

Air and Space this Week

Item of the Week

Alan Bean: Moonwalker and Artist

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KEY WORDS: Alan Bean Apollo 12 Surveyor 3 Space Artist “The Hammer and the Feather”
Public Outreach John Aaron “Steely-Eyed Missile Man”

I learned a very important life-lesson from Alan L. Bean, one that helped shape my career, and I would like to share it with you since you are interested in Space exploration and sharing that interest with others, particularly the next generation of explorers. But first, I'd like to tell you more about this amazing man and his accomplishments.

Bean Biographical Sketch: Alan LaVern Bean was born on March 15, 1932, in Wheeler, Texas. His father was with the U.S. Soil Conservation Service, duty-stationed in Minden, Louisiana, so that is where Alan spent much of his boyhood. (His father must have been extremely talented; Federal jobs were hard to come by in the Depression years. I know, my grandfather was a proud Fed, a member of what would become the [Bureau of Alcohol, Tobacco, Firearms, and Explosives](#), one of the very few guys to make it out of the Kentucky hills in the 1930s!)

Alan Bean earned a B.S. in Aeronautical Engineering from the University of Texas at Austin, graduating in 1955. He also was in the NROTC program there, becoming a USN Ensign upon graduation. He completed flight training successfully, joining Attack Squadron 44. During his four-year tour of duty, he flew the [F9F Cougar](#) and the [A4D Skyhawk](#) out of NAS Jacksonville. After that, he attended the [USN Test Pilot School](#) at Patuxent River NAS, where, ironically, one of his instructors was [Pete Conrad](#). He was then assigned to USN Attack Squadron VA-177, flying the A-4 Skyhawk, in 1962-3. While there, he was selected as a NASA astronaut part of [Astronaut Group 3](#).

Bean was selected as backup pilot for [Gemini 10](#). His big break came, alas, at the misfortune of another astronaut, [Clifton C. Williams](#), who was killed in an airplane crash (at one point in my career, I worked with C.C.'s widow, Beth, a delightful person, wonderful colleague, and extremely-capable manager). Williams was on his way to visit his father, who was dying from cancer. His T-38 suffered a mechanical failure, and he died in the crash. (BTW: The *Apollo 12* mission patch has four stars on it, one for each of the three *Apollo 12* astronauts, and the fourth, added by Bean, for C.C. Williams). His one-time instructor, Pete Conrad, was instrumental in getting Bean assigned to the backup crew for *Apollo 9*, replacing Williams.

Pete Conrad entered Bean's life again, as commander of the *Apollo 12* mission, to which Bean was assigned, along with [Richard Gordon](#), who would man the command module while Conrad and Bean went to the lunar surface. *Apollo 11's* mission was to land, plant the Flag, grab some rocks, and get home safely. [Apollo 12](#) was to demonstrate that astronauts could conduct a

precision landing at a pre-selected site, which they did, [landing very near the pre-Apollo Surveyor 3 spacecraft](#) on the Ocean of Storms. The landing was routine, but the launch was not; the *Apollo 12* rocket was [struck by lightning](#) ~30 seconds after launch. *Apollo 12* did not have a lunar roving vehicle, but Conrad and Bean covered a lot of ground, successfully deploying the package of scientific instruments as planned and retrieving pieces of the *Surveyor 3* spacecraft for materials analysis back on Earth.

Astronaut Bean flew again as the spacecraft commander of [Skylab 3](#), the second of three crewed missions to the USA's first space station (*Skylab 1* was the unmanned launch of the space station; *Skylab 2-4* were the three crewed trips to *Skylab*). He spent 59 days in Space with crewmates [Owen Garriot](#) and [Jack Lousma](#), and conducted a walk in Space among many other activities. The *Skylab 3* crew was outstanding as a group, accomplishing much more than the many tasks planned for them.

Bean's [Apollo Moonsuit](#), the [Surveyor 3 camera](#), and Bean's [Skylab spacesuit](#) are in the possession of the Smithsonian National Air and Space Museum.

After *Skylab*, Bean was the backup spacecraft commander for the [Apollo-Soyuz Test Project](#) in 1975, the famed "[Handshake-in-Space](#)" that marked improved US-USSR cooperation in Space exploration. He retired from the Navy in 1975 as Captain, continuing to serve NASA in astronaut program management capacities, but his interests were starting to be focused elsewhere.

Bean resigned from NASA in June, 1981, to devote his time to his second love, painting, saying he was fortunate enough to visit worlds and see sights no artist's eye, past or present, has ever viewed firsthand, and he hoped to express these experiences through his art. He became very successful, using bits of his personal lunar souvenirs to make his Moon-related paintings very unique. He also had the hammer with which he pounded the American flag into the lunar soil at the *Apollo 12* landing site, and a bronzed Moon boot, that he used to create a one-of-a-kind texture to his works. The National Air and Space Museum [hosted an exhibition](#) of Bean's Moon paintings in 2009 for the 40th anniversary of the *Apollo 11* landing.

Bean was proud of his Scottish heritage, and he took a small piece of Clan MacBean tartan to the Moon as part of his personal kit. He gave a piece of that tartan to the [Clan MacBean](#) and another to the [St. Bean Church](#) in Scotland.

Alan L. Bean died on May 26, 2018, in Houston, and was [buried with the fullest of military honors](#) at the [Arlington National Cemetery](#). He was survived by his second wife, Leslie, son Clay, and daughter Amy Sue (both from his first marriage).

Honors: Alan Bean earned many award and decorations over his fine career, including:

- The Rear Admiral William S. Parsons Award for Scientific and Technical Progress ([link](#))*
- The Texas Press Association Texan of the Year Award (1969)
- The Godfrey L. Cabot Award (1970) ([link](#))
- The University of Texas Distinguished Alumni and Distinguished Engineering Graduate Awards (1970)

- The National Academy of Television Arts and Sciences Trustees Award
- The Robert J. Collier Trophy (1973, with NASA and the Skylab 3 crew) The prestigious [Collier Trophy](#) is in permanent residence at the Smithsonian National Air and Space Museum
- The [Federation Aeronautique Internationale](#)'s Yuri Gagarin Medal (1973) and V.M. Komarov Diploma (1973)
- The AAS Flight Achievement Award (1974) ([Now called](#) the Neil Armstrong Space Flight Achievement Award)
- The [Chanute Test Pilot Trophy](#) (1975; along with Garriott and Lousma)
- The [Robert H. Goddard Memorial Trophy](#) (from President Ford to all Skylab astronauts, 1975)
- The USN Distinguished Service Medal (twice)
- The NASA Distinguished Service Medal (twice)
- Induction into the International Space Hall of Fame (1983) ([link](#))
- Induction into the U.S. Astronaut Hall of Fame (1997)
- Induction into the International Air & Space Hall of Fame (2010) ([link](#))
- Induction into the National Aviation Hall of Fame (2010)
- Numerous honorary educational degrees
- Northrop Grumman named the NG-12 Space Station re-supply craft the "[S.S. Alan Bean](#)" (2019)
- ***NOTE TO NASM DOCENTS:** [W.S. Parsons](#) has an important link to the WWII proximity fuse in the UHC collection (display case aft of *Discovery*), to James Van Allen, and the organization that would become the Johns Hopkins Applied Physics Lab! Use this info on your tours...

What Alan Bean taught me, and what he can teach you: The *Apollo 12* crew was sent on a whirlwind public relations tour immediately after their return from the Moon. I was 13 at the time, living in Raleigh, North Carolina. I was a big, big Space fan, (ya surprised?) and my heroes were astronauts, not sports stars or cowboys. Astronaut Bean came to our town, and I badgered my folks incessantly to get them to take me to see him speak. Many, many others had the same idea, and he played to an SRO crowd of enthusiastic Tarheels, who hung on every word. After the show, everyone rushed the stage, hoping for a closer look, and an autograph. I was with them, but in the back of the crowd. Bean was visibly tired, but he stayed for a very long time visiting, posing for pictures, and signing program after program. I began to worry that I wouldn't get to the front of the line before his handler would whisk him away, but Bean kept plugging along. UNTIL. His handler grabbed him by the arm and began to forcibly lead him away, just as I reached the front of the line. I was enormously crestfallen, to have come so close only to miss out. My face must have registered my feelings, because Bean, to his everlasting credit, stopped the handler, walked over to me, and signed my program. I was thrilled beyond description, and I am actually quivering as I type this, remembering that moment from so long ago. Quivering, schmivering, I have a tear in my eye, and I am not ashamed to admit it. I will never, ever, ever, forget that moment.

What was an enormous deal for me took but 15 seconds of Bean's time, yet it affected me deeply, and helped change my life path forever and for better.

I spent most of my professional life sharing my passion for Space exploration with the public. There were times when I was tired, times when I was discouraged, times when it was difficult to go on. But in each of those down moments, I remembered the kindness Alan Bean showed me when he was tired, and it gave me the strength to carry on. I'm no astronaut, nor am I famous in any way, but I am very proud of my role in engaging and inspiring the public, especially the younger ones, and I regard Alan Bean as a primary source of inspiration.

My good friend, Jim Zimbelman, was able to secure a copy of Alan Bean's wonderful book, [Painting Apollo](#), which was signed by the author, "To Steve Williams, All the Best, Alan Bean." It is, hands down, my most prized possession. I will be buried with it someday.

Aftermath: One of my final, and most pleasant, duties at the National Air and Space Museum, was serving as the Education representative on the committee (chaired by Jim Zimbelman) that is tasked with developing the new Exploring the Planets gallery for that NASM National Mall Buildings Revitalization and Transformation Project, scheduled for completion in 2022. I was able to make a few contributions, including a "Design a Mission" activity that helps visitors understand how trade-offs are so important when planning a Space mission, and floor-based orrery diagram that helps visitors understand planetary motion, and other bits. But the contribution for which I am most proud was something else.

The new gallery, and several of the other galleries under construction, include artwork as part of the exhibition. Exploring the Planets was no exception. We chose three pieces to include in the gallery. First was a classic [Chesley Bonestell](#) painting of a manned landing on Mars. [Bonestell](#)'s work was an inspiration to many during the 1950's, and the new Moon gallery will showcase a giant mural he painted about landing on the Moon. The second was a piece by noted [planetary scientist](#) and [artist](#) William K. Hartmann, another great pick. But I made sure that the third was one of Alan Bean's paintings (surprise, surprise).

[Apollo 15](#) astronaut, [David Scott](#), took a falcon feather to the Moon in his personal kit. While on the lunar surface, he gave a seemingly-impromptu demonstration of an experiment Galileo thought about, but could not perform himself. Scott spoke briefly about the lack of air, hence air resistance, on the lunar surface, and then [demonstrated that fact](#) by dropping his feather and a hammer at the same time. They hit the lunar surface [simultaneously](#). Alan Bean commemorated that moment with his painting, "The Hammer and the Feather," and that is what will be included in the new Exploring the Planets gallery. Want to see it? Go to: <http://www.alanbeangallery.com/hammerfeather-story.html>.

And please, **never forget this lesson**. When you are tired, feeling low, working with your students, your Museum guests, your children, your grandchildren, engaging them with your passion for Space exploration and scientific inquiry, you, too, can gain strength from the fine example of Alan L. Bean.

ADDENDUM (originally posted on 14 February 2021)

One of the Items in the Archive (referring to the previous version of this Item) was about astronaut [Al Bean](#). He's a hero to me for a lot of reasons, as you can see from the above. One of the things I like about producing Air and Space this Week is that it is an excellent opportunity to learn new things, even about topics I might already know something about. Al Bean is no exception. Here's another thing to admire him for.

Bean's *Apollo 12* mission was highly successful, but it got off to a rocky start. I was launched in the rain, on November 14, 1969. Nobody thought the rain made much difference from a safety point of view, but.... The electrical conductivity of the exhaust plume materials triggered a massive double lightning strike through the spacecraft 36 seconds after launch, temporarily knocking many of the controls offline. Warning alarms began sounding at Mission Control, and at first, nobody knew what to do; they didn't even realize at first that *Apollo 12* had been struck by lightning. Everyone had trained for all sorts of failure modes and combination of failure modes, but this was an overwhelming set of problems, all requiring immediate solution.

One of the flight controllers, John Aaron, recognized a pattern in the garbled telemetry coming from the spacecraft. He had [seen it once before](#), and knew it was due to a problem in the Signal Conditioning Electronics system. He knew from that experience that all that was needed to set things aright was to "reboot" the system by shifting the SCE into its auxiliary mode. He immediately told the Flight Director to order the astronauts to "shift the SCE to Aux." Neither the FD nor the CapCom knew what that meant, but after the second time Aaron said what to do, they relayed the suggestion to the struggling astronauts. Commander Pete Conrad did not recognize the SCE acronym, nor did Lunar Module pilot Richard Gordon. ***But Al Bean knew of the system and knew what to do.*** He immediately shifted the system to its auxiliary mode, and the problems cleared up. Aaron knew the fix, and Bean knew how to apply it, and the mission, which was on the verge of aborting, was saved. One more reason to respect and admire Bean.

Aaron was a hero. Then, during *Apollo 13*'s problems, FD Gene Kranz put him in charge of the power supply budget, a system critical to saving the astronauts. He performed similarly heroically yet again.

For these two important saves, Aaron reached the pinnacle of the "right stuff" in flight controlling. His colleagues called him "The Steely-Eyed Missile Man." No higher accolade is possible.

Last Edited on 17 February 2021