ROCKET SCIENCE BOOKS
Unusual, hard-to-find, out-of-print and historic books about rockets, missiles, propulsion, and space.

Good Books, Great Prices, and Free Shipping
from the Rocket Science Institute

All books in stock and orders always shipped promptly. You may order 24/7 on-line, or by e-mail or postal letter. Book descriptions, photos, and reviews may be found on our website:

http://rocketsciencebooks.com

<table>
<thead>
<tr>
<th>ISBN Number</th>
<th>Title</th>
<th>Pages</th>
<th>Size</th>
<th>Price US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISBN 1-878628-15-1</td>
<td>The Rocket Motor, Maurice Zucrow PhD</td>
<td>74</td>
<td>S</td>
<td>19.95</td>
</tr>
<tr>
<td>ISBN 1-878628-00-3</td>
<td>Safety Manual for Experimental &amp; Amateur Rocket Scientists, L. Jones PhD</td>
<td>91</td>
<td>L</td>
<td>19.95</td>
</tr>
<tr>
<td>ISBN 1-878628-NEW</td>
<td>Basics of Space Flight (NASA)</td>
<td>311</td>
<td>L</td>
<td>29.95</td>
</tr>
<tr>
<td>ISBN 1-878628-NEW</td>
<td>Introduction to Rocket Missile Propulsion (Rocketdyne)</td>
<td>131</td>
<td>S</td>
<td>19.95</td>
</tr>
<tr>
<td>ISBN 1-878628-NEW</td>
<td>USAF Air University AU-18 Space Primer</td>
<td>354</td>
<td>L</td>
<td>44.95</td>
</tr>
<tr>
<td>ISBN 1-878628-NEW</td>
<td>Chemical Kinetics Phenomena in Rocket Engines (USAF)</td>
<td>52</td>
<td>L</td>
<td>17.95</td>
</tr>
</tbody>
</table>

Special Offer!
Order any three or more books from this catalog (or our website) and we'll send them postpaid—free postage—to any address in the USA.
Overseas customers: order any five or more books and we'll pay your postage.
Offer ends 31 December 2013.
Small Rocket Lift Device (Aerojet-General)  80 L  19.95
Design of Aerodynamically Stabilized Free Rockets, US Army Missile Cmd  716 L  49.95
Design of a Large Unconventional Liquid Rocket Engine (Aerojet-General)  110 L  19.95
Photographic Study of Combustion in a Rocket Engine (NACA)  52 L  19.95
NASA Manned Lunar-Landing Through Use of Lunar-Orbit Rendezvous  99 L  19.95
NASA Modeling Flight: Dynamically-Scaled Freeflight Models  201 L  24.95
Conceptual Design of In-Space Vehicles: Human Exploration Outer Planets  141 L  19.95
NASA Glossary of Chemical Propulsion Terms & Table of Conversion Factors  101 L  19.95
Rocket Propellant Thermochemistry and Combustion, S.S. Penner PhD  98 S  16.95
Introduction to Rocket Aircraft Performance (NACA)  48 L  16.95
Performance of a Supersonic Ducted Rocket (NACA)  33 L  14.95
Free-Flight Performance of a Rocket-Boosted, Air-Launched Ram-Jet (NACA)  31 L  14.95
Equations of Motion of a Rocket (NACA)  23 L  14.95
Aerodynamic Wing Heating from a Free-Flight Rocket Model (NACA)  55 L  14.95
NASA Reusable Rocket Engine Modeling & Analysis  90 L  19.95
Vehicle Stability and Control  43 L  14.95
NASA Design-Development Testing  35 L  14.95
NASA Flight Separation Mechanisms  39 L  16.95
NASA Interaction With Unbilicals & Launch Stands  21 L  14.95
NASA Spaceborne Digital Computer Systems  83 L  19.95
NASA Spacecraft Thermal Control  50 L  16.95
NASA Space Vehicle Accelerometer Applications  89 L  19.95
NASA Space Vehicle Displays Design Criteria  46 L  19.95
NASA Spacecraft Solar Cell Arrays  54 L  19.95
NASA Spacecraft Star Trackers  67 L  19.95
NASA Spaceborne Electronic Imaging Systems  68 L  19.95
NASA Space Tethers: Design Criteria  20 L  12.95
NASA Entry Vehicle Control  31 L  19.95
NASA Sounding Rocket Program Handbook  220 L  26.95
NASA Review of Aerodynamic Launch Vehicles  70 L  19.95
NASA Design of Space Vehicles for Exploration of Outer Planets  140 L  22.95
NASA Special Rockets and Pyrotechnics Problems  29 L  14.95
NASA Flight Performance of a Spin-Stabilized Spherical Rocket Motor  42 L  16.95
NASA Testing the 30-kW Fission Engine & End-to-End Demonstration Testing  80 L  19.95
NASA Performance of Saturn Apollo Vehicle Navigation, Guidance, Controls  52 L  16.95
NASA Plasma Sail Concept Fundamentals  23 L  14.95
Affordable Spacecraft: Design & Launch Alternatives  43 L  16.95
LEO [Low-Earth-Orbit] On The Cheap  237 L  26.95
Big Dumb Boosters  31 L  14.95
New Space Industries for The Next Millennium (NASA)  27 L  15.95
General Public Space Travel & Tourism (NASA-STA)  75 L  19.95
Looking Backward, Looking Forward: 40 Years of Human Spaceflight  257 L  24.95
Comparison of Mars Aircraft Propulsion Systems  87 L  19.95
Solar Electric Propulsion for Mars Transport Vehicles  18 L  9.95
On the Subject of Cosmic Flights Without Space Equipment or Propellant  9 L  9.95
NASA Advanced Electric Propulsion Research  108 L  19.95
NASA Computer Program for Complex Chemical Equilibrium  61 L  14.95
The Story of Self-Repairing Flight Control Systems (NASA)  154 L  24.95
A History of Aerospace Problems, Their Solutions, Their Lessons  245 L  22.95
Advanced Composite Structures  110 L  19.95
NASA System Engineering “Toolbox” for Design-Oriented Engineers  306 L  26.95
Solid Propulsion Systems

ISBN 1-878628-NEW Analytical-Experimental Studies: Spherical Solid-Propellant Motors (NACA) 41 L 17.95
ISBN 1-878628-NEW Tubrojet-Exhaust Simulator with Solid-Propellant Motor 49 L 15.95
ISBN 1-878628-NEW Mars Rover Solid Rocket Engine Development, JPL & ATK 20 L 9.95
ISBN 1-878628-NEW Collection of Seven Rocket Propulsion Technical Papers [looseleaf] 70 L 19.95
ISBN 1-878628-NEW Stress Analysis of Solid Propellant Rocket Motors (JPL) 34 L 16.95

[The rest of the books in this Series are all from the NASA Space Vehicle Design Criteria series]

ISBN 1-878628-19-4 Solid Rocket Motor Metal Cases 106 L 19.95
ISBN 1-878628-NEW Solid Rocket Motor Nozzles 141 L 24.95
ISBN 1-878628-NEW Solid Rocket Motor Internal Insulation 125 L 24.95
ISBN 1-878628-22-4 Solid Rocket Motor Performance Analysis 115 L 21.95
ISBN 1-878628-27-5 Solid Rocket Thrust Vector Control 204 L 29.95

Solid Propellants

ISBN 1-878628-01-1 Advanced Nitrate-Type Solid Propellants, J. Taylor PhD 158 S 24.95
ISBN 1-878628-NEW Study of Propellants & Delivered Specific Impulse in Model Rocket Engines 26 L 16.95
ISBN 1-878628-NEW Effects of Aluminum Added to Solid Propellant (NASA-NAL Japan) 16 L 11.95
ISBN 1-878628-NEW Theory of Solid Composite Propargol Combustion (NASA) 33 L 15.95
ISBN 1-878628-NEW Burning Rate Control Factors in Solid Propellants (Navy-Princeton) 12 L 11.95
ISBN 1-878628-NEW Experimental Study of the Burning Rates of Solid Propellants (Cal Tech) 48 L 19.95
ISBN 1-878628-NEW Studies on Ignition & Flame Propagation of Solid Propellants (UTC/JPL) 134 L 22.95
ISBN 1-878628-NEW Closed Vessel Combustion of Stick Propellant (US Army) 29 L 14.95
ISBN 1-878628-NEW Unstable Combustion in Solid Propellant Rocket Motors (JPL) 24 L 16.95
ISBN 1-878628-NEW Collection of Seven Ammonium Nitrate Rocket Propellant Papers [looseleaf] 57 L 19.95
ISBN 1-878628-NEW Characteristics of Potassium Nitrate Based / Sugar Rocket Propellant 4 L 7.95
Aerojet-General: Mechanical Properties of Solid Rocket Propellants 105 L 19.95
Dynamic Characterization-Analysis of Space Shuttle SRM Solid Propellant 217 L 24.95
Shelf-Life Test on Aerojet 15K-1000 JATO Rocket Motors (USAF) 32 L 15.95
Test Equipment & Techniques for Evaluating Composite Propellant Hazards 36 L 16.95
Polymeric Binder for Advanced Solid Propellant & Hybrid (Union Carbide) 33 L 16.95
Collection of Twelve Solid Rocket Propellant Technical Papers [looseleaf] 125 L 19.95
Unusual British Solid Propellants, J. Taylor PhD 84 S 19.95

[The rest of the books in this Series are all from the NASA Space Vehicle Design Criteria series]

Solid Propellant Selection & Characterization 132 L 24.95
Solid Propellant Grain Design & Internal Ballistics 114 L 21.95
Solid Propellant Grain Structural Integrity 112 L 21.95
Solid Propellant Processing Factors 84 L 19.95
Propellant for the NASA Standard Initiator 26 L 16.95

Liquid Propulsion Systems

How To Design, Build & Test Small Liquid-Fuel Rocket Engines [not NASA] 92 S 19.95
Air Force Handbook Aerojet Liquid Liquid-Propellant JATO Rocket 21 L 15.95
Aerojet-General: Development of a 1.5-Million lbf Liquid Engine 403 L 39.95
Aerojet Liquid JATO Overhaul Manual 19.95
Space Station Auxiliary Thrust Chamber Technology (Aerojet-NASA) 179 L 24.95
Photographic Study of Combustion in a Rocket Engine (NACA) 52 L 19.95
Rocket-Engine Throttling (NACA) 23 L 12.95
Prevention of Screaming in Rocket Engines (NACA) 24 L 12.95
Aerojet Design Study of a Large Unconventional Liquid Rocket Engine 110 L 19.95
Aerojet Apollo Propulsion System Rocket Engine Injector Program 167 L 26.95
NASA Optimum Design of Ring & Partition Liquid Tank Antislosh Baffles 81 L 17.95
Rocketdyne F-1 Engine Familiarization Training Manual 92 L 19.95
Rocketdyne Liquid Vernier Engine Specifications 147 L 22.95
Injector Hydraulics & Combustion Phenomena in Liquid Engines (JPL) 39 L 17.95

[The rest of the books in this Series are all from the NASA Space Vehicle Design Criteria series]

Design of Liquid Propellant Rocket Engines (complete in one volume) 468 L 49.95
The M1 Rocket Engine Project 40 L 19.95
Remembering the Giants: Apollo Rocket Propulsion Development (NASA) 209 L 29.95
Development of Gas-Fed Pulse Detonation Engine 46 L 19.95
Liquid Rocket Engine Fluid-Cooled Combustion Chambers 122 L 24.95
Liquid Rocket Engine Self-Cooled Combustion Chambers 134 L 24.95
Liquid Rocket Engine Injectors 131 L 24.95
Liquid Rocket Engine Nozzles 123 L 24.95
Design of Injectors & Ablative Thrust Chambers for a FLOX-Propane Engine 40 L 19.95
Internal-Film Cooling of Rocket Nozzles (NACA) 40 L 19.95
Internal-Film Cooling of 1000-lbf Liquid-Ammonia – Lox Engine (NACA) 43 L 19.95
Rocket Power Plants Based on Nitric Acid (NACA) 27 L 14.95
Summary of NASA & USAF Hypergolic Propellant Related Spills (NASA) 112 L 19.95
Experimental Investigation of a Lightweight Rocket Chamber (NACA) 12 L 9.95
Photo Study of Combustion in a Rocket Engine: Lox & Gasoline (NACA) 52 L 19.95
Ablative Material Testing for Low-Pressure, Low-Cost Rocket Engines 15 L 9.95
Investigation of Ceramic, Graphite, Chrome-Plated Graphite Nozzles (NACA) 18 L 9.95
Photographic Investigation of Combustion in a Transparent Rocket Engine 12 L 9.95
### Microjet Propulsion Series

<table>
<thead>
<tr>
<th>ISBN</th>
<th>Title</th>
<th>Pages</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-878628-09-7</td>
<td>Jets &amp; Models Guide</td>
<td>60</td>
<td>14.95</td>
</tr>
<tr>
<td>1-878628-10-0</td>
<td>All About Jetex</td>
<td>48</td>
<td>12.95</td>
</tr>
<tr>
<td>1-878628-11-9</td>
<td>Building Jetex</td>
<td>44</td>
<td>12.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Small Russian Pulse-Jet Engines [in Russian]</td>
<td>103</td>
<td>18.95</td>
</tr>
</tbody>
</table>

### Other Books of Interest [all from NASA, except as noted]

<table>
<thead>
<tr>
<th>ISBN</th>
<th>Title</th>
<th>Pages</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-878628-NEW</td>
<td>Bell Aerospace Patent: Personnel Propulsion Unit [&quot;Rocket Belt Pack&quot;]</td>
<td>15</td>
<td>14.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>US Government: Records Concerning the 1947 Crash Near Roswell, New Mexico</td>
<td>20</td>
<td>19.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>On the Subject of Cosmic Flights Without Space Equipment (NASA)</td>
<td>9</td>
<td>9.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Interplanetary Flight &amp; Communications: Theory of Propulsion (NASA)</td>
<td>67</td>
<td>17.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Vortex Rings in Air (Smoke Generation &amp; Ring Ejection: Aerojet-Navy)</td>
<td>54</td>
<td>16.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>The Boy Chemist, Frederick Collins (1924)</td>
<td>323</td>
<td>24.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>The Manhattan Project: Making the Atomic Bomb</td>
<td>76</td>
<td>19.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>White Sands Missile Range (WSMR) Directory</td>
<td>48</td>
<td>14.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>White Sands Missile Range (WSMR) Range Customer Handbook</td>
<td>221</td>
<td>27.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Dunes and Dreams: A History of White Sands National Monument (USNPS)</td>
<td>316</td>
<td>24.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Spaceport America Commercial Launch Site NM: Environmental Report (FAA)</td>
<td>354</td>
<td>29.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Up From Kitty Hawk</td>
<td>30</td>
<td>14.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Atmospheric Nuclear Weapons Testing: 1951-1963 (USDOE)</td>
<td>257</td>
<td>29.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Cloud Rise from High-Explosives Detonations (Sandia National Laboratory)</td>
<td>26</td>
<td>14.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Origins of the Nevada Test Site (USDOE)</td>
<td>94</td>
<td>19.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Nevada Test Site Guide (National Nuclear Security Administration, DOE)</td>
<td>87</td>
<td>19.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Trinity: 16 Jul 1946 Test (Bainbridge, Los Alamos Scientific Laboratory)</td>
<td>94</td>
<td>19.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Los Alamos: The Oppenheimer Years 1943-1945 (Los Alamos Scientific Lab)</td>
<td>20</td>
<td>14.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Operation Argus 1958 (Defense Nuclear Agency)</td>
<td>142</td>
<td>24.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Hovering Performance of Jet-Propulsion Engine Helicopters (NACA)</td>
<td>41</td>
<td>19.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Analog Flight Simulations at NASA's Flight Simulation Center</td>
<td>244</td>
<td>29.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Self-Lubricating Polymer Lubrication for Space Applications</td>
<td>48</td>
<td>19.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Lubrication of Space Systems</td>
<td>28</td>
<td>14.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Liquid Lubricants for Advanced Aircraft Engines</td>
<td>28</td>
<td>14.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Tests of a 22-Inch-Diameter Pulse-Jet Engine (NACA)</td>
<td>140</td>
<td>24.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Tests of Thrust Augmentors for Jet Propulsion (NACA) [loose-leaf]</td>
<td>9</td>
<td>4.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>NASA White Sands Test Facility’s Guide</td>
<td>19</td>
<td>14.95</td>
</tr>
<tr>
<td>1-878628-NEW</td>
<td>Dept of Defense Handbook: Polymer Matrix Composites, Vol 3 (Design)</td>
<td>376</td>
<td>29.95</td>
</tr>
</tbody>
</table>
We charge only the actual postage or shipping costs. There is never a "handling" or "service charge."

New books are added to our catalog frequently. Visit our website for new titles, and see our newest offerings on eBay at:

http://stores.ebay.com/rocketsciencebooks

Our Amazon Store has more than 200 books for immediate shipment:

www.amazon.com/shops/AKMO4V8OP8BGR

Within the USA, we usually ship via USPS Priority Mail (with delivery confirmation). With a few (extra-heavy book) exceptions, most books (and sometimes several) can be sent for $5.95. Priority mail packages usually arrive within 2-3 days, and you can track your package on-line.

Airmail to overseas customers is usually about US$ 6.00 to $9.00 per book; if two or more books are shipped together, the per-book postage will be much less. The "flat rate" for many books, via Global Priority Mail is $9.95 to Canada and Mexico; $19.50 everywhere else (including Europe, Asia, Africa, South America, Australia, and New Zealand). Delivery time is usually only 5 to 7 days, to most destinations worldwide.

You may pay with your credit card, via PayPal (www.paypal.com), a secure, international, free service. **If you PayPal your book order payment today, we will usually ship later today, or early tomorrow.**

Our PayPal account is <books@rocketsciencebooks.com>

Payment may also be made by money order or check, payable to the "Rocket Science Institute, Inc.." and sent to our address (see below). International payments must be in US Dollars, and drawn upon a US bank. **Your purchases help support our educational and research projects.**

Our e-mail address is: <books@rocketsciencebooks.com>

Postal mail: Rocket Science Books
Rocket Science Institute, Inc
P O Box 1102
Mojave, California 93502 USA

---

**Footnote 1.** Book sizes: "L" books are 11.0 x 8.5-inches; "S" books are 8.5 x 5.5-inches.

**Footnote 2.** Books marked "(NACA)" are from the National Advisory Committee for Aeronautics, the predecessor to NASA.

---

This catalog was issued for DECEMBER 2013 – JANUARY 2014. Please inquire for a more recent edition.

Your first resource for unusual, hard-to-find, out-of-print, and historic Goddard, NASA, JPL, GALCIT, USAF, NACA, military, industrial, educational, and "how-to" books, documents, and patents about aerospace, astronauts, and astronautics; the space shuttle, satellites, spacecraft; rocketry propulsion systems; liquid fuel and solid propellant engines; and missile testing. Plus unique reference books on chemistry, engineering, and safety with rocket fuels, oxidizers, and propellants; igniters, pyrotechnics, pyro devices, fireworks, and explosives; rocket and pulsejet-propelled model airplanes with DynaJets and Jetex.

**The Rocket Science Institute is a non-profit scientific and educational foundation in support of "amateur" experimental rocket science, engineering, and technology.**