



## AIRCRAFT TECHNOLOGY, CONVENTIONAL, STOL/VTOL

- Surface Reflective Visualizations of Shock-Wave/Vortex Interactions Above a Delta Wing ..... S. R. Donohoe and W. J. Bannink 1568

## FLUID DYNAMICS

- Mean and Turbulence Measurements in the Near Field of a Wingtip Vortex ..... J. S. Chow, G. G. Zilliac, P. Bradshaw 1561
- Direct Computation of Mach Wave Radiation in an Axisymmetric Supersonic Jet ..... B. E. Mitchell, S. K. Lele, P. Moin 1574
- Implicit Method for Incompressible Flow Calculations in Three-Dimensional Ducts and Cascades ..... E. S. Politis, K. C. Giannakoglou, K. D. Papailiou 1581
- Flow Model for Predicting Normal Shock Wave Induced Vortex Breakdown ..... M. K. Smart and I. M. Kalkhoran 1589
- Wavelet Analysis of Wall-Pressure Fluctuations in a Supersonic Blunt-Fin Flow ..... J. Poggie and A. J. Smits 1597
- Mach Wave Elimination in Supersonic Jets ..... D. Papamoschou 1604
- Instantaneous Three-Dimensional Vorticity Measurements in Vortical Flow over a Delta Wing ..... A. Honkan and J. Andreopoulos 1612
- Three-Dimensional Instability of a Pair of Trailing Vortices near the Ground (TN) ..... N. V. Kornev and G. Reichert 1667

## STRUCTURAL MECHANICS AND MATERIALS

- Selective Modal Transducers for Anisotropic Rectangular Plates: Experimental Validation ..... S. E. Miller, H. Abramovich, Y. Oshman 1621
- Time-Domain Finite Element Analysis of Viscoelastic Structures with Fractional Derivatives Constitutive Relations ..... M. Enelund and B. L. Josefson 1630
- Design Diagrams for Reliable Layered Materials ..... S. M. Spearing 1638
- Vibration Mode Localization in One-Dimensional Systems ..... W.-C. Xie and X. Wang 1645
- Vibration Mode Localization in Two-Dimensional Systems ..... W.-C. Xie and X. Wang 1653
- Boundary Integral Formulation for Composite Laminates in Torsion ..... G. Davi and A. Milazzo 1660
- Scaling Laws of Cylindrical Shells Under Lateral Pressure (TN) ..... A. Tabiei, J. Sun, G. J. Simitses 1669
- Changes in Frequencies of a Laminated Plate Caused by Embedded Piezoelectric Layers (TN) ..... X. Q. Liang and R. C. Batra 1672
- Bifurcation Buckling Analysis of Delaminated Composites Using Global-Local Approach (TN) ..... M. Cho and J.-S. Kim 1673

Table of Contents continued on back cover



A Publication of the American Institute of Aeronautics and Astronautics Devoted to Aerospace Research and Development  
AIAAJH 35(10) 1561-1680 (1997)  
ISSN 0001-1452

## CONTENTS—continued

Comment on "Penalized Weighted Residual Method for the Initial Value Problem" (RF) .....	M. Baruch	1677
Reply by the Authors to M. Baruch (RF) .....	S. J. Kim and J. Y. Cho	1677

## BOOK REVIEW

Review of <i>Laminar Flow Theory</i> .....	R. L. Panton	1680
--	--------------	------