

[Read and download] Robots in Space: Technology, Evolution, and Interplanetary Travel (New Series in NASA History)

## Robots in Space: Technology, Evolution, and Interplanetary Travel (New Series in NASA History)

*Roger D. Launius, Howard E. McCurdy*  
ePub | \*DOC | audiobook | ebooks | Download PDF



DOWNLOAD



READ ONLINE

#1025095 in Books Johns Hopkins University Press 2008-01-07Ingredients: Example IngredientsOriginal language:EnglishPDF # 1 9.00 x 1.04 x 6.00l, 1.33 #File Name: 0801887089336 pages | File size: 19.Mb

**Roger D. Launius, Howard E. McCurdy : Robots in Space: Technology, Evolution, and Interplanetary Travel (New Series in NASA History)** before purchasing it in order to gage whether or not it would be worth my time, and all praised Robots in Space: Technology, Evolution, and Interplanetary Travel (New Series in NASA History):

1 of 1 people found the following review helpful. Insightful and Groundbreaking  
By Albert A. Harrison  
This well researched and nicely written book proposes a useful alternative to the waning von Braun paradigm of using low earth orbit, lunar and Mars expeditions as stepping stones to the stars. Economic considerations, the frailty of human beings, and competing interests work against developing Utopian societies in space. Although the von Braun paradigm, bolstered by Krafft-Ehrlicke's extraterrestrial imperative and reinforced by the lure of a new frontier still appeals to many people (including this writer) as Launius and McCurdy point out the Moon landings represent the high water mark of humans in space, rather than a stepping stone to successively more adventurous missions. Can we find a more compelling paradigm for modern day audiences? The authors argue yes. *Robots in Space* is not a mere rehash of the strengths and weaknesses of piloted and robotic missions, rather it proposes a broad strategy combining astronomy, physical and life sciences, piloted and robot missions that will benefit space exploration, the search for extraterrestrial life, and planetary defense. They propose, in other words, a strategy that will appeal to the whole field of astrobiology. Roger Launius and Howard McCurdy are superb scholars who draw on their own expertise and the storehouse of history to develop a synergistic, interdisciplinary program for discovery and I am glad to have a copy.

0 of 0 people found the following review helpful. I'm not sure if I should take this book seriously  
By Mr. Johnson  
I've enjoyed some of the other books written by Launius a few by McCurdy. I want to love this book, but I can't love it. The first few pages of this book are just a terrible mess. Thought flow is absent in the writing. This continues throughout the entire book. Once the information in a chapter is presented it is possible to fit all the pieces together. Yet I am constantly thinking, "Wouldn't there be a better way to present your argument and information?" At one point I considered the book as a rough draft. The impression given is of a college student sitting down writing opinions and then going back in to add an example or two. Then to end the book they say "Wow, wouldn't it be cool if this... and this.. and this!" There is little connection of thought between examples and opinion. The introduction questions the current names of spaceflight types (such as manned), throwing the reader for a loop. Instead of using generally accepted words, they choose their own. Their words, however, are not perfect choices and they have to go through some silly hoops to use them. This leaves the reader with some strange definitions to apply during the entire book. I don't mind the introduction of new politically correct words. Physics defines heat differently than the common usage. Definitions vary. However, the final results leave me wondering if they actually put any real thought into all the available choices. I had to get this book for a course. But I laughed when they used a quote from a frequent forum-goer to illustrate one of the points for human spaceflight (in a book that isn't part of my course, I wouldn't have cared). This book is filled with strange citations. Finally, the writing changes depending on the type of spaceflight being discussed. There was a distinct effort to point out all the negative aspects of human spaceflight. The other two options had significantly less effort put into similar sections. Valid arguments were mentioned and ignored in each section. There really is no point to get this book unless you want to get a quick look at the different types for spaceflight (but stop at the first chapter). Sometimes I wonder if my professors read the material they require for students....

9 of 9 people found the following review helpful. Mindstretching  
By Rob Hardy  
For as long as there have been humans, there has been a push outward to explore and inhabit new lands. It seems to be something we are programmed to do. When new worlds (or a New World) was discovered, settlers moved in to make them their own. The Earth is pretty well settled, and we have nowhere else to move, unless we start going to other planets entirely. We have just barely started exploring these distant unearthly worlds, but our ventures have already caused a big debate in the philosophy of exploration: should it be by humans or by robots? *In Robots in Space: Technology, Evolution, and Interplanetary Travel* (The Johns Hopkins University Press), a couple of experts on the history of space exploration and space policies, Roger D. Launius and Howard E. McCurdy, summarize the debate and give surprising answers and speculation into what the future may hold. Their predictions and their solutions require imagination to understand, at the level of science fiction, and indeed their book frequently draws upon science fiction novels and movies for depictions of imaginary answers to future problems. It makes for entertaining reading, especially for someone like me who had not previously realized how much serious thought has gone into the debate about robots, space exploration, and the future of humans in space. At the dawn of the space age, besides working on America's rocket program, Wernher von Braun wrote popular articles that emphasized humans in space as a continuation of America's tradition of exploration and settlement. The authors point out that such utopian visions have often been part of terrestrial exploration, and that they continue to fire the imaginations of those who want to see humans in space. Von Braun's vision stalled. Sending humans into space for military purposes turned out to be unnecessary. Even the Space Shuttle program was not consistent with the aims of the utopians. It might have been part of von Braun's vision of being transport to a space station, but it was essentially a "space truck" with little potential for getting us to other worlds. Of course von Braun relied on machines to get humans into space, but his plan greatly underestimated how good our robots were going to get, and how quickly they would fill commercial, military, and exploratory needs. It is still expensive to send robots into space, but they do not require money to be spent on life support, and in particular, they do not have to return to Earth to get their jobs done, while humans need to get back home. Maybe, however, there will be humans that don't need to make the return trip, and maybe the robot / human dilemma is a false one, one that could be resolved by combining the two. Take the durability and limited needs of robots and combine them with the

adaptability and intellect of humans, and you start thinking about what is called transhumanism or posthumanism. This includes cyborgs (from "cybernetic organism") and there may be further combinations of machines and humans, and perhaps also genetic tinkering. Maybe humans making such journeys will be like no humans who ever came before them. The authors know that they are merely conducting "intellectual exercises designed to broaden one's thinking about the options involved." Humans won't be able to live on Earth forever; even if we were taking perfect care of our environment, we can't count on an eternal Sun. The authors admit, "It disappoints us to think that humanity might forever be confined to a single world," and are not attracted to the idea that we would simply send out robots to do our exploration for us. They quote a former NASA official: "We don't give ticker tape parades for robots." As much speculation as there is in the book, there is also a serious assessment for what is needed in the future. The prospects for human colonization within the solar system look small, even for the most likely of future homes, Mars. Assessing planets outside the solar system has just begun, and the authors see this as the top priority for space exploration. Other priorities include finding a more effective propulsion system, because our current rockets won't get humans, robots, or cyborgs very far very fast; reducing the cost of space travel; and civil partnerships with privately owned space industries. Even these priorities, which the authors view as realistic, some might see as mere science fiction. Only a few decades ago, however, travel to the Moon was mere science fiction. *Robots in Space* is about a lot more than just robots, and although it is a sober and thoughtful examination of serious ideas, it is a mind-stretching trip.

Given the near incomprehensible enormity of the universe, it appears almost inevitable that humankind will one day find a planet that appears to be much like the Earth. This discovery will no doubt reignite the lure of interplanetary travel. Will we be up to the task? And, given our limited resources, biological constraints, and the general hostility of space, what shape should we expect such expeditions to take? In *Robots in Space*, Roger Launius and Howard McCurdy tackle these seemingly fanciful questions with rigorous scholarship and disciplined imagination, jumping comfortably among the worlds of rocketry, engineering, public policy, and science fantasy to expound upon the possibilities and improbabilities involved in trekking across the Milky Way and beyond. They survey the literature—fictional as well as academic studies; outline the progress of space programs in the United States and other nations; and assess the current state of affairs to offer a conclusion startling only to those who haven't spent time with Asimov, Heinlein, and Clarke: to traverse the cosmos, humans must embrace and entwine themselves with advanced robotic technologies. Their discussion is as entertaining as it is edifying and their assertions are as sound as they are fantastical. Rather than asking us to suspend disbelief, *Robots in Space* demands that we accept facts as they evolve.

Entertaining reading. (Commercial Dispatch) Excellent, eye-opening, horizon-broadening reading! Highly recommended. (Choice) Noted space historians... breathe new life into the subject by examining its history as well as its possible future. They call for a new vision of human spaceflight—a 'transhuman' program that takes into account current trends in robotics, artificial intelligence, genetic engineering and other fields that are rapidly changing the nature of both humans and machines. (Air and Space Magazine) This short volume manages to capture the history of U.S. space flight, to explain the underpinnings of U.S. space policy and to plot out the possibilities for our future in space in a style that most anyone can enjoy. (Andrew McMichael Park City Daily News) A timely and thought-provoking read, no matter what side of the humans vs. robots debate one is on. Highly recommended for anyone with an interest in where our species is ultimately headed in space. (Liftoff) Should interest any intelligent reader with an interest in the history and future of space exploration, whatever technology is applied. Its mix of historical background and social context, entirely due to the authors' long experience, takes the reader well beyond the usual issues of technical challenge and budget limitations, while numerous selected quotations accentuate the human element. (Mark Williamson Space Times) An examination of the history of the various arguments for sending humans and machines into space, and their relative merits. It is an authoritative, detailed look at how these arguments evolved and what the future of humans and robots in space might hold. (Jeff Foust Space ) A remarkably well-written and lucid book... about the ongoing debate within the American civil space agency between proponents of human spaceflight and those who advocate robotic or 'unmanned' spaceflight. (Capt Bryce G. Poole, USAF Air and Space Power Journal) From the Back Cover Outstanding Academic Title, Choice Magazine Roger D. Launius and Howard E. McCurdy expound upon the possibilities and improbabilities involved in trekking across the Milky Way and beyond. They survey the literature, both fictional and academic studies; outline the progress of space programs in the United States and other nations; and assess the current state of affairs. Their conclusion would be startling only to those who haven't spent time with Asimov, Heinlein, and Clarke: to traverse the cosmos, humans must embrace and entwine themselves with advanced robotic technologies. "Noted space historians... breathe new life into the subject by examining its history as well as its possible future. They call for a new vision of human spaceflight—a 'transhuman' program that takes into account current trends in robotics, artificial intelligence, genetic engineering and other fields that are rapidly changing the nature of both humans and machines." Air and Space Magazine "A timely and thought-provoking read, no matter what side of the humans vs. robots debate one is on. Highly recommended for anyone with an interest in where our species is ultimately headed in space." Liftoff "An examination of the history of the various arguments for sending humans and

machines into space, and their relative merits. It is an authoritative, detailed look at how these arguments evolved and what the future of humans and robots in space might hold." Space About the Author Roger D. Launius is a senior curator at the Smithsonian Institution's National Air and Space Museum and the former chief historian of the National Aeronautics and Space Administration (NASA). He has authored and coauthored several books on space exploration, most recently *The Smithsonian Atlas of Space Exploration*. Howard E. McCurdy is a professor in the School of Public Affairs at American University and the author of *Faster, Better, Cheaper: Low-Cost Innovation in the U.S. Space Program and Space and the American Imagination*, second edition, both published by Johns Hopkins.