

The oral histories placed on this CD are from a few of the many people who worked together to meet the challenges of the Shuttle-Mir Program. The words that you will read are the transcripts from the audio-recorded, personal interviews conducted with each of these individuals.

In order to preserve the integrity of their audio record, these histories are presented with limited revisions and reflect the candid conversational style of the oral history format. Brackets or an ellipsis mark will indicate if the text has been annotated or edited to provide the reader a better understanding of the content.

Enjoy “hearing” these factual accountings from these people who were among those who were involved in the day-to-day activities of this historic partnership between the United States and Russia.

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**DEBRA RAHN**

**July 8, 1998**

Interviewers: Summer Chick-Bergen

*Bergen:* This is an interview with Debra Rahn for the Johnson Space Center Oral History Project. It's July 8, 1998, in Washington, D.C., interviewed by Summer Bergen.

Okay. Let's start out with real basics. Who are you, and what was your part in the Shuttle-Mir Project?

*Rahn:* Okay. As you said, I'm Debra Rahn. I'm public affairs officer for international relations. I was the U.S. chairperson for the public affairs working group, which is known as Working Group One, for the Phase One Program. We formed our public affairs working group in early 1994, and we had our first meeting at the Russian Mission Control Center in Kaleningrad [phonetic] in June of 1994. We had five people from NASA went over to Moscow for our first meeting, and we met with Dr. Valerie Udaloy, who was my counterpart on the Russian side for this working group, and we met with, I would say, at least twenty Russians at our first meeting.

We walked in, and we were a very small delegation compared to theirs, and, of course, we had never met. We had exchanged faxes. We had done some coordination on our public affairs planning for STS-60 and STS-63, because they involved the flight of a Russian cosmonaut on the Shuttle, as well as an up-close approach of Shuttle to Mir. So we had some exchange of faxes and approval of press releases, but we had not met, not face to face. So it was clearly a very important meeting. It was a little intimidating because we had never met before. None of us had been to Moscow before. The other working groups had met before, but we had not.

So, the Russian Space Agency, when I asked them for a point of contact so we could establish our working groups, gave me Dr. Udaloy as the person that would be in charge of public affairs for the Shuttle-Mir Program, and they had representatives there from the Gagarin Cosmonaut Training Center, from the Russian Space Command, from RSC Energia, also from the Institute of Biomedical Problems, and also from Khrunichev Space Center [Moscow]. So we had a very good meeting. We basically, during that meeting, talked to them about how we do public affairs, and we had lots of questions on what is possible, from their perspective, how they do public affairs, and they gave us briefings.

We also went to the Gagarin Cosmonaut Training Center, had a meeting there. Even though there were representatives at the Mission Control Center, we actually went and saw the facility, were given a tour, and had more detailed discussion about our astronauts training there, what their public affairs policies are.

One of the things that I did find interesting was that in some ways they had more access to their facilities than we would give the U.S. press to ours, particularly in the area of astronaut training. Typically, NASA does not permit U.S. news media to come in and cover astronaut training because it's too disruptive. We document it and make it available. There, of course, are exceptions to the rule, but, in general, we do not do that because of the space constraints within our simulators, as well as it just interrupts the training. They, in fact, do permit that more often than we do. They also, in their Mission Control Center, the way they've set up, they have a balcony that overlooks their control center, and they let the news media come up there, and there's no partition or glass between the balcony and the ground controllers down below. So they let the press and the VIPs mix during major events, which is something that typically we keep separate. And they have pretty free rein. There are a lot of press that come and go. They get onto the access list, and they come and go. So that was interesting.

One of the different philosophies between NASA and the Gagarin Cosmonaut Training Center was their policy that they would actually charge media for access to their facilities for interviews, for tours, and that sort of thing, which, of course, is something that NASA does not do. We discussed that on several occasions. Basically we agreed to disagree. It was clearly their policy. What we did do in a compromise was that they would not charge any news media for access to our astronauts who are training there. They would not do that. However, they could, in fact, in addition to when the press come out there, if they want to do more than just interview our astronauts, which typically they do, they, in fact, may charge them some funds for escorting them and touring their facilities and that sort of thing. In general, that didn't happen very often. It did occasionally, especially if people came in and wanted to be there for a long period of time, then in fairness to them, you know, that took a lot of their time and their staff's time when people are there for weeks at a time, but they negotiated things and it really didn't turn out to be that much money. But over time, that issue seemed to go away. That's just common practice in Russia, but again, it's very different than what we do, and that caused us a little bit of heartburn, that anyone would charge for access to our astronauts. But again, that did not happen.

I think our first week, it was clearly a very long week. We met for five full days. We had a very full agenda, because, obviously, we were not familiar with their practices and, of course, they were not with ours. We had a lot of questions, and, of course, what we wanted to do was to begin our press preparations for the first launch of Norm [Norman] Thagard from Baikonur. That was a very big project for us because we were unfamiliar with their practices, with their facilities, and again, Baikonur is a very remote site. It was very difficult.

One of the things within the Russian space program, there are a number of organizations involved, and while they all supposedly now come under the Russian Space Agency, that was a new agency. They

basically get their funding from them, but each organization has their own structure and their own policies and want letters addressed to them. It was something that we had trouble sorting out, especially for Baikonur, who, in fact, was in charge and make sure that we were working with the right people to ensure that when our press group got over there, that they would have access to the facilities and tours and interviews and stuff that we were promised. So that took us many meetings to sort that out. We did end up taking a delegation of approximately forty U.S. news media to Baikonur for Norm Thagard's launch. I think it worked out reasonably well. Anytime you take a press group in, they always are expecting more than sometimes what can be delivered.

We were a little displeased that some of the people we thought were expecting our group didn't seem to know anything about that, but things were arranged real time and things worked out, but again, that's a very remote site. I think that the coordination between Moscow and the people at Baikonur could have been better, and we expressed that, our feeling of that, and hopefully that won't be ever repeated in the future.

The first week, you know, the first day of the meetings were-you know, again, everybody was kind of looking at one another, but as the week went on, we got to know each other, and by the end of the week, I think we began a friendship with them. Clearly, NASA has a very long tradition of being very open with the public and has always felt that it was the public's right to know what we're doing, the good and the bad. Clearly, the Russians come from a different approach with the Soviet Union, but with the break-up, they have become more open. They basically were always, in all the things that we asked for, I think were very helpful to us and recognized the need and the importance of communicating what we were doing in this program, the importance of the program not only to the U.S., but to the Russian side, and it really gave them an opportunity to let the world know what they were doing on the Mir Space Station. So I think that we approached it from both sides that we wanted to make it work, and I think we did.

The personal relationship with the Russians is very important. As you establish that and you work together, you start to understand what one another means. Working through interpreters is very difficult, and sometimes, even though you think it is being communicated properly, it really isn't. So, over time, as we gained experience working together, they understood what we needed, and each meeting was easier. They were very accommodating. NASA took a lot of the lead in preparing public affairs documents and plans. They clearly had inputs, but again, they were very willing to accept what we prepared and the direction we wanted to go.

One of the big achievements, one of our big efforts, was, of course, to make sure we got television, live television, especially of the first Shuttle-Mir docking mission, and that we wanted television for both perspectives. They had television capabilities as the Shuttle, so we worked very hard in getting that and

getting in-flight press events that we want to broadcast live back to the United States. A great deal of our planning went into that, and I think that was very successful. I mean, I think for the first time, at least in the U.S. and, I think, even around the world, people really got to see the Mir Space Station and they got to really understand what they were doing up there and understand the magnitude of the work and the cooperation between our two countries and the benefits of it.

I think live TV is very, very important to public affairs, and we worked very closely with the Russians. Of course, once we had astronauts, Norm Thagard was on board as the first astronaut on board the Mir Space Station, we tried to do weekly TV events so we could show that Norm was alive and well on Mir and what he was doing and he could explain and show the Mir Space Station, talk about the science we were doing. So that worked out reasonably well. We were able to, most every week, do interviews. Sometimes they were canceled because of operations. Sometimes the Russian Mir Space Station is aging—they had technical problems with the television antenna, sometimes with satellites. So we were always struggling to make things happen as planned, but, in general, I think the thing went very well, and we continued that practice. Whenever we had an astronaut on board, we tried to do at least a weekly event. The astronauts sometimes would prepare video ahead of time of their activities over the past week and also downlink at the time of the interview, and then we would take that, the television that came down through Mir, from Moscow, from the Mission Control Center, and send it back over on NASA television so that all the people in the United States could see it as well as any television station from anywhere can pick it off a satellite and reuse it.

It was very popular. We tried to do as much as we could with the press to let them know. We also did weekly written status reports on the science that was going on. Anytime we had the astronaut on board Mir, we did have a NASA public affairs officer at the Russian Mission Control Center. For a long time we did it on a thirty-day rotation basis. We just kept sending people over and changing out every thirty days.

Then last summer, June of '97, we had the opportunity to have someone permanently based there. Kathleen Maliga from NASA Headquarters was named as our permanent public affairs officer in Moscow, and she came, actually, just a couple of days before the Progress collision with Mir. We had another public affairs person there for a handover, so luckily for us we had two people. So she got involved very, very quickly. She was relatively new to public affairs but not to NASA, and so she learned a great deal in a very short period of time. It was very valuable that we had someone there, as we'd always planned to have someone there, but then we had her continuing on. She's still over there, so it's nice to have the continuity of the same person.

I think that was one of the major things that was done properly, was the fact that we did have a public affairs person as a part of the flight ops team that was based in Moscow. It's very important. I

think that without that, we would have had a great deal of difficulty in getting the information in a timely fashion during a couple of the major problems on board Mir with the Mir fire, with the collision, because the U.S. news media, you know, just pounded NASA for information. So we had someone right there on the scene that could talk to the Russian public affairs people, that could talk to flight ops people, could give us information, give us updates, because one of the challenges we had, anytime there's a contingency, it's very difficult to get accurate information in a timely fashion. It's never fast enough for the news media. The news media wants everything now and accurate.

So, with it being the Russian Mir Space Station, that makes it more challenging for us to get accurate information in a timely fashion. It's not that the Russians weren't forthcoming, but, again, they've had their own needs of getting information and doing the operations and taking care of that, as well as working with their news media. But I think that they did try hard to give that to us.

The biggest challenge, I think, was the fact that there's an eight-hour time difference between the East Coast and Moscow, and so when we wake up in Washington, D.C., a lot of things have already happened. Things have been on the wires, news reports on television. So we wake up eight hours behind. And then, of course, there are a lot of people who feel in our press that-of course, some of them are up calling already to Moscow, but a lot of people in Washington, in the administration, in Congress, wanted to know everything as it happened. But with the eight-hour time difference, we were always playing catch-up first thing in the morning. So it was a real challenge.

After the collision, we changed our weekly Mir status reports to daily status reports, and we had press conferences frequently with Frank Culbertson, our head of the Phase One Program, which were very useful in keeping the news media up to date. We tried to be as open as possible and to give everyone the latest information. So I think that, all in all, I think that we did work very well with the Russians on this. You know, it's always very difficult in time of contingencies to make sure that the information is accurate, and it may be accurate at the moment, but then you get more information later that changes the initial information. So it's a difficult situation, but I think that since it happened towards the latter part of our program, I think that we had established a very good working relationship with them and a lot of trust, and I think that because of that, I think that things worked out relatively well as they could under the circumstances.

I probably jumped ahead in some of this. One of the things, and I think that should have probably started with this, is that as far as the structure of the public affairs working group-as I said, we did have representatives from a variety of agencies on the Russian side, and we had primarily NASA public affairs representatives from NASA headquarters and the Johnson Space Center, and we agreed that we would establish sub-working groups to go off and work details in three major areas. One, of course, is television;

one was news operations; and the third was protocol and guest operations.

The television sub-working group of the U.S. was headed by Joseph Benton, who is our executive producer for NASA television here at NASA headquarters. Mark Hess was the head of the sub-working group for news operations, and he was the director of the Media Services Division here at NASA headquarters. Paula Cleggett, who was the director of public services at NASA Headquarters, was the head of the protocol and guest operations. So that helped divide up the work so that each sub-group could focus on their areas.

We did have telecons in between our working group meetings. In the early days, in the first year, we met almost every two or three months. Most of the time we did go to Moscow, but occasionally the Russians did come to the U.S., because we needed to meet with a large number of Russians, and it wasn't always possible for everyone to come to the United States, you know, because of the travel money. But as time went on, we did build up, I think, a lot of respect and trust, and we've become good friends with our colleagues. We have a lot of respect for them and I believe they do for us.

Things became easier to get and to obtain. Initially we wanted video of our astronauts training at the Cosmonaut Training Center. The first time we asked for that, the first meeting, that was the issue. That was a problem because of they didn't have a lot of capabilities for reproduction. There's costs in doing this, and that didn't seem to be an easy thing to do or it was impossible to do. As time went on, they would offer us the stuff and they would bring it to us. I think a lot of times the initial reaction might be, "No, it's not possible." Sometimes if you continued to ask, you would get it. Other times, just as you went down, the relationship matured, it became something that was offered and available. But again, from a public affairs point of view, they don't have the resources and the money to devote that NASA does.

But they do have very good video of the astronauts' and cosmonauts' survival training and water training and that sort of thing, which is of great interest to us, especially early on in the program because we really didn't have access to that. Everything about the Russian space program was of great interest to the U.S. news media. They really did not, in the past, have the access to it. It was few and far between. Very few U.S. reporters had ever been to Baikonur, had been to Star City and those places, so things changed very much with the collapse of the Soviet Union, and with us establishing this relationship, it really was of great interest to our news media.

We did get a number of news media that wanted to interview our astronauts, go into Star City. We did work that out. As we established our presence in Moscow to the program side, the communications improved as far as satellite telephones and with faxes and stuff, that it made things easier to get information back and forth to the people that were there. Because I know in earlier days it was very difficult to just even get hold of people by phone because we were using Russian lines and faxes were very difficult to get

through. But as time went on and our presence was built up there, it made things easier for us to coordinate all of our activities there. Then once we had astronauts on board and we had rotation public affairs people there, of course, that made life easier, to coordinate real time.

*Bergen:* To go back to your very first meeting with the Russians, what kind of expectations did you have and what was your initial impression?

*Rahn:* Well, I really wasn't sure what to expect. I had not been there. We were late in getting our working group organized and having our first meeting. We had initially wanted to meet the previous October. Because of travel funds or whatever, we didn't end up making that meeting, so we were just a year before Norm Thagard's launch to Mir from Baikonur, so that's not a lot of time.

So, we weren't sure what to expect. We knew that they clearly had a long tradition of space flight. We were going to their country. We were going to be launching from their launch site, and it was something new for NASA, because, typically, our experience has been that it's our launch sites and our program, and we know how to do our public affairs at home, but you're going to be doing this from another country. So we were really starting a very new relationship with the Russians because we didn't have any from a public affairs point of view. So we were quite unsure of what to expect.

We had sent over a document ahead of time outlining the questions that we had and our requests that we had, and we had that translated, of course, and sent over to them as the basis for a discussion. We had very little information from the Russian side about the meeting, about the logistics, who would be there, the agenda, and all this sort of thing. It was very, very short fax with just very little information, from our perspective. It's just not the way we do things. So we didn't have a lot of information. Clearly, we needed to make a lot of progress. We felt that we really wanted to. I was very concerned that the meeting may be just more of a "get to know one another" and really not get a lot of work done, but I was pleasantly surprised. We did go through everything. We did get answers. Some things we had to pursue later, but, in general, they answered our questions and were very helpful and very forthcoming.

I've never really asked them, but I'm sure that they were also wondering who we were and what we wanted and how were we going to work together, but I think that very early on, after the first couple of days, you know, each day was a little warmer and a little more relaxed. I think by the end of the meeting they were trying to be extremely accommodating to us. They were very gracious hosts, and clearly they went to a lot of effort to gather all the people there for the meeting. So I think that we were very pleased with the outcome of the first meeting, as I think they were.

We had our next meeting in September of that year. We just had a meeting with just the television



people from NASA, and I went over for the meeting, because television, as I mentioned before, was clearly a very important aspect and required a lot of discussion about how they do that, what their system's like, what can be accommodated, and this sort of thing. And television requires a lot of lead time. So that clearly was a focus of one of our meetings. But we did continue with sub-working group telecons throughout the early parts of our relationship. But then as we established our plans and we got to know what one another needed, we really didn't have as many telethons in the latter part. We just basically could wait until we had our working group meetings or take care of things by fax.

*Bergen:* Did you find there were any difficulties with your being a woman, working with the Russians?

*Rahn:* Not really. They certainly made a lot of comments about it. I mean, they were very nice to me. I know that socially they would-you know, after we'd have our meetings and we'd have receptions and stuff, different ones would come up to me and say that they were just so amazed that I was in charge of all these men, because the delegation for the NASA side, they were all men, and they were very surprised. That wasn't common in Russia. I would tease them occasionally and tell them they must have more women on their side.

I think I had their respect. They knew that I, in fact, was not just a figurehead, the fact that I did do most of the arrangements of all the meetings, including the substance, getting it organized, and we certainly had a very good working group from the NASA side. Everybody contributed. They never really seemed to have a problem. They always addressed me. They didn't try to avoid working with me and talk to the men on the working group instead. They recognized I was the head of the group, and they treated me that I was the head. So, not really. I mean, I don't know what they really thought, but they never showed any disrespect or unhappiness that I was the head of the group.

*Bergen:* What kind of background do you have that prepared you for this?

*Rahn:* Well, at the time that we formed this working group, I was the public affairs officer for international relations. During the last four years I did change to another position for about a year and a half. I was public affairs officer on space flight for a while, but I've just recently, in the last four weeks, come back to being public affairs for international. I've been with NASA since 1972 and working with public affairs in most of my time as the public affairs officer for international relations. I've had different bosses. They moved us around, but I'm been public affairs officer since, probably, 1978. So I have a long history of working with our foreign space agency public affairs representatives and planning cooperative public affairs plans for our missions when we have foreign nationals fly on board the Space Shuttle, even for

expendable launches. So I've worked for many years with our foreign space agency public affairs people. So I had a very good relationship with our major partners. It's just Russia was not one of them. So that a very new experience for us all.

*Bergen:* You've talked a little bit about how your relationship with the person, your Russian colleagues improved over time. How did your role throughout the program change or evolve?

*Rahn:* Well, I mean, I held the same role since the beginning of the program. I don't know that it really changed. As we all gained experience working with the Russians, I think we probably had more to contribute and that over time we learned. Every group that you work with, there's cultural differences. You learn to recognize how to handle certain situations as you gain experience. But I don't know that my role really changed.

*Bergen:* What type of advice would you give to someone going into a similar situation? What were some lessons that you learned through your experience?

*Rahn:* Well, as I said, the meeting went remarkably well. I think I worried it to death ahead of time. [Laughter] I find if I worry ahead of time, things usually work out. I think that one of the things that was somewhat of a problem was that we, as I said, prepared a document ahead of time. We had it translated because we were saying we'd like to request this, request that. It turned out that the way it was translated, it said that we used the words "we demand," which was, in fact, not well received on the Russian side.

The Russians were gracious enough to meet us at the airport when we arrived. I had arranged for an interpreter to be there, because none of us spoke the language. We had not a clue. We'd never been there. I mean, we were babes in the woods. So they came and they met us. They were very gracious. Our interpreter was a woman who was Russian, a Russian native. Her name was Tanya. She immediately told us that they, the Russians, had mentioned this document and the fact that we demanded, were asking too much and this and that.

I said, "Oh, my goodness." I said, "No, no, no. That's 'we request,' and it's obviously an interpretation problem." So she explained, and they relaxed.

I think as time went on, everybody on the Russian side understood that there was a translation problem. So that was clearly an example of how important proper translation is in working one of these programs. Of course, we had no way of knowing this because we don't speak the language. Just a simple word of "request" and "demand," it means a very different thing. So I guess one of the things that you-and I don't know quite how you do it-is to verify your translation to make sure that, in fact, what you think

you're conveying you actually are.

We did have, as I said, a very good interpreter. She, you know, was very-very high skills, very high marks for her. She had great language skills as well as she was a very kind person to us, helped us through the situation. And also she was very helpful. She looked out for us the whole time. So obviously, the interpreter is very important.

I think clearly, as always, you need to be prepared for your meetings. I think that with the Russians I think it's important to take the initiative to prepare documents, to make proposals, and then have them react to it, at least from the public affairs side. I think NASA certainly is very experienced, or probably more experienced, in public affairs than they are. I wouldn't say that's true from the program side, but from the public affairs side we have more experience in public affairs.

I think that we learned a lot from one another. I know that they have used our public affairs plan that we prepared for the Shuttle-Mir docking missions. We had one for each mission, but it was slightly modified for the mission, but, in general, the first one we wrote and approved was used as kind of a boilerplate for the next Shuttle-Mir docking missions. I know that they used a lot of that language as the basis for their discussions when they worked with the German Space Agency to fly the Germans and that sort of thing. So I think that they found it useful.

I think, clearly, whenever you go to a foreign country, you have to recognize that there are cultural differences and that everybody needs to be tolerant of one another, because, clearly, I'm sure that while we don't intend to offend, we may do so, and vice versa. So you have to be flexible and be respectful and recognize that there are differences, but that's what makes everybody interesting.

*Bergen:* What do you think was the impact of the fire and the depressurization instances that occurred on Mir, from a public affairs approach?

*Bergen:* Well, clearly it was a very difficult time for both sides. The fire and the accident clearly got the attention of the world's news media, got the attention of our administration and Congress, called into question the safety of Mir, whether or not we should continue. There were a lot of news articles saying that NASA shouldn't be involved, we should get our astronauts down, it's not safe, it's old, that the Russians don't have the money to properly maintain it, and questioning whether or not they still have the right people there to control the Mir Space Station.

So there was an awful lot of negative press, a lot of sensational press that had very inaccurate information, and a lot of the press was not interested in the accurate information. It takes away the substance of-you don't want to confuse a good story with facts. So we had a very difficult time during

the-the fire, of course, was certainly a major concern, but then things kind of died down and had gone back to normal operations.

Then with the collision, which really wasn't that long a period of time between them, just five months, that really created another big stir, and rightfully so. I mean, it was clearly a very dangerous situation. They did resolve it very quickly. The crew did a magnificent job. The Russian ground controllers worked very closely with NASA. So they overcame the situation, but again it still called into question whether or not we should be there: "Haven't we, in fact, learned enough from the Shuttle-Mir docking? Let's just go on and forget it and bring our astronauts home."

As you know, a lot of people in Congress felt that we shouldn't be doing this and called it into question and had hearings. So it was a very trying time, from our perspective, because, clearly, safety was our concern, the number-one concern of NASA, as well as the Russians. I think that's one of the things that the press forgot, that the Russians value the lives of their cosmonauts every bit as much as we value the lives of our astronauts. But again, too, a lot of people felt that the Russians just wanted to keep the Mir alive for bringing in money into their space program.

NASA did a number of safety reviews, independent safety reviews, and felt it was safe to continue, that we understood the system, that things were in order, and the fact that we did have more to learn from them, that we were a partner and that we had made an agreement we were going to have this program and that the length of the program, and that, you know, you don't pull out just because times are tough.

I'm sure you've heard, and many other people have heard, that Frank Culbertson and other people in the program have said many times that while you don't ever want an accident or a problem, but you do learn a great deal from the problems. You actually learn more than when things go well. A lot of the things that we learned on the Shuttle-Mir Program, in fact, will enable us to build a better International Space Station. We learned a lot from the fire about the smoke. We've made changes, I think, in the ventilation system on board the International Space Station. You learn a lot every time you have a problem, and these are all lessons learned that will be applied to our International Space Station. It will be better because of it.

So, the program, the Shuttle-Mir Program, was very successful, but clearly the times of the fire and the collision of the Progress with Mir were very difficult and did call into question whether or not we should continue. But, as history will show, we did continue and even safely concluded the program.

*Bergen:* How do you think that this Shuttle-Mir Program is going to help the International Space Station, from a public affairs perspective?

*Rahn:* Well, I think it's very helpful because, clearly, we have learned to work together with the Russians. They certainly understand the importance of public affairs and the value that we place on it as well as the value within their own country. They want to be, obviously, a valuable partner with the U.S., Canada, Japan, and Europe in this program, and it was a good opportunity for us to learn to work together.

We have expanded the initial public affairs working group that we had with the Russians to include all the other partners in this. So we now have a space station partners public affairs working group that I head. We've already had three meetings-time passes-and we're going to have another one this fall at the European Space Agency to finalize our planning for the first element launch scheduled for November of this year from Baikonur.

So, it was useful because we already had developed a very good working relationship, from a public affairs point of view with Japan, Canada, and Europe because of other programs we've had with them. So it was useful to have this time with the Russians to establish this relationship with them.

I guess the only other thing is that I think that one of the great benefits, from a public affairs point of view, of the Shuttle-Mir Program is that one of our accomplishments, I think, of our working group is the fact that I think because of the Shuttle-Mir Program, the people of the world have, in fact, learned a great deal about the Russian Space Program and the Mir Space Station in particular. I think before the Shuttle-Mir Program, I don't think many people in the United States could have even told you whether the Russians had a space station or even what its name is. As a result of our program, the United States, as well as, I believe, many other countries, are aware of the Mir Space Station. I think that was very valuable for the Russians, as well as for us. I like to think that that was one of our major accomplishments, that the people of the world know more about our space programs.

*Bergen:* Do you think these programs help the American public think more positively about manned space flight, or do you think it hurt it in any way?

*Rahn:* Well, I suppose it depends on who you talk to. I think it's helped it. I think it's shown that, you know, space flight is not without risk and that we've certainly had our problems. We've had the Challenger accident. I think that the American public has gotten used to the fact that with all of our successes, that we're never going to fail and that we're never going to have problems, and that's not true. We try to manage risk, we try to make it as safe as possible, but it's never totally safe. It's still a very risky business.

I would like to think that they're better informed, that they understand the importance of the Space Station, the fact that we are building a Space Station, this is the first step. We certainly put the information out, whether or not people are paying attention. Clearly, I think a lot of people will, in fact, remember the

fire and the collision, and that certainly is not positive, but hopefully most people understand that space is a new environment, even though we have been working it for several decades. Since '58 we've had our space program, but it's still relatively new and there's a lot of exciting things to do, and I think that whenever you have humans in space, I think it does generate some interest and excitement.

The International Space Station will not only have the excitement of having humans in space, but they'll be doing a lot of very important science on board that will have direct benefits to the people. So I hope, in general, that they view it as a positive step in our space program.

*Bergen:* Is there anything else you'd like to talk about, anybody that you worked with, your colleagues, that made any significant contributions, or what do you feel is any personal contributions you made that were significant?

*Rahn:* My counterpart, Dr. Valerie Udaloy, he was very supportive of our public affairs working group's plans, and he was instrumental in making sure that the Russians, in fact, when they made a commitment, that they kept them, that they lived up to their part of the plans. I think that's very important.

We clearly worked very closely with Dr. Ivanov from RSC Energia. In the early days, he was very instrumental in arranging the television transmissions from the Mir and doing in-flight events, getting them scheduled, getting them to become a reality. It's all well and good to have a piece of paper, but you have to make their system work, and all the bureaucracy, as we have bureaucracy, too, to make that happen.

Colonel Andre Maiboroda, who's the head of public relations at the Gagarin Cosmonaut Training Center, did a great deal for our working group. He was a very important member on the Russian side. He was very, very helpful to us in arranging for U.S. news media's access to our astronauts and to their facilities, also in permitting NASA video crews to come to his center to document our astronauts' training, document their facilities. So he played a very key role.

Sergei Gromov, from the RSC Energia, who's the head of their press department, also was very, very helpful. These people all continued to be very helpful to us now in our new working group, to give our news media access to their facilities, to make things happen, because it's very difficult, even within NASA, to coordinate and get your planning in place and to carry out your plans. He has worked very hard within the Russian bureaucracy to make things happen, has been a very valuable participant.

There are several people at the Russian Space Agency: Mr. Yuri Shatalin, who is the director of external relations at the Russian Space Agency, early on he was part of our working group and, again, was very instrumental in making sure that things happened as we discussed. He was very supportive of all of our activities and, again, by work in the Russian Space Agency, had a direct line to Mr. Koptev, the

Director General of the Russian Space Agency, just making sure that things worked. And Mr. Rasumov, who worked for Mr. Shatalin in the press area, was very, very helpful. He has since retired, but in the early days, when forging our relationship, he was very helpful to us. There are a number of people. I know that there are more names I can give, but they were very helpful.

I guess I like to think from my perspective that I tried to keep our working group going, trying to, you know, prepare for all of our meetings, making sure that we had all the issues that we needed to discuss, all the plans, making sure that the public affairs plans were done, just in coordinating within our own organization, because many people contributed within our public affairs working group, as I mentioned, Joe Benton and Paula Cleggett and Mark Hess.

Rod Navias in the Johnson Space Center Public Affairs, who's now the deputy director of public affairs, was instrumental in our working group and with the day-to-day operations on the Mir. Clearly he worked very closely with Mr. Culbertson at the Johnson Space Center, and he did a lot of the planning, worked very closely with Joe on the television. So there are a lot of people from the NASA side that worked very hard to make it all happen. It was just, you know, trying to keep us focused and to keep us moving ahead with our plans, because clearly we all have other things to do besides Shuttle-Mir Program.

We have many responsibilities in public affairs. We don't have the luxury of just being devoted to one program. We have to cover many programs. Certainly Shuttle-Mir took a great deal of our time and attention, and it was a clearly pleasure and one of the highlights of my career to be associated with this program. So it was very nice. We met a lot of people, had a chance to go to Moscow numerous times. got to see the city. The first time you stand in Red Square was something that, as a child, you never would have imagined that you would have been there, but with the political situation changing, obviously we've had a chance. I think it's wonderful that we did, and the program, I think, really was a total success. I was very pleased to be part of it.

*Bergen:* Wonderful. Thank you very much. Thank you for your time.

*Rahn:* You're very welcome.

[End of interview]