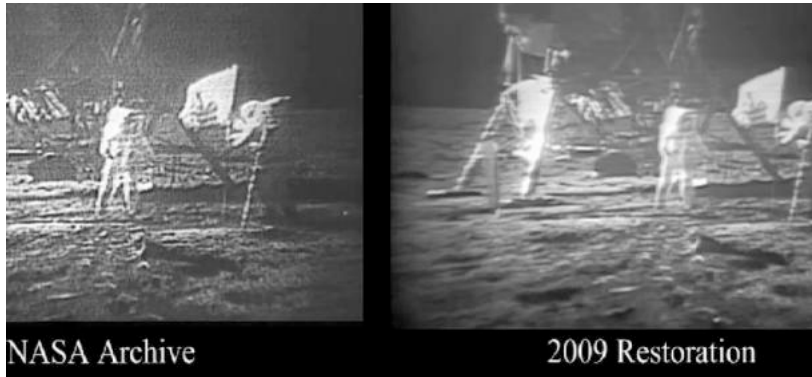


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Moonwalk footage being restored after original video lost

by [Greg Sandoval](#)



A sample of Lowry Digital's restoration of Apollo 11 moon landing.
(Credit: NASA)

As NASA celebrates the [40th anniversary](#) of man's first trip to the moon, the space agency is taking some hits for failing to preserve the best historical record of the Apollo 11 flight.

NASA acknowledged on Thursday that the original TV footage of the moon landing on July 20, 1969, was accidentally erased. Someone wanted to make room on the videotape reel that stored the footage. So, did NASA's goof rob future generations from watching what was arguably mankind's greatest achievement?

Not hardly. Remember at NASA, failure is not an option.

A Hollywood post-production house was enlisted to lend some movie magic and restore the images by digitally stitching together copies of the flight retrieved from various sources around the world. The restoration undertaken by Lowry Digital, based in Burbank, Calif., is still under way and won't be completed until September. The first phase, however, [was released on Thursday](#) and Lowry's rescue work has won rave reviews.

The Associated Press reported that "some of the details seem new because of their sharpness. Originally, astronaut Neil Armstrong's face visor was too fuzzy to be seen clearly. The upgraded video of Earth's first moonwalker shows the visor and a reflection in it."

It must be noted that anyone who saw Armstrong's moonwalk will remember the images weren't that clear to begin with. TV sets back then didn't offer the sharpest images--at least compared with the picture quality offered today. Moreover, the pictures were transmitted from the moon at 10 frames per second, with 320 lines of resolution for the live telecast.

With the original one-inch videotape recordings "degaussed, re-certified, and reused" NASA had to do some sleuthing to dig up copies. The best were narrowed down to four sources, including one from a handheld camera that was pointed at a monitor within Mission Control, according to a statement from the company.

One of the biggest hurdles for Lowry's technicians to overcome was that all four source materials were in different formats, frame rates, and resolutions.

That means blending different levels of brightness, contrast, and clarity.

Lowry's technology uses temporal image processing that collects information from clips and uses them to determine the correct contrast, resolution, and noise level in each frame, the company said.

The process uses imaging algorithms that have been "fine-tuned over the course of more than 400 major feature film restorations" including "Casablanca," Lowry said.

At NASA's request, some flaws will be kept in the restored version. Dust particles on the lens of the camera that taped Armstrong coming down the lunar module's ladder were visible in the original telecast. NASA officials think they too should be preserved.

The idea is not to enhance the record of the landing, but to re-create it.



Greg Sandoval covers media and digital entertainment for CNET News. He is a former reporter for *The Washington Post* and the *Los Angeles Times*. [E-mail Greg](#), or follow him on Twitter at <http://twitter.com/sandoCNET>.