

## **YURI KARGOPOLOV**

**May 29, 1998**

Interviewers: Mark Davison, Rebecca Wright, Paul Rollins  
[Interview conducted with interpreter from TTI]

*Davison:* I'm speaking with Mr. Yuri Kargopolov. He's head of the Crew Exchange and Training Working Group for the Shuttle-Mir Program, Phase 1 Program.

Good afternoon. Would you please tell us a little bit about your background, where you're from in Russia and what your educational background is?

*Kargopolov:* I'm Yuri Kargopolov. Pleased to meet you. I'm a native of Byelorussia; Belarus, as they call it now. I graduated from Military Engineering Academy, named after Professor Zhukovsky. So my first order was the Air Force, actually. I was doing technical work for the Air Force. Upon my graduation from the academy, I was hired by the Cosmonaut Training Center and that was in 1974, so since that year I'm presently working at the Cosmonaut Training Center.

*Davison:* The Gagarin Training Center that you're at now, or Star City?

*Kargopolov:* Yes, Star City. So this is the place where we train all our crews for missions on our manned vehicles, Soyuz and various space stations that we have had over the course of those years. So, as I said, I started working at Star City in 1974, and that was exactly a year before our first joint project, Soyuz-Apollo, or Apollo-Soyuz.

So when I started, the crew training was already on its way at Star City. Unfortunately, at that time I was not directly involved in crew training for Apollo-Soyuz Program. At that time I was working at the department that was responsible for crew training for our then orbital station Salyut 4. So for the first few years, I was quite actively involved in crew training for Salyut 4 and then Salyut 5, 6, and Salyut 7. So I was an integrated training instructor. That was my primary responsibility.

So it's really very nice for me to be here now when Ryumin is about to start his mission, because I remember when I started my career as a training instructor, he was one of my students preparing for his mission on Salyut 4.

*Davison:* It must be neat to be able to follow his career and able to close it out together with the Shuttle.

*Kargopolov:* Yes, of course. It's very neat and we have a lot of fond memories together.

*Davison:* What are your current duties in the Phase 1 Shuttle-Mir Program? Can you explain what your working group does?

*Kargopolov:* Our group was formed as a joint training group and the crew exchange group for both Mir-Shuttle and Mir-NASA programs. When we started working on this joint program, my American counterpart was Donald Puddy. I would like to express my admiration and gratitude to this person. I really learned a lot from him.

Our main responsibility was to prepare Russian cosmonauts and American astronauts for a joint approach for training astronauts in Russia and our cosmonauts here, so that they could successfully complete their tasks on orbit.

*Davison:* Let's talk about the training a little bit in the first crew that came over with Norm [Norman E.] Thagard and Bonnie [J.] Dunbar. How did that process take place? I know that the language barrier was one thing you had to overcome, but were there other things that happened?

*Kargopolov:* Yes, that was, of course, a challenging experience, although I have to say that that was not a real serious problem for us, because we already by that time had a pretty good experience in training foreign cosmonauts to fly on our space station. I don't know if you know, but we actually trained foreign cosmonauts from more than twenty countries to fly on the Mir station.

So basically we have the same approach for everybody who comes to our training center. First three months are normally spent just by studying the Russian language. It's a very intensive Russian-language course. Then after that, we start slowly immersing them into all technical subjects such as design of the vehicle, design of various elements and components, subsystems, and so on. So it's a gradual process.

*Davison:* Did the training syllabus change whether it was a long mission or a short mission, or what vehicle you rode up, whether it was the Soyuz or the Shuttle? Were there differences?

*Kargopolov:* That's exactly right, so we determine first what are the responsibilities of a crew member is going to be duration of his or her mission, and then we'll try to tailor this training program accordingly. We always take into consideration individual qualities of each crew member, his or her experience, past experience, how many missions, if it's the first mission. If they're experienced astronauts, then of course we would not probably go through our certain things with them, so it's pretty much customized for any particular person.

That was the approach that we took when we tried to identify the right training program for Norm Thagard and Bonnie Dunbar. Norman Thagard had three Shuttle missions and Bonnie Dunbar has also flown in the Shuttle, so that was all taken into consideration when we developed the training program for

them. So they both really did not require intensive basic training, so we were able to concentrate on more specific topics that were specific to that particular mission.

*Davison:* How about for the first crew for the International Space Station, with Bill Shepherd and Sergei Krikalev I'm sorry I don't remember the other crew member's name. Is their training going to be similar to the Shuttle-Mir?

*Kargopolov:* Yes, exactly. Actually, they started their training about a year and a half ago, so they will have some sessions out here at the Johnson Space Center and then they go to Cosmonaut Training Center. They've been in the process for a year and a half now. Again, I'd like to emphasize we really try to adjust the general program for each particular crew member based on their individual tasks for each particular mission.

The experience that we gained in Phase 1 helped us very much to train the first crew, so we use it constantly. In fact, many of the tasks that they will have to perform as part of their mission on the Space Station verified and pretty much are known from our experience in Phase 1.

This first crew will be delivered via Soyuz. This is something that we already went through when we trained Norm Thagard to fly on Soyuz to Mir. This crew will be returning on Shuttle. Two of our Russian cosmonauts, Vladimir Dezhurov and Gennady Strekalov have done it before, and they were trained to do so at the Johnson Space Center, so this is something, again, that we went through already. They will have to stay on board the Space Station for quite a long time. Again to go back to the Phase 1, this is the ninth long joint mission that we went through and we already have necessary procedures written for such joint survival on the Mir station so that we can just follow the steps. It's not going to be a great challenge. So the training will involve operation of various Space Station systems, training to perform various scientific experiments. We'll train them to do EVAs. Again, all of these have been performed many times and they will be just doing something that's been done in the past.

*Davison:* Can you tell us your most memorable experience in the Mir-Shuttle Program or in the space program?

*Kargopolov:* I can come up with many memorable experiences. Of course, one of the most memorable experiences was at the very beginning of my career at the Cosmonaut Training Center, just to become familiar with all the facilities, meeting all these new people. It was a remarkable experience. Then, of course, I will never forget my work with Russian crew members as Aleksandr Leonov and Kubasov and also it was a great experience working with General Stafford during his Apollo-Soyuz mission and meeting

other people who were involved in that program.

It was an amazing thing, actually, to watch that mission evolve. I remember how we were watching the ceremonial opening of the hatches between the docked Apollo and Soyuz vehicles and how both commanders shook their hands. That was a very neat thing to witness. It's a great thing now to really understand that that handshake allowed us to be where we are right now, and it's great to see that after so many years we are again working together and doing something so useful. I'm very happy to be where I am.

I'd like to use this opportunity and say how grateful I am to Aleksandr Leonov, because he was my mentor and he really contributed a lot to my education, me becoming who I am right now. I learned a lot from that person.

Of course, I cannot just miss an opportunity to tell you about two other most memorable experiences, when for the first time I was at Baikonur and I witnessed the Soyuz launch, and then ten years after, I was here at the Cape Canaveral and I saw the Shuttle launch. Very memorable for me.

*Davison:* Thank you very much for your information, your stories. Are there any additional things you'd like to talk about, if you have time?

*Kargopolov:* Well, I'd like to wish you all the best and all the success to our next endeavor, the International Space Station, and also I'd like to thank our American colleagues, especially people at the Johnson Space Center, for their friendship, for their operation. I will hope that we continue working together. So I'd like to wish all my American colleagues all success and all best things in life.

*Davison:* I agree. There are a lot of very good friendships that are made through this program.

*Kargopolov:* Yes, of course.

*Davison:* Thank you.

[End of interview]