

Table of Contents reprinted from the front cover of

AIAA Journal

VOLUME 3 NUMBER 1

JANUARY 1965

EDITORIAL

An Appreciation, a Plea, and a Clarion Call.....Leo Steg 1

AIAA POLICY FOR ARCHIVE JOURNALS

Acceptance Procedures for Submitted Manuscripts and Preprints..... 192

SURVEY PAPER

New Directions in Lifting Surface Theory.....H. Ashley, S. Windall, M. T. Landahl 3

CONTRIBUTED PAPERS

Flutter of Flat Plates with Partially Clamped Edges in the Low Supersonic Region.....E. F. E. Zeydel and D. R. Kobett 17

Extensional Vibration of Axisymmetrical Shells.....C. Hwang 23

Dynamic Response of a Cylinder to a Side Pressure Pulse.....J. S. Humphreys and R. Winter 27

Experiments on Dynamic Buckling of Shallow Spherical Shells Under Shock Loading.....J. S. Humphreys, R. S. Roth, J. Zatlars 33

Free Vibrations of a Thin-Walled Cylindrical Shell Subjected to a Bending Moment.....V. I. Weingarten 40

Matrix Analysis of Three-Dimensional Elastic Media Small and Large Displacements.....J. H. Argyris 45

Depth of Penetration of Hypervelocity Projectiles.....T. D. Riney 52

Estimates for Collision-Induced Dissociation Rates.....C. F. Hansen 61

Inviscid, Nonadiabatic Flow About Blunt Bodies.....K. H. Wilson and H. Hoshizaki 67

Similar Solutions for the Hypersonic Laminar Boundary Layer Near a Plane of Symmetry.....M. Trella and P. A. Libby 75

Magnus Characteristics of Finned and Nonfinned Projectiles.....A. S. Platou 83

Linearized Vortex Flows.....W. S. Lewellen 91

Couette Flow of a Radiating and Conducting Gas.....R. Greif 98

A Parametric Study of Gas-Particle Flows in Conical Nozzles.....J. D. Hoffman and S. A. Lorenc 103

Measurements of Radiative Heating on Sharp Cones.....D. L. Compton and D. M. Cooper 107

Experiments on a Quasi-Steady $J \times B$ Accelerator.....R. L. Leonard and J. A. Fay 115

Development of a Regeneratively Cooled 30-kw Arcjet Engine.....J. P. Todd and R. E. Sheets 122

Electron Bombardment Heating for Electrothermal Propulsion.....K. E. Starnner and W. R. Grabowsky 127

Breathing Vibrations of Pressurized Partially Filled Tanks.....E. Saleme and T. Liber 132

Technical Notes and Technical Comments are listed on the next page

Table of Contents reprinted from the back cover of January 1965 AIAA JOURNAL

TECHNICAL NOTES

Application of Midcourse Guidance Technique to Orbit Determination.....	G. M. Levine	137
Chemical and Nozzle Flow Losses in Hypersonic Ramjets.....	V. J. Sarli, A. W. Blackman, D. Migdal	139
Implementation of an Optimal Adaptive Guidance Mode.....	R. J. Vance	141
Magnetic Confinement of an Electric Arc in Transverse Supersonic Flow.....	C. E. Bond	142
Trajectory Extrapolation in a Central Force Field.....	J. S. Fiorentino	144
Longitudinal Flow over a Circular Cylinder with Surface Mass Transfer.....	D. J. Wanous and E. M. Sparrow	147
A Practical Note on the Use of Lambert's Equation.....	G. S. Gedeon	149
Determination of Mass Eroded from Pulsed Plasma Accelerator Electrodes.....	T. L. Rosebrock, D. L. Clingman, D. G. Gubbins	150
Heating of the Cavity Inside a Spherical Shell Satellite.....	J. E. Phythian	151
A Steepest-Ascent Solution of Multiple-Arc Optimization Problems.....	R. G. Graham	154
Tidal Wave Propagation in a Rotating Conducting Fluid with a Magnetic Field.....	A. S. Gupta	156
Liquid Film Drain from an Accelerating Tank Wall.....	J. R. O'Loughlin	158
Calculation of Natural Modes of Vibration for Free-Free Structures in Three-Dimensional Space.....	J. H. Berman and J. Sklerov	158
An Estimation Lemma for Laminar Compressible Boundary-Layer Velocity Profiles.....	K. P. Kerney	160
A New Technique for the Direct Calculation of Blunt-Body Flow Fields.....	H. C. Kao	161
Measurements of Errors Caused by Misalignment of Floating-Element Skin-Friction Balances.....	F. B. O'Donnell and J. C. Westkaemper	163
Some Recent Data on Stagnation-Point Convective Heat Transfer in Partially Ionized Air.....	D. L. Compton and D. M. Cooper	165
Aligned Magnetic Field Problem.....	S. Leibovich and G. S. S. Ludford	166
One-Dimensional Flow in MHD Generators.....	E. Bendor	167
Radial Lag of Solid Particles in Delaval Nozzles.....	E. Doughman and C. H. Lewis Jr.	169
Effect of Aximuth on the Accuracy of an Interferometer Radar.....	C. W. Pittman	170
Libration Damping and Lunar Mass.....	I. Michelson	172
Shock Standoff Distance for Equilibrium Flow Around Hemispheres Obtained from Numerical Calculations.....	M. Inouye	172
Heat Transfer from an Impinging Rocket Jet.....	D. A. Cose and B. T. Lee	173
Buckling of Axially Compressed Cylindrical Shells Reinforced by Circumferential Fiber Windings.....	H. L. Langhaar, A. P. Boresi, G. Love, L. Marcus	175
Thin Cylindrical Shells under Surface Torques.....	S. W. Yuan	178
Natural Frequency Curves of Simply Supported Cylindrical Shells.....	J. R. Yamane	180
Separated Flow Behind a Rearward-Facing Step with and without Combustion.....	J. M. Bowyer Jr. and W. V. Carter	181
Measurements in a Free Piston Shock Tube.....	R. Greif and A. E. Bryson Jr.	183
Mass Injection Contours for a Hypersonic Leading Edge at an Angle of Attack.....	C.-Y. Wang	184

TECHNICAL COMMENTS

Comments on "Derivation of Element Stiffness Matrices by Assumed Stress Distributions".....	R. H. Gallagher	186
Reply by Author to R. H. Gallagher.....	T. H. H. Pian	187
Comments on "Effect of Gas Composition on the Ablation Behavior of a Charring Material".....	C. L. Arne	187
Reply by Authors to C. L. Arne.....	N. S. Vojvodich and R. B. Pope	189

REPRINTED TABLE OF CONTENTS

November-December 1964 Journal of Aircraft.....	191
---	-----