

For many people when we hear someone suggest that the moon landing was fake. We automatically assume that that person is a little bit crazy. “How could you not believe?” we exclaim to them. Then typically they will respond with a few of their favorite pieces of evidence that they believe proves their point of view “how can you believe” they will often say in return. What happens next is the most important part of these interactions. We can either choose to further engage with the sceptics or we can choose to simply call them crazy and move on. Many of us often choose to do the 2nd option, and why not? It’s easier. But the main reason that many of us choose to walk away is that we don’t have any facts to back ourselves up. In that situation they are the expert, and we have no idea what we are talking about. The point of this podcast is to help prepare you for these possibilities and ensure that when you enter one of these situations you are the expert not the other way around.

For starters one of the most common moon landing conspiracies asked is **“Why did the US flag on the Moon flutter as though there was wind. there is no air on the moon so how can the flag be flying on the flagpole?”** The flag that we saw on apollo 11 was purchased from a local store in Houston for \$5.50 and was hemmed to the top so that it hung from a horizontal crossbar fixed on top of the pole. Furthermore, because there is no air on the moon, any movement in the flag from it being twisted into the surface will continue because of the lack of air resistance.

Another claim by moon landing deniers is that there are no stars in the background of the photos taken on the moon. Well, this can be explained with the use of photography and film knowledge. A photographer must consider the lens aperture and shutter speed, both of which control how much light hits the film. A smaller aperture means less light, as does a faster shutter speed. It’s almost like how your pupil constricts on a bright day and dilates at night: Your eye automatically adjusts your appearance so that you can see in different conditions. According to Astronomy . com “Because the most important things the astronauts photographed were each other and the Moon’s surface, their cameras were set to capture them in focus — not the dimmer, distant stars.” There are even long exposure photos that NAS released that captured some stars from the surface of the moon. But these photos are not talked about due to their degraded quality.

Finally, there is the claim of “why haven’t we been back to the moon?” this one is less of a scientific question and more of a political one. According to the Royal Museum of Greenwich in the UK they state that “Whilst the US government was willing to put a lot of money into the Apollo missions when it was helpful to the space race, research and technological development were not viewed as a priority. Apollo 11 was a political statement during the space race, and once it had been made, the necessity for more

missions to the Moon was gone.” This quote shows that the moon landing was always a political mission. After the mission was a success Congress saw little value in the continued funding of NASA and its scientific experiments. This is why the last 3 missions of the Apollo program were scraped.

After listening to these rebuttals, I hope that you have learned a lot of new information. If you ever find yourself in a situation where you need to debate with someone that denies the moon landing you can use this newfound knowledge to your advantage. Using the information that we talked about today you will be able to at least make the deniers think about their position. There is little you can do to make them change their mind in that moment. But planting seeds of doubt into their conspiracies is the best that we can hope for. If you hope to change the deniers whole world view in that Monet, then you will be disappointed. But if you can put up a good fight in the debate, they will be the ones that are disappointed.