

Background for Becoming an Astronaut

A question I often get when speaking to young audiences is “What did you do to become an Astronaut?” The real question these young folks want to ask is “What do I have to do to become an Astronaut?” I sometimes get the impression that they are hoping I will say that they just have to watch a couple of videos or get the right app for their Tablet and they will be well on their way. Fifteen minutes later when I am still telling them about the process I went through, and how many years it took, many have lost interest. In the era of the Space Shuttle, there was the additional fact that there were two categories of Astronauts selected by NASA, Pilot Astronauts, and Mission Specialist Astronauts. I was selected as a Pilot Astronaut, which I had to specifically designate during the application process. The typical Mission Specialist would have a quite different background than almost all the Pilot Astronauts, but in that way, NASA was able to have many different types of expertise available on any mission, and often could select crew members to perfectly fit the objectives of the missions in addition to having two experienced pilots on board to operate/fly the spacecraft.

My personal timeline for acquiring the background for becoming a Pilot Astronaut really began when I was quite young, without my conscious thought that I would someday apply to be selected as an Astronaut. By Intermediate School age, I was fascinated by airplanes and flying, and I was also interested in math, science, physics, all of which guided me for the rest of my career. Late in high school, I was trying to pick a place to attend college, and I began to learn about this relatively new place called the Air Force Academy. Aha! I want to fly, and there is an Air Force Academy, surely they will teach me how to fly at such a place! Surely they will!?? How many remember the sum total of our flying exposure in those days (in four years) as two back seat rides in a T-33, with instructors in the front seat “dog fighting” each other hoping to make us barf (I never did)! When I tell current cadets that story, they stare blankly in disbelief.

Luckily, there were in place then the Cooperative Masters Degree programs in several areas, and I benefitted from the program with Purdue University in aeronautical and astronautical engineering. Within a week of graduation, the “Dirty Dozen” (Roger Carleton’s name for the 12 grads from 1967 who were in that program) were at Purdue hard at work for the next eight months on that MS degree. What a blessing that was for me, as it allowed me to get on to pilot training and stay in the cockpit for the next ten years and not have to take time for going back to school for an advanced degree.

Next stop for me was Pilot Training at Vance AFB, OK. There were several 67 grads already at Vance, with about 7 months of UPT already done when I arrived. But my flight training I had been coveting for some time was about to get underway, and that was the important part. The year of UPT flew by, and I decided to stay at Vance as an IP in T-38’s, and build up flying time and experience as the pipeline for pilots for Viet Nam was chugging full steam ahead. I became an academic IP, and fully enjoyed teaching several different courses as well as flying with students. After about four years of instructing, I was assigned an F-4 combat crew slot, and went to Homestead AFB (before Hurricane Andrew wiped it out) for checkout. Finally, in late 1973, I was enroute to SEA, assigned to Ubon RTAFB, flying F-4 C/D ‘s, and occasionally an F-4 E. About half way through my tour, I was transferred to Udorn RTAFB, so I could go

up there and train pilots on the use of the early Laser Guided Bombing tactics and equipment. One key action I took while in SEA was to apply for USAF Test Pilot School, which was also on my "list" of things I wanted to do. I was accepted, and when I returned to CONUS I went directly to Edwards AFB, CA. My TPS class, Class 75A, basically took all of 1975 to complete. It was hard work, a lot of work, but I thoroughly enjoyed the whole year. When I finished TPS, I was assigned to the T-38 Lead In Fighter test project, where we mounted weapons pods (training pods) and a 7.62 mm mini gun pod on a T-38 with an "iron gunsight" mounted under the front windscreen, and proceeded to test the use of a T-38 as a way to introduce future fighter pilots to fighter aircraft. What a blast that short program was, and it was a perfect introduction to more complicated testing yet to come. That testing was when I was assigned to the F-15 Joint Test Force at Edwards. What a "Cadillac" of an airplane the F-15 was, compared to the F-4. Every "shortcoming" of the F-4 was fixed in the F-15, and what a joy to fly it was! I am pretty sure I own the record for engine stalls and rollbacks in the F-15, as one of my projects was testing the engine in various degraded states, to try to solve problems for the F-16, which had only one of the same engine. Mission after mission, with multiple test points on each mission, I would cause the test engine to stall and rollback, while the ground team collected the data, and I tried to keep from dropping out of the sky using the one good engine. Bottom line, testing the F-15 was one of the most satisfying periods of my career!

Why have I given all this detail about my early Air Force years and flying assignments? Well, the title of this "story" has to do with the background for becoming a NASA astronaut. In 1977, NASA put out the "call" for its first "class" of Space Shuttle Astronauts. And within their "call" was a listing of the minimum requirements to apply in the category of Pilot Astronaut. Now I am the last person who would brag about my career to that point, but it was almost like NASA had transferred my Air Force personnel record to their listing of requirements for Pilot Astronauts, so how could I not apply? Of course, there were a few hundred other Air Force and Navy test pilots with the same background, so it would be competitive. I did apply, through Air Force channels, and Air Force forwarded my data to NASA. NASA invited me for a week long interview and physical and evaluation process in Houston, during which I celebrated my 33rd birthday. My next "story" may be one about the NASA selection process, but you already know how the whole process worked out!

Loren Shriver

USAFA Class 1967

(Story #1)