



1
00:00:00,000 --> 00:00:18,590

\h Music.

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00:00:18,590 --> 00:00:23,760

\h How did you become an astronaut?

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00:00:23,760 --> 00:00:26,780

\h Rick Mastracchio: I had always hoped to get selected as an astronaut when I came down.

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00:00:26,780 --> 00:00:30,550

\h I came down to Houston in 1987, and then I had been applying, ever since then,

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00:00:30,550 --> 00:00:33,720

\h applying every year for the astronaut selection.

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00:00:33,720 --> 00:00:38,750

\h And it took me nine years, till 1996, to finally get selected. So, I had always hoped to get selected.

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00:00:38,750 --> 00:00:43,680

\h But, I had a great job as an engineer. So, if I didn't get selected, I was more than happy where I was.

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00:00:43,680 --> 00:00:46,730

\h I was always interested in space and science, and things like that.

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00:00:46,730 --> 00:00:50,270

\h But I never really thought or even knew that you could become an astronaut.

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00:00:50,270 --> 00:00:56,000

\h I had no clue until I saw an advertisement in a magazine when I was maybe 27 years old, 26 years old.

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00:00:56,000 --> 00:00:59,620

\h We saw an advertisement in a magazine and I sent away for an astronaut application.

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00:00:59,620 --> 00:01:02,530

\h And from that point on, I started to apply.

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00:01:02,530 --> 00:01:07,590

\h Memories of Endeavour...

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00:01:07,590 --> 00:01:10,330

\h Rick Mastracchio: I had the opportunity to go out to Palmdale,

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00:01:10,330 --> 00:01:15,970

\h I believe, when NASA was accepting Endeavour from the contractor.

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00:01:15,970 --> 00:01:20,540

\h And I was actually one of the first people to sit in the Endeavour space shuttle as an engineer,

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00:01:20,540 --> 00:01:27,790

\h and helped to verify and check out the Endeavour flight control systems before we accepted it for NASA

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00:01:27,790 --> 00:01:32,800

\h What unusual event do you remember from flying in a shuttle?

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00:01:32,800 --> 00:01:38,340

\h Rick Mastracchio: Well, Endeavour was my mission, STS-118, about two-and-a-half years ago and that

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00:01:38,340 --> 00:01:40,210

\h And one of the things I got to do on Endeavour was,

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00:01:40,210 --> 00:01:44,900

\h and we exit out of the space station airlock and all the spacewalks now.

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00:01:44,900 --> 00:01:48,680

\h But I got the opportunity to translate into the Endeavour payload bay.

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00:01:48,680 --> 00:01:52,150

\h So, I'll always remember translating down that payload bay and going into the back of

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00:01:52,150 --> 00:01:56,780

\h Endeavour to work and remove some of the hardware from there that we were going to install on space

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00:01:56,780 --> 00:02:01,090

\h It was on my first spacewalk and it was an exciting moment for me.

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00:02:01,090 --> 00:02:06,240

\h What is the hardest task you performed during a spacewalk?

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00:02:06,240 --> 00:02:09,070

\h Rick Mastracchio: We had a problem. We had an 1,800-pound ammonia tank.

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00:02:09,070 --> 00:02:12,790

\h We were trying to install this ammonia tank on the International Space Station.

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00:02:12,790 --> 00:02:16,520

\h We bolted one of the bolts down partially, but it wouldn't drive the rest of the way.

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00:02:16,520 --> 00:02:19,700

\h And we were having problems getting some of the other bolts to line up

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00:02:19,700 --> 00:02:23,930

\h because the soft-dock feature would not grab. It was just resisting and it would not go down.

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00:02:23,930 --> 00:02:28,010

\h So, we spent a good hour, hour-and-a-half, using various tools and techniques,

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00:02:28,010 --> 00:02:35,920

\h even trying to kind of slam the tank home to get it onto its soft-dock so we could bolt it up and install it on

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00:02:35,920 --> 00:02:38,830

\h And we tried for a long time and we just could not get it.

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00:02:38,830 --> 00:02:41,180

\h Eventually, I was kind of thinking in the back of my head, 'Well,

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00:02:41,180 --> 00:02:44,000

\h I think what we're going to have to go is just release all these bolts and then

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00:02:44,000 --> 00:02:47,690

\h try to kind of wiggle it around and get it installed.'

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00:02:47,690 --> 00:02:51,800

\h And, of course, that's what Houston came back a little bit while, after that and they said,

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00:02:51,800 --> 00:02:54,230

\h 'Hey guys, just remove all the bolts and let's try that.'

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00:02:54,230 --> 00:02:58,950

\h So, as soon as we did that, we got it installed and all was well.

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00:02:58,950 --> 00:03:04,070

\h As a spacewalker, what memories stand out?

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00:03:04,070 --> 00:03:06,190

\h Rick Mastracchio: My first time out the airlock on a spacewalk,

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00:03:06,190 --> 00:03:12,000

\h I opened up the thermal cover and opened up the hatch and we look outside and it was nighttime.

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00:03:12,000 --> 00:03:15,090

\h So, which was kind of good because you're looking right down on the

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00:03:15,090 --> 00:03:18,370

\h Earth and so I wasn't distracted by the Earth traveling below me.

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00:03:18,370 --> 00:03:21,000

\h But it was, what was going on below was a lighting storm down below.

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00:03:21,000 --> 00:03:25,880

\h And I could see the lightning dancing in the darkness, you know, the darkness of the Earth down below.

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00:03:25,880 --> 00:03:27,480

\h So that was a pretty neat lightshow.

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00:03:27,480 --> 00:03:31,520

\h So, I'll never forget going out the hatch that first time and just seeing that lightning all over the place.

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00:03:31,520 --> 00:03:36,120

\h That was a great experience. You know, every spacewalk is a little different.

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00:03:36,120 --> 00:03:39,860

\h Some spacewalks, you go out there and you really feel like, 'Wow, I really did a great job on that one.

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00:03:39,860 --> 00:03:43,560

\h I felt good about it.' Sometimes, you come in and say, 'Wow, that one really took a lot of energy.

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00:03:43,560 --> 00:03:46,470

\h Took a lot more out of me.' But every spacewalk is a little different.

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00:03:46,470 --> 00:03:49,470

\h There's nothing more satisfying, though,

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00:03:49,470 --> 00:03:54,060

\h is when you go out there and you install a piece of a space station or you swap out a busted piece

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00:03:54,060 --> 00:03:56,350

\h of hardware with a new one and Houston calls and says, 'Hey.

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00:03:56,350 --> 00:04:00,840

\h We tried that new piece of hardware, it's up and running.' You know, that's always a great feeling.

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00:04:00,840 --> 00:04:05,950

\h Thoughts on the space shuttle legacy...

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00:04:05,950 --> 00:04:08,700

\h Rick Mastracchio: I think people are going to look back on the space shuttle and

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00:04:08,700 --> 00:04:12,930

\h think it was one of the most incredible vehicles ever built by mankind.

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00:04:12,930 --> 00:04:17,250

\h Right now, I've been saying it and I'll continue to say it, that it's the most versatile,

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00:04:17,250 --> 00:04:20,440

\h the most capable vehicle, spaceship, ever built by mankind.

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00:04:20,440 --> 00:04:23,270

\h And it's going to remain that for many, many, many years.

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00:04:23,270 --> 00:04:28,080

\h There's nothing even on the drawing books to go off and build something like the space shuttle.

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00:04:28,080 --> 00:04:30,890

\h And I think once it's gone it's going to be one of those things where people say,

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00:04:30,890 --> 00:04:33,770

\h 'Well, now that it's gone, we sure wish we had it back.'