

### Offered Title: To the Moon 4 – Been There, Done That

Funny thing about people, including me. Once we overcome or witness someone overcome technical obstacles in the pursuit of something, we tend to view any others doing the same as...been there, done that. What's next. It didn't happen right away with the Apollo program but after Apollo 13 the magic kind of slipped away. Oh, and so did the money. Hey, did you know, there are some guys on the Moon again? When did that happen?

Apollo 17 was the last and maybe the coolest. It had the first and only professional geologist, non-test pilot Harrison Schmitt. It was the only Apollo launch at night. It carried five mice implanted with radiation monitors. EVA and Lunar Rover Vehicle (LRV) excursions were the longest. Brought back the most Moon rocks.

Apollo 17 launched on December 7<sup>th</sup>, 1972 at 11:33 pm Central Standard Time with astronauts Eugene Cernan and Harrison Schmitt setting foot on the Moon at about 5:55pm CST on December 11. Astronaut Ronald Evans piloted the Command Module. They were in the Taurus-Littrow valley, near some impressive looking boulders. The science mission included testing surface electrical properties, modeling the lunar interior, studying how radiation might initiate tumor growth, and the phenomenon of "light flashes and light streaks" experienced by Apollo astronauts. These flashes had been a frequent phenomenon reported by Apollo astronauts, flashes appearing behind their eyelids! Turns out they were caused by charged particles traveling through their retinas. The mice on board were later studied for effects of cosmic ray exposure but little was found other than some apparently unassociated lesions.

Harrison Schmitt and Eugene Cernan were the last humans to touch the Moon. Other missions were cancelled, and NASA shifted focus to the next big project...Skylab. Skylab was to be the next evolutionary step, an orbiting lab able to house three astronauts at a time and provide a platform for science and technology experiments. It would also be the USA's first space station and was designed to host numerous teams over the years. They would test materials, microbes, and how well humans got along when stuffed in a big tin can for a long time. Well, someone didn't get the memo about making it a long-flying space station and Skylab came back to Earth. OK, I exaggerate. The newly developing Space Shuttle program was originally going to help boost Skylab into a higher orbit, but delays and budget issues made Skylab an increasingly un-useable vehicle as its orbit decayed. Only three crews managed to work in Skylab before it was essentially condemned. It came down in a fiery crash in July 1979, parts ending up in the Indian Ocean and parts in the Australian Outback. Fortunately, no-one was injured.

### What's in the Sky?

July 30; before dawn; south: Get up early and get your lawn chairs out. The Delta Aquariid meteor shower peaks and the Moon does not interfere!