

# THE PLANETARY SOCIETY BLOG

By EMILY LAKDAWALLA

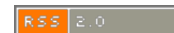
## LROC NABS IMAGE OF THE APOLLO 14 S-IVB IMPACT SITE

Oct. 8, 2009 | 15:33 PDT | 22:33 UTC

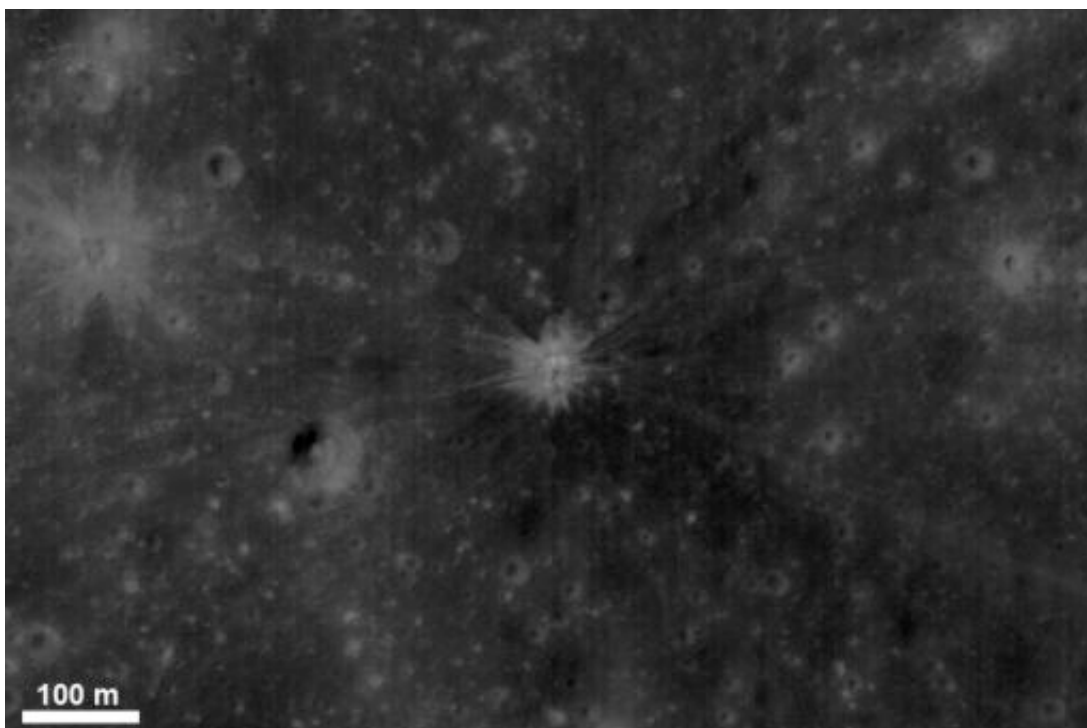
As a reminder that we've been crashing stuff into the Moon for decades, the Lunar Reconnaissance Orbiter Camera (LROC) team released today a photo of the crater made by the spent upper stage of the Saturn rocket that lofted the Apollo 14 mission to the Moon. It was intentionally crashed on February 4, 1971 in part to remove it from orbit and in part to provide a "boom" of known time, location, and force to be recorded by the seismometer left behind from the Apollo 12 mission. The dry weight of the S-IVB (which had expended nearly all of its fuel) was about 14,000 kilograms, 7 times heavier than the Centaur that will be smashing into the Moon tomorrow as part of the LCROSS mission. The crater that the S-IVB left behind is fairly small but it did produce a spectacular (if dainty at only 1.5 kilometers across) set of rays, which were intriguingly light in some places and dark in others.

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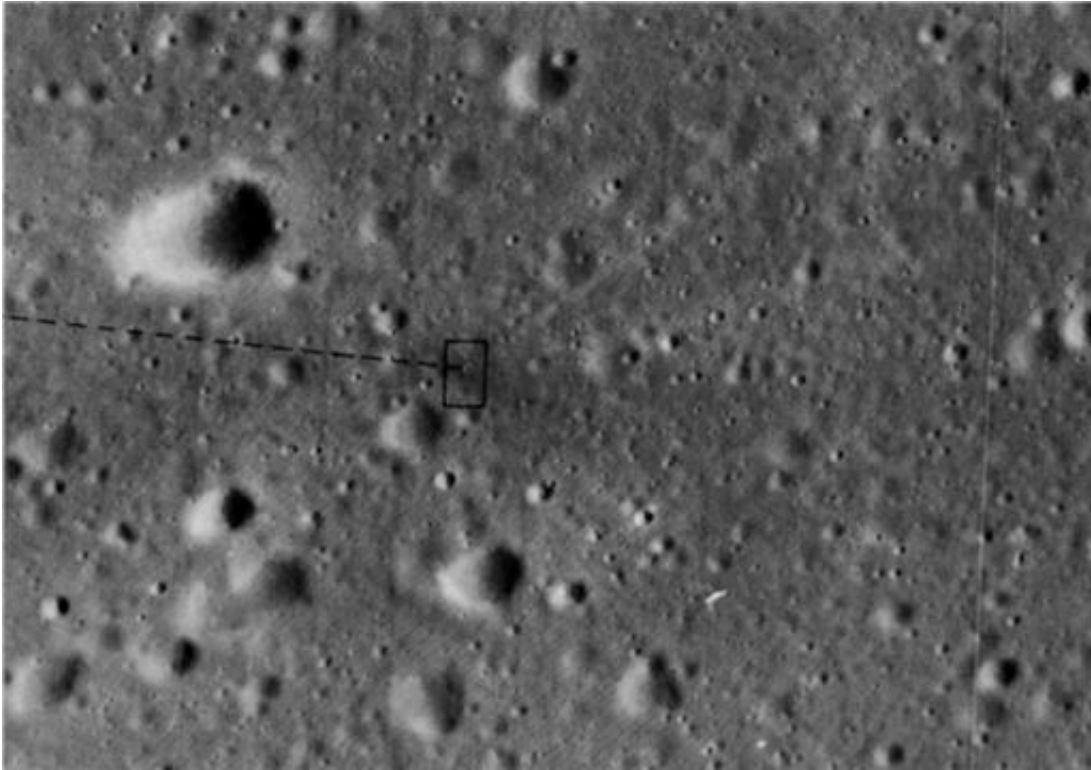


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### Impact site of the Apollo 14 S-IVB from LROC

On February 4, 1971, the spent upper stage of the Apollo 14 launch vehicle was intentionally crashed into the Moon, leaving behind a small crater with a pretty set of rays. The Lunar Reconnaissance Orbiter camera imaged it on September 8, 2009 under high sun conditions, emphasizing the differently shaded rays emanating from the crater. Credit: NASA / GSFC / ASU

This is not the first time that the impact site has been imaged. Apollo 16 nabbed it in 1972. The dashed line indicates the trajectory of the incoming S-IVB:



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**Impact site of the Apollo 14 S-IVB from Apollo 16**

This is a small section of [Apollo 16 panoramic frame 5444](#), containing the impact site of the Apollo 14 S-IVB upper stage. Credit: NASA

I realize that once again, I'm posting an image of a human-made artifact on the Moon, which means I'm neglecting some absolutely wonderful photos recently posted on the LROC website of natural landscapes. I was particularly struck by the bizarre "[Very Sinuous Rille](#)" photo posted the other day -- you need to click through to the [original image](#) to see just how strange this feature is. I'd love to write more about it but am afraid I most likely won't have time.

Just for fun, [here's a list from Wikipedia of all the human-built objects that have landed or crashed on the Moon](#), amounting to more than 170,000 kilograms of mass that's been transferred from Earth to the Moon and left there.

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[Emily's on Twitter! »](#)

- [.@pechisbeque](#) MER images like <http://bit.ly/nc3QS> with black squares contain data dropouts that'll be fixed on later downlink. [about 1 hour ago](#)
- I'm checking rover raw image websites frequently; no Sol 2088 Spirit images have made their way to the Web yet. [about 1 hour ago](#)
- Blerg. I totally forgot about this morning's WISE prelaunch press briefing. But the high points are proly in here: <http://bit.ly/3dk1cZ> [about 1 hour ago](#)
- As usual, Ben Cooper's launch photos are the bomb. RT [@LaunchPhoto](#): Photos: STS-129 soars: <http://bit.ly/4p5uut> [about 12 hours ago](#)
- RT [@marssciencegrad](#): Drive data from Spirit will come down over two downlinks 06:40 PST Tues & 07:20 PST Wed #[FreeSpirit](#) [about 20 hours ago](#)

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