



Dr. James H. Starnes, Jr. (1939 – 2003)

The image on the right is from: Buckling of an axially compressed cylindrical shell with a hole (From the 1970 Caltech PhD thesis by Jim Starnes, Jr: “The effect of a circular hole on the buckling of cylindrical shells”).

CURRICULUM VITAE JAMES H. STARNES, JR. (1939 – 2003)

Research Interests

Mechanics of composite structures; strength and stability of stiffened and sandwich plates and shells; nonlinear structural behavior; failure mechanisms and analysis; damage tolerance, structural integrity, damage containment and residual strength; effects of local gradients, discontinuities, and eccentricities; experimental mechanics; structural analysis; structural design, optimization and tailoring including improved reliability and the effects of uncertainties and tolerances; advanced structural concepts; effects of combined mechanical, internal pressure and thermal loads; and aircraft, spacecraft and launch vehicle structural behavior.

Education

BS in Engineering Mechanics, Georgia Institute of Technology, 1961
MS in Engineering Mechanics, Georgia Institute of Technology, 1963
PhD in Aeronautics, California Institute of Technology, 1970

Professional Training Received

- 1973 Supervision and Group Performance, NASA Langley
- 1975 Supervision and Personnel Management, NASA Langley
- 1979 Science, Technology and Public Policy, OPM Executive Seminar Center, Oak Ridge, TN
- 1980 Management and Supervisory Training, NASA Wallops Island
- 1985 Management Education Program, NASA Wallops Island
- 1986 Competition in Contracting, NASA Langley
- 1986 Productive Meetings, NASA Langley
- 1986 NASA Socioeconomic Procurement Programs, NASA Langley
- 1988 OPM Management Development Seminar, OPM Executive Seminar Center, Oak Ridge, TN
- 1994 OPM Executive Development Seminar, OPM Executive Seminar Center, Oak Ridge, TN
- 1996 Issues in Science and Technology Policy, The Brookings Institute, Washington, DC

Professional Experience

1. NASA Langley Research Center, Hampton, VA
 - 1999 to date: Chief Engineer, Structures and Materials Competency
 - 1994 to 1999: Head, Structural Mechanics Branch, Structures Division
 - 1990 to 1994: Head, Aircraft Structures Branch, Structural Mechanics Division and Structures Division
 - 1989 to 1990: Assistant Chief, Structural Mechanics Division and Acting Head, Structural Mechanics Branch, Structural Mechanics Division
 - 1981 to 1989: Head, Structural Mechanics Branch, Structures and Dynamics Division and Structural Mechanics Division
 - 1979 to 1981: Assistant Head, Structural Mechanics Branch, Structures and Dynamics Division
 - 1970 to 1979: Aerospace Engineer, Structures and Dynamics Division
2. California Institute of Technology, Pasadena, California
 - 1966 to 1970: Graduate Student and Graduate Research Assistant in Aeronautics
3. United States Navy
 - 1963 to 1966: Officer, Instructor in Aeronautics, U.S. Naval Postgraduate School, Monterey, CA
4. Georgia Institute of Technology, Atlanta, GA
 - 1961 to 1963: Graduate Student Instructor in Graphics

Other Positions Held

- 1973 to 1974: Adjunct Assistant Professor of Engineering, Old Dominion University, Norfolk, VA
- 1983 to 1987: Adjunct Professor of Mechanics and Aerospace Engineering, University of Delaware

1976 to date: Research Advisor, Virginia Polytechnic Institute and State University

1981 to date: Research Advisor, National Research Council Research Associate Program

Significant Scientific/Engineering Accomplishments

- Structures technology leader for a NASA in-house composite structures program to provide advanced structural design concepts and structural mechanics technologies for future subsonic aircraft primary structures. Successfully advocated a \$142 million advanced composite structures technology research program that has grown to \$500 million.
- Structures technology leader for a NASA in-house composite and metallic structures program to provide advanced structural design concepts and structural mechanics technologies for future supersonic aircraft primary structures. Structures technology leader for \$342 million High Speed Civil Transport structures and materials program.
- Structures technology leader for a NASA research team developing verified nonlinear structural analysis methods for predicting the residual strength of aging aircraft with multi-site and multi-element damage.
- Structures technology leader for a NASA research team developing structural concepts and verified structures technology for an advanced civil tilt-rotor transport aircraft with a thin tailored composite wing.
- Structures technology leader for a NASA research team developing structural concepts and verified structures technology for an advanced civil tilt-rotor transport aircraft with a thin tailored composite wing, and advanced rotorcraft structures.
- Structures technology leader for NASA structures research teams developing composite structures technology and advanced aircraft primary structural concepts for subsonic, supersonic and hypersonic aircraft.
- Structures technology program leader for a NASA research team developing verified nonlinear aircraft structural integrity methodology for stiffened aluminum fuselage shells with wide-spread fatigue damage and long cracks, and subjected to combined internal pressure and mechanical loads.
- Airframe structures technology leader for NASA 2nd and 3rd Generation Reusable Launch Vehicles.
- Structures technology leader for the NASA 21st Century Wing program.
- Led NASA structures research teams that developed fundamental technology for:
 - nonlinear behavior of composite plate and shell structures
 - damage tolerance for composite structures
 - postbuckling behavior of composite structures
 - structural design and optimization methods for panels and wing-box structures
- Supervised and helped advocate NASA research programs for:
 - computational structural mechanics research
 - thermal structures research
 - composite and metallic spacecraft structures research
 - aircraft crashworthiness research for composite and metallic aircraft structures
 - COLTS combined loads test system
 - Space Transportation Systems airframe structures
 - Spacecraft structures research program for composite and metallic structures

- Personal Research Contributions:
 - Determined the effects of cutouts on the buckling of thin shells.
 - Determined the nonlinear behavior of composite plate and shell structures.
 - Developed structural design and optimization methods for fuselage and wing structures.
 - Determined the effects of low-speed impact damage and cutouts on the compressive strength of composite structures.
 - Developed the design of a large-scale composite interstage shell structure
 - Determined the critical failure modes and the nonlinear analysis methods for the postbuckling behavior of composite structures.
 - Determined the critical compression failure modes of composite structures.
 - Determined the effects of internal pressure on the response and failure of composite shell structures.
 - Determined composite stiffener crippling failure modes.
 - Determined the effects of initial geometric imperfections on the buckling of composite shells including a transient analysis for unstable postbuckling response and mode changes in the postbuckling equilibrium state.
 - Developing the structures technology for metallic and composite shell structures subjected to combined internal pressure, mechanical and thermal loads. This research includes the development of laboratory scale and full-scale combined loads test systems, and nonlinear structural analysis methods for determining the response, stability, and residual strength of shells with and without damage.
- Planning, review and investigation panels:
 - Supervised in-house structural analysis team studying the Space Shuttle Challenger solid rocket booster field joints and external tank rings.
 - Supervised the buckling and nonlinear collapse analyses of the Super-Lightweight Tank for the Space Shuttle External Tank.
 - Contributor to DARPA/Navy composite submarine project structures plans Chairman of the structures planning panel.
 - Helped plan the Navy/NASA Tilt-rotor Technology Program. Co-chairman of the structures and materials planning panel.
 - Identified failure mechanism of the Filament Wound Case for the Space Shuttle solid rocket booster for NASA Marshall Space Flight Center.
- Helped identify the criticality of and repair for the X-29 wing delamination for NASA Dryden Flight Research Center.
 - Helped explain the premature failures of the L-1011 and DC-10 vertical fin composite structures for the NASA Langley Research Center ACEE project.
 - NASA Langley Research Center representative for the National Research Council Aeronautics and Space Engineering Board Committee studying the status and viability of composite materials for aircraft structures.
 - Member of the HSR Materials and Structures Concepts Selection Team.
 - Member of the Blue Ribbon Structures Committee for the evaluation of the Space Station Freedom Node.
 - Member of the team that investigated the National Transonic Facility Fan Blade Failure
 - Member of the team that investigated the National Full-Scale Aerodynamic Complex Fan Blade Failure and Repair
 - Member of the A-12 Merits of Claim review team for the Commandant, Naval Air Systems Command
 - Member of the A-12 Engineering Review Board, Naval Air Systems Command
 - Member of the DoD/NASA/FAA Interdependency Team for design of composite structures
 - Peer Reviewer for Office on Naval Research structures programs
 - Member of the DoD/NASA/FAA Interdependency Team for design of composite structures
 - Member of the Composite Materials Handbook (MIL-HDBK-17) Coordination Group
 - Advisor to the National Transportation Safety Board for the PAT-1 failure and other aircraft accidents
 - Member of the Transition Leadership Team helping lead NASA Langley into a Third Generation Research and Development Learning Organization
 - Member of the NASA X-33 Liquid Hydrogen Tank Investigation Team
 - Structures representative on the 1997-1999 NASA program planning teams for the: Revolutionary Subsonic Transport program, Megaliner program, Aircraft Life Extension program, Aircraft Safety Initiative program,

- Unmanned Combat Air Vehicles, Design for Efficient and Affordable Rotorcraft program, Ultra Lightweight Technologies program, Reusability and Aging Systems program, Superliner 100 space transportation systems technology program, Ultra Efficient Engine Technology program for nacelle structures.
- Structures representative on the 2000 NASA program planning team for the 21st Century Wing program, the Design for Safety program, and the 2nd and 3rd Generation Reusable Launch Vehicle programs.

Scientific/Engineering Leadership

- NASA leader of the American Airlines Flight 587 failure investigation for the National Transportation Safety Board.

Professional Scientific/Engineering Service

a. Professional Societies

American Institute of Aeronautics and Astronautics, Fellow and member of the Structures and the Design Engineering Technical Committees
American Society of Mechanical Engineers, Member
American Society of Civil Engineers, Member
American Society for Composites, Fellow, Past Vice President, and Past President
Structural Stability Research Council, Voting Member
Sigma Xi, Member
NASA representative on the NATO Research Technology Organization, Applied Vehicle Technical Panel, Materials, Structures and Mechanisms Group

b. Rendering Scientific Judgment

Reviewer for AIAA Journal and other professional journals (e.g., American Society for Testing and Materials publications)

Abstract reviewer for AIAA Structures, Structural Dynamics, and Materials Conference

Special Session Organizer for AIAA Structures, Structural Dynamics, and Materials Conference, 1996-2002

Conference co-organizer for the NASA Advanced Composites Technology Conferences and abstract reviewer, 1990-1996

Conference organizer for the Eighth DoD/NASA/FAA Conference on Fibrous Composites in Structural Design, 1989, and abstract reviewer for all DoD/NASA/FAA Conferences on Fibrous Composites in Structural Design

Conference co-organizer for the Fifth NASA/DOD/Faa Conference on Aging Aircraft, 2001 and member of organizing committee 1997-2002

Peer reviewer for the Office of Naval Research

Member External Advisory Board for the Composites Education and Research Center, Georgia Institute of Technology

Member of Association of Universities in the Netherlands Review Team

that reviewed the curriculum and research programs of the Aerospace

Engineering Faculty of the Delft University of Technology, Delft, The Netherlands (sponsored by the Royal Academy of Arts and Sciences of The Netherlands), 2001

Served on the PhD examination committee for the dissertation entitled Sandwich Fuselage Design by Dr.ir. M. J. L. van Tooren at the invitation of the Faculty of Aerospace Engineering, Delft Technical University, Delft, The Netherlands, December 7, 1998.

Served on the PhD examination committee for the dissertation entitled Blunt and Sharp Notch Behavior of Glare Laminates by Dr.ir. Tjerk. J. de Vries at the invitation of the Faculty of Aerospace Engineering, Delft Technical University, Delft, The Netherlands, April 26, 2001.

Honors, Awards, Recognition, Elected Memberships

- 1979 NASA Group Achievement Award to the Advanced Composite Low-Velocity Impact-Damage Team
- 1981 Outstanding Volunteer Service Award to the NASA Langley Colloquia Committee
- 1981 NASA Group Achievement Award to the Impact-Damage-Tolerant Graphite-Epoxy Compression Structures Team
- 1982 NASA Group Achievement Award to the Impact-Damage-Tolerant Composite Structures Team
- 1983 NASA Special Act Award for Group Achievement to the SAGE II Azimuth Shaft Repair Team
- 1986 NASA Group Achievement Award to the STAGS Structural Analysis of General Shells Team
- 1986 NASA Group Achievement Award to the Solid Rocket Motor Improved Field Joint Assessment Team
- 1986 NASA Certificate of Appreciation for Support of Space Shuttle Presidential Commission Investigation
- 1987 NASA Outstanding Leadership Award
- 1988 NASA Group Achievement Award to the Solid Rocket Booster External Tank Attachment Ring Redesign and Analysis Team
- 1990 NASA Special Achievement Award for Group Accomplishment to the National Transonic Facility Mishap Investigation Support Team
- 1993 NASA Outstanding Leadership Award for outstanding performance in leading the Aircraft Structures Technology Programs

- 1994 AIAA Certificate of Merit for presenting the SDM Lecture on Composite Structures, AIAA/ASME/ASCE/AHS/ASC 35th Structures, Structural Mechanics, and Materials Conference, Hilton Head, SC, April 20, 1994
- 1994 NASA Special Accomplishment Award for conducting an aggressive and responsive research program in aircraft structures and mechanics
- 1994 NASA Special Achievement Award for developing reliable composite structures design technology for commercial transport aircraft
- 1994 NASA Group Achievement Award to Advanced the Subsonic Technology Planning Team
- 1995 NASA Exceptional Engineering Achievement Medal for developing reliable composite structures design technology for commercial transport aircraft
- 1996 Georgia Institute of Technology Distinguished Engineering Alumni Award, and Member of the Georgia Institute of Technology Academy of Distinguished Engineering Alumni
- 1996 NASA Group Achievement Award to the Advanced Composite Structures and Materials Technology for Transport Aircraft Team
- 1996 NASA Group Achievement Award to the Fuselage Structural Integrity Analysis Team
- 1996 Journal of Composite Structures 1995 Composite Structures Annual Award for the paper entitled ‘Thermomechanical Postbuckling of Multilayered Composite Panels with Cutouts’ by A. K. Noor; J. H. Starnes, Jr.; and J. M. Peters
- 1996 NASA Acquisition Improvement Award to the Aerospace Research and Technology Source Evaluation Board
- 1998 Superior Accomplishment Award for outstanding contributions to planning NASA programs and to achieving the goals of the aeronautics and space structures programs
- 1998 NASA Superior Accomplishment Award for outstanding contributions to the Transition Leadership Team
- 1999 Team Excellence Award to the Langley Advanced Reusable Space Transportation Technologies Proposal Team for Contributions to the first Langley proposal to a NASA Research Announcement in Space Transportation, in organizing, writing, printing, and leading the technical, management, cost, and proposal development team
- 1999 Turning Goals into Reality Award for valuable contributions to NASA Airframe Structural Integrity Team and exceptional progress toward Aviation Safety
- 1999 NASA Group Achievement Award to the Advanced Subsonic Technology Aging Aircraft Program Team
- 1999 NASA Group Achievement Award to the Combined Loads Test System Team
- 1999 NASA Group Achievement Award to the Space Shuttle Superlightweight LOX Tank Nonlinear Structural Analysis Team

- 1999 NASA Performance Award for Outstanding Leadership of the Structural Mechanics Branch
- 2000 NASA Superior Accomplishment Award for Outstanding Contributions to the X-33 Failure Team
- 2000 NASA Superior Accomplishment Award for An Outstanding Collection of Papers Published on the Space Shuttle Superlightweight Tank that was Selected after Peer Review as a Structures and Materials Competency Nominee for the Center's HJE Reid Award
- 2000 NASA Superior Accomplishment Award for Outstanding Contributions to Developing and Defining the Content of the 2nd and 3rd Generation Reusable Launch Vehicle Technology Development Programs

Honors, Awards, Recognition, Elected Memberships (Continued)

- 2001 NASA Group Achievement Award to the X-33 LH2 Tank Failure Investigation Technical Support Team
- 2001 NASA Performance Award for Outstanding Support as Senior Engineer for the Structures and Materials Competency
- 2001 NASA Superior Accomplishment Award for Outstanding Effort, Success and Dedication in Defining the National Hypersonic Plan and NASA ASTP Hypersonic Investment
- 2001 NASA Superior Accomplishment Award for Outstanding Contributions to the X-33 LH2 Tank Failure Investigation Technical Support Team

Formal Publications

1. Starnes, James H., Jr.: Vibration Studies of a Flat Plate and a Built-up Wing. NASTRAN: User's Experiences, NASA TM X-2378, Vol. 11, 1971, pp. 637-646.
2. Starnes, James H., Jr.: Effect of a Slot on the Buckling of a Cylindrical Shell with a Cutout. AIAA Journal, Vol. 10, No. 2, February 1972, pp. 227-229.
3. Starnes, James H., Jr.: Effect of a Circular Hole on the Buckling of Cylindrical Shells Loaded by Compression. AIAA Journal, Vol. 10, No. 11, November 1972, pp. 1466-1472.
4. Williams, Jerry G.; and Starnes, James H., Jr.: Some Applications of NASTRAN to the Buckling of Thin Cylindrical Shells with Cutouts. NASTRAN: Users' Experiences, NASA TM X-2637, 1972, pp. 73-97.
5. Starnes, James H., Jr.: The Effects of Cutouts on the Buckling of Thin Shells. Thin Shell Structures. Theory, Experiment and Design, edited by Y. C. Fung and E. E. Sechler, Prentice-Hall, Inc., 1974, pp. 289-304.
6. Haftka, Raphael T.; and Starnes, James H., Jr.: WIDOWAC (Wing Design Optimization with Aeroelastic Constraints); Program Manual. NASA TM X-3071, 1974.
7. Stephens, Wendell B.; Starnes, James H., Jr.; and Almroth, B. O.: Collapse of Long Cylindrical Shells Under Combined Bending and Pressure Loads. AIAA Journal, Vol. 13, No. 1, January 1975, pp. 20-25.

8. Haftka, Raphael T.; Starnes, James H., Jr.; Barton, Furman W.; and Dixon, Sidney C.: A Comparison of Two Types of Structural Optimization Procedures to Satisfy Flutter Requirements. *AIAA Journal*, Vol. 13, No. 10, October 1975, pp. 1333-1339.
9. Almroth, B. O.; and Starnes, James H., Jr.: The Computer in Shell Stability Analysis. *Journal of the Engineering Mechanics Division, ASCE*, Vol. 101, No. EM6, December 1975, pp. 873-888.
10. Haftka, Raphael T.; and Starnes, James H., Jr.: Applications of a Quadratic Extended Interior Penalty Function for Structural Optimization. *AIAA Journal*, Vol. 14, No. 6, June 1976, pp. 718-724.
11. Rhodes, Marvin D.; Williams, Jerry G.; and Starnes, James H., Jr.: Effect of Low-Velocity Impact Damage on the Compression Strength of Graphite-Epoxy Hat-Stiffened Panels, NASA TN D-8411, April 1977. Also, NASA TM X-73988, December 10, 1976.
12. Rhodes, Marvin D.; Williams, Jerry G.; and Starnes, James H., Jr.: Effect of Impact Damage on the Compression Strength of Filamentary-Composite Hat-Stiffened Panels. *The Science of Advanced Materials and Process Engineering Series*, Vol. 23, "Selected Applications of Materials for Products and Engineering," pp. 300-319, SAMPE, 1978.
13. Starnes, James H., Jr.; and Haftka, Raphael T.: Preliminary Design of Composite Wings for Buckling, Strength and Displacement Constraints. *Journal of Aircraft*, Vol. 16, No. 8, August 1979, pp. 564-570.
14. Starnes, James H., Jr.; Rhodes, Marvin D.; and Williams, Jerry G.: Effect of Impact Damage and Holes on the Compressive Strength of a Graphite-Epoxy Laminate. *Nondestructive Evaluation and Flaw Criticality for Composite Materials*, ASTM STP 696, R. B. Pipes, Ed., American Society for Testing and Materials, 1979, pp. 145-171.
15. Williams, Jerry G.; Anderson, Melvin S.; Rhodes, Marvin D.; Starnes, James H., Jr.; and Stroud, W. Jefferson: Recent Developments in the Design, Testing and Impact-Damage Tolerance of Stiffened Composite Panels. *Fibrous Composites in Structural Design*, E. M. Lenoe, D. W. Oplinger, and J. J. Burke, Eds., Plenum Press, New York, 1980, pp. 259-291. Also, NASA TM 80077, April 1979.
16. Rhodes, Marvin D.; Williams, Jerry G.; and Starnes, James H., Jr.: Low-Velocity Impact Damage in Fiber-Reinforced Laminated Epoxy Structures. *Polymer Composites*, Vol. 2, No. 1, January 1981, pp. 36-44.
17. Davis, Randall C.; and Starnes, James H., Jr.: Verification Tests for a Lightly-Loaded Cylinder Using Corrugated Graphite-Epoxy Compression Panels. NASA TP 1981, March 1982.
18. Haftka, Raphael T.; Starnes, James H., Jr.; and Nair, Sudhakar: Design for Global Damage Tolerance and Associated Mass Penalties. *Journal of Aircraft*, Vol. 20, No. 1, January 1983, pp. 83-88.
19. Starnes, James H., Jr.; and Williams, Jerry G.: Failure Characteristics of Graphite-Epoxy Structural Components Loaded in Compression. *Mechanics of Composite Materials: Recent Advances*, Z. Hashin and C. T. Herakovich, Eds., Plenum Press, New York, 1983, pp. 283-306.
20. Starnes, James H., Jr.; Knight, Norman F., Jr.; and Rouse, Marshall: Postbuckling Behavior of Selected Flat Stiffened Graphite-Epoxy Panels Loaded in Compression. *AIAA Journal*, Vol. 23, No. 8, August 1985, pp. 1236-1246.
21. Knight, Norman F., Jr.; and Starnes, James H., Jr.: Postbuckling Behavior of Axially Compressed Graphite-Epoxy Cylindrical Panels with Circular Holes. *ASME Journal of Pressure Vessel Technology*, Vol. 107, No. 4, November 1985, pp. 394-402.

22. Gurdal, Zafer; Haftka, Raphael T.; and Starnes, James H., Jr.: The Effect of Slots on the Buckling and Postbuckling Behavior of Laminated Plates. *Journal of Composites Technology and Research*, Vol. 7, No. 3, Fall 1985, pp. 82-87.
23. Card, Michael F.; and Starnes, James H., Jr.: Current Research in Composite Structures at NASA Langley Research Center. *Sadhana- Academy Proceedings in Engineering Science*, Indian Academy of Science, Vol. II, 1987, pp. 273-294.
24. Haftka, Raphael T.; and Starnes, James H., Jr.: Use of Optimum Stiffness Tailoring to Improve the Compressive Strength of Composite Plates with Holes. *AIAA Journal*, Vol. 26, No. 1, January 1988, pp. 72-77.
25. Knight, Norman F., Jr.; and Starnes, James H., Jr.: Postbuckling Behavior of Selected Curved Stiffened Graphite-Epoxy Panels Loaded in Axial Compression. *AIAA Journal*, Vol. 26, No. 3, March 1988, pp. 344-352.
26. Hyer, Michael W.; Loup, Douglas C.; and Starnes, James H., Jr.: Stiffener/Skin Interactions in Pressure-Loaded Composite Panels. *AIAA Journal*, Vol. 28, No. 3, March 1990, pp. 532-537.
27. Bonanni, David L.; Johnson, Eric R.; and Starnes, James H., Jr.: Local Crippling of Thin-Walled Graphite-Epoxy Stiffener Section. *AIAA Journal*, Vol. 29, No. 11, November 1991, pp. 1951-1959.
28. Swanson, Gary D.; Gurdal, Zafer; and Starnes, James H., Jr.: Structural Efficiency Study of Graphite-Epoxy Rib Structures. *Journal of Aircraft*, Vol. 27, No. 12, December 1991, pp. 1011-1020.
29. Nagendra, S.; Haftka, R. T.; Gurdal, Z.; and Starnes, James H., Jr.: Design of a Blade-Stiffened Composite Panel with a Hole. *Composite Structures*, Vol. 18, 1991, pp. 195-219.
30. Curry, James M.; Johnson, Eric R.; and Starnes, James H., Jr.: Effect of Dropped Plies on the Strength of Graphite-Epoxy Laminates. *AIAA Journal*, Vol. 30, No. 2, February 1992, pp. 449-456.
31. Noor, Ahmed K.; Starnes, James H., Jr.; and Waters, W. Allen, Jr.: Numerical and Experimental Simulations of the Postbuckling Response of Laminated Anisotropic Panels. *Journal of Aerospace Engineering, ASCE*, Vol. 5, No. 3, July 1992, pp. 347-368.
32. Wieland, Todd M.; Morton, John; and Starnes, James H., Jr.: Scale Effects in Buckling, Postbuckling, and Crippling of Graphite-Epoxy Z-section Stiffeners. *AIAA Journal*, Vol. 30, No. 11, November 1992, pp. 2750-2757.
33. Sridharan, Srinivasan; Zeggane, Madjid; and Starnes, James H., Jr.: Postbuckling Response of Stiffened Composite Cylindrical Shells. *AIAA Journal*, Vol. 30, No. 12, December 1992, pp. 2897-2905.
34. Reddy, J. N.; and Starnes, James H., Jr.: General Buckling of Stiffened Circular Cylindrical Shells According to a Layerwise Theory. *Computers & Structures*, Vol. 49, No. 4, November 1993, pp. 605-616.
35. Noor, Ahmed K.; Starnes, James H., Jr.; and Peters, Jeanne M.: Thermomechanical Buckling and Postbuckling of Multilayered Composite Panels. *Composite Structures*, Vol. 23, 1993, pp. 233-251.
36. Elishakoff, I.; Cai, G. Q.; and Starnes, J. H., Jr.: Non-Linear Buckling of a Column with Initial Imperfections via Stochastic and Non-Stochastic Convex Models. *International Journal of Non-Linear Mechanics*, Vol. 29, No. 1, January 1994, pp. 71-82.

37. Nagendra, S.; Gurdal, Z.; Haftka, R. T. and Starnes, J. H., Jr.: Buckling and Failure Characteristics of Compression-Loaded Stiffened Composite Panels with a Hole. *Composite Structures*, Vol. 28, 1994, pp. 1-17.
38. Elishakoff, I.; Li, Y. W.; and Starnes, James H., Jr.: A Deterministic Method to Predict the Effect of Unknown-But-Bounded Elastic Moduli on the Buckling of Composite Structures. *Computer Methods in Applied Mechanics and Engineering*, Vol. 111, 1994, pp. 155-167.
39. Koiter, W. T.; Elishakoff, I.; Lin, T. W.; and Starnes, J. H., Jr.: Buckling of an Axially Compressed Cylindrical Shell of Variable Thickness. *International Journal of Solids and Structures*, Vol. 31, No. 6, 1994, pp. 797-805.
40. Prasad, Chunchu B.; Ambur, Damodar R.; and Starnes, James H., Jr.: Response of Laminated Composite Plates to Low-Speed Impact by Different Impactors. *AIAA Journal*, Vol. 32, No. 6, June 1994, pp. 1270-1277.
41. Noor, Ahmed K.; Starnes, James H., Jr.; and Peters, Jeanne M.: Thermomechanical Buckling of Multilayered Composite Panels with Cutouts. *AIAA Journal*, Vol. 32, No. 7, July 1994, pp. 1507-1519.
42. Elishakoff, I.; Cai, G. Q.; and Starnes, James H., Jr.: Probabilistic and Convex Models of Uncertainty in Buckling of Structures. In *Structural Safety & Reliability*, Schueller, G. I.; Shinozuka, M. and Yao, J. T. P., Editors, A. A. Balkema, Rotterdam, The Netherlands, 1994, pp. 761-766.
43. Sridharan, Shrinivasan; Zeggane, Majid; and Starnes, James H., Jr.: Mode Interaction Analysis of Stiffened Shells Using "Locally Buckled" Elements. *International Journal of Solids and Structures*, Vol. 31, No. 17, 1994, pp. 2347-2366.
44. Elishakoff, I.; Cai, G. Q.; and Starnes, James H., Jr.: Non-linear Buckling of a Column with Initial Imperfection via Stochastic and Non-stochastic Convex Models. *International Journal of Non-Linear Mechanics*, Vol. 29, No. 1, 1994, pp. 71-82.
45. Ambur, Damodar R.; Starnes, James H., Jr.; and Prasad, C. B.: Low-Speed-Impact Damage-Initiation Characteristics of Selected Laminated Composite Plates. *AIAA Journal*, Vol. 33, No. 10, October 1995, pp. 1919-1925.
46. Ambur, Damodar R.; Starnes, James H., Jr.; and Prasad, Chunchu B.: Influence of Impact Parameters on the Response of Laminated Composite Plates. *Composite Materials: Fatigue and Fracture - Fifth Volume*, ASTM STP 1230, R. H. Martin, Ed., American Society for Testing and Materials, 1995, pp. 389-404.
47. Elishakoff, I.; Marcus, S.; and Starnes, J. H., Jr.: On Vibrational Imperfection Sensitivity of Augusti's Model Structure in the Vicinity of a Nonlinear Static State. *International Journal of Non-Linear Mechanics*, Vol. 31, No. 2, 1996, pp. 229-236.
48. Librescu, Liviu; Lin, W.; Nemeth, Michael P.; and Starnes, James H., Jr.: Frequency-Load Interaction of Geometrically Imperfect Curved Panels Subjected to Heating. *AIAA Journal*, Vol. 34, No. 1 January 1996, pp. 166-177.
49. Noor, A. K.; Starnes, J. H., Jr.; and Peters, J. P.: Mechanics of Postbuckling of Multilayered Composite Panels with a Cutout. *Composite Structures*, Vol. 30, No. 4, 1995, pp. 369-388.
50. Rezaeepazhand, J.; Simitises, G. J.; Starnes, J. H., Jr.: Use of Scaled-Down Models for Predicting Vibration Responses of Laminated Plates. *Composite Structures*, Vol. 30, No. 4, 1995, pp. 419-426.

51. Rezaeepazhand, J.; Simiteses, G. J.; Starnes, J. H., Jr.: Design of Scaled Down Models for Stability of Laminated Plates. *AIAA Journal*, Vol. 33, No. 3, March 1995, pp. 515-519.
52. Boitnott, Richard L.; Starnes, James H., Jr.; and Johnson, Eric R.: Nonlinear Response and Failure Characteristics of Pressurized Composite Curved Panels. *Journal of Aerospace Engineering, ASCE*, Vol. 8, No. 3, July 1995, pp. 129-138.
53. Madenci, E.; Ileri, L.; and Starnes, J. H., Jr.: Analysis of Pin-Loaded Holes in Composite Laminates Under Combined Bearing-Bypass and Shear Loading. *International Journal of Solids and Structures*, Vol. 32, No. 14, 1995, pp. 2053-2062.
54. Li, Y. W.; Elishakoff, I.; Starnes, J. H., Jr.; and Shinozuke, M.: Nonlinear Buckling of a Structure with Random Imperfection and Random Axial Compression by a Conditional Simulation Technique. *Computers & Structures*, Vol. 56, No. 1, 1995, pp. 59-64.
55. Li, Y. W.; Elishakoff, I.; and Starnes, J. H., Jr.: Axial Buckling of Composite Cylindrical Shells with Periodic Thickness Variation. *Computers & Structures*, Vol. 56, No. 1, 1995, pp. 65-74.
56. Librescu, Liviu; Lin, W.; Nemeth, Michael P.; and Starnes, James H., Jr.: Thermomechanical Postbuckling of Geometrically Imperfect Flat and Curved Panels Taking into Account Tangential Edge Constraints. *Journal of Thermal Stresses*, Vol. 18, 1995, pp. 465-482.
57. Noor, Ahmed K.; Starnes, James H., Jr.; and Peters, Jeanne M.: Nonlinear and Postbuckling Responses of Curved Composite Panels with Cutouts. *Composite Structures*, Vol. 34, No. 2, February 1996, pp. 213-240.
58. Librescu, L.; Lin, W.; Nemeth, M. P.; and Starnes, J. H., Jr.: Vibration of Geometrically Imperfect Panels Subjected to Thermal and Mechanical Loads. *Journal of Spacecraft and Rockets*, Vol. 33, No. 2, March-April 1996, pp. 285-291.
59. Li, Y. W.; Elishakoff, I.; and Starnes, J. H., Jr.: Buckling Mode Localization in a Multi-span Periodic Structure with a Disorder in a Single Span. *Journal of Chaos, Solutions and Fractals*, Vol. 5, No. 6, 1995, pp. 955-969.
60. Elishakoff, I.; Li, Y. W.; and Starnes, J. H., Jr.: Buckling Mode Localization in Elastic Plates due to Misplacement in the Stiffener Location. *Journal of Chaos, Solutions and Fractals*, Vol. 5, No. 8, 1995, pp. 1517-1531.
61. Rezaeepazhand, J.; Simiteses, G. J.; Starnes, J. H., Jr.: Scale Models for Laminated Cylindrical Shells Subjected to Axial Compression. *Composite Structures*, Vol. 34, No. 4, April 1996, pp. 371-379.
62. Li, Y. W.; Elishakoff, I.; Starnes, J. H., Jr.; and Shinozuke, M.: Prediction of Natural Frequency and Buckling Load Variability Due to Uncertainty in Material Properties by Convex Modeling. *Fields Institute Communications, American Mathematical Society*, Vol. 9, 1996, pp. 139-154.
63. Rezaeepazhand, J.; Simiteses, G. J.; Starnes, J. H., Jr.: Design of Scaled Down Models for Predicting Shell Vibration Response. *Journal of Sound and Vibrations*, Vol. 195, No. 2, 1996, pp. 301-311.
64. Zhu, L. P.; Elishakoff, I.; and Starnes, J. H., Jr.: Derivation of Multi-Dimensional Ellipsoidal Convex Model for Experimental Data. *Mathematical Computing and Modeling*, Vol. 24, No. 2, 1996, pp. 103-114.

65. Elishakoff, I.; Li, Y. W.; and Starnes, J. H., Jr.: Imperfection Sensitivity Due to the Elastic Moduli in the Roorda-Koiter Frame. *Journal of Chaos, Solutions and Fractals*, Vol. 7., No. 8, 1996, pp. 1179-1186.
66. Nemeth, Michael P.; Britt, Vicki O.; Collins, Timothy J.; and Starnes, James H., Jr.: Nonlinear Analysis of the Space Shuttle Superlightweight External Fuel Tank. NASA TP 3616, December 1996.
67. Qiu, Zhiping; Elishakoff, I.; and Starnes, James H., Jr.: The Bound Set of Possible Eigenvalues of Structures with Uncertain But Non-Random Parameters. *Journal of Chaos, Solutions & Fractals*, Vol. 7, No. 11, 1996, pp. 1845-1857.
68. Elishakoff, I.; Li, Y. W.; and Starnes, James H., Jr.: Passive Control of Buckling Deformation Via Anderson Localization Phenomenon. *Journal of Chaos, Solutions & Fractals*, Vol. 8, No. 1, 1997, pp. 59-75.
69. Perry, Christine A.; Gurdal, Zafer; and Starnes, James H. Jr.: Minimum-Weight Design of Compressively Loaded Stiffened Panels for Postbuckling Response. *Engineering Optimization*, Vol. 28, 1997, pp. 175-197.
70. Noor, Ahmed K.; Starnes, James H., Jr.; and Peters, Jeanne M.: Curved Sandwich Panels Subjected to Temperature Gradient and Mechanical Loads. *Journal of Aerospace Engineering*, Vol. 10, No. 4, October 1997, pp. 143-161.
71. Hilburger, M. W.; Waas, A. M.; and Starnes, J. H., Jr.: Modeling the Dynamic Response and Establishing Post-buckling/Post Snap-thru Equilibrium of Discrete Structures via a Transient Analysis. *Journal of Applied Mechanics*, Vol., 64, No. 3, September 1997, pp. 590-595.
72. Barut, A.; Madenci, E.; Britt, V. O.; and Starnes, J. H., Jr.: Buckling of a Thin, Tension-Loaded, Composite Plate with an Inclined Crack. *Journal of Engineering Fracture Mechanics*, Vol. 58, No. 3, October 1997, pp. 233-248.
73. Li, Yi-Wei; Elishakoff, Isaac; Starnes, James H., Jr.; and Bushnell, David: Effect of the Thickness Variation and Initial Imperfection on Buckling of Composite Cylindrical Shells: Asymptotic Analysis and Numerical Results by BOSOR4 and PANDA2. *International Journal of Solids and Structures*, Vol. 34, No. 28, 1997, pp. 3755-3767.
74. Noor, Ahmed K.; Starnes, James H., Jr.; and Peters, Jeanne P.: Thermomechanical Buckling and Postbuckling Responses of Composite Panels with Skewed Stiffeners. *Finite Elements in Analysis and Design*, Vol. 27, 1997, pp. 193-214.
75. Nemeth, Michael P.; and Starnes, James H., Jr.: The NASA Monographs on Shell Stability Design Recommendations *A review and Suggested Improvements*. NASA/TP-1998-206290, January 1998.
76. Harris, Charles E.; Newman, James C., Jr.; Piascik, Robert S.; and Starnes, James H., Jr.: Analytical Methodology for Predicting the Onset of Widespread Fatigue Damage in Fuselage Structure. *Journal of Aircraft*, Vol. 35, No. 2, March-April 1998, pp. 307-317.
77. Venter, Gerhard; Haftka, Raphael T.; and Starnes, James H., Jr.: Construction of Response Surface Approximations for Design Optimization. *AIAA Journal*, Vol. 26, No. 12, December 1998, pp. 2242-2249.

78. Hilburger, Mark W.; Waas, Anthony M. and Starnes, James H., Jr.: Response of Composite Shells with Cutouts and Subjected to Internal Pressure and Axial Compression Loads. *AIAA Journal*, Vol. 37, No. 2, February 1999, pp.232-237.
79. Harris, Charles E.; Newman, James C., Jr.; Piascik, Robert S.; and Starnes, James H., Jr.: Analytical Methodology for Predicting the Onset of Widespread Fatigue Damage in Fuselage Structure. *Journal of Aircraft*, Vol., No. 2, March-April 1998, pp. 307-317.
80. Nemeth, Michael P.; Britt, Vicki O.; Young, Richard D.; Collins, Timothy J.; and Starnes, James H., Jr.: Nonlinear Behavior of the Space Shuttle Superlightweight Liquid-Oxygen Tank Under Prelaunch Loads. *Journal of Spacecraft and Rockets*, Vol. 6, No. 6, November-December 1999, pp. 788-803.
81. Nemeth, Michael P.; Young, Richard D.; Collins, Timothy J.; and Starnes, James H., Jr.: Effects of Welding-Induced Imperfections on the Behavior of the Space Shuttle Superlightweight Tank. *Journal of Spacecraft and Rockets*, Vol. 6, No. 6, November-December 1999, pp. 812-819.
82. Young, Richard D.; Nemeth, Michael P.; Collins, Timothy J.; and Starnes, James H., Jr.: Nonlinear Behavior of the Space Shuttle Superlightweight Tank Under Booster Ascent Loads. *Journal of Spacecraft and Rockets*, Vol. 6, No. 6, November-December 1999, pp. 820-827.
83. Nemeth, Michael P.; Young, Richard D.; Collins, Timothy J.; and Starnes, James H., Jr.: Nonlinear Behavior of the Space Shuttle Superlightweight Tank Under End-of-Flight Loads. *Journal of Spacecraft and Rockets*, Vol. 6, No. 6, November-December 1999, pp. 828-835.
84. Noor, Ahmed. K.; Starnes, James H., Jr.; and Peters, Jeanne M.: Uncertainty Analysis of Composite Structures. *Computer Methods in Applied Mechanics and Engineering*, Vol. 185, Nos. 2-4, May 2000, pp. 413-432.
85. Librescu, L.; Nemeth, M. P.; Starnes, J. H., Jr.; and Lin, W.: Nonlinear Response of Flat and Curved Panels Subjected to Thermomechanical Loading. *Journal of Thermal Stresses*, Vol. 23, No. 6, August 2000, pp. 549-582.
86. Starnes, James H., Jr.*; Hilburger, Mark, W.; and Nemeth, Michael P.: The Effects of Initial Imperfections on the Buckling of Composite Shells. *Composite Structures: Theory and Practice*, P. Grant and C. Q. Rousseau, Eds., ASTM STP 1383, American Society for Testing and Materials, October 2000, pp. 529-550.
87. Hilberger, Mark. W; Nemeth, Michael P.; and Starnes, James H., Jr.: Effective Width of Compression-Loaded Plates With a Cutout. *NASA/TP-2000-210538*, October 2000.
88. Elishakoff, Isaac; Lin, K. K.; and Starnes, James H., Jr.: *Nonclassical Problems in the Theory of Elastic Stability*, Cambridge University Press, New York. January 2001
89. Noor, Ahmed K.; Starnes, James H., Jr.; and Peters, Jeanne M.: Uncertainty Analysis of Stiffened Composite Panels. *Composite Structures*, Vol. 51. No. 2, February 2001, pp. 139-158.
90. Park, Oung; Haftka, Raphael T.; Sankar, Bhavani V.; Starnes, James H. Jr.; and Nagendra, Somanath: Analytical-Experimental Correlation of a Stiffened Composite Panel Loaded in Axial Compression. *Journal of Aircraft*, Vol. 38, No. 2, March-April 2001, pp. 379-387.
91. Simitese, George J.; Starnes, James H., Jr.; and Rezaeepazhand, J.: Structural Similitude and Scaling Laws for Plates and Shells: A Review. *Advances in the Mechanics of Plates and Shells (The Avinoam Libai Anniversary Volume)*, D. Durban, D. Givoly and J. G. Simmons, Eds., Kluwer Academic Publishers, 2001, pp. 295-310.

92. Cowan, Amy L.; Davila, Carlos G.; Johnson, Eric R.; and Starnes, James H., Jr.: Crack Path Bifurcation at a Tear Strap in a Pressurized Shell. Accepted for publication in Computers and Structures.
93. Nemeth, Michael P.; Young, Richard D.; Collins, Timothy J.; and Starnes, James H., Jr.: Effects of Initial Geometric Imperfections on the Non-linear Response of the Space Shuttle Superlightweight Liquid-Oxygen Tank. International Journal of Nonlinear Mechanics, Vol. 37, January 2002, pp. 723-744.
94. Hilburger, Mark W.; and Starnes, James H., Jr.: Effects of Imperfections on the Buckling Response of Compression-Loaded Composite Shells. Accepted for publication in International Journal of Nonlinear Mechanics.
95. Harris, Charles E.; Starnes, James H., Jr.; and Shuart, Mark S.: Assessment of the State-of-the-Art for the Design and Manufacturing of Large Composite Structures. Accepted for publication in the Journal of Aircraft .
96. Corona, Edmundo; Waters, W. Allen, Jr.; and Starnes, James H., Jr.: Collapse of Rectangular Plates with Cracks. Accepted for publication in the AIAA Journal.
97. Arbocz, Johann; and Starnes, James H., Jr.: Futrue Directions and Challenges in Shell Stability Analysis. Invited paper accepted for publication by the Journal of Thin-Walled Structures.
98. Arbocz, Johann; and Starnes, James H., Jr.: On a High-Fidelity Hierarchical Approach to Buckling Load Calculations. Invited paper for an Honorary Volume for Prof. C. R. Callodine, Kluwer Academic Publishers. 2002.

Referenceable Oral Presentations (* Indicates presenter of paper)

1. Stein, Manuel*; and Starnes, James H., Jr.: Numerical Analysis of Stiffened Shear Webs in the Postbuckling Range. Numerical Solutions of Nonlinear Structural Problems, edited by R. F. Hartung, AMD-Vol. 6, ASME, New York, 1973, pp. 211-223.
2. Haftka, Raphael T.; Starnes, James H., Jr.*; and Barton, Furman W.: A Comparison of Two Types of Structural Optimization Procedures for Satisfying Flutter Requirements. Presented at the AIAA/ASME/SAE 15th Structures, Structural Dynamics, and Materials Conference, Las Vegas, Nevada, April 17-19, 1974. AIAA Paper No. 74-405, 1974.
3. Stephens, Wendell B.*; Starnes, James H., Jr.; and Almroth, B. O.: Collapse of Long Cylindrical Shells Under Combined Bending and Pressure Loads. Presented at the AIAA/ASME/SAE 15th Structures, Structural Dynamics, and Materials Conference, Las Vegas, Nevada, April 17-19, 1974. AIAA Paper No. 74-407.
4. Haftka, Raphael T.; and Starnes, James H., Jr.*: Application of a Quadratic Extended Interior Penalty Function for Structural Optimization. Presented at the AIAA/ASME/SAE 16th Structures, Structural Dynamics, and Materials Conference, Denver, Colorado, May 27-29, 1975. AIAA Paper No. 75-764, 1975.
5. Starnes, James H., Jr.*; and Haftka, Raphael T.: Preliminary Design of Composite Wings for Buckling Strength and Displacement Constraints. Presented at the AIAA/ASME 19th Structures, Structural

Dynamics, and Materials Conference, Bethesda, Maryland, April 3-5, 1978. AIAA Paper No. 78-466, 1978.

6. Starnes, James H., Jr.: Compression Strength of Graphite-Epoxy Structural Components with Cutouts. Proceedings of the Fifth Annual Mechanics of Composites Review, AFWAL-TR-80-4020, U.S. Air Force, January 1980, pp. 125-133.
7. Starnes, James H., Jr.*; and Haftka, Raphael T.: Preliminary Design of Composite Wing-Box Structures for Global Damage Tolerance. Proceedings of the AIAA/ASME/ASCE/AHS 21st Structures, Structural Dynamics, and Materials Conference, Seattle, Washington, May 12-14, 1980. AIAA Paper No. 80-0755.
8. Starnes, James H., Jr.: Buckling and Postbuckling Research on Flat and Curved Composite Panels. Proceedings of the Second Industry Review of the NASA Aircraft Energy Efficiency (ACEE) Composites Program, Seattle, WA, August 11-13, 1980. NASA CP 2142, August 1980, pp. 35-78.
9. Starnes, James H., Jr.*; and Rouse, Marshall: Postbuckling Strength of Stiffened Flat 24-Ply Graphite-Epoxy Panels Loaded in Compression. Proceedings of the Sixth Annual Mechanics of Composites Review, AFWAL-TR-81-4001, U.S. Air Force, February 1981, pp. 106-112.
10. Starnes, James H., Jr.; and Rouse, Marshall*: Postbuckling and Failure Characteristics of Selected Flat Rectangular Graphite-Epoxy Plates Loaded in Compression. Proceedings of the AIAA/ASME/ASCE/AHS 22nd Structures, Structural Dynamics, and Materials Conference, Atlanta, Georgia, April 6-8, 1981. AIAA Paper No. 81-0543.
11. Starnes, James H., Jr.; Knight, Norman F., Jr.*; and Rouse, Marshall: Postbuckling Behavior of Selected Flat Stiffened Graphite-Epoxy Panels Loaded in Compression. Proceedings of the AIAA/ASME/ASCE/AHS 23rd Structures, Structural Dynamics, and Materials Conference, New Orleans, LA, May 10-12, 1982. AIAA Paper No. 82-0777.
12. Starnes, James H., Jr.*; and Williams, Jerry G.: Failure Characteristics of Graphite-Epoxy Structural Components Loaded in Compression. Presented at the 1st International Union of Theoretical and Applied Mechanics Symposium on Mechanics of Composite Materials, Blacksburg, VA, August 16-19, 1982. NASA TM 84552, September 1982.
13. Starnes, James H., Jr.*; Rouse, Marshall; Stein, Manuel; and Knight, Norman F., Jr.: Postbuckling Behavior of Graphite-Epoxy Panels Loaded in Compression. Eighth Annual AFWAL Mechanics of Composites Review, Dayton, OH, October 5-7, 1982. AFWAL-TR-83-4005, April 1983, pp. 1-12.
14. Noor, A. K.; Shuart, M. J.; Starnes, J. H., Jr.; and Williams, J. G.: Editors for Failure Analysis and Mechanisms of Failure of Fibrous Composite Structures. NASA CP 2278, August 1983.
15. Boitnott, R. L.*; Starnes, J. H., Jr.; and Johnson, E. R.: Nonlinear Response of Internally Pressurized Graphite-Epoxy Cylindrical Panels. Proceedings of the AIAA/ASME/ASCE/AHS 25th Structures, Structural Dynamics and Materials Conference, Palm Springs, CA, May 14-16, 1984. AIAA Paper No. 84-0955.
16. Knight, Norman F., Jr.*; and Starnes, J. H., Jr.: Postbuckling Behavior of Compression-Loaded Graphite-Epoxy Cylindrical Panels with Circular Holes. Invited Paper in honor of B. O. Almroth for the ASME Joint Pressure Vessels and Piping/Applied Mechanics Conference, San Antonio, TX, June 17-21, 1984. In Collapse Analysis of Structures, PVP-Vol. 84, L. H. Sobel and K. Thomas, Eds., 1984, pp. 153-168.

17. Starnes, James H., Jr.*; Dickson, John N.; and Rouse, Marshall: Postbuckling Behavior of Graphite-Epoxy Panels. Presented at the NASA ACEE Composite Structures Technology Conference, Seattle, WA, August 13-16, 1984. In NASA CP-2321, August 1984, pp. 137-159.
18. Haftka, Raphael T.*; and Starnes, James H., Jr.: Use of Optimum Stiffness Tailoring to Improve the Compressive Strength of Composite Plates with Holes. Presented at the AIAA/ASME/ASCE/AHS 26th Structures, Structural Dynamics and Material Conference, Orlando, FL, April 15-17, 1985. AIAA Paper No. 85-0721-CP.
19. Knight, Norman F., Jr.; and Starnes, James H., Jr.*: Postbuckling Behavior of Selected Curved Stiffened Graphite-Epoxy Panels Loaded in Compression. Presented at the AIAA/ASME/ASCE/AHS 26th Structures, Structural Dynamics and Materials Conference, Orlando, FL, April 15-17, 1985. AIAA Paper No. 85-0768-CP.
20. Boitnott, Richard L.*; Johnson, Eric R.; and Starnes, James H., Jr.: A Nonlinear Analysis of Infinitely Long Graphite-Epoxy Cylindrical Panels Loaded with Internal Pressure. Presented at the AIAA/ASME/ASCE/AHS 26th Structures, Structural Dynamics and Materials Conference, Orlando, FL, April 15-17, 1985. AIAA Paper No. 85-0770-CP.
21. Dickson, John N.*; Biggers, Sherrill B.; and Starnes, James H., Jr.: Stiffener Attachment Concepts for Graphite-Epoxy Panels Designed for Postbuckling Strength. Presented at the 7th DoD/NASA Conference on Fibrous Composites in Structural Design, Denver, CO, June 17-20, 1985. AFWAL-TR-85-3094, June 1985, pp. v(a)95-v(a)109.
22. Knight, Norman F., Jr.; Starnes, James H., Jr.; and Waters, W. Allen*: Postbuckling Behavior of Selected Graphite-Epoxy Cylindrical Panels Loaded in Axial Compression. Presented at the AIAA/ASME/ASCE/AHS 27th Structures, Structural Dynamics and Materials Conference, San Antonio, TX, May 19-21, 1986. AIAA Paper No. 86-0881-CP.
23. Loup, Douglas C.*; Hyer, Michael W.; and Starnes, James H., Jr.: Stiffener-Skin Interactions in Pressure-Loaded Composite Panels. Presented at the AIAA/ASME/ASCE/AHS 27th Structures, Structural Dynamics and Materials Conference, San Antonio, TX, May 19-21, 1986. AIAA Paper No. 86-0917-CP.
24. Curry, James M.*; Johnson, Eric R.; and Starnes, James H., Jr.: Effect of Dropped Plies on the Strength of Graphite-Epoxy Laminates. Presented at the AIAA/ASME/ASCE/AHS 28th Structures, Structural Dynamics and Materials Conference, Monterey, CA, April 6-8, 1987. AIAA Paper No. 87-0874-CP.
25. Card, Michael F.*; and Starnes, James H., Jr.: Current Research in Composite Structures at NASA Langley Research Center. International Conference on Composite Materials and Structures, Indian Institute of Technology, Madras, India. In Composite Materials and Structures, K. A. V. Pandalai, Ed., Indian Academy of Science, Bangalore, Vol. II, 1988, pp. 5-26.
26. Swanson, Gary D.*; Gurdal, Zafer; and Starnes, James H., Jr.: Structural Efficiency Study of Graphite-Epoxy Aircraft Rib Structures. Presented at the AIAA/ASME/ASCE/AHS/ASC 29th Structures, Structural Dynamics and Materials Conference, Williamsburg, VA, April 18-20, 1988. AIAA Paper No. 88-2218-CP.
27. Bonanni, David L.*; Johnson, Eric R.; and Starnes, James H., Jr.: Local Crippling of Thin-Walled Graphite-Epoxy Stiffener Sections. Presented at the AIAA/ASME/ASCE/AHS/ASC 29th Structures, Structural Dynamics and Materials Conference, Williamsburg, VA, April 18-20, 1988. AIAA Paper No. 88-2251-CP.
28. Noor, Ahmed K.*; Starnes, James H., Jr.; and Waters, W. Allen, Jr.:

Numerical and Experimental Simulations of the Postbuckling Response of Laminated Anisotropic Panels. Presented at the AIAA/ASME/AHS/ASC 31st Structures, Structural Dynamics, and Materials Conference, Long Beach, CA, April 2-4, 1990. AIAA Paper No. 90-0964.

29. Starnes, James H., Jr.: Comparison of Analysis and Test Results for Composite Structures. Presented at the AGARD 70th Structures and Materials Panel Meeting Workshop on Analytical Qualification of Aircraft Structures, Sorrento, Italy, April 2-6, 1990.
30. Davis, John G., Jr.*; Starnes, James H., Jr.; and Johnston, Norman J.: Advanced Composite Research and Development for Transport Aircraft. Presented at the 17th Congress of the International Council of the Aeronautical Sciences, Stockholm, Sweden, September 10-14, 1990.
31. Weiland, T*.; Morton, J.; and Starnes, James H., Jr.: Scale Effects in Buckling, Postbuckling and Crippling of Graphite-Epoxy Z-Section Stiffeners. Presented at the AIAA/ASME/ASCE/AHS/ASC 32nd Structures, Structural Dynamics and Materials Conference, Baltimore, MD, April 8-10, 1991. AIAA Paper No. 91-0912.
32. Starnes, James H., Jr.* and Shuart, Mark J.: Behavior of Composite Structures Subjected to Compressive Loading. Presented at the AGARD 73rd Structures and Materials Panel Meeting Workshop on the Utilization of Advanced Composites in Military Aircraft, San Diego, CA, October 7-8, 1991.
33. Starnes, James H., Jr.* and Camarda, Charles J.: Analysis and Design Technology for High-Speed Aircraft Structures. Presented at the NASA/UVa Specialty Workshop on Computational Structures Technology for Airframes, Hampton, VA, September 4-5, 1991. NASA CP 3142, 1992, pp. 137-172.
34. Starnes, James H., Jr.* and Shuart, Mark J.: Composite Fuselage Shell Structures Research at NASA Langley Research Center. Presented at the Ninth DoD/NASA/FAA Conference on Fibrous Composites in Structural Design, Lake Tahoe, NV, November 4-7, 1991. NASA CP 3154, 1992, pp. 57-83.
35. Starnes, James H., Jr.* and Britt, Vicki O.: Nonlinear Stiffened Shell Research at NASA Langley Research Center for Damaged Fuselage Structures. Presented at the International Conference on Aging Aircraft and Structural Airworthiness, Washington, DC, November, 19-21, 1991. NASA CP 3160, 1992, pp. 203-220.
36. Noor, Ahmed K.*; Starnes, James H., Jr. and Peters, Jeanne M.: Thermomechanical Buckling and Postbuckling of Multilayered Composite Panels. Presented at the AIAA/ASME/ASCE/AHS/ASC 33rd Structures, Structural Dynamics and Materials Conference, Dallas, TX, April 13-15, 1992. AIAA Paper No. 92-2541.
37. Elishakoff, Isaac*; Arbocz, Johann; and Starnes, James H., Jr.: Buckling of Stiffened Shells with Random Initial Imperfections, Thickness and Boundary Conditions. Presented at the AIAA/ASME/ASCE/AHS/ASC 33rd Structures, Structural Dynamics and Materials Conference, Dallas, TX, April 13-15, 1992. AIAA Paper No. 92-2233.
38. Starnes, James H., Jr.* and Britt, Vicki O.: Nonlinear Analysis of Stiffened Fuselage Shells with Local Damage. Presented at the International Workshop on Structural Integrity of Aging Airplanes, Atlanta, GA, March 31- April 2, 1992.
39. Noor, Ahmed K.; Housner, J. M.; Starnes, J. H., Jr.; Hopkins, D. A.; and Chamis, C. C. (Compilers): Computational Structures Technology for Airframes and Propulsion Systems. NASA CP-3142, May 1992, 527 p.

40. Starnes, James H., Jr.: Advanced Composites Technology Research at NASA Langley Research Center. Presented at the American Society For Composites Seventh Technical Conference on Composite Materials, University Park, PA, October 13-15, 1992.
41. Nagendra, S.; Gurdal, Z.; Haftka, R. T.; and Starnes, J. H., Jr.: Buckling and Failure Characteristics of Compression Loaded Stiffened Composite Panels with a Hole. Proceedings of the American Society for Composites Seventh Technical Conference, University Park, PA, October 13-15, 1992, pp. 650-661.
42. Prasad, C. B.; Ambur, D. R.*; and Starnes, James H., Jr.: Response of Laminated Composite Plates to Low-Speed Impact by Airgun-Propelled and Dropped-Weight Impactors. Presented at the AIAA/ASME/ASCE/AHS/ASC 34th Structures, Structural Dynamics and Materials Conference, La Jolla, CA, April 19-21, 1993. AIAA Paper No. 93-1402.
43. Noor, Ahmed K.; Starnes, James H., Jr.*; and Peters, Jeanne M.: Thermomechanical Buckling of Multilayered Composite Panels with Cutouts. Presented at the AIAA/ASME/ASCE/AHS/ASC 34th Structures, Structural Dynamics and Materials Conference, La Jolla, CA, April 19-21, 1993. AIAA Paper No. 93-1336.
44. Librescu, L.*; Chandiramani, N.; Nemeth, M. P.; and Starnes, J. H., Jr.: Postbuckling of Laminated Flat and Curved Panels under Combined Thermal and Mechanical Loadings. Presented at the AIAA/ASME/ASCE/AHS/ASC 34th Structures, Structural Dynamics and Materials Conference, La Jolla, CA, April 19-21, 1993. AIAA Paper No. 93-1563.
45. Ambur, Damodar R.*; Starnes, James H., Jr.; and Prasad, Chunchu B.: Influence of Impact Parameters on the Response of Laminated Composite Plates. Presented at the ASTM Fifth Symposium on Composite Materials, Atlanta, GA, May 4-7, 1993.
46. Ambur, Damodar R.*; Starnes, James H., Jr.; and Prasad, Chunchu B.: Influence of Large Deformations and Transverse Shear Effects on the Low-Speed Impact Response on Graphite-Epoxy Plates. Presented at the Ninth International Conference on Composite Materials, Madrid, Spain, July 12-16, 1993. Composites Properties and Applications, Vol. 5, July 1993, pp. 456-464.
47. Fuchs, Hannes P.*; Starnes, James H., Jr.; and Hyer, Michael W.: Prebuckling and Collapse Response of Thin-Walled Composite Cylinders Subjected to Bending Loads. Presented at the Ninth International Conference on Composite Materials, Madrid, Spain, July 12-16, 1993. Composites Properties and Applications, Vol. 6, July 1993, pp. 410-417.
48. Shridharan, Srinivasan*; and Starnes, James H., Jr.: Mode Interaction in Stiffened Composite Panels. Presented at the First Joint ASCE/ASME/SES Meeting, Charlottesville, VA, June 6-9, 1993.
49. Perry, Christine A.*; Gurdal, Zafer; and Starnes, James H., Jr.: Minimum Weight Design of Compressively Loaded Stiffened Panels for Postbuckling Response. Presented at the First Joint ASCE/ASME/SES Meeting, Charlottesville, VA, June 6-9, 1993. Mechanics of Composite Materials - Nonlinear Effects, Hyer, M. W., ed., ASME AMD-Vol. 159, June 1993, pp. 71-80.
50. Librescu, L.*; Lin, W.; Nemeth, M. P.; and Starnes, J. H., Jr.: Classical Versus Non-Classical Postbuckling Behavior of Laminated Composite Panels Under Complex Loading Conditions. Presented at the First Joint ASCE/ASME/SES Meeting, Charlottesville, VA, June 6-9, 1993.
51. Harris, Charles E.*; and Starnes, James H., Jr.: Analytical Methodology to Predict the Residual Strength and Fatigue Life of Stiffened Shell Structures. Presented at the 5th International Conference on Structural Airworthiness of New and Aging Aircraft, Hamburg, Germany, June 16-18, 1993.

52. Koiter, W. T.; Elishakoff, I.*; Lin, T. W.; and Starnes, J. H., Jr.: Buckling of an Axially Compressed Cylindrical Shell of Variable Thickness. Presented at the 1993 ASME Winter Annual Meeting, New Orleans, LA, November 28-December 3, 1993. PVP-Vol. 269/NE-Vol. 13, Recent Advances in Structural Mechanics, ASME 1993, pp. 23-28.
53. Elishakoff, I.*; Cai, G. Q.; and Starnes, James H., Jr.: Probabilistic and Convex Models of Uncertainty in Buckling of Structures. Proceedings of ICOSSAR'93 - The 6th International Conference on Structural Safety and Reliability, Innsbruck, Austria, August 9-13, 1993.
54. Young, Richard D.*; Starnes, James H., Jr.; and Hyer, Michael W.: Effects of Skewed Stiffeners and Anisotropic Skins on the Response of Compression-Loaded Composite Panels. Proceedings of the Tenth DoD/NASA/FAA Conference on Fibrous Composites in Structural Design, Hilton Head, SC, November 1-4, 1993. Naval Air Warfare Center Report No. NAWCADWAR-94096-60, Vol. I, April 1994, pp. II-109 to II-123.
55. Davis, John G., Jr.*; Starnes, James H. Jr.; and Dexter, H. Benson: NASA ACT Status and Plans. Proceedings of the Tenth DoD/NASA/FAA Conference on Fibrous Composites in Structural Design, Hilton Head, SC, November 1-4, 1993. Naval Air Warfare Center Report No. NAWCADWAR-94096-60, Vol. I, April 1994, pp. IV-3 to IV-58.
56. Librescu, L.*; Lin, W.; Nemeth, Michael P.; and Starnes, James H., Jr.: Vibration of Geometrically Imperfect Laminated Flat and Shallow Curved Panels Subjected to Heating and to a System of Mechanical Loadings. Proceedings of the Tenth DoD/NASA/FAA Conference on Fibrous Composites in Structural Design, Hilton Head, SC, November 1-4, 1993. Naval Air Warfare Center Report No. NAWCADWAR-94096-60, Vol. II, April 1994, pp. IX-51 to IX-66.
57. Sridharan, Shrinivasan*; and Starnes, James H., Jr.: Mode Interaction Analysis of Stiffened Shells Using "Locally Buckled" Elements. Presented at the AIAA/ASME/ASCE/AHS/ASC 35th Structures, Structural Dynamics and Materials Conference, Hilton Head, SC, April 18-20, 1994. AIAA Paper No. 94-1338.
58. Koiter, Warner T.; Elishakoff, Isaac*; Li, Y. W.; and Starnes, James H., Jr.: Buckling of an Axially Compressed Imperfect Cylindrical Shell of Variable Thickness. Presented at the AIAA/ASME/ASCE/AHS/ASC 35th Structures, Structural Dynamics and Materials Conference, Hilton Head, SC, April 18-20, 1994. AIAA Paper No. 94-1339.
59. Librescu, Liviu*; Lin, W.; Nemeth, Michael P.; and Starnes, James H., Jr.: Effects of a Thermal Field on Frequency-Load Interaction of Geometrically Imperfect Shallow Curved Panels. Presented at the AIAA/ASME/ASCE/AHS/ASC 35th Structures, Structural Dynamics and Materials Conference, Hilton Head, SC, April 18-20, 1994. AIAA Paper No. 94-1342.
60. Noor, Ahmed*; Starnes, James H., Jr.; and Peters, Jeanne M.: Thermomechanical Postbuckling of Multilayered Composite Panels with Cutouts. Presented at the AIAA/ASME/ASCE/AHS/ASC 35th Structures, Structural Dynamics and Materials Conference, Hilton Head, SC, April 18-20, 1994. AIAA Paper No. 94-1367.
61. Ambur, Damodar R.*; Starnes, James H., Jr.; and Prasad, C. B.: Low-Speed-Impact Damage-Initiation Studies for Selected Laminated Composite Plates. Presented at the AIAA/ASME/ASCE/AHS/ASC 35th Structures, Structural Dynamics and Materials Conference, Hilton Head, SC, April 18-20, 1994. AIAA Paper No. 94-1402.
62. Ambur, Damodar R.*; Starnes, James H., Jr.; and Waters, W. Allen, Jr.: Effects of Low-Speed Impact Damage on the Compression Strength of a Graphite-Epoxy Laminated Plate with a Skewed Thickness

Taper. Presented at the AIAA/ASME/ASCE/AHS/ASC 35th Structures, Structural Dynamics and Materials Conference, Hilton Head, SC, April 18-20, 1994. AIAA Paper No. 94-1403.

63. Ragon, Scott A.*; Gurdal, Zafer; and Starnes, James H., Jr.: Optimization of Composite Box-Beam Structures Including the Effects of Subcomponent Interaction. Presented at the AIAA/ASME/ASCE/AHS/ASC 35th Structures, Structural Dynamics and Materials Conference, Hilton Head, SC, April 18-20, 1994. AIAA Paper No. 94-1410.
64. Fuchs, Hannes P.*; Starnes, James H., Jr.; and Hyer, Michael W.: Numerical and Experimental Investigation of the Collapse Response of Thin-Walled Graphite-Epoxy Cylindrical Shells Loaded in Bending. Presented at the AIAA/ASME/ASCE/AHS/ASC 35th Structures, Structural Dynamics and Materials Conference, Hilton Head, SC, April 18-20, 1994. AIAA Paper No. 94-1608.
65. Starnes, James H., Jr.*; Britt, Vicki O.; Young, Richard D.; Rankin, Charles C.; Shore, Charles P.; and Bains, Nancy Jane B.: Nonlinear Analysis of Damaged Stiffened Fuselage Shells Subjected to Combined Loads. Presented at the FAA/NASA International Symposium on Advance Structural Integrity Methods for Airframe Durability and Damage Tolerance, Hampton, VA, May 4-6, 1994. NASA CP 3274, Part 2, pp. 1045-1075, September 1994.
66. Finn, S. R.; Dickson, J. N.; Vause, R. F.; Carbery, D. J.; Bowman, L. M.; Dost, E. F.; and Starnes, J. H., Jr.*: Analysis of a Pathfinder Shell Subjected to Internal Pressure and Mechanical Loads. Presented at the 5th NASA/DoD Advanced Composites Technology Conference, Seattle, WA, August 22-25, 1994. NASA CP 3294, Vol. 1, Part 1, May 1995, pp. 33-72.
67. Ambur, D. R.; Rouse, M.; Starnes, J. H., Jr.*; and Shuart, M. J.: Facilities for Combined Loads Testing of Aircraft Structures to Satisfy Structural Technology Development Requirements. Presented at the 5th NASA/DoD Advanced Composites Technology Conference, Seattle, WA, August 22-25, 1994. NASA CP 3294, Vol. 1, Part 1, May 1995, pp. 73-91.
68. Li, Y. W.; Elishakoff, I.*; and Starnes, J. H., Jr.: Axial Buckling of Composite Cylindrical Shells with Periodic Thickness Variation. Presented at the 1994 ASME Winter Annual Meeting, Chicago, IL, November 6-11, 1994. AD-Vol. 41/PVP-Vol. 293, Buckling and Postbuckling of Composite Structures, ASME 1994, pp. 95-114.
69. Librescu, L.*; Lin, W.; Nemeth, M. P.; and Starnes, J. H., Jr.: Effects of Tangential Edge Constraints on the Postbuckling Behavior of Flat and Curved Panels Subjected to Thermal and Mechanical Loads. Presented at the 1994 ASME Winter Annual Meeting, Chicago, IL, November 6-11, 1994. AD-Vol. 41/PVP-Vol. 293, Buckling and Postbuckling of Composite Structures, ASME 1994, pp. 55-71.
70. Fuchs, H. P.*; Starnes, J. H., Jr.; and Hyer, M. W.: Numerical and Experimental Investigation of the Collapse Response of a Quasi-Isotropic Graphite-Epoxy Cylindrical Shells Subjected to Bending and Internal Pressure Loads. Presented at the 1994 ASME Winter Annual Meeting, Chicago, IL, November 6-11, 1994. AD-Vol. 41/PVP-Vol. 293, Buckling and Postbuckling of Composite Structures, ASME 1994, pp. 73-94.
71. Librescu, L.*; Lin, W.; Nemeth, M. P.; and Starnes, J. H., Jr.: Postbuckling of Shear Deformable Laminated Doubly Curved Shallow Panels Under Combined Thermal and Mechanical Loadings. Presented at the First University/Industry Symposium on High Speed Civil Transport Vehicles, Greensboro, NC, December 3-7, 1994.
72. Perry, Christine A.*; Gurdal, Zafer; and Starnes, James H. Jr.: Minimum-Weight Design of Compressively Loaded Stiffened Panels for Postbuckling Response. Presented at the AIAA/ASME/ASCE/AHS/ASC 36th Structures, Structural Dynamics and Materials Conference, New Orleans, LA, April 10-13, 1995. AIAA Paper No. 95-1162.

73. Starnes, James H., Jr.*; Britt, Vicki O.; and Rankin, Charles C.: Nonlinear Response of Damaged Stiffened Shells Subjected to Combined Internal Pressure and Mechanical Loads. Presented at the AIAA/ASME/ASCE/AHS/ASC 36th Structures, Structural Dynamics and Materials Conference, New Orleans, LA, April 10-13, 1995. AIAA Paper No. 95-1462.
74. Noor, Ahmed K.*; Starnes, James H., Jr.; and Peters, Jeanne M.: Nonlinear and Postbuckling Responses of Curved Composite Panels with Cutouts. Presented at the AIAA/ASME/ASCE/AHS/ASC 36th Structures, Structural Dynamics and Materials Conference, New Orleans, LA, April 10-13, 1995. AIAA Paper No. 95-1412.
75. Ambur, Damodar R.*; Starnes, James H., Jr.; Stourmbos, T.; and Kapania, Rakesh: Effects of Large Deformations on the Impact Response of Flat and Curved Graphite-Epoxy Panels. Presented at the AIAA/ASME/ASCE/AHS/ASC 36th Structures, Structural Dynamics and Materials Conference, New Orleans, LA, April 10-13, 1995. AIAA Paper No. 95-1205.
76. Harris, Charles E.; Starnes, James H., Jr.*; and Newman, James C., Jr.: Development of Advanced Structural Analysis Methodologies for Predicting Widespread Fatigue Damage in Aircraft Structures. Presented at the FAA/NASA Sixth International Conference on Continued Airworthiness of Aircraft Structures, Atlantic City, NJ, June 26-29, 1995. DOT/FAA/AR-95-86, Catherine A. Bigelow, Editor, December 1995, pp. 139-164. Also, NASA TM 110187, August 1995.
77. Harris, Charles E.*; Newman, James C., Jr.; and Starnes, James H., Jr.: Analytical Methodology to Predict the Onset of Widespread Fatigue Damage in Airframe Structure. Presented at the Air Force 3rd Aging Aircraft Conference, Wright-Patterson AFB, OH, September 26-28, 1995.
78. Harris, Charles E.*; Newman, James C., Jr.; and Starnes, James H., Jr.: Analytical Methodology to Predict the Onset of Widespread Fatigue Damage in Airframe Structure. Presented at the 1995 USAF Structural Integrity Program Conference, San Antonio, TX, November 28-30, 1995.
79. Elishakoff, I.*; Li, Y. W.; and Starnes, J. H., Jr.: Localization Phenomenon of Buckling Mode in stiffened Multi-Span Elastic Plates. Presented at the 1995 ASME International Mechanical Engineering Congress and Exposition, San Francisco, CA, November 12-17, 1994. PVP-Vol. 321/NE-Vol. 18, Recent Advances in Solids and Structures - 1995, ASME 1995, pp. 153-164.
80. Starnes, James H., Jr.*; Britt, Vicki O.; Rose, Cheryl A.; and Rankin, Charles, C.: Nonlinear Response and Residual Strength of Damaged Stiffened Shells Subjected to Combined Loads. Presented at the AIAA/ASME/ASCE/AHS/ASC 37th Structures, Structural Dynamics, and Materials Conference, Salt Lake City, UT, April 15-17, 1996. AIAA Paper No. 96-1555.
81. Rose, Cheryl A.*; and Starnes, James H., Jr.: Interlaminar Stresses in Composite Stiffened Panels. Presented at the AIAA/ASME/ASCE/AHS/ASC 37th Structures, Structural Dynamics, and Materials Conference, Salt Lake City, UT, April 15-17, 1996. AIAA Paper No. 96-1497.
82. Nemeth, Michael P.*; Britt, Vicki, O.; Collins, Timothy J.; and Starnes, James H., Jr.: Nonlinear Analysis of the Space Shuttle Super-Lightweight External Fuel Tank. Presented at the AIAA/ASME/ASCE/AHS/ASC 37th Structures, Structural Dynamics, and Materials Conference, Salt Lake City, UT, April 15-17, 1996. AIAA Paper No. 96-1552.
83. Noor, Ahmed K.*; Starnes, James H., Jr.; and Peters, Jeanne M.: Thermomechanical Buckling and Postbuckling Responses for Composite Panels with Skewed Stiffeners. Presented at the AIAA/ASME/ASCE/AHS/ASC 37th Structures, Structural Dynamics, and Materials Conference, Salt Lake City, UT, April 15-17, 1996. AIAA Paper No. 96-1636.

84. Harris, Charles E.; Newman, James C., Jr.*; Piascik, Robert S.; and Starnes, James H., Jr.: Analytical Methodology for Predicting the Onset of Widespread Fatigue Damage in Fuselage Structure. Presented at the FAA-NASA Symposium on Continued Airworthiness of Aircraft Structures, Atlanta, GA, August 28-30, 1996. DOT/FAA/AR-97/2, Vol. I, Compiled by Catherine A. Bigelow, July 1997, pp.63-88.
85. Starnes, James H., Jr.*; Rose, Cheryl A.; and Rankin, Charles C.: Effects of Combined Loads on the Nonlinear Response of Stiffened Shells with Long Cracks. Presented at the FAA-NASA Symposium on Continued Airworthiness of Aircraft Structures, Atlanta, GA, August 28-30, 1996. DOT/FAA/AR-97/2, Vol. I, Compiled by Catherine A. Bigelow, July 1997, pp.183-196.
86. Venter, Gerhard; Haftka, Raphael. T.*; and Starnes, James H., Jr.: Construction of Response Surfaces for Design Optimization Applications. Presented at the 6th AIAA/USAF/NASA/ISSMO Symposium on Multidisciplinary Analysis and Optimization, Bellevue, WA, September 4-6, 1996. AIAA Paper No. 96-4040.
87. Starnes, James H., Jr.*; and Rose, Cheryl A.: Nonlinear Response of Thin Cylindrical Shells with Longitudinal Cracks and Subjected to Internal Pressure and Axial Compression Loads. Presented at the AIAA/ASME/ASCE/AHS/ASC 38th Structures, Structural Dynamics, and Materials Conference, Kissimmee, FL, April 7-11, 1997. AIAA Paper No. 97-1144.
88. Mikulas, Martin M.*; Card, Michael F.; Peterson, James P.; and Starnes, James H., Jr.: Manuel Stein's Five Decades of Structural Mechanics Contributions (1944-1988). Presented at the AIAA/ASME/ASCE/AHS/ASC 38th Structures, Structural Dynamics, and Materials Conference, Kissimmee, FL, April 7-11, 1997. AIAA Paper No. 97-1073.
89. Nemeth, Michael P.*; and Starnes, James H., Jr.: The NASA Monographs on Shell Stability Design Recommendations - A Review and Suggested Improvements. Presented at the AIAA/ASME/ASCE/AHS/ASC 38th Structures, Structural Dynamics, and Materials Conference, Kissimmee, FL, April 7-11, 1997. AIAA Paper No. 97-1302.
90. Ambur, Damodar R.*; and Starnes, James H., Jr.: Nonlinear Response and Damage-Initiation Characteristics of Curved Composite Plates Subjected to Low-Speed Impact. Presented at the AIAA/ASME/ASCE/AHS/ASC 38th Structures, Structural Dynamics, and Materials Conference, Kissimmee, FL, April 7-11, 1997. AIAA Paper No. 97-1058.
91. Noor, Ahmed K.*; Starnes, James H., Jr.; and Peters, Jeanne M.: Analysis of Curved Sandwich Panels Subjected to Combined Temperature Gradient and Mechanical Loads. Presented at the AIAA/ASME/ASCE/AHS/ASC 38th Structures, Structural Dynamics, and Materials Conference, Kissimmee, FL, April 7-11, 1997. AIAA Paper No. 97-1246.
92. Knight, Norman F., Jr.*; and Starnes, James H., Jr.: Developments in Cylindrical Shell Stability Analysis. Presented at the AIAA/ASME/ASCE/AHS/ASC 38th Structures, Structural Dynamics, and Materials Conference, Kissimmee, FL, April 7-11, 1997. AIAA Paper No. 97-1076.
93. Breivik, Nichole L.*; Hyer, Michael W.; and Starnes James H., Jr.: Thermal and Mechanical Buckling and Postbuckling of Selected Curved Composite Panels. Presented at the AIAA/ASME/ASCE/AHS/ASC 38th Structures, Structural Dynamics, and Materials Conference, Kissimmee, FL, April 7-11, 1997. AIAA Paper No. 97-1247.
94. Ambur, Damodar R.*; Starnes, James H., Jr.; and Phillips, Eric A.: Response of Composite Panels with Stiffness Gradients due to Stiffener Terminations and Cutouts. Presented at the AIAA/ASME/ASCE/AHS/ASC 38th Structures, Structural Dynamics, and Materials Conference, Kissimmee, FL, April 7-11, 1997. AIAA Paper No. 97-1386.

95. Fuchs, Hannes P.*; Starnes, James H., Jr.; and Hyer, Michael W.: Collapse of Composite Cylinders in Bending. Presented at the AIAA/ASME/ASCE/AHS/ASC 38th Structures, Structural Dynamics and Materials Conference, Kissimmee, FL, April 7-11, 1997. AIAA Paper No. 97-1241.
96. Starnes, James H., Jr.*; Rose, Cheryl A.; Young, Richard D.; and Rankin, Charles C.: Effects of Combined Loads on the Nonlinear Response of Stiffened Shells with Long Cracks. Presented at the 1997 International Committee on Aeronautical Fatigue (ICAF), Edinburgh, Scotland, June 16-20, 1997. Proceedings of the 19th Symposium of the International Committee on Aeronautical Fatigue, ICAF 97, Fatigue in New and Aging Aircraft, P. Poole and R. Cook, Eds., Engineering Materials Advisory Services Ltd., EMAS Publishing, West Midlands, UK, Vol. II, 1997, pp. 967-978.
97. Starnes, James H., Jr.*; and Rose, Cheryl A.: Effects of Initial Crack Length on Stable Tearing and Buckling of Selected Unstiffened Aluminum Shells Subjected to Internal Pressure and Axial Compression. Presented at the First Joint DoD/FAA/NASA Conference on Aging Aircraft, Ogden, UT, July 8-10, 1997.
98. Young, Richard, D.*; Rose, Cheryl A.; Davila, Carlos G.; Starnes, James H., Jr.; and Rankin, Charles C.: Crack Growth and Residual Strength Characteristics of Selected Flat Stiffened Aluminum Panels. Presented at the First Joint DoD/FAA/NASA Conference on Aging Aircraft, Ogden, UT, July 8-10, 1997.
99. Barut, A.*; Madenci, E.; Starnes, J. H., Jr.; and Tessler, A.: Stiffened Curved Panel with an Inclined Crack Under Tension. Presented at the Fourth U. S. National Congress on Computational Mechanics, San Francisco, CA, August 6-8, 1997.
100. Librescu, L.*; Lin, W.; Nemeth, M. P.; and Starnes, J. H., Jr.: Nonlinear Response of Geometrically Imperfect Flat and Curved Panels Under Thermomechanical Load Systems. Presented at the 1997 International Mechanical Engineering Congress and Exposition, Dallas, TX, November 16-21, 1997.
101. Starnes, James H., Jr.*; and Rose, Cheryl A.: Buckling and Stable Tearing Responses of Unstiffened Aluminum Shells with Long Cracks. Presented at the AIAA/ASME/ASCE/AHS/ASC 39th Structures, Structural Dynamics and Materials Conference, Long Beach, CA, April 20-23, 1998. AIAA Paper No. 98-1991.
102. Nemeth, Michael P.*; Young, Richard D.; Collins, Timothy J.; and Starnes, James H., Jr.: Effects of Welding-Induced Initial Geometric Imperfections on the Nonlinear Behavior of the Space Shuttle Superlightweight LO₂ Tank. Presented at the AIAA/ASME/ASCE/AHS/ASC 39th Structures, Structural Dynamics and Materials Conference, Long Beach, CA, April 20-23, 1998. AIAA Paper No. 98-1840.
103. Young, Richard D.*; Nemeth, Michael P.; Collins, Timothy J.; and Starnes, James H., Jr.: Nonlinear Analysis of the Space Shuttle Superlightweight LO₂ Tank: Part I - Behavior Under Booster Ascent Loads. Presented at the AIAA/ASME/ASCE/AHS/ASC 39th Structures, Structural Dynamics and Materials Conference, Long Beach, CA, April 20-23, 1998. AIAA Paper No. 98-1838.
104. Nemeth, Michael P.*; Young, Richard D.; Collins, Timothy J.; and Starnes, James H., Jr.: Nonlinear Analysis of the Space Shuttle Superlightweight LO₂ Tank: Part II - Behavior Under 3g End-of-Flight Loads. Presented at the AIAA/ASME/ASCE/AHS/ASC 39th Structures, Structural Dynamics and Materials Conference, Long Beach, CA, April 20-23, 1998. AIAA Paper No. 98-1839.
105. Ambur, Damodar R.*; and Starnes, James H., Jr.: Effect of Curvature on the Impact Damage Characteristics and Residual Strength of Composite Panels. Presented at the AIAA/ASME/ASCE/AHS/ASC 39th Structures, Structural Dynamics and Materials Conference, Long Beach, CA, April 20-23, 1998. AIAA Paper No. 98-1881.

106. Hilburger, Mark W.*; Starnes, James H., Jr.; and Waas, Anthony M.: The Response of Composite Cylinders with Cutouts and Subjected to Internal Pressure and Axial Compression Loads. Presented at the AIAA/ASME/ASCE/AHS/ASC 39th Structures, Structural Dynamics and Materials Conference, Long Beach, CA, April 20-23, 1998. AIAA Paper No. 98-1768.
107. Hilburger, Mark W.*; Starnes, James H., Jr.; and Waas, Anthony M.: A Numerical and Experimental Study of the Response of Selected Compression-Loaded Composite Shells with Cutouts. Presented at the AIAA/ASME/ASCE/AHS/ASC 39th Structures, Structural Dynamics and Materials Conference, Long Beach, CA, April 20-23, 1998. AIAA Paper No. 98-1988.
108. Breivik, Nicole L.*; Hyer, Michael W.; and Starnes, James H., Jr.: Response of Curved Composite Panels Subjected to Combined Thermal and Mechanical Loads. Presented at the AIAA/ASME/ASCE/AHS/ASC 39th Structures, Structural Dynamics and Materials Conference, Long Beach, CA, April 20-23, 1998. AIAA Paper No. 98-1773.
109. Arbocz, Johann.*; Starnes, James H., Jr.; and Nemeth, Michael P.: Towards a Probabilistic Criterion for Preliminary Shell Design. Presented at the AIAA/ASME/ASCE/AHS/ASC 39th Structures, Structural Dynamics and Materials Conference, Long Beach, CA, April 20-23, 1998. AIAA Paper No. 98-2051.
110. Starnes, James H., Jr.*; and Ambur, Damodar R.: Composite Structures Research and Development Experiences at NASA Langley Research Center. Proceedings of the NATO Advanced Studies Institute Conference on Mechanics of Composite Materials and Structures, Tróia, Portugal, July 12-24, 1998. In Mechanics of Composite Materials and Structures, C. A. Mota Soares; C. M. Mota Soares; and M. J. M. Freitas, eds., NATO Science Series E: Applied Sciences - Vol. 361, Kluwer Academic Publishers, 1999, pp. 489-508.
111. Starnes, James H., Jr.*; and Rose, Cheryl A.: Stable Tearing and Buckling Response of Unstiffened Aluminum Shells with Long Cracks. Presented at the Second Joint NASA/FAA/DoD Conference on Aging Aircraft, Williamsburg, VA, August 31-September 3, 1998. NASA/CP-1999-208982/Part 1, pp. 610-626, January 1999.
112. Young, Richard D.; Rouse, Marshall; Ambur, Damodar R.; and Starnes, James H., Jr.*: Residual Strength Pressure Tests and Nonlinear Analyses of Stringer- and Frame-Stiffened Aluminum Fuselage Panels with Longitudinal Cracks. Presented at the Second Joint NASA/FAA/DoD Conference on Aging Aircraft, Williamsburg, VA, August 31-September 3, 1998. NASA/CP-1999-208982/Part 1, pp. 408-426, January 1999.
113. Ambur, Damodar R.*; and Starnes, James H., Jr.: Influence Of Curved Composite Plate Nonlinear Response On The Low-Speed Impact Damage Tolerance. Presented at the AIAA/ASME/ASCE/AHS/ASC 40th Structures, Structural Dynamics and Materials Conference, St. Louis, MO, April 12-15, 1999. AIAA-99-1324, April 1999.
114. Rose, Cheryl A.*; Young, Richard D.; and Starnes, James H., Jr.: Nonlinear Bending Response of Pressurized Aluminum Shells with Long Cracks. Presented at the AIAA/ASME/ASCE/AHS/ASC 40th Structures, Structural Dynamics and Materials Conference, St. Louis, MO, April 12-15, 1999. AIAA-99-1412, April 1999.
115. Noor, Ahmed K.*; Starnes, James H., Jr.; and Peters, Jeanne M.: Uncertainty Analysis of Composite Structures. Presented at the AIAA/ASME/ASCE/AHS/ASC 40th Structures, Structural Dynamics and Materials Conference, St. Louis, MO, April 12-15, 1999. AIAA-99-1584, April 1999.
116. Arbocz, Johann.*; Starnes, James H., Jr.; and Nemeth, Michael P.: A Hierarchical Approach to Buckling Load Calculations. Presented at the AIAA/ASME/ASCE/AHS/ASC 40th Structures, Structural Dynamics and Materials Conference, St. Louis, MO, April 12-15, 1999. AIAA-99-1232, April 1999.

117. Corona, Edmundo*; and Starnes, James H., Jr.: Collapse of Cracked Flat Plates under Biaxial Loading. Presented at the AIAA/ASME/ASCE/AHS/ASC 40th Structures, Structural Dynamics and Materials Conference, St. Louis, MO, April 12-15, 1999. AIAA-99-1302-wip, April 1999.
118. Elishakoff, Isaac*; and Starnes, James H., Jr.: Safety Factor and the Non-Deterministic Approaches. Presented at the AIAA/ASME/ASCE/AHS/ASC 40th Structures, Structural Dynamics and Materials Conference, St. Louis, MO, April 12-15, 1999. AIAA-99-1614, April 1999.
119. Starnes, James H., Jr.*; Hilburger, Mark, W.; and Nemeth, Michael P.: The Effects of Initial Imperfections on the Buckling of Composite Shells. Invited paper for the ASTM Symposium on Composite Structures: Theory and Practice, Seattle, WA, May 17-18, 1999.
120. Starnes, James H., Jr.; Ambur, Damodar R.; Young, Richard D.; and Harris, Charles E.*: Experimental Verification of the Analytical Methodology to Predict the Residual Strength of Metallic Shell Structures. Presented at the 1999 SEM Annual Conference, Cincinnati, OH, June 7-9, 1999.
121. Newman, James C., Jr.*; Harris, Charles E.; Dawicke, David S.; Piascik, Robert S.; Young, Richard D.; and Starnes, James H., Jr.: Methodology for Predicting the Onset of Widespread Fatigue Damage in Fuselage Structure. Presented at the Seventh International Fatigue Conference, Beijing, People's Republic of China, June 8-12, 1999.
122. Nemeth, Michael P.; Starnes, James H., Jr.; Librescu, Liviu*; and Lin, W.: Nonlinear Response of Flat and Curved Panels Subjected to Thermomechanical Loads. Presented at the ASME Mechanics and Materials Conference, Blacksburg, VA, June 27-30, 1999.
123. Dawicke, David S.*; Newman, James C., Jr.; Starnes, James H., Jr.; Rose, Cheryl A.; Young, Richard D.; and Seshadri, B. R.: Residual Strength Analysis Methodology: Laboratory Coupons to Structural Components. Presented at the Third Joint FAA/DoD/NASA Conference on Aging Aircraft, Albuquerque, NM, September 20-23, 1999.
124. Young, Richard D.*; Rose, Cheryl A.; and Starnes, James H., Jr.: Nonlinear Local Bending Response and Bulging Factors for Longitudinal and Circumferential Cracks in Pressurized Cylindrical Shells. Presented at the Third Joint FAA/DoD/NASA Conference on Aging Aircraft, Albuquerque, NM, September 20-23, 1999.
125. Elishakoff, Isaac; Duan, Dehe; Qiu, Zhipung; and Starnes, James H., Jr.: How to Find the Range of Eigenvalues Due to Uncertain Elastic Modulus and Mass Density? In Whys and hows in Uncertainty Modeling, probability, Fuzziness and Anti-optimization, International Centre for Mechanical Sciences, Courses and Lectures - Number 388, Springer-Verlag, 1999, pp. 341-355.
126. Noor, Ahmed K.*; Starnes, James H., Jr.; and Peters, Jeanne M.: Uncertainty Analysis of Composite Structures. Presented at the European Conference on Computational Mechanics (ECCM'99), Munich, Germany, August 31-September 3, 1999.
127. Noor, Ahmed K.*; Starnes, James H., Jr.; and Peters, Jeanne M.: Uncertainty Analysis of Composite Structures. Presented at the 1999 ASME International Mechanical Engineering Congress and Exposition, Nashville, TN, November 14-19, 1999.
128. Arbocz, Johann*; Starnes, James H., Jr.; and Nemeth, Michael P.: A Comparison of Probabilistic and Lower Bound Methods for predicting the Response of Buckling Sensitive Structures. Presented at the AIAA/ASME/ASCE/AHS/ASC 41th Structures, Structural Dynamics and Materials Conference, Atlanta, GA, April 3-6, 2000. AIAA-2000-1382, April 2000.

129. Hilburger, Mark W.; and Starnes, James H., Jr.*: Effects of Imperfections on the Buckling Response of Compression-Loaded Composite Shells. Presented at the AIAA/ASME/ASCE/AHS/ASC 41th Structures, Structural Dynamics and Materials Conference, Atlanta, GA, April 3-6, 2000. AIAA-2000-1387, April 2000.
130. Hilburger, Mark W.; Nemeth, Michael P.*; and Starnes, James H., Jr.: Effective Widths of Compression-Loaded Plates with a Cutout. Presented at the AIAA/ASME/ASCE/AHS/ASC 41th Structures, Structural Dynamics and Materials Conference, Atlanta, GA, April 3-6, 2000. AIAA-2000-1658, April 2000.
131. Young, Richard D.*; Rose, Cheryl A.; and Starnes, James H., Jr.: Nonlinear Bulging Factors for Longitudinal and Circumferential Cracks in Cylindrical Shells Subjected to Combined Loads. Presented at the AIAA/ASME/ASCE/AHS/ASC 41th Structures, Structural Dynamics and Materials Conference, Atlanta, GA, April 3-6, 2000. AIAA-2000-1514, April 2000.
132. Young, Richard D.*; Hyer, Michael W.; and Starnes, James H., Jr.: Prebuckling and Postbuckling Response of Tailored Composite Stiffened Panels with Axial-Shear Coupling. Presented at the AIAA/ASME/ASCE/AHS/ASC 41th Structures, Structural Dynamics and Materials Conference, Atlanta, GA, April 3-6, 2000. AIAA-2000-1517, April 2000.
133. Cowan, Amy L.*; Davila, Carlos G.; Johnson, Eric R.; and Starnes, James H., Jr.: Crack Path Bifurcation at a Tear Strap in a Pressurized Shell. Presented at the AIAA/ASME/ASCE/AHS/ASC 41th Structures, Structural Dynamics and Materials Conference, Atlanta, GA, April 3-6, 2000. AIAA-2000-1382, April 2000.
134. Simitse, George J.*; Starnes, James H., Jr.; and Rezaeepazhand, J.: Structural Similitude and Scaling Laws for plates and Shells. Presented at the AIAA/ASME/ASCE/AHS/ASC 41th Structures, Structural Dynamics and Materials Conference, Atlanta, GA, April 3-6, 2000. AIAA-2000-1383, April 2000.
135. Ambur, Damodar R.*; and Starnes, James H., Jr.: Influence of Target and Impactor on the Nonlinear Response and Residual Strength of Curved Thin Composite Plates. Presented at the AIAA/ASME/ASCE/AHS/ASC 41th Structures, Structural Dynamics and Materials Conference, Atlanta, GA, April 3-6, 2000. AIAA-2000-1591, April 2000.
136. Young, Richard D.*; Rose, Cheryl A.; and Starnes, James H., Jr.: The Effect of Stiffeners on Bulging Factors for Longitudinal Cracks in Pressurized Cylindrical Shells. Presented at the Fourth Joint DoD/FAA/NASA Conference on Aging Aircraft, St. Louis, MO, May 15-18, 2000.
137. Starnes, James H., Jr.*; and Hilbureger, Mark W.: Effects of Imperfections on the Buckling Response of Compression-Loaded Composite Shells. Invited paper presented at the 20th International Congress of Theoretical and Applied Mechanics, Chicago, IL August 27-September 2, 2000.
138. Harris, Charles E.; Shuart, Mark J.*; and Starnes, James H., Jr.: Composite Materials and Structures for Aerospace: Past, Present and Future. Presented at the 22nd SAMPE Europe International Conference, Paris, France, March 27-29, 2001.
139. Harris, Charles E.; Starnes, James H., Jr.; and Shuart, Mark J.: An Assessment of the State-of-the-Art in the Design and Manufacturing of Large Composite Structures for Aerospace Vehicles. NASA/TM-2001-210844, April 2001.
140. Hilburger, Mark W.; and Starnes, James H., Jr.*: High-Fidelity Nonlinear Analysis of Compression Loaded Composite Shells. Presented at the AIAA/ASME/ASCE/AHS/ASC 42th Structures, Structural Dynamics and Materials Conference, Seattle, WA, April 16-19, 2001. AIAA Paper No. 2001-1394, April 2001.

141. Rose, Cheryl A.*; Young, Richard D.; and Starnes, James H., Jr.: Numerical Study of the Nonlinear Response of Cracked Aluminum Shells Subjected to Combined Loads. Presented at the AIAA/ASME/ASCE/AHS/ASC 42th Structures, Structural Dynamics and Materials Conference, Seattle, WA, April 16-19, 2001. AIAA Paper No. 2001-1395, April 2001.
142. Arbocz, Johann*; Starnes, James H., Jr.; and Nemeth, Michael P.: On a High-Fidelity Hierarchical Approach to Buckling Load Calculations. Presented at the AIAA/ASME/ASCE/AHS/ASC 42th Structures, Structural Dynamics and Materials Conference, Seattle, WA, April 16-19, 2001. AIAA Paper No. 2001-1392, April 2001.
143. Hilburger, Mark W.*; Nemeth, Michael P.; and Starnes, James H., Jr.: Nonlinear and Buckling Behavior of Curved Panels Subjected to Combined Loads. Presented at the AIAA/ASME/ASCE/AHS/ASC 42th Structures, Structural Dynamics and Materials Conference, Seattle, WA, April 16-19, 2001. AIAA Paper No. 2001-1392, April 2001.
144. Young, Richard D.*; Rose, Cheryl A.; and Starnes, James H., Jr.: Skin, Stringer and Fastener Loads in Buckled Fuselage Panels. Presented at the AIAA/ASME/ASCE/AHS/ASC 42th Structures, Structural Dynamics and Materials Conference, Seattle, WA, April 16-19, 2001. AIAA Paper No. 2001-1398, April 2001.
145. Arbocz, Johann*; Starnes, James H., Jr.; and Nemeth, Michael P.: On the Accuracy of Probabilistic Buckling Predictions. Presented at the AIAA/ASME/ASCE/AHS/ASC 42th Structures, Structural Dynamics and Materials Conference, Seattle, WA, April 16-19, 2001. AIAA Paper No. 2001-1236, April 2001.
146. Noor, Ahmed K.*; Starnes, James H., Jr.; and Peters, Jeanne M.: Uncertainty Analysis of Stiffened Composite Panels. Presented at the AIAA/ASME/ASCE/AHS/ASC 42th Structures, Structural Dynamics and Materials Conference, Seattle, WA, April 16-19, 2001. AIAA Paper No. 2001-1326, April 2001.
147. Hilburger, Mark W.*; Rose, Cheryl A.; and Starnes, James H., Jr.: Nonlinear Analysis and Scaling Laws for Noncircular Composite Structures Subjected to Combined Loads. Presented at the AIAA/ASME/ASCE/AHS/ASC 42th Structures, Structural Dynamics and Materials Conference, Seattle, WA, April 16-19, 2001. AIAA Paper No. 2001-1335, April 2001.
148. Starnes, James H., Jr.*; Dexter, H. Benson; Johnston, Norman J.; and Ambur, Damodar R.: Composite Structures and Materials Research at NASA Langley Research Center. Presented at the NATO Research Technology Organization Applied Vehicle Technology Panel meeting in Norway, May 7-11 2001.
149. Deo, Ravi B.*; Holzwarth, Richard A.; and Starnes, James H., Jr.: Low Cost Composite Structures for Aircraft Applications. A plenary session paper presented at the NATO Research and Technology Organization Applied Vehicle Technology Panel specialists' Meeting on Low Cost Composite Structures, Loen, Norway, May 7-11, 2001.
150. Starnes, James H., Jr.*; Newman, James C., Jr.; Harris, Charles E.; Young, Richard D.; Rose, Cheryl A.; and James, Mark A.: Advances in Residual Strength Analyses from Laboratory Coupons to Structural Components. Presented at the 21st Symposium on the International Committee on Aeronautical Fatigue, Toulouse, France, June 25-29, 2001.

151. Harris, Charles E.*; Starnes, James H., Jr.; and Shuart, Mark S.: Assessment of the State-of-the-Art for the Design and Manufacturing of Large Composite Structures. Presented at the National Space & Missile Materials Symposium, Monterey, CA, June 25-28, 2001.
152. Starnes, James H., Jr.*; Hilburger, Mark W.; and Waters, W. Allen: Effects of Imperfections on the Buckling Response of Composite Shells. Invited presentation at the EUROMECH 424 Colloquium on Buckling Predictions of Imperfections Sensitive Shells, Kerkrade, The Netherlands, September 3-5, 2001.
153. Arbocz, Johann*; Starnes, James H., Jr.; and Nemeth, Michael P.: On a High-Fidelity Hierarchical Approach to Buckling Load Calculations. Invited presentation at the EUROMECH 424 Colloquium on Buckling Predictions of Imperfections Sensitive Shells, Kerkrade, The Netherlands, September 3-5, 2001.
154. Young, Richard D.*; Rose, Cheryl A.; and Starnes, James H., Jr.: Nonlinear Response of Fuselage Panels with Cracks and Subjected to Combined Loads. Presented at the Fifth Joint NASA/RAA/DoD Conference on Aging Aircraft, Kissimmee, FL, September 10-13, 2001.
155. Starnes, James H., Jr.*; Newman, James C., Jr.; Harris, Charles, E.; Piascik, Robert S.; Young, Richard D.; and Rose, Cheryl A.: Advances in Structural Integrity Analysis Methods for Aging Metallic Airframe Structures with Local Damage. To be presented at the NATO Research and Technology Organization Applied Vehicle Technology Panel specialists' Meeting on Life Management techniques for Aging Air Vehicles, Manchester, UK, October 8-11, 2001.
156. Starnes, James H., Jr.*; Harris, Charles E.; and Shuart, Mark J.: Pathways to the Future Enabled by Revolutionary Materials. Presented at the International Flight Symposium, The North Carolina First Flight Centennial Commission, Raleigh, NC, October 22-25, 2001.
157. Wu, Chauncy*; Gurdal, Zafur; and Starnes, James H., Jr.: Buckling and Postbuckling of To-Place, Variable Stiffness Panels. To be presented at the AIAA/ASME/ASCE/AHS/ASC 43th Structures, Structural Dynamics and Materials Conference, Denver, CO, April 22-25, 2002. AIAA Paper No. 2002-1512, April 2002.
158. Arbocz, Johann*; and Starnes, James H., Jr.: Buckling Load Calculations of the Isotropic Shell A-8 using a High-Fidelity Hierarchical Approach. To be presented at the AIAA/ASME/ASCE/AHS/ASC 43th Structures, Structural Dynamics and Materials Conference, Denver, CO, April 22-25, 2002. AIAA Paper No. 2002-1513, April 2002.
159. Hilburger, Mark W.*; and James H., Jr.: Buckling and Failure of Compression-Loaded Composite Cylindrical Shells with Reinforced Cutouts. To be presented at the AIAA/ASME/ASCE/AHS/ASC 43th Structures, Structural Dynamics and Materials Conference, Denver, CO, April 22-25, 2002. AIAA Paper No. 2002-1516, April 2002.
160. Noor, Ahmed K.*; Starnes, James H., Jr.; and Peters, Jeanne: Nonlinear Response of Composite Panels Subjected to Combined Mechanical and Thermal Loading. To be presented at the AIAA/ASME/ASCE/AHS/ASC 43th Structures, Structural Dynamics and Materials Conference, Denver, CO, April 22-25, 2002. AIAA Paper No. 2002-1518, April 2002.
161. Starnes, James H., Jr.*; and Hilburger, Mark W.: Using High-Fidelity Analysis Methods and Experimental Results to Account for the Effects of Imperfections on the Buckling Response of Composite Shell Structures. To be presented at the NATO Research and Technology Organization Applied Vehicle Technology Panel specialists' Meeting on Reduction of Military Vehicle Acquisition Time and Cost through Advanced Modeling and Virtual Product Simulation, Paris, France, April 22-25, 2002.

162. Starnes, James H., Jr.*; and Hilburger, Mark W.: Effects of Reinforced Cutouts on the Buckling of Composite Shells. Invited paper to be presented at the 5th World Congress on Computational Mechanics (WCCM), Vienna, Austria, July 7-12, 2002.

Other Significant Contributions (* Indicates presenter of paper)

1. Starnes, James H., Jr.: The Effects of a Circular Hole on the Buckling of Cylindrical Shells. Dissertation accepted by the California Institute of Technology in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Aeronautics, May 1970.
2. Starnes, James H., Jr.: Effect of Initial Imperfections and Cutouts on the Stability of Thin Shells. Langley Basic Research Review, NASA Langley Research Center, May 18-20, 1971.
3. Starnes, James H., Jr.: Development of STAGS Shell Analysis Computer Program. Langley Basic Research Review, NASA Langley Research Center, December 15, 1972.
4. Stein, Manuel*; and Starnes, James H., Jr.: Studies of Postbuckling Behavior of Stiffened Shear Webs. 1974 Virginia Academy of Science Annual Meeting, Old Dominion University, Norfolk, VA, May 7-10, 1974.
5. Starnes, James H., Jr.: Generic Composite Structural Design and Test Program. Presented at the Advanced Composite Space Missiles Seminar, AFML, Dayton, OH, April 8-9, 1975.
6. Starnes, James H., Jr.: Design of Structures for Flutter and Aeroelastic Constraints. Presented at the Computer Aided Design Workshop, NASA-LaRC, Hampton, VA, September 29, 1975.
7. Starnes, James H., Jr.: Design and Fabrication of a Ring-Stiffened Graphite/Epoxy Corrugated Cylindrical Shell. NASA Contract NAS1-14547 Awarded July 31, 1976. Designed Cylindrical Shell, prepared Statement of Work, served as Chairman of Technical Evaluation Committee and Technical Monitor of Contract.
8. Starnes, James H., Jr.*; and Rhodes, Marvin D.: Damage Sensitivity of Composite Compression Structures. Langley Basic Research Review, NASA Langley Research Center, November 30, 1976.
9. Knauss, James F.; Starnes, James H., Jr.; and Henneke, Edmond G., II: The Compressive Failure of Graphite-Epoxy Plates with Circular Holes. NASA CR-157115, 1978. Also VPI-E-78-5, Virginia Polytechnic Institute and State University, 1978.
10. Starnes, James H., Jr.: Advanced Composite Compression Structures. Presented at the Air Force/Army/Navy/NASA Mechanics of Composites Review, Dayton, OH, October 31, 1978.
11. Starnes, James H., Jr.: Design Technology for the Applications of Composite Materials to Structural Components. Presented at the 4th AIAA/NASA Industry Executive Seminar on Tracking the Space Revolution, NASA Langley Research Center, September 12, 1979.
12. Starnes, James H., Jr.: Advanced Composite Design Technology for Commercial Transport Aircraft. NASA Contract NAS1-15949 awarded September 24, 1979. Prepared Statement of Work, Served as Chairman of Technical Evaluation Committee and Technical Monitor of Contract.
13. Starnes, James H., Jr.: Composite Design Technology. Presented to the NASA Aeronautics Ad Hoc Subcommittee on Advanced Materials, Structures and Structural Dynamics Technology. NASA Langley Research Center, October 25, 1979.

14. Starnes, James H., Jr.: Design of Composite Wing Boxes Including the Effects of Component Damage. Presented at the Director's Monthly Status Review, NASA Langley Research Center, July 23, 1980.
15. Starnes, James H., Jr.: Postbuckling Research at NASA Langley Research Center. Presented at the U.S. Navy sponsored Government/Industry Conference on Advanced Composite Center Fuselage and Review of Contracts on Postbuckling of Advanced Composite, U.S. Naval Air Development Center, Warminster, PA, July 29-30, 1980.
16. Starnes, James H., Jr.: Composite Design Technology. Presented to the NASA Aeronautics Advisory Committee Materials and Structures Subcommittee, NASA Langley Research Center, December 2, 1980.
17. Starnes, James H., Jr.: Research on Advanced-Composite Compression Structures. Invited Lecture presented at the Lockheed-Georgia Company, Marietta, GA, July 28, 1981.
18. Starnes, James H., Jr.: Buckling and Postbuckling Behavior of Composite Structures. Invited lecture presented to the graduate students and faculty of the ESM and AOE departments of VPI & SU, Blacksburg, VA, October 14, 1982.
19. Starnes, James H., Jr.: Behavior of Graphite-Epoxy Structural Components Loaded in Compression. Finite Element Modeling Workshop, NASA Langley Research Center, Hampton, VA, February 3, 1983.
20. Williams, J. G.*; Starnes, J. H., Jr.; and Waters, W. Allen: Damage Tolerance Characteristics of Kevlar-Epoxy Laminates Loaded in Compression. Ninth AFWAL Annual Mechanics of Composites Review, Dayton, OH, October 24-26, 1983.
21. Starnes, James H., Jr.: Research on Advanced-Composite Compression Structures. Invited lecture presented at the Structural Mechanics Seminar, Engineering Science and Mechanics Department, Georgia Institute of Technology, Atlanta, GA, November 10, 1983.
22. Starnes, James H., Jr.: Composite Structures Research. Presented at the Acoustics and Noise Reduction Division Workshop on Integration of Noise Transmission and Structural Design Considerations for Advanced Composite Fuselages, NASA Langley Research Center, Hampton, VA, December 13, 1983.
23. Starnes, James H., Jr.: Postbuckling Behavior of Composite Structures. Presented at the American Helicopter Society Composite Structures and Materials Subcommittee Meeting, Ft. Eustis, VA, March 26, 1984.
24. Starnes, James H., Jr.: Behavior of Compression Loaded Composite Structures. Invited lecture at the Department of Aeronautics and Astronautics Seminar, Massachusetts Institute of Technology, Cambridge, MA, May 11, 1984.
25. Boitnott, Richard L.; Johnson, E. R.; and Starnes, James H., Jr.: Nonlinear Response and Failure Characteristics of Internally Pressurized Composite Cylindrical Panels. Report Number CCMS-85-07; VPI-E-85-16. Virginia Polytechnic Institute and State University, Blacksburg, VA, June 1985.
26. Knight, Norman F., Jr.*; and Starnes, James H., Jr.: Postbuckling Response Predictions of Graphite-Epoxy Panels Loaded in Axial Compression. Presented at the Workshop on Stiffened Shell Structures sponsored by the David Taylor Naval Ship Research and Development Center, Bethesda, MD, March 17-18, 1986.

27. Starnes, James H., Jr.: Advanced Composites Research at NASA Langley Research Center. Presented at the ONR National Center for Composite Materials Research, University of Illinois at Urbana-Champaign, Urbana, IL, November 12, 1986.
28. Curry, James M.; Johnson, Eric R.; and Starnes, James H., Jr.: Effect of Ply Drop-Offs on the Strength of Graphite-Epoxy Laminates. Report Number CCMS-86-07, VPI-E-86-27, Virginia Polytechnic Institute and State University, Blacksburg, VA, December 1986.
29. Starnes, James H., Jr.: Composite Structures Research at NASA Langley Research Center. Invited Seminar at the Department of Engineering Science and Mechanics, Virginia Polytechnic Institute & State University, Blacksburg, VA, January 14, 1987
30. Starnes, James H., Jr.: Compression-Loaded Composite Structures Research at NASA Langley Research Center. Invited Summary at the Department of Mechanical Engineering and Mechanics, Old Dominion University, Norfolk, VA, February 6, 1987.
31. Starnes, James H., Jr.: Effect of Low-Speed Impact Damage on Compression-Loaded Composite Structures. Presented at the JANNAF Composite Motor Case Damage Assessment Workshop, Hampton, VA, February 23, 1987.
32. Swanson, Gary D.; Gurdal, Zafer*; and Starnes, James H., Jr.: Structural-Efficiency Study of Graphite-Epoxy Aircraft Rib Structures. Presented at the Structures Work-In-Progress Session of the AIAA/ASME/ASCE/AHS 28th Structures, Structural Dynamics and Materials Conference, Monterey, CA, April 6-8, 1987.
33. Farley, Gary L.; Starnes, James H., Jr.; and Mantay, Wayne R.: Structurally Tailorable, Nonlinear, Snap-Through Spring. NASA Tech Brief LAR-13729, November 18, 1987.
34. Starnes, James H., Jr.: Composite Structures Presentation to NRC Atmospheric Vehicles Technology Group Studying the Implications of Engineering Technologies for the Navy of the 21st Century. NASA Langley Research Center, Hampton, VA, April 22, 1987.
35. Starnes, James H., Jr.: Composite Structures Presentation to AGARD TTCP Structural Integrity Panel. NASA Langley Research Center, Hampton, VA, August 31, 1987.
36. Starnes, James H., Jr.: Behavior of Compression-Loaded Composite Structures. Invited Seminar at the Department of Aeronautical Engineering, University of Maryland, College Park, MD, November 24, 1987.
37. Starnes, James H., Jr.*; and Johnston, Norman F.: Advanced Composites Technology Program at NASA Langley. Presented at the Fifth AFWAL Industry/Government Review of Thermoplastic Matrix Composites, San Diego, CA, February 8-11, 1988.
38. Bonanni, David L.; Johnson, Eric R.; and Starnes, James H., Jr.: Local Buckling and Crippling of Composite Stiffener Section. Report Number CCMS-88-08; VPI-E-88-15; Virginia Polytechnic Institute and State University, Blacksburg, VA, June 1988.
39. Starnes, James H., Jr.: Structural Mechanics Research at NASA Langley Research Center. Invited Aeronautics Graduate Seminar, California Institute of Technology, Pasadena, CA, July 14, 1988.
40. Swanson, Gary D.; Gurdal, Zafer; and Starnes, James H., Jr.: Structural Efficiency Study of Composite Wing Rib Structures, Report Number CCMS-88-18, VPI-E-88-29, Virginia Polytechnic Institute and State University, Blacksburg, VA, September 1988.

41. Starnes, James H., Jr.: NASA Overview on Future Aviation Programs-Structures Technology. Presented at SAE Aerotech '88, Anaheim, CA, October 4-5, 1988.
42. Starnes, James H., Jr.: Composite Stiffened Shell Stability Issues. Invited presentation at the DARPA Submarine Technology Program Workshop on Fundamental Materials and Mechanics Issues for Submarine Applications, Reston, VA, December 13-14, 1988.
43. Nagendra, S.; Haftka, R. T.; Gurdal, Z.; and Starnes, James H., Jr.: Design of a Stiffened Composite Plate with a Hole. Report Number CCMS-89-17, Virginia Polytechnic Institute and State University, Blacksburg, VA, August 1989.
44. Starnes, James H., Jr.: Composite Structures Research at NASA Langley. Invited lecture in the NASA-Virginia Tech Composites Program Distinguished Lecture Series, Virginia Polytechnic Institute and State University, Blacksburg, VA, April 16, 1990.
45. Starnes, James H., Jr.: Postbuckling of Composite Structures. Invited lecture in the NASA-Virginia Tech Composites Program Distinguished Lecture Series, Virginia Polytechnic Institute and State University, Blacksburg, VA, April 17, 1990.
46. Starnes, James H., Jr.: Composite Structures Research at NASA Langley. Invited seminar at the Mechanical Engineering Department, Clemson University, Clemson, SC, April 20, 1990.
47. Starnes, James H., Jr.: Effects of Low-Speed Impact Damage on Compression-Loaded Composite Structures. Invited lecture at the National Conference on the Use of Composite Materials in Load Bearing Marine Structures, National Research Council, Arlington, VA, September 25-26, 1990.
48. Stoll, F.; Gurdal, Z.; and Starnes, James H., Jr.: A Method for the Geometrically Nonlinear Analysis of Compressively Loaded Prismatic Composite Structures. Report Number CCMS-91-03, VPI-E-91-01, Virginia Polytechnic Institute and State University, Blacksburg, VA, February 1991.
49. Starnes, James H., Jr.: Analysis of Anisotropic Composite Structures. Presented at the NASA/USSR Ministry of Aviation Industries Discussions, Moscow, USSR, June 3-7, 1991.
50. Wieland, T. M.; Morton, J.; and Starnes, James H., Jr.: Scale Effects in Buckling, Postbuckling and Crippling of Graphite-Epoxy Z-Section Stiffeners. Report Number CCMS-92-25, VPI-E-92-0X, Virginia Polytechnic Institute and State University, Blacksburg, VA, September 1992.
51. Starnes, James H., Jr.: Advanced Composites Structures Research at NASA Langley Research Center. Invited presentation in the Plenary Session of the American Society for Composites Seventh Technical Conference, University Park, PA, October 13-15, 1992.
52. Ley, R.; Gurdal, Z.; Johnson, E. R.; and Starnes, James H., Jr.: Analysis and Optimal Design of Pressurized, Imperfect, Anisotropic Ring-Stiffened Cylinders. Report Number CCMS-92-17, VPI-E-92-16, Virginia Polytechnic Institute and State University, Blacksburg, VA, November 1992.
53. Fenton, David C.; Starnes, James H., Jr.; and Herakovich, Carl T.: Interlaminar Stresses in Stiffened Composite Panels. Report Number AM-93-01, University of Virginia, Charlottesville, VA, January, 1993.
54. Ambur, Damodar R.; Starnes, James H., Jr.; and Prasad, Chunchu B.: Influence of Transverse Shear and Large Deformations Effects on the Low-Speed Impact Response on Graphite-Epoxy Plates. NASA TM-107753, April 1993.

55. Fuchs, J. P.; Hyer, M. W.; and Starnes, James H., Jr.: Numerical and Experimental Investigation of the Bending Response of Thin-Walled Composite Cylinders. Report Number CCMS-93-19, VPI-E-93-11, Virginia Polytechnic Institute and State University, Blacksburg, VA, September 1993.
56. Rankin, Charles C.; Riks, Eduard; Starnes, James H., Jr.; and Waters, W. Allen, Jr.: An Experimental and Numerical Verification of the Postbuckling Behavior of a Composite Cylinder in Compression. Presented at Euromech 317, Liverpool, England, March 23, 1994.
57. Starnes, James H., Jr.: The SDM Lecture on Composite Structures. Presented at the AIAA/ASME/ASCE/AHS/ASC 35th Structures, Structural Dynamics, and Materials Conference, Hilton Head, SC, April 20, 1994.
58. Koiter, W. T.; Elishakoff, I.; Li, Y. W.; and Starnes, J. H., Jr.: Buckling of an Axially Compressed Imperfect Cylindrical Shell of Variable Thickness. Report Number MEMT 31, Delft University of Technology, Delft, The Netherlands, 1994.
59. Harrison, P. N.; Johnson, E. R.; and Starnes, James H., Jr.: Interlaminar Stress Analysis of Dropped-Ply Laminated Plates and Shells by a Mixed Method. Report Number CCMS-94-04, VPI-E- 94-04, Virginia Polytechnic Institute and State University, Blacksburg, VA, May 1994.
60. Librescu, L.; Lin, W.; Nemeth, M. P.; and Starnes, J. H., Jr.: Snap-Through and Imperfection Sensitivity in the Postbuckling of Shallow Curved Panels Under Complex Thermal and Mechanical Loading Conditions. Presented at the Twelfth U.S. National Congress of Applied Mechanics, Seattle, WA, June 27-July 1, 1994.
61. Starnes, James H., Jr.: Advanced Composite Structures. Presented to the US Air Force Scientific Advisory Board, Aircraft and Propulsion Panel, Arlington, VA, May 16, 1995.
62. Harris, Charles E.; Starnes, James H., Jr.*; and Newman, James C., Jr.: Development of Advanced Structural Analysis Methodologies for Predicting Widespread Fatigue Damage in Aircraft Structures. Presented at the FAA/NASA Sixth International Conference on Continued Airworthiness of Aircraft Structures, Atlantic City, NJ, June 26-29, 1995. Also, NASA TM 110187, August 1995.
63. Ragon, Scott. A.; Johnson, Zafer; and Starnes, James H., Jr.: Optimization of Composite Box-Beam Structures Including Effects of Subcomponent Interactions. Report Number CCMS-95-06, VPI-E-95-03, Virginia Polytechnic Institute and State University, Blacksburg, VA, June 1995.
64. Bahtia, K.; Chellman, D.; Cregger, E.; Dorsey, J.; Hatakeyama, S. J.; Kimono, B.; Rommel, M.; Starnes, J. H., Jr.; and Velicki, A.: Materials and Structures Concept Team Report. Presented to the HSR TMT, Seattle. WA, August 22-24, 1995.
65. Hilburger, Mark W.; Waas, Anthony M.; and Starnes, James H., Jr.: Modeling the Dynamic Response and Establishing Post-Buckling/Post Snap-thru Equilibrium of Discrete Structures via a Transient Analysis. University of Michigan Department of Aerospace Engineering Solid Mechanics Report No. UMSM95-5, Ann Arbor, MI, December 7, 1995.
66. Hilburger, Mark W.; Starnes, James H., Jr.; and Waas, Anthony M.: The Response of Cylindrical Shells with Rectangular Cutouts Subject to an Axial Compression Load. University of Michigan Department of Aerospace Engineering Solid Mechanics Report No. UMSM96-1, Ann Arbor, MI, February 16, 1996.
67. Hilburger, Mark W.; Starnes, James H., Jr.; and Waas, Anthony M.: Numerical Study of the Response of Generally Orthotropic Cylindrical Shells with Rectangular Cutouts Under an Applied Axial Compression Load. University of Michigan Department of Aerospace Engineering Solid Mechanics Report No. UMSM96-2, Ann Arbor, MI, March 28, 1996.

68. Stoll, Frederick; Gurdal, Zafer; and Starnes, James H., Jr.: Improvements to a Method for the Geometrically Nonlinear Analysis of Compressively Loaded Stiffened Composite Panels. Report Number CCMS-96-04, VPI-E-96-03, Virginia Polytechnic Institute and State University, Blacksburg, VA, May 1996.
69. Hilburger, M.; Waas, A.; and Starnes, J. H., Jr.: The Response of Composite Cylindrical Shells with Rectangular Cutouts Under an Applied Axial Compression Load. Presented at the 1996 ASME Mechanics and Materials Conference, The Johns Hopkins University, Baltimore, MD, June 12-14, 1996.
70. Hilburger, M.; Waas, A.; and Starnes, J. H., Jr.: Modeling the Dynamic Response and Establishing Post-Buckling/Post Snap-Through Equilibrium of Discrete Structures via a Transient Analysis.. Presented at the 1996 ASME Mechanics and Materials Conference, The Johns Hopkins University, Baltimore, MD, June 12-14, 1996.
71. Nemeth, Michael P.; and Starnes, James H., Jr.: The NASA Monographs on Shell Stability Design Recommendations *A review and Suggested Improvements*. NASA/TP-1998-206290, January 1998.
72. Starnes, James H., Jr.: Nonlinear Structural Analysis of Fuselage Shells with Long Cracks. Invited lecture for the Faculty of Aerospace Engineering, Delft University of Technology, Delft, The Netherlands, July 28, 1998.
73. Starnes, James H., Jr.: Served on the PhD examination committee for the dissertation entitled Sandwich Fuselage Design by Dr.ir. M. J. L. van Tooren at the invitation of the Faculty of Aerospace Engineering, Delft Technical University, Delft, The Netherlands, December 7, 1998.
74. Starnes, James H., Jr.: Structures Research at NASA Langley Research Center. Invited presentation presented to the AIAA Structures Technical Committee at the 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, Atlanta, GA, April 3, 2000.
75. Anon.: Final Report of the X-33 Liquid Hydrogen Tank Test Investigation Team. Report requested by the Director, NASA Marshall Space Flight Center, Huntsville, AL. May 2000.
76. Starnes, James H., Jr.: Structural Stability and structural Integrity Research at NASA Langley Research Center. Invited presentation at the FAA Composite Structures Development Workshop, Renton, WA, November 29 - December 1, 2000.
77. Starnes, James H., Jr.: Composite Structures Research at NASA Langely Research Center. Invited seminar at the GALCIT Aeronautics Seminar, California Institute of Technology, Pasadena, CA, January 22, 2001.
78. Starnes, James H., Jr.: Composite Structures Research at NASA Langely Research Center. Invited presentation at the MIL-HDBK-17 PMC Forum, 42nd Composite Materials Handbook Meetings, Clearwater, FL, February 22, 2001.
79. Starnes, James H., Jr.: Composite Structures Research at NASA Langely Research Center. Invited seminar at the Aeronautical Engineering Seminar, Georgia Institute of Technology, Atlanta, GA, March 29, 2001.
80. Starnes, James H., Jr.: Served on the PhD examination committee for the dissertation entitled Blunt and Sharp Notch Behavior of Glare Laminates by Dr.ir. Tjerk. J. de Vries at the invitation of the Faculty of Aerospace Engineering, Delft Technical University, Delft, The Netherlands, April 26, 2001.

81. Hilburger, Mark W.*; and Starnes, James H., Jr.: The Effects of Imperfections on the Nonlinear Response and Buckling of Composite Shells. Presented at the ASME Summer Meeting, San Diego, CA, June 27-29, 2001.
82. Shuart, Mark J.*; Harris, Charles E.; and Starnes, James H., Jr.: Composite Materials and Structures for Aerospace: Past, Present, and Future. Plenary Session paper presented at the 16th American Society of Composites Conference, Blacksburg, VA, September 10-12, 2001.
83. Starnes, James H., Jr.: Focus on the Future of Aging Aircraft Research at NASA Langley Research Center. Presented at the Fifth Joint NASA/RAA/DoD Conference on Aging Aircraft, Kissimmee, FL, September 10-13, 2001.
84. Starnes, James H., Jr.*; Harris, Charles E.; and Shuart, Mark J.: Composite Materials and Structures for Aerospace: Past, Present and Future. Invited presentation presented at the Composites Education and Research Center review, Georgia Institute of Technology, Atlanta, GA, November 7, 2001.
85. Starnes, James H., Jr.*; and Rose, Cheryl A.: The Nonlinear Response of a Damaged Composite Shell Subjected to Internal Pressure. Invited paper presented at the 14th U.S. National Congress of Theoretical and Applied Mechanics, Blacksburg, VA, June 23-28, 2002.
85. Starnes, James H., Jr.*; and Hilburger, Mark W.: Effects of Imperfections on the Buckling Response and Failure Characteristics of Compression-Loaded Composite Shells. Invited paper presented at the 14th U.S. National Congress of Theoretical and Applied Mechanics, Blacksburg, VA, June 23-28, 2002.
85. Ambur, Damodar R.*; and Starnes, James H., Jr.: Low-Speed Impact Damage Tolerance of Anisotropic Composite Plates. Invited paper presented at the 14th U.S. National Congress of Theoretical and Applied Mechanics, Blacksburg, VA, June 23-28, 2002.