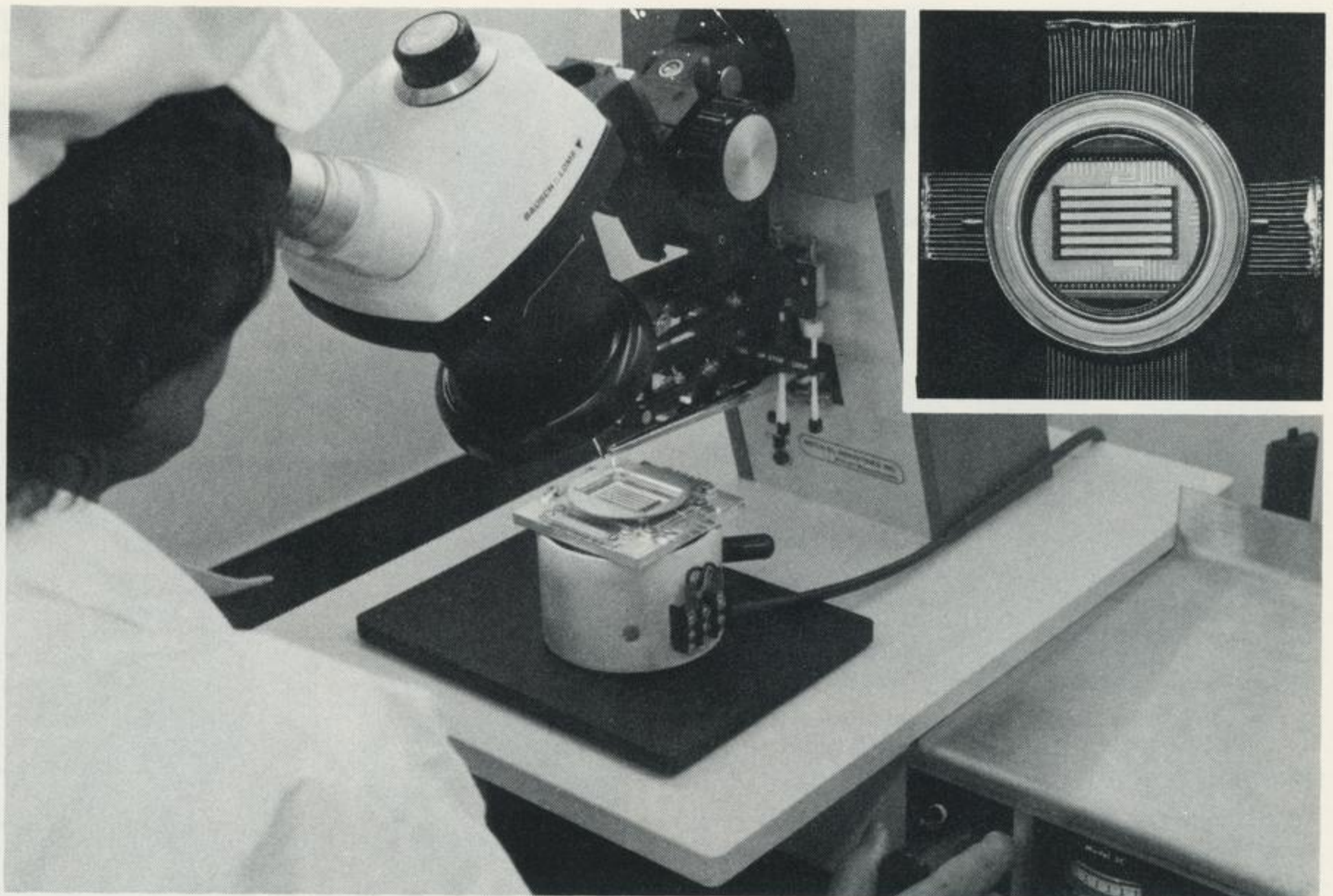
The program is managed by Arthur E. Homewood. Technical lead is Richard D. Flint.

New telephone system set for main plant

First step in replacing the telephone system at the main plant has been taken.

A Northern Telecommunications digital telephone system has been selected for the main plant and for the Littleton Systems Center. It will feature many new electronic station and system features, including touch tone telephone instruments.

Installation will begin soon, but it will be in the first half of 1983 when employees will see the results of the change over. First visible evidence of the new system will be when rotary dial phones are replaced by touch tone instruments.



Gold wire one-thousandth of an inch in diameter is used by Patricia M. Abeyta, an electronics technician, in preparing a research and technology project module. The completed unit is shown in the inset.

Technical operations pursues new technology applications

Sixty customers and 128 contracts valued at more than \$45 million are keeping technical operations in the research and technology forefront.

Work on the contracts is in pursuit of new technology applications, keying on pivotal technologies that lead to opportunities for new business.

The customers include U.S. government agencies, other defense contractors, and some purely commercial businesses in this country and abroad.

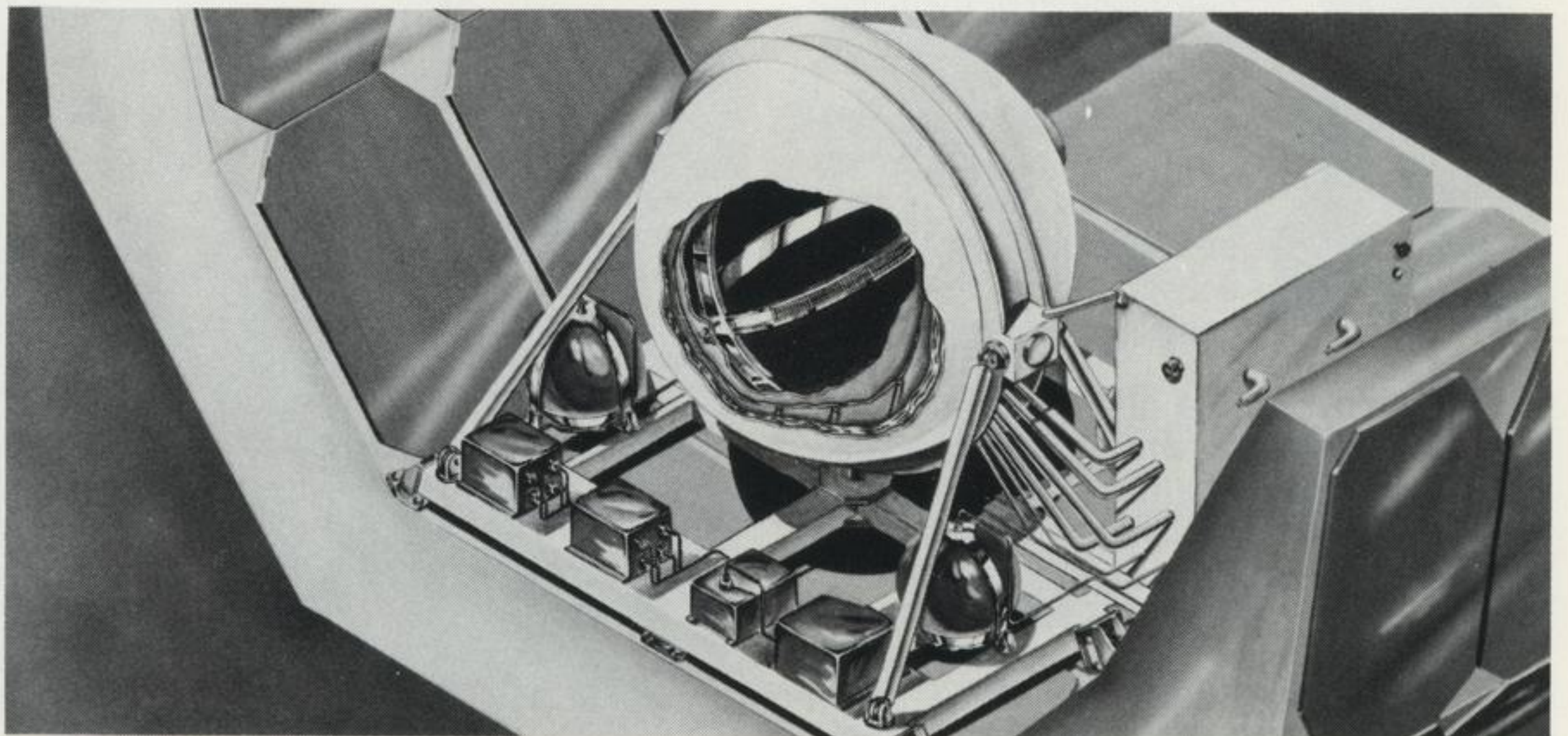
During the past 18 months, technical operations has submitted more than 700 proposals for new business.

Work is in two areas—research and development contracts that normally last 24 months, and small purchase orders (called accommodation sales) for the convenience of a large number of commercial customers. The accommodation sales typically are low value, short duration work.

Recent research and development contracts are for work in space propulsion, advanced electronic hardware, payload sensors and instruments, space based lasers, and software research and technology applications.

Contract work in these pivotal technologies is complemented by parallel efforts in the independent research and development program.

In addition to the outside business, technical operations is handling 46 active interdivision work assignments in Denver Aerospace as well as for other elements of Martin Marietta Aerospace.



A cryogenic fluid management experiment, shown in this artist's concept, is another of the advanced technology projects in technical operations.

MX launch test is a success

The ejection test of an inert MX was successful, and moved the program on schedule to first flight next January.

The test launch was conducted May 27 at a Nevada desert test site. It simulated an actual ejection of the intercontinental ballistic missile from a canister.

The test was to verify the launch eject system in repeated performance, regulate the gas ejection system, and measure function of the pads separating the missile body and canister.

The 195,000-pound simulated missile—without propellants—was sent more than 300 feet in the air and 200 feet down range in the test.

One test remains in the series of ejections with a dummy inert missile. It is scheduled for July. Following that test, the next test phase will involve a ground test missile using an actual first stage without propellant.

The final test phase will be the firing of fully functional missiles from Vandenberg Air Force Base in early 1983.



The outstanding cadet in economics receives his trophy in ceremonies at the U.S. Air Force Academy. Andrew L. Parish, right, accepts the trophy from Richard G. Adamson, vice president for business management. The award is presented by Denver Aerospace as a memorial to Maj. Arthur L. Moxon, an Academy graduate and former member of the economics department. Moxon died in an air crash in the North Sea in 1981.

Employees honored—continued from page 2

Independent research/development

William J. Bailey, Douglas B. Cross, Donald S. Crouch, Virgil M. Davis, Loren K. De Size, John F. Flater, William L. Leonard, Leslie R. Miles, Joe E. Renfro, Cletus J. Siebert.

Technical achievements awards

Peter W. Abbott, Samuel K. Adams, Satish K. Anand, Jack S. Ballard, Donald A. Bolstad, William R. Britton, Robert W. Bushman, O. Lewis Butler, Arnold E. Chace, George R. Charron, John R. Cool, William P. Coppfer, H. Edgar Craig, Gene M. Crandall, John A. Delmont, W. Edwin Dorroh Jr.,

Steve C. Espy, Richard R. Foll, Malcom W. Foster Jr., Frank J. Francone, Ronald V. Geiger, Scott E. Gilles, Carroll R. Gray, Donald E. Haas, Richard W. Harsh, Richard C. Ikard, Joseph Jackson, Brian F. Jameson, D. Lee Johnson, Beverly B. Jones, Gerald L. Kelley, Alfonse N. Kubala, Timothy D. Ladewig, B. Clovis Landry, Gene J. Lang, William L. Leonard, Thomas H. Lohaus, D. Dwayne Lyles,

Edward B. Madigan, Richard J. Maginn, Lynne M. Maurer, John G. McCoy, Dwaine J. McKellips, Barbara A. Miller, Richard D. Moog, J. Michael Murphy, Lawrence W. Norquist, Alexander R. O'Connell, Susan L. O'Connell, Robert L. Robinson, Donna J. Sexton, Alan W. Simonaitis, Laurence R. Soderberg, Dale E. Spond, Jerry D. Stephenson, Donald O. Todd, Lester E. Trout Jr., William E. Warren, Randall L. Williams, William R. Woodis.

Operational performance awards

Eugene F. Ahern, William V. Alderman, Anthony J. Andreoni, Lyle E. Bareiss, Clive O. Beasley, Gene I. Bolen, Martin D. Bowland, Craig M. Bradbury, Richard P. Brier, Paul R. Brown, Curtis D. Brudos, H. James Brungardt, J. David Buck, James L. Burrige, Billy R. Butler,

John E. Carpenter, Peter S. Clark, Reid H. Clausen, Orval E. Cummings, Phillip C. Daley, Beverly K. Dare, Phillip L. DeArment, Vernon F. Dickensheets, Donald J. Dinicola, Trudy Dion, Paul R. Donohue, Daniel W. Drago, Cecil W. Duclon, James J. Eastham, Louis S. Favata, Paul S. Fedec, Dale A. Fester,

Harold L. Gariety, John P. Gorzelanski, Phillip L. Greenwood, Ben-

jamin V. Groninger, Alan L. Grussaute, Violet E. Hall, Elmer P. Heil Jr., Sallie L. Henthorne, Robert F. Heiter, James R. Hill, Leroy Hollins, Eugene J. Horak, Arthur E. Howard, Gayle J. Howell, Charles A. Hudak, Roy R. Hunter, Robert C. Ikard, Burt M. Imber,

Andrew M. Jackson, Ned L. James, Diana E. Jarzembowski, Michael Javery, Thomas W. Johancen, Richard G. Jones, John M. Kehm, Robert L. Knickerbocker, Harry L. Kottcamp, Joseph A. Lang, William Leary Jr., Robert L. Lewis, Larry W. Linville, James N. Loggins, Robert P. Lopez, William J. Lovegrove, George B. Macaulay, Ronald W. Marker, Richard J. Masi, Stephen A. Mastin, Robert W. Mathews,

Claude W. McAnally III, Merle R. McCaslin, John O. McDonnell, George W. McGee, Earl W. McNail, Thomas J. Melcher, Mitchell E. Moffitt, Olin J. Moore, Kenneth E. Mullins, Thomas H. Munro, Raymond J. Nalty, David E. Peri, Lawrence B. Perkins, Tommy J. Perry, William Pratt,

Beverly J. Rhynard, James M. Ritz, Bobby D. Robinson, Edward G. Rodriguez, Robert L. Rosenthal, Sidney L. Russak, Lawrence E. Scheller, Howard K. Schue, Vernon B. Selby, Thomas C. Shupert, Gerald E. Simonson, Edwin L. Sipos, Robert W. Smith, C. Russel Spath, Joseph C. Spencer, Dan J. Sullivan,

Leonard G. Taigman, David Tanzer, Randall A. Tassin, Claude A. Taylor, O. Ben Thomas, Robert I. Travis, Lester E. Trout Jr., Dominic N. Verrastro, Robert E. Vosbeek, Byron L. Waller, James E. Watson, Raymond M. Weeks, Robert D. Westervelt, James R. Weston, Jerry W. Wiley, Raymond S. Wiltshire, Donald E. Winfrey, Thomas C. Wirth, Vernon E. Woodin, William R. Woodis, Virgil F. Young.

C.B. Hurtt, Martin Marietta Aerospace president and former president of Denver Aerospace, presented the top awards. Others presenting awards were C.E. Carnahan, vice president and general manager of the space launch systems division; H.F. Keyser, vice president and general manager of the strategic systems division; K.P. Timmons, vice president and general manager of the Michoud division; W.O. Lowrie, vice president and general manager of the space and electronics systems division; and R.J. Polutchko, vice president for technical operations.

Committees selected the award winners in each of the six categories.

Employee athletes win second corporate games

For the second year in a row, the Martin Marietta team won the Denver Corporate Games, returning the trophy to its display case in the lobby of the engineering building.

Scoring 37 team points, the team narrowly defeated Mountain Bell and Storage Technology, the second and third place teams. Nineteen teams participated in the Corporate Games.

Team points were volleyball, 10; track, 9; bowling, 8; swimming, 8; and 10K run, 2.

Events, results, and employee participants:

10 kilometer run: Team fifth place. Men: Todd Steinberg, Michael McTague, Dick R. Croteau, Thomas Bailey. Women: Peggy Miiller, Nancy Aliotta, Susan Douglass, Mary Pinter.

Track: Team first place (tie)

1500 meter run: Men: Roderic Brunngaber, 2nd; Women: Cynthia Pickering, 3rd. 100 meter run: Men: Thomas Beebe, 11.3, 3rd; Women: Janet Saunders, 15.2. 400 meter relay: 54.2, team first place. John J. Smith, Anthony Lindsey, Linda Krauze, Jayne Hamlyn. 800 meter relay: 1.48, first place, Anthony Jones, Clifford Lovejoy, Marlene McGregor, Bonnie Lawson.

Golf: Women: Gladys Patterson, 4th; Men: Larry Crowe.

Volleyball: Team first place. Women: second. Barrie Smith, Laura Glauth, Lauri Heinz, Linda Heusdens, Kathryn Hrouda, Mary Ann Baker, Jennifer Hoette, Christina Howe, Leslie Hanna. Men: first. David Wolff, John Shupe, William Johns, Robert Williams, Donald Shepherd, Alden Amsberry, John Fisher, Charles Blum, Bruce Bowman.

Swimming: Team second place.

50 free: Men: Grady Romine; Women: Diane Wiegand, 2nd. 50 back: Men: Ronald Johns, 2nd. Women: Lori Sharp. 200 free relay: 2nd. Geoffrey Garner, Kirt Schumann, Margaret Paillet, Rose Dotson. 200 medley relay: 2nd. Neil Loughran, Terry Heggy, Laurie Fester, Krista Barker.

Racquetball: Men: Brad Hunsinger. Women: Linda Scott.

Tennis: Women's doubles: Kay Herder and Helena Spindler. Women's singles: Roseanne Summa. Men's singles: Brian Gallagher, 5th.

Bowling: Team second place.

Men: Richard Watts, Rene Mattei. Women: Pamela Lasley, Shari Holliness.



Heading for the tape are, above, Lee A. Lindsey, and below, Clifford E. Lovejoy in winning efforts in the corporate games. Lindsey was a member of the first place 400 meter co-ed relay team and Lovejoy a member of the 800 meter co-ed relay team.



Showing the form that helped take second place in the women's volleyball competition at the corporate games are, top to bottom, Jennifer Hoette, Kathryn Hrouda, and Mary Ann Baker.

Recreation

Chess—Registration is due June 30 for the annual Chess Club championships to be held July 5 through September 27. Employees and their families may participate. Call James Mulberry, Ext. 9360, for information.

Photography—Nationally famous photographer Art Gore will discuss still life composition with the Platte Canyon Photography Club June 24 at 7:00 pm, DSC I, Room 200K. Free to members and family. Guests: \$3.00. For information, call William Privatsky, Ext. 5920.

Scuba—A Thanksgiving week trip to Belize (British Honduras) for scuba divers will be discussed at the 5:30 pm meeting June 22 of Fathom Dive Club, Room 200K, DSC I. For information, call Jeryl Voegtly, Ext. 1913 or Ronald Blake, Ext. 3619.

continued from page 2

7-day mission

lead to commercial production of new medicines unobtainable without a zero-gravity environment.

In addition to the rigorous schedule of activity associated with the DOD payload and the electrophoresis experiments, Hartsfield and Mattingly will work on projects contained in several aerodynamic data collection packages and will lift the heaviest loads ever—800 pounds—with the remote manipulator arm. They also will conduct a second nighttime/daytime optical survey of lightning and will monitor nine experiments developed by students at the University of Utah.

Parachutes used in the solid rocket booster recovery system on the first Shuttle launch have been refurbished by Denver Aerospace employees and will be used again on this flight. One booster will be lowered on the refurbished chutes; a second will use a new set so that performance data can be compared. The large chutes are the first recycled hardware used, other than the orbiter itself, since the inception of the program.

Equipment developed here also will be put to work on reentry when an attempt is made to obtain images of the underside of the Shuttle at the peak heat phase of reentry.

Infrared imagery of Shuttle (IRIS) was first successfully tested on the third flight when the equipment produced color images of the orbiter at the transition phase of reentry at a lower altitude and speed than the peak heat phase.

MARTIN MARIETTA NEWS

Published by Public Relations

MARTIN MARIETTA AEROSPACE

Call Ext. 5364 with information or suggestions for articles, or call one of the following coordinators.

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DENVER AEROSPACE

P.O. Box 179—Denver, CO 80201

June 18, 1982

Exhibit features Denver products

Command, control, and communications equipment produced here was viewed by an estimated 10,000 exhibit visitors in Washington, D.C. this week.

In addition to the exhibit, Reid H. Clausen, director of command and information systems, was chairman of a panel discussion on "The Role of Test Beds in Communications, Command, and Control." Serving on the panel with him was Jay L. McBride, a systems engineer who played a key role in the development of the command, control, and communications laboratory here.

The exhibit and the panel were part of the annual meeting of the Armed Forces Communications Electronics Association. The exhibit and technical sessions were open to AFCEA members and guests. Those attending were senior and staff level representatives from the military and industry and are involved in command, control, communications, and intelligence activity.

Theme of the Martin Marietta exhibit was "Global Involvement in Command, Control, and Communications." Included in the exhibit was a demonstration of an automated message center to be delivered to Europe later this year, a full-scale mockup of one of the shelter pieces of equipment, a model of a multi-signal receiver van, as well as information on OASIS—operational applications special intelligence systems—and SMARTS, the systems monitor analysis recording test system. Orlando Aerospace was represented with a shelter mounted tactical communications control facility and examples of programmable multiplex.

Martin Marietta Aerospace names finance director in Baltimore

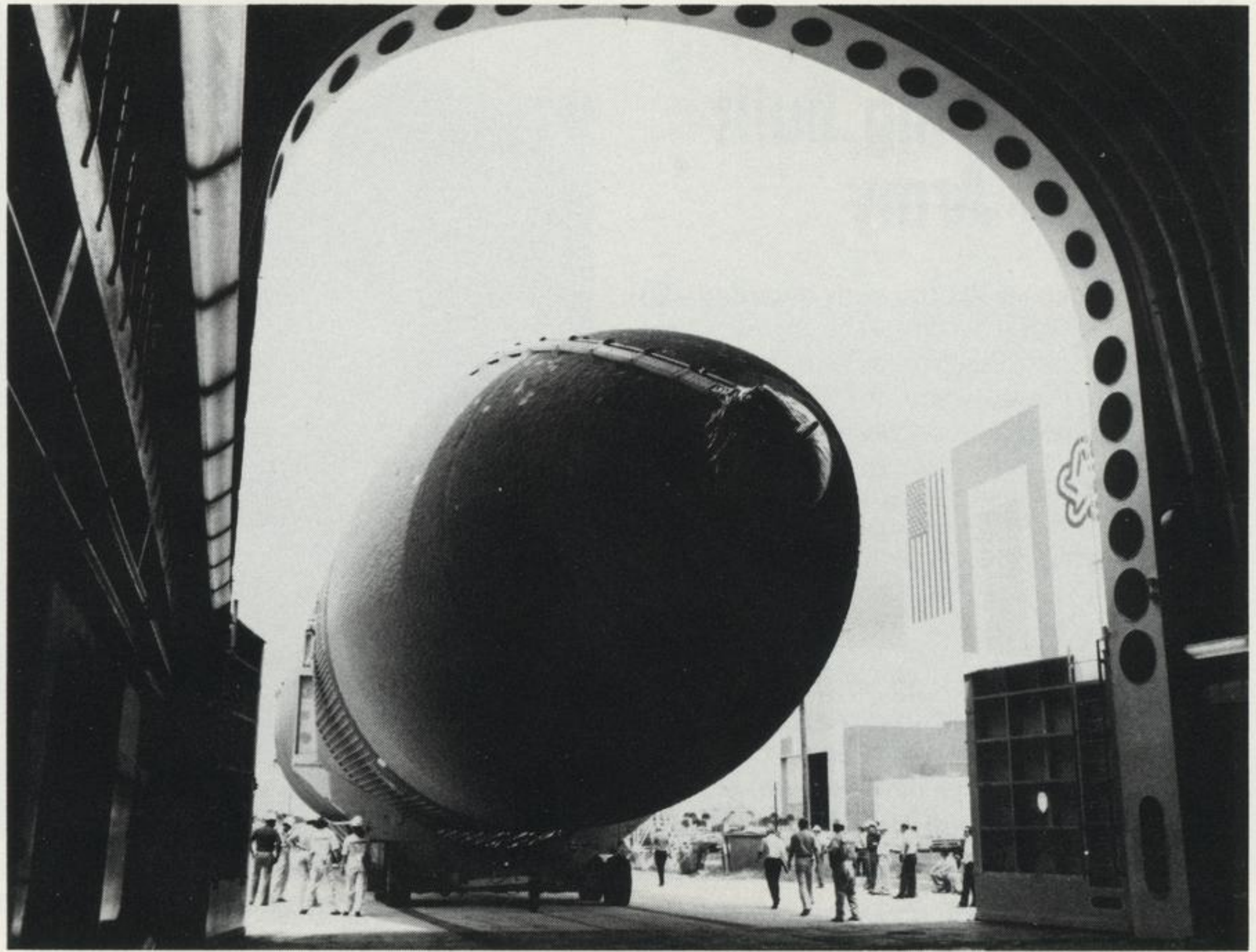


Billy R. Butler has been named director of finance for Baltimore Aerospace.

For the past 12 years, Butler has been at Denver Aerospace, most recently as assistant controller, accounting and financial control.

He has held a range of accounting positions since joining the company as a senior accountant in July 1962, at Cape Canaveral. In 1965 he was transferred to Vandenberg Air Force Base, where he remained until moving to Denver in 1970.

He is a graduate of Chapman College, with a bachelor's degree in economics and business administration. He also has studied the Russian language at Syracuse University.



The external tank that will supply propellants for the Space Shuttle orbiter main engines during the flight of the fifth mission is towed from the covered barge that brought it from Michoud. At Kennedy Space Center it will be mated with the solid rocket boosters and the orbiter to form the Space Shuttle vehicle.

"Helping Hand" title earned by employee

Have you ever run out of gas? Had a flat spare tire when you needed it the most? Been the victim of a dead battery? Had your radiator overheat?

At Canaveral operations, many have and all have been glad to see Walter W. Kollosch drive up. He keeps his truck equipped with spare gasoline, water-filled jugs, tow rope, block and tackle, shovel, assorted hand tools, engine starter fluid, 12-volt air compressor, 12-volt drop light, jumper cables, CB radio—and a strong urge to help stranded motorists.

Kollosch, who works in engineering at Canaveral operations, has been a helping hand to fellow employees, Air Force personnel, NASA workers, and other contractors. And,

since his route from home to work takes him past the Kennedy Space Center visitors information center, he has also developed an international clientele. Some of the foreign visitors didn't speak English, but Kollosch knows they appreciated his help.

If he can't help, he calls for assistance and waits until it arrives. More often, though, he can get the motorist on the way—like retrieving an elderly couple's car from a shallow ditch, or having a lug wrench to change a tire for a touring family.

Does he accept pay for his help? "No way," says Kollosch. "That would spoil the satisfaction I get from extending a helping hand."



Canaveral operations' helping hand, Walter W. Kollosch, often helps stranded motorists from his fully equipped truck. Here it is a dead battery he is working on for a fellow employee.