

- Palazotto, A. N.. C80-042
 Pamadi, B. N.. C80-065
 Panton, R. L.. C80-039
 Park, P. H.. C80-159
 Parthasarathy, S. P.. C80-110
 Patel, T. S.. C80-076
 Payne, P. R.. C78-001
 Paynter, G. C.. C80-026
 Pepper Jr., W. B.. C80-007, C80-031, C80-034
 Perkins, P. J.. C80-038
 Perry III, B.. C80-043
 Peters, D. A.. C79-001, C80-019
 Pifko, A. B.. C80-104
 Preisser, J. S.. C80-139
 Prince Jr., D. C.. C80-005
 Putman, W. F.. C80-126
 Qiu, C. H.. C80-056
 Quam, D. L.. C80-122
 Quinn, R. E.. C80-125
 Ramachandra, S. M.. C79-007, C80-116
 Ramamoorthy, P.. C80-093
 Rashed, M. I.. C80-067
 Reddy, C. S.. C80-009
 Reding, J. P.. C80-023
 Reed III, W. H.. C80-032
 Ricard, G. L.. C80-033
 Roberts, B. W.. C80-064, C80-070
 Robins, H. W.. C80-074
 Robins, W.. C80-016
 Robinson, M. R.. C80-075
 Roos, F. W.. C80-137
 Ross, R.. C80-145
 Runyan Jr., H. L.. C80-032
 Sachs, G.. C80-134
 Satran, D.. C80-153
 Saule, A. V.. C80-086
 Schatzle P. R.. C80-097
 Schlinker, R. H.. C80-017
 Shevell, R. S.. C80-013
 Shovlin, M. D.. C80-156
 Shrider, K. R.. C80-149
 Simenz, R. F.. C80-089
 Sinclair, J. H.. C80-133
 Sinha, A. K.. C80-093
 Sjoblom, B. G. A.. C80-049
 Skarshaug, R. E.. C80-129
 Skavdahl, H.. C80-156
 Smith, H. C.. C80-151
 Smyth, S. J.. C80-131
 Soeder Ronald H.. C80-082
 Sofrin T. G.. C80-099
 Soskic, N.. C80-039
 Spaid, F. W.. C80-101
 Sreekanth, A. K.. C80-121
 Stapleford, R. L.. C80-015
 Stewart, D. J.. C80-061
 Stewart, E. C.. C80-144
 Stewart V. R.. C80-118
 Stivers Jr., L. S.. C80-101
 Striz, A. G.. C80-035
 Strout, F. G.. C80-003
 Su, W. H.. C80-056
 Sudhakar, K.. C80-116
 Suzuki, S.. C80-055
 Taneja, N. K.. C80-008
 Thake, T. F.. C80-073
 Thomann, H.. C80-063
 Thomson, R. G.. C80-103
 Tinoco, E. N.. C80-006
 Triplett William, E.. C80-088
 Unruh, J. F.. C80-077
 Vaicaitis, R.. C80-014
 Van Wie, D. M.. C80-167
 Vaughan III, J. C.. C80-037
 Venkayya, V. B.. C80-148
 Vought, C. D.. C80-149
 Walters, M. M.. C80-138
 Warcup, R. W.. C80-106
 Washizu, K.. C80-055
 Weisshaar, T. A.. C80-078
 Wells, W. R.. C80-122, C80-168
 Widnall, S. E.. C80-124
 Winter, R.. C80-104
 Wolf, T. L.. C80-124
 Woolard, H. W.. C80-025
 Wooten, W. H.. C80-069
 Wright, B. R.. C80-024, C80-111
 Wu, W.. C80-054
 Wuest, M. R.. C80-012
 Xiong, S. W.. C80-056
 Yamane, T.. C79-001
 Yang, J. N.. C80-091
 Yang, T. Y.. C80-035
 Yu, J. C.. C80-112
 Zalay, A. D.. C80-149
 Zhu, R.. C80-054

Chronological Index

C77-001 Handling Quality Criterion for Heading Control. R. H. Hoh and I. L. Ashkenas, *Systems Technology, Inc.* (JA 14, 2, p. 142) Article

Technical Comment by Charles R. Chalk, *Calspan Corporation* (JA 17, 1, p. 60)

Reply (JA 17, 1, p. 63)

C78-001 Prediction of Performance of Low-Pressure-Ratio Thrust-Augmentor Ejectors. J. A. C. Kentfield, *University of Calgary* (JA 15, 12, p. 849) Article based on AIAA Paper 78-145

Technical Comment by Peter R. Payne, *Payne, Inc.* (JA 17, 7, p. 543)

Reply (JA 15, 12, p. 849)

C79-001 Calculation of Rotor Impedance for Articulated-Rotor Helicopters in Forward Flight. Kanichiro Kato and Takashi Yamane, *University of Tokyo* (JA 16, 7, p. 470) Article

Technical Comment by David A. Peters, *Washington University* (JA 17, 8, p. 607)

Reply (JA 17, 8, p. 607)

C79-002 An Elementary Explanation of the Flutter Mechanism with Active Feedback Controls. H. Horikawa and E. H. Dowell, *Princeton University* (JA 16, 4, p. 225) Article

Errata (JA 17, 9, p. 704)

C80-001 Canard-Wing Vortex Effects in Subsonic Flow. B. M. E. deSilva and R. T. Medan, *NASA Ames Research Center* (JA 17, 1, p. 5) Synoptic

C80-002 Dynamic Stability Measurements from Tunnel Unsteadiness Excited Random Response. H. Sundara Murthy, R.

V. Jategaonker and S. Balakrishna, *National Aeronautical Laboratory* (JA 17, 1, p. 7) Article based on AIAA Paper 78-831 CP783

C80-003 Flight Effects on Noise Generated by a JT8D Engine with Inverted Primary/Fan Flow. Frank G. Strout and Adolph Atencio Jr., *Boeing Commercial Airplane Company* (JA 17, 1, p. 13) Article based on AIAA Paper 79-0614

C80-004 Analysis and Design of Strake-Wing Configurations. John E. Lamar, *NASA Langley Research Center* (JA 17, 1, p. 20) Article based on AIAA Paper 78-1201

C80-005 Three-Dimensional Shock Structures for Transonic/Supersonic Compressor Rotors. David C. Prince Jr., *General Electric Co.* (JA 17, 1, p. 28) Article based on AIAA Paper 79-0043

C80-006 Application of a Higher Order Panel Method to Realistic Supersonic Configurations. E. N. Tinoco, and F. T. Johnson, *Boeing Aerospace Company*; and L. M. Freeman, *Mississippi State University* (JA 17, 1, p. 38) Article based on AIAA Paper 79-0274

C80-007 Design and Development of the 24-Ft Diam Hybrid Kevlar-29/Nylon Ribbon Parachute. William B. Pepper Jr., *Sandia Laboratories* (JA 17, 1, p. 45) Article based on AIAA Paper 79-0433 CP791

C80-008 Evaluation of Scheduled Air Passenger Service in Domestic Markets. Steven E. Eriksen, *Northeastern University*; and Nawal K. Taneja, *Massachusetts Institute of Technology* (JA 17, 1, p. 53) Article based on AIAA Paper 78-1556

C80-009 Analytical Investigation of Aerodynamic Characteristics of Highly Swept Wings with Separated Flow. C. Subba Reddy, *Old Dominion University* (JA 17, 1, p. 58) Engineering Note

C80-012 Parachute Techniques Employed in the Air-Launched Balloon System (ALBS) Development Program. Andrew S. Carten Jr., *Air Force Geophysics Laboratory*; and Michael R. Wuest, *6510th Test Wing/Edwards AFB* (JA 17, 2, p. 65) Synoptic based on AIAA Paper 79-0442 CP791

C80-013 Technological Development of Transport Aircraft—Past and Future. Richard S. Shevell, *Stanford University* (JA 17, 2, p. 67) Survey Paper based on AIAA Paper 78-1530

C80-014 Noise Transmission into a Light Aircraft. R. Vaicaitis, *Columbia University* (JA 17, 2, p. 81) Article based on AIAA Paper 78-197

C80-015 Evaluation of a Describing Function Approach to Nonlinear Gust Loads Analysis. Robert L. Stapleford and Richard J. DiMarco, *Systems Technology, Inc.* (JA 17, 2, p. 87) Article based on AIAA Paper 79-0060

C80-016 Supersonic Aerodynamic Trade Data for a Low-Profile Monoplanar Missile Concept. Ernauld B. Graves and Warner Robins, *NASA Langley Research Center* (JA 17, 2, p. 95) Article based on AIAA Paper 79-0222

C80-017 Airframe Noise Component Interaction Studies. Martin R. Fink and Robert H. Schlinker, *United Technologies Research Center* (JA 17, 2, p. 99) Article based on AIAA Paper 79-0668

C80-018 Acoustic Characteristics of Two Hybrid Inlets at Forward Speed. Michael D. Falarski, *NASA Ames Research Center*; and Michael T. Moore, *General Electric Company* (JA 17, 2, p. 106) Article based on AIAA Paper 79-0678

C80-019 Use of Multiblade Coordinates for Helicopter Flap-Lag Stability with Dynamic Inflow. Gopal H. Gaonkar, *India Institute of Science*; and David A. Peters, *Washington University* (JA 17, 2, p. 112) Article

C80-020 Advances in Supersonic Configuration Design Methods. A. Cenko, *Grumman Aerospace Corporation* (JA 17, 2, p. 119) Article based on AIAA Paper 79-0233

C80-021 Expedient Approach to Nonaxisymmetric Nozzle Performance Prediction. Chong-Wei Chu, *Northrop Corporation* (JA 17, 2, p. 127) Engineering Note

C80-022 V/STOL Aircraft Model in Wind-Tunnel Testing from Model Design to Data Reduction. Richard J. Margason, *NASA Langley Research Center*; and Danny R. Hoad, *U. S. Army Structures Laboratory (AVRADCOM)* (JA 17, 3, p. 129) Article based on AIAA Paper 79-0332

C80-023 Dynamic Stall at High Frequency and Large Amplitude. Lars E. Ericsson and J. Peter Reding, *Lockheed Missiles & Space Company, Inc.* (JA 17, 3, p. 136) Article based on AIAA Paper 79-0211

C80-024 Impact of Cruise Speed on Productivity of Supersonic Transports. E. Q. Bond, and B. R. Wright, *Lockheed-California Company*; E. A. Carroll, *Trans World Airlines*; and R. A. Flume, *Braniff International* (JA 17, 3, p. 143) Article based on AIAA Paper 79-0231

C80-025 Subsonic and Transonic Similarity Rules for Jet-Flapped Wings. Henry W. Woolard, *U. S. Air Force Flight Dynamics Laboratory* (JA 17, 3, p. 152) Article based on AIAA Paper 79-0343

C80-026 Analysis of Weak Glancing Shock/Boundary-Layer Interactions. G. C. Paynter, *Boeing Military Airplane Company* (JA 17, 3, p. 160) Article based on AIAA Paper 79-0144

C80-027 Calculation of Transonic Inlet Flowfields Using Generalized Coordinates. Lee-tzong Chen and D. A. Caughey, *McDonnell Douglas Corporation* (JA 17, 3, p. 167) Article based on AIAA Paper 79-0012

C80-028 High-Speed Interference Heating Loads and Pressure Distributions Resulting from Elevon Deflections. Charles B. Johnson, *NASA Langley Research Center*; and Louis G. Kaufman II, *Grumman Aerospace Corporation* (JA 17, 3, p. 175) Article based on AIAA Paper 79-0145

C80-029 Some Effects of Applying Sonic Boom Minimization to Supersonic Cruise Aircraft Design. Robert J. Mack and Christine M. Darden, *NASA Langley Research Center* (JA 17, 3, p. 182) Article based on AIAA Paper 79-0652

C80-030 Role of Shocks in the "Sub-Transonic" Flutter Phenomenon. Holt Ashley, *Stanford University* (JA 17, 3, p. 187) Article based on AIAA Paper 79-0765 CP794

C80-031 Evaluation of Kevlar-29 vs Nylon for 3.81 m (12.5 ft) Diam Ribbon Parachutes. William B. Pepper Jr., *Sandia Laboratories* (JA 17, 3, p. 198) Article based on AIAA Paper 79-0429 CP791

C80-032 Decoupler Pylon: A Simple, Effective Wing/Store Flutter Suppressor. Wilmer H. Reed III, and Jerome T. Foughner Jr., *NASA Langley Research Center*; and Harry L. Runyan Jr., *George Washington University* (JA 17, 3, p. 206) Article based on AIAA Paper 79-0791 CP794

C80-033 Lead/Lag Dynamics to Compensate for Display Delays. Gilbert L. Ricard and William T. Harris, *Naval Training Equipment Center* (JA 17, 3, p. 212) Article based on AIAA Paper 78-1596 CP787

C80-034 Preliminary Report on Development of an Interim Parachute Recovery System for a Re-entry Vehicle. William B. Pepper Jr., *Sandia Laboratories* (JA 17, 3, p. 218) Article based on AIAA Paper 79-0468 CP791

C80-035 Flutter Analysis of a NACA 64A006 Airfoil in Small Disturbance Transonic Flow. T. Y. Yang, P. Guruswamy, and Alfred G. Striz, *Purdue University*; and James J. Olsen, *Air Force Wright Aeronautical Laboratories* (JA 17, 4, p. 225) Article

C80-036 Prandtl's Biplane Theory Applied to Canard and Tandem Aircraft. E. V. Laitone, *University of California* (JA 17, 4, p. 233) Article

C80-037 Concept for a Large Multimission Amphibian Aircraft. J. C. Vaughan III, *NASA Langley Research Center*; and T. D. Earl, *Bell Aerospace, Textron* (JA 17, 4, p. 238) Article based on AIAA Paper 79-0849 CP796

C80-038 Measurements of Cabin and Ambient Ozone on B747 Airplanes. Gregory D. Nastrom, *Control Data Corporation*; James D. Holdeman and Porter J. Perkins, *NASA Lewis Research Center* (JA 17, 4, p. 246) Article

C80-039 Flight Measurements of a Wing Tip Vortex. Ronald L. Panton, William L. Oberkampf and Nicola Soskic, *The University of Texas* (JA 17, 4, p. 250) Article

C80-040 Large Wing-in-Ground Effect Transport Aircraft. R. H. Lange and J. W. Moore, *Lockheed-Georgia Company* (JA 17, 4, p. 260) Article based on AIAA Paper 79-0845 CP796

C80-041 Wet Strength of Kevlar 29 Ribbon Parachute Fabrics. R. H. Ericksen and L. Orear, *Sandia Laboratories* (JA 17, 4, p. 267) Article based on AIAA Paper 79-0436 CP791

C80-042 Parametric Study Relating to Buckling of Stringer Stiffened Cylindrical Shells with Cutouts. Douglas A. Nelson and Anthony N. Palazotto, *Air Force Institute of Technology* (JA 17, 4, p. 272) Article based on AIAA Paper 79-0751 CP794

C80-043 DYLOFLEX: A Computer Program for Flexible Aircraft Flight Dynamic Loads Analyses with Active Controls. Boyd Perry III, *NASA Langley Research Center*; Richard I. Kroll, *Boeing Commercial Airplane Company*; Ronald D. Miller, *Boeing Engineering and Construction Company*; and Robert C. Goetz, *NASA Langley Research Center* (JA 17, 4, p. 275) Article based on AIAA Paper 79-0743 CP793

C80-044 Avoiding Divergent Stall in Control Configured Aircraft by Using a Canard Arrangement. C. W. McCutchen, *National Institutes of Health* (JA 17, 4, p. 283) Engineering Note

C80-046 Application of Unsteady Airfoil Theory to Rotary Wings. Wayne Johnson, *USA AVRADCOM, NASA Ames Research Center* (JA 17, 4, p. 285) Engineering Note

C80-047 Class of Shockfree Airfoils Producing the Same Surface Pressure. Wilson C. Chin, *The Boeing Company* (JA 17, 4, p. 286) Engineering Note

C80-048 Fuel Minimal Takeoff Path of Jet Lift VTOL Aircraft. Hiroshi Nishimura, *National Aerospace Laboratory* (JA 17, 5, p. 290) Synoptic

C80-049 Effects of Design Parameters on Cooling Air Requirement in a Gas Turbine Combustor. Bjorn G. A. Sjoblom, *Volvo Flygmotor AB* (JA 17, 5, p. 292) Synoptic

C80-050 Theoretical Investigation of the Aerodynamics of Double Membrane Sailwing Airfoil Sections. H. Murai and S. Maruyama, *Tohoku University* (JA 17, 5, p. 294) Article

C80-051 Effect of Intake Conditions on Supersonic Unstalled Flutter in Turbofan Engines. D. G. Halliwell, *Rolls-Royce Limited* (JA 17, 5, p. 300) Article based on AIAA Paper 79-0044

C80-052 Influence of Ballonet Motions on the Longitudinal Stability of Tethered Aerostats. James DeLaurier, *University of Toronto* (JA 17, 5, p. 305) Article based on AIAA Paper 79-0445 CP791

C80-053 Experimental Study of the Effect of Blade Setting Errors on Stalling Performance of Cascade. R. M. El-Taher, *Cairo University* (JA 17, 5, p. 313) Article based on AIAA Paper 79-7031

C80-054 Computational Design of Turbomachine Blades. Wen-Quan Wu, Rong-Guo Zhu and Cui-E Liu, *Chinese Academy of Sciences* (JA 17, 5, p. 319) Article based on AIAA Paper 79-7035

C80-055 Calculation of Wing-Body Pressures in Incompressible Flow Using Green's Function Method. Shinji Suzuki and Kyuichiro Washizu, *Univeristy of Tokyo* (JA 17, 5, p. 326) Article

C80-056 Flow Patterns and Aerodynamic Characteristics of a Wing-Strake Configuration. M. J. Liu, Z. Y. Lu, C. H. Qiu, W. H. Su, X. K. Gao, X. Y. Deng and S. W. Xiong, *Beijing*

Institute of Aeronautics and Astronautics (JA 17, 5, p. 332) Article based on AIAA Paper 79-1877

C80-057 Development of Balloon Films Strong Enough to Prevent Bursting at High Altitude. Satoshi Okamoto, *Sagami Institute of Technology* (JA 17, 5, p. 339) Article based on AIAA Paper 79-0432 CP791

C80-058 Development of a Helicopter Rotor Hub Elastomeric Bearing. P. Donguy, *Société Européenne de Propulsion* (JA 17, 5, p. 346) Article based on AIAA Paper 79-0815 CP794

C80-059 Vibration Measurements on Planetary Gears of Aircraft Turbine Engines. M. Botman, *Pratt & Whitney Aircraft of Canada Ltd.* (JA 17, 5, p. 351) Article based on AIAA Paper 79-7012

C80-060 Experiments with Omega Sensors for Measuring Stress in the Flexible Material of Parachute Canopies. Gunter Braun and Karl-Friedrich Doherr, *DFVLR-Institut für Flugmechanik* (JA 17, 5, p. 358) Article based on AIAA Paper 79-0435 CP791

C80-061 New Technology in Commercial Aircraft Design for Minimum Operating Cost. D. J. Stewart and B. S. Campion, *British Aerospace Weybridge-Bristol Division* (JA 17, 5, p. 365) Article based on AIAA Paper 79-0690 CP793

C80-062 Attenuation of Vortex Shedding Noise of Circular Cylinders Behind a Ducted Rotor. N. R. Keshavan, *Hindustan Aeronautics Limited* (JA 17, 5, p. 372) Engineering Note

C80-063 Wind-Tunnel Balance Based on Piezoelectric Quartz Force Transducers. G. Bridel and H. Thomann, *Institut für Aerodynamik, Eidg. Technische Hochschule* (JA 17, 5, p. 374) Engineering Note

C80-064 Use of an Apex Drogue as a Means for Controlling Parachute Inflation. Bryan W. Roberts, *University of Sydney* (JA 17, 5, p. 376) Engineering Note based on AIAA Paper 79-0449 CP791

C80-065 Note on the Yawing Moment Due to Side Slip for Swept-Back Wings. B. N. Pamadi and T. G. Pai, *Indian Institute of Technology* (JA 17, 5, p. 378) Engineering Note

C80-066 Boundary Layer Controls on the Sidewalls of Wind Tunnels for Two-Dimensional Tests. Y. Y. Chan, *National Aeronautical Establishment* (JA 17, 5, p. 380) Engineering Note

C80-067 Experimental Investigation of the Two-Dimensional Asymmetrical Turbulent Wake Behind a Blade. M. A. Ghazi, *King Abdulaziz University*; M. I. Rashed, *Cairo University*; R. M. El-Taher and K. A. Fathalah, *King Abdulaziz University* (JA 17, 5, p. 382) Engineering Note

C80-068 Aerodynamic Design of an Extended Range Bomb. Randall C. Maydew, *Sandia Laboratories* (JA 17, 6, p. 385) Synoptic

C80-069 Performance Characteristics of Nonaxisymmetric Nozzles Installed on an F-18 Propulsion Model. Francis J. Capone, *NASA Langley Research Center*; Noshir S. Gowadia, *Northrop Corporation*; and W. H. Wooten, *General Electric Company* (JA 17, 6, p. 387) Article based on AIAA Paper 79-0101

C80-070 Drag and Pressure Distribution on a Family of Porous, Slotted Disks. Bryan W. Roberts, *University of Sydney* (JA 17, 6, p. 393) Article based on AIAA Paper 79-0462 CP791

C80-071 Application of the Fast Fourier Transform to Two-Dimensional Wind Tunnel Wall Interference. M. Mokry and

L. H. Ohman, *National Research Council of Canada* (JA 17, 6, p. 402) Article

C80-072 Perturbation Analysis of Transonic Wind Tunnel Wall Interference. Y. Y. Chan, *National Research Council of Canada* (JA 17, 6, p. 409) Article

C80-073 Rotor Blade Cooling in High Pressure Turbines. M. J. Holland and T. F. Thake, *Rolls-Royce Ltd., Aero Division* (JA 17, 6, p. 412) Article

C80-074 High-Performance Wings with Significant Leading Edge Thrust at Supersonic Speeds. H. Warner Robins and Harry W. Carlson, *NASA Langley Research Center* (JA 17, 6, p. 419) Article based on AIAA Paper 79-1871

C80-075 Enhanced Capabilities of Future Fighters as a Result of HiMAT. G. Fair and M. R. Robinson, *Rockwell International* (JA 17, 6, p. 423) Article based on AIAA Paper 79-0698 CP794

C80-076 Multivariate Optimum Design of a Subsonic Jet Passenger Airplane. C. S. Dixit and T. S. Patel, *Indian Institute of Technology* (JA 17, 6, p. 429) Article

C80-077 Finite Element Subvolume Technique for Structural-Borne Interior Noise Prediction. J. F. Unruh, *Southwest Research Institute* (JA 17, 6, p. 434) Article based on AIAA Paper 79-0585

C80-078 Divergence of Forward Swept Composite Wings. Terrence A. Weisshaar, *Virginia Polytechnic Institute and State University* (JA 17, 6, p. 442) Article based on AIAA Paper 79-0722 CP794

C80-079 Drop Formation and Evaporation of JP-4 Fuel Jettisoned from Aircraft. R. Earl Good, *Air Force Geophysics Laboratory*; and Harvey J. Clewell III, *Air Force Engineering and Services Center* (JA 17, 7, p. 450) Article based on AIAA Paper 79-0186

C80-080 Computational Optimization and Wind Tunnel Test of Transonic Wing Designs. H. P. Haney, and R. R. Johnson, *Vought Corp.*; and R. M. Hicks, *NASA Ames Research Center* (JA 17, 7, p. 457) Article based on AIAA Paper 79-0080

C80-081 Rain and Hail Extremes at Altitude. Glen J. Kissel, *Massachusetts Institute of Technology* (JA 17, 7, p. 464) Article based on AIAA Paper 79-0539

C80-082 Combined Pressure and Temperature Distortion Effects on Internal Flow of a Turbofan Engine. Willis M. Braithwaite and Soeder Ronald H., *NASA Lewis Research Center* (JA 17, 7, p. 468) Article based on AIAA Paper 79-1309

C80-083 Workshop Report for the AIAA 5th Aeroacoustics Conference. Goldstein Marvin E., *NASA Lewis Research Center* (JA 17, 7, p. 473) Article

C80-084 Investigation of the Vibration Characteristics of Shrouded Bladed Disk Rotor Stages. Lee-Tzong Chen and John Dugundji, *Massachusetts Institute of Technology* (JA 17, 7, p. 479) Article based on AIAA Paper 79-0734 CP794

C80-085 Biaxial Stress Measurements on Cloth Samples and Bias-Constructed Parachute Models. H. G. Heinrich, *University of Minnesota* (JA 17, 7, p. 487) Article based on AIAA Paper 79-0425 CP791

C80-086 Predicted and Observed Modal Radiation Patterns from JT15D Engine with Inlet Rods. M. F. Heidmann, A. V.

Saule and J. G. McArdle, *NASA Lewis Research Center* (JA 17, 7, p. 493) Article based on AIAA Paper 79-0581

C80-087 Unsteady Stator Response to Upstream Rotor Wakes. G. F. Franke and R. E. Henderson, *Pennsylvania State University* (JA 17, 7, p. 500) Article based on AIAA Paper 79-0579

C80-088 Aeroelastic Tailoring Studies in Fighter Aircraft Design. William E. Triplett, *McDonnell Aircraft Company* (JA 17, 7, p. 508) Article based on AIAA Paper 79-0725

C80-089 Structural Aluminum Materials for the 1980's. R. F. Simenz and M. K. Guess, *Lockheed-California Company* (JA 17, 7, p. 514) Article based on AIAA Paper 79-0755

C80-090 Single-Mode Panel Flutter of a Wind Tunnel Flex-Wall. Larry L. Erickson, Donald L. Kassner, Leroy R. Guist, and Mladin K. Chargin, *NASA Ames Research Center* (JA 17, 7, p. 521) Article based on AIAA Paper 79-0797

C80-091 Statistical Estimation of Economic Life for Aircraft Structures. J. N. Yang, *The George Washington University* (JA 17, 7, p. 528) Article based on AIAA Paper 79-0761 CP794

C80-092 Lift and Drag Measurements of Two Rotating Cylinders. Georges Bridel, *Institut fur Aerodynamik Eidg. Technische Hochschule* (JA 17, 7, p. 536) Engineering Note

C80-093 Aircraft Configuration Optimization for Ground Attack Mission. P. Ramamoorthy and A. K. Sinha, *National Aeronautical Laboratory* (JA 17, 7, p. 538) Engineering Note

C80-094 Effect of Adding Structural Damping on a Wing/Nacelle Hump Type Flutter Mode. Dave Gimmetstad, *Boeing Military Airplane Company* (JA 17, 7, p. 542) Engineering Note

C80-097 Flight Simulation of a Vehicle with a Two-Stage Parachute System. P. R. Schatzle and W. H. Curry, *Sandia Laboratories* (JA 17, 8, p. 545) Article based on AIAA Paper 79-0448

C80-098 Air Transport for Emerging Countries. Willis M. Hawkins, *Lockheed Corporation* (JA 17, 8, p. 547) Article based on AIAA Paper 79-0695 CP793

C80-099 Asymmetric Stator Interaction Noise. T. G. Sofrin and D. C., Mathews, *Pratt & Whitney Aircraft* (JA 17, 8, p. 554) Article based on AIAA Paper 79-0638

C80-100 Future Fighter Technologies. W. B. Herbst, *Messerschmitt-Bolkow-Blohm GmbH* (JA 17, 8, p. 561) Article

C80-101 Supercritical Airfoil Boundary Layer Measurements. F. W. Spaid, *McDonnell Douglas Corporation*; and L. S. Stivers Jr., *NASA Ames Research Center* (JA 17, 8, p. 567) Article based on AIAA Paper 79-1501

C80-102 Thermal Stress and Gas Bending Effects on Vibration of Compressor Rotor Stages. Lee-Tzong Chen and John Dugundji, *Massachusetts Institute of Technology* (JA 17, 8, p. 576) Article based on AIAA Paper 79-0045

C80-103 NASA/FAA General Aviation Crash Dynamics Program—A Status Report. Robert G. Thomson and Robert C. Goetz, *NASA Langley Research Center* (JA 17, 8, p. 584) Article based on AIAA Paper 79-0780 CP794

C80-104 Crash Simulation of Composite and Aluminum Helicopter Fuselages Using a Finite Element Program. R. Winter and A. B. Pifko, *Grumman Aerospace Corporation*; and J. D.

Cronkhite, *Bell Helicopter Textron, Inc.* (JA 17, 8, p. 591)
Article based on AIAA Paper 79-0781 CP793

C80-105 Strainrange Partitioning Behavior of an Advanced Gas Turbine Disk Alloy AF2-1DA. G. R. Halford and A. J. Nachtigall, *NASA Lewis Research Center* (JA 17, 8, p. 598)
Article based on AIAA Paper 79-1192

C80-106 Jet Decay Rate Effects on Hover Jet-Induced Loads. John M. Kuhlman and Ronald W. Warcup, *Old Dominion University* (JA 17, 8, p. 605) Engineering Note

C80-109 Introduction of New SDM Technology into Production Systems. R. N. Hadcock, *Grumman Aerospace Corporation* (JA 17, 9, p. 609) Lecture based on AIAA Paper 79-0719 CP794

C80-110 Twin-Jet Shielding. S. P. Parthasarathy, R. F. Cuffel and P. F. Massier, *Jet Propulsion Laboratory* (JA 17, 9, p. 618)
Article based on AIAA Paper 79-0671

C80-111 Twin-Jet Noise Shielding for a Supersonic Cruise Vehicle. J. S. Clauss Jr., B. R. Wright and G. E. Bowie, *Lockheed-California Company* (JA 17, 9, p. 627) Article based on AIAA Paper 79-0670

C80-112 Reduction of Wall Jet Trailing Edge Noise by Mean Flow Modification. M. C. Joshi, *Joint Institute for Advancement of Flight Sciences*; and J. C. Yu, *NASA Langley Research Center* (JA 17, 9, p. 633) Article based on AIAA Paper 79-0607

C80-113 Deflection of a Near-Vertical Towing Cable in a Nonuniform Flowfield. N. E. Gilbert, *Aeronautical Research Laboratories, Dept. of Defence* (JA 17, 9, p. 641) Article

C80-114 Higher Order Farfield Drag Minimization for a Subcritical Wing Design Code. J. M. Kuhlman, *Old Dominion University* (JA 17, 9, p. 648) Article

C80-115 Water Tunnel Flow Visualization: Insight into Complex Three-Dimensional Flowfields. Gary E. Erickson, *Northrop Corporation* (JA 17, 9, p. 656) Article based on AIAA Paper 79-1530

C80-116 Lift and Pitching Moment Characteristics of Stores Determined from Flight Drop Tests. S. M. Ramachandra, *Alfateh University*; K. Sudhakar and N. S. Kiran, *Hindustan Aeronautics Limited* (JA 17, 9, p. 663) Article

C80-117 Higher-Order, Finite-Difference Scheme for Three-Dimensional Transonic Flowfields about Axisymmetric Bodies. Lee-tzong Chen and D. A. Caughey, *McDonnell Douglas Corporation* (JA 17, 9, p. 668) Article based on AIAA Paper 79-1460 CP799

C80-118 Lift-Cruise Fan V/STOL Configuration Characteristics near a Small Deck. Stewart V. R., *Rockwell International Corp.* (JA 17, 9, p. 677) Article based on AIAA Paper 79-1854

C80-119 Effect of Nozzle Spacing on Ground Interference Forces for a Two-Jet V/STOL Aircraft. William G. Hill Jr. and Richard C. Jenkins, *Grumman Aerospace Corporation* (JA 17, 9, p. 684) Article based on AIAA Paper 79-1856

C80-120 Interior Noise Studies for Single- and Double-Walled Cylindrical Shells. Earl H. Dowell, *Princeton University* (JA 17, 9, p. 690) Article based on AIAA Paper 79-0647

C80-121 Theoretical Method for the Analysis of Airfoils in Viscous Flows. H. N. V. Dutt and A. K. Sreekanth, *Indian Institute of Technology* (JA 17, 9, p. 700) Engineering Note

C80-122 Model for Unsteadiness in Lateral Dynamics for Use in Parameter Estimation. William R. Wells, *Wright State University*; Siva S. Banda and David L. Quam, *University of Dayton* (JA 17, 9, p. 702) Engineering Note based on AIAA Paper 79-1638 CP911

C80-124 Effect of Tip Vortex Structure on Helicopter Noise Due to Blade-Vortex Interaction. Sheila E. Widnall and Thomas L. Wolf, *Massachusetts Institute of Technology* (JA 17, 10, p. 705) Article

C80-125 Development of a Gas Turbine Combustor Dilution Zone Design Analysis. A. S. Novick, J. R. Arvin and R. E. Quinn, *General Motors Corporation* (JA 17, 10, p. 712) Article based on AIAA Paper 79-1194

C80-126 Stability and Control Characteristics of the Aerocrane Hybrid Heavy-Lift Vehicle. H. C. Curtiss Jr. and W. F. Putman, *Princeton University* (JA 17, 10, p. 719) Article

C80-127 Linear Analysis of Poststall Gyration. Mark A. Hreha and Frederick H. Lutze, *Virginia Polytechnic Institute and State University* (JA 17, 10, p. 727) Article

C80-128 Further Studies in the Concept of Delta-Winged Hybrid Airships. P.-A. Mackrodt, *DFVLR-AVA* (JA 17, 10, p. 734) Article based on AIAA Paper 79-1599 CP798

C80-129 Type A V/STOL Propulsion System Development. E. R. Glasgow, *Lockheed-California Company*; and R. E. Skarshaug, *Lockheed-California Company* (JA 17, 10, p. 741) Article based on AIAA Paper 79-1287

C80-130 Bench Scale Dynamic Evaluation Apparatus for Integral Fuel Tank Sealants. William R. Mallory, and Lee E. Isom, *Systems Research Laboratories, Inc.*; and William F. Anspach, *Air Force Materials Laboratory* (JA 17, 10, p. 748) Article based on AIAA Paper 79-0810 CP794

C80-131 CADAM Data Handling from Conceptual Design through Product Support. S. J. Smyth, *Lockheed-California Company* (JA 17, 10, p. 753) Article based on AIAA Paper 79-1846

C80-132 Illustration of Airfoil Shape Effect on Forward-Swept Wing Divergence. Samuel R. Bland, *NASA Langley Research Center* (JA 17, 10, p. 761) Engineering Note

C80-133 Analysis of High Velocity Impact on Hybrid Composite Fan Blades. C. C. Chamis and J. H. Sinclair, *NASA Lewis Research Center* (JA 17, 10, p. 763) Engineering Note based on AIAA Paper 79-0783 CP794

C80-134 Effect of Asymmetric Drag Polar Characteristics on Minimum Trimmed Drag. Gottfried Sachs, *Hochschule der Bundeswehr Munchen* (JA 17, 10, p. 766) Engineering Note

C80-135 Store Separation Trajectory Analysis. Arthur R. Maddox, *Naval Weapons Center* (JA 17, 11, p. 769) Article

C80-136 Measurements in the Flowfield of a Linear Array of Rectangular Nozzles. G. F. Marsters, *Queen's University* (JA 17, 11, p. 774) Article based on AIAA Paper 79-0350

C80-137 Some Features of the Unsteady Pressure Field in Transonic Airfoil Buffeting. Frederick W. Roos, *McDonnell Douglas Corporation* (JA 17, 11, p. 781) Article based on AIAA Paper 79-0351

C80-138 Jet-Induced Aerodynamics of V/STOL Aircraft over a Moving Deck. J. H. Kamman, and C. L. Hall, *McDonnell Douglas Corporation*; and M. M. Walters, *Naval Air Devel-*

opment Center (JA 17, 11, p. 789) Article based on AIAA Paper 79-0337

C80-139 Airframe Noise Measurements on a Supersonic Transport Small-Scale Model. John S. Preisser, *NASA Langley Research Center* (JA 17, 11, p. 795) Article based on AIAA Paper 79-0666

C80-140 Multiple Application Core Engine: Sizing and Usage Criteria. E. A. Lehmann, *Pratt & Whitney Aircraft Group* (JA 17, 11, p. 802) Article based on AIAA Paper 79-1123

C80-141 Engine/Aircraft Afterbody Interactions: Recommended Testing Techniques Based on YF-17 Experience. A. E. Fanning, *Air Force Aero Propulsion Laboratory, Wright-Patterson Air Force Base*; and E. J. Lucas, *ARO, Inc.* (JA 17, 11, p. 810) Article based on AIAA Paper 79-1169

C80-142 Aerodynamic Effects of an Attitude Control Vane on a Tilt-Nacelle V/STOL Propulsion System. Mark D. Betzina, *NASA Ames Research Center*; and Richard Kita, *Grumman Aerospace Corporation* (JA 17, 11, p. 817) Article based on AIAA Paper 79-1855

C80-143 Benefits of Aerodynamic Interaction to the Three-Surface Configuration. J. W. Agnew and J. R. Hess Jr., *McDonnell Aircraft Company* (JA 17, 11, p. 823) Article based on AIAA Paper 79-1830

C80-144 Simple Method for Prediction of Aircraft Noise Contours. Elwood C. Stewart and Thomas M. Carson, *NASA Ames Research Center* (JA 17, 11, p. 828) Engineering Note

C80-145 Use of Similitude in Analyzing Aircraft Windshield Anti-Icing Performance. R. Ross, *Ross Aviation Associates* (JA 17, 11, p. 830) Engineering Note based on AIAA Paper 79-1822

C80-148 Flutter Speed Degradation of Damaged, Optimized Flight Vehicles. F. G. Hemmig, and V. B. Venkayya, *Air Force Wright Aeronautical Laboratories*; and Frank E. Eastep, *North Carolina State University* (JA 17, 12, p. 833) Synoptic based on AIAA Paper 79-0795 CP794

C80-149 Measurement of Flow Around V/STOL Aircraft with an LDV System. A. D. Zalay, M. R. Brashears, A. J. Jordan, K. R. Shrider and C. D. Vought, *Lockheed Missiles & Space Company, Inc.* (JA 17, 12, p. 835) Synoptic based on AIAA Paper 79-1184

C80-150 Winglet Toe-Out Angle Optimization for the Gates Learjet Longhorn Wing. Norm Conley, *Gates Learjet Corporation* (JA 17, 12, p. 851) Article based on AIAA Paper 79-1831

C80-151 Method for Reducing the Tangential Velocities in Aircraft Trailing Vortices. Hubert C. Smith, *The Pennsylvania State University* (JA 17, 12, p. 861) Article

C80-152 Spanwise Lift Distribution on a Wing from Flowfield Velocity Surveys. Kenneth L. Orloff, *NASA Ames Research Center* (JA 17, 12, p. 875) Article based on AIAA Paper 78-1195

C80-153 Effects of Spanwise Blowing on Two Fighter Airplane Configurations. Ernie L. Anglin and Dale Satran, *NASA Langley Research Center* (JA 17, 12, p. 883) Article based on AIAA Paper 79-1663 CP7911

C80-154 Studies of Leading-Edge Thrust Phenomena. Harry W. Carlson and Robert J. Mack, *NASA Langley Research Center* (JA 17, 12, p. 890) Article based on AIAA Paper 80-0325

C80-156 Design and Performance of the Propulsion System for the Quiet Short-Haul Research Aircraft. M. D. Shovlin, *NASA Ames Research Center*; H. Skavdahl and D. L. Harkonen, *Boeing Commercial Airplane Company* (JA 17, 12, p. 843) Article based on AIAA Paper 79-1313

C80-159 Fuel Consumption of a Struttred vs Cantilever-Winged Short-Haul Transport with Aeroelastic Considerations. Paul H. Park, *General Dynamics Corporation* (JA 17, 12, p. 856) Article based on AIAA Paper 78-1454

C80-160 Compass Cope Airframe Design History. Robert Benton Brown, *The Boeing Military Airplane Company* (JA 17, 12, p. 867) Article based on AIAA Paper 79-1792

C80-162 Diagnostic Evaluation of Jet Noise Suppression Mechanisms. P. R. Gliebe, *General Electric Company* (JA 17, 12, p. 837) Article based on AIAA Paper 79-0674

C80-163 Single-Parameter Terrain Classification for Terrain Following. Edward P. Cunningham, *The Johns Hopkins University, Applied Physics Laboratory* (JA 17, 12, p. 909) Article

C80-164 Lift Effect on Transonic Wind-Tunnel Blockage. Y. Y. Chan, *National Research Council of Canada* (JA 17, 12, p. 915) Engineering Note

C80-167 Numerical Lifting Line Theory Applied to Drooped Leading-Edge Wings Below and Above Stall. John D. Anderson Jr., Stephen Corda and David M. Van Wie, *University of Maryland* (JA 17, 12, p. 898) Article

C80-168 Relationship of Downwash Unsteadiness to the Quality of Parameter Estimates. William R. Wells, *Wright State University*; and Dinesh A. Kesar, *SDC Integrated Services, Inc.* (JA 17, 12, p. 905) Article based on AIAA Paper 79-1639