

Atlas Launch System Mission Planners Guide

Here is a high quality snapshot of the Jet Propulsion Laboratory's award winning online tutorial for interplanetary mission controllers. Broad in scope and loaded with references, these pages encompass the many fields and concepts that apply to interplanetary space exploration, and the relationships among them. Popular with teachers, students, and anyone who is curious about "how they do that."

This book provides readers with a clear description of the types of lunar and interplanetary trajectories, and how they influence satellite-system design. The description follows an engineering rather than a mathematical approach and includes many examples of lunar trajectories, based on real missions. It helps readers gain an understanding of the driving subsystems of interplanetary and lunar satellites. The tables and graphs showing features of trajectories make the book easy to understand.

Environmental Impact Statement

Space Transportation

Moonrush

Scientific and Technical Aerospace Reports

Semiannual Report to the Congress

Spaceflight Mechanics 2003

Annotation "Design Methodologies for Space Transportation Systems is a sequel to the author's earlier text, "Space Transportation: A Systems Approach to Analysis and Design. Both texts represent the most comprehensive exposition of the existing knowledge and practice in the design and project management of space transportation systems, and they reflect a wealth of experience by the author with the design and management of space systems. The text discusses new conceptual changes in the design philosophy away from multistage expendable vehicles to winged, reusable launch vehicles and presents an overview of the systems engineering and vehicle design process as well as systems trades and analysis. Individual chapters are devoted to specific disciplines such as aerodynamics, aerothermal analysis, structures, materials, propulsion, flight mechanics and trajectories, avionics and computers, and control systems. The final chapters deal with human factors, payload, launch and mission operations, safety, and mission assurance. The two texts by the author provide a valuable source of information for the space transportation community of designers, operators, and managers. A companion CD-ROM succinctly packages some oversized figures and tables, resources for systems engineering and launch ranges, and a compendium of software programs. The computer programs include the USAF AIRPLANE AND MISSILE DATCOM CODES (with extensive documentation); COSTMODL for software costing; OPGUID launch vehicle trajectory generator; SUPERFLO-a series of 11 programs intended for solving compressible flow problems in ducts and pipes found in industrial facilities; and a wealth of Microsoft Excel spreadsheet programs covering the disciplines of statistics, vehicle trajectories, propulsion performance, math utilities, Operations Research in Space and Air is a selection of papers reflecting the experience and expertise of international OR consulting companies and academic groups. The global market and competition play a crucial part in the decision making processes within the Space and Air industries and this book gives practical examples of how advanced applications can be used by Space and Air industry management. The material within the book provides both the basic background for the novice modeler and a useful reference for

experienced modelers. Students, researchers and OR practitioners will appreciate the details of the modeling techniques, the processes that have been implemented and the computational results that demonstrate the benefits in applying OR in the Space and Airline industries. Advances in PC and Workstations technology, in optimization engines and in modeling techniques now enable solving problems, never before attained by Operations Research. In recent years the Italian OR Society (AfRO, www.airo.org) has organized annual forums for researchers and practitioners to meet together to present and discuss the various scientific and technical OR achievements. The OR in Space & Air session of AfRO2001 and AfRO2002 Conferences, together with optimization tools' applications, presented recent results achieved by Alenia Spazio S. p. A. (Turin), Alitalia, Milan Polytechnic and Turin Polytechnic. With additional contributions from academia and industry they have enabled us to capture, in print, today's 'state-of-the-art' optimization and data mining solutions.

39th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit July 20-23, 2003, Huntsville, Alabama: 03-4700

A Chronology

Review and Assessment

Improving Life on Earth with the Moon's Resources

Operational Environments for Electrical Power Wiring on NASA Space Systems

NASA Historical Data Book

Hispanic Engineer & Information Technology is a publication devoted to science and technology and to promoting opportunities in those fields for Hispanic Americans.

In this definitive study, J. D. Hunley traces the program's development from Goddard's early rockets (and the German V-2 missile) through the Titan IVA and the Space Shuttle, with a focus on space-launch vehicles. Since these rockets often evolved from early missiles, he pays considerable attention to missile technology, not as an end in itself, but as a contributor to launch-vehicle technology. Focusing especially on the engineering culture of the program, Hunley communicates this very human side of technological development by means of anecdotes, character sketches, and case studies of problems faced by rocket engineers. He shows how such a highly adaptive approach enabled the evolution of a hugely complicated technology that was impressive—but decidedly not rocket science. Unique in its single-volume coverage of the evolution of launch-vehicle technology from 1926 to 1991, this meticulously researched work will inform scholars and engineers interested in the history of technology and innovation, as well as those specializing in the history of space flight.

A Planet Unveiled

U.S. Government Research & Development Reports

Design Methodologies for Space Transportation Systems

On the Shoulders of Titans

The Development of Propulsion Technology for U.S. Space-Launch Vehicles, 1926-1991 Implementing USSPACECOM Vision for 2020

This book shows the reader how to write a system engineering management plan (SEMP) that reflects the company's identity and is appropriate to most customers' requirements, e.g., MIL-STD-499, ISO 9001, the U.S. Air Force Integrated Management System, and EIA STD 632. The first section of this book provides a brief introduction to the process of developing a SEM. The remainder contains a source model of a SEM that is generic in nature. A computer disk is included with the book to provide the SEM in a form (Microsoft Word) that can be used for the reader's own plan.

In May 1961, President John F. Kennedy committed the United States to landing a man on the moon before the end of the decade. With just a handful of years to pull it off, NASA authorized the Project Gemini space program, which gathered vital knowledge needed to achieve the nation's goal. This book introduces the crucial three-step test program employed by the Gemini system, covering: The short unmanned orbital flight of Gemini 1 that tested the compatibility of launch vehicle, spacecraft and ground systems. The unmanned suborbital flight of Gemini 2 to establish the integrity of the reentry system and protective heat shield. The three-orbit manned evaluation flight of Gemini 3, christened "Molly Brown" by her crew. A mission recalled orbit by orbit, using mission transcripts, post-flight reports and the astronauts' own account of their historic journey. The missions of Project Gemini was the pivotal steppingstone between Project Mercury and the Apollo Program. Following the success of its first two unmanned missions and the exploits of Gus Grissom and John Young on Gemini 3, NASA gained the confidence to plan an even bolder step on its next mission, as described in the next book in this series on Gemini 4.

Proceedings of the AAS/AIAA Space Flight Mechanics Meeting Held February 9-13, 2003, Ponce, Puerto Rico

A History of Project Gemini

Atlas Launch System Mission Planner's Guide

System Engineering Planning and Enterprise Identity

Space Nuclear Safety

IAF92-0031 - IAF92-0069

Space Nuclear Safety covers both radioisotope power sources and space reactor systems.

On June 15, 2011, the Air Force Space Command established a new vision, mission, and set of goals to ensure continued U.S. dominance in space and cyberspace mission areas. Subsequently, and in coordination with the Air Force Research Laboratory, the Space and Missile Systems Center, and the 14th and 24th Air Forces, the Air Force Space Command identified four long-term science and technology (S&T) challenges critical to meeting these goals. One of these challenges is to provide full-spectrum launch capability at dramatically lower cost, and a reusable booster system (RBS) has been proposed as an approach to meet this challenge. The Air Force

Space Command asked the Aeronautics and Space Engineering Board of the National Research Council to conduct an independent review and assessment of the RBS concept prior to considering a continuation of RBS-related activities within the Air Force Research Laboratory portfolio and before initiating a more extensive RBS development program. The committee for the Reusable Booster System: Review and Assessment was formed in response to that request and charged with reviewing and assessing the criteria and assumptions used in the current RBS plans, the cost model methodologies used to frame [frame?] the RBS business case, and the technical maturity and development plans of key elements critical to RBS implementation. The committee consisted of experts not connected with current RBS activities who have significant expertise in launch vehicle design and operation, research and technology development and implementation, space system operations, and cost analysis. The committee solicited and received input on the Air Force launch requirements, the baseline RBS concept, cost models and assessment, and technology readiness. The committee also received input from industry associated with RBS concept, industry independent of the RBS concept, and propulsion system providers which is summarized in Reusable Booster System: Review and Assessment.

Commerce, Justice, Science, and Related Agencies Appropriations for 2008

Hearings Before the Committee on Armed Services, United States Senate, One Hundred Ninth Congress, First Session, on S. 1042, to Authorize Appropriations for Fiscal Year 2006 for Military Activities of the Department of Defense, for Military Construction, and for Defense Activities of the Department of Energy, to Prescribe Personnel Strengths for Such Fiscal Year for the Armed Forces, and for Other Purposes

Gemini Flies!

US Black Engineer & IT

Unmanned Flights and the First Manned Mission

Atlas Launch System Mission Planner's Guide
Atlas Launch System Mission Planner's Guide
NASA Historical Data Book: NASA launch systems, space transportation
International Reference Guide to Space Launch Systems
Design Methodologies for Space Transportation Systems
AIAA Discusses the development and exploration of space, including how to improve daily lives by bringing concrete benefits to the people of the US and the world.

Sensors for Propulsion Measurement Applications

NASA Historical Data Book: NASA launch systems, space transportation

Hearings Before a Subcommittee of the Committee on Appropriations, House of Representatives, One Hundred Tenth Congress, First Session

Project Gemini: Technology and Operations

A Systems Approach to Analysis and Design

Pioneering Venus

Annotation This practical book gives young professionals all the information they need to know to get started in the space business. It takes you step-by-step through processes for systems engineering and acquisition, design and development, cost analysis, and program planning and analysis. You'll find the systems engineering and design process that applies to all space transportation systems, then the overall system architecture considerations that also apply to all space transportation systems. There is also detailed coverage of space launch vehicles by class, including the current space shuttle, other manned reusable systems, expendable systems, and future systems. A companion CD-ROM contains the Operations Simulation and Analysis Modeling System software.

Proceedings of SPIE present the original research papers presented at SPIE conferences and other high-quality conferences in the broad-ranging fields of optics and photonics. These books provide prompt access to the latest innovations in research and technology in their respective fields. Proceedings of SPIE are among the most cited references in patent literature.

Basics of Space Flight Black & White Edition

Department of Defense Authorization for Appropriations for Fiscal Year 2006

41st AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit 10-13 July 2005, Tucson,

Arizona: 05-4350 - 05-4399

Hispanic Engineer & IT

Lunar and Interplanetary Trajectories

International Reference Guide to Space Launch Systems