



## **Amazing Stories of the Space Age**

*True Tales of Nazis in Orbit, Soldiers on the Moon, Orphaned Martian Robots, and Other Fascinating Accounts from the Annals of Spaceflight*

by Rod Pyle

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The author Rod Pyle must be praised twofold: With his book ‘Amazing Stories of the Space Age’ he not only tells us a lot of background information about events we – eager space exploration followers have heard or read about in confusing bit and pieces, sometimes out of context – could not grasp, but now suddenly make sense, being put in the appropriate time frame and technical capabilities.

But he also delivers, woven into his thoroughly researched true ‘stories’ a more or less complete history of space-flight from Robert Goddard and Hermann Oberth to the International Space Station (ISS) and the current private spaceflight initiatives.

The author starts ‘with the beginning’ in the 1920’s. The first chapter deals with Sanger’s ‘Silbervogel’, a long distance bomber by Sanger and his wife designed during WWII. The author Rod Pyle judged the design as unfeasible under war conditions and the technical knowledge of the time, but it contained many advanced ideas reflected later by high altitude aircraft developers and the Shuttle designers.

The book spans a range of topics, from the early days of space travel and the race to the moon, to more recent endeavors like Mars exploration and commercial spaceflight initiatives. The complete list of subjects covered by the table of contents is:

- Red Moon: Countering the communist threat on Earth and in Space
- Das Marsprojekt: Red planet Armada
- Project Orion: We come in Peace
- LUNEX: Earth in the crosshairs
- The Wheel: An inflatable Space Station :
- Venusian Empire NASA's Mars/Venus flyby adventure
- Blue Gemini: Weaponizing orbit
- Flirting with death: The terrifying fight of Gemini 8
- Manned Orbiting Laboratory: How to design test and never fly a space program
- Apollo 11: Danger on the moon
- The first space shuttle project: Dyna-Soar (chapter 13)
- Beyond the edge of space the X-15B
- The sad, strange tale of Soyuz 1
- The Turtlenauts (chapter 15)
- Falling to Earth: The dangerous science of reentry
- Funeral for a Viking: The end of Viking 1
- Saving Skylab: Cowboys in space
- Near Misses: Danger stalks the space shuttle
- Showdown in space: Firearms on the Moon
- Buran: The Soviet Union's one-flight wonder
- Major Matt Mason: A man for the new space age

The key chapter for understanding the motivation for the original ‘moon race’ between USA and Russia and as it finally played out, is nicely described with ‘*Project Horizon*’, an ambitious proposal for the establishment of an outpost on the Moon undertaken at the end of the 1950 decade by the U.S. Army (chapter 2), and the US Air Force’s *LUNEX* project in the same time frame (chapter 4)

Fortunately, both projects were never implemented, however the studies contained a lot of ideas which are still relevant even nowadays – in 2024, with the interest in the Moon on the rise again

An interesting ‘what if’ chapter is the *Project Orion*, a study conducted in the 1950s and 1960s by the US Air Force, DARPA, and NASA probing the viability of a nuclear pulse spaceship that would be directly propelled by a series of atomic explosions behind the craft. Luckily, Wernher v. Braun Saturn V took precedence - but who knows whether atomic propulsion is totally out of the picture in the far future?

The chapter of the NASA project *EMPIRE* deals with an almost forgotten study of early manned interplanetary missions after completion of the Apollo missions by ‘playing sweet music’ into the ears of Senators by re-using Apollo leftover hardware as much as possible for a slingshot dual planetary tour to Mars and Venus.

Each of the following chapters deals with decisive events in US and Russian space history painted against a vivid background and the current politics at the time.

My favorites are the ‘*Dyna-Soar*’ and the ‘*Turtlenauts*’ chapters:

The *Dyna-Soar* ("Dynamic Soarer") was a US Air Force program to develop a winged spaceplane that could be used for aerial photo reconnaissance, radar and bombing missions. The program was initiated by the end of the 1950’s and ran until 1963 when cancelled by Secretary of Defense McNamara.

The *Dyna-Soar* was based on Sanger’s ‘skip-bomber’ with a boost-glide concept. It is widely considered as a kind of precursor to the Space Shuttle, because it identified and studied problems which had to be solved with more advanced techniques during the shuttle period. Interesting for me was the surprising (scaled down) similarity of the European/French *HERMES* spaceplane started in 1975, but never got off the ground either.

The ‘*Turtlenauts*’ chapter describes in detail the Russian Agency’s little-known last-ditch efforts to shed a little limelight on their own moon exploration after it became clear that the Americans will land humans on the Moon by 1969. The secret ingredients were the new N-1 rocket and modified versions of the Soyuz spacecraft. It culminated with the flight of Zond 5 of the Soviet Zond program: In September 1968 it became the first spaceship to travel to and circle the Moon in a circumlunar trajectory, the first Moon mission to include animals, and the first to return safely to Earth. Zond 5 carried the first terrestrial organisms near the Moon, including two Russian tortoises, fruit fly eggs, and plants.

The tortoises underwent biological changes and weight loss during the flight, but it was concluded that the changes were primarily due to starvation and that they were little affected by space travel. Thus, they became the first ‘*Turtlenauts*’, surviving the trip to the Moon and back.

**In conclusion**, “*Amazing Stories of the Space Age*” is a historical account of the trials and tribulations of the space age which started in earnest in the 1920’s with Goddard, Oberth and Tsiolkovsky. The *Amazing Stories* tell us that the first phase of space exploration was mainly driven by money from the military with the goal to be ‘on the high ground’ first.

The book is also richly illustrated, with photographs and diagrams that complement the text and enhance the reader's understanding of the content.

Whether you are a long-time follower of space exploration like me, or new to the subject, this book offers a thrilling and educational journey through the annals of space history – and it is good reading: sometimes sci-fi, sometimes space age history and sometimes dystopian.

The book closes with a bright outlook into the future (from the viewpoint of the year 2017, the publication date of the 'Amazing Stories') exemplified by Major Matt Mason, Mattel's 'Man in space'. The figure its assets and fellow crew-mates was inspired by the Apollo program. The toy-line started pretty realistically, but was expanded into the sci-fi realm facing a decline in public (kids) interest after termination of the Apollo program.

Since then a lot has changed, NASA concentrating on science exploratory missions while private companies like Elon Musk's Space X, Bezos' & ULA (United Launch Alliance) cooperation, Bigelow's inflatable modules, Branson's Virgin Galactic tourist flights and commercial robotic Moon and Asteroid mining missions.

A 3D film based on the toy series was announced in 2011, with a tentative budget of \$100 million and Tom Hanks set to star.

The author Rod Pyle takes it as a rise of public interest in space activities, that in September 2019, Paramount Pictures acquired the film and Akiva Goldsman producing with Tom Hanks and writing a script based on Michael Chabon's short story about Major Matt Mason living and working in space. The movie is announced to be released in 2025...or later.