

ENGLISH LEARNING FOR CURIOUS MINDS



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Episode #177

The Space Race - Part Two | The Moon Landing

20th Jul, 2021

Alastair Budge: [00:00:00] Hello, hello hello, and welcome to English Learning for Curious Minds, by Leonardo English.

[00:00:11] The show where you can listen to fascinating stories, and learn weird and wonderful things about the world at the same time as improving your English.

[00:00:21] I'm Alastair Budge and today is Part Two of our three-part series on The Space Race.

[00:00:27] In Part One we learned about the early years, the background behind the space race, how the Soviets sent the first satellite into space, the first animal into space, and the first person into space, and how the Americans were **playing catchup**¹ for the first 10 years of the Space Race.

¹ trying to follow the competition



[00:00:47] In today's episode we are going to talk about the period from 1962 onwards, and the race to the moon. I think we all know who won that race, but the story is fascinating nonetheless.

[00:01:01] Then, in Part Three, the final part, we will be talking about the next space race, the **quest**² for Mars and beyond.

[00:01:11] If you haven't listened to Part One of this mini-series then I would definitely recommend listening to that first, as we will be referring to quite a few of the events from the early space race.

[00:01:23] You can listen to this episode without having listened to Part One, but unless you have quite a detailed knowledge of the space race, it'll probably make life easier if you've listened to Part One beforehand.

[00:01:38] Ok then, let's get cracking, and head to the moon.

[00:01:43] To remind you briefly, in September of 1962 John F Kennedy had **boldly**³ **proclaimed**⁴ that the USA would send a man to the moon by the end of the decade.

[00:01:57] Here's a short clip of JFK explaining exactly what he promises to do.

² a long and difficult task or search for something

³ in a confident but risky way

⁴ announced publicly



[00:02:02] **John F Kennedy:** [00:02:02] But if I were to say, my **fellow**⁵ citizens, that we shall send to the moon, 240,000 miles away from the control station in Houston, a giant rocket more than 300 feet tall, the length of this football field, made of new metal **alloys**⁶, some of which have not yet been invented, capable of **standing**⁷ heat and stresses several times more than have ever been experienced, fitted together with a **precision**⁸ better than the finest watch, carrying all the equipment needed for **propulsion**⁹, guidance, control, communications, food and survival, on an **untried**¹⁰ mission, to an unknown **celestial**¹¹ body, and then return it safely to earth, re-entering the atmosphere at speeds of over 25,000 miles per hour, causing heat about half that of the temperature of the sun--almost as hot as it is here today--and do all this, and do all this and and do it right, and do it first before this decade is out--then we must be bold.

[00:03:14] **Alastair Budge:** [00:03:14] So, in front of the nation, and in front of the world, the president of the United States of America had said that they would put a man on the moon.

⁵ someone who shares the same position or condition

⁶ metal substances made by mixing two or more metals

⁷ resisting, enduring

⁸ the quality of being exact and accurate

⁹ the action of pushing something forward

¹⁰ not tried before

¹¹ positioned in the sky



[00:03:23] The USA had to manage this. It had to do it.

[00:03:28] They had come second to the Soviets with every major other [milestone](#)¹².

[00:03:32] While the Soviets and the Americans were focussing on the big, [hairy](#)¹³ goal of putting a man on the moon, they continued to make progress with slightly less [ambitious](#)¹⁴ space [milestones](#)¹⁵, and the Soviets kept on winning.

[00:03:46] The year after JFK's [declaration](#)¹⁶, the Americans lost out on another [milestone](#) to the Soviets, when they sent the first woman into space, a woman named Valentina Tereshkova.

[00:03:59] Now, it has been said that Tereshkova was sent into space mainly as a [propaganda stunt](#)¹⁷ by the Soviets, so that they could claim another victory, that of also sending the first woman into space.

[00:04:12] Tereshkova was an ex-factory worker, and [amateur](#)¹⁸ [skydiver](#)¹⁹.

¹² a significant stage in the development of something

¹³ difficult

¹⁴ difficult to achieve

¹⁵ significant stages in the development of something

¹⁶ official announcement

¹⁷ an organised publication of information to assist the cause of a government

¹⁸ practicing something as a hobby, not professionally

¹⁹ a person who jumps from an aeroplane using a parachute



[00:04:18] After Yuri Gagarin went to space, in 1961, there were rumours that the Americans were training female pilots to become astronauts. The Soviets couldn't allow the Americans to do that, and so quickly [launched²⁰](#) a female astronaut programme, and Tereshkova was chosen because of her experience [skydiving²¹](#).

[00:04:40] So, Tereshkova became the first woman in space in June of 1963.

[00:04:46] Interestingly enough, she is still alive today, as of June 2021.

[00:04:52] She is 84, and has publicly [volunteered²²](#) to be the first person to go to Mars, even if it is a one way trip.

[00:05:01] So, she is evidently a [formidable²³](#) woman.

[00:05:05] The Soviet [winning streak²⁴](#) continued.

[00:05:07] In 1965 the Soviets managed the first space walk, where a man named Aleksey Leonov was the first person to walk in space, to exit the spacecraft and float around in space.

²⁰ started

²¹ jumping from an aeroplane using a parachute

²² offered herself

²³ inspiring respect

²⁴ a continuous period of success



[00:05:22] And in February of 1966 the Soviets were the first to manage what's called a "soft landing" on the moon. A soft landing means that a spaceship lands on the moon safely, that it doesn't crash into it. Obviously, if you want to send a person to the moon, the [implication²⁵](#) is that they manage to get back safely, and so this was another important win that went to the Soviets.

[00:05:50] But, there was one incredibly important event that happened in early 1966 that was to hurt the Soviet chances, and some people have argued was the real reason that the Americans beat the Soviets to put a man on the moon.

[00:06:07] In January of 1966 Sergey Korolev, the chief [architect²⁶](#) of the Soviet space programme, and the man who had designed the rockets that had sent Sputnik I, Laika and Yuri Gagarin into space, died.

[00:06:22] You might be thinking that a country with almost a quarter of a billion people shouldn't be so badly affected by the death of one scientist, but apparently it was.

²⁵ problem

²⁶ a person who is responsible for a project



[00:06:34] Korolev was [instrumental](#)²⁷ in the Soviet space programme, he was the [clear](#)²⁸ leader, and with him gone there were [power struggles](#)²⁹ and a communication [breakdown](#)³⁰.

[00:06:45] A year later, more tragedy [struck](#)³¹, first for the Americans, and then for the Soviets.

[00:06:52] In January of 1967 three young American astronauts, Virgil Grissom, Ed White, and Roger Chaffee were killed in a fire during a [routine](#)³² test.

[00:07:05] White had been the first American to walk in space, a couple of months after his Soviet [counterpart](#)³³, but along with his two fellow astronauts he was [trapped](#)³⁴ inside their spaceship and killed in a fire.

[00:07:20] Then, on April 23rd, 1967, Vladimir Komarov became the first astronaut, or cosmonaut as he is called in Russian, to be killed on a space mission, when his

²⁷ having a great effect on, very important

²⁸ leaving no doubt, obvious

²⁹ situations in which people compete for control

³⁰ failure

³¹ happened suddenly and had a negative effect

³² standard, regular

³³ someone who has the same purpose or role as another one

³⁴ caught



parachute³⁵ failed to open properly when he was returning to Earth, and he crashed into the ground at a speed of 140km per hour.

[00:07:43] Until then, space travel had seemed adventurous and **fabulous**³⁶, but the deaths of these young astronauts really **rammed home**³⁷ the **extent**³⁸ of the danger.

[00:07:55] Nevertheless, the goal was clear, a man on the moon before the end of the decade.

[00:08:02] The American government had **ploughed**³⁹ vast amounts of money into the programme, and between 1961 and 1964 the budget for NASA had been increased by almost 500 percent.

[00:08:17] The moon was getting closer though.

[00:08:19] On December 24th of 1968 there was the first **manned**⁴⁰ flight around the moon, when the American astronauts Frank Borman, James Lovell and William Anders

³⁵ a device made of cloth that enables a person to jump from an aircraft and land safely on the ground

³⁶ wonderful and impressive

³⁷ made it very clear in a forceful way

³⁸ amount

³⁹ invested (for a large amount of money)

⁴⁰ having a human crew



spent Christmas Eve reading the Book of Genesis, and took the [iconic](#)⁴¹ photo “Earthrise”.

[00:08:39] Then, I think we all know what comes next.

[00:08:42] On July 20th, 1969, exactly 52 years before this episode is going to be released, the first human beings set foot on the moon.

[00:08:53] I imagine you might have heard this before, or at least know the translation in your own language, but here’s Neil Amstrong landing on the moon:

[00:09:04] **Announcer:** [00:09:04] Armstrong is on the moon, Neil Armstrong, 38 year old American standing on the surface of the moon on this July 20th, 1,969.

[00:09:29] I think that was Neil's quote, I didn't understand one small step for man, but I didn't get the second phrase.

[00:09:35] **Alastair Budge:** [00:09:35] Don’t worry if you didn’t catch everything he said, [evidently](#)⁴² the people back on mission control didn’t get it either.

[00:09:44] He said “That’s one small step for man, one giant [leap](#)⁴³ for mankind.”

⁴¹ so famous that it has become a symbol of something

⁴² in a way that is easy to see

⁴³ a large jump



[00:09:50] So, the Americans had done it with 164 days to [spare](#)⁴⁴. They had sent a man to the moon.

[00:09:58] As I'm sure you will know, Neil Armstrong and Buzz Aldrin returned safely to Earth as national heroes.

[00:10:06] With the moon now [conquered](#)⁴⁵, there were very few [immediate](#)⁴⁶ prizes left in The Space Race, and by many people's standards the moment Neil Armstrong set foot on the moon was the start of the end of The Space Race.

[00:10:21] So, who won?

[00:10:23] The Soviets certainly [scored](#)⁴⁷ all the early points, getting the first satellite, first animal, first man, and the first woman, but they failed at [the last hurdle](#)⁴⁸, getting the first man on the moon.

[00:10:36] Does that mean that the US won?

[00:10:39] That is of course [open to interpretation](#)⁴⁹.

⁴⁴ use as extra time

⁴⁵ gained, won

⁴⁶ close at hand, near

⁴⁷ won, got

⁴⁸ at the very end

⁴⁹ understood in different ways depending on the opinions of people



[00:10:43] The United States certainly believes it won, and after the Apollo 11 mission to the moon, the government started to lose interest in space exploration, or at least it became significantly less of a priority than it had been in the early 1960s.

[00:11:00] The end of the space race **coincided**⁵⁰ with a **thawing**⁵¹, a **warming up**⁵² of the Cold War. **Relations**⁵³ between the US and the Soviets had started to improve, and there was a growing sense that working together on space exploration, rather than in competition, would result in better progress for mankind.

[00:11:23] Indeed, in 1975 history was made when a Soviet spaceship, the Soyuz 19, joined together with the American Apollo spacecraft, and the astronauts famously shook hands and exchanged gifts in space. And although things had cooled down since the moon landing, this was the **final whistle**⁵⁴ in The Space Race.

[00:11:49] Since then, since 1975, space exploration has largely been **collaborative**⁵⁵, but without any grand **symbolic**⁵⁶ goal to head for, budgets have been **slashed**⁵⁷, and

⁵⁰ happened at the same time

⁵¹ a change from being cold to being warmer

⁵² an increase in heat or tension

⁵³ ways in which two groups behave towards each other

⁵⁴ end

⁵⁵ involving two or more groups working together

⁵⁶ very important

⁵⁷ cut



there is simply far less money for space exploration than there was in the 1950s and 1960s.

[00:12:09] Ever since the Space Race ended, questions have been asked about what the US, the USSR, and the world, actually got out of it, other than the human achievement of being able to say “we put humans into space”, or onto the moon.

[00:12:25] The benefits are both [measurable](#)⁵⁸ and [immeasurable](#)⁵⁹.

[00:12:29] The [immeasurable](#) ones, the ones that are not [measurable](#), are relating to things like [boosting](#)⁶⁰ the soft power of the US, creating a generation of children who were inspired by astronauts and developed a passion for science, and of [fostering](#)⁶¹ a shared goal for Americans, and a shared [sense](#)⁶² of community and achievements.

[00:12:52] The [measurable](#) benefits are easier.

[00:12:55] The space programmes have given us the technology behind the satellites that power our GPS and help us predict the weather.

⁵⁸ able to be measured or counted

⁵⁹ not able to be measured or counted

⁶⁰ increasing

⁶¹ developing, promoting

⁶² feeling



[00:13:03] **Microcomputers**⁶³ are believed to have come in a large part from the scientists needing to develop smaller and smaller computers to fit into spacecraft.

[00:13:13] And the artificial heart **pump**⁶⁴, which has kept **countless**⁶⁵ people alive when their own hearts failed, was based on a space shuttle's fuel pump.

[00:13:23] Even most modern baby formula, most artificial baby milk, contains an ingredient that was developed by NASA.

[00:13:31] And this is only a small selection - there are **countless** other inventions, things we **rely**⁶⁶ on now in our daily lives, which we can trace back to The Space Race.

[00:13:42] But it was incredibly expensive. Adjusted for inflation, it is estimated that NASA, the North American Space Agency, spent almost a trillion dollars in today's money.

[00:13:54] Yes, it could have been spent on other things. Better hospitals, schools, universities, on doing things that improved people's lives more directly back on Earth.

⁶³ small computers

⁶⁴ a mechanical device that is used to cause liquids to move from one place to another

⁶⁵ too many to count

⁶⁶ depend



[00:14:06] You can [make up your own mind](#)⁶⁷ on whether you think this was a good use of money, but I'll leave you with the reason that JFK, the [iconic](#) US president, believed that it was worth it.

[00:14:18] So, over to you, JFK.

[00:14:20] **John F Kennedy:** [00:14:20] Many years ago the great British explorer George Mallory, who was to die on Mount Everest, was asked why did he want to climb it. He said, "Because it is there."

[00:14:33] Well, space is there, and we're going to climb it, and the moon and the planets are there, and new hopes for knowledge and peace are there. And, therefore, as we set sail we ask God's blessing on the most [hazardous](#)⁶⁸ and dangerous and greatest adventure on which man has ever embarked.

[00:14:52] Thank you.

[00:14:56] **Alastair Budge:** [00:14:59] OK then, that is it for Part Two of The Space Race, the moon landing.

[00:15:05] As a reminder, Part Three is going to be on The Next Space Race, the final frontier, where we will ask ourselves "what's next?"

⁶⁷ decide for yourself

⁶⁸ risky



[00:15:13] And if you haven't yet listened to Part One, I'd recommend giving that a listen to, as it provides some background to this fascinating story.

[00:15:21] As always, I would love to know what you thought of this episode.

[00:15:25] For some of you, you will no doubt remember the moon landing.

[00:15:29] It was broadcast to an audience of 723 million people live on TV.

[00:15:35] So, if you were watching this as a kid, what was it like? I can only imagine that it must have been pretty amazing...

[00:15:43] And whether you watched it or not, I would love to know what you think about The Space Race.

[00:15:48] We do have quite a lot of members from former Soviet countries, so I would particularly love to know what you thought of it.

[00:15:56] You can head right into our community forum, which is at community.leonardoenglish.com and get chatting away to other curious minds.

[00:16:05] You've been listening to English Learning for Curious Minds, by Leonardo English.

[00:16:10] I'm Alastair Budge, you stay safe, and I'll catch you in the next episode.

[END OF EPISODE]



Key vocabulary

Word	Definition
Playing catchup	trying to follow the competition
Quest	a long and difficult task or search for something
Boldly	in a confident but risky way
Proclaimed	announced publicly
Fellow	someone who shares the same position or condition
Alloys	metal substances made by mixing two or more metals
Standing	resisting, enduring
Precision	the quality of being exact and accurate
Propulsion	the action of pushing something forward
Untried	not tried before
Celestial	positioned in the sky
Milestone	a significant stage in the development of something



Hairy	difficult
Ambitious	difficult to achieve
Milestones	significant stages in the development of something
Declaration	official announcement
Propaganda stunt	an organised publication of information to assist the cause of a government
Amateur	practicing something as a hobby, not professionally
Skydiver	a person who jumps from an aeroplane using a parachute
Launched	started
Skydiving	jumping from an aeroplane using a parachute
Volunteered	offered herself
Formidable	inspiring respect
Winning streak	a continuous period of success
Implication	problem
Architect	a person who is responsible for a project
Instrumental	having a great effect on, very important



Clear	leaving no doubt, obvious
Power struggles	situations in which people compete for control
Breakdown	failure
Struck	happened suddenly and had a negative effect
Routine	standard, regular
Counterpart	someone who has the same purpose or role as another one
Trapped	caught
Parachute	a device made of cloth that enables a person to jump from an aircraft and land safely on the ground
Fabulous	wonderful and impressive
Rammed home	made it very clear in a forceful way
Extent	amount
Ploughed	invested (for a large amount of money)
Manned	having a human crew
Iconic	so famous that it has become a symbol of something
Evidently	in a way that is easy to see



Leap	a large jump
Spare	use as extra time
Conquered	gained, won
Immediate	close at hand, near
Scored	won, got
The last hurdle	at the very end
Open to interpretation	understood in different ways depending on the opinions of people
Coincided	happened at the same time
Thawing	a change from being cold to being warmer
Warming up	an increase in heat or tension
Relations	ways in which two groups behave towards each other
Final whistle	end
Collaborative	involving two or more groups working together
Symbolic	very important
Slashed	cut



Measurable	able to be measured or counted
Immeasurable	not able to be measured or counted
Boosting	increasing
Fostering	developing, promoting
Sense	feeling
Microcomputers	small computers
Pump	a mechanical device that is used to cause liquids to move from one place to another
Countless	too many to count
Rely	depend
Make up your own mind	decide for yourself
Hazardous	risky

We'd love to get your feedback on this episode.

What did you like? What could we do better?

What did you struggle to understand?



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