NASAexplores Interview With ISS Crewmembers Ed Lu and Yuri Malenchenko
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Capcom: Alpha, this is Houston. You are ready for the event?

Ed Lu: We are ready.

Capcom: Nasaexplores.com, this is Houston. Please call Alpha for a voice check.

Mindi Capp: Alpha, this is NASAexplores.com. How do you hear me?

Ed Lu: Loud and clear.

Pause…

Mindi Capp: Okay.

Ed Lu: With the voice check, we heard you loud and clear.

Mindi Capp: Thanks, this is Mindi Capp with NASAexplores.com. Thank you for taking the time to answer our questions today. My first question is for both of you. Tell us the story about how you became an astronaut and how old you were when you realized you wanted to be an astronaut.

Yuri Malenchenko: I decided to be a cosmonaut long time ago when I was child aged. Then I was a military pilot. It was proposed to me to change my job and I went to new position and I am happy with this.

Ed Lu: For me, when I was a child I wanted to be a scientist and that's what I was doing. About eight and a half years ago I was working as an astronomer. And about that time I decided to apply to be an astronaut, I thought it would be an interesting thing to do, sent in an application. And so it wasn't until I was an adult before I decided that I wanted to apply to become an astronaut.

Mindi Capp: How was your flight on the Soyuz different from your previous flights on the Shuttle?

Ed Lu: First off, obviously instead of launching from Florida we launched from Kazakhstan. So it's a whole different experience out there. The preparations before flight are very different of course, because the ship is very different. Of course, there's only two of us onboard and it's very, very much smaller. And the, of course, one of the other big differences, of course, is that we're speaking in Russian. And it's a Russian ship, and all of the labels, all of the procedures, all of our manuals, everything is in Russian. And so, for me at least, that was a big change. And as far as the flight itself, the launch itself, in a lot of ways is pretty similar because you're trying to do the same thing. You're trying to get into space, and you're trying to get from a standing start on the

ground to about 18,000 miles per hour and in both cases it takes about eight minutes, so that part is similar. The view is of course slightly different because in the Shuttle you have a big set of windows around you and in the Soyuz you have one small window, one next to me and there's one on the other side of Yuri and you can't even see anything out of those windows until a couple of minutes into the flight because they are covered for the very beginning of the flight with a protective covers that blow off at…they are jettisoned about two and a half minutes into the flight. So, that part is different, but once you get into space, it's kind of similar in that, you know, you're weightless, you float around. You have to do the similar things to, in order to rendezvous and dock with the Station.

Mindi Capp: What is a typical day like on the Space Station?

Ed Lu: Well, it's a little hard to really call something a typical day because everyday is a little bit different but there's some things that do stay the same. For instance, we always tend to get up around the same time. We live on Greenwich Mean Time which is a time zone that covers sort of Western Europe which is a point that is about halfway in between Moscow and Houston. And we get up in the morning 6:30 or 7 o'clock in the morning that time, which is a 5 hour time difference from Houston and, have breakfast. We have a conference with the ground and then we get to work. Everyday could be something different. We could end up doing experiments, we could be doing medical checks like we did this morning, we have times when we're operating the robotic arm, again, all kinds of interesting things. Usually we take a break for lunch around 12 or 1 o'clock, we have a little time off there, and then we get back to work again. We generally work until about 7 o'clock. We have two sessions a day when we exercise, and that's so we can maintain our muscles and bones, because up here in space you, you don't get that workout which you actually do get everyday all day just from the fact that you're walking around and having to support your own weight on the ground. So, we actually have to make up for that by having exercise up here, exercise sessions where we either ride a bike, or run on a treadmill, or do something sort of like lifting weights, except of course there are no weights there, it's done with springs and pulleys, and bungees. But, we, usually after around 7 o'clock we have dinner and then you get a little bit of free time to yourself until you go to bed, when you can send some emails to family or look out the window, take some pictures. The days go by quick up here.

Mindi Capp: Now, when you have free time on the Space Station, what kind of things do you like to do?

Yuri Malenchenko: It is nice thing to watching the ground, how clouds changes and how things changes, and the hues. Looking, watching for five to ten minutes you will for sure to see something unusual.

Mindi Capp: After spending about 2 months in space, what do you miss the most from Earth?

Ed Lu: It turns out we have most everything we need up here. I like the food, and we have regular conversations with our families back home, both by email and we actually have a phone up here that we can actually call our families with. So, in that sense, I'm actually really enjoying myself. I'm not finding anything that I really, really miss that much that it upsets me at all. Again, it's only been 2 months, maybe in 6 months my answer will be different, but for right now, I'm, I'm pretty happy.

Mindi Capp: What kinds of science experiments are you guys working on and which ones are your favorites?

Ed Lu: Well, the biggest experiment, of course, that we have up here is, is just operating the ship. This is what's called, it's an experimental vehicle. And what that really means is that it's a one of a kind vehicle, and it's the very first one that we've ever built like this. And so, a lot of the science that we have to do is trying to figure out how this thing works. And while that's not sort of directly science, it contributes to science because once we do figure out how to operate in space for long periods of time, then we'll be able to move outwards and go to, for instance Mars, go to asteroids, go back to the Moon. And those are the places where we're really going to do the kind of science that we're aiming for. So, a lot, a lot of the science that we do again is just figuring out what it takes to get to the places where we want to go, where we can do the science we want to do.

Mindi Capp: The previous Expedition crews had astronauts visit during their stays. Are you guys getting lonely without the usual visitors?

Ed Lu: Well, it hasn't been bad. Yuri and I are good friends and we have a lot of fun up here. But, you are correct that we are not going to see anybody else from the moment Expedition 6 left us, which was the previous crew, until the moment we see Expedition 8 show up here in about 4 months. Again, we do have regular contact with people on the ground, so it's not like you don't hear people, I mean you can actually see people on video screen occasionally, but it's not too bad. Just a little bit quieter. Not so bad.

Mindi Capp: You've been on missions prior to this one, so you know what it is like to readjust to gravity when you return to Earth. How do you think the readjustment after this mission will be different?

Ed Lu: Well, in my case, I've only flown a couple of short-duration flights, Yuri has flown a long-duration flight before so he knows the difference between landing after 4 months versus landing after, say a week or week and a half. I expect it's going to take a little longer to readjust back to gravity and the main thing that you feel when you get down is the fact that your brain is used to, after a period of time in space, is just sort of ignoring your balance because it doesn't have to do it up here. And when you get back down to the ground, suddenly your brain can be a little confused by which way is up and which way is down and that means you balance isn't so good. And if you've ever seen astronauts after long-duration flights walking, especially within about the first day or two after getting back, you see that they walk a little bit unsteady and sometimes they sway a little when they're standing. And I expect the same thing is going to happen to me.

Mindi Capp: The NASAexplores team would like to wish Ed an early "Happy Birthday!" We thought about singing to you, but decided to spare you the agony of hearing us sing. Do you guys have anything planned to celebrate the big day?

Ed Lu: Well, I think the ground has sent a few things up in our Progress vehicle, which is our, sort of moving truck that shows up with supplies. It came here about two weeks ago. Because I've got a few cards and stuff in there that say "Do Not Open Until Next Week." So, I'm looking forward to finally getting to open them. And, I promise that I have not looked in there early. We'll spare you the agony of us singing, too.

Mindi Capp: Thanks! Have you been able to do any observations of the sun from the Space Station?

Ed Lu: We haven't been able to do a whole lot of scientific observations. You can look up there occasionally, but most of the windows on the Space Station point downwards at the Earth. And, so, in fact, you don't, most of the time, don't get an actual view of the Sun. And, which is okay actually because as it turns out, because without the atmosphere in between, you know on the ground, the Sun is already very, very bright, it's blindingly bright. And there are times when the Space Station has been rotated, that some of the windows have been pointed out at the Sun and it is, it is extremely bright. You can't even, on the ground, you can't really look close to the Sun, but here you definitely can't. It's quite difficult to look at. Even close to the Sun.

Mindi Capp: What advice do you have for teachers and students who are interested in space?

Ed Lu: [Ed Lu hands the microphone to Yuri Malenchenko, who hands the microphone back to him.] Yuri is passing this back to me. I've decided that I was answering too many, and he said, "No, that's fine." Anyhow, I think that, especially for students, if you hope to have a career in space someday, and I think that's a great thing because I think you can't get a better job than this. It's not so much important what in particular you decide to study, but that you pick something you really like to do and that you're passionate for, and that interests you a lot. Because that way, you're guaranteed to work hard at it and that's what it takes. If you do something simply because you think it's going to get you some place, you may not have that drive and love for it that you really need to succeed. So, I think in the end what you have to do is look for what it is that really, really interests you and find a way to get really good at it.

Mindi Capp: This question is for both of you. What was your favorite subject in school?

Yuri Malenchenko: For me, it was mathematics.

Ed Lu: You have a couple of nerds up here. For me also, it was math. And science actually, I really liked physics.

Mindi Capp: Now, when you guys are just hanging out, do you speak Russian or English?

Ed Lu: We speak a mixture of both. I guess maybe you could call it Renglish. Sometimes it's a little bit of one, sometimes it's a little bit of the other. We switch back and forth.

Mindi Capp: How was the training for the Soyuz launch different from training for a Shuttle mission?

Ed Lu: Well, like I said, the big thing, at least for me, is the language barrier. I had to learn Russian in order to even go through the training. But, a lot of the training is kind of similar because the kinds of things that you do in space are, regardless of the vehicle you are on, are very similar. You're trying to get your vehicle to rendezvous and dock with the Space Station and the laws of physics are the same. It doesn't matter whether, where you're from, you know, you have to get your ship moving the right speed, the right direction and so on, and get it up to the Space Station. So, a lot of the training is similar. And, but, the, of course, the details of the ship are different. Where the controls are are different. Where the, you know, the design of the ship, and so on. So, a lot of that is quite different. But, from the day to day type thing, you do similar things. You go to classes, you spend time in the simulator, you practice space walks, things like that. So, a lot of it, I think there's probably more similar than there is different.

Mindi Capp: How is the food on ISS, and what's your favorite thing to eat?

Yuri Malenchenko: There's a lot of different foods and…my favorite is meat, beef, vegetables. There is a lot of different kinds. I like it.

Ed Lu: I also like a lot of the different foods up here. We have a mixture of Russian food and American food. And we also got to bring a small amount of stuff up with us, which was sent up in the Progress vehicle, items that we chose, that you could buy in the store and stuff. So, I got to bring with me some rice that I really like. Along with that some Chinese dishes, there's one called…well it's called [Bao Bao Fun] and what it is is a kind of sticky rice with a sweet paste to it and it's got fruit in it. It's something that my mom used to make, although of course this one's in a can so it's a little bit different, but I really like that stuff. I have some things that I really like that I used to eat back in Hawaii. I have dried mangoes that I really like and macadamia nuts, of course.

Mindi Capp: Now, when you first prepared to go into space, what was the ONE THING you couldn't wait to do?

Ed Lu: For me, at least, it was just seeing the Earth. Just the chance to see the Earth from space is something that I had looked forward to all through my training. And it's something that you never forget, the first time that you actually do see the Earth from space. And I remember that was on my very first flight, which was about 6 years ago.

And at that time, it was just a few minutes after launch and we were out over the North Atlantic Ocean at the time. We had left Florida about 8 minutes earlier and you could see the curve of the Earth. You could see the blue color of the ocean and the white clouds below. And within a few minutes, you could see Europe approach. It's an absolutely incredible sight.

Mindi Capp: Do you have any special talents or interesting tidbits that you'd like to share with us?

Ed Lu: Yuri's laughing at the word talents, but he's actually quite talented. I have… I like to play my piano here, but I will not torture you with that either.

Mindi Capp: What is a common misconception you think people have about living in space?

Ed Lu: I think, one of the things that people may believe is that it looks like, up here, something that you might see in a movie like Armageddon, or something like that. And really, life up here is a lot more normal. And, and that's the idea here is that almost everything works properly up here. And, you spend most of your time, not you know, dodging asteroids or things like that, or trying to save the world. What we spend our time doing is keeping the ship running, and doing our experiments. And it's, while it is an incredible place, to us it's become sort of normal.

Mindi Capp: Okay, we've run out of time. Thanks again for answering our questions today. We can't wait to share your insights with students and teachers around the world and we hope to see you when you visit Marshall after you get back.

Ed Lu: Looking forward to it.

Capcom: Alpha, this is Houston ACR. That concludes the event. And thank you NASAexplores.com. Alpha, we're resuming operational space to ground.