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## GORBACHEV, SCIENTISTS DISCUSS ISSUES AT FORUM

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["Mikhail Gorbachev's Meeting With Representatives of the International Scientist Forum for the Cessation of Nuclear Tests" -- TASS headline]

[Text] Moscow, 14 Jul (TASS) -- Today, M.S. Gorbachev, at the request of the foreign participants, met with a group of scientists, the initiators of a forum.

Present were: G.B. Marini-Bettolo, professor of Rome University and member of the Papal Academy of Sciences; P. Starlinger, professor of Cologne University, FRG; K. (Fushimi), Japanese member of parliament; F. von Hippel, professor at Princeton University, USA; O. Nathan, rector of Copenhagen University, Denmark: J. Rotblatt, professor of the University of London, Great Britain; O.P. (Lenci), Union of Italian Scientists for Disarmament, Italy; P. (Derek), professor at Toronto University, Canada; T. (Atayev), professor at Ankara University, Turkey; A.T. Balevski, president of the Bulgarian Academy of Sciences; S. Bergstroem, professor of the Karolinskia Institute of Sweden; W. Kalweit, vice president of the GDR Academy of Sciences; T. Cochran, professor, chief geophysicist for seismography of the U.S. National Resources Defense Council; Soviet scientists A.P. Aleksandrov, president of the Academy of Sciences of the USSR; P.N. Pedoseyev and Ye.P. Velikov, vice president of the USSR Academy of Sciences; and Academicians Ye.I. Chazov, R.Z. Sagdeyev, A.M. Prokhorov, G.A. Arbatov, V.I. Godlanskiy, A.G. Aganbegyan, and Ye.M. Primakov.

Prof G.B. Marini-Bettolo handed M.S. Gorbachev a declaration that was unanimously adopted at the forum addressed to the leaders of all nuclear powers, first of all of the USSR and the United States.

When banding over the document, Marini-Bettolo said:

Esteemed Mr General Secretary! It is a great honor and a great satisfaction for me on behalf of all the participants of the international forum of scientists for the banning of nuclear tests, to hand you the text of the declaration on which we have worked for 3 days. This document is the result of open, constructive, mutually beneficial discussions. Our declaration was adopted unanimously.

This has become possible thanks to the atmosphere created both by the Soviet Union's unilateral moratorium on nuclear tests, as well as by the cooperation of scientists in the sphere of setting up seismic monitoring to ensure theat nuclear explosions are not carried out.

Allow me, Mr General Secretary, to express the wish and the hope that our actions and efforts will be understood and adopted by all leaders of states in the name of the good of all mankind.

M.S. Gorbachev: You are guests, I am here at your request, so if any of those who are present here wants to say something, please go ahead.

Prof F. von Hippel: I have been asked to say a few words in addition to those said by my colleague. The unilateral moratorium on nuclear explosions, introduced by the Soviet Union, is of extraordinary significance and has had an enormous influence on world public opinion. It demonstrated the increased confidence of the Soviet Union in the new way of thinking. It proves once again your understanding of the fact that no new nuclear weapon can change the fact that the Soviet Union and the United States have the capacity to annihilate one another many times over.

A new way of thinking also is growing and gaining strength in the United States. The majority of physicists from leading U.S. universities have signed an open letter in which they declare their refusal to work for the SDI program because they consider it to be a dangerous business.

The Soviet moratorium on nuclear explosions has also strengthened this new thinking in U.S. public opinion. Public opinion polls conducted at home show that presently a majority is in favor of the United States joining the Soviet moratorium. According to the latest data, this notion is supported by 56 percent of Americans.

Although the U.S. Congress does not usually intervene in issues of this kind — it is a presidential prerogative — nevertheless there is a significant minority in Congress that considers it necessary to reduce the appropriations assigned to conducting nuclear tests.

It is probable that the first proposal of that kind presented to the Congress will be defeated; but if it turns out that a sufficient number of congressmen favor that proposal and the difference in votes is insignificant, the positions of those against nuclear tests will become significantly stronger. Then, within a year, one could count on some positive changes. That, however, will only take place in the event the Soviet Union continues its unilateral moratorium.

The forces of peace in the United States have grown significantly strong thanks to cooperation between the USSR Academy of Sciences and the U.S. Natural Resources Defense Council. The U.S. public is afraid that the Soviet Union is hiding its secrets and this fear is being exploited by the advocates of creating new nuclear weapons.

Your assent to the installation of U.S. seismic equipment in the region of Semipalatinsk, that is, in the region where Soviet nuclear tests are conducted, shows that new thinking exists in practice in the Soviet Union and is manifest in the desire to provide others with the opportunity of seeing what you are doing.

Judging from an article in THE NEW YORK TIMES, the U.S. public shows interest in our joint undertaking, and, evidently, this interest will grow as our joint activity expands. Apart from the fact that seismologists long to allay fears regarding the secrecy of the Soviet Union, they are also in fact reaffirming that it is possible, with the aid of instruments, to avoid any possibility of concealing the slightest nuclear explosion.

I have a seismograph printout that clearly shows how a few years ago an earthquake in Kamchatka was pinpointed in Norway. It also pinpoints a small nuclear explosion (500 tons which was carried out at the same time at a distance of approximately 2,000 km from the apparatus. It illustrates that with the aid of such equipment it is possible to pinpoin even the most insignificant nuclear explosions.

Ye. P. Velikhov: I would like to say very briefly that scientists from 32 countries have attended our forum, and over 70 people have spoken. Among these are seismologists and physicists who have been involved in the development of nuclear weapons. Questions of the consequences of the use of nuclear weapons have also been discussed.

It has been a broad forum and its main conclusions are as follows: It has been shown in a very representative manner that a problem such as monitoring practically does not exist as a technical problem, and that monitoring by methods developed by geophysic is entirely reliable. Of course, there are various possibilities to conceal nucleus blasts. But, we see that the improvement of seismic technology makes it possible practically to beat those possibilities.

The work now being conducted jointly by the USSR Academy of Sciences and the U.S. Natural Resources Defense Council is directed at this point. The question of what importance a complete ban on all nuclear tests would have was also discussed at the forum. Speakers paid particular attention to the fact that both in the past and in the future the result of conducting underground nuclear tests was and will be the creation of new kinds of nuclear weapons that destabilize the world situation. Therefore, the complete ban on tests is required, as well as the blocking of all channels for the qualitative development [razvitiye] of nuclear weapons.

Professor Cochran also spoke at the forum. Together with Soviet scientists, he has already had time to install seismic equipment near Semipalatinsk and to obtain the first oscillogram.

O. Nathan: We all have been very much impressed by the speech of Dr T. Taylor, who was one of the creators of atomic weapons in the United States. He explained that it takes a lot of time to develop [razvitiye] new nuclear weapons through tests; therefore the Soviet Union need not worry about the fact that the United States has not yet taken a sensible decision regarding nuclear tests. He also said that the USSR should continue its moratorium without fear that the United States may create new weapons in a short time.

M.S. Gorbachev: It is not Teller who is for intensifying the arms race?

Voices: No, they have similar names.

- M.S. Gorbachev: Because I was about to express doubt as to the necessity of listening to your view, as we know Teller's point of view very well.
- J. Rotblatt: I would like to add something regarding public opinion polls about the Soviet initiative in Great Britain. The following question was asked: "Should Great Britain reciprocate the Soviet Union's unilateral nuclear moratorium?" Eighty-four percent replied "yes." The most interesting thing is that 60 percent of conservatives, that is, Margaret Thatcher's supporters, replied to the question in the affirmative.
- M.S. Gorbachev: That is interesting, interesting also from the political point of view. After all, presidents and prime ministers get to their office as the result of a majority of votes at elections...
- J. Rotblatt: ... A few observations on the role of scientists taking part in the forum.

We are discussing a question that above all is political, while we are scientists. But, scientists have played a great and at times negative role in this question. Anyway, sometimes we were forced to act that way. I am saying this as one of those who began the work on developing an atom bomb in Great Britain at the beginning of World War II. Even later, many scientists voluntarily and even enthusiastically participated in the nuclear arms race. This race continuously feeds on the constant making of new scientific discoveries. This not only provides an impulse, but at times also affects the rate of the nuclear race.

Almost any scientific achievement is very rapidly adapted to the purposes of destruction, and this is absolutely wrong; it should be the reverse: science is called upon to serve mankind's prosperity.

There exist enormous possibilities for the international cooperation of scientists.

Let us take, for example, the catastrophe at Chernobyl It may have been possible in connection with this to develop such a program, that would have brought great benefit to generations of people.

During the discussion of the problem of banning nuclear tests, we as scientists gave you, a political figure, our recommendation, which will help you in your further steps that aim to halt the nuclear arms race.

We hope that the efforts we have undertaken will help to revive the tarnished image of science as a creative force that will bring benefit and prosperity to mankind.

T. Cochran: I am proud to have had the honor of seeing you. As you know, our U.S. Natural Resources Defense Council signed an agreement with the USSR Academy of Science only 1 month ago. As those who have spoken before me have already said, the chief aim of our cooperation consists of disproving the view, which is current among U.S. political figures and the U.S. people, that it is allegedly impossible to infallibly discover all nuclear explosions in the Soviet Union. We thereby are striving to show that the United States should also halt testing without delay and act in the direction of concluding an agreement on a total ban of nuclear tests.

Our best seismologists from two universities, California and Colorado, have been chosen for cooperation. We arrived in your country only 6 days ago.

Thanks to the assistance of Soviet scientists at the Institute of Terrestrial Physics, we have set up equipment at one of the three sites selected for this purpose. We have already received the first seismographs from Karkalinsk, which is situated approximately 200 kilometers west of the test site.

M.S. Gorbachev: In the White House, they do not believe that the Soviet Union will agree to the most-ranging, to any form of monitoring -- both national and international -- including even on-site inspection and the setting up of apparatus.

It appears that political leadership aside -- well, truthfully, aside does not come into it -- this work has already been done, and without any red tape. The principal question from your side is this: monitoring the end of tests and the nonconducting of tests, and not monitoring their continuation and the perfection of nuclear weapons.

- T. Cochran: I believe that we have utterly destroyed the arguments put forward by the White House that an all-embracing treaty on banning the nuclear tests is impossible and does not stand up to full monitoring.
- M.S. Gorbachev: We are of the same opinion. I think that no one, neither the Soviet Union nor the United States, can count on outwitting the other; nor should they proceed from the point of somehow causing damage to the other side's security. Such an approach is impermissible. I think that in our time this is also a sign of the new thinking. Security must be equal, otherwise it gives rise to suspicion and a lack of confidence. There is no stability; it is violated as a result of suspicion and mistrust. Then you have a build-up of the arms race in the quest for security for oneself just as insurance.

This is the kind of situation that is created psychologically. That is why a new thinking is necessary.

T. Cochran: Cooperation between Soviet and U.S. scientists may be termed perfectly exceptional.

The assistance given by Academician Velikhov and all the other participants in our joint experiments is beyond all praise. It will be very difficult for us to respond completely in the same way when the Soviet scientists come to the United States.

The joint Soviet-U.S. research program about which we are speaking has already met with the most favorable wesponse in the United States. In order to consolidate this new method, this new approach, it is very important to extend our research program. It shows that scientists can not only make good political statements but also carry out very valuable joint scientific tests.

- A.T. Balevski: I would like to say a few words in connection with the speech by the colleague from Denmark. I do not know who is in front, that is unknown. But I do know that the continuation of U.S. nuclear experiments creates a constant dread for mankind. This psychological moment is very important, and this is what I spoke about at the forum. This is terrible, and even more so, when they do not notice how human spirits are decaying. It is a terrible thing to live in constant dread, and I think that we must give people the chance to relax and live like human beings. No one has the right to keep mankind in a constant state of tension. This is a crime, whatever the intentions.
- S. Bergstroem: I was chairman of the Committee on the Medical Consequences of a Nuclear War, which was set up by the WHO. Two years ago we presented a paper on the results of our work. The unique cooperation between Soviet and U.S. scientists had an immense positive influence on world public opinion.
- M.S. Corbachev: I welcome the great contribution medical scientists have made: I have in mind, above all, Academician Chazov and Professor Lownc. It was very important that a competent declaration by outstanding representatives of world medicine on the possible consequences of a nuclear conflict, as well as on the ability of medicine to carry out its role in case some madman unleashes such a conflict, ring out to the world.
- S. Bergstroem: Cooperation in the matter of monitoring nuclear explosions, as many stressed at the forum, has already improved the international climate. We think that now it would be important to extend activity beyond the limits of this sphere to include participation in solving other major problems, especially in developing countries.
- If your scientists, your academicians, came forward with an initiative of this type, it would play an enormous role and would make it possible to draw up a long-term program for the improvement of international relations as a whole.
- G.F. (Lenci): I would like to say and this was noted in the declaration adopted by our forum that the Soviet unilateral moratorium on nuclear explosions largely assisted the creation of the new atmosphere. It is, in fact, the first real step in the direction of a comprehensive treaty on the banning of nuclear tests, which in its turn sometime may lead to a complete liquidation of nuclear weapons.
- I also think that the preservation and extension of the Soviet moratorium on nuclear explosions will have an influence on other countries, in particular on mine, Italy, which does not have nuclear weapons but is a member of certain organizations. It seems to me that countries like Italy can play a different role from the one they are now playing in solving this problem, they could, in particular, be roused to undertake more energetic actions in support of concluding an agreement on a total nuclear weapons ban.

P.N. Fedoseyev: One of the characteristic features of the forum has been that not only concern in connection with the present international situation was felt, but also the desire to act incessantly, to display initiative in the direction of a ban on tests and against nuclear weapons in general.

The concluding round table included a program of further actions as one of its points.

In both the forum and the lobbies, the suggestion was made that the initiative group not discontinue its activity, but continue not only to spread the documents adopted and the results of the forum throughout the world, but also to act as a liaison and information group of the scientific public. This group undertook to continue its work.

A.P. Aleksandrov: I have been to many international forums, but I must note that this is the first time I have witnessed such unity of views as has been the case here.

All of us, representatives of various countries, could have different points of view on individual issues, but all were united as to the fact that one must not allow a nuclear war to arise, that this will be the destruction and degradation of mankind.

M.S. Gorbachev: As a minimum, degredation; but, as the most realistic alternative -- death.

A.P. Aleksandrov: All involved considered this to be very important, it has been called different things: The first step, a most important step, but, in general these have been various nuances of one and the same opinion — that unilateral cessation of tests by the Soviet Union has been an extremely important circumstance that has had worldwide impact.

Everyone was also of the opinion that, beginning with the United States, other countries too, both those possessing nuclear weapons as well as those not possessing them, should align themselves with the Soviet Union's position. This will be of extraordinary importance and will lead to an easing of the colossal tension in international relations that now exists.

- K. (Fushimi): I highly appraise the Soviet leader's brave decision to stop underground nuclear testing. This is not just my opinion, but, I would say, the opinion of a large number of Japanese citizens. I have with me several pieces of evidence of the Japanese people's feelings. One such document I brought with me is a message from religious leaders in Hiroshima. (He hands M.S. Gorbachev the message)
- P. Derek: Five years ago I, along with some colleagues, founded the organization "Science for Peace." Since that time I have attended a great variety of conferences on the subject of disarmament, the struggle for peace, and so on, in the Soviet Union, and I sould like to say that our forum, in which I have just been taking part, has, for reasons that have already been set out here, made the deepest impression on me. All of us, at least the Western participants in the forum, will return home in a more optimistic frame of mind and more resolute in our hope to achieve something, however small, for the sake of peace.
- M.S. Gorbachev: First of all, I would like, through you, to greet all participants in the Moscow forum of scientists. It is dedicated to the most burning problem of the present, linked with the preservation of human civilization.

The initiative put into effect at this forum of scientists from over 30 countries is exceptionally important, just as is all that is being done at present to halt the arms race and to start a realistic disarmament process.

I have already had the opportunity to say, but taking the opportunity of this meeting I would like to say it once more: We can still hear voices: Why such haste? Why such hurry? Maybe it would be better to spread all this struggle against the arms race over the years or even decades? Such opinions are mistaken. We have come to such a stage in the scientific-technical revolution when new discoveries can whip up the arms race even more and create a situation in which it would be much more difficult even to start talks.

Let us imagine that the arms race spreads to space. Who can vouch for what can happen then? Presently, there are a few scores of satellites and spaceships flying around and even so, all kind of extraordinary things happen to them. And if there are echelons of military systems? Computer technology controls them and gives information, but it is not interested why something happens. As a result, "decisions" on which the fate and life of millions depend, will be taken not on a political, but on a technological level. All of civilization will be the hostage of technology.

Or, let us take the conventional arms sphere. The achievements of science here, too, create base for the emergence of weapons that by their strike properties are not inferior to nuclear ones. Besides this, there are chemical and biological weapons. The consequences of their use are not any less lethal.

This is why we all are at a point beyond which unpredictable processes may start, and all have to act -- politicians, scientists, and people.

This morning I received the Russian text of the declaration by participants in your forum. I would like to express my attitude to this document right away: It is a crucial document that meets the interests of all countries regardless of what political organizations they belong to. The document is of particular significance in connection with the fact that it was put together and adopted by competent people and was adopted unanimously, which gives it even greater weight.

The results of your forum testify to the fact that the preconditions for the formation of new approaches, of a new thinking in order to solve the chief issues — stopping the nuclear arms race and engaging in disarmament — have matured in the world. This must begin, as you correctly say, with ending nuclear tests.

In the declaration you bring to the attention of all the world public that we are facing a simple, pitiless fact: Human civilization will not survive a nuclear war. This warning is both timely and convincing and demands a high degree of responsibility.

You asked a question on reducing the risk of nuclear war, of the need for active measures. The Soviet leadership will support this appeal, in accordance with your view that the halting of nuclear tests should be the first step in this direction.

Convincing arguments saying that the monitoring of halting nuclear tests is possible rang out both in the declaration and here at our meeting. This is of enormous significance as it reflects the view of people who know what they are talking about.

We are assisting and will continue to assist Soviet and U.S. scientists in order for them to realize their initiative in using special apparatus to ensure [kontrol] that nuclear explosions are not being carried out. I have no objections against a single line of your document.

You appeal to the Soviet Government to review yet again the issue of prolonging the moratorium. Well, in the first place, it is in force at the moment, and this is the main thing. So, there is still time, and it should not be lost. Your appeal will naturally receive very careful attention. The Soviet Government will make a decision and you will be informed of it. But frankly, what it will be significantly depends on whether or not the United States intends to engage in disarmament.

After my meeting with the U.S. President in Geneva, where we agreed to move toward giving their accord real, specific content, we took such action. We extended the moratorium; we extended it twice. We adopted a 15-year program for eliminating nuclear weapons. We proposed new, far-reaching measures for monitoring the destruction of enterprises producing these weapons. We proposed a huge program for conventional weapons reductions in order to remove the anxiety of the people of Western countries. Finally, we recently introduced compromise proposals at the Geneva talks. I explained them in a letter to President Reagan. They refer to both medium-range missiles and strategic nuclear weapons reductions.

We naturally counted on an equivalent response from the U.S. side, and from the West in general. So far, we are not satisfied with the position of either the U.S. Administration or the other Western governments. The administration's position is negative on halting nuclear tests. In its time, the problem of monitoring was put forward as an argument against this.

Now, at a time when, as we can see, it finds a convincing solution in the shape of the Soviet Union's well-known position, and in the shape of your own arguments — that is, the arguments of scientists — we await what new grounds for continuing tests will be dragged out into the light. We are already getting wind of arguments that apparently the Soviet leadership's whole idea about liquidating nuclear weapons is a utopia, because in such a world, it seems it is impossible to get by without these weapons.

We still have not received any satisfactory answers to our proposals on medium-range missiles and on strategic weapons. The only thing we have had is an announcement that SALT II is dead. Thus, not only are no efforts being made to find and develop new international mechanisms that would erect a barrier to the arms race, and then deal with disarmament, but the final brakes to this race are being removed. It seems that another reason why SDI is necessary is because nowadays many countries are capable of creating their own nuclear bomb and therefore, so they say, it is necessary to have the means to counteract in case some madman launches a nuclear attack or starts to employ nuclear blackmail.

In order to defend SDI, quite paradoxical arguments are being produced. Alas, they are finding a certain response in the circles of scientists and politicians. They are saying that SDI is the road to the development of science and to new heights of scientific-technical progress. But I say to you that this is reason turned inside out, everything turned upside down. Surely we can progress in science, technology, and all components of scientific knowledge, including the creation of new materials, radio electronics, computer technology, mathematics, and so on, in implementing peaceful projects. The "Vega" program is a vivid and convincing example of this. That is a very interesting project. I listened to Academician Sagdeyev and other scientists of ours who implemented it with the participation of foreign scientists. New solutions were needed in order to guarantee control over the guidance of a complex piece of equipment at vast distances. This was resolved. Stable radio and television communication was required; that was achieved. New mathematical discoveries and calculations for dealing with that very complex task were required. They were made.

Accurate information about Venus and Halley's comet had to be provided. That was done.

Many countries took part in the project, including Western countries. There is particularly fruitful cooperation between Soviet and French scientists in this area.

Now we have undertaken to solve the problem of obtaining a reliable energy source. Energy issues, like issues concerning food and ecology are the central global issues for the future. If there were no plans connected with military matters this peaceful project would advance all the more quickly. Recently N.I. Ryzhkov, chairman of the USSR Council of Ministers, presented to the United Nations on behalf of the Soviet Government our proposals on the development of international scientific cooperation with the aim of the peaceful use of space.

Thus, science can be advanced in a peaceful field. The argument alleging that science and technology can be advanced only with the aid of the arms race is absurd.

The question arises, well what is going on? Who has taken away -- God? -- the capacity to understand the realities of the present-day world, of the nuclear missile and space age?

These two people here (points to portraits of K. Marx and V.I. Lenin) taught us to figure things out thoroughly. You have to clear all the garbage from the surface and bring out the motives, the interests lying at the basis of this or that position.

Whose interests are served by the proposals of political forces, scientists and the public insisting on a reduction in the arms race, on embarking upon disarmament, and finally destroying nuclear weapons? I think it serves the interests of all people. And there are no higher interests than that.

We understand that there may be interests of a group of countries that want to use their over abundance of weapons for political pressure. There are other interests, I would say, of a lower order. There exist the interests of the military-industrial complex. This is also real. But, in the first place, these are not the interests of one nation or another, far less of human civilization; and in the second place, neither peaceful research nor energy research, and so on, would suffer from a halt in military research and production. Those forces that today are engaged in the creation of weapons could work fruitfully in peaceful areas. Niether science, nor enterprises connected now with military matters would remain unoccupied. On the contrary, everyone would win.

Thus, a new way of thinking is needed. The pressing questions of the present times, let alone those of the next century, cannot be answered using the ideas typical of the past centuries, even decades, and in any case of the time before the emergence of nuclear weapons and the expansion of the scientific and technical revolution that has been observed only recently.

I do not want to impose my judgment and do not expect you to adopt it without thinking. We gave a rendering of our views at the congress. Their gist can be summed up by saying that we are all living in a nuclear and space age, living in a complex, interrelated world full of contradictions. We have to learn how to live together, no matter how different we might be. Other countries have their own kind of democracy, and let them use it as much as they want. They should not infringe, however, on our right to use our own democratic values. But these are all secondary questions anyway.

The principal issue is that we will either survive, cooperating and preserving earth, ocean, sky, the entire environment, or we will bring civilization to a fatal end. We must rid ourselves of ideas whose time has passed, particularly that of seeing the world as one's domain. The present-day world is one of cohabitation of peoples and states, it is a multitude of countries, each with a history of its own and existing at a certain stage in its development. Everyone, however, should admit that every country has a right to choose its own state structure, to conduct matters independently. We recognize that and will act accordingly. But we demand that this rule also be respected by others. If this sovereign right is not recognized for each country, each people, chaos will come to international relations.

It is not enough, however, to recognize this philosophically, one must also behave in conformity with this and act accordingly. You can be certain that we will firmly adhere to this conviction. At the same time, we do not at all wish to consign the fate of the world and our own country, and that of other peoples, to the mercy of those who intend to dictate their will to the entire world.

When we speak of the United States, with which we are constantly conducting discussions, at time sharp ones, we do not at all depict it in an unrelievedly black light, or even in two colors: black and white. We see the real America, America as it is. We know that there are also many people in U.S. society who share a realistic approach to contemporary problems.

We must work and create a new type of relations in international and inter-state affairs. Neither the Soviet Union nor the United States will succeed in commanding the world. The world has changed. If this is not acknowledged, great mistakes may be made in policies. We proceed from precisely this premise, and you will become convinced of it. I think that the Soviet Union has already provided serious arguments confirming this point of view.

Returning to the forum's theme, I wish to say in conclusion that I am in total agreement with your view that an end to nuclear tests would be a major step in the right direction: toward stopping the arms race and the perfection of nuclear weapons, and ultimately, toward their elimination.

The thought was expressed here that this forum of yours should not be the only act, and that the initiating group should continue its work.

A useful example of this is the initiative of Soviet and U.S. doctors. After all, it started with what appeared to be a one-time-only meeting for them, but it developed into a movement, a very influential movement of authoritative people. And I think that if scientists connected with another field, with technology, continue the efforts begun in Moscow, we will only welcome it. But this, of course, is your affair.

I am very satisfied at this meeting and, what is the main thing, with its spirit and content. It is necessary for politics, and science to cooperate now as never before. There should be no science in our time that does not consider the political consequences that some or other discovery or achievement may have. And there should be no politics that are not guided by the achievements of science, its strict analysis, objective assessments and forecasts.

I am in favor of a union of politics and science. This will lead to a gain for every state both in internal affairs and in solving such problems as the ones we have been talking about together today.

I thank you. I hope that the affair, which you have begun, will develop and receive the support of all those who are concerned about the present situation in the world.

## INTERNATIONAL SCIENTISTS HOLD PRESS CONFERENCE

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[Press conference at USSR Ministry of Foreign Affairs on 14 July chaired by Gerasimov, chief of the Information Department of the USSR Ministry of Foreign Affairs, with Academician Yevgeniy Velikhov, vice president of the USSR Academy of Sciences; U.S. scientist Professor (Devint) — not further identified; Academician Fedoseyev, vice president of the USSR Academy of Sciences; Professor Nathan — not further identified; U.S. Professor TheodoreTaylor; Professor Joseph Rotblatt of London University; Professor Frank von Hippel of Princeton University; Professor Thomas Cochran, chief geologist of the U.S. National Resources Defense Council; and Professor Giovanni Marini-Bettoli of Rome University — recorded; individual speakers introduced by announcer's voice-over; video shows participants seated on platform]

[Text] [Velikhov] The idea of holding the forum was first expressed during the conference of scientists which discussed questions of the struggle against the nuclear threat and stopping the arms race. During that conference some of our guests from various countries met and we discussed a wide range of technical problems connected with this. The idea was put forward — an idea was born during a discussion of these matters with Professor Von Hippel, who represented the Federation of American scientists — of jointly conducting scientific research, using the very latest potential of seismology and seismography, up-to-date technology, in order to prove how reliably we are able to verify the halting of all nuclear tests. Naturally, it was suggested that it was one thing to discuss and talk, but another thing to work jointly on it. And so the Soviet scientists supported the idea of the American scientists that a joint Soviet-U.S. group should be set up that would conduct such experiments near the Soviet test base in the area of Semipalatinsk, and the American test base in Nevada.

We started preparing for these experiments — and we agreed that we would do it very quickly — in a period of about 1 month. The Soviet scientists appealed to the Soviet Government and the American scientists to the U.S. Government, and to a number of organizations for help in this work. The Soviet Government examined this question very carefully and gave permission for the Soviet scientists to carry out such joint work with the American scientists. It must be stated that the work went fairly quickly. We agreed that it was advisable to hold a forum at the beginning of July, and simultaneously that by that time we would try to install seismic equipment in the place we had agreed on for further research. On Sunday, the second day of the forum, Professor Cochrane, a geophysicist in charge of the Council for Environmental Protection in the Jnited States, reported to the forum that the equipment was installed, that joint work had begun and that the first oscillograms had been plotted.

I shall try to give a brief summing-up of the importance of the forum. The forum discussed the question of the technical means of monitoring compliance with a moratorium and subsequently a total ban on nuclear weapons testing. And so, technically speaking, the road to concluding a comprehensive nuclear test ban treaty is open.

Today, after the forum had concluded, we presented Mikhail Sergeyevich Gorbachev with the forum's declaration, which was adopted virtually unanimously. Having read the document, Mikhail Sergeyevich Gorbachev said he considered this a responsible document composed by a competent forum and deserving the most serious attention. The Soviet Government will examine and reply to the questions posed in the declaration.

[(Devint)] in English with superimposed Russian translation] The installation at Semi-palatinsk last week of monitoring apparatus is evidence of the Soviet Union's serious interest in ensuring mutual trust between our countries. And it is very good that we were allowed to install such equipment just before installing analogous equipment in the United States. I think this shows that the Soviet Union is prepared to prove through its actions its interest in this issue.

[Fedoseyev] Academician Velikhov has reported here on the chief provisions of the declaration, and the results of the forum. It is perhaps only worth emphasizing again that the declaration speaks very strongly and vividly of the danger that threatens humanity when nuclear weapons are put into action. We, the declaration says, are faced with a simple and relentless reality: Human civilization will not survive a nuclear war. And the fact that this is stated by authoritative scientists from over 30 countries gives great weight to such a declaration. The view was general, and it is reflected in the concluding section of the document that states that in the future a total monitored nuclear test ban could lead to the total elimination of nuclear weapons and other means of mass destruction.

[Nathan in English with superimposed Russian translation] I would like very briefly to draw your attention to two very important clauses in our declaration. These lines are at the bottom of the first page. It is stated here: We hope that on its side, the United States will adopt a decision on a moratorium identical to the decision made by the Soviet Government. And we hope that the Soviet Government will be able to maintain the moratorium. The Soviet Government's present moratorium expires on 6 August, and we decisively call on both governments — on the Soviet Government to continue the moratorium, and on the U.S. Government to join the moratorium.

[Taylor] For me, this forum has been an important step in my consciousness of the perniciousness of nuclear weapons. Shortly after the end of World War II, I was in Los Almos where the first atomic bomb was built. I was one of those who supported the creation of nuclear weapons. We saw in what we were doing the possibility of putting an end to war, by making weapons so numerous and so large that war would become impossible. However, the wars in Korea and Vietnam showed that we had adopted an incorrect position. I have totally changed my views about nuclear weapons. I stopped seeing them as weapons of universal power, and now feel a total aversion to them. I could not in any way support any policies that advocate the use of nuclear weapons, whatever the conditions.

I think that this forum has brought the 150 delegates who participated in it to the same conviction. With the help of the American public, we would like to call on the U.S. Government to follow the courageous example of the Soviet Union. The other nuclear countries — the United Kingdom, France, and China — should also join this all-embracing process for a nuclear test ban. And this must happen soon.

[Rotblatt in English with superimposed Russian translation] We have been talking about the new thinking, which amounts to the fact that possession of a large number of weapons, and carrying out a greater number of tests, in no way increases one's security.

I think that only measures for halting the arms race will lead us to greater security. I would like to stress that opinion in other countries is gradually changing as a result of the moratorium declared by the Soviet Union. Opinion polls in the United States demonstrate that during the 3 months following the second extension of the moratorium, the number of people in favor of a similar step by the United States increased from 40 to 56 percent. This is a considerable increase. In the United Kingdom a public opinion poll in which people were asked whether, following the Soviet moratorium, similar measures by the British Government should follow, 84 percent answered in the affirmative.

[Question by SANA correspondent in Russian] The forum representatives had a meeting today with Mr. Gorbachev. Will there be a meeting with Mr Reagan, and to what extent are you sure that Mr Reagan will pay attention to your appeal?

[Von Hippel in English with superimposed Russian translation] We will ask for a meeting with Reagan but I do not know whether he will receive us. And as to the second part of the question on how our declaration will be reflected in U.S. policies, I would think rather that it will have an impact on public opinion, which in its turn should influence policies. But this has been a very important exchange of opinions among scientists from all over the world.

[Question by unidentified journalist] Will the Semiplatinsk station be permanent, and will there be American scientists there all the time, either on a temporary or on a permanent basis? And further, has there been a reaction from the U.S. Administration to the suggestion of installing a similar station in Nevada?

[Cochran in English with superimposed Russian translation] We plan to use such stations in the Soviet Union and in the United States for 1 year. Shortly before that time is up we will get together and decide whether such stations are to continue operating further. If we decide that it is in our interests to continue operating such stations, we will do so.

As to the question about Nevada, I have made inquiries with the U.S. Government. There are no provisions in the agreement that would prevent Soviet scientists from going to Nevada and installing similar equipment. What we are talking about is similar equipment that will be installed at three stations in the area of Nevada around the test-site. I think that in the near future, sometime toward November, we will see Soviet scientists in the Nevada area.

[Marini-Bettolo in English with superimposed Russian translation] I found it most interesting to be able to have a meeting freely with General Secretary Gorbachev and to discuss with him the questions we had been dealing with. I believe our group was meeting here a man who understands our feelings well. I hope that this meeting will lead to certain definite results on the international scene.

## U.S. SCIENTISTS BEGIN NUCLEAR TEST MONITORING

LD141532 Moscow TASS International Service in Russian 1355 GMT 14 Jul 86

[Text] Karaganda, 14 Jul (TASS) -- Correspondents Lev Chernenko and Vladimir Itkin report from east Kazakhstan:

Perhaps talk by 100 percent of Americans was heard for the first time in this place. In line with an accord reached between the U.S. Natural Resources Defense Council and the USSR Academy of Sciences, U.S. scientists have begun installing equipment here to verify the moratorium on nuclear blasts. In the United States of America a plan is being developed to receive a group of Soviet specialists who will carry out observations near the nuclear test site in Nevada.

Having spent 4 days in Kazakhstan, Tom Cochran, deputy chairman of the Natural Resources Defense council, left here for Moscow for the international conference with scientists for an end to nuclear tests, taking with him the first seismogram obtained on American instruments. Some 3 dozen autographs in Russian and English have been left on it by scientists, specialists, and journalists. Giving his appraisal of the first seismogram, Tom Cochran said: "In this place it is calm".

The Americans have transported over 2 metric tons of cargo to Kazakhstan. It was initially delivered to Karaganda (3,200 km from Moscow), and then 5 AV-2 biplanes took the load to Karakaralinsk.

Great significance for the success of the work is attached to the place where the equipment is intalled. It is important for obtaining integrity in the results. In accordance with the sides' accord, the equipment in Kazakhstan and Nevada will be American. Using identical instruments will avoid divergences in parameters.

American scientists plan to deliver more complex equipment here. With the help of the Soviet side bore-holes up to a depth of 100 meters will be drilled. Installation of the instruments at the bottom of these bore-holes will totally exclude outside interference.

During the course of the year, two American specialists will be stationed near Karakaralinsk. Together with their Soviet colleages, they will observe earth vibrations here and at another two points 150-200 meters away from the town.

Every 3 hours they take instrument readings. Even at night taking over from one another the scientists go up about 30 meters from the base to the seismographs. They had little time for an interview. Nevertheless it was possible to have one with James Bruin, professor at the University of California in San Diego; and one of leaders of the American project, Charles Archambo, a professor from the University of Colorado.

James Bruin highly assessed Soviet seismological science. He said that by participating in this experiment he would like to make his contribution to resolving the problem of disarmament halting nuclear tests.

According to Archambo, Soviet scientists will carry out work in Nevada as soon as August. The delay is only over selecting the site.

## ENVOYS TAKE GORBACHEV ARMS MESSAGE TO WORLD LEADERS

LD151001 Moscow TASS in English 0947 GMT 15 Jul 86

[Text] Moscow July 15 TASS -- At a briefing here today, Gennadiy Gerasimov, head of the Information Department of the USSR Ministry of Foreign Affairs, drew journalists' attention to the fundamental provisions and aims of the Soviet peace proposals. "At present", he said, "special envoys of the USSR are being sent out to many countries to deliver an oral message from Mikhail Gorbachev, general secretary of the Central Committee of the Communist Party of the Soviet Union (CPSU), to the heads of state and government".

"Their aim is to emphasise the importance of solving the problems of disarmament at an earliest date while a war-starting decision is still taken by the leaders of states, and not by computers", Gennadiy Gerasimov emphasised.

Special envoys who are authorised to deliver the oral message will also explain the contents of the Soviet peace proposals and will answer questions that may arise regarding its contents.