



Australian Skeptics

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Did the Moon Landings Really Happen?

On July 20th 1969, Man first set foot on the moon. Millions of people around the world were riveted to their TV screens as Neil Armstrong stepped from the Landing Module. Reality TV par excellence! Two years and five successful missions later, the number of moon-walkers had reached twelve.

But did it really happen?

Since Apollo 17 splashed down in 1972, momentum has gathered for the proposition that we have all been misled by the US Government and by NASA in particular. The case for this was probably best presented by Fox's TV special ***Conspiracy Theory; Did We Land on the Moon?*** which aired in the USA in February 2001. Millions of viewers apparently found the pro-hoax arguments persuasive and convincing.

Firstly, there were the technical experts (American and Russian) who claimed that NASA did not possess the technology in 1969 to achieve these feats, or at least, the likelihood of success was so tiny that the risk of real Moon landings would not have been seriously contemplated. This proposition is supported by the fact that no other country has since visited the Moon, and that NASA's own manned missions since 1972 have been confined to Earth orbit.

Secondly, film footage of astronauts on the moon is said to contain so many technical errors that it must have been shot in a studio on Earth.

Some of these "errors" include ;

- The flag, when planted appears to wave in the breeze. The Moon is airless.
- Although the Moon's sky is black, there are no stars.
- No blast crater is visible under the Landing Module.
- The landing process must have kicked up much dust. But no re-settled dust is visible.
- Why can you see footprints at the base of the Lander if all the dust has been blown away?
- Why is there no rocket plume from the module which blasts off from the Moon's surface?
- The shadows appear to go in different directions so there must be several (studio) light sources,
- Although the video footage is of poor quality, the photographs are "too perfect".

These and many other "flaws" came thick and fast, and to many viewers provided hard evidence for a Moon Landing Hoax which was "Not only a fake, but a poor fake"

Thirdly, the subsequent commercial film *Capricorn 1* simulated landing on Mars in a way that was at least as "realistic" as the Moon Landing footage. It therefore must have been possible for NASA to "mock-up" the Moon Landings in a studio.

In providing a motive for a NASA hoax, supporters point to the intense rivalry between the USA and the Eastern Bloc that existed at the time. The USSR had in fact already beaten the USA time and time again in the so-called "Space Race" and had been first to photograph the moon's "dark side". When President Kennedy pronounced in 1963 that the USA would land men on the Moon before decade's end, he committed future governments to a goal that had to be seen to be achieved at all costs. It was important for status and diplomacy abroad.

The USA was also deeply involved in an increasingly unpopular war in Vietnam. Three successive Presidents were keen to be associated with the positive news that the Apollo Program generated; and while Apollo was expensive by some measures, it was not that costly compared with America's defence and diplomatic budgets. The possibility of failure of the Apollo Program was not an option.

The Rebuttal

The USA clearly did have the technology to launch a moon shot which could be sufficiently large to carry three men, and which, using several disposable stages of decreasing size, could land on the moon, take off and return to a soft splash-down on Earth. We know this, because the telemetry of unfriendly states (USSR, China, East Germany) reported that this is exactly what happened in later Apollo Missions. It is important to note that the Eastern Bloc raised no doubts in this area, although they would probably have been hoping for an American failure, to offset the considerable difficulties that the USSR's Program was experiencing. There have been no manned Lunar missions since 1972 for valid reasons. They were risky, and possibly of more propaganda than Scientific value. The American Public lost interest after the first couple of Moon walks, and money for NASA began to dwindle. America's space effort since 1972 has been geared to research and development.

That still leaves the possibility that the Apollo missions occurred, but were unmanned, and that the Moon walks were faked.

The so-called "flaws" in the video record are technical in nature, and must be answered by careful, sometimes lengthy technical argument. There is insufficient space to do that here; for a thorough treatment go to:

http://liftoff.msfc.nasa.gov/sites/ExternSite.asp?url=http://pirlwww.lpl.arizona.edu/~jscotti/NOT_faked/FOX.html

However, the two most often quoted "flaws" are the waving flag and the lack of stars in photographs of the Moon's sky. When the metallic flag was planted, it had a certain springiness, causing it to ripple. That "wave" continues because there is no atmosphere to dampen it. Next time you want to take a photograph of somebody at night, you will need to control the amount of light from your subject. If you expose them properly, you will not see stars in the sky. If you allow sufficient light for the stars to become visible in the developed photograph, everything else in the photo will be way over exposed. This is the choice the astronauts had on the Moon.

Re-examining the relative costs of staging a real moon-walk or faking it, it needs to be remembered that *Capricorn 1* based its extra-terrestrial sequences on the NASA moon walks of between five and eight years previously – not the other way around. It is always easier to duplicate an existing sequence than to create one, which is what NASA would have been doing. In that brief period, cinematic techniques improved considerably and become much more efficient. It probably would have cost considerably more to fake the Moon walks than to record the real event.

NASA claims to have recovered 400 kg of moon rock. Many geologists around the world who have authenticated the source of these rocks are either lying or have been massively (and expensively) hoodwinked.

Finally, for a hoax this massive to succeed, how many people would have been a party to the deception? The list extends to hundreds of people at NASA and other US government agencies. It includes a considerable part of the Pacific Fleet, responsible for recovery of Astronauts at splashdown; it also includes the Media reporters and technicians who were present at those events. It includes trackers around the world, including the Australians at the Parkes Dish who monitored voice communication when the astronauts were overhead.

A Skeptic is a person who examines the evidence closely before forming an opinion. What do you think that such a person would conclude about the Apollo Moon Program and the Moon Walks?

Other references:

<http://liftoff.msfc.nasa.gov/news/2001/news-moonlanding.asp>

<http://liftoff.msfc.nasa.gov/sites/ExternSite.asp?url=http://www.badastronomy.com/bad/tv/foxapollo.html>

<http://liftoff.msfc.nasa.gov/sites/ExternSite.asp?url=http://www.redzero.demon.co.uk/moonhoax/>

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