

TREE TALK with BRIAN RILEY

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Trees to the Moon!

It has been said that trees are the eternal optimists – always reaching for the sky. While reaching for the sky is one thing, conquering it is entirely another. The true story of Ohio's most out-of-this-world tree begins near the dawning of the Age of Aquarius on the late afternoon of January 31, 1971 at Kennedy Space Center in Cape Canaveral, Florida. On this day, three American astronauts, including former U.S. Forest Service Smoke Jumper Stuart Roosa, were preparing to embark on NASA's eighth manned voyage to space, better known as Apollo 14 (not to be confused with the near-disastrous Apollo 13 mission from April 1970). On board Roosa's lunar orbiting command module, *Kitty Hawk*, crammed within his personal belongings, were nearly 500 tree seeds selected for a new U.S. Forest Service study. Consisting of five different species (coastal redwood, Douglas-fir, loblolly pine, sweetgum and American sycamore), these seeds would later become the trees for which the Apollo 14 mission would be remembered. So as we celebrate the 40th anniversary of perhaps humanity's most defining achievement – Neil Armstrong emerging from Apollo 11 to take “one giant leap for mankind” – I can think of no better time than now to tell this remarkable story.

The reason Roosa brought along the tree seeds for the ride of their lives aboard Apollo 14 was actually three-fold. As a former Smoke Jumper, Roosa wanted to inspire America to plant these special trees as living memorials to his fallen comrades, who gave their lives fighting wildfires. Indeed, a rather fitting tribute. Second, everyone knew what great publicity the seed program would generate for tree plantings nationwide. The third reason is that scientists wanted to study the effects of zero gravity on seeds should colonizing other planets one day become necessary. So needless to say, a number of prominent groups had a vested interest in the well-being of these lowly seeds. However, the experiment almost came to a screeching halt when the seed canister broke open during the decontamination process following the mission's successful return landing on February 9, 1971. It was feared that the seeds, released from their respective containers and exposed to unknown elements, would no longer be viable. He who has little faith in trees plays the fool every time!

Upon a prompt return to two U.S. Forest Service research labs, greater than 80 percent of the moon seeds brought on board Apollo 14 germinated – a pleasant surprise to those who had initially feared the worst. Once word got out of the existence of these ordinary-looking seedlings with an extraordinary story to tell, everyone wanted their own piece of space aviation history. Unfortunately, there were not enough seedlings to go around. In 1976, as a result of low supply and high demand, the U.S. Forest Service carefully allocated these young “Moon Trees,” as they were now known, to all 50 states, with others being sent overseas as gifts to foreign leaders in commemoration of our nation's bicentennial. One of the trees made its way to the White House grounds while another, appropriately enough, was planted at Kennedy Space Center, the very place where its amazing story began five years earlier. Special, too, is the fact that these trees

realized President Kennedy's dream of "landing a man on the moon and returning him safely to the earth."

Ohio was fortunate to receive four Moon Tree seedlings, which were consigned by the Ohio Division of Forestry to be planted on select public grounds in the cities of Cincinnati, Columbus and Marietta, as well as the much lesser known town of Smithfield in rural Jefferson County. Here, an American sycamore (*Platanus occidentalis*) seedling, which had traveled to the moon and back as a seed, was chosen to be planted on a prominent vista within the 1,200-acre Friendship Park that is also home to the Fort Friendship Veterans Memorial.

Unfortunately, the existence or whereabouts of the seedlings bound for Cincinnati and Marietta remain unknown to this day – undocumented and thus unable to be verified. The seedling destined for Columbus was weak and did not survive in the city's nursery. Such is the story of many other Moon Trees long lost and forgotten. However, for seedlings that overall were not well tracked at the time, the Ohio Moon Tree at Friendship Park in Jefferson County has quite a paper trail to verify its authenticity.

Thursday, July 29, 1976 was the date chosen by the staff at Friendship Park as Moon Tree Dedication Day, for it marked the 179th anniversary of Jefferson County's inception. The park staff selected a magnificent location on a knoll in a picnic and playground area near the Number 1 Shelterhouse, overlooking Friendship Lake, as the site where the American sycamore would be planted. However, due to the young seedling's vulnerability, and the fact that it was already mid-summer, the actual tree planting was wisely held off until the following spring. Friendship Park's Moon Tree would spend the coming winter in the protective care of the Marietta State Nursery.

To say pomp and circumstance were a part of the dedication ceremony is a bit of an understatement. According to the July 30, 1976 edition of the Steubenville *Herald-Star* newspaper, which ran a detailed article on the occasion entitled "'Moon' Seedling Planted," this event was quite an extravaganza featuring live music and local politicians. A message from U.S. Senator John Glenn, the first person to orbit the earth, was read to the crowd. Also read aloud to those in attendance was the following telegram sent by President Gerald R. Ford to all the bicentennial Moon Tree planting ceremonies across the country:

I send warm greetings to those who attend this unique ceremony dedicating a small tree which was taken from earth to the moon on January 31, 1971 aboard Apollo 14. This tree which was carried by Astronauts Stuart Roosa, Alan Shepard and Edgar Mitchell on their mission to the moon, is a living symbol of our spectacular human and scientific achievements. It is a fitting tribute to our national space program which has brought out the best in American patriotism, dedication and determination to succeed.

Planted in this community in our bicentennial year, may this young tree renew our deep-rooted faith in the ideals of our Founding Fathers and may it

inspire us to strive for the kind of growth that benefits our own citizens and all mankind.

I was privileged to visit Friendship Park and see the Moon Tree for myself last summer. A retired veteran of a lunar journey, this stately American sycamore is surrounded by a split-rail fence marked with a three-by-five-inch metal placard that simply reads “Moon Tree, Planted 1976.” Still present here is the Number 1 Shelterhouse, along with a swing-set that this now 53-foot tall sycamore casts its large shadow upon. There is no telling how many individuals, young and old alike, see this tree and yet do not know the incredible story it tells of a half-million-mile round-trip to the moon. Be that as it may, the most important thing is that this healthy tree, which 38 years ago took one giant leap for “plant-kind,” can be seen by all at Friendship Park where it proudly stands to this day, reaching for the sky it has conquered once before.

For more information on the whereabouts of every known Moon Tree, please visit NASA’s Moon Trees website: http://nssdc.gsfc.nasa.gov/planetary/lunar/moon_tree.html. Scroll down the page to find Ohio’s Moon Tree and then click on the hyperlink that reads “Friendship Park” to see the July 30, 1976 Herald-Star article.

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The crew of Apollo 14 (L-R): Stuart Roosa, Alan Shepard and Edgar Mitchell. Photo credit: commons.wikimedia.org.



NASA's official Moon Tree Program emblem featuring an American sycamore grown from seed brought aboard Apollo 14.