

SPORT ROCKETRY
TECHNICAL BIBLIOGRAPHY
1958 – 1999

Compiled by Trip Barber, NAR #4322
January, 2000

Explanation of Abbreviations:

AmSpam: American Spacemodeling magazine
HMR: The Handbook of Model Rocketry, 6th Edition, by G. Harry Stine
HPR: High Power Rocketry magazine
MITJ: Journal of the MIT Rocket Society
MR: The Model Rocketeer magazine
MRM: Model Rocketry Magazine
TAMR: Topics in Advanced Model Rocketry, by Caporaso, Mandell, & Bengen

AERODYNAMICS (see also Drag Measurement and Gliders)

Wind Tunnel Testing of Various Camber Lines Using a Multiply-Flapped Airfoil, Guppy Youngren, MITJ Jan 75, 25p.

Wind Tunnel Testing of Boost Glider Airfoils, Guppy Youngren, MITJ Jan 74, 5p.

Wind Tunnel Testing of Thin Flapped Airfoils, Guppy Youngren, MITCON Proceedings 71, 2p.

The Effect of Cut-Off Trailing Edges on Reducing Fin Drag, Thomas Milkie, MITJ Jan 74, 2p.

Flow Visualization Techniques, NAR Test Equipment Report #2.

Turbulation, Andrew Elliott, MR Jan 74, 4p.

Turbulation Revisited—Effect of B/G Turbulation on Maximum Altitude, Mark Bundick, NARAM-23 R&D, 19p.

Why Elliptical Fins?, Thomas Milkie, MR Sep 72, 2p.

ALTITUDE DATA REDUCTION (see also Altitude Tracking)

Model Rocket Tracking Math—Is There a Better Way?, Thomas Milkie, MITJ Jan 75, 6p.

Solutions for Zero-Azimuth Tracking Problems, Trip Barber, MITJ Nov 72, 1p.

Improved Methods of Altitude Data Reduction—Theoretical and Experimental Studies, Martin Huber & Geoff Landis, NAR Tech Review Vol. 5, 14p.

Use of Programmable Calculators for Altitude Reduction, Tony Rogers, MR Jul 74, 2p.

Altitude Determination, G. Harry Stine, HMR Chap 15 (1 and 2 station) & Appendix VII (3-station), 22p.

Improved Methods of Altitude Data Reduction (Abstract), Martin Huber & Geoff Landis, MR Nov 79, 1p.

A Statistical Examination of Altitude Reduction Methods (Abstract), Mark Bundick, MR Nov 79, 1p.

Error Compensation in Altitude Data Reduction, Bobby Gormley, NARAM-38 R&D, 10p.

Altitude Tracking & Data Reduction, Geoff Landis, MR Sep 83, 3p.

Tracking Data Reduction: Geodesic vs Vertical Midpoint, Martin Huber & Geoff Landis, MITJ 1980, 11p.

Geodesic Data Reduction, Martin Huber & Geoff Landis, MR Jul 81, 1p.

Multi (2 to 7) Station Data Reduction, Dual Eggloft Team, NARAM-28 R&D, 29p.

Some Thoughts on Altitude Tracking by 3-Station Elevation-Only, Greg Good, in Second Stage: Advanced Model Rocketry by Michael Banks, 2p.

Automatic Altitude Data Reduction System, NAR Test Equipment Report 6.

ALTITUDE TRACKING

Optical Tracking System, NAR TR-3.

Tracking, NAR TR-107.

Altitude Tracking, Estes Industries TR-3.

Two Station Tracking, Geoff Landis, MR Oct 80, 2p.

On Optical Tracking Systems, Manning Butterworth, MR Feb 72, 2p.

Theoretical and Experimental Studies of Model Rocket Flight Paths, Cathy Ottinger, MITCON Proceedings 75, 4p.

Determining Model Rocket Velocities, Maura Kelly, USAFA Proceedings 73, 20p.

Use of Smoking and Dual Recovery Systems to Track & Recover High Altitude Model Rockets, Fred Shecter, MITCON Proceedings 75, 2p.

Investigation Into the Use of Titanium Tetrachloride in the Aid of Model Rocket Tracking, Bruce Shay, MR Jul 73, 1p.

Derivation of Altitude by CINEROC Telemetry Equations, Bill Smith, MR Jan 74, 1p.

CINEROC Film Analysis and Altitude Measurement, Geoffrey Donatelli, NAR Tech Review Vol. 6, 7p.

Tracking Streamlining by Use of Three Stations, Steve Connors, MR Aug 74, 2p.

Rising Star: Measuring the Speed of a Supersonic Model Rocket in Flight, Chuck Mund, MR May 82, 3p.

Ping-Pong Ball Altitude Measurements, Stephen Fentress, MR Jul 75, 2p.

Concerning the Fall of a Ping-Pong Ball, Dr. G.M. Gregorek: Part 1, MR Sep 82, 2p; Part 2, MR Dec 82, 2p.

Theoretical & Experimental Investigation of the Fall of a Ping-Pong Ball, Dr. G.M. Gregorek, NARAM-24 R&D, 37p.

Staged vs Cluster Model Rocket Performance Measurement by Strobe, Peter Wysgalla, MRM May 69, 4p.

Transistorized Tracking Light for Night Launched Models, Forrest Mims, MRM Sep 69, 3p.

Xenon Tracking Strobe for Night-Launched Model Rockets, Forrest Mims, USAFA Proceedings 74, 10p.

Transistor Flasher (ltr to editor), John Frankosky, MRM Mar 70, 1p.

Light Flasher (ltr to editor), Darrel Gardner, MRM Sep 70, 2p.

Night Launch Light Payloads, David Sollberger, SR Apr 94, 6p.

High-Intensity Strobe Payload, Mort Binstock, SR Apr 94, 3p.

Give the Tracker a Break With a Unique Optical Tracking System, Thomas Milkie, MRM May 70, 3p.

The Triple-Track Tracker, Trip Barber, MR Jan 79, 3p.; HMR Appendix V.

Development of a 2-Axis Open-Sight Optical Tracker, Trip Barber, NAR Tech Review Vol. 6, 3p.

Radar Tracking, Trip Barber, MR Mar 80, 2p.

Measuring the Velocity of a Model Rocket Using Sonic Doppler Shift, Michael Gasperi, AmSpam Feb 87, 2p.

Evaluation of Drag Coefficient & Altitude Prediction Methods, Matt Steele, NARAM-28 R&D, 33p.

Hemispherical Iteration Tracking Method, John DeMar, NAR Tech Review Vol. 14, 37p.

ALTITUDE PREDICTION & CALCULATION (see also Trajectory Analysis)

Model Rocket Altitude Calculations, George Caporaso; Part 1, MRM Oct 68, 2p; Part 2, MRM Apr 69, 1p.

Model Rocket Altitude Performance, Douglas Malewicki, Centuri Eng. Co. TIR-100.

Altitude Prediction Charts, Douglas Malewicki, Estes Industries TR-10 (also NARTS Publication ESTAC).

How High Will It Go?, Harry Stine, HMR Chap. 7, 18p.

A New Approach to Coast Phase Altitude Calculation and the Inclusion of Variable Air Density, Tom Kuechler & Clifford Kelley, NAR Tech Review Vol. 4, 3p.

Mathematical Analysis of a Model Rocket Trajectory With Experimental Verification, Robert Nelson & Mark Wilson, MITCON-75 R&D, 38p.

Once and Twice-Corrected Fehskens-Malewicki Approximation to the Variable-Thrust Model Rocket, David Werner, USAFA Proceedings 74, 10p.

Error Analysis of the Modified Fehskens-Malewicki Approximation, Eric Dillon, USAFA Proceedings 74, 7p.

A Quasi-Linear Variable Thrust Velocity Approximation, Greg Zettel, USAFA Proceedings 74, 12p.

Continued Studies of the Generalized Caporaso Equation, Tim Russell, USAFA Proceedings 74, 48p.

Error Studies in the Malewicki Burnout Velocity, Cathy Ottinger, USAFA Proceedings 73, 6p.

Approximating Model Rocket Velocities, Maura Kelly, USAFA Proceedings 73, 8p.

A Study of Optimal Time Delays Between Staging, Alan Bates, USAFA Proceedings 73, 14p.

Optimum Delayed Staging, Thomas Kuechler, MR Aug 75, 4p.

The Effect of Delayed Staging on a Multi-Staged Model Rocket's Performance, Thomas Kuechler, MR Jan 73, 2p.

Some Notes on Delayed Staging, Jay Apt, MR Feb 74, 1p.

The Ideal Model Rocket Engine Thrust Curve, Thomas Milkie, MITJ Jan 74, 1p.

Thrust Optimization, Len Fehskens, MRM, Jan 72, 2p.

Model Rocket Thrust Optimization, Miller & Welling & Poteet, MR Jul 76, 5p.

Simultaneous Optimization of Thrust and Mass, Thomas Kuechler, USAFA Proceedings 74, 11p.

Calculation of Air Density Throughout a Model Rocket's Flight, Thomas Kuechler, MR Aug 75, 4p.

The Effect of Aerodynamic Drag on Altitude Lost Due to Early or Late Ejection, Douglas Malewicki & James Anderson, MRM Feb 71, 5p.

Methods for the Exact Determination of Theoretical & Experimental Altitude Performance, Robert Nelson, MITCON Proceedings 1980, 5p.

Simple Analytic Approximations to Model Rocket Engine Thrust-Time Curves, S.W. Bowen, MRM Jul 71, 1p.

Calculation of Optimum Mass, Thomas Kuechler & Clifford Kelley, NAR Tech Review Vol 6, 9p.

Achieving Real-World Optimal Mass Performance, Larry Curcio, SR Jan 98, 2p.

A New Technique for Integrating the Motion Equation for Rocket Altitude Simulation, John Viggiano, NAR Tech Review Vol. 8, 12p.

Development of the Graphical Output—New Approach Rocket Altitude Simulation Program (PASCAL), Bobby Gormley, NAR Tech Review Vol. 11, 34p.

Measuring and Predicting Rocket Performance from Ascent Time Data, Larry Curcio, NAR Tech Review Vol. 11, 53p.; HPR Dec 94, 7p.

BIOLOGICAL PAYLOADS

The Effects of Acceleration on Trained and Untrained Mice, Thomas Hendrickson, MITCON Proceedings 71, 4p.

The Fine Art of Payload Launching, Robert Cannon, Estes Industries TN-4.

Payloads, Harry Stine, HMR Chap. 13, 20p.

Breathing and Heart Rate Sensor for the Foxmitter, Richard Fox, MRM Jul 70, 3p.

BIO-1 Mouse Flights with Telemetry, Alan Stolzenberg, MRM Sep 70, 3p.

BODY TUBES

Heat Sealing Method for Rolling Body Tubes, Randall Redd, AmSpam, May 87, 5p.

Body Tubes from A to Z—Tips on Cutting and Finishing, Robert Anderson, AmSpam, Jan 85, 2p.

Body Tubes for Better Models, Robert Anderson, AmSpam, Feb 85, 2p.

Fiberglass Rocket Bodies, Art Rose, AmSpam Mar 91, 3p.

Making Your Own Body Tubes, Bob Biedron, AmSpam Mar 91, 3p.

Making Body Tubes, NAR TR-10.

Fiberglass Airframe Fabrication, Bruce Markieleski, SR Mar 97, 6p; also NAR TR-110.

CLUSTERING

Clustering the Upper Stages of Model Rockets, Geoffrey Landis, MITCON Proceedings 72, 3p.

Development of Reliable Staged-Clustering Techniques, Michael Del Vecchio, MITCON Proceedings 74, 2p.

Cluster Geometry, Norman Guivens, MITJ 1980, 4p.

Clustering Advanced Rockets, NAR Tech Report NCTRA-1.

Clustered Rocket Design, Mark Page, HPR May 93, 4p.

King Cobra: Clustering Hypertek Hybrids, Bruce Kilby, HPR Apr 97, 4p.

Optimizing Performance in 1/2A Cluster Altitude, Andrew Miller, NAR Tech Review Vol. 11, 7p.

COMPUTER PROGRAMS

Application of Assumed-Mode Flutter Analysis to Low Reynolds Number Wings (FORTRAN), Michael Micci, NARAM-17R&D, 15p.

A Computer Program to Find Optimum Mass, Thomas Kuechler, NAR Tech Review Vol. 6, 4p.

Development of the Graphical Output—New Approach Rocket Altitude Simulation Program (PASCAL), Bobby Gormley, NAR Tech Review Vol. 11, 34p.

Altitude Tracking and Data Reduction (BASIC), Geoff Landis, MR Sep 83, 1p.

Geodesic Data Reduction With the HP-41CV Calculator, Greg Zsidin, AmSpam, Oct 86, 2p.

CPRES—A BASIC Computer Program for Finding the Center of Pressure, Martin Catt, AmSpam, Oct 87, 3p.

CGRAV—A Center of Gravity Program (BASIC), Martin Catt, AmSpam, Oct 87, 4p.

ROCAD—Computer Aided Design for Model Rockets, Michael Gasperi, AmSpam, Nov 85, 2p.

Elliptical Fins by Computer, Michael Gasperi, AmSpam, Feb 86, 1p.

CTRANS: An Automatic Conic Transition Program (BASIC), Martin Catt, AmSpam, Aug 86, 1p.

Development of a Modular Altitude Calculation Method (C), Jeff Vincent, NAR Tech Review Vol. 8, 27p.

DESIGN OPTIMIZATION

Efficiency by Design, Robert Anderson, AmSpam, Oct 86, 3p.

A Design Procedure for Maximizing Altitude Performance, Edward LaBudde, NARAM-41 R&D, 34p.

DETHERMALIZERS

Dethermalizers. Geoffrey Landis, MIT Competition Design Notebook, 3p.

An Investigation into Various Parachute Duration Dethermalizers, Mark Bundick & Robert Justis, MR Sep 76, 2p.

Unwind with a Clockwork Dethermalizer, Stephen Waide, MR Aug 81, 2p.

Fabrication of a Programmable Micro-Timer for Event Actuation and Dethermalization, Bob Kreutz, NAR Tech Review Vol. 9, 10 p.

DRAG MEASUREMENT

Aerodynamic Drag of Model Rockets, Dr. G.M.Gregorek, Estes Industries TR-11.

Model Rocket Altitude Performance, Douglas Malewicki, Centuri Eng. Co. TIR-100.

The Aerodynamic Drag of Model Rockets, William Bengen, TAMR Chap. 3, 237p.

The Aerodynamic Drag of Rockets: Overview of Drag Prediction Methods with Experimental Data, Charles Rogers, HPR Aug 95, 24p.

Stability and Shapes, Harry Stine, HMR Chap. 8, 31p.

- Wind Tunnel Drag Coefficient Measurements, Douglas Malewicki, MRM Apr 70, 2p.
- Model Rocket Drag Analysis Using a Computerized Wind Tunnel, John DeMar, NARAM-38 R&D, 16p.
- Mathematical Analysis of a Model Rocket Trajectory With Experimental Verification, Robert Nelson & Mark Wilson, MITCON-75 R&D, 38p.
- Determining the Drag Coefficient of a Rocket Using a CINEROC Movie Camera, Robert Golobic, USAFA Proceedings 73, 15p.
- A Rocket Releasing Device for Model Rocket Drop Drag Tests, Thomas Milkie, MITJ Jan 74, 3p.
- Use of Drop Tests for True Drag Comparison of Model Rockets, Thomas Milkie, MIT Proceedings 72, 3p.
- Throw Your Rockets Out the Window (Drop Tests), Thomas Milkie, MRM Feb 70, 4p.
- The Effect of Engine Exhaust Plumes on Model Rocket Drag, Mark Stutman & James McGraw, MIT Proceedings 73, 3p.
- Exhaust Plume Drag (ltr. to editor), Robert Cramer, MRM Jul 70, 1p.
- Model Rocket Drag Reduction by Boat-Tailing, George Pantalos, MR Jan 74, 3p.
- Experimenting With the Pop Launch Lug, Larry Shenosky, MR Feb 74, 2p.
- Oil Flow Visualization Applied to Model Rocketry, William Dye, MR Sep 74, 3p.
- Oil Flow Visualization, Lonnie Kroo, NAR Test Equip. Report #2.
- Flight Investigation of Four Nose Cone Shapes, Mark Bundick & Robert Justis, MR Oct 75, 1p.
- Calculating Drag Coefficients, George Caporaso, MRM Nov 68, 1p.
- Velocity Dependence of Drag Coefficients, George Caporaso, MRM Jan 70, 2p.
- The Performance of Conical Model Rockets, Gary Schwede, MRM Oct 69, 5p.
- Empirical Evaluation of the Altitude Potential of Identical Rockets Launched from a Tower and from a Rod (Abstract), William Safford, AmSpam Jan 90, 1p.

EGGLOFT

- Effectiveness of a Turbulator in Egglofting Rockets, Tim Van Milligan: AmSpam, Jan 90 (Abstract), 1p.; NARAM-31 R&D, 18p.
- Wind Tunnel Investigation of 3 Egglofter Body Designs, Chris Flanigan, NAR Tech Review Vol. 2, 11p.
- Evaluation and Selection of Dual Eggloft Capsules, Kevin Gormley, NAR Tech Review Vol. 14, 18p.

ELECTRONIC PAYLOADS (see also Transmitters)

- Electronic Payloads, NAR Tech Report NCTRA-3.
- An Onboard Airspeed Measurement System, Ted Mahle, AmSpam Sep 88, 5p.
- On Board Computers in Model Rocketry, Charles Hall, NAR Tech Review Vol. 4, 9p.

Development of an 8-Channel Model Rocket Flight Data Acquisition System (Abstract), Panic 7300 Team, AmSpam Jan 90, 1p.

Rocket Data Acquisition System and Flight Data, Scott Bartel, HPR Apr 94, 11p.

The Sonoroc, Moose Lavigne, AmSpam Feb 86, 1p.

Measuring the Velocity of a Rocket Using Sonic Doppler Shift, Michael Gasperi, AmSpam Feb 87, 2p.

Rocket Altimeter with Onboard Computer, John Fleischer, in Radio Electronics Magazine Oct 90, 8p.

Airswitch Altimeter Ejection System, John Fleischer, HPR Mar 93, 2p.

Vent Holes for Onboard Altimeters, Thomas Beach & Guppy Youngren, SR May 96, 2p.

IA-X95 Integrating Accelerometer Tests, Thomas Beach, SR Summer 96, 3p.

Non-Vertical Flight and the Cambridge IA-X95 Accelerometer, HPR Aug 96, 5p.

How to Build Your Own Sound Recorder Payload, Thomas Beach, SR Sep 96, 3p.

Rocket Research with Commercial Accelerometers, Larry Curcio, SR May 97, 4p.

Magnetic Apogee Detection Sensor, Robert Galejs, SR Sep 99, 4p.

Universal Flight Controller/Datalogger with Model Rocketry Applications, John DeMar, NAR Tech Review Vol. 11, 17p.

ENGINES

Model Rocket Motors, Harry Stine, HMR Chap. 5, 20p.

Rocket Propulsion, Gordon Mandell: Part 1, MRM Jan 70, 2p; Part 2, MRM Feb 70, 3p.

Performance Analysis of the Ideal Rocket Motor, Martin Summerfield, HPR Jan 97, 13p.

Preliminary Development of a Liquid Thrust Augmentation System, Lindsay Audin, NARAM-xx R&D, 10p.

Thrust Augmentation by Freon Injection, Carl Guernsey, MITCON Proceedings 71, 3p.

Analysis of the Freon-12 Rocket Engine, Thomas Fetter, MITCON Proceedings 73, 2p.

The Physics of Water-Propelled Rockets, Carl Bakay, MR Apr 84, 2p.

The Nitrous Oxide Hybrid Rocket Motor, Al Jackson, Journal of Pyrotechnics #5 Summer 97, 13p.; HPR May 95, 9p.

The Krushnic Effect: Its Cause and Cure, Lindsay Audin, NAR Tech Review Vol. 1, 3p.

Analytic Representation of Model Rocket Thrust-Time Curves, Manning Butterworth, MRM Oct 71, 1p.

Simple Analytic Approximations to Modroc Engine Thrust-Time Curves, S.W. Bowen, MRM Jul 71, 1p.

High Power Model Rocket Motors, Chas Russell, AmSpam Jan 87, 6p.

Black Powder Model Rocket Engines, Trip Barber, MR Jun 75, 4p.

Black Powder Model Rocket Motors, Theory and Design, E.J. Clinger & Wesley Smith, Journal of Pyrotechnics #5 Summer 97, 7p.

Thermodynamics of Black Powder Propellant, Robert Nelson, MITCON Proceedings 81-82, 6p.

Ammonium Perchlorate Composite Rocket Engines, Trip Barber, MR Dec 80, 3p.

Ammonium Perchlorate Composite Basics, Randall Sobczak, HPR May 93, 8p.

Composite Propellant Testing, Trip Barber, MITJ Jul 76, 2p.

Basic Design Theory of a High Energy Model Rocket Engine, Edwin Brown, USAFA Proceedings 74, 7p.

Model Rocket Engine Performance, Edwin Brown, Estes Ind. TN-2.

Non-Destructive Prediction of Model Rocket Engine Performance, Mark Stutman, NAR Tech Review Vol. 3, 12p.

Predicting Engine Performance (Abstract), Larry Shenosky, MR Oct 75, 1p.

Pressure and Temperature Dependent Properties of Black Powder Propellants, Barber Team, NAR Tech Review Vol. 3, 19p.

Ignition-Dependent Behavior of Black Powder Model Rocket Engines, Trip Barber, NAR Tech Review Vol. 4, 4p.

Internal Ballistic Parameters of the Estes C6- Series Model Rocket Engine, Trip Barber, NARAM-13 R&D, 16p.

Engine Ambient Temperature Effects, Robert Morstadt, MR Feb 75, 1p.

Effects of Extreme Cold on Model Rocket Motors (Abstract), Ric Gaff, AmSpam Jan 85, 1p.

Effect of Shock and Temperature Cycling on Failure Rate of D12 Engines, Chris Flanigan, NARAM-18 R&D, 5p.

D12 Catastrophic Failure, Fred Schechter, MITJ 1980, 14p.

Temperature Cycling of Rocket Motors, Team NCR, NAR Tech Review Vol. 9, 12p.

A Theoretical Analysis of Why Black Powder Model Rocket Motors Fail, Matt Steele: AmSpam May 92, 6p.; NARAM-32 R&D, 19p.

Estes C6-0 Nozzle Extension Tests, Trip Barber, MITJ Nov 72, 1p.

Effect of Base Fairings on the Thrust of Model Rocket Engines, Bob Parks, R&D, 51p.

Tandem Model Rocket Engines, Trip Barber: MR Feb 76, 3p. and NARAM-17 R&D, 66p.

Investigation of Solid Fuel Rocket Engines in Tandem, Douglas Frost, NARAM-12 R&D, 32p.

ENGINE STATIC TESTING

Static Test Stand, Trip Barber, NAR Test Equip. Report #3.

Static Test Stand Description, Trip Barber, MITJ Nov 72, 1p.

Static Test Stand Transducer Design, Trip Barber, MITJ 1980, 5p.

Development of a Microprocessor-Based Static Test Stand, Trip Barber, NAR Tech Review Vol. 5, 1980, 8p.

Total Impulse Test Stand, Al Celetti & Roger Lawton, NARAM R&D, 16p.

Engine Measurement With Home Computers, Chuck Hosler, MR Oct 82, 3p.

Low Cost Impulse Recorder for Model Rocket Engines, Henry Taitt & Charles Miller, in Second Stage: Advanced Model Rocketry by Michael Banks, 3p.

Game Port Engine Thrust Measurement System (Abstract), Daren Childers, AmSpam Nov 90, 2p.

Two Experiments in Static Testing Data Reduction, Chris Flanigan, MITJ Jul 76, 3p.

Report on Foreign Rocket Engines, Trip Barber, MR Apr 79, 2p.

GLIDERS

Rear Engine Boost Gliders, Gordon Mandell, Estes Industries TR-4.

Front Engine Boost Gliders, Gordon Mandell, Estes Industries TR-7.

Glide Recovery, G. Harry Stine, HMR, Chapter 11.

Design Rules for Boost and Rocket/Gliders, Dr. G.M. Gregorek, MR Jun 74, 3p. (also NAR TR-102).

Boost/Glider Performance, Douglas Malewicki: Part 1, MRM, Dec 69, 7p; Part 2, MRM Jan 70, 4p; Part 3, MRM Feb 70, 4p.

Model Rocket Recovery by Extensible Flex-Wing, Gordon Mandell, MRM Nov 68, 7p.

Development of a Reliable Swing-Wing Glider (Abstract), George Gassaway, MR Oct 75, 1p.

Applying the Rogallo Wing Glider to Model Rocketry, Dave Cook, MR Sep 76, 2p.

Parawing Recovery, Leif & Olaf Thorson, MRM Jan 70, 1p.

A New B/G (Sling) Pod, A.J. Rose, NARAM-23 R&D, 42p.

Lift, Drag, and Pitching Moment Coefficient Measurements on the Estes Nighthawk B/G, Douglas Malewicki, MRM May 70, 5p.

Investigation of Glider Performance Using Strobe Photography, Chris Flanigan, MITCON Proceedings 72, 3p.

A Free-Flight Method for Boost/Glider Analysis, NAR Test Equipment Report #4.

Study of Boost-Glider Wing Design, Micci-Gressman Team, MR Jul 74, 4p.

Rocket Glider Boost Characteristics (Incidence and Pylon Height), Wayne Gerhart, MR Jan 74, 1p.

Flop-Wing Variable-Geometry Boost/Gliders, Bob Parks, MRM Aug 70, 5p.

Boost Performance of Flop-Wing Rocket/Gliders, Ringner-Rivieccio Team, NARAM-32 R&D, 22p.

Calculation of the Neutral Point, Guppy Youngren, MITJ 1980, 3p.

Canard Boost/Glider Design, Geoff Landis, MITJ 1980, 3p.

Boost/Glider Trajectories, Geoff Landis, MR Apr 80, 1p.

Boost/Glider Stability, Geoff Landis; Part 1, MR Nov 80, 2p; Part 2, MR Feb 81, 1p.

Boost/Glider Stability, Bob Parks, MRM Jan 71, 4p. (also NAR TR-104).

Glider Boost Analysis, Geoff Landis, MR Aug 82, 2p.

Rocket-Boosted Gliders Vertical Flight Analysis, Geoff Landis, NARAM-24 R&D, 32p.

An Experimental Investigation of Nine Factors Affecting Boost Phase Performance of Boost-Gliders, Trip Barber:
Abstract, AmSpam Nov 90, 1p.; NARAM-32 R&D, 48p.

How to Build & Adjust Flex-Wing Boost/Gliders, George Gassaway, AmSpam, Sep 86, 2p.

Flexible Wing Material Analysis, Kevin Gormley, NARAM-38 R&D, 16p.

Composite Wing Construction & Design Techniques, Terry Dean, AmSpam, Jul 89, 3p.

Glider Wing Dihedral, Chad Ring, NAR Tech Review Vol. 10, 7p.

Glider Dihedral and Roll Stability, Geoff Landis, MR Mar 83, 1p.

Self-Regulating Rocket Gliders, Robert Edmonds, NAR Tech Review Vol. 11, 10p.

GUIDANCE

Active Guidance & Dynamic Flight Mechanics for Model Rockets, David Ketchledge, HPR Jul 93, 17p.

Analytic Study of a Pendulum Guidance System in a Model Rocket, Don Venhaus, MITCON Proceedings 74, 2p.

An Electrolytic Guidance Unit, Peter Sauer, MITCON Proceedings 73, 1p.

A Guidance System for Model Rockets, Alan Bilger, MR May 74, 5p; ltr response, Mike Wende, MR Feb 75, 2p.

Ram Air as a Method of Rocket Control, Forrest Mims; Part 1, MRM Feb 70, 5p; Part 2, MRM Mar 70, 3p.

Rollerons: Simplified Roll Control for Amateur Rocket Vehicles, David Crisalli, HPR May 96, 6p.

Vertical Trajectory Guidance System, Steve Ainsworth, HPR Mar 99, 6p.

Capacitor Discharge Guidance, Forrest Mims, MRM Nov 70, 2p.

Development of a Sun-Based On-Board Guidance System, George Gassaway, NAR TR-204.

Sun-Seeking Guidance System for High-Power Rockets, David Mandot, HPR Nov 96, 5p.

Gyroscope-Controlled Guidance System, Steve Ainsworth & Brian Riordan, HPR Nov 96, 4p.

Development of a Gimbale Engine Mount for Use in Guided Model Rockets, Zunofark Team, NARAM-31 R&D,
51p.; (Abstract) AmSpam Jan 90, 1p.

Gimbale Propulsion, Dave Gianakos, HPR May 93, 3p.

HELICOPTER DURATION

Basic Theory of Helicopter Duration, Chris Flanigan, MITJ Jul 76, 6p.

Helicopter Recovery, Norman Smith, MRM Feb 70, 5p.

Helicopter Duration Research, Tim Barklage, AmSpam Mar 88, 2p.

Dragbrakes Revisited, Gordon Mandell, MRM Oct 69, 3p.

Rotor Twist on ROTAROC Models, Zunofark Team, NARAM-25 R&D, 17p.

Studying the Effects of Various Dihedrals on 1/2A Helicopters, Andrew Miller, NAR Tech Review Vol. 10, 6p.

An Improved Helicopter Recovery Model With Design Analysis, Rose/Sykos Team, NARAM-25 R&D, 52p.

Build the ROTAROC-7, George Gassaway, MR Mar 80, 2p.

Windward X-2: Model Rocket Turbocopter, Geoffrey Landis, MITJ 1980, 2p.

Calculating the Rate of Descent of a Helicopter Duration Rocket, Tim Van Milligan, NAR Tech Review Vol. 9, 23p.

Helicopter Duration: The Evolution of Design, Tim Van Milligan, AmSpam Nov 90, 5p.

Helicopter Duration: The Evolution of Design 1997, Tim Van Milligan, SR Jul 97, 6p.

IGNITION

Model Rocket Ignition, Robert Anderson: Part 1, AmSpam Nov 86, 3p.; Part 2, AmSpam Jan 87, 2p.; Part 3, AmSpam Apr 87, 2p.

Ignition and Launching, Harry Stine, HMR Chap. 6, 27p.

Ignition-Dependent Behavior of Black Powder Model Rocket Engines, Trip Barber, NAR Tech Review Vol. 4, 4p.

Model Rocket Igniter Tests, Douglas Kirk, AmSpam Jan 93, 4p.

Flashbulb Cluster Ignition, John Langford, MR May 74, 1p.

Flashbulb Ignition Mysteries Unraveled, John Pursley, AmSpam May 89, 2p.

Cluster Ignition, Chas Russell, AmSpam Feb 85, 1p.

Enerjet Staging by Mercury Switch, Peter Fernberg, MITCON Proceedings 73, 2p.

Development of an Instant Enerjet Igniter, Jim Rea, MR Apr 74, 2p.

The Rocketimer Staging Timer, John Fleischer, MR Aug 75, 2p.

DS2 Delayed Staging System, Al Celetti & Rodger Lawton, MR Apr 76, 1p.

Composite Rocket Staging, Joel Keene, SR Summer 95, 3p.

Constructing a Staged Altimeter-Based Deployment Recovery System, Mike Prasek, SR Jan 97, 4p.

LAUNCH SYSTEMS

Ignition and Launching, Harry Stine, HMR Chap. 6, 27p.

Model Rocket Electrical Launch Systems, NAR Tech Report NCTRB-7.

Range Firing and Communication Systems, NAR TR-2.

The Midi-Launcher Digital Launcher, Al Celetti & Rodger Lawton, MITCON Proceedings 75, 1p.

Digital Electronic Launch System, Al Celetti & Rodger Lawton, MR Aug 76, 3p.

A Minimum-Resistance Relay Launch System, Stephen Chessin, MRM Jan 69, 2p.

Relay Ignition, Gordon Mandell, MRM Dec 69, 3p.

The Relayer, Marc Lavigne, AmSpam Sep 86, 2p.

How to Build Your Own Relay Launch Control System, Wally Etzel, SR Summer 96, 6p.

A Model Rocket Automatic Launch System, Martin Kriegsman, MITCON Proceedings 71, 4p.

Capacitor-Discharge Ignition Systems, Greg Smith, MR Apr 73, 4p.

An Improved Capacitive Discharge Ignition System, Marc Lavigne, AmSpam Mar 87, 1p.

Underwater Launching, Robert Prks, MRM Oct 70, 3p.

Uprated Ignition Reliability, Kenneth Stepleton, MR Jan 79, 2p.

Solid-State Ignition System, Martin Catt, MR Aug 77, 3p.

A Solar-Powered Launch System, Geoffrey Landis, MITCON Proceedings 1980, 3p.

Digital Solar Launcher III, Frank Uzzolino, AmSpam Jul 86, 3p.

The Willfire-II Launch Controller, James Wilcox, MR May 80, 1p.

Modular Launch Control, Carlos Acosta, AmSpam Dec 84, 1p.

A Trio of Launch Controllers (Basic, Capacitive, Solar), Greg Zsidin, AmSpam Oct 89, 3p.

A Countdown Timer for Model Rocket Launchers, Jack Cunkelman, in Second Stage: Advanced Model Rocketry by Michael Banks, 3p.

Launch Control Systems, David Babulski, in Second Stage: Advanced Model Rocketry by Michael Banks, 3p.

Three-Way Plus Relay Launch Controller, Mort Binstock, SR Jul 97, 3p.

LAUNCHERS, PRESSURIZATION

Pressurization Effect Launchers, Trip Barber, MR Jul 74, 3p.

Investigation of the Closed-Breech Launching System, Alan Stolzenberg, MITCON Proceedings 71, 4p.

The Closed Breech Launcher, Gordon Mandell, MRM May 69, 4p.

Investigation of the Dynamics of the Closed Breech Launcher, Barber Team, NARAM-14 R&D, 35p.

The Kennedy Closed Breech Launcher, Greg & Debbie Kennedy, MR Apr 72, 2p.

Optimization of the Zero-Volume Piston Launcher, Thoelen-Bauer-Porzio Team, NAR Tech Review Vol. 2, 17p.

The Zero Volume Piston Launcher, Geoffrey Landis, MR May 74, 2p.

The Differential Equation of Piston Launcher Motion, Geoffrey Landis, MITJ Jul 76, 9p.

An Investigation of the Physics of the Launch Phase of a Zero-Volume Piston Launcher (Abstract), Geoffrey Landis, MR Oct 75, 1p.

Piston Type Thrust Augmenter, Andrew Bennett, MITCON Proceedings 72, 5p.

A Zero-Volume Piston Launcher, Michael Burzynski, MR Sep 75, 7p.

Piston Launcher Research (Abstract), Keith Vinyard, MR Oct 75, 1p.

The Brass Head Piston Launcher, George Gassaway, AmSpam Jul 84, 1p.

The Floating Head Piston Launcher, Odd Couple Team, NARAM-28 R&D, 22p.

Empirical Evaluation of Optimum Piston Tube Length for a Floating-Head Piston Launcher, Crunch Birds Team, NARAM-30 R&D, 28p.

A Means of Increasing the Altitude Attained by a Zero-Volume Piston Launcher by Decreasing the Diameter of the Piston Tube (Abstract), Billy O'Donovan, MR Oct 75, 1p.

Liftoff Velocities of Piston Launchers (Abstract), Matt Steele & George Gassaway, AmSpam Dec 84, 1p.

Piston Performance Investigation, Matthew Whymark, NAR Tech Review Vol. 10, 4p.

METEOROLOGY APPLICATIONS

A Study of Weather with the Use of Model Rockets, George Wagner, MITCON Proceedings 74, 2p.

Penetrating the Cloud Barrier, Dan Becker, MR Jul 83, 1p.

Model Rocket Use in Offshore Weather Research, Tim Barklage: Abstract, AmSpam Jan 90, 2p.; NARAM-31 R&D, 11p.

Micrometeorology, Trip Barber, MRM, Nov 69, 2p.

The Thermal, Bernard Biales, MITJ Jul 76, 5p.

PARACHUTES

Recovery Devices, Harry Stine, HMR Chap. 10, 16p.

Simplified Parachute Duration Analysis, Douglas Malewicki, MRM Jun 70, 2p.

Experimental Parachute Duration Results, Douglas Malewicki & Carl Kratzer, MRM Jul 70, 4p.

Boost Glider (& Parachute) Performance, Douglas Malewicki: Part 1, MRM Jan 70, 4p.; Part 2, MRM Feb 70, 4p.

Parachute Performance, Jim Rea, NAR Tech Review Vol. 2, 8p.; MR Jan 75, 2p.

Some Thoughts on 5 N-sec Parachute Duration Optimization, Bernard Biales, MITJ Nov 72, 5p.

Is That Parachute Too Big?, Robert Cannon, Estes Industries TN-3.

A Study of the Use of Artificial Thermal Generators in Parachute Duration Rockets, Fred Schecter, MITCON Proceedings 76, 2p.

The Vortex Ring Parachute Decelerator, Dave Flanagan, AmSpam, Jul 89, 2p.

Research on Parachute Visibility, Mathias Sias: Abstract, AmSpam Jan 90, 1p.; NARAM-31 R&D 5p.

The Great Parachute Driftoff: Fabric Parachute Tests, Bruce Kilby, HPR Dec 98, 13p.

PHOTOGRAPHIC PAYLOADS

High Quality Aerial Photography, George Flynn: Part 1, MRM Nov 68, 2p.; Part 2 (Lens), MRM Jan 69, 3p.; Part 3 (Haze Filter), MRM Mar 69, 1p.

Color Aerial Photography, George Flynn, MRM Sep 69, 2p.

Fundamental Photo Interpretation, Forrest Mims, MRM Dec 69, 2p.

Three-Dimensional Modroc Photography, Steven Kushneryk, MITCON Proceedings 72, 2p.

A Polaroid CAMROC System, Patrick Griffith, MITCON Proceedings 73, 2p.; MR Dec 73, 1p.

A New Model Rocket Aerial Camera System, Frank Osborn, MITCON Proceedings 71, 4p.

Three-Dimensional CINEROC Movies, Steven Fentress, MR May 75, 1p.

Sound CINEROC, George Flynn, MRM Jan 71, 3p.

Flying the CINEROC, Richard Fox, MRM Jan 72, 3p.

Aerial Photography, Michael Banks, in Second Stage: Advanced Model Rocketry, 6p.

Retrospective Rocketry: Rear-View ASTROCAM, Herb Desind, MR Jun 80, 2p.

The Galactic Disc: A Multi-Photo Camera Carrier for the Kodak Disc 3000, Joseph Zielinski & Ray Chadwick, MR Jun 84, 5p.

Astro Views with the ASTROCAM: Using the ASTROCAM to Photograph Booster Separation, William Dye, AmSpam Aug 84, 2p.

The Multi-Frame (Sequence) Camera, Peter Alway, AmSpam Feb 89, 3p.

Converting the Ansco HR25 Disc Camera for Flight, Ted Mahler, AmSpam Nov 90, 4p.

High Power Rocket Photography, Steve Roberson: Part 1, AmSpam Mar 92, 4p.; Part 2, AmSpam Aug 93, 5p.

High Quality 35mm Aerial Photography, Mort Binstock, SR Jan 97, 4p.

Project Rocketfilm, Ray Dunakin: Part 1, HPR Dec 91, 4p.; Part 2, Movie Camera Conversions, HPR Mar 92, 5p.; Part 3, Launch Vehicles, HPR May 92, 4p.; Part 4, xxxxxxx; Part 5, Four-Inch Payloads, HPR Nov 92, 6p.

Adventures in Aerial Photography, David Cotriss, HPR Dec 91, 4p.

The R&R 35mm Camera Payload, Randy & Rick Elsas: HPR Dec 91, 3p. and HPR Mar 93, 3p.; Part 2, Mirror & Hood, HPR May 93, 9p.

Fisher-Price PX-2000 Video Camera Conversion, Earl Cagle, HPR Dec 91, 10p.

Camera Designs for High Power Rocketry, Douglas Gerrard, HPR Nov 96, 12p.

HYPHER: Flying a 16mm Movie Camera on K1100 Power, Jim Arakaki, HPR Oct 95, 6p.

C3 35mm Camera Control Circuit, Dave Katz, HPR Aug 95, 4p.

RADIO CONTROL

The Radio-Controlled Boost Glider, Douglas Malewicki: Part 1, MRM Aug 69, 4p.; Part 2, MRM Sep 69, 4p.; Part 3, MRM Oct 69, 3p.

The Pulse Radio-Control Journal of the MIT Rocket Society, Mar 77, 82p.

A Hawk Radio-Controlled Boost Glider, Guppy Youngren & Chris Flanigan, MR Jun 74, 2p.

Flagship Radio-Controlled Boost-Glider, Phil Barnes, MR Apr 82, 4p.

Radio Control for the Rocketeer, Stephen Lubliner, AmSpam Oct 93, 3p.

Dual-Tone Multi-Frequency R/C. Ken Goldstein, HPR Dec 95, 3p.

Two-Channel Servo Eliminator for R/C Applications, William Manganaro, HPR Dec 96, 5p.

RESEARCH AND DEVELOPMENT

Research and Development Methods Guide, NAR Publication RD-1.

Getting Started in Research and Development. Chris Flanigan, MR Apr 77, 2p.

Basic Statistics for R&D, Jay Apt, MR Dec 72, 2p.

Ideas in Advanced Model Rocketry, Joseph Persio, NAR Tech Review Vol. 1, 4p.

50 Topics for R&D Projects, Thomas Milkie, MITJ Jan 75, 4p.; MR Jul 75, 2p.

69 Simple Science Fair Projects With Model Rockets (book), Tim Van Milligan, Apogee Components.

Some Ideas for Science Fairs, Lloyd Armstrong, MR Nov 74, 1p.

Projects in Model Rocketry, Robert Cannon, Estes Industries (NARTS Publication ESTPM).

Everything You Always Wanted to do for R&D, Geoffrey Landis, MR May 81, 2p.

RETRO-ROCKETS

Retrofire Recovery, Gordon Mandell, MRM Aug 69, 3p.

Retrorockets Forever, Thomas Milkie, MRM Jan 70, 2p.

Retro Rocketry, Bruce Markielewski, AmSpam Mar 92, 4p.

Retro-Rocketry: Perfecting a Lost Art, Bruce Markielewski, NAR Tech Review Vol. 10, 9p.

STABILITY & FLIGHT DYNAMICS (see also Gliders)

Rocket Stability, NAR TR-13.

Rocket Stability, Thomas Beach & Joyce Guzik, NAR TR-109.

Basic Stability Considerations for Advanced Rockets, NAR Tech Report NCTRB-6.

The Causes and Effects of Roll on the Rocket (Abstract), Craig Phillips, NAR Tech Review Vol. 2.

Minimizing Rocket Fin Area by Optimizing Fin Sweep Angle, Robert Golobic, USAFA Proceedings 74, 14p.

Wind Effects on a Model Rocket's Flight: Part 1, Simulating the Effects, Randy Picolet, MR Nov 73, 3p;
 Part 2, Optimizing the Flight for Altitude, Thomas Kuechler, MR Dec 73, 3p;
 Part 3, Dynamic Oscillations, Thomas Kuechler, USAFA Proceedings 73, 5p.

Stability of a Model Rocket In Flight, James Barrowman, Centuri Eng. Co. TIR-30.

Calculating the Center of Pressure of a Model Rocket, James Barrowman, Centuri Eng. Co. TIR-33 (reprinted in HPR Mar 98).

Elliptical Fin Center of Pressure Calculations, James Barrowman, MRM Nov 70, 1p.

Center of Pressure Calculations, James Barrowman, MRM Jan 71, 4p.

Calculating the Center of Pressure of Ogive Transitions, James Barrowman, MR Feb 72, 2p.

The Barrowman Equations, John Pursley, AmSpam, Feb 90, 5p. (plus 1p. correction Apr 90).

What Barrowman Left Out: Variation of CP With Angle of Attack, Robert Galejs, SR May 99, 3p.

Basic Stability Considerations for Advanced Rockets, North Coast Rocketry TR-15.

Designing Stable Rockets, Estes Industries TR-9.

Designing Stable Rockets, Rick Boyette, AmSpam, Jul 88, 2p.

Unified Approach to Aerodynamic Stability, Gordon Mandell, TAMR Chap. 2, 209p.

Stability and Shapes, Harry Stine, HMR Chap. 8, 31p.

Introduction to the Dynamics of Model Rocket Flight, George Caporaso & Gordon Mandell, TAMR Chap. 1, 46p.

Fundamentals of Dynamic Stability, Gordon Mandell, NAR TR-201.

Dynamic Stability Criteria for Model Rockets, Michael Micci, NAR Tech Review Vol. 4, 4p.

A Look at Dynamic Stability. Geoffrey Landis, MR Feb 80, 1p.

Active Guidance & Dynamic Flight Mechanics for Model Rockets, David Ketchledge, HPR Jul 93, 17p.

Stability and Fin Design, Trip Barber, AmSpam Apr 86, 2p.

Investigating Conical Stabilizers (Abstract), Jeff Chandler, MR Feb 73, 1p.

Fin and Tube Stabilized Rockets (Abstract), Walter Page, MR Oct 73, 2p.

Experimental Testing of Gravitational Stability Theory (Abstract), Geoffrey Landis, MR Oct 73, 2p.

Design & Stability Optimization of Free Rockets, Hawkeye Team, NARAM-22 R&D, 66p.

Inertial Parameter Optimization of Rockets, Craig Phillips, NARAM-31 R&D, 25p.

A Study of Rotational Motions in Rocket Stability Dynamics, Craig Phillips, NARAM-21 R&D, 94p.

Wind-Caused Instability, Bob Dahlquist, HPR Mar 98, 6p.

The Effects of Changing the Incidence Angle of Fins on a Model Rocket, Bobby Gormley, NAR Tech Review Vol. 9, 12p.

STAGING

Multi-Staging, Estes Industries TR-2.

Multistaged Models, Harry Stine, HMR Chap. 9, 14p.

Multistaging Advanced Rockets, NAR Tech Report NCTRA2.

Electronic Staging of Model Rockets, North Coast Rocketry TR-7.

The Mercury Tilt Switch as an Effective Staging Device, Mike Myrick, MITCON Proceedings 75, 2p.

A Study of Optimal Time Delays Between Staging, Alan Bates, USAFA Proceedings 73, 14p.

Time-Delayed Staging (Abstract), Robert Thompson, MR Sep 72, 1p.

The Effects of Delayed Staging on a Multi-Staged Model Rocket's Performance, Thomas Kuechler, MR Jan 73, 2p.

Some Notes on Delayed Staging, Jay Apt, MR Feb 74, 1p.

Optimum Delayed Staging, Thomas Kuechler, MR Aug 75, 4p.

The Rocketimer Staging Delay Timer, John Fleischer, MR Aug 75, 2p.

DS2 Delayed Staging System, Al Celetti & Rodger Lawton, MR Apr 76, 1p.

Booster Separation During Delayed Staging, Bobby Gormley, NAR Tech Review Vol. 10, 12p.

Staged vs Cluster Model Rocket Performance, Peter Wysgalla, MRM May 69, 4p.

Ignition Dependent Behavior of Black-Powder Model Rocket Engines, Trip Barber, MITJ 75, 1p.

Development of Reliable Staged-Clustering Techniques, Michael Del Vecchio, MITCON Proceedings 74, 2p.

Enerjet Staging by Mercury Switch, Peter Fernberg, MITCON Proceedings 73, 2p.

The Wilcox Mercury-Switch Staging System, G. Allen Wilcox, MR Oct 76, 2p.

Technical Notes on Mercury Switch Staging, William Dye, AmSpam Dec 84, 4p.

Electronics for Staging, Paul Campbell, HPR Sep 93, 3p.

Clustering the Upper Stages of Model Rockets, Geoffrey Landis, MITCON Proceedings 72, 3p.

Separated Engine Staging, Joseph Sarkis, MITCON Proceedings 71, 3p.

Investigations of Gap-Stage Booster Recovery, Buzz Nau & Al de la Inglesia, SR Sep 97, 4p.

Project Longshot: Staging Hybrids, Sue McMurray, HPR Apr 97, 8p.

Staging With Pressure: Pressure Switch Staging, Joel Keene, HPR Nov 92, 3p.

Composite Rocket Staging, Joel Keene, SR Summer 95, 3p.

Constructing a Staged Altimeter-Based Deployment Recovery System, Mike Prasek, SR Jan 97, 4p.

Flashbulb Staging, William Dye, MR Nov 75, 1p.

Boosted Darts in Model Rocketry, Spaceman Spiff Team: Abstract, AmSpam Jan 90, 1p.; NARAM-31 R&D, 56p.

Some Thoughts on Boosted Darts, John Kane, MITJ 1980, 2p.

Altimeter-Based Boosted Dart Recovery, Bobby Gormley, NAR Tech Review Vol. 14, 8p.

Building a Non-Pyrotechnic Ejection System, Doug Steinfeld, SR May 98, 7p.

STREAMERS

Streamer Duration Configuration Optimization, Trip Barber, NARAM-19 R&D, 27p.

Streamer Duration Optimization, Trip Barber & Thomas Milkie: MITJ Nov 72, 3p.; MR Sep 73, 2p.; NAR TR-101.

More on Streamer Duration Optimization, Chris Flanigan, MITJ Jul 76, 3p.

Winning Streamer Duration, Trip Barber, MR May 78, 3p.

Folded vs Rolled Tissue Streamers, Larry Peters, NAR Tech Review Vol. 5, 1p.

Streamer Duration Folding Techniques (Abstract), Bob Kaplow & Alan Jones, AmSpam Jan 85, 1p.

Streamer Drop Tests, Edgar Muntwyler, AmSpam Jun 85, 1p.

Streamer Duration, Charlie Sykos, NARAM-22 R&D, 14p.

Streamer Construction Techniques, John Marsh; Abstract, AmSpam Jan 90, 1p.; NARAM-31 R&D, 16p.

Streamer Materials (Abstract), Mickey Gottung, AmSpam Jan 90, 1p.

STRUCTURES

Application of Assumed Mode Flutter Analysis to Low Reynolds Number Wings, Michael Micci; Abstract, MR Oct 75, 1p.; NARAM-17 R&D, 32p.

Investigation of the Strengths of Fin/Body Tube Glue Joints (Abstract), Daniel Wolf, MR Nov 79, 1p.

Notes Toward a Theory of Superroc Failure, Geoffrey Landis, MITCON Proceedings 79, 4p.

Superrocs—Avoiding the Bends, Dave Landgraf, MR Jun 83, 3p.

Composite Construction (Abstract), Tim Barklage, AmSpam Nov 90, 1p.

Strength Analysis of Balsa Wood: The Increased Strength of Adding Tissue, Kevin Gormley, NAR Tech Review Vol. 11, 18p.

Loads, Stresses, and Strains in Model Rockets in Flight, David Ketchledge, NAR TR-202.

SUPERSONIC FLIGHT

Supersonic Model Rocketry, Trip Barber, MITJ 1980, 3p.

Development of the Supersonic Model Rocket, Ralph Schiano, MITCON Proceedings 73, 2p.

Supersonic Model Rockets, Thomas Milkie, MR Aug 73, 2p.

Rising Star: Measuring the Speed of a Supersonic Model Rocket in Flight, Chuck Mund, MR May 82, 3p.

Breaking the Barrier, Greg Zsadin, MR May 82, 2p.

Supersonic Rocketry, NAR Tech Report NCTRA-6.

Self-Immolation of Supersonic Model Rockets, Dan Meyer, MR Jul 80, 1p.

Break Mach 1, Trip Barber, MR Sep 80, 2p.

In Pursuit of Mach 1: Design for Supersonic Flight, Geoffrey Donatelli, MR Oct 83, 3p.

TRAJECTORY ANALYSIS (see also **Altitude Prediction)**

Elements of Trajectory Analysis, George Caporaso, TAMR Chap. 4, 121p.

Basic Rocket Flight Calculations, NAR TR-1.

Mathematical Theory of the Variable-Thrust Model Rocket, Pat Miller & Thomas Kuechler: Part 1, MR Nov 74, 3p.; Part 2, MR Dec 74, 4p.; Part 3, MR Apr 75, 3p.; Part 4, MR May 75, 1p.

An Approximation for the Variable-Thrust Model Rocket, Clifford Kelley & Thomas Kuechler, NAR Tech Review Vol. 5, 7p.

Thrust Optimization for the Variable-Thrust Model Rocket, Christopher Wehling USAFA Proceedings 74, 16p.

Mathematical Analysis of a Model Rocket Trajectory: Part 1, The Powered Phase, Robert Nelson & Mark Wilson, in The Physics Teacher Vol. 14 No. 3, 12p.; Part 2, The Coast Phase, Robert Nelson & Paul Bradshaw, in The Physics Teacher Vol. 14 No. 5, 7p.

Analog Simulator for 1-Dimensional Trajectory Analysis, Gary Schwede & Steve Knudsen, USAFA Proceedings 74, 13p.

Theoretical and Experimental Studies of Model Rocket Flight Paths, Cathy Ottinger, USAFA Proceedings 74, 41p.

Preliminary Studies of Curve Fits to Optimum Weight Levels, Janice Ostrom, USAFA Proceedings 74, 6p.

Model Rocket Motion While Thrusting, Pat Miller, MITCON Proceedings 73, 3p.

Rocket Trajectory Simulation Inclusive of Variable Gravity & Density, Rafe Schindler & James Bennett, MITCON Proceedings 71, 3p.

Determination of Trajectories by Computer Solution and Analysis of On-Board Films, Geoffrey Donatelli, MITCON Proceedings 80, 5p.

TRANSMITTERS (see also **Electronic Payloads**)

Payloads, Harry Stine, HMR Chap. 13, 20p.

Radio Transmitters and Rocketry, North Coast Rocketry TR-6.

Building an Inexpensive Model Rocket Transmitter, Richard Fox: Part 1, Basic Transmitter, MRM May 69, 3p; Part 2, Temperature Sensor, MRM Jun 69, 2p.; Part 3, Spin Rate Sensor, MRM Jul 69, 2p.; Part 4, Accelerometer, MRM Aug 69, 3p.; Part 5, Microphone, MRM Oct 69, 1p.; Part 6, Final Notes, MRM Nov 69, 1p.

Foxmitter-2 Transmitter, Richard Fox, MRM Jun 70, 3p.

Breathing and Heart Rate Sensor for the Foxmitter, Richard Fox, MRM Jul 70, 3p.

Improved Temperature Sensor for the Foxmitter, Richard Fox, MRM Aug 70, 2p.

Improved Accelerometer for the Foxmitter, Richard Fox, MRM Sep 70, 3p.

Model Rocket Transmitters, Richard Fox, MR Sep 73, 2p.

A Multiplexer for the Foxmitter, Richard Fox, MR Feb 74, 1p.

Humidity Sensor for the Foxmitter, Richard Fox, MRM Dec 70, 1p.

Foxmitter-3 Transmitter, Richard Fox, MRM Sep 71, 4p.

Minimitter Modroc Homing Beacon, Richard Fox, MRM Oct 70, 3p.

Legal Restrictions on Transmitters, Carl Kratzer, MRM Jun 69, 1p.

Model Rocket Telemetry, David Babulski: Part 1, MR Sep 83, 2p.; Part 2, Transmitter, MR Dec 83, 3p.; Part 3, 2-Channel Transmitter, MR Jan 84, 3p.; Part 4, Boost Vehicles, MR Apr 84, 3p.; Part 5, Receivers, MR May 84, 3p.; Part 6, Data Analysis, AmSpam Sep 84, 2p.; also NAR Tech Report ED-03.

Lower Tropospheric Probe, David Babulski: Part 1, Transmitter, AmSpam May 88, 4p.; Part 2, Booster, AmSpam Aug 88, 5p.; Part 3, Ground Support, AmSpam Dec 88, 3p.; Part 4, Ground Support, AmSpam Jan 89, 2p.; also NAR Tech Report ED-12.

Optical (LED) Telemetry, Forrest Mims, MRM May 70, 5p.

Advanced Upated Model Rocket Sounding Systems, Gary Schwede, USAFA Proceedings 73, 15p.

Sound CINEROC, George Flynn, MRM Jan 71, 3p.

A 49 MHz Telemetry Transmitter for Model Rocketry, Michael Gasperi, AmSpam Jun 85, 1p.

Building and Flying a 2-Channel Telemetry Package, David Babulski, in Second Stage: Advanced Model Rocketry by Michael Banks, 6p.

Radio Telemetry Transmitters, David Babulski, in Second Stage: Advanced Model Rocketry by Michael Banks, 3p.

Active Payload Beacon Transmitter, Ted Mahler, AmSpam Jan 92, 4p.

Onboard Electronic Payload for Live Rocket Video, David Grumbine, SR Sep 98, 1p.

Carrying an Amateur Television Transmitter Aloft in a Rocket, Wayne Foster, NAR Tech Review Vol. 8, 12p.

Soundroc Multiplexed Telemetry System for Model Rockets, David Ketchledge, NAR TR-203.

WIND TUNNELS

Wind Tunnels in Model Rocketry, Gordon Mandell, NAR Tech Review Vol. 3, 9p.

Boeing Wind Tunnel, NAR Test Equipment Report #1.

Building a Wind Tunnel, Estes Industries TR-5.

Smoke Tunnel, MRM Aug 69, 2p.

An \$11 Car-Mounted Wind Tunnel Design, Forrest Mims, MRM Jul 70, 3p.

Design and Construction of a Simple Wind Tunnel, Brad Braufman, MITCON Proceedings 81-82, 10p.