

## VLADIMIR GEORGIEVICH TITOV

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Interviewers: Rebecca Wright, Paul Rollins, Franklin Tarazona

*Wright:* Today is July 21, 1998. We're speaking with Colonel Vladimir Titov as part of the Shuttle-Mir Oral History Project. Rebecca Wright, Paul Rollins, and Franklin Tarazona.

Thank you again. Colonel, through your career you've experienced a series of firsts. We know that, for example, you've set a record for longevity in space when you were aboard the Mir for more than a year, and you were also one of the first cosmonauts to train in the United States as part of the Mir-Shuttle Program. You were also on board STS-63 the first time that the Shuttle rendezvoused with the Mir, and you were also a member of the first U.S. spacewalk to include a foreign astronaut, and that was aboard STS-86. So you've experienced so many firsts. At any time you could have stopped and had a successful career. What makes you continue in this wonderful career that you have?

*Titov:* I don't know what will be in the future, but I'm ready to fly again, one more, a couple of times. It's good for me. It's my job. I like my job. But time is time. Right now, just right now, I'm in cosmonaut offices in Star City, but maybe in this year I do retire from cosmonaut office, and if I will have the ability to fly like a civilian--right now I'm military, but maybe in several months I will be a civilian--if I do have some chance for flight, I will fly. [Laughter] If not, I will maybe take some administration job and continue, because it's my station. This is my life. It's very difficult to cancel everything and go to another way looking for a job. I think I have to continue this.

*Wright:* Tell us about when you were on STS-63, riding aboard the Shuttle, and you looked down and you saw the Mir, where you had spent a year. How was that for you, to be able to visualize that home away from home?

*Titov:* It was in '95, February, after six years, I left the station. The station became bigger, because when I flew, the station included the base block and the Kvant module and two spacecraft, and with four modules not there in that time, and then we had the approach during our flight STS-63. It was two more modules, and the station became bigger. It's very wonderful, a wonderful view, and I was very happy because my crew was very happy, and Jim [James D.] Wetherbee, our commander, was, "Oh, great! This is a big station. This is very nice. It's very good."

And all of the time we had the TV information from *Discovery* to ground, and all of the American people could looking in space, by TV screen, but in space. This time they could see station. For me it was

a very good opportunity to look at my house again, and at that time, unfortunately, we didn't have a docking unit and we didn't have a possibility to dock, and my dream was, "Okay. Maybe I will have one chance for flight to aboard station." It was 1995, February 1995.

*Wright:* And then you had another chance to go, on 86.

*Titov:* Yes. After this flight in '95, I returned to Star City and became the chief of the department, and I was responsible for crew training, for EVA [Extravehicular Activity], for survival, for medical. It was a big department. And after one year, it was not comfortable for me, and I wanted to fly again, and it was a bit difficult just for me to talk to my chief, director of the Gagarin Space Center, to allow me to fly again. He said, "Okay. You have a very important department working here."

"But I would like to fly again."

"No. We have cosmonauts. They will fly. You have to have this job in the office."

But as a result, I was selected again, and it's very nice. I've flown on STS-86, and I saw the station like in this configuration. This is five modules, base block five modules to spacecraft and *Atlantis*. It's very nice. It's a big station, a lot of equipment, a lot of systems, and a lot of job. I have a good possibility to use or to try American spacesuit. Before I had three EVA from Station Mir, and this EVA was from *Atlantis* in American equipment, but we had a job outside for station in the *Atlantis* program together, and some of the job was for station, some for the American program, the Russian program. It was nice. All of the time, for cosmonauts or astronauts flying, it is the best time in life. It's very short, but you remember it all the time, all of life.

*Wright:* Was it rewarding for you on 86 that this time when you saw the Mir, you were able to go back on the inside? You explained to us the differences on the outside, but how was it different inside the Mir from when you had left it?

*Titov:* The station became older and bigger, much bigger than I flew. It's maybe two times more because it was two blocks, and right now it's four more. It's twice bigger, including the base blocks, it's three times bigger. Okay. For the six days we were together, we were an old crew looking inside the station, around the station systems, equipment. A lot of equipment, various exactly. The station was older and maybe something need for repairing, changing the blocks, systems, because it is flying—for example, base block flying from 1986, it's a lot of time.

But all the systems working, and it was designed for long-time flight, and it was include some repairing procedures. Right now we can say, yes, it was true way for design a station like repairing a

station--I mean, all of the time we can't change the modules. We can change some systems or electronic blocks or hardware or something else. It was designed on the station and it was okay.

And I think the station will—I mean can—can fly more and more, but maybe after International Space Station will fly—time, life, Station Mir, short term because for us right now it's very difficult to have two programs, space programs. I mean, financial, finding it's very difficult with money.

*Wright:* You spent over a year in the Mir. Then not too long after that, you came and trained here, in America.

*Titov:* Yes.

*Wright:* How were your experiences when you first came here?

*Titov:* At first, Sergei [K.] Krikalev and me arrived to Houston the first time in November 1992, for training for STS-60 flight. We didn't have program for STS-63. We didn't have Mir-Shuttle program. Just one flight. It was started from this.

The first difficulty, exactly, it was language, but we found the method of training, we asked the instructors. They had the schematic on the table during the hour lectures. It was very easy for us because we have experience--we know how to--working some systems, but we just looking at the difference between the Russian system and the American system. But, for example, thermal control system there and there, it's the same function, but a little bit different approach for design, for control, and for us it was much more easy compared--and to understand how working with it.

What else?

*Wright:* You were so far away from home. Did you feel like this became your new home, or just visiting?

*Titov:* We arrived to Houston alone, and after one month our families arrived to Houston, and after that, I'm feeling myself here like at home, and right now I visit Houston like my second home, because everything and a lot of people I know. I started to understand lifestyle of American people and some habits and some of the rules. It's very nice to know how people are working and living around the world. It's a very good experience, yes.

*Wright:* Is there anything that you have experienced here that stands out in your mind as something very special, whether it be taking a trip or buying at the malls or some unique item in the grocery store that you found?

*Titov:* Maybe in 1992-93 years, it was a very difficult time for Russia. It's maybe more difficult time during the changing, with the last ten years changing. In this time Moscow was not very comfortable, and when we arrived to Houston, here was another life, another style and other stores, and everything was for us like a little bit new. But for today, it is right now '98, just six years, and Moscow stores or Houston stores, it's approximately the same. Yes. And Moscow right now became nicer, much, much nicer, and now it was the first Olympic games for young people in Moscow. Before I left Moscow two weeks ago, it was beautiful. It's very nice and very clear and very nice. It's time, time and changing. Something I'm smiling about, our first experience here, but it was six years ago, and now it's much easier and it's good.

*Wright:* When you came, you came with Sergei, and you did not know which one of you would be riding on STS-60, but yet you got to go on 63 to see the Mir. So are you glad now that you had to wait so that you could see your Mir and experience that with that crew?

*Titov:* Sorry. Maybe I didn't understand a little bit here.

*Wright:* Let me change the question. When you first came and you were training for STS-60, were you disappointed at first that you were not going--

*Titov:* To fly? Yes.

*Wright:* But then you got to see your Mir, so--

*Titov:* Exactly. I arrived to Houston like back-up for Sergei, and we know about that in Moscow before we left Moscow, and for me it was first experience, and I was happy about experience, but after some of the time, then it was a decision about next flight. For me it was much nicer; I have chance to fly. But my flight should be in the middle of 1994, but we had some difficulties with Spacehab, some changing, and our flight delayed to the February '95. But it allowed us, instead, nine months to be here, two and a half year. [Laughter] My son started—from November '92 started learning in American school, and right now he's talking like American boy. Right now it is difficult for him talking in Russian in the Russian school. It's through training, through visits, a lot of time, change of school, change the life, changing the language.

*Wright:* Very international.

*Titov:* Yes, very. He doesn't understand about border. For him it's the same, America or Russia. He don't want to understand this is different countries, because for him it's his house here, house there. It's the same planet, same home for him.

*Wright:* That's true.

*Titov:* This is new generation. This is new mind, new looking around, view of the planet and view on the life. It's much, much different than our--

*Wright:* And much, much better.

*Titov:* Yes, I think so. I think so. Then you have time in orbit and looking to the Earth and circle by circle, you can see no border, and in the America not printed "America," in Russia not printed "Russia." It is just planet. It's just my home. It's changing mind very much, very much.

*Wright:* I'm glad you had a chance to see it from so far above and now you're getting to see so much here.

*Titov:* I think it's good. For new generation, it's nice. Maybe they'll forget about war very soon, I think. I hope.

*Wright:* I hope. Well, our time that we agreed to is up, and we have more time, but I know you're very busy.

*Titov:* I will go. Thank you very much.

*Wright:* Thank you very much, and if you have more time on another visit, maybe we can visit some more and hear more. Are you coming back soon?

*Titov:* I don't know exactly, but if I have a chance, I'll come.

*Wright:* Well, we thank you so much.

*Titov:* Thank you.

*Wright:* Have a good day. Enjoy your trip back.

*Titov:* Thank you very much.

[End of interview]