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Chapter 10

The Origins of Human Spaceflight in Israel: The Account of Prophet Elijah*

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Abstract

This chapter seeks to contribute to the history of astronautics and human spaceflight, in particular that the earliest expression of the idea or imagination of humans traveling to space was first recorded in the Bible. While the Russian Yuri Gagarin is formally recognized as the first man in space and various authors have expressed the idea of humans in space prior to this event, the Bible records that Elijah the Tishbite who lived in the 9th century BC as having ascended to heaven (space) without a return. Additionally, this chapter propounds that the classic account of this event as recorded in the Bible, which originated in Israel, draws similar and scientific parallels with modern human spaceflight science and systems. A hypothetical yet systematic and comparative analysis will be made between the ancient account and current developments to provide useful information and develop valid basis for further research on the ancient origins of human spaceflight emanating from Israel.

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I. Introduction

"What has been will be again, what has been done will be done again; there is nothing new under the sun." Ecclesiastes 1:9, New International Version (NIV). This is one of the numerous sayings of the great king of Israel, Solomon, arguably the wisest man who ever lived on Earth.

Human spaceflight is widely recorded in the space community to have commenced with Russian Yuri Gagarin's trip to space on April 12, 1961, aboard the Vostok 1 spacecraft. This has been marked officially as the first venture of man beyond the planet Earth. There is sufficient evidence both theoretically and physically to buttress this assertion, which includes various video and audio recordings as well as the technical feasibility of spacecraft, which has now led to the launch of hundreds of humans to space. Another significant record of human spaceflight is the US Apollo program, which landed the first man on the Moon. The Saturn V rocket spacecraft and other systems used on the missions can still be viewed today at the National Aeronautics and Space Administration (NASA), Kennedy Space Center (KSC) in Florida, United States.

Nevertheless, there is evidence to suggest that the idea of space science and technology in general and human spaceflight predates the 20th century significantly. This claim is elaborated by Erich von Däniken in his book, *Chariots of the Gods? Unsolved Mysteries of the Past*, which was published in 1968.² Von Däniken hypothesizes that several ancient records and artifacts reveal deeper sophisticated, core scientific and technological concepts than is anticipated. He outlines the idea of "ancient astronauts" and draws many of his propositions from Bible records. A notable example is his reference to spacecraft and extraterrestrial activity from the accounts of the Prophet Ezekiel.

The book received criticism, particularly from Ronald Story³ and Clifford Wilson.⁴ In their separate books published years later, the former specifically suggested that von Däniken's claims were entirely false, while others have alluded to it as being a work of plagiarism, having been projected earlier by French author Robert Charroux.⁵ A 2004-based *Skeptic* article⁶ attributes the theories of ancient astronauts first to the work of American author H. P. Lovecraft in 1926⁷ and subsequently to French writers Louis Pauwels and Jacques Bergier in 1960.⁸ However, Josef F. Blumrich later supported von Däniken's work in his book, *The Spaceships of Ezekiel* published in 1974.⁹ Blumrich further adjudged that the Prophet Ezekiel's accounts included descriptions of alien spaceships from other planets.

Additionally, the Bible, originated from Israel, records that Elijah the Tishbite, a Jewish prophet from Gilead who lived in the 9th century BC was tak-

en to heaven in a vivid account documented in the book of 2 Kings 2:1–12.¹ While various facts surrounding the Bible remain arguable and certainly nonscientific or peer reviewed, it is common knowledge that it predates several centuries in history or time past. Similarly, while the specific passage in question is not a classical technical publication or proceeding, a critical look at the events outlined in it reveals a valid basis for a scientific comparison with human spaceflight science and standards that enabled Gagarin's and subsequent human spaceflights until today. This provokes a further argument about the validity of the idea of human spaceflight predating the 20th century as expressed by various authors and literature.

Consequently, this chapter shall propound an original contribution to the history of human spaceflight based on the account of the unidirectional flight of Prophet Elijah the Tishbite and states that is the earliest imaginary expression of human spaceflight and should be regarded so in the history of space. Furthermore, it suggests the need for greater investigation into the subject and several other similar concepts documented in the Bible and an effective means of preserving them as an additional contribution to the history of science, albeit from a largely cultural perspective. This would strengthen and expand the frontiers of the history of space and other technologies, highlight the critical role played by Israel, potentially build on or produce new science and provide a potentially effective alternative tool for space science, technology, engineering, and mathematics (STEM) education.

The chapter was presented at the International Astronautical Congress 2015, held in Jerusalem, Israel, which signifies the ideal opportunity for a renewed consideration of the subject of the history of space and provides the best source of historical evidence for numerous Bible records.

II. Elijah Is Taken to Heaven

The Bible is the world's highest, best-selling, and most widely read book with total sales of over 5 billion copies and yearly sales of 100 million copies. ^{10,11} It was written over a span of 1,500 years by 40 different authors with markedly varying backgrounds and professions from about 1450 BC to AD 100. ¹⁰ Canonization of the Bible took about another 300 years. ¹⁰ The Bible was written originally in Hebrew, Aramaic, and Greek. Since then, there have been over 2,000 translations and reproduction in different languages of the world. ¹⁰ Johannes Gutenberg is known to have printed, arguably, the first Latin language Bible in the 15th century. ¹⁸ The question of the true composition of the Bible and its canonization has been argued. There are three major types of the Bible: ¹² the Jewish,

Catholic, and Protestant Bibles. The Jewish Bible has 24 books while that of the Catholic Bible has the Old and New Testaments with 46 and 27 books, respectively. The Protestant Bible also has the Old and New Testaments with 39 and 27 books, respectively. The book of 2 Kings, which contains the record of the ascent of the Prophet Elijah is consistent in all the major versions of the Bible and other translations.

Elijah the Tishbite is one of the old prophets as described in the Jewish *Nevi'im*¹² and Catholic and Protestant Old Testament books of 1 and 2 Kings. Elijah lived in the Northern Kingdom of Israel in the 9th century BC at the time that Ahab was king of Israel. He was a prophet who performed notable miracles and is still remembered today in several Jewish customs such as the Havdalah and Passover Seder, among others.¹³ At the end of his life, he departed planet Earth in an incredible way—he was taken into heaven in a whirlwind.

This is recorded in the Bible in 2 Kings 2:1-11. The highlights of this event, which have a profound relevance to space history is revealed in verses 7-8, 11-12:1

"7. Fifty men from the company of the prophets went and stood at a distance, facing the place where Elijah and Elisha had stopped at the Jordan. 8. Elijah took his cloak, rolled it up and struck the water with it. The water divided to the right and to the left, and the two of them crossed over on dry ground. 11. As they were walking along and talking together, suddenly a chariot of fire and horses of fire appeared and separated the two of them, and Elijah went up to heaven in a whirlwind. 12. Elisha saw this and cried out, "My father! My father! The chariots and horsemen of Israel!" And Elisha saw him no more. Then he took hold of his garment and tore it in two."

Elijah's ascension to heaven is consistent and well documented in numerous Bible publications and a connection with human spaceflight has previously been noted by several authors, clerics, space professionals, enthusiasts, and followers. Nevertheless, these ideas have been expressed as informal personal opinions on websites and other media, partially or informally. Very few technical papers or peer-reviewed works, if any, have been either published or presented on Elijah's ascent formally. The works described in the first section did not delve comprehensively into the Elijah passage, and no other publication has done so to the best of the knowledge available to this author.

Despite the absence of apparent empirical details and explanations, the Bible contains incredibly cohesive and substantially logical records of various occurrences. This chapter therefore claims that the first mention of man traveling to space is contained in the Bible, based on the foregoing discussion and seeks to present a credible and succinct argument, which provides a valid basis for further research and contemplation. Additionally, this work also lends credence to works

produced by other authors as previously mentioned, that various concepts related to the idea of human spaceflight are depicted in the Bible.

III. Depiction of Rocket Science

This author suggests that the Bible passage previously narrated hypothetically depicts components of a typical modern-day space launch. This section provides a comparative analysis of the account with current space launch systems and outlines the equivalent related basic science that is unearthed from the passage. The author reemphasizes that this contribution to space history, which is attributed to the Bible, is fundamentally based on a cultural perspective since the latter is not a scientific publication. This section is therefore a hypothetical but scientifically intriguing analysis, which leads to many scientific questions. The chariot and horses of fire represent a complete spacecraft system. The fire that is produced indicates the flames that are generated from the energy dissipation at rocket launch, while the whirlwind signifies the fumes also ejected from the energy dissipation, which provides the lift-off force that propels the rocket upwards.

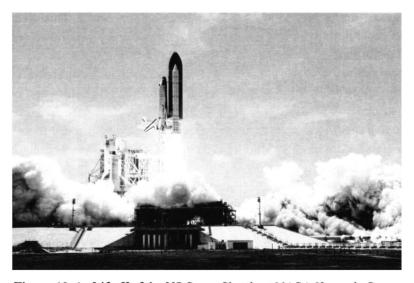


Figure 10-1: Liftoff of the US Space Shuttle at NASA Kennedy Space Center, Florida, U.S.A. (NASA photo).¹⁴

Figure 10–1 provides an ideal, modern-day representation or mental image of the portion of the Bible detailed in the section capturing and depicting the four key elements of the "water," "chariot and horses," "fire," and "whirlwind."

A chariot system comprises a charioteer who represents the pilot and usually one or a few passengers, representing potential other astronauts, who stand in the chariot box, which is the space faring on a spacecraft for human spaceflight. In this case, Elijah is the only astronaut and while the charioteer (pilot) is not specified in the account, it is implied based on the operational standards of chariots. The charioteer controls the response of the horses and hence regulates their movement and that of the chariot box. An archaic spacecraft control mechanism is therefore demonstrated. The number of horses is not mentioned, but each horse has a sustainable measure of energy or horsepower and the combined energy supplied by the horses provides the propulsion system, power, and thrust for the vehicle itself, which sustains the spacecraft's travel in space after the initial takeoff or stages have been separated. In this case, there are no separate stages for separation and the initial whirlwind (thrust energy) would have faded, once the chariot had escaped the earth's atmosphere and successfully entered low Earth orbit (LEO). The horse power would then provide the necessary boost, much like a perpetual nuclear-powered engine required for deep space travel, as horses have enormous power for continuous movement at varying speeds. This eliminates the need for propellant resupply, which is not identified in this scenario. It is very instructive to note that the charioteer can control the acceleration, deceleration, and direction of the horses and hence the chariot or spacecraft. This clearly attests to the capability for the necessary engine burn for change in velocity for directional or further space travel from orbit to orbit beyond LEO.

Directionality of the horses suggests the concept of a spacecraft being guided to the specified destination through the appropriate trajectory and orbit in space and to make orbital changes such as Hohmann transfers required to send any vehicle to a specific location in space. This includes downward thrusts, as the horses can also be made to turn the chariot through angular movements in free space. Deceleration of the horses may signify the clear ability for reentry and landing at destination. Therefore, in summary, the charioteer can control and ensure change in velocity and continuous chariot travel from one orbit to another and make any necessary maneuvers and trajectory changes.

The description of a spaceport can also be hypothetically deduced accordingly. The separation mentioned between the two men (Elijah and Elisha) after the appearance of the chariot and horses of fire suggests the magnitude of the thermal radiation and energy dissipated in any launch, which requires a reasonable stand-off point for safety and observation. This forms part of the basis for spaceport launch range and safety standards. Furthermore, it is important to note that the two men crossed the Jordan River, which parted into two, prior to the take-off. After Elijah's disappearance, Elisha departed from the site, using the

same route and crossed the river by the same means. Previously, rooted to the site, it is recorded that they had encountered at least two different groups of men of the "company of the prophets."

This suggests that their eventual destination was not a typical human settlement and was devoid of any other artificial manmade use. The other prophets did not witness Elijah's ascent at close range, even though they were aware that the two men would be separated as the passage notes. These details are consistent with present-day rocket launch sites located away from residential or populated locations and preferably within the vicinity of water bodies for various health, safety, and technical purposes. Therefore, the site of Elijah's ascent to heaven suggests a designated spaceport or rocket launch site, which he had to arrive at before take-off. He was not taken up at an arbitrary location and clearly not in a densely populated area, just as modern-day launch sites are located and constructed strategically and not randomly.



Figure 10–2: NASA KSC launch site (depicting the idea expressed in the paragraph above). (NASA photo). ¹⁴

Painstakingly, it is noted that a great deal of scientific and technical phenomena and information are not captured in the synopsis of the passage. Many questions remain unanswered and various concepts are either completely nonexistent or questionable. The entire account can be described as "fictional" and a work of cultural perspective. There are numerous apparent supernatural depictions, such as the parting of the Jordan River, chariots and horses of fire, a whirlwind with rocket propulsion capacity, and a vaguely specified destination, just to mention a few. The explanations of the shielding of Elijah and the horses

from harsh space weather, discrete values of critical parameters and variables are not provided and have not been deduced. There is a seeming lack of technical validity and sufficient data. Furthermore, there exist no current-day tangible evidences of Elijah's flight to heaven in stark contrast to Yuri's expedition in 1961. Nevertheless, though hypothetical, a description of various aspects of modern human spaceflight can be deduced from the passage in a manner that suggests coordinated and intentional thinking by the original author(s) of the biblical text. Notwithstanding, while there may be a weak case and premise for a formal acceptance of the recorded incident as a verified space launch, there is a compelling case for the science unearthed from the foregoing analysis from a cultural view, which generates an intriguing basis for further investigation. The underlying proposed theory suggests that the basic science of human spaceflight was originally presented in the 9th century BC, as recorded in the Bible in the account of the Prophet Elijah's ascent to heaven in 2 Kings 2, albeit in a hypothetical form but with a strong basis for further investigation. This alternative synopsis further supports the claim that the idea of space-related phenomenon was presented in the Bible in line with the suggestions of von Däniken, Blumrich, and others and the saying of Ecclesiastes 9:1 which propounds that everything that exists today is a recreation of a previous original version or, the actualization of a predated thought.

IV. Historical Evidence

There are several areas of further work identified by the author on this subject. One is the contribution of Jewish historians and traditional experts to provide more elaborated facts on Bible history and findings. Additionally, in bid to further verify and validate the historical facts surrounding the Elijah "spaceflight" account, a recommended area of further research or investigation is that an enhanced archaeological investigation of the launch or take-off site be implemented. The Bible is rich with numerous accounts that have been substantiated through physical current-day sites, edifices, monuments, and artifacts throughout Israel.

Many of the Jewish customs and traditions are also predicated on similar activities performed by Jews of many centuries ago, predating even the time of Elijah. Therefore, there is a valid case for the discovery of possible further evidences to the Elijah case. The exact or approximate site of take-off may still be located today in Israel along the Jordan River, which transcends the State of Israel. The river channels into the Dead Sea and is about 251 km long¹⁵ and is suggested to be facing possible extinction.¹⁶ There are different strategies and tech-

nologies for the discovery of ancient towns, cities or locations This chapter proposes the use of ground penetrating radar (GPR) in addition to magnetometers and other satellite remote sensing, surveying, excavation, and analytical methods to potentially identify the location of the Elijah "launch site." The whirlwind, fire, and radiation produced from the event as recorded would likely have generated significant perturbations on the ground surface at the time and alterations in the sub-surface conditions and inhomogeneity in the absence of any previous excavations at the site.

V. Bible Space and Research Park

Another area of further work in consonance with the potential discovery of the location of the site of Elijah's ascent is the establishment of a novel space park, the Bible Space and Research Park, which is proposed to be sited at or around the site close to the Jordan River in southern Israel. The park would serve to highlight and preserve the ancient Bible account of Prophet Elijah's ascent and other Bible records that relate to astronautics and other modern-day science and technologies. The chariot and horses of fire would be modeled and installed in a specialized roller coaster system that simulates sudden propulsion up to a reasonable distance into the atmosphere and a restoration to the take-off point.

The system is proposed to have a flowing water pool with an automatic mechanism to separate the pool into two parts and create a walkway between to simulate the passage of Elijah and Elisha through the Jordan River on dry ground rooted in the "launch site" of the chariot take-off. Other models to be included are the depictions of Ezekiel's spaceship and wheel-in-a-wheel spacecraft by Blumrich. Additionally, scientific phenomena suggested from the Bible, such as von Däniken's explanation of the burning of Sodom and Gomorrah as a nuclear bomb, the effects of Joshua's command to the Sun to stand still at the battle of Ai (Joshua 10), and several other incidences particularly in the Old Testament books would be captured. These may be simulated in innovative manners that would be suitable for education and tourist attraction. The essence of the park is to further preserve and highlight the history and contribution of Israel to space science. This would also provide an important site for space STEM education for students. Various value-added activities and features would be added to make the park into a global space tourism and historical site, much like the Kennedy Space Center Visitor Complex.17

Furthermore, a novel research facility is proposed to drive further research into various space and general scientific concepts and theories that can be deduced from records throughout the Bible. This would potentially generate a new

pool of new science and historical evidence of modern science exhibited in ancient times in Israel.

VI. Conclusion

This chapter suggests that the earliest mention or record of the idea or possibility of human spaceflight is the account of the ascent of the Jewish Prophet Elijah in the Bible. Specifically, the author posits that the Bible predates all other literary works on the imaginary concept of human spaceflight or "ancient astronauts." While based on a more cultural perspective than anything else, it still represents a valuable and valid contribution to the history of space.

Hypothetically, the core fundamental science and concepts that enable human spaceflight can be deduced from the ancient Bible records. A careful and critical analysis of the event reveals a systematic and deliberate presentation of several basic principles of modern-day human spaceflight. This provides a more cogent version than that of other authors who produced literary works describing the possibility of humans in space mostly in the early 20th century. It also lends greater credence to the much-scrutinized works of von Däniken and Blumrich. Indeed, the account is otherwise fictional and the necessary scientific and technological facts are not outlined or the constraints of modern-day space systems factored either. Nevertheless, the analysis and otherwise fictional technical deductions from the record strengthens various claims that the idea of human spaceflight was presented many centuries ago.

The Bible contains records that have proven physical evidence of their validity throughout Israel today in various forms. While many of the accounts are considered arguable and limited to religious beliefs, there is substantial evidence, particularly within the Jewish community concerning the Bible. Consequently, it is propounded that while the Bible is a nonscientific publication, it provides the first recorded mention or suggestive incident of man's venture to space or human spaceflight through the account of the Prophet Elijah.

Finally, further areas of work identified to enhance this work include further elaboration of the claims by Jewish scholars, the identification of the actual site of the incident in modern-day Israel, and the establishment of a Bible Space and Research Park to investigate and preserve this subject deeper along with those generated by other authors. Additionally, the latter is expected to provide further research into Bible-based scientific phenomena and a tourist hotspot.

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