**The Moon Landing Conspiracy Script**

Hi. Good afternoon everybody. How are you? I hope you had a good lunch. As always, if you go to my home page: stevenaskew.com you can find the script for this talk and all my other talks. You can find questions, you can find the answers, and you can download the MP3. Practice your listening, practice your writing, practice your reading. Your English will get better.

OK. A couple of months ago I did a talk about the moon and while I was doing that I mentioned the moon landing conspiracy, and I thought I would talk a little bit about that today, because it's actually quite interesting. Not because of the conspiracy itself, but more because of what it says about people in general. So, let's have a quick look at that.

OK. Conspiracy. What is a conspiracy? Well the dictionary defines conspiracy as “a secret plan by a group to do something illegal or harmful”. Now, the important words in that sentence of course, are group. One person on their own cannot conspire to do something. You must conspire with somebody. “Conspiracy”, “conspire” comes from the Latin “conspirare” which means to agree or to plot, basically. So, I could conspire with somebody to steal something, but on my own I just steal it.

OK. There are obviously a lot of very famous conspiracy theories. The JFK assassination, of course. Even though the FBI, the CIA, the American government has released almost all of the documents pertaining to the assassination, people still believe that Lee Harvey Oswald on his own did not kill JFK. They think there was a conspiracy. There was another shooter on the grassy knoll. You know the stories. Maybe we could do that as a talk one day. It's quite interesting. 9/11. September the eleventh. The terrorist attack in America. 2001. A lot of people think that the Twin Towers were brought down by American placed dynamite, placed explosions. They don't think the fuel from the planes would have become hot enough to melt the building’s superstructure and to bring it down like it did. They think … and they think there’s video footage of this, that there are explosions at various points down the building, which bring the buildings down. And they think that was done to ensure that the American people wouldn't argue when George Bush took America into the war in Iraq. But, of course, that’s obviously not true. The Hitler conspiracy. A lot of people, maybe not these days, but a lot of people after the Second World War believed that Hitler hadn't died, he hadn't killed himself, he had escaped and was living somewhere in South America: Venezuela, Argentina or one of those countries. The American government actually released pictures of what Hitler could look like if he had escaped. Like this one here. The flat Earth theory. Quite recently, I don't know why, but recently this is suddenly becoming more popular again. There are many people that believe the Earth is actually flat, not a sphere. And they believe that NASA, and all these government agencies and schools and textbooks and you name it are conspiring against the general population to make them believe the Earth is round. Why they would want to do that I have no idea, but anyway that's ridiculous. Of course, Watergate. The conspiracy that brought down President Richard Nixon. That was obviously quite a big conspiracy. People broke into the Watergate hotel to steal … to fix some bugs they’d placed in the Democratic office, I think, and they were caught. And it turned out that President Nixon was complicit in this and he'd been recording conversations in the White House, and he ended up lying. That conspiracy ended up bringing down his government, basically.

Anyway, the moon landing conspiracy. What is it? Well, obviously, Neil Armstrong first walked on the moon, July the 16th 1969. I’ve shown you video of that before. I won’t show it to you again. You all know that that happened. Shortly after that … well, in fact that very day, conspiracy theories started to appear. Even though the footage was broadcast live across the world, one of the most watched broadcasts in the history of anything ever, many people think it was faked. They think it wasn't real. They think that NASA filmed Neil Armstrong, Buzz Aldrin and Michael Collins in a film studio, basically, and used like a trapezes and elastic ropes to make it look like they're walking on the moon. Why would people think that?

Well, firstly, why did we go to the moon? In 1957, the USSR, the Union of Soviet Socialist Republics, had put the Sputnik into space. The world's first man made satellite into space. 4th of October,1957. America was nowhere near that. Then, 1961, Yuri Gagarin, a Soviet astronaut, he was the first man in space, basically. Well, incidentally, as a side note, Yuri Gagarin actually died later on in a car crash and there was another conspiracy attached to that. Some people think he was becoming too popular, so Stalin … was it Stalin? … or whoever was in charge at the time … Khrushchev? … anyway … had him killed. So, that's another conspiracy theory, but let's leave that to one side. So, America was losing the space race. The USSR was beating America at every level: first satellite, first animal, first rocket, first person, and America had to catch up. So, May 25th, 1961, JFK, he made that famous speech where he said, “By the end of this decade, we will put a man on the moon.” “We choose to go to the moon in this decade and do the other things. Not because they are easy, but because they are hard.” Which they did, of course. But, many people think they couldn't. The cost, the sheer cost alone. It cost $30 billion of their money, which is hundreds of billions of dollars of today's money. And many people think that it wasn't actually possible to put a man on the moon in that short period of time, so, rather than lose face, what JFK … well, he was dead by then … but what the American government and NASA conspired to do was fake the moon landing. Da daaaa!

All right. Let's talk about some evidence. Let’s talk about ten reasons why people think the moon landing was faked. I'll go through these in no particular order.

The first one. If you look at pictures like this, the crosshairs in the middle appear to be behind the objects in the picture. Here, the crosshair is behind part of the rover, and here, the crosshair is behind an astronaut. And people think … people say, “well, there you go. There's evidence that the photographs were doctored.” Obviously, these characters, these people, have been placed in after the photograph was taken. Number one.

Number two. People say the high definition photographs are too good. They could not have been taken in space. They must have been taken on Earth.

Number three. People say there are no stars. You're on the moon. It's dark. It's black. There must be stars in the sky. Look at our sky. When it's dark you can see stars. There are no stars, therefore, it must have been filmed with a black background in a movie studio.

Number four, the shadows. Look at this picture. The shadows are all over the place. Higgledy-piggledy. If you look at shadows on Earth, obviously, because we have the sun, all the shadows go the same way, but in this photograph of the moon there are shadows going this way, this way, this way, and this way, which obviously must mean there is more than one light source. Ergo, it's filmed in a film studio with different spotlights.

Number five. Identical backgrounds. Look at these two pictures, both taken in different places, but the background is identical. It must be a picture. It must be a film set.

Number six. The waving flag. Armstrong … Neil Armstrong plants the flag and it waves in the wind. There is no wind on the moon. It must be in a film studio.

Number seven. The props. Look at this rock. It has a “C” written on it. It must be a film prop.

Number eight. Hot spots. Look behind this picture. This is Buzz Aldrin, I think. Look at the ground behind him. It's obviously lit by a spotlight.

Number nine. Footprints. Look how clear that footprint is. There is no way you could get that in a vacuum.

Number ten. Neil Armstrong steps off the ladder, first man to put his foot on the face of the moon. Who filmed him? There must have been someone there filming him.

OK. Right. Those are basically my top ten reasons that I found researching this. Now, let's go through and look at each one of them individually. Number one. The crosshairs. Obviously, the crosshairs are marks that are etched on to the camera lens. Their done to give perspective, because on the moon there is no perspective, so these are marked on the camera lens because if you know the size of those you can look at the size of the things you're looking at. However, they're not actually black lines, they’re just marks on the camera. At the time, when you processed a photograph, there was no way of separating that mark from anything that's white. So, if that mark is in front of anything that is white, it will disappear. If you reprint those photographs using modern techniques, they reappear. Look at this photograph.

Number two, high definition pictures. They took some pretty impressive cameras to the moon. Hasselblad cameras, which are very very nice cameras. Very very high definition cameras. However, not all of the photographs are good. NASA obviously chose the photographs they wanted to publicize. There are thousands and thousands of photographs that are terrible.

Number three, no stars. Just because it's black doesn't mean you should be able to see stars. It's daylight. It's daytime. They landed on the moon in daytime, in direct sunlight. If … it’s direct sunlight now. It's sunny. If I go outside and look up, I cannot see any stars. Why? Because the sun is brighter than all of the stars. If you were to go to the other side of the moon you would be able to see stars. But, on the side with the sun, you cannot see them for the same reason you cannot see stars at night if you go into a bright city. Light pollution. So, there should not be any stars.

Number four. The shadows. Shadows are all over the place because yes there is more than one light source, but not in the way that conspiracy theorists mean. There is only the sun, of course, but the sun is reflecting off everything. It's reflecting off the moon lander, it's reflecting off their very white space suits, and it's also reflecting off the ground, which is extremely reflective. So, because the moon … the sunlight is reflecting in different angles and bouncing around, you are going to have different angled shadows. But, not just that, the ground of course is not completely flat. There are hills, there are dips, there are craters. So, if you have two rocks next to each other and one shadow is here, and one shadow is here, this piece is on a small hill. You can recreate this image quite easily. Look.

Number five. The identical backgrounds. The backgrounds are not identical, they are very similar. These are not hills, these are mountains in the far distance. If you look at this photograph of mountains on Earth, you can see that the mountains are in the distance. How do you know that? Because they’re hazy, they're not quite as well focused as the details in the foreground. And, because you can look at the trees, the water and you can judge the distances through experience. The moon does not have an atmosphere, so things in the distance do not appear any hazier than things in the foreground. And the moon does not have trees, so you cannot judge the scale of things. So, these mountains in the far distance appear like hills close up. Which, of course, they are not.

The waving flag. The flag is not waving. As Neil Armstrong puts it in, the flag is fastened here and here, as Neil Armstrong fastens it in the ground he turns the flagpole, which makes the flag move. And it stops. And then it doesn't move again. It looks like it's waving because the flag was folded up. And when you unfolded it it has creases, but it's not actually waving, it's just hanging there, as it would in a vacuum.

Labeled props. That's a mark on a stone. You can find other marks on stones. Look at this.

Hot spots. This is not a spotlight. This is light reflecting off their very white space suits. Sunlight is very very hot. The surface of the moon is very very hot. To cool the astronauts down, they had cooling systems inside the spacesuits, but also, they had highly reflective spacesuits to reflect back as much sunlight as possible. And that would mean that the sunlight would be reflected in all different angles, also on to the ground, looking like spotlights, which it’s not.

The footprints. Sand on Earth and dust on the moon are very very different. Sand on Earth is weathered by rain, by wind, and the particles they rub against each other and they become very round. If you stand on a soft beach, take your foot away, the sand falls back. On the moon, because they don't have wind and they don't have rain, the particles are not weathered, they are very very sharp, and these particles catch against each other. So, if you put your footprint on the moon, it will stay there forever, unless it’s hit by a meteorite. In fact, you can look at the moon right now and you can see the things that the astronauts left there, and, if you had a powerful enough telescope, you could see that footprint, if you know where to look.

Number ten. Who filmed Neil Armstrong? The camera affixed to the side of the moon lander.

OK. I got carried away there. Sorry. There are two more things. Sorry. There’s one more thing, a lot of people also bring up: there are a lot of deaths of people connected to these programs. A lot of deaths of young people who are connected to these programs, and people say, “Aha! NASA has been going around killing people that were going to give the game away.” But, if you think about it, most people that are connected with the space industry … most astronauts, how do they become astronauts? They go through the military, usually through the air force, and they’re usually test pilots. Test pilots have a higher rate of death than the average person because they're flying untested planes. Test pilots also drive faster, they also take more risks. It is not unusual for a large number of people involved in a space exploration program to die. It's not unusual.

OK. Two more important things that kind of refute this conspiracy. The first one of course, is people conveniently forget Russia. Now, Russia was winning in the space race. When America started to build their Apollo rockets to start their Apollo program, Russia was watching them. The Cold War was in its depths. Russia had spies in America. Russia had satellites, Russia was following the whole space program. If the Americans had not actually gone to the moon, Russia would have noticed, and they would have told people, because that would be a huge public relations victory for them, to be able to prove that America did not go to the moon. If it had been faked, the Russians would have known about it.

And the second thing that makes this conspiracy completely impossible is this. I talked about the Watergate conspiracy. Richard Nixon's presidency was brought down by this. There were seventy people, approximately, involved in that conspiracy. Seventy people, and they could not keep this secret. So many of them talked. So many of them gave away the secret, that within months the whole thing collapsed. Seventy people. Do you know how many people were involved in sending the Apollo 11 to the moon? Can you guess how many people? 400,000! 400,000 people would have to be complicit in this conspiracy. 400,000 people would have to keep this secret, would have to not tell anybody or give anything away. Is that possible? Is that even remotely possible? Of course not. Even if there was evidence that you couldn’t argue … even if there was irrefutable proof that the moon landing was faked, 400,000 people could not keep that a secret. It would have come out decades ago. It's obviously not true.

OK. Now, people believe in conspiracies like this. Why? Well, up until 2001 about 6% of Americans believed that the moon landing was faked. After the moon landing in 1969 that was high and gradually it came down of course, because of education, information, people worked out that it was obviously not true. In 2001, Fox, the Fox film company, they released a documentary called *Conspiracy Theory: Did we land on the moon?* As soon as that program was released, the number of people that believed that the moon landing was faked went from 6% to 20%. Because of that one program. What does that say about us as a people in general?

Well, firstly, it says that we believe the media. We believe what we see. We believe what we're told far too easily. Companies like Fox, they produce programs that they think people will watch. They don't worry about the truth. I mean, if you watch Fox News you would understand that pretty easily. They don't worry about the truth, they produce things that they think people want to watch. They are an entertainment company. Now, our problem is we don't take that with a pinch of salt. We just watch it and we accept it, which we shouldn't do.

The second thing is we implicitly don't trust our governments. We think our governments are up to something they shouldn't be. In any country, not just in America, we think our governments are doing things behind our backs. Whether they are or not, that's what we believe as a people. We want to understand things that we possibly can’t understand. The moon landing is pretty difficult to understand, how all of this could have happened. It's pretty incredible. It's much easier to think that it is a conspiracy. It's much easier to think that, because then you feel you understand this, whereas to actually really understand it you would have to put some time in and you would have to study about it. It's much easier to say it’s not true. We want control and security. We want to think we know what's happening. Take, for example, climate change. Climate change is a huge thing. Human ... human caused climate change is a huge thing, and we have to accept that. But, many people like to think it's a conspiracy. They like to think the governments of the world are conspiring against us to raise taxes, to get money, to do all these changes and stuff, because if climate change is actually true, we have to change our lifestyles, and that’s inconvenient. It's much easier, we have much more a sense of control if we think, “No, it's all a lie.” Maintain our self-image, of course. People have a sense of pride. We like to believe we know a lot of stuff. If you believe in a conspiracy theory, if you've researched a conspiracy theory, any party you’re at, any situation you’re at when you can talk to people, you have a feeling of superiority. You know more than other people and you can feel good about yourself. Plus, once you start believing in a conspiracy theory, you have to keep believing in it, because, to admit you are wrong, means admitting you were wrong, and then you lose face. So, once you start going down the path of conspiracy, you have to keep going.

OK. So, humans naturally believe in conspiracies. How do we not? How do we stop? How do we avoid that? Well, obviously, think about anything you're told. If something … if a TV show tells you something, if the government tells you something, if anybody tells you something, don’t just accept it. Think about it and research. If you think and if you research, you will find all these answers yourself, and you will know a lot more.

Anyway, thanks for listening. I enjoyed talking about that. I might talk about more conspiracy theories. That was quite fun. If you liked this video click “like”t down there somewhere. If you want to subscribe, that button's around about here. Looks like my face. And if you want to, if you have any ideas for talks, anything you'd like me to talk about, please put them in the comments section below here. Thank you. Have a nice day. Talk to you next week. Bye.

**The Moon Landing Conspiracy Questions**

1. Why do some people think the American government would have brought down the Twin Towers on 9/11?

A: To stop the government of Richard Nixon.

B: To prevent a war.

C: To help the American people.

D: To go to war in Iraq with the support of the people.

2. Why did America want to go to the moon?

A: Because they wanted to help the USSR.

B: Because they were losing the space race.

C: Because they filmed it on Earth.

D: Because the USSR had already gone there.

3. What happened to Yuri Gagarin?

A: He died in a car crash.

B: He went to the moon.

C: He was killed by America.

D: He is still alive.

4. Which of these is NOT a reason why people think the moon landing was faked?

A: The shadows are in the wrong places.

B: You can see people standing in the background.

C: The flag is waving.

D: Someone must have taken the photo of Neil Armstrong.

5. What is the main reason why shadows would appear in many different angles?

A: There is no way to control shadows on the moon.

B: The different surfaces are painted different colors.

C: There are more than one light sources.

D: The sunlight reflects off many different things.

6. Which of these things does NOT help us to judge the distance of an object on Earth.

A: Things in the distance are less clear than things in the foreground.

B: Things in the distance are hazy.

C: You can compare them to other objects.

D: You can look at their reflection in water.

7. Why are astronauts’ spacesuits white?

A: To reflect back as much sunlight as possible.

B: Because white is a very refreshing color.

C: To look good in photographs.

D: Because white contrasts with the blackness of space.

8. Why would you expect more young astronauts to die than regular young people?

A: Because they are all pilots.

B: Because they are captured by Russia.

C: Because they go to space.

D: Because they live risky lives.

9. How many people were involved in sending the Apollo 11 to the moon?

A: 400

B: 4,000

C: 40,000

D: 400,000

10. Steven says, “Now, our problem is we don't take that with a pinch of salt.” What does this mean?

A: That we believe things too readily.

B: That something will taste bad without flavoring.

C: That people like to watch TV programs that are not true.

D: That entertainers can give us useful information.

11. Steven says, “The second thing is we implicitly don't trust our governments.” Which of these words is closest in meaning to “implicitly”?

A: Explicitly

B: Specifically

C: Absolutely

D: Irrevocably

12. Why do many people like to think climate change is a conspiracy?

A: Because it means they won’t have to change their lives.

B: Because it means the government is lying to raise taxes.

C: Because it means that the sea levels will rise.

D: Because it means that humans are responsible for climate change.

13. The moon landing, 9/11 and flat Earth conspiracy are obviously not real. Do you think there are any real conspiracies?

14. Why were Russia and America racing each other to put a man on the moon?

15. Steven claims that we implicitly don’t trust our governments. Do you agree? State your reasons.

16. Should it be up to the believer of a conspiracy theory to prove they are right, or should it be up to the non-believer to prove they are wrong?

17. What impact has the Internet had on conspiracy theories?

**The Moon Landing Conspiracy Answers**

1. D 2. B 3. A 4. B 5. D 6. D 7. A 8. D 9. D 10. A 11. C 12. A

(Take something with a pinch of salt. - This idiom means that if you have something that’s unbelievable, you need to be careful before you believe it.

E.g. She always lies. You have to take everything she says with a pinch of salt.

It comes from Roman times. If you had something that might be poisoned, you ate or drank it with some salt, because it was believed that salt was an antidote for poison.)

13. The moon landing, 9/11 and flat Earth conspiracy are obviously not real. Do you think there are any real conspiracies?

 I do believe there are real conspiracies at the governmental level that we have never, and will never, find out about. Our governments believe they are working in our best interests, and sometimes that belief leads them to do things that might not be legal. For example, killing somebody who might pose a threat to the country. Or channeling arms to a country that could become our ally but isn’t yet. Because they believe the ends justify the means, the hide their actions and, if necessary, cover them up. However, these conspiracies would be small scale, and would involve very few people. The more people that are involved in a conspiracy, the more likely it is that the conspiracy will fail. A mathematician in the UK did a statistical study of this. He looked at how likely people were to reveal a secret. He looked at how many people were involved in famous conspiracies. And he calculated how long a conspiracy would take to fail in ratio to how many people were involved in it. He found that the optimal number of people necessary to keep a conspiracy secret until all of the members have died is 125 people. And, he calculated that, were the moon landing really a conspiracy, the secret would have come out in 3.7 years.

14. Why were Russia and America racing each other to put a man on the moon?

 After the end of World War 2, Russia and America entered into the Cold War. This began as an arms race but escalated until it was an ideological confrontation.

 At the end of World War 2, America fought from the South of Japan, and Russia came down from the North. In Europe, America came in from the West and Russia came from the East. The two countries met in the middle. One of the reasons America dropped the atomic bombs on Hiroshima and Nagasaki was to show the Russians the new weapon they possessed, and to stop Russia at that line. After the war, the two countries settled back as uneasy enemies, both equal in size and wealth. They never fought each other directly, but they supported each other’s enemies.

 As each country built its weapons, it became less about deterrent and more about appearances. Their worth as a country became strongly tied up in how the compared to the other. Very much like a person who buys a new car, not because he wants it, but because it is newer than his neighbor’s. And, once you enter a race like this, you cannot get out without losing huge amounts of face. And, as we of course know with hindsight, Russia didn’t have equal wealth with the USA. The constant fight to stay ahead bankrupted them.

 Anyway, this one-upmanship wasn’t confined simply to the military. It overflowed into sports, art, and the exploration of space. To be the first at anything meant you were better than whoever was second. Russia had to be first to the moon. And that meant America had to be as well.

15. Steven claims that we implicitly don’t trust our governments. Do you agree? State your reasons.

 I think this highly depends on what country you are living in. Steven obviously lives in a developed country, and he is speaking from that standpoint. People in developed countries, perhaps, have the luxury of being able to mistrust their governments. Possibly because corruption is less obvious in developed countries, they have a sense that something is going on, but they can’t put their finger on it. Corruption in developing countries is less hidden and it is obvious that the governments are up to something. There is no attempt to deny it. You don’t have to invent ludicrous conspiracy theories when your government makes no attempts to cover up the bad things it is doing.

There are corrupt governments in the world, and even highly developed countries like America and Japan are not corruption free. Every year the CPI (Corruption Perceptions Index) publishes a corruption ranking. I would wager that most conspiracy theories originate in countries that are nearly at the top of this list. America is number 18. The UK is number 10. Where do most conspiracy theories come from? These two countries. There is no evidence that our governments are cheating us, but we feel certain that they are. And we invent ways in which they are.

16. Should it be up to the believer of a conspiracy theory to prove they are right, or should it be up to the non-believer to prove they are wrong?

 The burden of proof always lies with the theorizer. You do not have to prove the non-existence of something, you have to prove the existence of it. If I tell you there is a small gnome called Kelvin who lives at the bottom of my garden and eats bicycles, it is up to me to prove he exists, not up to you to prove he doesn’t. If I have a theory that JFK was shot by aliens, it is up to me to prove it. If I say there is a God, it is up to me to prove he exists, not up to atheists to prove he doesn’t. However, that said, conspiracy theories are a slightly more difficult problem than simply proving the existence of something. A lot of the evidence that conspiracy theorists produce is twisted or invented entirely. In situations like this, refuting or disproving that evidence can be vital.

17. What impact has the Internet had on conspiracy theories?

 The Internet has had an immeasurable impact on conspiracy theories because it allows the instant flow of information and it feeds the group mentality. When the moon landing conspiracy theory first appeared, in 1969, it would have been spread by word of mouth, possibly in newspapers, and possibly the radio or television. If you happened to hear about it, you would not be able to find out more information and you would not be able to easily find out if there were other people who felt the same way. Those days have gone. The Internet does four things. It allows anybody with a crackpot theory to voice it. It allows people to find extra information to add to their beliefs. It allows individuals to find other people who hold the same beliefs and to realize that they are not alone. There is strength in numbers and people are much more likely to argue a belief if they know they are part of a group. And, most importantly, it does all of these things instantly.