

LYNDON B. JOHNSON SPACE CENTER

NEWS CENTER
Houston, Texas

ASTP JOINT CREW PRESS CONFERENCE
April 26, 1974

PARTICIPANTS:

Aleksey Leonov, Soyuz commander
Valeriy Kubasov, Soyuz flight crew engineer
Tom Stafford, Apollo commander
Vance Brand, Apollo command module pilot
Donald Slayton, Apollo docking module pilot
Nicholas Timacheff, Interpreter

PAO Good morning. We're ready to get started. I'll make the introductions. We'll go from my left to right. Even though that will not be proper protocol, it will be easier for you, I think, to identify people. Start with our interpreter, Mr. Nicholas Timacheff; next is the engineer of the Soviet flight crew, Mr. Valeriy Kubasov; next to Mr. Kubasov is the commander of the Soyuz on this mission.

QUERY (Garble)

PAO No; I say next to Mr. Kubasov is the commander, Colonel Cosmonaut Aleksey Leonov. Next is the - our commander, General Tom Stafford; our command module pilot, Vance Brand; and the docking module pilot, Donald Slayton. Before we get started on it, we also have another distinguished cosmonaut in the audience I'd like to introduce, Valeriy Bykovskiy.

QUERY Colonel (garble).

PAO Colonel Bykovskiy flew Vostok 5 in 1963.

PAO General Stafford.

STAFFORD Well, I think we made a significant step here in the progress of the project. ...

SPEAKER Do you want me to translate it?

STAFFORD We have any Russian - -

TRANSLATOR (Russian)

STAFFORD This is the first time that we have worked our procedures together as crews.

TRANSLATOR (Russian)

STAFFORD And it's been very rewarding - the progress we have made in going through the transfer operations.

TRANSLATOR (Russian)

STAFFORD For example, the second day we tried it, we did it in about one-third the time that we did the first day.

TRANSLATOR (Russian)

STAFFORD And I'm sure this progress will continue.

TRANSLATOR (Russian)

STAFFORD So - -

SPEAKER (Russian)

TRANSLATOR The Soviet crew is in Houston for the second time.

SPEAKER (Russian)

TRANSLATOR If the last visit was primarily for the purpose of getting acquainted with the Center and with the program - -

SPEAKER (Russian)

TRANSLATOR - - in that case, I may say that these past 2 weeks we have really worked - -

SPEAKER (Russian)

TRANSLATOR - - along with the crew of the United States.

SPEAKER (Russian)

TRANSLATOR Our task was to complete and finalize the work on the transfer documents.

SPEAKER (Russian)

TRANSLATOR And to work out all the procedure on the four transfers between the spacecraft.

SPEAKER (Russian)

TRANSLATOR And to get acquainted with the spacecraft: Apollo.

SPEAKER (Russian)

TRANSLATOR I was kindly given the possibility to actually operate the simulator in procedure of approach docking and orientation.

SPEAKER (Russian)

TRANSLATOR Engineer Kubasov worked with the sextant.

SPEAKER (Russian)

TRANSLATOR Everything that was given to us to work with we accomplished.

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STAFFORD For example, the second day we tried it, we did it in about one-third the time that we did the first day.

TRANSLATOR (Russian)

STAFFORD And I'm sure this progress will continue.

SPEAKER (Russian)

TRANSLATOR The main thing is that, I think that during the training and transfer we have finally found the kind of language that we will be using.

SPEAKER (Russian)

TRANSLATOR Our work is considerably better when the American crew speaks Russian and our crew speaks English.

(Laughter)

SPEAKER (Russian)

TRANSLATOR This forces us to maintain a considerable amount of discipline - -

SPEAKER (Russian)

TRANSLATOR - - to be attentive to each other, - -

SPEAKER (Russian)

TRANSLATOR - - and to speak much more - much more clearly.

SPEAKER (Russian)

TRANSLATOR I think that this is the course we will take.

SPEAKER (Russian)

TRANSLATOR At any rate, for the time being, we haven't got any other proposition from either one side or the other.

SPEAKER Okay, we're ready for your questions now. Bruce B. B.

QUERY Yes, for - I guess Tom or anybody on the U.S. crew. what about the - your language so far? How are you handling the Russian? And are you getting to the point where you are having any problems, or are you over that and been able to converse - able to get through all these transfers?

TRANSLATOR (Russian)

STAFFORD (Russian)

TRANSLATOR General Stafford said that they understand that Mr. Leonov said - Mr. Leonov said we've no problem in language. We know each other very much.

(Applause)

QUERY I have a question for the Russian crew.

TRANSLATOR (Russian)

QUERY Why has the planned orbit of ASTP been - of the Soyuz been shifted from 51.6 degrees to 51.8? Up until this time, until Cosmo 638, it had been 51.6.

TRANSLATOR Would you please repeat that so it will be possible to interpret?

QUERY Yes. Why has the planned orbit - -

TRANSLATOR Why was what?

SPEAKER Why has the planned orbit - -

TRANSLATOR (Russian)

QUERY - - of the Soviet space ship in the ASTP launch - -

TRANSLATOR (Russian)

QUERY - - been shifted from - -

TRANSLATOR (Russian)

QUERY - - 51.6 degrees - -

TRANSLATOR (Russian)

QUERY - - to 51.8?

(Laughter)

SPEAKER (Russian)

SPEAKER (Russian)

TRANSLATOR Why this kind of a change has been made in the inclination of the spacecraft, really is something that we don't even know about.

SPEAKER It doesn't matter for us.

SPEAKER (Russian)

TRANSLATOR It is such a small change that we have not even been told about it.

SPEAKER (Russian)

TRANSLATOR In order to get an answer to this question, you should discuss this with our engineers, with our specialists on trajectory, and they will be able to give you an answer.

SPEAKER (Russian)

TRANSLATOR Now, they have some sort of consideration for that, but I can probably give you an explanation as to why we decide on 51.6 degrees instead of 52 degrees.

SPEAKER (Russian)

TRANSLATOR One of the reasons is that our launch-site is located approximately in the center of the Soviet Union.

SPEAKER (Russian)

TRANSLATOR And that most of the flight - the initial flight is over an area which is land and a populated area.

SPEAKER (Russian)

TRANSLATOR And as it is well known, the first stage and the second stage do not go into orbit.

SPEAKER (Russian)

TRANSLATOR These - the boosters fall back on the ground.

SPEAKER (Russian)

TRANSLATOR And every time that there is a new flight planned - -

SPEAKER (Russian)

TRANSLATOR - - it has to be worked out in a manner that these first stages do not fall on to any kind of a populated area.

SPEAKER (Russian)

TRANSLATOR This can be achieved by exactly what you're talking about - changing the angle of inclination to a certain degree in each case.

SPEAKER (Russian)

TRANSLATOR And apparently this was exactly the case for this flight.

QUERY I had thought perhaps it might mean a change of the launching sites, particularly since all the previous shots had been 51.6 until Cosmo 638.

TRANSLATOR (Russian) 600 what?

SPEAKER 38.

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR No. The launching site was not changed.

SPEAKER Jim Maroney.

QUERY One of this country's foremost aerospace magazines recently described Soyuz spacecraft as little more than an unmanned spacecraft and compared it with the Mercury, this country's first generation manned spacecraft. Would one of the cosmonauts comment on this?

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR It is very difficult for me to praise my wares.

SPEAKER (Russian)

TRANSLATOR And I would not like to listen too carefully to the commentaries - -

SPEAKER (Russian)

TRANSLATOR - - because I'm not really quite sure about the competence of the news media to answer that question.

SPEAKER (Russian)

TRANSLATOR At this table we have real specialists - -

SPEAKER (Russian)

TRANSLATOR - - who have seen the real ship Soyuz, have worked on it, and are intending to work with it. I think the best suited - -

SPEAKER (Russian)

TRANSLATOR - - the best suited to give an answer for that would be either General Stafford, Vance Brand, Deke Slayton.

SPEAKER Let me just add on something to what's been said. It's my impression that they have an excellent spacecraft for Earth orbit, which is what it was designed for.

TRANSLATOR (Russian)

SPEAKER And our spacecraft in many ways is - has greater complexity in some systems because that complexity was required to go to the Moon.

TRANSLATOR (Russian)

SPEAKER So I think that's in a nutshell way - that's the answer. For example, in our computer we had to have programs for navigation between here and the Moon. You simply don't - you don't need that sort of complexity in an Earth orbital vehicle.

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR The spacecraft Soyuz is intended for orbital flight.

SPEAKER (Russian)

TRANSLATOR For docking with a similar ship, spacecraft, or with a spacelab - -

SPEAKER (Russian)

TRANSLATOR - - and the ship's response to these requirements in a beautiful manner.

SPEAKER (Russian)

TRANSLATOR The Soviet and American specialists will be fully acquainted with the systems of the ship.

SPEAKER (Russian)

TRANSLATOR They will find advantages and disadvantages of both ships.

SPEAKER (Russian)

TRANSLATOR And I'm sure, as a result, we will find even better solutions and - -

SPEAKER (Russian)

TRANSLATOR - - Which has to be one of the results of our cooperation.

SPEAKER I am sure.

(Laughter)

QUERY I've been told by someone very close to this program that it would be impossible for the Soyuz to dock with the Apollo in this mission. Is that true or not?

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR I would suggest that the person who told you that would come up and tell his story right now.

SPEAKER (Russian)

TRANSLATOR We would like to talk to him.

(Laughter)

STAFFORD I think, Jim, just to clarify that, we do, in fact, in the flight plan today, have a Soyuz active docking plan with the Soyuz side of the docking system active instead of passive.

TRANSLATOR (Russian)

STAFFORD Now, whether they have an active control system or not, to accomplish it, that we haven't worked out the details on, I don't think. But we do definitely plan on having their docking system be the active system.

TRANSLATOR (Russian)

SPEAKER Arthur Hill.

QUERY Colonel Stafford, you mentioned - pardon me General Stafford. Sorry. (Laughter) You mentioned cutting down the transfer time to one-third, but you didn't give us a base time for how long it took you the first time.

TRANSLATOR (Russian)

STAFFORD The first time we started through this we just - was to understand each other on the steps, you know, as we go through. And from that, we worked out some other procedures, you know, verbally. And the first time we just on - overran us nearly an hour and a half. And by the second day, we could go through it (Russian), you know, 3 set minute - 30 minutes.

TRANSLATOR (Russian)

STAFFORD I think we should again, though, make sure everybody understands what that means. It doesn't mean that we've developed that great proficiency in transfer. We developed a greater proficiency in transmitting information in the language.

TRANSLATOR (Russian)

STAFFORD To learn exactly what each other crew is doing at that time and understand it and when we've completed each step -

TRANSLATOR (Russian)

QUERY Just to make sure that there is complete understanding, you're talking about in the actual flight doing one transfer in approximately 30 minutes time, is that correct?

TRANSLATOR (Russian)

STAFFORD The one thing that we did not simulate was the total length of time it would take us, say, vent down pressure. You know, we'd just say - we'd bypass that step because we'd wait. In real time, once we make our thermal vacuum chamber test this summer, we'll have a better feeling for that.

TRANSLATOR (Russian)

QUERY Okay. Maybe you could give me an estimate. But I want to - to part a little bit from the technical aspect in - I would like to ask the cosmonaut what social activities, such as going to the baseball game and so forth, they might have done on the trip and what

their reaction to some of these activities was. And also, there's been some difficulty along this line in the past, as I understand, it is perhaps traditional to drink Vodka toast when certain great occasions occur and I'm wondering if there is a possibility of this happening on the flight, on the occasion of the first international transfer.

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR Maybe it's a secret.

SPEAKER (Russian)

TRANSLATOR We have an extremely full schedule of joint tests.

SPEAKER (Russian)

TRANSLATOR And during these joint experiments we will have very little time.

SPEAKER (Russian)

TRANSLATOR But I am sure that we will find some time to just simply, like - to socialize a little.

SPEAKER (Russian)

TRANSLATOR How it's going to look, we do not know at this point, because everybody wants to surprise the other.

SPEAKER (Russian)

TRANSLATOR The main thing is that all of this type of socializing is going to have a very important element of respect toward each other.

SPEAKER (Russian)

TRANSLATOR I would like to add a few words to that.

SPEAKER (Russian)

TRANSLATOR I would like to say that our stay over here has not only been extremely good, from the point of view of the training, the simulator activity, and various other technical occupations that we have had - -

SPEAKER (Russian)

TRANSLATOR But our stay has been extremely pleasant over here and I hope just as pleasant for our friends, the American astronauts.

SPEAKER (Russian)

TRANSLATOR In fact, we did have several evenings and dinners at their houses.

SPEAKER (Russian)

TRANSLATOR And I would like to divulge a secret to you that those who are putting together a flight plan - -

SPEAKER (Russian)

TRANSLATOR - - they have planned for us joint dinners during the flight.

SPEAKER (Russian)

TRANSLATOR These meals will take place both on Soviet spacecraft as well as on the American spacecraft.

SPEAKER (Russian)

TRANSLATOR And I am quite sure that these joint meals will take place in an atmosphere which will be even warmer than that which pervaded the meals we had here on Earth.

QUERY But that means that somebody will have to stay behind and mind the store. What the poor astronaut or cosmonaut who doesn't get to eat the joint meal? You'll have to draw lots for that?

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR No.

SPEAKER (Russian)

TRANSLATOR We'll just divide up into groups.

SPEAKER (Russian)

TRANSLATOR One group will be on the Apollo, the other one on Soyuz and there will be communications via television.

SPEAKER (Russian)

TRANSLATOR And after that we will exchange.

SPEAKER (Russian)

TRANSLATOR So each astronaut and cosmonaut will visit each other's ship.

QUERY I'd like to ask Commander Leonov - I understand that - well, there has been a report that the Soviet Union has decided now to forego any immediate future plans for landing on the Moon. What are the plans along this line?

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR We have a definite program of research - Moon research - lunar research. It has been announced and we have a Moon rover, automatic on the Moon. The research program is all taken care of by spacecraft with automatic controls which allow it to land on the Moon, to gather materials and rocks and dirt from the Moon and return. And for the time being, this type of program is going to continue. What will follow, we will have to see. We, of course, congratulate our American colleagues for having completed successfully the Apollo Program. We considered that as an outstanding achievement. And we know that General Stafford has taken a very active part in the flights on the Moon and the research conducted.

QUERY For the Soviet crew -

TRANSLATOR (Russian)

QUERY Do you know if there will be any manned test flights?

TRANSLATOR (Russian)

HICKS For the Soviet crew. Do you know if there will be any manned test flights of the extensive Soyuz modified equipment, such as - -

TRANSLATOR (Russian)

HICKS - - such as the new solar panels, the new docking probe, and the radio gear, for example?

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR I can answer that question. The Soviet side has already announced that before the Apollo/Soyuz flight - -

SPEAKER (Russian)

TRANSLATOR - - that it was intended to have one manned flight of the Soyuz to test out all of the systems in as much as several new developments have been integrated in that spacecraft.

SPEAKER (Russian)

TRANSLATOR The atmosphere has - was changed in the Soyuz, and we had a new docking system installed.

SPEAKER (Russian)

TRANSLATOR So therefore, before the flight of the Apollo/Soyuz in 1975, there is going to be a manned flight of the Soyuz to test out all of these new systems.

PAO Bruce.

HICKS Yes, for - I guess - any of our guys. How many transfers are currently in the flight plan, and what specific kind of things other than dinners will you conduct during those transfers?

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR We have a very definitely established program of space experiments.

SPEAKER (Russian)

TRANSLATOR We shall accomplish five of these experiments during the visits to each other's ship.

SPEAKER (Russian)

TRANSLATOR These experiments will be conducted in Soyuz as well as in the Apollo.

SPEAKER (Russian)

TRANSLATOR I can give you the names of these experiments, if you wish; our specialist can tell but - One of the joint experiments is going to be - will be as a artificial solar eclipse; - -

SPEAKER (Russian)

TRANSLATOR - - the second one will be an experiment on the multipurpose furnace.

SPEAKER (Russian)

TRANSLATOR It has to do with the welding of metals in space.

SPEAKER (Russian)

TRANSLATOR And actually, I'm personally very happy that this experiment is going to be conducted in as much as - one of the first time that I flew in space, I had to do quite a bit of welding myself.

SPEAKER (Russian)

TRANSLATOR I am the first one who has conducted welding activity in space, and I will be extremely happy to take part in this type of an experiment myself.

SPEAKER (Russian)

TRANSLATOR On top of that, there are several physical and biological experiments that will take place, and I think that Vance Brand can give you an idea of that.

BRAND Well, there is another physics-type experiment. For example - -

TRANSLATOR (Russian)

BRAND - - which is an attempt to determine how many nitrogen and oxygen molecules there are in space at that altitude - -

TRANSLATOR (Russian)

BRAND - - between - between spacecraft that are flying fairly close together. And, of course, then there'll be a biological analysis of both spacecraft to determine - Yes, to determine how germs, et cetera transfer between spacecraft - -

TRANSLATOR (Russian)

BRAND - - and to find out eventually if a germ that was launched at Cape Kennedy ends up landing at Kazakhstan. So those are other examples, and I think we're working right now on a lot of other things to do during our job periods which we're not ready to announce yet because we're just talking about them in concept.

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR All of this will take place in the course of the four transfers; however, we did not mention the most important experiment.

SPEAKER (Russian)

TRANSLATOR The most important experiment is to find each other in space and to dock and to transfer to see each other - -

SPEAKER (Russian)

TRANSLATOR - - to - to resolve the problems of - affecting operations in helping each other in space. This is the most important task and the most important experiment.

PAO Paul Reaser.

REASER To what level of competency will y'all cross-train on each other's vehicles? That is, what activities will you be able to perform in the other vehicles?

TRANSLATOR (Russian)

SLAYTON Paul, we don't really need to develop the high level of proficiency in either person's vehicle.

TRANSLATOR (Russian)

SLAYTON If you look at the worst emergency that could happen, that would be one where you lost your airlock capability between the two vehicles, which would mean that we'd have a mixed crew returning to Earth.

TRANSLATOR (Russian)

SLAYTON For that case, of course, we need to understand what's involved in reentering in the Soyuz as they need to understand what's involved in reentering in the Apollo.

TRANSLATOR (Russian)

SLAYTON But in all cases, there would be a member of the crew that launched with that vehicle on board. Therefore, I see no requirement for the other crew to have a high level of proficiency in reentering.

TRANSLATOR (Russian)

QUERY The Soyuz crew is imminently returning to the Soviet Union. When and where will the next combined Apollo crew and Soyuz crew train, and when will that training occur?

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR The next training session - joint training session of the crews will take place in the Soviet Union from the 23rd of June until the 15th of July.

SPEAKER (Russian)

TRANSLATOR At the same time in September, the Soviet crew will be training here in Houston again with the American crews. Up to this time, we have agreed completely on joint visits and actually until the end of our program.

SPEAKER (Russian)

TRANSLATOR In 1975, there is going to be another joint session. The Soviet crew is going to be in Houston at the end of February and the beginning of March, where we will have an opportunity to see Cape Canaveral.

SPEAKER (Russian)

TRANSLATOR And during the stay of the American crews in Moscow, in April and May of 1975, they will be given equally the possibility to see the launch site at Baykanur. Actually, we have a schedule all prepared week by week until the actual launch time.

SPEAKER (Russian)

TRANSLATOR Deke Slayton is perfectly correct. We really don't need to know the systems of the launch ships - for us, of the Apollo, and for them, that of the Soyuz. However, we must know the systems - those parts of the systems with which we will be working - not only in a nominal situation, but all of the contingency situations which may occur.

PAO

The gentleman from the Houston news service.

QUERY We've heard Tom's Russian; I wonder if we could hear from Vance and Deke.

TRANSLATOR (Russian)

BRAND (Russian)

TRANSLATOR He said if you want, he can't speak Russian - only just a little. He said, I'm sure in 1 year, he will speak very well.

SPEAKER Thank you.

TRANSLATOR Don't mention it.

SPEAKER As you can see, he is doing very well.

SLAYTON (Russian)

TRANSLATOR Deke Slayton said that he speaks English very well.

SLAYTON No, I said I speak it very poorly and that's why I'll practice that a while longer before I work my Russian.

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR I want to say that during our work on the simulators, during the transfer operations, it was actually yesterday, Deke Slayton performed all the necessary operations in Russian.

SPEAKER (Russian)

TRANSLATOR As far as I'm concerned, there was not a single word or a single point that was not clear to me. And I'm sure that in the future training sessions, we will achieve an increasing amount of mutual understanding, linguistically.

QUERY To the Soviet crew. Is it true that you are using mental telepathy as a possible means of space communication, and if so, what progress have you found with that means?

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR I would like to very much.

(Laughter)

REASER You said you were practicing a Soyuz active rendezvous.
Does this mean that the Soyuz is capable of producing an onboard solution
to rendezvous?

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR Let's not confuse rendezvous with docking. I said an
active docking system.

SPEAKER (Russian)

TRANSLATOR And that also may not include an active control system
to accomplish the docking, but it also may.

QUERY I'm very curious about one thing. The American space
program has become somewhat famous for its alphabet soup of terms that
the astronauts use in shortening their abbreviations in radio communica-
tions. Does the Soviet crew have a similar alphabet soup, and how are
they adapting vice versa with each other's systems?

TRANSLATOR (Russian)

STAFFORD Well, let me take a cut at that. We've got the old ...
and a few little things like that that are a little difficult to pronounce
in Russian.

TRANSLATOR (Russian)

STAFFORD Gasses, for example carbon dioxide, I guess in Russian
is also CO₂, which is easier than ... gas. I probably pronounced that
wrong.

TRANSLATOR (Russian)

STAFFORD But I think both crews have been making a conscious
effort to fill in the words that go with the alphabet soup up to this
point, primarily because we think it's good for our language training.

TRANSLATOR (Russian)

BRAND As an added point there though, we had a joint meeting
this week where we talked about phrases and how they're said in Russian
and how they're said in English. And all the time we were saying, "well,
can't we really say it simpler this way?", and they were saying the same
thing.

TRANSLATOR (Russian)

BRAND I think in either language, when you attempt to translate some of the space terms we have, it can come out in phrases a foot long. And so I think there'll be an attempt as we go along to - in our own ways to simplify terms in both languages - Well, that's it.

SPEAKER (Russian)

TRANSLATOR We have started our work, actually, from having discussed all of the questions concerned - concerning the terminology and the phrases that would be used, and every crewmember had an opportunity to give his opinion.

SPEAKER (Russian)

TRANSLATOR And we found the type of phrases and sentences which would be the easiest and the simplest for each one of the members of the crew. And at the same time, these sentences will give us the exact meaning or the exact information which is needed.

SPEAKER (Russian)

TRANSLATOR We now have this kind of a dictionary, and it is not going to be changed any longer with the exception of possibly adding some sentences which will permit us to accomplish our work in an easy manner.

BARRERA I know we've been talking about language for a long time, but I want to go back to the beginning and ask both crews: Will this be the most serious problem, aside from the normal technical difficulties that everybody expects you to encounter?

STAFFORD (Russian) All right.

TRANSLATOR He said that we are sure that language is no problem.

MS (Garble)

BRAND It may be for the ground hearing us, but not for us.

TRANSLATOR (Russian)

BARRERA If language is no problem and you will have that ironed out completely by the time you get up there, what will be the most serious problem?

SPEAKER (Russian)

STAFFORD If we do our homework right, we should not have any problems.

TRANSLATOR (Russian)

BRAND That's exactly right. Our biggest problem is going to be the one we don't know anything about today.

TRANSLATOR (Russian)

BRAND I was only joking about the ground. What I meant was the - was that we have a tendency to come up with a mixed language if we're not careful, Russian and English, and so we have to be careful to stay in one language at a time.

TRANSLATOR (Russian)

QUERY I believe it was Colonel Leonov who wrote a paper some years ago about the advantages of parachute jumping before a space flight.

TRANSLATOR (Russian)

QUERY Does the Soviet space program still lay that kind of emphasis on the frequency of parachute jumps before a space flight for preparation?

TRANSLATOR (Russian)

SPEAKER (Russian)

TRANSLATOR There is a history behind all of that. Before a flight, a cosmonaut from Vostok - For landing; oh, that's right.

SPEAKER (Russian)

TRANSLATOR So what happened was that the pilot of the spacecraft was catapulted, and he - in the training - and he would be landing separately from the spacecraft. Well, Mr. Bykovskiy has done that. So in order to be able to accomplish all that correctly, the cosmonauts had to be trained for that.

SPEAKER (Russian)

TRANSLATOR After that, we had the advent of spacecraft such as Soyuz and Vostok in which the actual landing was done in the capsule. However, we are still retaining in the cosmonaut training a certain portion which would involve the parachuting.

SPEAKER (Russian)

TRANSLATOR Actually, I am an instructor of the cosmonauts on various types of parachute jumping. We consider that in the training of cosmonaut, parachute jumping gives a lot. As a rule, these parachute jumps are made with considerable delay, 1 minute or 2 minutes of free fall.

SPEAKER (Russian)

TRANSLATOR During the delay, the cosmonauts actually do the kind of work that is planned in advance. They're making turns, loops, approaches, and separations - actually, a certain form of piloting. This, actually, we consider that a certain amount of will power is developed and activity in difficult or contingency situations.

SPEAKER (Russian)

TRANSLATOR But really do not consider that as a basic or initial or important - most important program because there are also other probabilities such as trauma, although, of course, we haven't had cases such as that.

PAO Photographs of the crews, some of their activities, are available now in room 187, the still-photo library. We'll have to end this conference now. Thank you very much.

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COMMUNIQUE ON RESULTS OF APOLLO-SOYUZ

TEST PROJECT MEETINGS

April 8 - May 3, 1974

A meeting of Apollo-Soyuz Test Project specialists of the U.S.S.R. and the National Aeronautics and Space Administration was held at the Lyndon B. Johnson Space Center, Houston, Texas, U.S.A., April 8 - May 3, 1974.

The purpose of the meeting was to continue technical discussions and planning for the joint flight of Apollo and Soyuz spacecraft to test compatible systems for rendezvous and docking of manned spacecraft and stations of the future.

The project technical directors, the prime flight crews, and all five of the working groups took part in the discussions. Working groups are assigned to the areas of mission planning, control and guidance, mechanical design, communications and tracking, life support and crew transfer.

The technical directors, Prof. Konstatin D. Bushuyev for the U.S.S.R. and Dr. Glynn S. Lunney for the U.S., have scheduled the next major meeting in September 1974, in Moscow.

Joint flight crew training will be conducted in the U.S.S.R. June 23 - July 15, 1974, and in the U.S.A. September 9 - 30, 1974.

An agreement was reached on the dates for visiting the respective launch sites by specialists and members of the flight crews for familiarization with the flight spacecraft and to conduct the tests of compatible equipment. The visit to the U.S. launch site will take place in February, 1975 and the visit to the U.S.S.R. launch site will take place in May, 1975.

Results of the Apollo docking module and Soyuz life support systems tests conducted earlier in 1974 were reviewed. A joint document which confirms the compatibility of the two systems will be prepared.

Safety assessment reports on control systems and on spacecraft manufacturing rest and checkout were reviewed and approved.

The schedules for each of the five joint experiments were approved. The experiments are: Ultraviolet Absorption, Biological Interaction, Microbial Exchange, Multipurpose Furnace, and Artificial Solar Eclipse.

The two sides reached agreement on the basic approach and content of the Joint Flight Readiness Review which will be held in May 1975.

Discussion of long term requirements for compatible rendezvous

and docking systems will be resumed at the meeting in September.

During the current meeting, the heads of the delegations visited the U.S. communication system compatibility test laboratory, the life support system breadboard test facility and the thermal vacuum test facility.

The technical directors reported that good progress is being made, and the project is on schedule for the July, 1975 launch.

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