Laken Greene

Fall 2021

East Tennessee State University

greenela1@etsu.edu

## The Sacrifice of a Stray: Laika's Mission to the Stars Aboard Sputnik 2



"The more time passes, the more I'm sorry about

it. We did not learn enough from the mission to justify the death of the dog."

-Oleg Georgivitch Gazenko, Soviet Scientist that worked with Laika

## **Background**

It was in the midst of my junior year of high school, in the fall of 2018 to be specific, that I engaged in a conversation with one of my friends about the exploration of space. How we landed on this topic I'll never know, but we were both curious as to who or what was the first living thing in space. A quick Google search directed us to an article published on NASA titled,

"60 years ago: The First Animal in Orbit". The article described the launch of Sputnik 2 by the Soviet Union, which contained a stray dog from the streets of Moscow. The stray's name was Laika, and she would become the first living thing to ever orbit the Earth. I was excited that this title was attributed to one of mankind's four-legged friends, and I was in awe of the cuteness of



Photo of Laika used on the NASA article.

Laika's picture at the top of the page -- then, I finished the article.

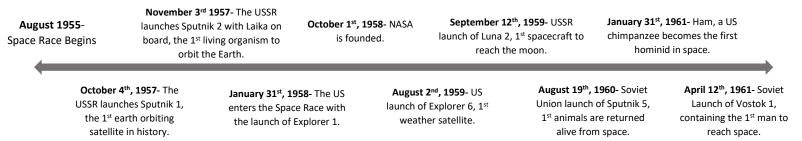
My excitement and awe were short-lived, as the end of the article disclosed that no provisions were made for Laika to return to Earth. She ultimately perished during the mission. I have a tender heart, especially when it comes to animals, so I was deeply saddened by the story of Laika, and I felt the need to dig even deeper into the tragedy. What I would discover was a complex story of abuse, lies, and secrets kept for over forty years. I have ultimately concluded that the launch of Sputnik 2 was a selfish, heartless, and inhumane operation that had little regard for the value of life.

<sup>&</sup>lt;sup>1</sup> https://www.nasa.gov/feature/60-years-ago-the-first-animal-in-orbit

### The Importance of Time

To begin, I feel that it is necessary to have a true grasp of the period of time during which this atrocity occurred. I found that when I analyzed the events of Laika's mission with the time period in mind, it was able to convey just how heinous the Soviets' actions truly were.

## A **Brief** Timeline of the Beginning of the Space Race:



Events adapted from: https://www.rmg.co.uk/stories/topics/space-race-timeline

It is easily observable from viewing the timeline just how close the achievements were between the United States and the USSR. The dubbing of this time of history as the "Space Race" is clearly justified. Aside from the competition between the two countries, something else stuck out to me when looking at the timeline: the length of time between the launch of Sputnik 1 and Sputnik 2. It took the Soviets less than a month to construct, prepare, and launch a separate spacecraft. This idea was even harder to grasp after I learned that it took the Soviets over a decade to launch Sputnik 1 (Caswell, 23).

So, why did the launch of Sputnik 2 take such an insignificant amount of time? Simply put there were two reasons:

1. The Soviet Union had established their superiority with the launch of Sputnik 1, and they wanted to advance themselves in the Space Race (Caswell, 12).

2. The Soviet Union wished to have a launch to commemorate the 40<sup>th</sup> anniversary of the Russian Revolution (Gaard, 121).

The hurried production of Sputnik 2 would have dire consequences for Laika. With so little time to engineer the spacecraft, her safety and return to Earth were never a concern to Soviet scientists. Despite protests from groups across the globe, Laika was strapped into Sputnik 2 and launched into orbit, as planned, on the 40<sup>th</sup> anniversary of the Russian Revolution (Gaard, 121). Her mission was regarded by Soviet officials as a heroic sacrifice in the name of scientific advancement. As described in Kurt Caswell's book, "Laika's Window: The Legacy of a Soviet Space Dog", "The USSR reported that she survived for about a week, returned a stream of valuable data that would help make human spaceflight possible, and then died a painless death as her oxygen ran out" (9). Spoiler alert: they lied.

## Laika's "Preparation" (Abuse) Prior to Launch

In addition to the ethically flawed reasoning for the Soviet launch of Laika, their methods of space training were inhumane. Through the training process, Laika was:

- 1. Exposed to loud noises (Chttopadhyay, 31).
- 2. Placed in a centrifuge to expose her to high accelerations (Swopes).
- 3. Confined to small boxes for 15-20 days at a time (Chttopadhyay, 30). The effects of continued confinement ultimately led to the deterioration of her normal bodily functions (Swopes).
- 4. Chained in the cabin of the spacecraft, with limited ability to sit or lie down (Chttopadhyay, 31).

5. Surgically implanted with sensors, electrocardiogram electrodes (measured heart rate), and a piezoelectric blood-pressure sleeve (Chttopadhyay, 31).

All of the above were considered common procedures and were followed out for the dozens of stray dogs in Soviet space training (Chttopadhyay, 31). Laika managed not only to survive her training, but also to impress her trainers in doing so. Kurt Caswell's book describes how Laika excelled during training: "she managed the extreme conditions of the centrifuge and the vibration table", "she kept a calm and even disposition



during prolonged periods of isolation in the training capsule", and "She did not become aggressive or fight with her kennel mates, as so many smaller dogs are prone to do" (Caswell, 22).

## Laika's Fellow Cosmodogs for the Sputnik 2 Mission:

Despite Laika exceeding expectations during training, the Soviet scientists were still unsure which dog to send to space. Of the dozens of stray dogs kept at the Space Research Centre in Moscow, scientists had narrowed their choices down to Laika and another dog they named Albina (Caswell, 22). Albina was a veteran in the Soviet Space program, as she had been in two other space rockets reaching hundreds of kilometers (Caswell, 22). Because of this, she was far more qualified for the mission than Laika. However, Albina was



Laika (back), and her fellow cosmodogs Albina (right), and Mushka (left).

considered a celebrity among the Soviet scientists and engineers (Caswell, 22). Her status, along with having recently become a mother to a litter of puppies, spared her from her death, as the scientists felt it was "too cruel to take the mother from her pups and subject her again to the risks of rocket flight" (Caswell, 22). In addition to Albina, a third dog, Mushka, was also trained for the Sputnik 2 mission (Whitehouse). While Albina served as the "backup", Mushka was only used to test instrumentation and life support (Whitehouse).

# November 3<sup>rd</sup>, 1957- Launch Day

After a full three days spent chained in the cabin of Sputnik 2, Laika was launched into orbit (Gaard, 121). People across the globe watched in anticipation as history was being made. Officials in the Soviet Union celebrated their success. Meanwhile, Laika was stressed and terrified. Her heart rate rose to over three times its normal rate during launch and would take three hours to return back to normal, which was three times longer than it had taken in previous control tests (West). Soviet officials broadcast that she lived about a week, then passed away painlessly from a lack of oxygen (Caswell, 9). In reality, she made it about five to



seven hours into the mission when her air-conditioning unit failed, causing her to overheat (Chttopadhyay, 32).

#### Soviet Secrets:

Laika's fate remained hidden from the public for many years. It wasn't until October of 2002, forty-five years after the launch, that a representative from the Institute for Biological

Problems in Moscow finally admitted at the World Space Congress in Houston, Texas, that Laika's death was a lot more horrifying than it had been previously made out to be (Kemp, 541).

#### The Aftermath

In the days leading up to and after the launch of Laika, the little dog was being painted as a hero. Soviet officials and scientists commended her for the many sacrifices she made in the name of science. They deemed that this mission was completely necessary in order to make future human space expeditions a reality. One of the Soviet scientists that worked with Laika has a differing opinion, however. Oleg Georgivitch Gazenko, one of Laika's trainers, summarizes his

views on the mission's importance in the following statement: "the more time passes, the more I'm sorry about it. We did not learn enough from the mission to justify the death of the dog" (Gaard, 122).

#### Laika Was Not Alone:

Between 1951 and 1966, the Soviet Union launched dogs into flight 71 times, with 17 fatalities; in every case except for Laika's, there had allegedly been some hope that the animals would survive (George).



# Laika's memorial in Russia, erected in 2008.

#### Conclusion

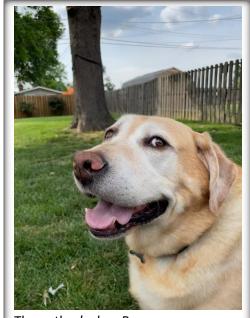
Despite the efforts made to focus on the noble sacrifices of Laika, I can never see her as the hero the media has made her out to be. I will only be able to see her as the innocent, loving, and pure animal that she was. While scientists in the Soviet Union saw her as potential to advance themselves in the Space Race, the only potential I see in Laika is her potential to have

brought joy and companionship to some lucky person or family. In the war that was the Space Race, Laika was just another casualty, even though it wasn't her fight.

It is through events like Laika's mission that the flaws of mankind become so evident.

The horrors of the launch of Sputnik 2 are found within the motives for the project, as well as the

treatment of the cosmonaut on board, all of which reflect a complete and utter lack of respect for life. Of course, it is also through the effects of tragedy that growth occurs. The launch and death of Laika started an ongoing conversation about animal rights and the ethics of using animals in similar missions. People all across the world were left with burning questions regarding morality, the relevance of which is ongoing. I know that discovering the story of Laika left me with many of the same questions, one in particular that manifested itself when I looked at my own dog, Beau, and wondered, *how could anyone disregard the value of your life?* 



The author's dog, Beau

#### About the Author:

Laken Greene is a student at East Tennessee State University pursuing a bachelor's degree in English, with minors in Technical and Professional Writing and Journalism. Laken resides in East Tennessee where she enjoys reading, shopping, spending time with her loved ones, and spoiling her dog, Beau.

## Works Cited

- Caswell, Kurt. *Laika's Window: The Legacy of a Soviet Space Dog*. Trinity University Press, 2018. *Google Scholar*. 256 pgs. Access to the first chapter via Google Books.
- Chttopadhyay, Dhrubajyoti. "From Street to Space: Laika the space dog would always be remembered for her short adventure in space that made it possible for humans to take a giant leap in the field of space science.". *Science Reporter*, Nov. 2016, pp. 29-32. *Google Scholar*. nopr.niscair.res.in/handle/123456789/36712
- Gaard, Greta. "Animals in (New) Space: Chimponauts, Cosmodogs, and Biosphere II". *Feminismo-s*, vol. 22, Dec. 2013, pp. 113-145.
- George, Alice. "The Sad, Sad Story of Laika, the Space Dog, and Her One-Way Trip into Orbit." *Smithsonian Magazine*, Smithsonian Institution, 11 Apr. 2018, ~10 min. read. smithsonianmag.com/smithsonian-institution/sad-story-laika-space-dog-and-her-one-way-trip-orbit-1-180968728/.
- Kemp, Martin. "Russian Science: A Dog's Life". *Nature*, vol. 449, Oct. 2007, pp. 541. nature.com/articles/449541a.pdf
- Swopes, Bryan R. "History Hour Horror: Tragic life of Laika, the first dog in space". *Aerotime Hub*, Oct. 2018, ~ 5 min. read. aerotime.aero/22044-history-hour-horror-tragic-life-of-laika-the-first-dog-in-space
- "Space Race Timeline." Royal Museums Greenwich, rmg.co.uk/stories/topics/space-race-timeline.

- West, John B. "Historical aspects of the early Soviet/Russian manned space program". *Journal of Applied Physiology*, vol. 4, pp. 1501-1511. Accessed via Wikipedia. https://doi.org/10.1152/jappl.2001.91.4.1501
- Whitehouse, David. "First Dog in Space Died within Hours." *BBC News*, 28 Oct. 2002, ~5 min. read. news.bbc.co.uk/2/hi/science/nature/2367681.stm.