THE STORY OF A ROCKETPLANE TEST PILOT

Interview with Rick Searfoss

When the VSV's first astronaut will fly into space on the Lynx, he will likely be sitting next to Rick Searfoss, XCOR's test pilot. A veteran of three Space Shuttle flights, Searfoss retired from NASA after his third spaceflight, which he commanded, and joined XCOR. There, he piloted rocket planes and participated in the development of the prototype Rocket Racer and Lynx, XCOR's suborbital flyer. Despite being the world's only tri-qualified rocket pilot (for the Space Shuttle, the EZ Rocket, and the Rocket Racer), Searfoss was surprisingly modest about his achievements and friendly as he talked to the Leonardo Times about his Space Shuttle flights, testing rocket racers, and XCOR's plans for the future of spaceflight.

How did you become an astronaut?

I had wanted to be an astronaut from an early age. My dad was a pilot in the U.S. Air Force, so I followed along in his footsteps with military aviation. Somewhere early on I discovered that all of the astronauts were some other military pilots, so I thought I would do that too, and then something lead to another...

And you got accepted the first time you applied at NASA?

Yes I did. I was twelve years into my Air Force career and had graduated from the pilot school a couple of years prior to that. It's fortunate that I got selected in my first time applying, not many people are selected even after three or four tries. It's good to only have to fill out all of that paperwork once! That was in 1990, and after an initial year of training, I officially became an astronaut in 1991. But in my personal view, you're not really an astronaut until you've flown into space and gotten your 'astronaut wings'.

Can you recall a single favorite experience about your Shuttle spaceflights?

It's hard to pin down to a single one, there's so much that's good. In general, I think it is the best overall part of the experience was seeing the planet from space. Every part of the planet is beautiful, all for different reasons. All the blues and jade-green's of the oceans and bikes are stunning and flying over vast mountain ranges, like the Himalayas, is simply breathtaking. Furthermore, my own convictions and power of the Earth comes over you.

Do you have a favorite one of your flights?

I would have to say my third mission, most due to my crew position. I was the commander, and I really enjoyed that aspect. I enjoyed leading the team, being responsible for the overall conduct of the mission, more than just the technical part.

What things did you find most challenging about being a commander?

You deal with people with a very diverse set of backgrounds, not just on the flight, but also all of the people supporting the mission. Some people in NASA management have their own way of looking at things, while the astronaut corps needs to be more operational, as most of us are pilots. You have to somehow blend the two, working together and come up with a number of decisions made by management, and the commander is very involved in it. Prioritizing is key. Occasionally you have to say, "with this particular problem, we can do X and Y, but Z is not practical because of the difficulties of working in...

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This happens on every mission: for some reason or another you get behind schedule and there is nothing you can do about it. I remember on my first mission, a piece of equipment was not installed correctly and didn't fire, and it's not there, we're working fast, and the clock is ticking while we've got other things to do. It's frustrating. But underneath it was enjoyable, it was a fun mission, and we had completed about half of our first mission.

What do you do for XCOR?

I'm the test pilot and a technical advisor. In the development phase, I'm mostly...
I think there's a lot more opportunity for aerospace companies now than there was ten years ago.

As I was taking off at a much slower rate, because of the aerodynamics at take-off, the take-off distance is the same as for a 238, but the engine problem started while I was in the air. At the time, the engine was much louder and I was able to detect it as a glider. It wasn't a serious incident, but it got our attention.

Are you excited to go back to space on the Lynx?

Absolutely! It's not my main focus, though. Everyone in the company is excited about what we're doing. As one of the perks, if you work for XCOR on the technical side, you will fly on the Lynx.