

Read Book Nasa Moon Missions Operations Manual 1969 1972 Ap

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This book will provide for the first time a comprehensive manual on how NASA works and operates its programmes, opening the door to the general reader, and the visitor to NASA facilities, a directory of information on what to find, what to see and how it all fits together. This book avoids the detail on specific programmes and projects - these are already adequately covered in dedicated Haynes Workshop Manuals. Instead, it focuses on what exists at the various facilities across the United States and the technical parameters of their equipment and laboratory assets.

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In December 1968, the crew of Apollo 8 captured images depicting Earth hanging like a lonely fruit in the vast darkness of space. The social and spiritual shock of that photograph—and those which followed—never fully diminished, even as Apollo missions followed at an incredible pace, including the first lunar landing on July 20, 1969. Moonshots is the definitive photographic chronicle of NASA space exploration—a giant slipcased book featuring more than 200 remarkable photographs from that eventful era created almost exclusively on large-format Hasselblad cameras. Though a number of these images have been reproduced in books and magazines over the years, one attribute of this incredible collection has seldom been exploited: the sheer size and resolution of the photography.

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Aerospace author Piers Bizony scoured NASA's archives of Hasselblad film frames to assemble the space fan's ultimate must-have book—a gorgeous large-format hardcover presented in a heavy slipcase with die-cuts to represent the phases of the moon. This resulting volume extracts a stunning selection of photographs captured by astronauts using Hasselblad equipment, many of them seldom previously published, let alone in such a lavish package. The Apollo voyages form the centerpiece of this amazing collection, but equally fabulous images from precursor Gemini missions are also featured, along with later photographs chronicling Space Shuttle missions and even the construction of the International Space Station. Looks at the operations of the International Space Station

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from the perspective of the Houston flight control team, under the leadership of NASA's flight directors, who authored the book. The book provides insight into the vast amount of time and energy that these teams devote to the development, planning and integration of a mission before it is executed. The passion and attention to detail of the flight control team members, who are always ready to step up when things do not go well, is a hallmark of NASA human spaceflight operations. With tremendous support from the ISS program office and engineering community, the flight control team has made the International Space Station and the programs before it a success.

The Rocket Manual tells the story of rocket motors, how they were first developed, how they work, what they are

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used for and how they are operated. It also explains the origin and operating record of satellite launchers around the world. Rocket motors large and small are listed and explained, including small motors used to push satellites and spacecraft into different orbits, throttleable rockets for controlling spacecraft descending to the Moon and the surfaces of other planets, restartable motors for adjusting orbits and reusable motors such as those developed for the Shuttle.

Saturn V Flight Manual

Apollo 11 Flight Plan

NASA Moon Missions Operations Manual

Astronaut

Not Yet Imagined

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NASA Saturn V 1967-1973 (Apollo 4 to Apollo 17 & Skylab) The Illustrations That Sold the Missions

As the National Aeronautics and Space Administration (NASA) retires the Space Shuttle and shifts involvement in International Space Station (ISS) operations, changes in the role and requirements of NASA's Astronaut Corps will take place. At the request of NASA, the National Research Council (NRC) addressed three main questions about these changes: what should be the role and size of Johnson Space Center's (JSC) Flight Crew Operations Directorate (FCOD); what will be the requirements of astronaut

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training facilities; and is the Astronaut Corps' fleet of training aircraft a cost-effective means of preparing astronauts for NASA's spaceflight program? This report presents an assessment of several issues driven by these questions. This report does not address explicitly the future of human spaceflight.

The book begins with early ideas about astronauts in science fiction and film portrayals of the role. It goes on to cover recruitment and the application process to become an astronaut with NASA and ESA, and the qualifications and fitness required for

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various astronaut roles. The reader is taken through training for different types of astronaut roles (pilot, scientist, payload specialist, space walker, Moon walker, etc) and the different types of missions are described (sub-orbital, Earth orbit, living aboard the International Space Station (ISS), lunar flight and landing, driving on the Moon, and planned future missions to asteroids and Mars). The equipment used by astronauts is documented, including clothing, space suits, tools, backpacks, zero-gravity toilets, food stations, etc. The experience of space flight on typical missions is

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outlined, illustrated by the accounts of real astronauts on actual flights - the experience of launch, first reactions to Zero-G, exiting the hatch for a spacewalk, the views of Earth, walking on the Moon, and re-entering the Earth's atmosphere. The book is written in a style accessible to the layperson, while including sufficient technical details to satisfy more knowledgeable readers. It also captures the excitement and wonder of spaceflight, making extensive use of astronaut biographies and interviews to uncover the real human experience, as much as technical information to provide detail to

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satisfy those curious about 'how it works'. This newly reissued debut book in the Rutgers University Press Classics Imprint is the story of the search for a rocket propellant which could be trusted to take man into space. This search was a hazardous enterprise carried out by rival labs who worked against the known laws of nature, with no guarantee of success or safety. Acclaimed scientist and sci-fi author John Drury Clark writes with irreverent and eyewitness immediacy about the development of the explosive fuels strong enough to negate the relentless restraints of gravity. The resulting volume is as much a

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memoir as a work of history, sharing a behind-the-scenes view of an enterprise which eventually took men to the moon, missiles to the planets, and satellites to outer space. A classic work in the history of science, and described as “a good book on rocket stuff...that’s a really fun one” by SpaceX founder Elon Musk, readers will want to get their hands on this influential classic, available for the first time in decades. The Apollo 17 mission is discussed and illustrated. Lunar surface and orbital experiments are briefly described, and results are outlined.

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Moonshots

*Evidence Reviewed by the NASA Human Research
Program*

Chariots for Apollo

*The NASA History of Manned Lunar Spacecraft
to 1969*

Lunar Sourcebook

Operating an Outpost in the New Frontier

The Apollo Guidance Computer

Mars is one of the most explored planets in the solar system. Machines called probes and rovers gather photographs and information from Mars to be sent to Earth. Learn more in *Journey to Mars*, one of the titles in the All About Space Science series. This series examines the history and science of space exploration. It

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delves into the careers and technological advancements associated with this exciting field of study.

On 20 July 1969, US astronauts Neil Armstrong and Buzz Aldrin became the first men to walk on the moon. NASA Mission AS-50 Apollo 11 Owners' Workshop Manual is the story of the Apollo 11 mission and the 'space hardware' that made it all possible. This manual looks at the evolution and design of the mighty Saturn V rocket, the Command and Service Modules, and the Lunar Module. It describes the space suits worn by the crew and their special support and communications systems. We learn about how the Apollo 11 mission was flown - from launch procedures to 'flying' the Saturn V and the 'LEM', and from moon walking to the earth re-entry procedure. This new edition of the book celebrates the Anniversary of the Apollo 11 moon landing.

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Designed between 1969 and 1972 and first flown into space in 1981, the NASA Shuttle will have flown almost 140 missions by time it is retired in 2011. David Baker describes the origin of the reusable launch vehicle concept during the 1960s, its evolution a viable flying machine in the early 1970s, and its subsequent design, engineering, construction, and operation. The Shuttle's internal layout and systems are explained, including the operation of life support, electrical-power production, cooling, propulsion, flight control, communications, landing, and avionics systems. Written by a trio of experts, this is the definitive reference on the Apollo spacecraft and lunar modules. It traces the design of the vehicles, their development, and their operation in space. More than 100 photographs and illustrations highlight the text, which begins with NASA's origins and concludes with the triumphant

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Apollo 11 moon mission.

Ignition!

The Astronaut Instruction Manual

Saturn V Flight Manual, SA 507

Psychology of Space Exploration: Contemporary Research in
Historical Perspective

An Informal History of Liquid Rocket Propellants

A Study of Hubble Space Telescope Operations

An insight into the development and technology of space rockets
and satellite launchers

A Behind-the-Scenes Look At NASA's incredible

Journey to the Moon Space journalist and insider

Nancy Atkinson weaves together the riveting story of
NASA's mission to complete "the greatest adventure

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on which humankind ever embarked.” This incredible account is a keepsake celebrating some of the most important and dramatic events in modern history. Told through over 60 personal interviews and oral histories, as well as personal photographs, this tribute to the men and women who made the Apollo 11 mission a reality chronicles the highs and lows that accompanied the race to the Moon: the devastating flash fire that killed the crew of Apollo 1; the awe of those who saw their years-in-the-making contributions to space exploration blast off from Cape Canaveral; the knuckle-biting descent of Apollo 11 to the lunar surface; a near-catastrophic event on the crew’s flight home; the infectious excitement and jubilation across

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the world after the astronauts returned safely to Earth. These little-known stories of the dedicated engineers, mathematicians and scientists in the 1960s reveal the “hows” of the Apollo missions and bring to life the wonder and excitement of humanity’s first steps on the Moon.

Few launch vehicles are as iconic and distinctive as NASA's behemoth rocket, the Saturn V, and none left such a lasting impression on those who watched it ascend. Developed with the specific brief to send humans to the Moon, it pushed rocketry to new scales. Its greatest triumph is that it achieved its goal repeatedly with an enviable record of mission success. Haynes' Saturn V Manual tells the story of

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this magnificent and hugely powerful machine. It explains how each of the vehicle's three stages worked; Boeing's S-IC first stage with a power output as great as the UK's peak electricity consumption, North American Aviation's S-II troubled second stage, Douglas's workhorse S-IVB third stage with its instrument unit brain - as much a spacecraft as a rocket. From the decision to build it to the operation of its engines' valves and pumps, this lavishly illustrated and deeply informative book offers a deeper appreciation of the amazing Saturn V. Originally created for NASA in 1969 by prime contractor Grumman, this Lunar Module Vehicle Familiarization Manual was mandatory reading for

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Apollo astronauts, contractors and NASA support staff. This version of the manual describes the so-called ELM, or Extended Lunar Modules designed for the "J" class missions Apollo 15-17 and the never-flown Apollo 18 and 19. The ELM came about as part of NASA's efforts to enhance the scientific study of the Moon and its geology. To do that, longer surface stays would be needed. To make it possible, LM 10 to LM 14 received various modifications intended to increase their payloads, and allow them to return larger samples to Earth. Over forty major changes were planned, including enlarging the fuel and oxidizer tanks on both the ascent and descent stages, extension of the descent engine nozzle to improve its

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efficiency and allow it to deliver more power, and added capacity of oxygen and water. Some changes, such as adding solar cells and affiliated batteries to allow surface stays of up to 72 hours, proved too difficult given the program's schedule. In the end, the maximum duration of stays on the Moon would be limited to 54 hours. The extended LM weighed up to 36,500 pounds compared to 32,000 for earlier versions. The ELM's larger payload capacity enabled it to carry the 463 pound (mass) Lunar Roving Vehicle and other scientific equipment. The LRV greatly enhanced the astronauts' range and ability to retrieve samples. It's never been easy to find a copy of this text because copies were never made available to the

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general public -- until now. This reprint features all the original text and diagrams. It's a wonderful reference for the space flight fan, docent or engineering buff or for anyone else who ever wondered, ""How'd they do that!""

In *The Art of NASA*, ultra-rare artworks illustrate a unique history of NASA hardware and missions from 1958 to today, giving readers an unprecedented look at how spacecraft, equipment, and missions evolved--and how they might have evolved.

My First 100 Art Words

America's Rocket to the Moon

*50th Anniversary of 1st Moon Landing - 1969
(including Saturn V, CM-107, SM-107, LM-5)*

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On the Moon with Apollo 17

NASA Skylab Owners' Workshop Manual

A User's Guide to the Moon

1971-1972 (Apollo 15-17; LRV1-3 & 1G Trainer)

The only work to date to collect data gathered during the American and Soviet missions in an accessible and complete reference of current scientific and technical information about the Moon.

The original "final edition" of the Apollo 11 flight plan, restored and reprinted for the 50th Anniversary of the moon landing that took place in 1969.

On July 20, 1969, US astronaut Neil Armstrong became the first man to walk on the moon. The Apollo 11 mission that

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carried him and his two fellow astronauts on their epic journey marked the successful culmination of a quest that, ironically, had begun in Nazi Germany thirty years before. This is the story of the Apollo 11 mission and the 'space hardware' that made it all possible. Author Chris Riley looks at the evolution and design of the mighty Saturn V rocket, the Command and Service Modules, and the Lunar Module. He also describes the space suits worn by the crew, with their special life support systems. Launch procedures are described, 'flying' the Saturn V, navigation, course correction 'burns', orbital rendezvous techniques, flying the LEM, moon landing, moon walk, take-off from the moon, and earth re-entry procedure. Includes performance data, fuels, biographies of Armstrong, Aldrin and

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Collins, Gene Kranz and Werner von Braun. Detailed appendices cover all of the Apollo missions, with full details of crews, spacecraft names and logos, mission priorities, moon landing sites, and the Lunar Rover.

Published to coincide with the 50th anniversary of the first Moon landing by Apollo 11. This book concludes the story of the Apollo project, detailing all the engineering developments made and the research carried out during the manned Moon missions. NASA Moon Missions Operations Manual completes the story of US manned spaceflight to date, completing the series of Haynes Manuals including: Mercury, Gemini, Apollo 11, Apollo 13, Lunar Rover, Saturn V, Space Shuttle, International Space Station and Skylab.

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Managing NASA in the Apollo Era

NASA Mission AS-506 Apollo 11 Owners' Workshop Manual

A Guidebook to Taurus-Littrow

The Role and Training of NASA Astronauts in the Post-Space
Shuttle Era

Preparing for the High Frontier

Eight Years to the Moon

NASA Operations Manual

On July 20, 1969, Neil Armstrong and Buzz Aldrin became the first people ever to set foot on the Moon, their iconic "small steps" captured forever by the camera the astronauts carried with them: the Hasselblad 500EL. This book looks at the history of the Apollo 11 mission through

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the lens of the Hasselblad, while narrating the parallel challenge to create a camera that could work on the Moon. It considers the cameras used, and the photographs captured, during the Space Race between Russia and America; looks at the experience of taking photographs on the Moon for the first time; and reflects on the legacy of those images, and their part in the enduring Moon Landing conspiracy theories. The second half of the book presents a commemorative album of photographs taken in space using the Hasselblad 500EL. While the Apollo 11 astronauts left their three cameras behind on the Moon, where they remain to this day, they brought back film magazines containing 1,400 photographs. A selection of th

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finest of these is shown alongside the mission timeline and transcripts of the conversations between the astronauts and mission control at Houston.

Through essays on topics including survival in extreme environments and the multicultural dimensions of exploration, readers will gain an understanding of the psychological challenges that have faced the space program since its earliest days. An engaging read for those interested in space, history, and psychology alike, this is a highly relevant read as we stand poised on the edge of a new era of spaceflight. Each essay also explicitly addresses the history of the psychology of space exploration.

The Soyuz spacecraft played a major role in Russia's plans

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for a manned landing on the Moon and several test models were flown at the height of the 'space race'. Originally designed for circumlunar flight, Soyuz has been the mainstay of Russia's space program.

Designed in the 1950s to operate on long-distance routes, the four-jet Vickers VC10 saw service with BOAC and a number of other airlines from the 1960s to 1981. It enjoyed a further career with the RAF as a strategic transport and later as an aerial refuelling aircraft. The last VC10 K3 tanker was retired by the RAF in 2013. Keith Wilson examines the design, construction and use of the VC10, using as his centrepiece ex-RAF VC10 C1K (XR808) and VC10 K3 (ZA147) tankers at Bruntingthorpe,

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Leicestershire.

Vickers/BAC VC10 Manual

LUNAR MODULE LM 10 THRU LM 14

Apollo 13 Owners' Workshop Manual

Saturn V

Human Health and Performance Risks of Space Exploration Missions

1961 onwards (all roles and nationalities)

The International Space Station

Chris Ferrie fans will love this perfect educational art book for babies and toddlers featuring essential STEAM words from the #1 Science author! Babies and toddlers

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are curious and ready to learn! Introduce them to art words that go beyond the basics with this first 100 words baby board book. From painting to photography, from music to theater, from literature to history and more, this is the bright and simple introduction to the smart words every budding scholar needs! Surprise your special little one at birthdays, baby showers, holidays, and beyond with the amazing opportunity to discover with this baby and toddler learning book! My First 100 Art Words makes a wonderful addition to many other gifts you may be searching for, such as baby first birthday gifts for girls and boys, early development toys for babies, baby

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learning games, gift sets for babies and toddlers, and more!

The technological marvel that facilitated the Apollo missions to the Moon was the on-board computer. In the 1960s most computers filled an entire room, but the spacecraft's computer was required to be compact and low power. Although people today find it difficult to accept that it was possible to control a spacecraft using such a 'primitive' computer, it nevertheless had capabilities that are advanced even by today's standards. This is the first book to fully describe the Apollo guidance computer's architecture, instruction format

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and programs used by the astronauts. As a comprehensive account, it will span the disciplines of computer science, electrical and aerospace engineering. However, it will also be accessible to the 'space enthusiast'. In short, the intention is for this to be the definitive account of the Apollo guidance computer. Frank O'Brien's interest in the Apollo program began as a serious amateur historian. About 12 years ago, he began performing research and writing essays for the Apollo Lunar Surface Journal, and the Apollo Flight Journal. Much of this work centered on his primary interests, the Apollo Guidance Computer (AGC) and the

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Lunar Module. These Journals are generally considered the canonical online reference on the flights to the Moon. He was then asked to assist the curatorial staff in the creation of the Cradle of Aviation Museum, on Long Island, New York, where he helped prepare the Lunar Module simulator, a LM procedure trainer and an Apollo space suit for display. He regularly lectures on the Apollo computer and related topics to diverse groups, from NASA's computer engineering conferences, the IEEE/ACM, computer festivals and university student groups.

Designed by Grumman's brilliant Tom Kelly, the Apollo

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Lunar Excursion Module (or "LEM" for short) was a triumph of purpose-built engineering. In the six years 1962-1968 between drawing board and first flight, a myriad of challenges were overcome related to weight, reliability and safety. The final design, designated the Lunar Module or "LM," boasted tiny windows instead of large portholes, four legs instead of five and most famously had no seats instead relying on the astronauts' legs to cushion a lunar landing. Ten LMs made it into space including three flown in development and test missions, and six which landed on the Moon. A seventh famously saved the crew of Apollo 13 when that

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mission's Command Module suffered a catastrophic malfunction. Originally created for NASA by Grumman in 1964, this LEM Familiarization Manual provides an operational description of all subsystems and major components of the lunar lander. It includes sections about the LEM mission, spacecraft structure, operational subsystems, prelaunch operations, and ground support equipment."

Skylab has a fascination among space professionals and enthusiasts alike and a book on the engineering and design of this space station has been argued for in blogs and chat rooms for many years. No other book has yet

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been published which describes the technical, design and engineering details of how Skylab was built and operated. There have been several biographies by astronauts relating their experiences on Skylab missions, but no comparable book on the technical aspects of this extraordinary programme.

Moon Manual

Lem Lunar Excursion Module Familiarization Manual

The Art of NASA

All models and variants

The History of the Apollo Missions

Lunar Rover Manual

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NASA Space Shuttle Manual

Without the mighty Saturn V rocket, the Apollo 11 moon landing would not have been possible in July 1969. Even today, nearly fifty years later, it remains by far the largest and most powerful rocket ever used. Equipped with computers that are easily surpassed today by any mobile phone, the Saturn V was an unprecedented technical achievement. This book, part of the "America in Space" series, tells the gripping story of the

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development and creation of the Saturn V in concise, detailed text, and features numerous high-quality color images, technical drawings, and specification/dimension charts. As well as a detailed look at the Saturn V's design and construction, all thirty-two Apollo missions are discussed, including the later Skylab and Apollo-Soyuz Test Project.

Continuing the popular Haynes Owners' Workshop Manual space series, which

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currently comprises Apollo 11 Manual and NASA Space Shuttle Manual, this unique book provides an insight into the only car ever built to be driven on the surface of another world. With a Foreword by the first Apollo astronaut to drive it on the Moon, Dave Scott, and published to coincide with the 40th anniversary of mankind's final drive on the Moon in December 2012. The book is part mechanical guide, illustrated with many of the technical drawings from the

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time, and part narrative-driven story of engineering ingenuity and human triumph. It draws on the rich NASA photographic archive and the complete transcripts of the crews' reaction to driving across the Moon, which the authors have an un-paralleled knowledge and experience of working with.

"The Astronaut Instruction Manual is a fantastic and vibrant preparatory guide for today's youth — whether their futures are off in space or right here...on

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Earth.” — Lori Garver, Former NASA Deputy Administrator Endorsed by authors, teachers, and congressman alike, Mike Mongo's Astronaut Instruction Manual excites a new generation of space explorers. The book, designed for children between the ages of 6 and 13, is a functioning, interactive instruction manual. Using mad-lib-style fill-in-the-blanks, Mongo encourages his readers to articulate and illustrate their own vision of next-generation space

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travel. The Astronaut Instruction Manual captures a new era of enthusiasm for space exploration, driven in part by new space celebrities (Commander Chris Hadfield, Elon Musk), and in part by a shift in popular interest in space (SpaceX rockets, The Mars Colonial Transporter, Kerbal).

Designed by Wernher von Braun and Arthur Rudolph at NASA's Marshall Space Flight Center, the Saturn V rocket represents the pinnacle of 20th Century

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technological achievement. The only launch vehicle in history to transport astronauts beyond Low Earth Orbit, the Saturn V delivered 24 men to the moon. To this day it holds records as the tallest (363 feet), heaviest (nearly 7 million lbs.) and most powerful (over 7.6 million pounds-force of thrust) launch vehicle ever produced. It also remains one of the most reliable, achieving 12 successful launches with one partial failure - the unmanned Apollo 6 which suffered

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vibration damage on lift-off, resulting in a sub-standard orbit. The Saturn series of rockets resulted from Von Braun's work on the German V-2 and Jupiter series rockets. The Saturn I, a 2-stage liquid-fueled rocket, flew ten times between 1961 and 1965. An updated version the 1B carried the first crewed Apollo flight into orbit in 1968. The Saturn V, which first flew in 1967, was a three-stage rocket. The first stage, which burned RP-1 and LOX, consisted of

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five F-1 engines. The second stage used five J-2 engines which burned LOX and liquid hydrogen (LH2). The third stage, based on the second stage of the Saturn 1B, carried a single J-2. The Saturn V could carry up to 262,000 pounds to Low Earth Orbit and more critically, 100,000 pounds to the Moon. Created by NASA as a single-source reference as to the characteristics and functions of the Saturn V, this manual was standard issue to the astronauts of the Apollo and

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Skylab eras. It contains information about the Saturn V system, range safety and instrumentation, monitoring and control, prelaunch events, and pogo oscillations. It provides a fascinating overview of the rocket that made "one giant leap for mankind" possible.

Soyuz Owners' Workshop Manual

50 Years of NASA Space Exploration Seen Through Hasselblad Cameras

NASA Systems Engineering Handbook (NASA/SP-2007-6105 Rev1)

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**Hasselblad & the Moon Landing
Rocket Manual - 1942 onwards
Architecture and Operation
1967 onwards (all models) - An insight
into Russia's flagship spacecraft, from
Moon missions to the International
Space Station**

There is renewed interest in the Moon in recent years, with the news that a Chinese lunar rover landed on the Moon in January 2014, and NASA announcing that it is looking for private partners to land a robot on the Moon's surface, as the first

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step in a programme to exploit the commercial opportunities offered by the Moon. Recent lunar expeditions by both orbiting spacecraft and 'landers' have uncovered far more detail about the Moon's surface and geology, including the trail of Neil Armstrong's first walk on the Moon in 1969. This manual explains in simple and straightforward terms, with a wealth of illustrations and photographs, what we have discovered about the Moon over the centuries, along with a general overview of the vehicles involved in the exploration.

In this edition, NASA provides an overview of the

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ISS, describe its research facilities and accommodations, and provide key information to conduct your experiments on this unique orbiting laboratory.

The world-famous Apollo 13 mission and dramatic explosion on the service module, captured in technical detail like you've never seen before. On April 13, 1970, NASA's Apollo 13 suffered a near-catastrophic explosion in space. The planned lunar landing that day was promptly called off, and a new challenge prioritized: get the spacecraft safely back to Earth. Written by David Baker, an original member of NASA's Apollo 13

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Houston Mission Control team, Apollo 13 Owners' Workshop Manual offers unprecedented, meticulous coverage of the Apollo 13 mission. Beginning with an overview of the era's equipment and technology, Baker focuses primarily on the planning, goals, and execution of the mission itself, including an hour-by-hour timeline of the crew's near-disaster in space. Additionally, his thorough analysis of the post-flight investigation and lurking design problems with the spacecraft offer the rare viewpoint of a true Apollo 13 insider. Not only does Baker present and analyze the mission itself, but he also

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celebrates NASA's legacy in the wake of the event with the redesign of sections of the Apollo spacecraft and the changes to the way later missions were organized, beginning with Apollo 14. In typical fully illustrated Haynes Manual detail, Apollo 13 Owners' Workshop Manual presents the fascinating circumstances behind a team who recovered their spacecraft just hours before hurtling back into the earth's atmosphere. But more than that, the book is a brand-new insight into the remarkable story of how clever, improvised engineering, remarkable teamwork, and sheer will to succeed averted a major

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catastrophe in space.

This handbook consists of six core chapters: (1) systems engineering fundamentals discussion, (2) the NASA program/project life cycles, (3) systems engineering processes to get from a concept to a design, (4) systems engineering processes to get from a design to a final product, (5) crosscutting management processes in systems engineering, and (6) special topics relative to systems engineering. These core chapters are supplemented by appendices that provide outlines, examples, and further information to illustrate topics in the core chapters. The

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handbook makes extensive use of boxes and figures to define, refine, illustrate, and extend concepts in the core chapters without diverting the reader from the main information. The handbook provides top-level guidelines for good systems engineering practices; it is not intended in any way to be a directive. NASA/SP-2007-6105 Rev1 supersedes SP-6105, dated June 1995 1958 onwards

*1969 - 1972 (Apollo 12, 14, 15, 16 and 17) - An insight into the engineering, technology and operation of NASA's advanced lunar flights
NASA Apollo 11*

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Final Edition

An engineering insight into how NASA saved the crew of the failed Moon mission

An Insight into the Design, Construction and Operation of the NASA Space Shuttle

An Insight into the Hardware from the First Manned Mission to Land on the Moon