

May 22, 1987

Special Issue



Eight employees received top honors at the recent Denver Aerospace Annual Awards Night banquet. Recipients of the top honors are, seated, left to right, Frank M. Kustas, Mohan S. Misra, William T. Tack and Michael F. Gaughen, and standing, left to right, second from the left, William E. Pipes, Lyle E. Bareiss,

John S. Hoover, Jimmie D. Osborn. Presenting the awards to the eight employees are Norman R. Augustine, corporate president and chief operating officer, standing, far right; Caleb B. Hurtt, corporate executive vice president, standing, second from right; and Peter B. Teets, Denver Aerospace president, standing, far left.

Company honors inventors, authors, engineers...

One hundred sixty-seven employees received special recognition for their outstanding contributions to the company at the Denver Aerospace Annual Awards Night banquet on May 15, including eight who were singled out for top honors. The eight were Frank M. Kustas, Mohan S. Misra, William T. Tack, Jimmie E. Osborn, John S. Hoover, Lyle E. Bareiss, William E. Pipes, and Michael F. Gaughen.

Kustas, Misra, and Tack were named authors of the year for their publication, "Ion Implantation of Ti and C in 440C Steel for Enhanced Resistance to Lubricated Sliding Wear." Kustas is an engineer, mechanical ma-

terials engineering; Misra, who also received awards in 1980, 1981, and 1984, is manager, research and technology (structures and materials); and Tack is an engineer, mechanical materials engineering.

Hoover, an engineer in electronics in the radio frequency (RF) systems and communications section, and Osborn, manager of the Nearfield Test Lab, were named inventors of the year for four inventions applying computer processing to large antenna measurements.

Bareiss, program manager for the Defensive Shields Demonstration, was named principal investigator of the year for contributions to

space environments through his development of state-of-the-art capability in spacecraft contamination and atomic oxygen simulation.

Pipes, director of engineering for Space Launch Systems, was named engineer of the year for outstanding leadership in designing a solution for hydrogen disposal at the space shuttle Vandenberg Launch Facility, California.

Gaughen, director of the Peacekeeper flight test program for Vandenberg Operations, was named manager of the year for outstanding performance on the Peacekeeper flight test program, which has had 100 percent mission success and received 100 percent award fees.

1987 awards night honorees



Publication Awards

Brent A. Cullimore and Robert C. Epper
Thermostatic Control of 2-Phase Spacecraft Thermal Management Systems

Arthur Feldman and Roy J. Heyman
Response of SDF Systems to Extreme Overpressure

Whittak H. Huang and Narotham S. Reddy
Magellan Spacecraft Attitude Determination Update and Gyroparameter Calibration

Frank J. Jarossy and Larry W. Mason
An Analytical Technique for Predicting the Effects of Particle Contamination on the Direct Scatter of an Optical System

Frank M. Kustas and Mohan S. Misra
Mossbauer Study of Ti-Implanted 52100 Steel

Frank M. Kustas, Mohan S. Misra, and William T. Tack
Ion Implantation of Ti and C in 440C Steel for Enhanced Resistance to Lubricated Sliding Wear

Richard D. Moog and Nicholas G. Smith
Rip-Stop Method for Preventing Catastrophic Failure of Large Ribbon Parachutes

Inventor Awards

James C. Beblavi
Method for Disposing of Excess Hydrogen during Space Shuttle Main Engine Tests and Launch Aborts

John Bradstreet and Deborah A. Strange
Methods of Determining Hardbody Locations from Digitized Images of Rocket Plumes

Tibor Buna and William H. Miller
Conical Contact Heat Exchanger

Samuel B. Gates and Arthur M. York
Video Processor

John S. Hoover and Jimmie D. Osborn
Inverse Method of Moments Diagnostic Technique

Reflector Antenna Shaping on a Near-Field Antenna Range

Far-Field Antenna Range Modification for Diagnostic Capabilities

Precision Spaceborne Antenna Systems

Steven G. Ring
Form Factor Calculation by Flooding

Robert A. Thomas and William H. Tobey
Deployable Device for Advanced Spacecraft

Edsel L. Walitalo
Vibration Attenuator Trench Grating

New Technology Awards

Brent A. Cullimore
FLUINT: Solution Algorithm for Arbitrary Fluid Networks

Richard G. Goble, Carl L. Jensen, and Steven G. Ring
Advanced SINDA Thermal Analyzer Computer Program—SINDA 85

Whittak H. Huang
A Computational Drift Minimizing Technique for Spacecraft On-Board Attitude Quaternion Propagation

Whittak H. Huang and Narotham S. Reddy
In-Flight Attitude Knowledge Accuracy Maintenance Scheme for Magellan Spacecraft

Technical Achievement Awards

Lyle E. Bareiss
For outstanding contributions to space environments through maintaining and developing state-of-the-art capability in spacecraft contamination and atomic oxygen simulation.

Ernest Berliner
For creative leadership and engineering skills displayed in enhancing the mission flexibility of the Titan II Space Launch Vehicle (SLV) by incorporating an attitude control system in Stage II.

Katherine Blacklock
For development, as principal investigator, of an operations concept model tool that modeled terrain and vehicle performance against a variety of postulated situations.

Ronald J. Blake
For outstanding technical excellence and achievement in laser materials processing, research, development, and applications.

Gregory R. Bollendonk
For technical and professional excellence and sustained contributions to the Small ICBM program in the achievement of the initial operational capability (IOC) for the system requirements analysis, data management system (SRA DMS).

Donald J. Bottoms
For outstanding technical performance in a two-year build and test activity that contributed to the award of a high incentive fee for Defense Systems.

Peggy J. Brady
For outstanding performance in establishing and conducting the microcomputer support function on Small ICBM.

William R. Britton
For development and successful integration of a precision pointing mechanism capability that establishes Martin Marietta Denver Aerospace as the leader in this technology.

Clifford L. Brown
For sustained excellent performance in the design and problem resolution of data and power components for Peacekeeper.

Robert H. Brown
For outstanding performance in completing a conceptual system design study for Defense Systems.

Thomas E. Bunge
For leadership on instrumentation range safety system aerospace vehicle equipment (IRSS AVE), ground, and software design concept team by conducting compatibility analysis of the IRSS resulting in design corrections before development testing.

Lyle G. Cloud
For outstanding technical achievement in support of the Small ICBM Postboost Vehicle (PBV)/Shroud Project in determination of critical performance parameters key to the success of the missile.

Ernest R. Cooper
For outstanding technical performance in establishment and operation of the Logistics Field Service Office at F. E. Warren Air Force Base to support Peacekeeper deployment and activation activities.

JoAnne Creighton

For exceptional technical achievement in solving the difficult Small ICBM shock isolation-design problem using complex dynamic analytical modeling along with materials and design disciplines.

Tracie L. Crowder

For outstanding technical excellence in development and acceptance of maintenance/depot support equipment, an industry leading edge concept, for the Peacekeeper program.

Bradley W. Deats

For outstanding technical accomplishment in the design, execution, and validation of a major modification to the antenna research chamber, including the design of a special hardware and the development of the control software.

Dan Defazio

For achievement in design of \$1 million cost savings on the Titan IV Canaveral operations activations.

Thomas M. Depkovich

For outstanding technical achievement in the development and demonstration of a hardware implementation of a coordinated dual manipulator robotic system.

George E. Elliott

For outstanding technical performance in the concept development test, integration, and performance analysis of the steam inerting concept for hydrogen disposal in the shuttle main engine exhaust ducts at Vandenberg Air Force Base.

Steven C. Espy

For outstanding performance in developing and implementing very large system integrated circuits products for Martin Marietta Denver Aerospace programs.

Kenneth H. Farley

For personal technical contributions in the design, development, and flight test of Peacekeeper systems that contributed significantly to a 100% Peacekeeper mission success, and Peacekeeper initial operational capability on schedule.

Kim G. Feller

For exceptional performance in developing Space-Based Kinetic Energy Weapon System (SBKEWS) simulation tools, and leadership in defining innovative Kinetic Energy Weapon System designs and critical issues.

Nelson G. Freeman

For outstanding contribution to the successful development of the Transfer Orbit Stage (TOS).

Victor K. Genau

For excellent technical direction and innovative approaches to the conceptual design of the space station United States laboratory.

William L. Gibson

For leadership that resulted in the development and delivery of a major simulation laboratory within Defense Systems.

Craig L. Gravelle

For developing a promising new Military Space Systems concept that culminated in a key government contract award.

John H. Gruetzmacher

For outstanding technical contributions and leadership on a major Defense Systems definition study that could result in significant new business.

Alfred D. Herzl

For outstanding technical achievement in structural analysis and test on the Magellan project.

Kenneth L. Holden

For outstanding systems engineering and mission analysis leadership in developing and obtaining United States Air Force approval of the Titan II Space Launch Vehicle (SLV) baseline design.

Robert P. Humphreys

For outstanding service in design and management of a successful concealment test of the full-scale launcher simulator for the shallow tunnel basing mode for Peacekeeper.

William S. Ivers

For exceptional achievement in designs of the electrical systems effort on the Medium Launch Vehicle (MLV) culminating in a highly successful preliminary design review and a very credible Phase II proposal on an extremely demanding schedule.

Ronald E. Johns

For systems engineering support to Peacekeeper emplacer specification, design, production, and test.

Timothy H. Kelley

For technical achievement in solving the Titan IV flight control stability problem for the largest and most complex launch vehicle system in the Titan family.

John A. Koerner

For outstanding contributions in operations development, specifically the nodal operations support function within Defense Systems.

Monte F. Kopke

For technical leadership and performance as the engineering design supervisor for the design, fabrication, test, and integration of the Peacekeeper instrumentation and flight safety system operational test and evaluation (IFSS OT&E) support equipment.

Richard M. Laureta

For outstanding performance in system design and system test developing technical requirements for Titan II, III, and IV programs.

Charles D. Levy

For technical excellence, professionalism, and dedication that significantly contributed to Martin Marietta's Mission Integration Support Contract (MISC) role in integration, test, and development of payload support equipment hardware and software for the Space Transportation System.

Manuel E. Medina

For technical performance on the design of Titan airborne cabling and installation resulting in timely engineering releases and prompt problem resolution on all Titan programs.

Hazen K. Merrill

For excellent technical achievement in designing and conducting the cold solar deployment test and developing the functional design requirements for the 15x20 thermal vacuum chamber for Special Programs.

Herbert J. Miller

For technical leadership in the Peacekeeper emplacer and transportation and handling (T&H) equipment design that contributed to the successful completion of nuclear certification of key elements and the initial operational capability of the Peacekeeper system at F. E. Warren Air Force Base.

James C. Neuman

For success in achieving a design and analysis solution to what Jet Propulsion Laboratory considers "the most difficult temperature control problem of any planetary spacecraft."

Lawrence W. Norquist

For technical leadership in conducting a comprehensive, independent review of Titan flight worthiness, and generating action items to achieve greater flight reliability for all future Titan programs.

Nicholas J. Oliva

For admirable performance by developing concepts and techniques that assure supportability during the life cycle of the space station.

Davis R. Oliver

For outstanding successful completion of the T607 full-scale electromagnetic pulse (EMP) testing on the Peacekeeper missile.

James S. Oliver

For outstanding achievement in clearly, consistently, and professionally demonstrating the Strategic Systems, Denver Aerospace, and corporate commitment to the Department of Defense (DOD) system support and readiness programs and to the Air Force R&M 2000 program.

Damon D. Ostrander

For outstanding technical work on a classified independent research and development project that received a perfect score of ten from government evaluators.

Donald L. Picker

For dedication and performance in providing guidance and support to the development of design and technical approaches on the Titan IV, Titan II, Medium Launch Vehicle (MLV), and commercial Titan programs.

William E. Pipes

For outstanding technical and program leadership in designing a solution for hydrogen disposal at the space shuttle Vandenberg Launch Facility.

Albert E. Rhoads

For sustained excellent performance in problem resolution, design, and test verification of the transponder for Peacekeeper.

Kenneth H. Schlichtemeier

For technical leadership and performance for the design, fabrication support, test, and integration of the Peacekeeper instrumentation and flight safety system airborne and ground support equipment.

Dean A. Schneebeck

For outstanding technical performance for the test procedure development and review relating to integration and test activities for Defense Systems.

Michael E. Schoultz

For two independent research and development projects, as principal investigator in Special Programs, that provide significant technical capability in definition of performance and growth for next generation systems.

Randall M. Scott

For producing a telemetry decoder verification system tape to verify Titan telemetry ground station programming.

Paul L. Shattuck

For outstanding technical and managerial leadership in accomplishing demonstrations of the rapid retargeting and precision pointing simulator to the schedule, cost, and performance goals established.

Thomas C. Shupert

For outstanding planning and innovative design approaches permitting early completion and release of Medium Launch Vehicle (MLV) engineering to meet an extremely tight build and launch schedule.

Malcolm W. Sikes

For innovative and timely implementation of a solution to a major design problem on a critical spacecraft mechanism.

Richard K. Solomon

For significant technical accomplishment on Special Programs computer test system development including improvements to the government-furnished equipment portion of the system.

Gwynn E. Sparks

For sustained outstanding performance in requirements definition and preliminary design of space station software.

Daniel J. Sterling

For outstanding system integration associated with a state-of-the-art ground mission data processor that significantly enhanced program mission success within tight schedule constraints.

Deborah A. Strange

For outstanding technical achievement in determining new properties in infrared plumes from rocket engines in space that should enhance tracking of rockets.

Richard J. Talbot

For significant technical contributions in the analytical understanding of the McDonnell Douglas Titan IV payload fairing separation rail system and aft boattail stiffness.

James R. Tegart

For outstanding support of flight testing independent research and development Project D-02R, *Low g, Fluid Behavior, and Control*.

James L. Walker

For sustained excellence in the development of technology through independent research.

William H. Willcockson

For outstanding contribution to aeroassist control technology enabling development of an efficient, reusable Orbit Transfer Vehicle (OTV) capable of supporting high orbit manned and retrieval operations.

Forrest J. Woods

For technical excellence and innovations leading to significant advancement in capabilities to perform flight software verification and validation.

John R. Yatchak

For outstanding performance in developing the computer-aided design/computer-aided engineering capability on the Small ICBM Instrumentation Range Safety System (IRSS) project.

Operational Performance Awards

Carolyn M. Adolfer

For exceptional leadership of the Benefits Administration department, which has resulted in more accurate, cost-effective administration and improved communications and service to employees.

Peggy A. Barkelew

For sustained outstanding performance in assuring that Martin Marietta is presented positively and professionally in hundreds of official visits and motivational events each year.

Kenneth M. Betz

For providing personal direction for numerous critical and highly sensitive program hardware moves in support of Defense Systems, Peacekeeper, and Space Launch Systems.

Sarto A. Boissonault

For sustained significant contributions to Special Programs test operations.

Preston B. Brewer

For displaying excellent technical leadership by successfully completing tooling refurbishment, thus placing the company in compliance to Management Indicator No. IR-8.

Frank R. Brunner

For prolonged and continuous operational excellence in capital facilities planning.

Daniel L. Caughran

For outstanding support, dedication, and untiring effort in meeting the scheduled contractual DD-250 dates of the Peacekeeper emplacers.

Roger A. Chamberlain

For directing the business development effort on commercial Titan that led the corporation to announce intentions to enter the commercial launch vehicle business.

Awards Continued

Hazel D. Chapman

For dedicated performance and continuous outstanding contributions to the administrative responsibilities of the central detail manufacturing operation.

Gary W. Churchman

For preparation of the contracts portions of both the Medium Launch Vehicle (MLV) Phase I and Phase II proposals, discussion questions, and best-and-final offer (BAFO) submittal.

Robert Z. Dalal

For outstanding performance in overhead cost management and financial planning.

Michael J. Davis

For superior sustained management of the Space Transportation Effectiveness Assessment Model (STEAM) contract that has led to significant sole source follow-on effort and repetitive compliments on performance by the Air Force.

Dean deBenedet

For sustained outstanding performance in managing Peacekeeper mechanical engineering design and analyses areas and responsibility for ground and airborne equipment.

George R. Dempsey

For outstanding performance in the repair, installation, and maintenance of buildings and automation systems, including all Denver Aerospace life safety and security, energy management, and mechanical monitoring systems.

James E. Devine

For excellence in leadership and financial technical management skills resulting in improved profitability for Strategic Systems and cost management C/SCSC compliance.

Fletcher A. Dicus

For continuous outstanding dedication and support in the operation of the Defense Systems reproduction facility.

David C. Dillon

For continued superior leadership in reliability assurance on the Magellan program.

William H. Dowe

For sustained outstanding performance in planning the kinetic energy weapon (KEW) program and in the development and implementation of planning techniques, and for continuing outstanding commitment to training junior and new employees.

Gerald L. Dummer

For outstanding technical management of the Titan programs operational software engineering.

Frank E. Durante

For outstanding performance in the administration of an effective wage and compensation program for the Defense Systems division.

Benny R. Dusenberry

For sustained outstanding performance as a senior engineer in vehicle and activations support, resulting in three commendations, two special recognitions, and a gold medallion award.

Ronald D. Ervin

For consistent high-quality workmanship, willingness to accept any challenge, and performance as a numerical control lathe operator dedicated to excellence.

William Felsman

For excellent cost estimating performance and leadership in the conduct of significant contract pricing and negotiations efforts.

Michael F. Gaughen

For sustained performance on the Peacekeeper flight test program including implementation of receipt to launch activities and five test launches with 100% mission success and 100% award fees.

John A. Getz

For outstanding performance in leading Denver Aerospace teams to accomplish deferred manufacturing activity and modifications on Peacekeeper emplacements at Vandenberg Air Force Base.

John J. Griego

For 30 years of outstanding performance as a material handling operator with dedication to flawless performance and outstanding skill in handling oversized, critical, multimillion dollar hardware.

John W. Gurr

For sustained superior leadership and management performance in exceeding the operational and financial goals of the Solid Rocket Booster-Decelerator Subsystem program.

Ronald N. Halcomb

For outstanding leadership of the Denver Aerospace occupational safety and health function resulting in a successful contractor operations review and the best 1986 safety record among the aerospace divisions.

Anthony G. Hartley

For outstanding quality assurance support on Peacekeeper transportation and handling first article acceptance by the customer, and for the work associated with the upgrade of engineering models to customer deliverable units.

James H. Hensel

For identifying and implementing a technical manufacturing solution to a difficult Defense Systems gimbal fabrication and assembly operation resulting in an assembly that fitted together and exceeded technical requirements.

Eugene J. Horak

For outstanding management of the entire manufacturing assembly operations with specific accomplishments in successful deliveries of Peacekeeper emplacements and transportation and handling equipment.

Elsie M. Hughes

For sustained and excellent operational performance in plans and programs in support of the Peacekeeper instrumentation and flight safety system (IFSS) program.

William R. Ingram

For sustained, superior performance, dedication, and professionalism in support of aerospace and technology operations product area contracts activity.

Gail G. Irvine

For continuous outstanding performance and leadership in mission success and product assurance management on Special Programs and previous assignments.

Joseph Jackson

For outstanding leadership and performance in reactivation of Space Launch Complex 4 at Vandenberg Air Force Base.

V. Michael Johnson

For sustained outstanding performance in managing business operations for Special Programs, and in successfully negotiating a major add-on proposal.

Michael J. Kelly

For leadership in the extremely successful 1985 and record-breaking 1986 company United Way campaign.

Thomas W. Knapp

For successful completion of an initial design for the Titan IV launch vehicle through first vehicle critical design review, including the interim upper stage version, while maintaining the Centaur, and no upper stage compatibility.

Claudia R. Knox

For continued dedication to excellence in Material and Production support of the Laser Communication Subsystem.

Robin V. Koelmel

For outstanding organizational skills in supervising the maintenance and logistical support of the automated test systems equipment, and configuration management of nondeliverable software at the Electronics Manufacturing Facility.

Michael R. Lee

For outstanding leadership in managing the design and construction of four major facilities, within budget and on schedule, and in the development of action plans for resolution of environmental issues.

Arthur D. Lloyd

For sustained outstanding performance in the management of the Denver Aerospace industrial security program.

Will T. Lynch

For establishing the program plan and requirements on major portions of the Titan recovery program while coordinating the planning effort for Space Launch Systems.

Raymond R. Macary

For playing an absolutely critical role in steering the evaluation of operations to the current state on a project of major significance.

Robert H. Mann

For exceptional performance in Peacekeeper subcontract management.

Robert G. Manning

For outstanding performance in the development of an automated historical database system.

Charles B. McClure

For pioneering work in productivity that led to successful and efficient performance of the Small ICBM program.

Walter L. McKenna

For leadership contributions to the outstanding performance of the Engineering Propulsion Laboratory, including the rebuild and retest of the SLC-4 Propellant Loading System, test support for CSS hydrogen disposal, and test support for Titan reassessment.

James A. Miles

For management excellence in response to requirements of Titan reassessment, and Titan II, Titan IV, and Titan Medium Launch Vehicle (MLV) programs.

Cynthia S. Nagy

For exemplary operational performance while serving as the subcontract administrator for the Small ICBM System Support program.

Carol L. North

For outstanding performance in establishing a human resource development plan for the Defense Systems division.

Carl R. Nuss

For sustained operational performance in directing the design and fabrication achievements of test tooling serving both programs and laboratories with distinction.

John E. Parker

For outstanding performance as the project engineer and project manager for the Peacekeeper instrumentation and flight safety system (IFSS) on operational test and evaluation (OT&E) project.

Sue C. Payton

For establishing a multiprogram liaison office as a representative of the company and our customer, and for rapidly developing appropriate interfaces and activating the liaison process to full capability.

Michael H. Phillips

For consistent professional performance in the production of high-quality video presentations for Denver Aerospace.

Ronald R. Remy

For significant contributions to Denver Aerospace in government review support and financial systems development.

James F. Ross

For outstanding performance in the definition of requirements and project interface for the development of the Advanced Research Laboratories (ARL).

Norman Roulston, Jr.

For outstanding support in organizing and leading a detailed review of all flight and ground systems of the shuttle program after the shuttle disaster.

Sidney L. Russak

For outstanding leadership in developing new business resulting in two significant instrument contracts, the Gamma Ray Spectrometer for the Mars Observer, and the CCD Imaging System for the AXAF X-Ray Astronomy Facility.

Elizabeth S. Saunders

For outstanding performance as a subcontract labor and consultant buyer for the past six and one-half years.

Steven W. Sedlacek

For sustained performance in the conduct of plant protection duties and for significant contributions to the department's security and fire/emergency response capabilities.

Patrick K. Shannon

For outstanding efforts with a major new business program tiger team that assisted in the planning, construction, and reproduction of major cost proposals.

Lawrence A. Sundahl

For superior leadership as manager for product assurance and system safety on the Peacekeeper Flight Test Program at Vandenberg Air Force Base.

Floyd R. Teiffel

For sustained superior performance in the management of the engineering administration section and in the effective operation and status of the engineering staffing system.

Cynthia S. Thomas

For sustained outstanding performance in preparation of management volumes on major competitive Denver Aerospace programs.

Gary W. Thompson

For outstanding performance in administration of manufacturing's administrative overhead (AOH) budgets and significant contributions to the successful completion of the 1986 AOH should cost audit.

Paul A. Thompson

For outstanding dedication and recognized contributions to the system safety aspects of the electrostatic effect studies.

Sidney L. Tolbert

For management excellence in the direction of Titan 34D reassessment activities and the design, development, and testing of Titan II, Titan IV, and Medium Launch Vehicle programs.

John A. Troutman

For dedicated technical leadership on the Titan applications team and preliminary design effort for the Titan III dual payload adapter.

Joseph T. Tutchton

For outstanding technical leadership and individual contributions in corrective action and materials and processes for Defense Systems.

Gordon L. Wenner

For sustained outstanding performance in preparation of management volumes on major competitive Denver Aerospace programs.

Bernard P. Wenninger

For leadership in the 1985 and record-breaking 1986 company United Way campaign.

Grant E. Williams

For outstanding sustained performance in financial and new business management for Technical Operations.

Raymond G. Ziehm

For outstanding management of a classified hardware product area resulting in significant growth potential and an improved product.

(Editor's note: The regular issue of the Martin Marietta News will appear next week.)