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NEWS CONFERENCE

ON

US/USSR RENDEZVOUS AND DOCKING AGREEMENT

*at NASA Hq.
(acc. to off. of Adm.
Admin for Pub. Affairs,
John Kennedy)
CJB, 6/24/72*

PARTICIPANTS:

Dr. James C. Fletcher, Administrator

Mr. Dale Myers, Assistant Administrator-Manned Space Flight

**Dr. Glynn S. Lunney, Special Assistant to the Apollo Program
Manager**

DONNELLY: Good afternoon, ladies and gentlemen. Welcome to part two of the press conference. We have this piped two ways to several of our centers. There will be a question and answer session after a brief opening statement by Dr. Fletcher, Administrator of NASA, by Dale Myers, in charge of the Office of Manned Space Flight. And Mr. Glynn Lunney who is the project manager for the US/USSR test mission will also be available to answer your questions.

Dr. Fletcher?

FLETCHER: Thank you, John.

As you know, the President has signed today with Chairman Kosygin an agreement on space cooperation which is by far the most extensive space cooperation agreement that has ever been written between this country and the Soviet Union.

In addition to its broad coverage of nearly all of our space programs in the two countries, it specifically makes reference in one of the articles to the agreement to conduct a docking operation between the Apollo Command & Service module and the Soviet Soyuz spacecraft.

This is not the culmination but a very major milestone in the long period of negotiations with the Soviet Union on space cooperation. And in my judgment this is at least one of the most important missions that NASA has and that is to promote international cooperation. I do not know of another more visible way that two countries who are the leaders in the space program can be shown to cooperate on a very complex endeavor like this docking mission.

I think that most of the engineering and operational difficulties can be worked out. We have had quite a large number of meetings between the two sides. And I think we have ironed out most of the broad problems, although the real work is yet to come. I think perhaps it is important also to note in passing that we think this is an important part of the new program of NASA for the 70's.

As you know, we have committed to maintaining a more or less constant budget during the period of the 70's without large expensive programs other than the one we have already described. This docking mission can be done in the context of that constant budget.

This constant budget, however, and the programs that are now planned, the Skylab, the shuttle and now the international rendezvous and docking mission show I think the kind of program that we envision for the rest of this decade. We seem to have great support in Congress, as noticed by the votes on the shuttle and on the space program generally. And this program I think is supported at least partially because of the strong international flavor that NASA has in manned space.

I think an indication of the popularity of the Skylab and the shuttle comes from the kind of a vote we had in the Senate and the House yesterday and has, I think, broad implications for a long period of peaceful cooperation in space.

Now that is all I have to say. Mr. Myers has a few slides he would like to show at this time and then we will open it for discussion.

MYERS: I just want to take this opportunity to review the objectives of the program and go give you a few VuGraphs of the hardware that is involved. May I have the first slide.

(Slide.)

The objectives of the Apollo-Soyuz test mission is to test the technical requirements and solutions for a compatible system with the following sort of sub-objectives involved in the program.

The first is to test the compatible rendezvous system in orbit. These are, by the way, the joint objectives worked out with the working groups that have had these several meetings with the Soviet Union.

The second one is to test the androgynous docking assembly. Androgynous is a system which is identical on both sides so that we have the opportunity to test by the docking of a system that would allow us to dock any space vehicle to

any other space vehicle in the future.

The third is to verify the techniques of transfer of astronauts and cosmonauts and then to perform the activities of the US and USSR crews in docked flight in accordance with a program yet to be determined.

This is the experimental program we would expect to carry out during the time period while we are docked with the Soyuz and for the period of time after we are docked with the Soyuz. This is probably a series of relatively simple experiments we would carry on during the program.

And, finally, gain experience in conducting joint flights by US and USSR spacecraft including rendering aid in emergency situations. This is a rescue capability that we think certainly is a very important part of future activities and in essence doubles the rescue availability for the two nations and does give us that opportunity.

And I think a sixth and unwritten part of this is the opportunity, as Dr. Fletcher said, for the two countries to work together at an engineering level in a broad-based technical high systems engineering kind of program that can lead first to this final climax of that operation being a test of the androgynous docking system of the Soyuz CSM and then give us there the base from which we can work on into other cooperative space activities.

(Slide.)

Here is a very simplified view of this thing. The Soyuz is 24 feet long. The docking module is about 10 feet. And the command and service module is about 32 feet long.

(Slide.)

The operation involves the Saturn 1B which we will have had as an active part of our program with the Skylab activity down at the Cape. The spacecraft LM adaptor we call it, the SLA, into which we mount the docking module itself and then the command & service module.

After orbit insertion we dock with the Soyuz, operate for probably up to two days in that activity and then detach and run the experiment mission phase of the

program and then the normal recovery with parachutes.

(Slide.)

Here's a picture of the command and service module with the docking adaptor mounted in the spacecraft LM adaptor in the same position where the lunar module is normally mounted for launch with that system.

(Slide)

A picture of the docking module itself. In the design and studies that we have had this is about five feet across, about 10 feet long and has external mounted lift support tanks. And here is the androgynous docking system.

The next slide I think shows it better and shows some of what is going on in these activities that the docking module teams are working on. This happens to be a picture where each of the elements is listed in English with the Russian equivalent under it. And this is the androgynous system.

These two elements are identical, one mounted on the front of the Soyuz and one mounted on the front of the docking module itself.

In docking, these three elements interleave and are used as guides to bring us down to where we do a soft latch and finally the hard lock we need for pressure seal.

DONNELLY: Thank you, Dale. We will have copies of Mr. Myers slides at the rear of the room by the time you are ready to leave.

We will take your questions now. After we take questions here we will cut to the centers.

QUESTION: Dr. Fletcher, in the handout that was passed out over at the other place, paragraph four says, "The project will have an impact on domestic jobs, stabilizing many that might otherwise be jeopardized."

How many is many?

FLETCHER: How many people within --

QUESTION: How many people will stay on that would probably have been let go?

FLETCHER: I do not think we have quantified that. We could make an estimate. It would be one or two thousand, that type of thing.

QUESTION: Will these be industry people or NASA and industry?

FLETCHER: These would be NASA and support contractors at the various manned space centers.

QUESTION: And most of the new 4400 jobs will be industry?

FLETCHER: Industry.

QUESTION: Before I lose the mike, could I ask one about rescue. Could somebody go into how this doubles the rescue capability. I realize it puts two countries in the rescue business, but don't you need something standing by on the launch pad to have a rescue capability?

MYERS: We, of course, with the shuttle are going to have a pretty fast response capability with the shuttle. The shuttle will have this androgynous docking system and will have a capability that is much more responsive than we have been able to mount in this country in the past. So our country gets into that mode of being able to rescue either our own astronauts. Or in the case of their having the same kind of androgynous system, we could rescue the Russian cosmonauts.

Their system would be able to come to ours. I realize I am very much oversimplifying when I talk about doubling capability, but it gives both countries the opportunity to aid and rescue.

QUESTION: They won't have a shuttle?

MYERS: No.

QUESTION: What is their turnaround time? Is it about the same as ours without the shuttle?

MYERS: We don't know that. I just don't know what their response time is.

QUESTION: Dr. Fletcher shook his head.

FLETCHER: We don't know.

QUESTION: Dr. Fletcher, earlier at the other press conference you mentioned, and another gentleman mentioned, that after the undocking of the two space vehicles, the United States space vehicle would stay up in the present plan for 10 days or so to conduct further research projects.

FLETCHER: As much as 10 days.

QUESTION: What would the Russian vehicle do?

FLETCHER: We don't know what they plan to do, nor do we know what their capabilities are. We have not discussed other aspects of the flight, other than just the rendezvous and docking part which is what is required to do it well. We both have to understand each other's problems there. What we do after we finish the docking, I think we may discuss it. But it is not an essential aspect.

QUESTION: But that has not been worked out at the present time I gather.

FLETCHER: Go ahead, Glynn.

LUNNEY: The point is that we are not going to try to work out what either country does after the docking phase of the mission is over in the sense that each country might have some scientific experiments which we would then continue to exercise. The exact number that we would have and what they would be is undetermined at this time, so we ourselves do not know precisely what our flight program would be subsequent to the docking activities.

But one thing we do know about the Soviet Soyuz that is intended to be used is that it has a lifetime on the order of five days, a normal lifetime of five days. That happens to be the configuration they will want to fly which already fairly limits the amount of time they have available for any activity. But what that will be we have not discussed, nor is it especially pertinent to the problem

we are trying to tackle right here.

QUESTION: Has the American crew that is going to fly this been chosen, please?

FLETCHER: No, the crew has not been chosen. It will be sometime before it is chosen, I suspect. It may be several months.

QUESTION: Is there any particular reason then that some of them are studying Russian.

FLETCHER: I guess they all want to be chosen.

QUESTION: As far as we know only three of them are.

FLETCHER: I think that is an oversimplification. I do not think we can say firmly how many people have been studying Russian. All we can say is that there are a number of people who have studied Russian. There are some who are now studying Russian and some others that hope to study Russian and that it includes a fair percentage of the astronaut corps.

QUESTION: Glynn, if I understood you all right at the previous briefing you said there would not be simulators as such. How will the training be carried on. Will you ship them video tapes of an Apollo and we will get something from the Russians? Or how will you do the simulations as per Apollo, for example.

LUNNEY: It is possible, but I am not exactly sure what you mean. But we would intend to first define the kind of things we feel our astronauts ought to be trained for in the use of Soviet equipment. Once that is defined, we would proceed to make arrangements such that our men could go to the Soviet Union and be trained on whatever existing and appropriate facilities would be available in that country for such training.

Now the kind of training we would be doing would be not entirely new and unique things, but they would be more standard things that the Soviet cosmonauts also would have to train for. In that sense we expect we would be using normal training facilities of theirs.

Likewise, with a visit of a Soviet cosmonaut or two back through the docking module, as good hosts we would invite them over and plan to brief them on and train them in the using of the docking module systems and make them familiar with the command module.

QUESTION: You envision a rather free exchange of crew then during this training period?

LUNNEY: Yes.

QUESTION: Question for Dale Myers. Are we going to use this new-fangled hermaphroditic docking system on both ends of the docking module, or are we going to stick with the old-fashioned sexist system for our end?

MYERS: We will stay chauvinistic on our end.

(Laughter.)

Actually that is so we can use the docking equipment that is presently built on the frontend of the command module and we just use the LM docking drogue for one end of the docking module. Then we mount our androgynous system, or unisex, or whatever, on the other again. And they mount an identical androgynous system on the frontend of the Soyuz. That way we get our transfer as far as pressure is concerned and then give ourselves the set up for the experiment on the far end.

QUESTION: A couple of questions for Glynn:

Number one, how will ground control for this flight be handled? Will you have two control centers trying to fly, and how much overlap and interchange will there be?

The other question, in answer to questions I asked -- maybe I misunderstood back over at the other briefing, but my understanding there was that the crews would be cross-trained enough that American astronauts could fly the Soyuz if necessary and vice versa; is that not the way it would be?

LUNNEY: That is correct. That is, we do not plan to train one countryman to completely be able to fly the spacecraft of the other country. We would not, for

example, expect to train Soviet cosmonauts on how to launch and land our CSM's and vice versa.

On the first question which you may not have all heard because of the mike, the question was: What do we intend to do about the control centers and how they work together.

Well, at this stage, as you would expect, there are a number of things to be worked out. But we do have some general kind of agreement on how that would work. We have agreed each country would operate and control its own spacecraft from the control center in the fashion they had worked out. We have agreed there would be preplanned exchanges of information between the two control centers and between the spacecraft.

We have also agreed we would operate on the basis of trying to preplan contingency or abnormal activities as far as possible so that if we had anything go out of the ordinary, like we sometimes do, we would be working, as we do on our program, drop back to established procedures that we have tried either on simulators or in some other fashion. So the control centers would operate relatively unilaterally with their own spacecraft.

However, they would have to in all cases keep the other side informed when they were doing anything which would affect, for example, the time of rendezvous, the time of docking or whether we would have to delay a particular activity. These are the kind of things which would affect our common activity. And they would be communicated and discussed, but the regular operation of the vehicle would proceed about as we know it today.

QUESTION: What about tracking?

LUNNEY: Again, relative to tracking and telemetry, we would expect to use the tracking that we have, the tracking network that we have. We do not intend to modify our stations to receive tracking or TM from the Russian spacecraft. Now we probably will at some stations be able to hear voice.

QUESTION: Do you plan any joint recovery activities in spite of the difference in techniques used?

LUNNEY: No, we have not planned anything like that.

Let me say this again, since it has come up a number of times. The entire context in which this is being conducted is one of trying to define for the future the kind of systems we will use to rendezvous and dock in space, the primary purpose being rescue and the secondary purpose then which would naturally accrue would be one of conducting planned joint cooperative exercises we have agreed upon ahead of time. So in that context we are focusing our attention on the systems required to allow us to rendezvous and dock. And we are deliberately trying to avoid extraneous or no-end-in-sight discussions on everything else we might do.

QUESTION: Glynn, I assume that the Russian communication center will be at Baikonur. Obviously, our is MSC. But it is Baikonur.

LUNNEY: I don't know.

QUESTION: Jon Spivak with the Wall Street Journal. Dr. Fletcher, what happened to the idea of using the Salyut in this exercise?

FLETCHER: That is a long story. But I will see if I can do it quickly. When we first started out no particular vehicles were decided upon. All we were trying to do was set specifications for a rendezvous and docking for any such vehicles we might decide to use. That was back in October of 1970.

Then in about January, 1971, George Low suggested to Academician Keldysh that we do just what we are now doing, that we try to dock an Apollo CSM with a Soyuz spacecraft. And no mention was made of Salyut because at that time there was no Salyut.

Then in a later meeting down in Houston after the Salyut was placed in orbit and things seemed to be going reasonably well the Soviets then proposed the possibility of rendezvousing first one of our Apollos with their Salyut and then even suggested that perhaps some day one of their Soyuz could rendezvous with one our Skylabs as a kind of symmetrical arrangement. But we only had one Skylab, so we could not comply with the second part. But that was kind of foremost in our minds until quite recently when we began to look -- we both -- the Soviets particularly and ourselves began to look at the technical problems involved in modifying the Salyut to carry out the rendezvous and docking mission. It turned out to be too complicated for a first try and our folks, Glynn, and George Low particularly,

agreed it was too complicated and decided back on the original proposal which was a Soyuz with a CSM.

QUESTION: Glynn Lunney, could you go over again, how hard is this two man each spacecraft and what are the possibilities of three flying at each end. Can you go over the exchange as to how many times we will exchange. And isn't it a mission rule that one man has to be in the CSM at all times. And I suppose the Russians have the same rule.

LUNNEY: Today the Soviets have indicated they would fly two cosmonauts. Today we have not yet made up our mind whether we will fly two or three. The decision depends upon detailed timelining of the activities so that we can determine if there are any obvious advantages or disadvantages to having three or whether we would prefer two. And secondly some better understanding for what experiments we might fly which would determine what kind of stowage, et cetera, that we would have in the command module, the space allowable being some factor in deciding how many people to fly.

Now in considering the sequence of transfer, we have established a couple of ground rules that we have both agreed upon. One is that whatever transfer sequence we went through we would always keep one American in the command module cockpit. The Soviets feel the same way, they would keep a Soviet cosmonaut in the Soyuz cockpit. We have agreed there would not be more than two men in the docking module at one time. The docking module is sized to handle two suited crewmen. We have masks in there for two people, and we just would not put any more than two in.

We have also agreed -- there is one more limitation -- I will leave it at that. That is all I can recall, Tom. Those are the kind of ground rules we have agreed upon. Now precisely what sequence we go through depends upon the argument or discussion about how many people we have in the command module and the kind of experimental activities which will be carried out.

QUESTION: You had a script that involved Salyut, that two guys would go into the Salyut and stay there and then a Russian would come back into the CSM. Is there not some kind of script for this?

LUNNEY: We did, but it is slightly altered by the fact that the Salyut being a bigger device apparently had no

limitations on how many people could be in there and how long they could be in there. In this particular case the Soyuz, not so much in terms of the volume of the ship as in terms of the kind of consumables they have put on board it, will have some limitations on the number of people and length of time they stay there. So we have to more fully understand those with the Soviets to know whether we would have two people there for four hours or four for 36 hours. It remains to be understood better.

QUESTION: I'd like to follow up on a question that was asked in our other conference about the air-to-ground and how this is going to be handled. Can we be assured that we are going to hear everything coming from our end of it even when our guys are interfacing with the Russians?

FLETCHER: I think yes you can have that assurance. What we can assure you is that you will hear everything that comes down to our command centers from our own spacecraft. We cannot assure you you will hear and see everything that comes down from the Soyuz.

QUESTION: Does that mean that possibly when the guys link up that they won't be saying anything to mission control?

FLETCHER: I think that has to be worked out, Everly.

LUNNEY: And we are planning to carry communications equipment, radios and television cameras through to the Soyuz, so that when our men go on through they would carry hard lines which connect them by voice and hopefully run a television camera from the Soyuz back through our systems to the networks.

QUESTION: Is your tracking network adequate or capable of covering the entire orbit, or do you have to rely on any of the Soviet tracking stations?

FLETCHER: Our tracking network is adequate because the orbit we will be flying is very similar to the Skylab orbit, within one degree or so.

QUESTION: A kind of follow up to Tommy's question here: If I read you right, you are saying that had a Salyut

been involved we likely would have flown a three-man crew and the Russians would have flown a three-man crew? That is, the absence of a Salyut is what is causing the reduction in the number of people?

LUNNEY: Well, first off, from their choice, the number of people they fly is completely a function of their ship and how they can configure it. And in this case they have selected two. Even in our preliminary plans on the Salyut we kept open the question of whether we would fly two or three people. This is still open today. And I hope we can decide it within the next month or two.

QUESTION: What will determine whether we fly two or three? You said something about experiments, but what other factors will be involved?

LUNNEY: Well, the other factors are precisely how the timeline will work and how satisfactory it will be. In other words, we will try to create a time line with two men, two American astronauts, and see how many people we have, where, for how long and how convenient the time line is.

Secondly, we will do the same thing with three men and see whether there are any obvious advantages one way or the other out of that kind of comparison. Likewise, we are going to try to consider what experiments we might have in the command module volume and the cockpit itself in order to see whether any space that those experiments might require would influence our decision on having the third couch in there, for example.

QUESTION: The types of experiments you are talking about are earth resources, post-rendezvous and docking or during rendezvous and docking?

LUNNEY: The experiments we are talking about are really not yet defined activities that we could perform from the command module, from inside the command module.

QUESTION: When Dale Myers was speaking he mentioned one of the objectives of the mission was getting experience in joint flight for any rendering of aid and rescue situation. In dealing with organizing the activities for this flight, what consideration was given to simulating emergency situations, something like an evacuation of one of the modules into the

other which would be needed during an actual rescue mission?

LUNNEY: We haven't exactly planned a deliberately staged rescue play in the simulation. Our primary goal in the simulation will be to stage problems so that both crews would understand how they should respond to those problems. I'm not answering your question.

QUESTION: I didn't mean that. I meant actually during the flight, while you are in the docked position, will you at that point be simulating any kind of rescue maneuvers?

LUNNEY: Not exactly, except that the very fact of having done it, having rendezvoused, being able to dock, being able to equalize the pressure between the two vehicles and transfer people is precisely a test of being able to rescue. But we are not going to add any extra burden to that already fair-sized task.

QUESTION: When might joint training begin and how many months joint training do you anticipate? And you said we have not picked a crew yet, but you sort of implied the Russians have.

LUNNEY: The second one first: I didn't mean to imply that, if I did. I only meant they have decided they want to fly two rather than three people. When exactly we would start training is yet to be determined. We would hope to work out a training plan this summer when a delegation from the Soviet Union visits us in Houston. And it will start and go on and end in a fashion that in our traditional style we will be satisfied that the men know how to handle any problems they will encounter.

QUESTION: Dr. Fletcher, at the previous briefing you said there is no commitment for a second mission in 1976. You are not closing the door on the possibility of that, are you?

FLETCHER: Not at all. We regard this as a first step in international cooperation.

Any further discussions though are subject to two major forces, the Soviet Union and our federal government which includes OMB.

(Laughter.)

I think that although we can envision these things, there is no commitment on either side to do it.

QUESTION: I missed the earlier briefing. Did you say when in '75 you hope to conduct the mission?

FLETCHER: I do not think we have settled on a month in '75.

QUESTION: The President said it was in June, in Moscow, by the way.

FLETCHER: That may be, although we get different opinions from Moscow when we talk to different people. I think at the present time 1975 is the target date. And until we start laying out the schedules which must be agreed to by both sides, I do not think we can even say absolutely that it will be in 1975.

DONNELLY: We will take two or three more questions then cut to the other centers.

QUESTION: A couple here. One for Glynn. Do you envision as this project gets underway having a semi-permanent Soviet liaison office at MSC and vice versa, a semi-permanent MSC liaison somewhere in the Soviet Union.

LUNNEY: Not yet, I do not envision that. If I had to guess, I would say that would probably not happen. I would expect that the normal process of business that we are going to have to conduct is going to cause on a fairly regular basis people to be in each other's country as any additional business needs to be handled.

QUESTION: Would you for both the project and flight have to establish special lines of communication somewhere, say the hotline type of operation.

LUNNEY: Certainly when we get to the operation we will have to have communication lines in the sense that we now have communications lines to all remote sites from Houston. Yes, we would have the same kind of lines. We have had some discussion about what kind of lines they are, whether they are voice, data or what. But we would have to put those kind of lines in and check them out and test them just like we do on our own flights.

QUESTION: For Dr. Fletcher: What are the factors that make 1975, as you have described it across the street, "iffy?"

FLETCHER: I think it is only that we have not laid the program out as a first point. And the second point: I think the Soviets are a little squeamish about being pinned down to a date this early in the program, and properly so. If they are pinned down to a 1975 date that would be a new first for them.

QUESTION: I know this is a long, long range projection, but is there any thought so far given to the idea that given the expense of duplication of effort to somewhere at say the turn of the century time period to combine all this so that two cosmonauts and two astronauts will go up in the same ship or things like this. Is this what you are leading to and would you like to work towards this? Has there been any talk of this?

FLETCHER: I think that is the hope. And I think the implication of this first mission is that we could cooperate in space, particularly in a manned space program and save duplication of effort between the two countries. They could do part of the mission and we could do another part. And I think that is the implied hope on both sides.

DONNELLY: One final question here, please:

QUESTION: At one time I understand there was a study of the differences in cost between using a simbay or not using it, and that would be for your earth resources orbital science. Have you all decided whether the budget allows for fixing up the simbay?

FLETCHER: I think for planning purposes we have decided not to use the CSM with the simbay. However, we can still change our mind in the next month or so or something like that. We don't at this point think it is such a wise idea to do too much in the way of scientific experiments on such a delicate mission as this. It would be pretty complicated both technically and operationally working with the Soviets as it is. We are not sure we want to complicate it with too many scientific experiments.

DONNELLY: Let us go now to the great State of Texas.

QUESTION: After the last meeting in Moscow officials here acquiesced to a Russian request -- at least that is what we were told -- not to release any details of that meeting for several months, while we were told minutes of that meeting were being approved. Is that going to be the standard procedure while doing business with the Russians?

FLETCHER: I think you are probably referring to some of the working group meetings that were held for some time in Houston and some time in Moscow. And at every one of those so far, of which there have been three I believe, the Soviets have requested us not to release the full text of the minutes until a 60-day waiting period to be sure that their side agreed in detail with the minutes. Although we always have released a synopsis of what took place, both sides have, immediately after the meeting. I do not know whether that will be a pattern. I think it is quite possibly a pattern, but it is not at all definite. We are not committed to that pattern.

QUESTION: How large a group of astronauts would be involved in training, and has there been any agreement that only men who have flown in space will go on this flight?

LUNNEY: Relative to the latter, no, there is no such agreement as that. And, secondly, how many people will be in training remains to be determined. But I expect we will train, as always, a prime and a back-up crew and possibly some others. Although I do not have any reason to say that we would train any more than the prime and back-up crew right now.

QUESTION: What about the economic benefit of an extra 4400 people going to work? How long can they expect to be employed and where?

FLETCHER: I think in the press kit that was distributed which I do not have a copy of, it has that data. By the end of '74 I think it peaks at 4400, to give you a feeling for the average number. In June of '73 it might be as many as 2400. And in June of '74, 4000. And June of '75, 3700. These are not to be taken precisely, but that is an approximate estimate of employment for the contractor on the docking components.

DONNELLY: A copy of that is not available at Houston right now, but we will send it down on the magic machine.

QUESTION: How many CSM's would be available; that is, that are now in existence or partially so for flights beyond '75?

MYERS: There is a vehicle which is now planned to be a back-up for the Skylab. There would be the vehicle we are presently planning to use for this flight. And there are two additional CSM's that are in various levels of completion. So it gives a total of four possible flights.

QUESTION: Glynn, when do you expect the Soviets to come over for the summer meeting here?

LUNNEY: With respect to one of the traditions we have in the United States, they will be here on July 5th.

QUESTION: Since cooperation seems to be in the air, I am wondering have there been any discussions of cooperating and sharing the earth resources type of camera work which you will be getting from Skylab, noting that Skylab's inclination would take it over the Soviet Union?

FLETCHER: Skylab per se I do not believe has been discussed, at least not in depth. But we do have a joint working group on the natural environment which is a part of the agreement which the President signed today. And surely we are talking now mostly about exchanging of data on instruments. I think when the time comes we will certainly discuss the exchange of actual photographs and earth resources data.

QUESTION: This is Pat Howe of the Birmingham News. I have two questions: One, how long has NASA been involved in discussing this joint venture? And the second question is will any of the 4400 new workers mentioned be employed at the Marshall Space Flight Center or in Huntsville, and if so how many would you anticipate?

FLETCHER: I will answer the first question. We have been involved in international cooperation since NASA was first organized. In fact, it is part of the statute setting up the NASA. The particular discussions that have led to this agreement that was signed today started in October of 1970 in which a number of groups were set up to try to work the problem of rendezvous and docking. This was followed by a meeting in January of 1971 in which five joint

working groups were set up to look at unmanned activities and in which it was agreed to exchange lunar samples. So there was a sequence of events which started back very vigorously and energetically in October of 1970.

MYERS: As far as the employment is concerned, we have a breakdown of the manpower estimates.

QUESTION: Will any of the 4400 new workers be employed at the Marshall Space Flight Center in Huntsville? And if so, how many do you anticipate?

MYERS: We are anticipating in the southeastern area which would include Huntsville and the Cape totals that would peak at about 1300. Now I do not have a breakdown between the Huntsville area and the Cape area, but the SLB launch vehicle is involved and that is managed out of the Huntsville area.

QUESTION: There is a mention here of the build-up of the space shuttle to support this effort. Will Marshall Space Flight Center benefit by this?

FLETCHER: Well, the Marshall Space Flight Center, as you probably know, has a very major role in the development of the shuttle since it is already now responsible for the development of the space shuttle engine and is actively involved in the management and systems engineering of that program. That is probably not the end of the program, because there are tanks and solid boosters and many other parts of the shuttle not yet determined. It is extremely likely that Marshall will end up with some of that program too.

VOICE: That is all the questions.

DONNELLY: Are there any further questions at this end?

QUESTION: Dr. Fletcher, this is a very non-scientific and non-space question, but if 1975 is an "iffy" date, then the next year would be 1976, the 200th anniversary of the independence of the United States. Would that have any impact or any complicating or other type impact on the first joint U.S.-Soviet space venture?

FLETCHER: I don't think so. Our planning is for

1975, the U.S. planning. And it is hopeful that schedules will be developed around that date. There are no signals we have been getting from anywhere in the United States to change that date. The only reason I say that the 1975 date is somewhat iffy -- I didn't say "very," or at least I hope I didn't -- it simply is not a firmed up date on both sides.

QUESTION: Dr. Fletcher, since you are engaged in non-negotiations with North American, when do you expect to let a contract on the docking module, about when?

FLETCHER: It probably will be in a very short time, but the problem is simply we have to go through a sequence of events before we can do anything like that. The first thing that has to happen is that Dale has to present to me a justification for a sole source procurement, and that event has not taken place. When that takes place, proposals will be requested, assuming the justification is adequate.

And if the proposal is satisfactory, then negotiations will start. That will take several weeks or maybe a month or two.

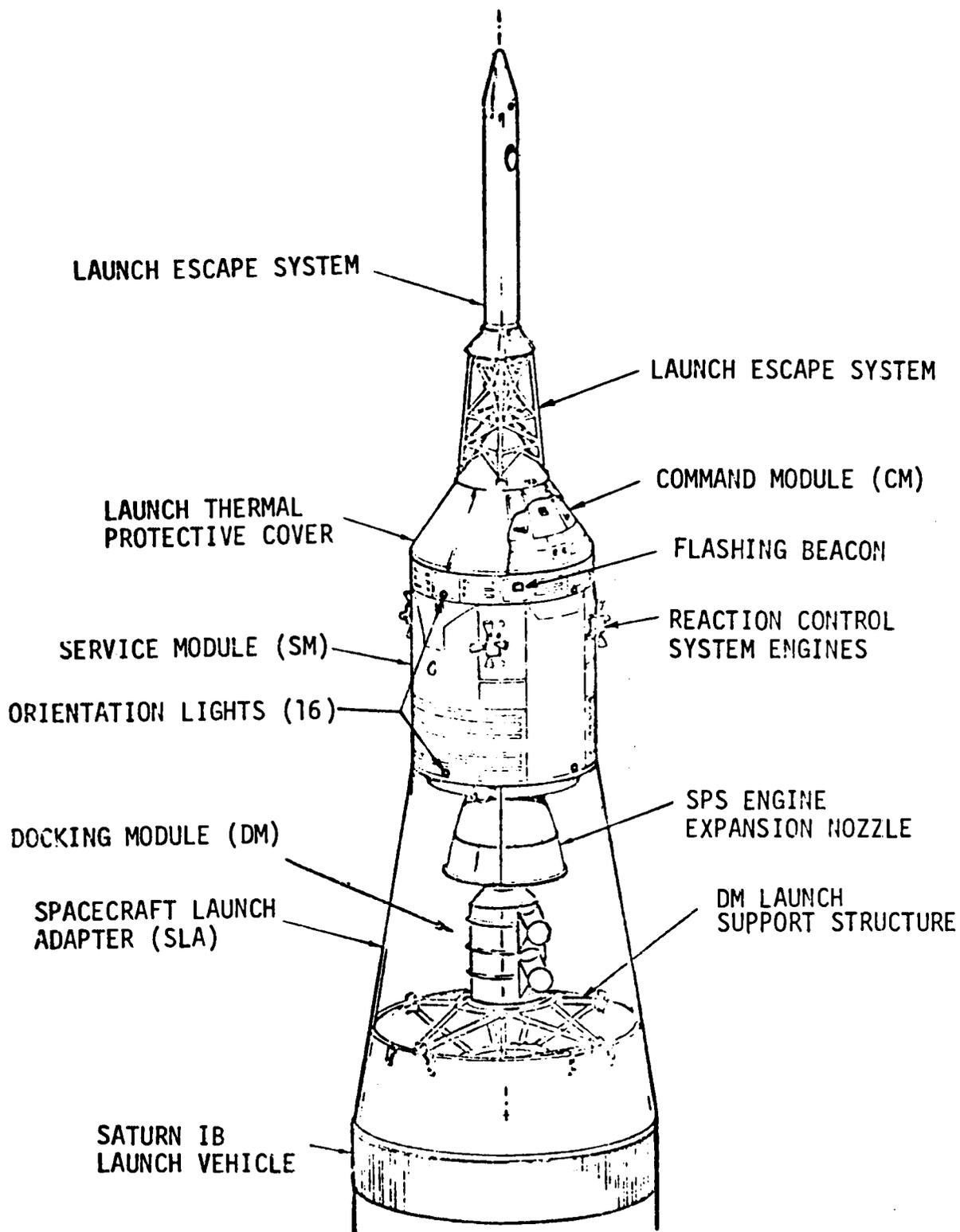
QUESTION: Do you anticipate this summer, this fall?

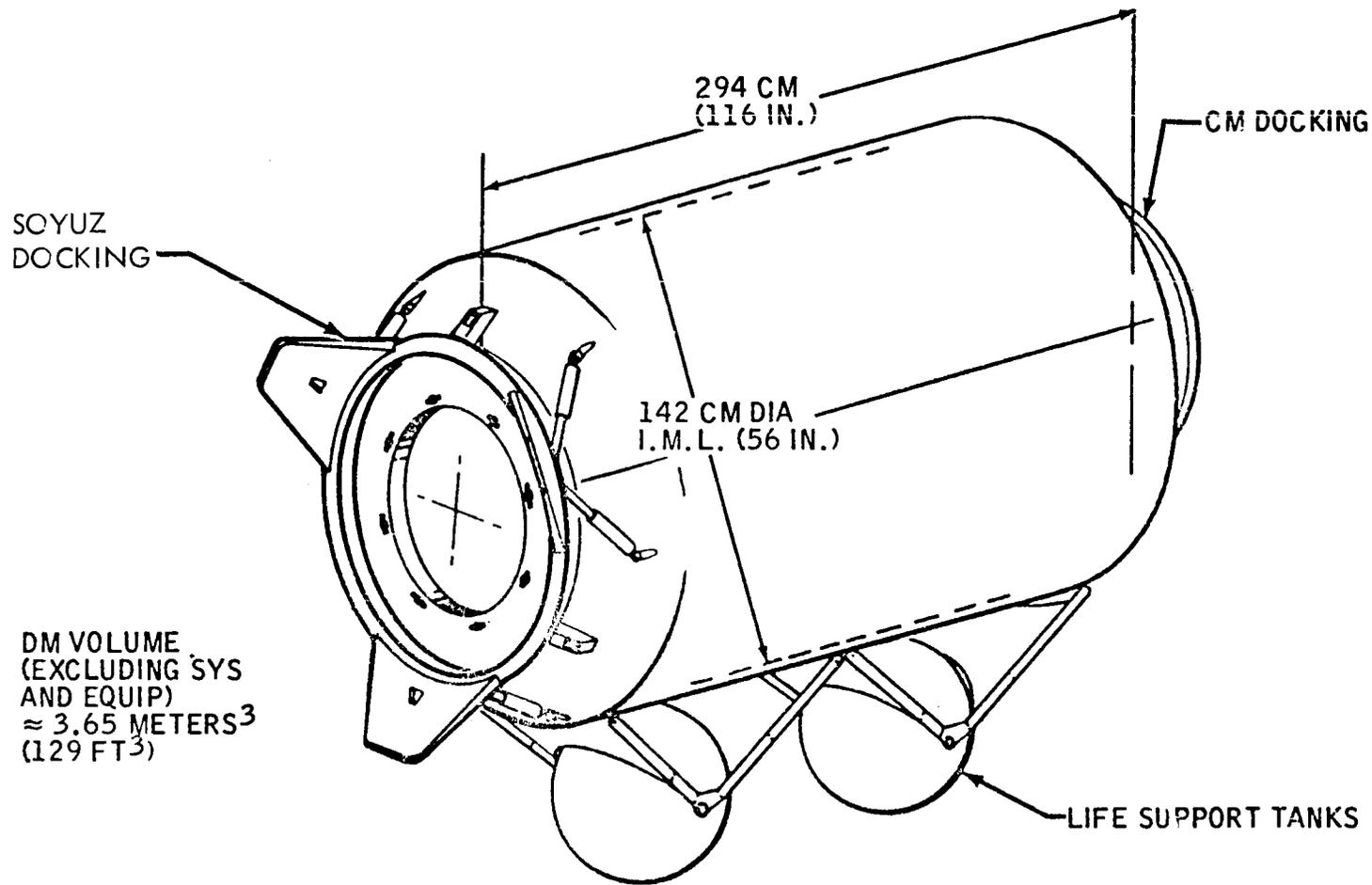
FLETCHER: Dale?

MYERS: We certainly expect to be under contract this summer.

DONNELLY: If that is all, thank you, ladies and gentlemen.

(Whereupon, at 5:00 p.m., the press conference was concluded.)



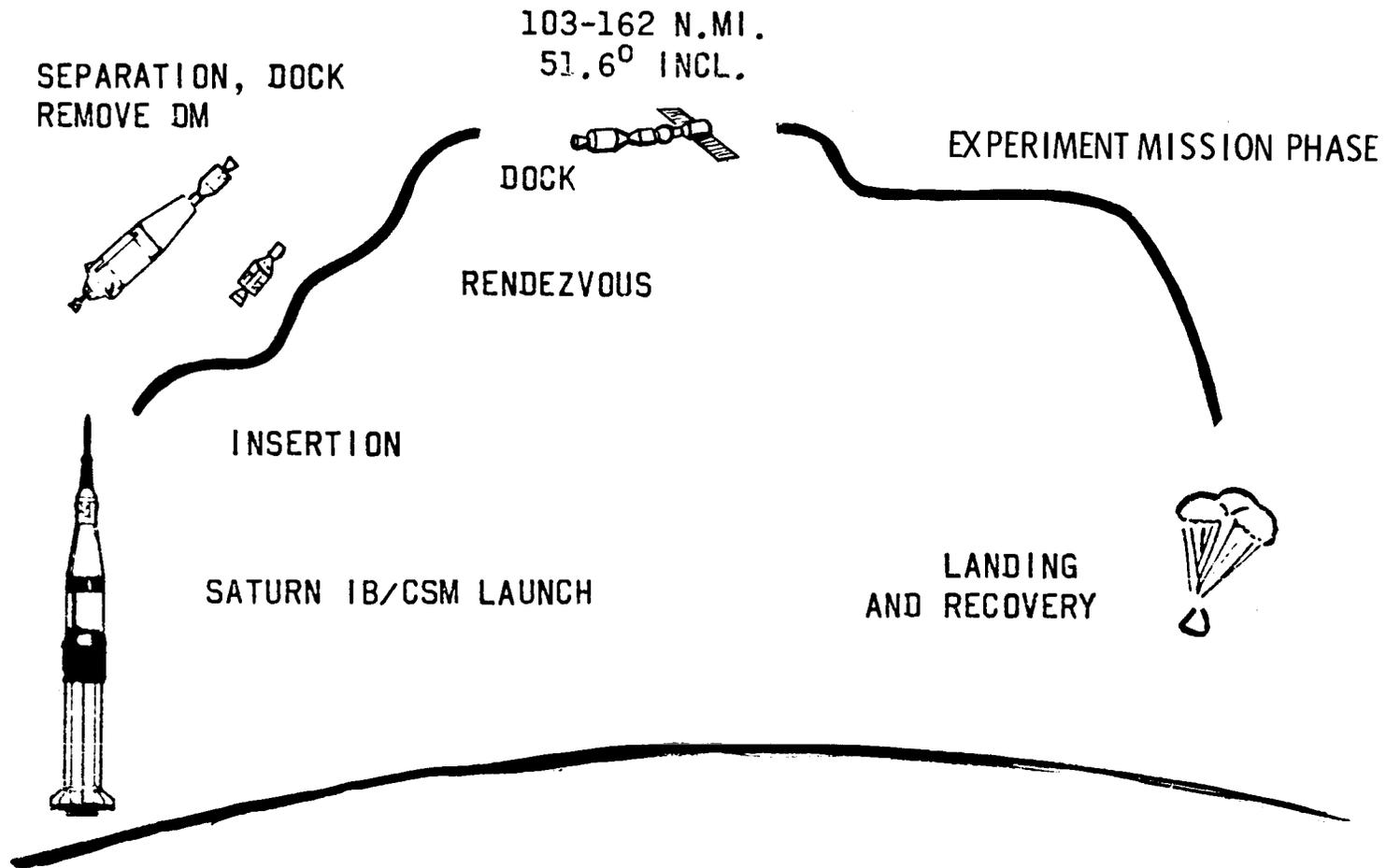


DM VOLUME
(EXCLUDING SYS
AND EQUIP)
≈ 3.65 METERS³
(129 FT³)

DOCKING MODULE OVERALL DIMENSIONS

NASA HQ M72-6051
5-23-72

GENERAL MISSION DESCRIPTION



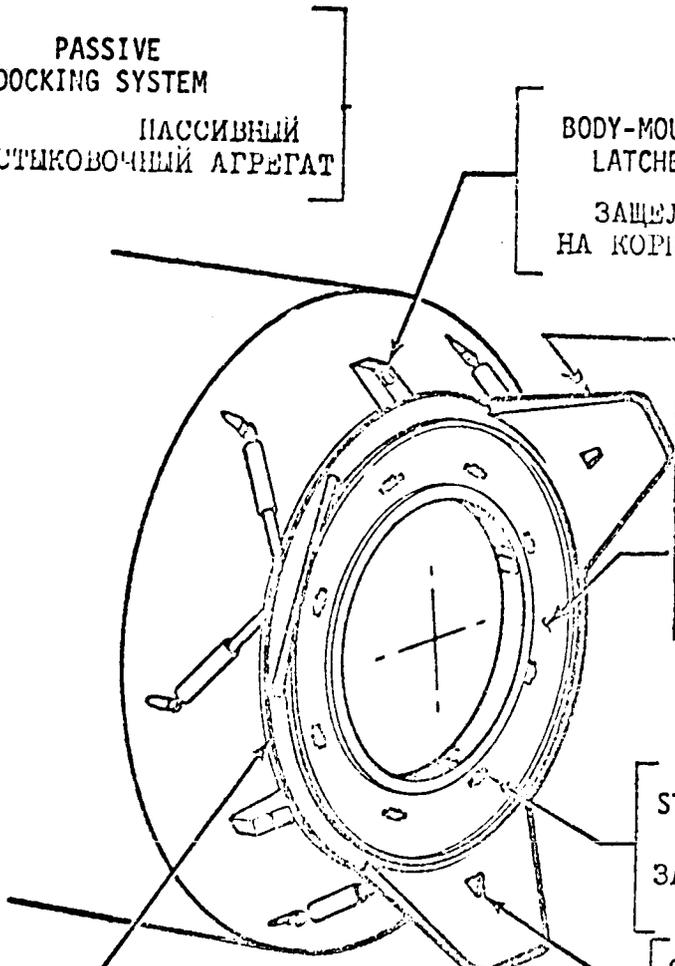
NASA HQ M72-6044
5-23-72

DOCKING SYSTEM

СТЫКОВОЧНОЕ УСТРОЙСТВО

PASSIVE
DOCKING SYSTEM

ПАСИВНЫЙ
СТЫКОВОЧНЫЙ АГРЕГАТ



GUIDE RING
(RETRACTED)

КОЛЬЦО С
НАПРАВЛЯЮЩИМИ
(ВВЕДЕНТО)

BODY-MOUNTED
LATCHES

ЗАЩЕЛКИ
НА КОРПУСЕ

GUIDE
НАПРАВЛЯЮЩИЙ
ВЫСТУП

STRUCTURAL RING
INTERFACE SURFACE
ПЛОСКОСТЬ
СТЫКА

STRUCTURAL RING
LATCHES
ЗАМКИ СТЫКОВОЧНОГО
ШЛАНГОУТА

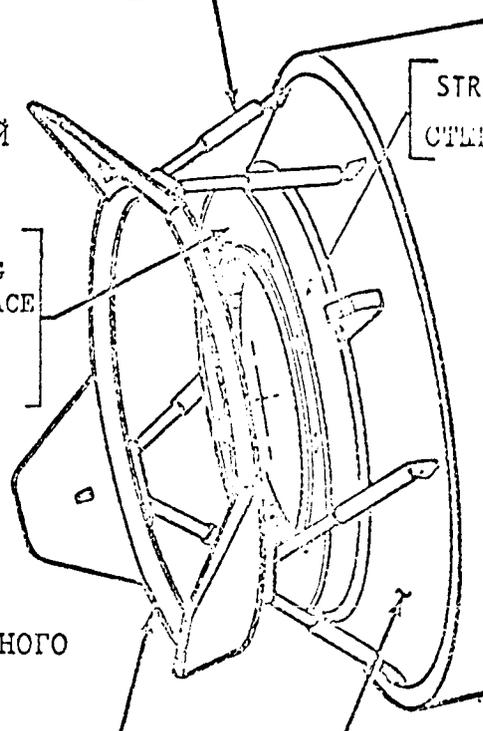
CAPTURE LATCHES
ЗАЩЕЛКИ
КОЛЬЦА

FIGURE 1
ЧИТ. 1

ACTIVE
DOCKING SYSTEM

АКТИВНЫЙ
СТЫКОВОЧНЫЙ АГРЕГАТ

ATTENUATORS
АМОРТИЗАТОРЫ



STRUCTURAL RING
СТЫКОВОЧНЫЙ ШЛАНГОУТ

BASE AND TUNNEL
ASSEMBLY

КОРПУС СТЫКОВОЧНОГО
АГРЕГАТА

GUIDE RING
(EXTENDED)

КОЛЬЦО С
НАПРАВЛЯЮЩИМИ
(ВВЕДЕНТО)

NASA HQ M72-6049
5-23-72

APOLLO/SOYUZ CONFIGURATION

