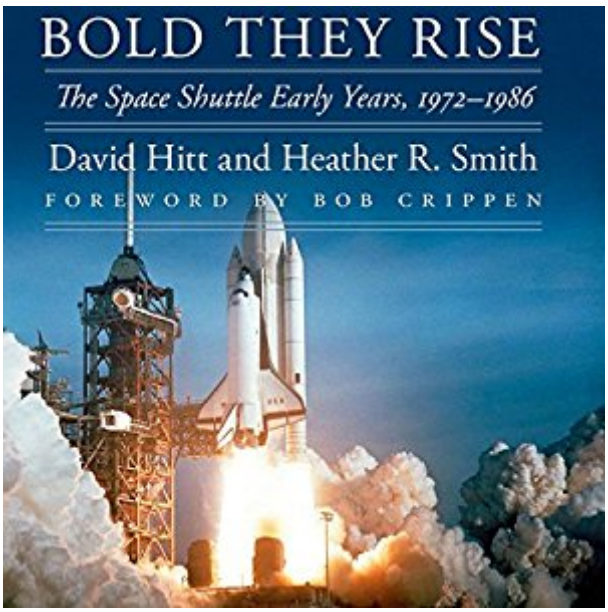
Bold They Rise: The Space Shuttle Early Years, 1972-1986



Synopsis

After the Apollo program put 12 men on the moon and safely brought them home, anything seemed possible. In this spirit, the team at NASA set about developing the space shuttle, arguably the most complex piece of machinery ever created. The world’s first reusable spacecraft, it launched like a rocket, landed like a glider, and carried out complicated missions in between. Bold They Rise tells the story of the space shuttle through the personal experiences of the astronauts, engineers, and scientists who made it happen - in space and on the ground, from the days of research and design through the heroic accomplishments of the program to the tragic last minutes of the Challenger disaster. In the participants’ own voices, we learn what so few are privy to: what it was like to create a new form of spacecraft, to risk one’s life testing that craft, to float freely in the vacuum of space as a one-man satellite, to witness a friend’s death. A "guided tour" of the shuttle - in historical, scientific, and personal terms - this book provides a fascinating, richly informed, and deeply personal view of a feat without parallel in the human story.

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Customer Reviews

Bold They Rise does a unique job of painting the background and emotions of the times during various eras of the Space Shuttle. It focuses on the shuttle’s operations by cherry-picking missions concerned with different aspects of the shuttle’s capabilities.It opens with chapters on the design and construction. These are very well done and I was surprised to learn that the thermal tiles used on the orbiter were related to tiles used on NASA’s Saturn 1 booster. I’ve read a lot about these tiles

and was surprised to find something new in this book, which is not based on engineering or the TPS itself.These chapters are followed by the early test flights and then the early operational flights. The book again does a good job of painting the background stories to developing the shuttle, it’s remote arm and other parts as an integrated working machine, and you feel immersed in the nuances of the program as it matures.The program goes from strength to strength, but towards the end of the book you feel something new and different - risk. At first I did not understand why the writers covered missions that never launched, but after reading about plans for polar orbits or a liquid fueled booster in the payload bay, you get a good sense of the cannot-fail attitude that wrongly filled NASA at that time. They were not paying attention to the risks piling on top of other risks, and we all know that tragedy was just around the corner. The flight of 51-L is covered as well as can be, given that many entire books have been written on all aspects of this accident.My overall thought - a very enjoyable history of the early shuttle program and great companion piece to Rick Houston’s Wheels Stop, which together form a complete history of NASA’s wonderful Space Shuttle.

Having recently read the excellent "Wheels Stop," the volume in the "Outward Odyssey" series which covers the post-Challenger Shuttle program, I was eager to get my hands on a copy of "Bold They Rise," which chronicles the Shuttle’s technical conception and significant first flights. This addition to the "Odyssey" series is, like its predecessor volume, a terrific book that will remind everyone who reads it of just what a marvel and mark of human accomplishment the Shuttle was. It was so compelling that I read this 300+ page book in a single day.Being fairly familiar with the high points of the Shuttle’s operational history, I was particularly interested in getting into the details of the Shuttle’s origins and how the engineers that designed it made the choices that they did. The good news is that this book delivers some fascinating history in that area. Much of this material is presented via extensive quotes and interviews with none other than T.K. Mattingly, Apollo 16 and two-time Shuttle astronaut. The first thing I learned was how directly involved the astronaut corps was in guiding the design of the shuttle. I had always assumed that there were involved to some extent but I had never realized that every system--and I mean every system--aboard the Shuttle from computer flight hardware to the vehicle’s innovative thermal protection system had significant astronaut involvement. One of the more interesting tidbits I gleaned here was that the shuttle’s wings were larger (and therefore heavier) than they needed to be because they were designed to handle unique military requirements for polar orbit flights (which, because of the Challenger accident, never happened). Constraints like this as well as chronic congressional funding struggles made the operational version of the Space Shuttle a vehicle of compromises. This story could have

been a complete book unto itself....and I would have been just as happy if it were but the authors are very up front about the fact that there are other books out there for the reader interested in that particular story.Another chapter of the Shuttle's history that doesn't get a lot of ink in most books is the Approach and Landing Tests. This is almost a forgotten part of the program's history, but a critical one that proved the vehicle's aerodynamic properties and computer control systems. For anyone interested in the topic of good ol' fashioned test piloting, this is a nice addition. There's a particularly amusing anecdote in which an astronaut talks about how he convinced Senator Barry Goldwater that the Enterprise would not strike the carrier 747's vertical stabilizer when released for flight. (Goldwater, even as a former military pilot himself, was just certain that the laws of physics demanded that the two would collide.)The last two thirds of the book are dedicated to individual flights. In this regard, it follows a similar format as Rick Houston's "Wheels Stop," i.e., extensive quotes from at least one crew member of the flight being profiled along with a recap of that flight's SNAFUs, and notable firsts or accomplishments. The most interesting part of this section for me was coverage of the first four test flights, STS-1 through -4. This is a period when each flight was a true test flight in which engineers learned how closely their predictive calculations matched real world data. It's amazing how closely they were able to model the vehicle's performance on paper before it ever flew. Reliving the flight of STS-1 was particularly thrilling in light of the fact that it was the first manned mission NASA ever conducted that did not have an unmanned test precede it. Imagine: designing a space plane, stacking it up, putting pilots on it and lighting the engines without so much as a single test flight. Yet, as STS-1 co-pilot Bob Crippen tells it, he felt so familiar with the machine and was so confident in it, that he simply "knew" it was going to work.There's only one thing missing from this book: John Young. He's named in just about every chapter, yet of all the early-era Shuttle astros, his voice is strangely absent. While others (like Bob Crippen) do a great job of filling in what John was like or what he said, how he felt about various technical aspects of the Shuttle, or his historic role as the commander of STS-1, his input might have made this the perfect book on the subject.ADDENDUM: I contacted the authors about this and they were gracious enough to respond. David Hitt said that he had reached out to Young early on but Young said he wanted to save his recollections for his own autobiography "Forever Young." Quite understandable.

I read pretty much every spaceflight book published. My spaceflight library contains hundreds and hundreds of volumes, and yet I still nearly always buy any and all new books on the subject. Sure, I know spaceflight history and technology like the back of my hand by now (especially as a retired aerospace engineer/manager), but I find that most new books still offer me some learning

opportunities.Ã¢Â ÂœBold They RiseÃ¢Â Â• is a case in point.First, itÃ¢Â Â™s a volume in the University of NebraskaÃ¢Â Â™s superb Ã¢Â ÂœOutward Odyssey: A PeopleÃ¢Â Â™s History of SpaceflightÃ¢Â Â• series. Every volume in this series is a real gem. I consider some of them to be the best written to date on their particular topic. Second, to potential readers who might think everything that CAN be written about the early Space Shuttle flights has already been writtenÃ¢Â Â”well, I say give Ã¢Â ÂœBold They RiseÃ¢Â Â• a try.Authors David Hitt and Heather R. Smith provide a rare and valuable perspective on the Space Transportation SystemÃ¢Â Â™s design, development, testing and operations between 1972 and 1986 by liberally mining the vast treasure trove of NASA oral history interviews archived at the Johnson Space Center. As such, they focus much more than most other Shuttle histories on the human elements of the program rather than the types of technical minutia that make space geeks salivate. As one of those aforementioned geeks, I initially thought I might find Ã¢Â ÂœBold They RiseÃ¢Â Â• less engaging than the usual engineering-oriented tomes that I eagerly devour. But I was wrong.I didnÃ¢Â Â™t do a word count, but I estimate about half of the text in Ã¢Â ÂœBold They RiseÃ¢Â Â• is italicized quotes from oral history transcripts, complete with occasional misstatements, errors and folksy language. Between the quotes, the authors insert their own comments and background data to put the quotes into their proper technical and historical contexts. The technique works like a charm. It gives the book a conversational, fast-paced narrative that should make it accessible to anyone interested in the subject.I enjoyed Ã¢Â ÂœBold They RiseÃ¢Â Â• immensely,Ã¢Â Â• and it is now part of my permanent spaceflight library. You should add it to yours as well.

Literature) Bold Women in Colorado History (Bold Women in History) Memoirs of a Rocket Scientist: From Apollo to Space Shuttle to Minuteman to UAV/BPI Assembling and Supplying the ISS: The Space Shuttle Fulfills Its Mission (Springer Praxis Books) Into the Black: The Extraordinary Untold Story of the First Flight of the Space Shuttle Columbia and the Astronauts Who Flew Her Truth, Lies, and O-Rings: Inside the Space Shuttle Challenger Disaster Deke ! U.S. Manned Space From Mercury To the Shuttle Bringing Columbia Home: The Untold Story of a Lost Space Shuttle and Her Crew Panama 1914 - The Early Years of the Big Dig: The early years of the Big Dig ISO 8787:1986, Paper and board -- Determination of capillary rise -- Klemm method Understanding Girls with ADHD, Updated and Revised: How They Feel and Why They Do What They Do