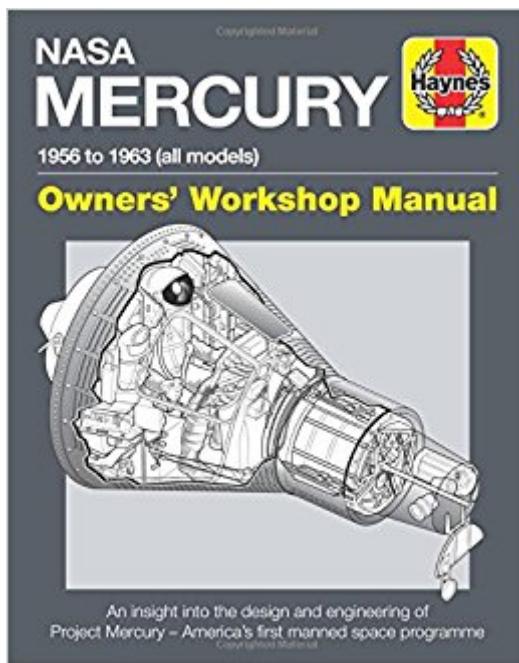


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# **NASA Mercury - 1956 To 1963 (all Models): An Insight Into The Design And Engineering Of Project Mercury - America's First Manned Space Programme (Owners' Workshop Manual)**



## **Synopsis**

Full coverage of the design, engineering, development and flight operations of NASA's Mercury spacecraft, which in addition to several unmanned tests supported two piloted ballistic sub-orbital flights in 1961 and four piloted orbital flights between 1962 and 1963. The Mercury programme bridged the gap between the hypersonic X-15 and the two-man Gemini spacecraft, which in turn led to the Apollo spacecraft. MERCURY - AMERICA'S FIRST PILOTED SPACECRAFT 1958-1963 completes the Haynes Workshop manual series of US and Russian piloted space vehicles and serves as a precursor to a possible Hynes Workshop Manual on the NASA Orion deep-space exploration vehicle scheduled to fly in 2018 on the Space Launch System, the world's biggest rocket. The emphasis in the book will be on describing the design, engineering and technology of the Mercury spacecraft rather than on the missions, which are comprehensively covered in several previously published books. In this way the Workshop Manual brand line is maintained as a reference to the way machines are built and operated.

## **Book Information**

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## **Customer Reviews**

Dr. David Baker worked with NASA on the Gemini, Apollo and Shuttle programmes between 1965 and 1990. He has written more than 80 books on spaceflight technology and is the author of the Haynes NASA Space Shuttle Manual, NASA International Space Station Manual, NASA Mars Rovers Manual, NASA Apollo 13 Manual, NASA Soyuz Manual, NASA Rocket Manual and

forthcoming — A Hubble Space Telescope Manual. He lives in East Sussex.

The story of the Mercury spacecraft begins in an Air Force spaceplane project of the mid-1950s called Dyna-Soar, an evolved concept with an offensive capability, including the delivery of thermonuclear (radiation pressure) weapons to any point on Earth. It was not planned for Dyna-Soar to remain in Earth orbit for extensive periods but to traverse space in order to reach hemispheric targets quickly and at short notice.

Recently I began assembling a 1:12 scale model of the Mercury capsule. Though I don't build many models these days it's been my practice over the years to enhance the experience with a good related book. This 204-page hardbound "First Published in May 2017" is the first one of these "Owners Work Manual" I've acquired and it was well worth the effort. But, as the Look Inside option to this listing & the excellent top review shows, though it's filled with photos and line drawings, it's not one of those big coffee-table sized collections of large awe-inspiring photos. Those books are definitely a great resource too, it's just that should you want more detailed schematics of this craft's inner workings, this offering is worth considering.

It's a nice blend of history & mechanics that brings back a ton of memories to this "Child of the Sixties".

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Excellent reference book for the Mercury program. Covers the early concepts and ideas that finally culminated in getting our astronauts into space. Great info on the design, structure and systems of this system. A must have book for space enthusiasts.

Purchased in order to scratch-build a large-scale (1/6th scale) model of the "Friendship Seven" piloted by Colonel John Glenn. This manual has outstanding drawing and photos of the Mercury capsule including the interior and controls. The detail is enough to keep me busy for quite some time.

Although the overall quality of Haynes' new releases seems to be down somewhat this year, this book really impressed me. It's certainly their most in-depth space "manual" yet, even more so than their books on the Lunar Rover and the Apollo 13 mission. Although Dr. Baker wrote extensively about the hardware and engineering of Project Mercury in his 1981 tome "The History of Manned Spaceflight," this is the most detailed book I've ever seen on the spacecraft, official NASA publications excepted. At 204 pages, this is one of those rare Haynes books that has breathing room. The opening chapter goes into some depth about the origin of Project Mercury, and the evolution of blunt-body entry vehicles. The majority of the book is a detailed technical description of the spacecraft hardware and how it worked. Each of the major spacecraft systems receives a few pages of technical description, accompanied by excellent photographs and diagrams. Even the biomedical sensors and posigrade rockets are described in some depth. There's quite a bit of material here I've never seen before, including detailed explanations of how the horizon sensors and periscope worked, and the instrumentation systems of the unmanned capsules. Finally, there's a brief overview of each mission, which discusses the main technical issues encountered, and how the spacecraft evolved during the program, descriptions of the Little Joe, Redstone, and Atlas launch vehicles, and a look at the Worldwide Tracking Network (WWTN). The most impressive aspect of this book are the technical drawings, of which there are nearly 150. These range from exploded views and cross-sections, to "breadboard" type diagrams, system block diagrams, wiring charts, and even a few telemetry graphs. You'll find exploded views of cabin air valves, cross-sections of the spacecraft structure, cutaway views of the launch escape tower, and so on. There's even quite a few "workshop manual" type diagrams, with hand-written notes on installation procedures and how many ft-lbs of torque to use when tightening the bolts. There's also numerous diagrams depicting the competing proposals presented in 1959, and a few diagrams showing some interesting ideas put forth at the end of the program, including an orbiting observatory and a micrometeorite collection experiment. If this book has a flaw, it's that it's not as compulsively readable as some of Haynes' other space "manuals," the recent one on the Saturn V being an obvious example. It's an engineering book written by an engineer, and meant for serious space buffs only. I read it in a few days, but I imagine most folks could only handle it in small doses. But if

you ARE one of those serious buffs, the kind that always want to know what the inside of the hatch plunger looked like, you'll probably love it.

my husband loves it

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