



FOR RELEASE:

INTERNATIONAL ASPECTS OF OUR SPACE PROGRAM

by

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at the

National Space Club Luncheon

Washington, D. C.

on

January 26, 1971

I am particularly pleased to have the opportunity today to speak about the international aspects of NASA's space programs. The timing is most appropriate: we are actively engaged with the European nations in defining possible major cooperative efforts for the post-Apollo period; and only last week, we completed discussions with the Soviet Union concerning significant cooperation between the U.S. and the USSR in the exploration of space.

Greater international cooperation in space is one of the six specific objectives of President Nixon's space program, enunciated on March 7 of last year. The President stated: "I believe that both the adventures and the applications of space missions should be shared by all peoples.

In the 1970's, however, the opportunities exist for cooperation on a significantly larger scale. In line with the President's emphasis on international cooperation in the exploration of space, we wish to build a foundation for important benefit- and cost-sharing in the major space programs of the future. With this objective in mind, we have invited substantial Western World participation in our post-Apollo projects, the space shuttle, and the space station.

For over a year, we have made unusual efforts to give the European countries, Canada, Japan, and Australia -- the countries having the most obvious potential for post-Apollo work-sharing -- every chance to become fully acquainted with our plans and studies. Our purpose has been to provide these countries a proper basis for deciding, at the right time, whether or not they wish to commit their own resources to working with us.

We have been pleased by Europe's initial response in this informational phase. The European Space Conference,

in particular, has put several million dollars of its own into studies of post-Apollo program possibilities. Some of its leading member countries have invested still larger amounts in related studies. And British, French, and West German firms, funded in Europe, are working with our prime contractors in the space shuttle design studies.

The problem for the potential participants is a serious one. There is little question that participation in major post-Apollo development tasks would be most rewarding in terms of technology. But Europe considers that it cannot now fund significant participation in the shuttle and fund an independent European booster program at the same time. A choice will most likely be necessary even if Europe funds only 10 per cent of the shuttle's price tag.

Naturally, if Europe is to give up the development of an independent launch capability to work with us, it wants to know what assurance there is that we will sell launch services for European satellite projects -- some

of them, perhaps, involving competitive commercial applications. Europe wants to know what the other conditions of its participation might be; for instance, what sort of voice it might have in post-Apollo program management and what access it could expect to program technology. Such questions are entirely understandable.

For us, of course, the detailed answers depend in some degree on the character and extent of European technical participation. This has not yet been defined. Realistic management and political conditions must in the end be fitted to a specific technical program. Nevertheless, when a delegation of the European Space Conference came over here last September, we, with the other agencies concerned, provided the basic answers to the major questions troubling Europe -- such as those I mentioned with regard to launch services, technology access and management roles.

We gave positive and generous answers, especially in the absence of even preliminary indications of Europe's potential participation. In summary, we said that we would

sell launch services for projects consistent with peaceful purposes and existing international agreements. We said that general technical access to the entire program would be available, but that technology at the level of commercial know-how would be transferred in either direction only where one side required it to complete its commitments to the other. We promised broad association in program management, but -- since Europe is talking only of a 10 per cent share -- we said that we would retain decision-making responsibility except where European costs were directly affected, in which case decisions would be joint.

It seems clear that the next moves are up to our European friends and other interested Western Nations. Our invitation to participate has been clear. Well over a year has been available for information and study. We have provided very broad access in this process, and we have given generous answers to questions regarding the conditions for participation. The urgent needs now are, first, that Europe develop a preliminary expression of

its technical interests as quickly as possible. Second, that European personnel sit down with our project personnel to develop this preliminary concept into a joint technical proposition. Third, that we should together apply to this technical package the management and political conditions which are appropriate to it. Finally, the total package would be open for commitment by those nations prepared to go ahead with it.

Whether such a procedure will in fact begin and how far and fast it might then go remain to be seen. These matters must be resolved on the basis of national and international, short-range and long-range interests. If Europe wishes to proceed, we are prepared to do so on any basis consistent with our national program objectives and the requirements of good management. If Europe concludes that its interests lie elsewhere, we will, of course, continue our own programs by ourselves.

We believe that this program, or some other program involving new technology, should become the subject of

a Western World joint enterprise: it is important that we in the West learn to work together, soon, on major technical projects. Our security, in the broad sense, depends on this. Increasingly, the problems of the modern world and its environment require large scale technical solutions along with political solutions. It is important that we learn to cooperate in such matters, so that, in President Nixon's words, we can share both the benefits and the costs of progress.

RELATIONSHIP WITH THE SOVIET UNION

In the case of the Soviet Union (so far as space efforts are concerned), it is particularly important that we give clear recognition to both elements of the relationship: competition and cooperation.

We are competing with the USSR in the exploration of space, because accomplishments in space represent a measure of the state of our technology; and in today's world, the level of our technology is of first importance, strategically, economically, and politically.

We are striving to cooperate with the Soviets in the exploration of space, because we both live in a vast universe that must be explored, where important new knowledge is to be gained, for the benefit of all men, everywhere. It is in the United States interest to cooperate with all nations, including the Soviet Union, to share our resources in gaining this knowledge, and to share the results for the betterment of mankind.

And even though the words "competition" and "cooperation," at first glance, appear to be incompatible, the USSR and U.S. space programs are indeed developing along both of these lines: we were competing in technology, when they first put a man in space, or when we first landed a man on the moon. We are cooperating, for the sake of science, when we exchange lunar samples.

Competition in Space Technology: In 1957, and in the years that followed, we were challenged, publicly, dramatically, and most successfully: Sputnik, Gagarin, and Luna demonstrated that the Soviet system could produce

technological results that visibly gave the appearance of leadership.

We accepted that challenge -- we decided to compete, to build a strong and powerful space capability for the United States. We built Gemini and Mariner and Saturn V and Apollo. By July 1969, we had clearly established and demonstrated our leadership.

But our leadership is under continual challenge by a capable and determined competitor, as evidenced by Luna 16 and 17, by a continuing Soviet manned flight activity, by the reported development of a new giant Soviet booster, by an R&D expenditure rate that exceeds ours, and by an increased Soviet launch rate while ours is decreasing: in 1970 alone, they placed 88 payloads into space to our 34.

Today the demonstrated lead is still ours, but it will not be an enduring lead without major new initiatives on our part -- initiatives like the space shuttle and the exploration of the outer planets proposed in the President's space program for the 1970's.

Cooperation in Science and Applications: We now come to my last subject, one that is particularly timely: cooperative efforts with the Soviet Union. On Monday, Tuesday, and Wednesday of last week, we held detailed discussions, covering a broad spectrum of space research, in Moscow. On Thursday, we jointly initialled a document summarizing the results of these discussions -- a document that is to be confirmed by both sides within 60 days and then made public.

The Soviet delegation was headed by Academician M. V. Keldysh, President of the USSR Academy of Sciences. His delegation included 15 top Soviet scientists. I headed the United States delegation and was accompanied by Dr. John Naugle and Mr. Arnold Frutkin from NASA, Mr. William Anders of the Space Council, Mr. Arthur Johnson of NOAA, and Mr. Robert Packard from the Department of State.

At the opening session of our talks, I conveyed President Nixon's desire to expand international cooperation in space with the Soviet Union as well as with other nations.

Our discussions were frank, open, and to the point. The document we prepared, jointly, is quite specific. It spells out certain areas of agreement, and it presents a detailed list of proposals for further discussions, including the following:

- joint consideration of the objectives and results of space research,
- the improvement of existing weather data exchanges,
- coordinated research with meteorological sounding rockets,
- techniques for studying the natural environment using space and conventional means,
- the expanded exchange of data on space biology and medicine,
- and the exchange of lunar samples.

In this last area, we specifically agreed, initially, to exchange three grams of sample obtained from Luna 16, for three grams each from Apollo 11 and 12. These relatively small amounts are sufficient for detailed scientific examination of a comparative nature.

We did not, during last week's discussions, hold additional meetings on compatible docking arrangements. This item was not on our agenda, because the docking discussions are well underway, and the planned exchange of information is taking place. We, therefore, merely took note of the fact that those talks were proceeding well.

While in Moscow, we were also invited to visit STAR City, the training area of the cosmonauts. We were welcomed by Cosmonauts Beregovoy, Nikolayev, Leonov, Shatalov, and Valentina Tereshkova. We were shown the Soyuz mission trainer, and were invited to attempt to dock two Soyuz spacecraft in their docking trainer. While there, I also presented a plaque in memory of Yuri Gagarin from the U.S. astronauts. The visit was warm and friendly.

In my remarks in Moscow, after we finished our discussions, I noted that I was pleased with the results. But I also noted that this is only a beginning; that we have now set the framework for cooperative efforts, but that much remains to be done.

Nevertheless, the results of the discussions so far met my hopes and exceeded my expectations. With the framework that has been established, and particularly with the attitudes exhibited and desires expressed by both sides, we have set the stage for substantial cooperation in space research with the Soviet Union, for the benefit of all.

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