

**PROSPECTS OF MANKIND:
NUCLEAR TEST BAN: FIRST STEP TO ARMS CONTROL**

February 12, 1961

Description: On arms control and the nuclear test ban, ER interviews Hans A. Bethe, Chet Holifield, Henry Kissinger, and Laurence Martin.

Participants: ER, Chet Holifield, John Strachey, Henry Kissinger, Lawrence Martin

[Theme music begins 0:25]

[Kent Pelot:] [Voice Over] Recorded on the campus of Brandeis University in Waltham, Massachusetts, National Educational Television presents the WGBH-TV production, Mrs. Eleanor Roosevelt, *Prospects of Mankind*.

[Title Sequence:] National Educational Television / Mrs. Eleanor Roosevelt / *Prospects of Mankind*

[Theme music ends 0:46]

[Motion picture images related to announcer's commentary]

[Kent Pelot:] [Voice Over] This is what test ban negotiations are all about. 274 tests similar to the ones you are now seeing have been detonated since 1945, releasing the equivalent of 175 million tons of TNT. This would fill a freight train extending one and one half times around the world.

Of these 274, the Soviets have been responsible for fifty-five since 1949. The United States almost three times that many, 159 to be precise. Great Britain twenty-one, France three. France plans a fourth detonation in the near future, but the three big powers have sustained their renunciation of testing for the past two years.

[Theme music begins 1:45]

[Kent Pelot:] [Voice Over] At the same time in Geneva, they started earnest discussions to arrive at a formal agreement which would put an end to the testing of nuclear weapons. There have been periods of encouraging progress, punctuated by times of stalemate and boycott. After 237 meetings, there has been no written agreement. [Theme music ends 2:10]

Russia and America disagree on the problem of inspection and adequate safeguards for detecting certain kinds of tests. Large nuclear explosions above ground can be detected, but there is no foolproof system for knowing if a nation is cheating on underground tests, especially those of smaller weapons. This series of underground bursts within a Nevada hill, the last test the US made in 1958, helped scientists learn what can and cannot be detected. [Music begins 02:58]

President Kennedy has asked that the Geneva negotiations be resumed in late March in order to give time to his advisors to work out a unified policy. What will this country's policy be? What are the conflicting

points of view that must be reconciled before we go to the international conference table to resolve one of the major issues of our time? (2:59)

[Bob Jones:] [Voice Over] Mrs. Roosevelt and her guests discuss the test ban as a first step to nuclear disarmament. Her guests are, [Camera zooms in on each individual as they are introduced] Congressman Chet Holifield, who is the new Chairman of the Joint Congressional Atomic Energy Committee. Last April, he conducted the subcommittee hearings on the capabilities of nuclear testing. The Right Honorable John Strachey, MP, was the former Secretary of State for War under the Labour government, and is the Labour Party's official spokesman for aviation and other defense matters. He is the author of the forthcoming book, *The Prevention of War*. Henry Kissinger of the Harvard Center for International Affairs and Director of the Harvard Defense Studies Program, is the author of the bestseller, *Nuclear Weapons in Foreign Policy* and his most recent book is *The Necessity for Choice*. Lawrence Martin is a political scientist at MIT and a member of the Institute of Strategic Studies in London. He will join Mrs. Roosevelt in the questioning of her guests. Now, here is Mrs. Roosevelt. (03:56)

[ER:] Good afternoon. We are discussing today the nuclear test ban. First item to arms control. And I think that I would like to begin this discussion by asking you, Congressman-uh Congressman Holifield, exactly why you think, or why you consider that the test ban has become the first item on the arms control agenda.

[Chet Holifield:] I think it might be because uh it has assumed a great importance in the minds of all the people of the world due to the publicity that has been given it, and due to the propaganda that has been attached to it for something uh near three years now. As you know, we've had twenty-seven months of negotiations in Geneva, and that's uh-uh received a lot of publicity, and I think people are just interested in this subject.

[ER:] Well, that would be a reason for the um, for the public generally. But do you think that in government it is felt also to be the first step that has to be taken?

[Chet Holifield:] I don't think that uh it's the important-the most important step, I think it's one of the items which has to do with disarmament, but uh I certainly do not think it is the controlling item, uh notwithstanding the publicity it's received.

[John Strachey:] I--

[ER:] What do you think, sir?

[John Strachey:] I was going to say, I think from a British point of view, we do think of it as this first step uh mainly because it does look like something which might possibly be done. That there's much more hope of a treaty in this field than in any other. The negotiations seem to us more serious. We supposed at one time that it was very easy to inspect, we understand of course now that it's not as easy as we hoped, but uh some part of it is still inspectable, at any rate. And uh I think we do feel that uh, though a limited step, very limited step, it is the first one and perhaps the indispensable one, the only way to get the process of negotiation and disarmament started. I think that's, in a way, why-why people's hopes are so focused on it, 'cause I agree they--

[ER:] And that is-that is why Great Britain has this feeling, because I-I think most of us believe that Great Britain is stronger in feeling that this should happen than perhaps we are in the United States. And yet, I think there's a great feeling among the people here that this is the one thing that can be done next. Professor Kissinger, what's your feeling about this?

[Henry Kissinger:] Well I think one should distinguish uh between the situation today, and the situation that obtained when uh the test ban negotiations started. Uh at this point in time, they are the negotiations that have been going on longest, that have had the greatest amount of scientific study behind them, uh that have received the greatest publicity and it's therefore natural that there is a feeling that if these negotiations fail after two and a half years, uh it may be rather difficult to take another step. I would think that two and a half years ago, when the test ban negotiations first-first started, there was--there were two major factors. One, the fear of genetic dangers of the fall out, which created--uh which worried people. Uh the second was the belief in, that--that this was reasonably easy to inspect and was actually a rather small step towards other agreements. No one thought one would negotiate for two and a half years [ER: Uh well--]. But I'm--

[ER:] Of course that has come about because of new discoveries, hasn't it? I mean--

[Henry Kissinger:] Quite.

[ER:] The--the drawn out length has, because new things have come up. Um, how do--how do you feel, Mr. Congressman, about um the possibility um now, of changing um this feeling? Do you think people are less afraid of um fallout because--because in the new discoveries, uh the tests can be made underground and therefore it makes them more nervous about making eh um uh about--about the kind of inspection that must exist.

[Chet Holifield:] Yes, I think that uh the old fear of genetic damage is pretty well dispelled, uh--

[ER:] As long as we don't have--

[Chet Holifield:] [Nods head] As long as we don't have atmospheric tests [ER: (Nods head in agreement) Don't have atmospheric test.] and I don't think any nation would advocate holding atmospheric tests again. (09:06)

[ER:] Would that include also underwater tests?

[Chet Holifield:] Yes, underwater--well no, underwater tests uh would not spread radioactivity uh as much as atmospheric tests, but uh it would not be as safe as underground tests. It's kind of in between.

[John Strachey:] The French are conducting atmospheric tests--

[Chet Holifield:] Yes, I was going to say that uh--that uh the French have held uh two or three tests, as you know, in the atmosphere. They've been small tests and there hasn't been much said about it, but uh this is one of the factors I think that shows the fallacy of--of believing that just because the United States and the United Kingdom, and the Soviet republics agree to a cessation, that this will automatically stop testing in the world. I think that all of the nations who have an ambition to get these weapons will just go right along their way as France is doing it today and as I understand Red China is planning to do it because they just simply will not agree to come in on the test ban. (10:14)

[John Strachey:] Well of course, we see that just the opposite way around. W--we think that the spread of--of uh nuclear weapons to the nth countries as it's usually called, to generally through the world, is so disastrous a thing that uh we hardly like to contemplate it even. And we do think that a test ban treaty, though certainly no hard and fast barrier against this, is, at any rate, a considerable barrier against this. Especially, of course, as you Kissinger have said very well in your recent book, if it's made as a first step. If the next step, for example, of a nuclear cutoff of production is added to it, then I do think that uh--uh the

big three in this are in a position to put very great pressure at any rate (coughs) on the rest of the world. Put it the other way around, if the negotiations simply break down, then I think we should all give up any hope of preventing the spread of weapons right through the world.

[Chet Holifield:] Well of course you know that I-I would like to see tests uh cease uh in the atmosphere particularly and I think they will cease in the atmosphere--have ceased. But uh-uh I think the facts of life uh are contrary to your hopes because during all of this twenty-seven months of negotiations, the French have gone right ahead, because of their nationalistic ambitions to obtain nuclear capability, and they've held these tests notwithstanding the fact that the whole uh public opinion of the world was on the Geneva negotiations. And as far as China, uh we can't even talk to China. China's not in the combine and yet she controls a great landmass in the world and I can hardly see her being responsive to anything that uh we do, or responsive to world opinion.

[Henry Kissinger:] Well isn't that a question--

[John Strachey:] It's a doctrine of despair?

[ER:] She's-she's going--

[Chet Holifield:] A doctrine of reality, I think. (12:16)

[ER:] Well she controls, of course, a very large portion of the peoples of the world, a quarter of the world's population. But isn't this all the more important, doesn't it make it all the more important to arrive at some kind of an agreement because um what you have been saying, both of you is, that um possibly eh the two powers, the Soviet Union and the United States, um have come to the conclusion that tests in the atmosphere are uh really too dangerous because we know so much about the danger. But that other people, who have not yet acquired the same knowledge, for reasons of prestige are going to want to be on a level with those two powers?

[Lawrence Martin:] I-I wonder whether uh Mr. Kissinger or Congressman Holifield would agree that the Chinese, for instance, would want them solely for prestige or whether they may not have much more pressing reasons than that?

[Chet Holifield:] Well I'd certainly answer that in the affirmative. I would say that the Chinese uh-uh Red China will want them for the use and-and a possible subjugation of Asia. I don't like to be put into the position of advocating tests, but I'm-what I'm trying to do is to analyze this the way it looks to me at the present time. Uh and [Henry Kissinger: I'm--] [ER: What do you think?] -and uh I think that tests should stop, providing we can get a-a-a bonafide system of detection to know that the other side is ceasing their tests.

[ER:] And now, Mr. Kissinger, what do you--?(13:51)

[Henry Kissinger:] I-I would say we ought to separate the various components of this problem [Chet Holifield: Yes, yes, this is the right time.]. The first is, is it desirable to prevent the spread of nuclear weapons? [Chet Holifield: Mhm.] I think we probably would all agree that it is highly desirable to prevent the spread of nuclear weapons [Chet Holifield: (Nods head in agreement) Yes, I would agree.]. The second question is, is the test ban uh a good step in preventing the spread of nuclear weapons? Putting that aside for a minute, I would feel that if we thought it were, I would not fail to go along with it just because I feared that the Chinese and French might never sign it. [Unknown speaker: Yeah, yeah.] The way to find that out is to make a proposal to them and let them refuse it. Uh I would not uh settle that question a-a priori.

Uh what would concern me, in the, with respect to the second question, whether the test ban is useful in preventing the spread of nuclear weapons, is the inadequacies of the inspection system. Because if it is as-if it is relatively easy to cheat, then even if the big powers do not test because they have already reached the limit of what they consider useful, the countries like China might want to evade the ban as a means of getting their own-uh their own nuclear arsenal.

[John Strachey:] May I ask um, just to try and get this clear, what you consider, and we may get agreement I think on this, on the facts, uh what you consider the position on inspection? Now as I understand it from simply--don't think I have any scientific knowledge, I haven't, but just from reading your book, Kissinger, and the other books on the subject, as I understand it uh nobody doubts that big atmospheric tests of thermonuclear weapons or very big fission weapons either in the atmosphere are detectable. But the tests of smaller weapons in the kiloton range, in special conditions underground are undetectable. [Chet Holifield: That's right.] So that it-it rather sharply divides into two uh phases here--

[Lawrence Martin:] Well is that-is that, it--can it be put quite as-as bluntly as that to say that--

[John Strachey:] Well I'm oversimplifying a bit, right.

[Lawrence Martin:] Well yes, uh uh Mr. Kissinger has gone into this in some detail and Congressman Holifield held hearings on it. Um to what extent is uh Mr. Strachey's statement that the smallish underground tests are undetectable. To what [Chet Holifield: Well I-I thi-I--] extent do you go along with that? (16:19)

[Chet Holifield:] Well I might-I might go stronger than uh Mr. Strachey on that. I'd say that the scientific evidence that was uh brought before our committee proves that this is almost an impossible task at the present time with the kind of instruments we have, particularly with the uh opposition of the Soviets to placing them in positions within the Soviet Union so that we can monitor the earth vibrations.

[Lawrence Martin:] Well I was just wondering whether you can actually put a rough estimate on some how big a thing you think it is possible to test uh with presently known techniques of inspection, with a fair uh certainty that you won't be detected. I mean uh-uh Mr. Strachey mentioned a kiloton which is the equivalent of a thousand tons [Chet Holifield: Well, uh--] of TNT, how many kilotons?

[Chet Holifield:] I would say that uh-that uh unless you put uh the present seismographic uh instruments on a grid of not more than six hundred miles apart, that under certain conditions you could not detect a twenty thousand ton bomb, a-a bomb the size of the Hiroshima bomb.

[Henry Kissinger:] Uh let me perhaps uh-uh try to-to bring in a few more factors in relation to this. Uh those who are in favor of-of a nuclear test ban would argue, I think, in order to state their-their case here, too, that there is no such thing as a perfect inspection system.

[Chet Holifield:] No, of course not.

[Henry Kissinger:] And I would, myself, uh believe that uh evasion depends on a number of factors. It depends on the possibility of it, on the uh gains you achieve with it, and on uh and on the actual risks you run in evad-in evasion.

[Lawrence Martin:] Of being detected? (18:12)

[Henry Kissinger:] Of being uh detected. Now uh there doesn't have to be a hundred percent perfect system because if the chances were, say, thirty percent that they would be detected, uh they probably wouldn't cheat. The problem in the test ban, arises from the fact that at one end of the spectrum with high, uh with rather large explosions, the inspection system is very very reliable, say about ninety percent reliable. We're talking about underground--

[Chet Holifield:] Yeah. What size explosions, now?

[Henry Kissinger:] Oh I would say once you get near a hundred kilotons [Chet Holifield: Oh.] and above-- and above, [Chet Holifield: (Nods head) I would agree. I-] I would say--I would say from twenty kilotons on up, it becomes increasingly reliable [Chet Holifield: Yes.]. From twenty kilotons on down, it become increasingly unreliable.

[Chet Holifield:] But would you allow me to say that from twenty kilotons on down to five kilotons is a spectrum of uh a strength of testing which would uh be very valuable to the scientists and would teach them a great many things about improvement. And it's in this area that I'm uh I'm afraid of this area of detection.

[Henry Kissinger:] Yes, but I wanted to pin-pin down, it's the problem of what do we mean when we say the system is imperfect [Chet Holifield: Yeah.]? What we really mean is that it is rather good in some ranges, and rather poor in other ranges, and it would be better if it had a consistent uh expectation of detection. (19:38)

[Chet Holifield:] But it doesn't have.

[Henry Kissinger:] No, it doesn't have.

[ER:] Well, now what we are really up against, then, is the question, which we've always been up against, of how much we can trust uh-uh the people who uh have this knowledge in the world, which happen to be the Soviets and ourselves. And so, what we've been doing, it looks to me, is to try to find out how you would detect cheating. And in doing that, we have certainly um tried to explore every way that anybody could cheat. And we've told everybody how it can be done so uh even if the Soviets hadn't the knowledge themselves, which they probably had, we've added to their knowledge of how they can cheat! And therefore, um what we have been doing is perfectly legitimate. We are trying to find a way to make a perfect inspection system. We haven't found that.

Now, I would like to know from you gentlemen um whether the risk of going on with this--these experiments is greater uh than the risk uh taken of having no agreement and no inspection, uh no effort at inspection and some kind of--of uh a decision to uh to trust each other to a small extent, to a great extent?

[John Strachey:] May we-- may we take that in two parts, Mrs. Roosevelt? [ER: Yes.] 'Cause I was rather struck by what these two colleagues said, that they thought that uh right at the beginning of this talk, that even if there was no treaty, there would be no resumption of testing in the atmosphere of the big stuff. Now, I don't believe we in Britain uh would take that optimistic view. We would think that if the treaty breaks down and negotiations called off, rupture, total failure, then, sooner or later, one country or the other, or perhaps a third country too, would begin testing again in the atmosphere. Because, after all, uh in those circumstances, the arms race would still be on and still uh the competition in uh in arms would be undiminished, and I should have thought in particular, the new countries who come into the business, want to go in at the large range of weapons just as the French have. They're not particularly interested in the small kiloton ranges. And so we should fear that if there was no treaty, uh the testing of uh big stuff in

the atmosphere would begin again, and I'm bound to say I think this would uh create great, great despair in the world. (22:38)

[ER:] Except, Mr. Strachey, that it is for the mutual um well--interest of the world, let us say, not to begin um atmospheric testing again. And it's so well understood now--

[Chet Holifield:] And so easily detectable (nods head in agreement).

[ER:] And so easily detectable, but if we have no--

[John Strachey:] Well, as Congressman has said [shakes head in disagreement]--

[ER:] If we have no agreement, then there's no point in detection because um being no agreement uh no--no treaty of any kind--

[John Strachey:] It's actually kind of--

[ER:] Anyone has a right to go ahead and do it.

[John Strachey:] It hasn't stopped the French, as he pointed out. (23:15)

[Henry Kissinger:] But you see, uh I would feel-I would feel very strongly that regardless of what the French do, or the Chinese do, we should unilaterally declare that we would not engage in fallout testing. Uh and regardless of how the test ban negotiations come out--

[Chet Holifield:] I would agree with you on that, Dr. Kissinger.

[Henry Kissinger:] And secondly I--

[John Strachey:] But would you be able to maintain that position? [ER:Why--?] With no treaty, with the Chinese the way, the Russians--?

[ER:] Why wouldn't you have--why wouldn't you try for a treaty?

[John Strachey:] Exactly.

[Henry Kissinger:] Well, I--

[ER:] On that basis, anyway.

[Henry Kissinger:] I would prefer-I would far prefer a treaty uh specifying that no one would engage [ER:Yes.] in fallout testing, but if it should turn out that no treaty of any kind is negotiable, I believe that the United States should nevertheless not engage in fallout testing any-any longer. (24:06)

[Chet Holifield:] Well we've offered this to the Soviets, you know? We've offered uh a treaty on atmospher- on a ban against atmospheric testing and they say, "No, we must have a complete treaty on all kinds of testing."

[Lawrence Martin:] Could-could we go, I was wondering whether we could go--

[John Strachey:] Yes they take now the second part, yes.

[Lawrence Martin:] Yes, I was going to say, Mrs. Roosevelt, could we uh go back, you-you asked a question [ER: Yes.] as to what would be the risks of-of [ER: Yes.] the Russians evading. It seems to take us right back to the beginning, as we-we almost got to the point of what would anybody hope to gain from testing right now? Uh and therefore sort of what are the motives uh that should lead a country to evade? Now, I gathered from uh-uh Mr. Kissinger, that uh, it's quite obvious why some of the countries that haven't got nuclear weapons should want to test, so that they might get them. But how about the countries like the Soviet Union and the United States who have a whole range of weapons? What is it we are afraid of that the other side might gain?

[Henry Kissinger:] May-May I make first a point uh-uh first with respect to what Mrs. Roosevelt said, that we've been trying for a perfect inspection system. It is my impression from every scientist, both pro and con that I have spoken to on this issue, that there's general agreement now that there is no such thing as a perfect inspection system [John Strachey: 'Course not.]. In fact there is rather general agreement about the nature of the imperfections of the inspection system. The disagreement arises with respect to the question which Mr. Martin has just raised, namely, what do you gain if you evade? Uh and how do you balance the gains of evasion against the gains of a continued arms race? This-this is the real question. I think it would be very dangerous to sell the test ban to the American people with the argument that it is an inspectable agreement. The inspection system just really has the primary significance of increasing the cost of testing by making-by-by forcing certain evasion--

[ER:] By forcing it underground.

[Henry Kissinger:] By forcing it underground. But it does not prevent it

[John Strachey:] But are you, are you dividing it enough here? It is effective for the big stuff [Henry Kissinger: Yes.]. It is only ineffective in the testing designed therefore to perfect the smaller or tactical nuclear weapons.

[Henry Kissinger:] It is.

[John Strachey:] Now, therefore, the incentive to cheat is really the incentive to perfect your smaller or tactical nuclear weapons [Henry Kissinger: No, the incentive is whatever--] which may or may not be very important.

[Henry Kissinger:] Yes, the incentive is whatever you can learn from the kinds of tests because after all you--I've been told, uh my scientific knowledge on my own is spectacularly bad, but uh my understanding is that there are some kinds of tests of relatively small weapons from which you can extrapolate [John Strachey: Ah, no doubt, yes.] to larger-to larger ones. So that--(27:00)

[Lawrence Martin:] And also could-could I just say that Mr. Strachey was talking about tactical uh nuclear weapons, quite small ones. Now uh Mr. Holifield mentioned twenty kilotons and that is, as I understand it, a simple underground explosion that might be hard to detect, even without going into any of the new devices that are being invented for masking it [John Strachey: Oh no, I think it is worth--]. Now if you start masking you get up to--

[John Strachey:] It is worth decoupling that, isn't it?.

[Chet Holifield:] Uh the twenty uh--

[Henry Kissinger:] Ah yes, you'd have to decouple surely for that.[Lawrence Martin shakes head].

[Chet Holifield:] Twenty Kilotons, without uh without adequate uh checkerboarding of existing instruments would not be detectable. There's over a hundred seismic disturbances in the Soviet Union every year [John Strachey: Yes, there is. Yes, yes.] and uh they are the equivalent of twenty kiloton or more.

[Lawrence Martin:] But would I be right--

[Chet Holifield:] And you cannot tell the difference between a twenty kiloton nuclear explosion and a natural seismic earth uh earthquake vibration [ER:Yes.] at the present time. Now we did not, I want to spend--pick up the point about a perfect system. We've never thought we would have a perfect system, we offered to come down from the hundred investigations to twenty investigations on the law of probability of chance, Von Neumann's mathematical probability of catching a person in error if you have twenty times out of a hundred events. So, we never asked for a perfect uh system. We hoped we could get a good system. but we-we just know how imperfect any system that we have is today. (28:21)

[Lawrence Martin:] Now--could-could I just say, because I'm sure that it's not altogether clear to-to-to all of us. What you're talking about now is the fact that you can identify in the Soviet Union by-by seismographs, a certain number of incidents and it's then necessary to go in, and go to the places where you detected the event and find out whether it was a bomb or whether it was an earthquake?

[Chet Holifield:] That's right. And we-we know that there's a hundred of those events on an average in a year. We offered to go in only twenty times, and after twenty-seven months of negotiation, they came up with three times, they would let us go in three times. And according to the mathematicians who figure out these-this probability of catching someone, this is completely inadequate.

[John Strachey:] Yes. (29:00)

[Lawrence Martin:] And also I-I-I-- these could be quite big uh tests?

[Chet Holifield:] Oh yes. [Lawrence Martin: I mean not to dismiss them as twenty.] And they don't have to be twenty kilotons, they can be ten or fifteen or seven or eight because many of these devices, when you test them, uh it-it proves that they actually work. You can measure them underground and then you can extrapolate and make larger ones and make your larger size weapons from the smaller ones.

[Henry Kissinger:] OF course, the question that one-that one has to balance here is uh whether the ten percent risk at-at that level of twenty kilotons is worth whatever price they'll have to pay uh--

[Chet Holifield:] Well let me point out--let's ask how-how much worth is this cessation of testing. Testing is only one phase of military preparedness. We're developing missiles, we're developing uh nuclear submarines, we're developing all kinds of delivery systems, satellite delivery systems. These are actually delivery systems for weapons that we have already. These are more important and more directly concerned with disarmament, in my opinion, than-than testing of one particular type of weapon, and yet we're doing nothing about that.

[John Strachey:] Doesn't that argument cut both ways? Uh this is one of the reasons why we think this is so important in the sense that it's possible, is that it isn't absolutely vital. That this would not cut into the vital deterrence, of either the Soviet Union or the West, and therefore it's a practicable first step. Because as you both say, you can't get a perfect inspection system. Therefore, let's begin in something which uh our vital interests are not concerned. You quite rightly said--.

[Chet Holifield:] I'm willing to begin and for twenty-seven months we have been beginning, and we have arrived at no conclusions.

[ER:] (Laughs) You haven't arrived at any conclusions! (30:48)

[John Strachey:] Yes and curiously enough, you've trusted the Russians for those twenty-seven months totally [Chet Holifield: That's right.]. Now if you have a treaty, however imperfect, it won't be the same degree of trust that you've been showing in those twenty-seven months [ER: Well the more you--] and an imperfect treaty [ER: The more you argue--] is a great better than nothing.

[ER:] The more I wonder whether the real question-- um we're taking here exactly as though this was a question entirely between um the Soviet Union and the United States with a little side look on Great Britain and France and uh Communist China. Um now you would call, I suppose, a treaty an international treaty, but I'm wondering whether what you consider to be an international treaty and whether this doesn't this bring us down to the basic question of whether we can really do anything at all until we look upon this as part of a future um general uh arms control and therefore of necessity uh a part of UN control, of United Nations Control. (32:02)

[Chet Holifield:] Well I-I fear that we will never arrive at a-at a an agreement on a unilateral basis or a trilateral basis, and this doesn't mean that I haven't been in favor of attempting it. I think that we have attempted it, but the very fact that for twenty-seven months, we've negotiated and I've sat in on some of those negotiations in Geneva personally, and I've seen the attitude of the Soviet negotiators and I must come to this conclusion very reluctantly, that they do not want to make an agreement. I--(32:30)

[Henry Kissinger:] But I must-let me say this, my-my concern is a different one from that of the Congressman. Uh my concern is the posture we've taken towards ourselves uh throughout these whole negotiations. I'm afraid that what is being debated in Geneva today may very well be irrelevant to the issues. If the Russians accept our proposals on inspection tomorrow, this will not improve the inspection system significantly [Chet Holifield: That's right.]. You yourself said there are a hundred events similar to a twenty kiloton explosion [Chet Holifield: Yes.]. Well there are several thousand-there are thousand similar to a one kiloton explosion [Chet Holifield: Yes.], and several thousand it--the further down you get. Well the difference there between three and twenty-three inspections, while helpful, is not very significant. And this is not yet taking into account the possibility of-of testing in cavities where you would have even greater confusion.

We have been pretending to ourselves that we are arguing about inspection. When the debate that should be going on is really the question that Mrs. Roosevelt asked and that Mr. Martin asked, uh since it is clear that evasion is possible in certain ranges. What motives would anyone have for evading, that is where would he get by-by evasion? Compared to--

[ER:] What would he get by evasion, and what is the value of evasion?

[Henry Kissinger:] Exactly. Compared to--

[ER:] Compared with compliance.

[Henry Kissinger:] Yes and also compared to where we would be uh what the dangers of an arms race uh without--

[Chet Holifield:] Well but this doesn't stop the um the arms race. I've tried to point out that this is merely a-an-a very insignificant and indirect uh connection with disarmament. You've got the development of

submarines, of missiles, of space satellites. All of these have military, and direct military implication and yet there's no talk about-controlling them or stopping them.

[ER:] Yes.

[John Strachey:] Oh Congressman, there's a great deal of talk about it. It's only the--

[Chet Holifield:] Well there's no negotiations on it. (34:40)

[ER and John Strachey speak simultaneously]

[ER:] Well, but Mr. Congressman, it deals, doesn't it --

[John Strachey:] Well no, but we had negotiations all last year on them--

[ER:] If you can't have the trust to do this [John Strachey: Quite.], then you'll never have the trust [John Strachey: Exactly.] to come to an agreement on any of the others.

[Chet Holifield:] Well we haven't had the trust to do this. I'm pointing out the facts that we haven't had the trust, and I see no reason uh to hope that suddenly the people of the United States and Great Britain will trust the Soviet Union uh on a course of action. Their whole history, their whole dominant ideology is one of using deceit wherever they need to use it to obtain their goal, and their goal is world domination. And--

[Lawrence Martin:] But Congressman Holifield--

[ER:] Then the question is whether uh it is worth um, whether deceit is worthwhile which you just brought up [gestures to Henry Kissinger].

[Henry Kissinger:] In fact, I would like to say, that we shouldn't justify any disarmament, or arms control agreement on the basis of trust.

[Chet Holifield:] I agree with you completely.

[Henry Kissinger:] Because what makes them so important is precisely the absence of trust [John Strachey: Of course.]. We don't need an arms control agreement with Great Britain [ER: No.]. And we don't want to set up different standards, say when we have an agreement with Communist China, compared to one with the Soviet Union and ask for more inspection on the same issue [ER: Yes.]. So that it would seem to me, the issue ought to be analyzed, really, apart from the question of whether we [ER: Trust.] can trust them, but of assuming that we cannot, what their motives might be for evasion. (36:12)

[ER:] Yes.

[John Strachey:] And I would say, that as I read your material on this, um Brennan and Halperin's paper is-is extremely important. It does seem to me on that, there are motives for evasion, to gain something, but not very much. I do not believe that in this lower range of explosions, which are alone at issue, we must get that clear, if it was-if they can get away with um testing thermonuclear weapons undetected, then of course we couldn't trust that. But what is uh in-in dispute here is the lower range of smaller test explosions which, no doubt it's handy for a party to undertake, but which are not overwhelming motives. Now it may be that it's better to say, "look, we can't inspect these" and don't let's pretend we can and have a mor-moratorium on this. That may well be. I think that's what you think, Kissinger, on this--

[Henry Kissinger:] Yes, that's uh--

[John Strachey:] That's quite a possible view.

[Henry Kissinger:] But my-my own view, and at-at this stage it's this: I would like to gain time in this country for a- for the kind of analysis which I don't think has taken place yet. And to-to relieve the pageant somewhat. I would be in favor of-of an agreement up to the point which is inspectable, that is about twenty kilotons. [Chet Holifield: Yeah.] I would be willing to have a moratorium for another period, that is a declaring unilaterally that even though we know it cannot be inspected, we would cease testing for a say eighteen months more in order to be able to find--to study the question which you just discussed [Unknown speaker: mmm.] because of what anyone would evade. And frankly, I would keep the people who have been connected to the debate up 'til now off these committees because they've been talking to each other for too long and they know each other's answers too well. And try to bring in a new group.

[John Strachey:] A fresh team.

[Henry Kissinger:] To look at the existing state of discussion. I'm--(38:20)

[Lawrence Martin:] Looking at it, as I understand it--looking at it from your--this other point of view, that we should think of trust in the sense of um what are the incentives for either side to evade and what do they gain if they did, rather than looking all the time at inspection.

[Henry Kissinger:] I think it's very important to be honest with ourselves and admit that the inspection system is of some help, but is not in itself uh in the lower ranges a decisive obstacle to testing.

[John Strachey:] Yeah, that's right so.

[Henry Kissinger:] Uh and then ask ourselves the other question of why anyone would want to cheat and what they would be doing if they did cheat.

[Chet Holifield:] Well I can answer that too for you right now. I know why they would want to cheat. They'd want to cheat to develop weapons, to increase the yield in relation to size and weight, and uh Dr. Kissinger, you know how many pounds of thrust it takes to put a warhead into orbit, or-or five thousands miles, and you know that the ratio of thrust has a great deal to do with the weight of that warhead and the weight and the size of that warhead, the yield of it, has a great deal to do with research and development. We brought down the size of the twenty thousand kiloton uh bo-uh bomb uh that destroyed Hiroshima, we brought it down from a-a bomb that was uh around ten feet in diameter, uh to a very small one that I could hold in my arms and uh and we did that with research and development.

Now, when it comes to putting one of those great bombs that we used in the B-52 over Hiroshima on the end of a missile, we haven't got the propulsion power to put-put it a thousand miles or five hundred miles. But when you put-bring it down to a smaller size-- and this is what I am afraid of. This is the kind of research and development that can occur underground and-and can be very vital to a nation that continues in a clandestine way making these tests while we abide, as we have uh abided, by our agreement not to test underground [Henry Kissinger: Let's uh--]. That's what I'm afraid of.

[ER:] And they're as suspicious of our doing it as we are of them.

[Chet Holifield:] I know they are, I know they are. And neither one should be in the position of being suspicious of the other. They both should have uh-have this thing settled, not on trust or on suspicion, but on absolute inspection. (40:34)

[Lawrence Martin:] But this is impossible.

[John Strachey:] Well now--

[Chet Holifield:] No, it's not impossible, but they--it's impossible because the Soviets will not agree to the kind of testing which we could do even now with the seismological instruments that we have now. They only want uh three instances a year and they will not agree to the number of stations [ER: But we--] within Russia.

[ER:] But we have agreed that we can't make it perfect in any case.

[Chet Holifield:] Oh we can't make it perfect, there's nothing perfect that I know of in-in-in human history.

[John Strachey:] But he doesn't even think that going up from three to twenty would make any decisive difference.

[Henry Kissinger:] No, no, no. Three-three is ridiculous. [John Strachey: Yes I agree.] Three is obviously ridiculous. Uh but I-I must say, and-and I don't think that the Soviets believe that three--that we'll ever accept three, but I must say that if we were to debate between twelve and twenty, which is where the debate is apt to wind up [John Strachey: Yes, mhm.] uh that-that this would make a great deal of difference and I would be very unhappy if we sold a program to the American people with that argument.

Now, uh, let me say--make a comment about what Congressman Holifield just said and uh I'm doing it primarily to present the point of view of those who are not on this program, who disagree with you. Uh they would say that what it--that it's quite correct, that the weight to yield ratio to be improved, but they would also say that we already possess the capability to destroy the Soviet Union with existing weapons. So the fact that the Soviet Union would be able to do it somewhat more elegantly, uh than we in retaliation is--

[ER:] Can we call it elegantly? [Laughs].

[Henry Kissinger:] Well-well, technically--

[John Strachey:] Economically.

[ER:] Economically [Laughs].

[Henry Kissinger:] Economically, is not-is not a sufficient reason to engage in secret testing. (42:28)

[Chet Holifield:] Well now as long as you've brought up this argument, may I have a chance to answer it?

[Henry Kissinger:] Please.

[Chet Holifield:] And my-my answer to that is that this is a ridiculous argument because this would in-in effect say that you should stop research and development in all fields.

[Henry Kissinger:] Well, of course you--

[Chet Holifield:] Well and be satisfied with what you have now. And I will point out one very notable case. If we had not uh done research and development in the hydrogen case uh we only beat the Russians by nine months and if we hadn't decided-had decided not to find out whether a hydrogen bomb could be made or not, nine months after we actually exploded ours, the Russians exploded theirs, and then we would have been faced with the Russians having this terrible hydrogen weapon in a world, with their ideology of world domination, and we would've been helpless to resist and on-on that uh that uh point. So this is the danger of allowing one nation to-to do research and development and all the rest stopping. If you could stop everybody, why that would be good, but you can't stop everybody. (43:31)

[Lawrence Martin:] Well it's in this area, I gather, Mr. Kissinger, would like to do research, right? Just consider further what, in fact, would be the-the uh effects on weapons.

[Henry Kissinger:] Yes, I-I must say, that if the only progress that were possible, is the kind of progress that is described of-of getting a somewhat more efficient uh warhead uh that in that case I would distinguish between a technological advance and a strategic advance. I would say it's clearly a technological advance. I'm not sure it is uh the size of strategic importance, and perhaps not of the same order of significance as the hydrogen bomb. However, I must say that this is a discussion that has just started and I am uneasy with arguments that prove what you cannot do at the very early stage of a technological uh-uh development.

Also, I don't believe that the weight to yield ratio is the only thing you can do with weapons. In the past, the advantages have usually been cumulative; a little thing here, the little thing there all adding together. How much better were the-were the German tanks than the French tanks in 1940? Twenty-five percent uh which was perhaps quite sufficient-which was quite sufficient to be decisive. And this is the question on which I really am not prepared to pass judgement now, and I don't think anyone has studied. This is the discuss--

[John Strachey:] What would your military friends say--that's what they tell me and I've been talking to them for the last three weeks over here--that research and development on your delivery systems, their invulnerability, their power of penetration and all these factors which the Congressman has mentioned just now, were of so much greater importance than this particular factor of the refinement of the-of the weight yield ratio in the smaller nuclear weapons that uh--

[Chet Holifield:] They're completely inseparable from each other. [John Strachey: No, they're not-they're not--] You cannot separate them.

[John Strachey:] Well not completely. [Holds up index finger] Now let me just finish. No, they're not completely inseparable. They are, of course, connected, but a sufficient, uh a rapid advance and striking advance, in invulnerability and the like, might far more than compensate for a disadvantage which you might get if the Russians cheated and you didn't after signing uh such an agreement as this.

What I'm saying is you're not going to give up your technical development as a whole. You're asked to take a risk of a lag, at one particular end of the spectrum, in one particular field of development, that of the-the weight yield ratio--

[Henry Kissinger:] No, Mr. Strachey, I-I think one has to get the facts uh-uh straight here again. The testing would take place at one end-of the spectrum, [John Strachey: Mhm.] but the risk would run through the whole spectrum because--

[John Strachey:] Well not through the whole spectrum--

[Chet Holifield:] But Mr. Kissinger, can I--

[Henry Kissinger:] Of the weight-yield ratio, and I myself [John Strachey: Which is the key!] as I've said before, do not think that the strategic uses, that is the-the ability to destroy cities and so forth, that we would suffer a great deal--

[John Strachey:] That's what I mean, that's what I'm accepting your own argument.

[Henry Kissinger:] I would agree. (46:56)

[Lawrence Martin:] But you know you won't solve I don't think this weapons question uh-uh today, what-what was interesting me if-if I might raise a question that uh-that uh obviously been lying under the surface here, is that some of you seem to feel that the test ban um is uh of-of uh not vital interest because in fact there's a great deal to be done with other weapons, and others seem to think that's the reason why in fact why we could have it [John Strachey: Yes.] but both seem to agree that there are bigger horizons to which we ought to move. And, as Mrs. Roosevelt said at the beginning, this is being thought of as the first step.

Now, what I'm rather interested in is that therefore for all of you, it must surely be very important what you conceive of as where you would go from here. Suppose we get a test ban, accepting the fact that it's not perfect, um do you in fact think that it is going to turn out to be the threshold to better kinds of disarmament and is it the ideal threshold? It seems to me this underlies all the discussion, everybody thinks of it as a beginning I--

[John Strachey:] Well it's not the ideal threshold, but it is the threshold, it is the one that's come up, that's been really seriously negotiated over a long period, and I think we have to accept that as just one of the facts of life. And I like Kissinger's own suggestion, that you go from there, you attempt to get a cut off in nuclear production. Because that is a good deal more readily inspectable than anything else. Again, it won't take you a very long distance, but it takes you somewhere.(48:20)

[Chet Holifield:] My answer would be that if it is a fraudulent step, if it's a step which deceives the people of the world in relation to its importance [John Strachey: Then it's wrong!] then-then it merely opens the gate for other fraudulent steps, and the result of that would be a complete collapse of-of any kind of a peaceful world. So I'm insisting that-- I'll admit it's a step, it's a small step, but I say that when we do make it, we should make it realistically, and not on the basis of deception or trust or confidence. It must be done absolutely on top of the table, and then we know we've made some accomplishment, but otherwise we delude ourselves and the people of the world.

[ER:] Now we'll have to take a risk, no matter what we do.

[John Strachey:] It won't be perfect, you see.

[Chet Holifield:] Oh yes, I'm willing to take some risk, but eh that risk must be in a degree that [Henry Kissinger: One--] I think is reasonable. (49:09)

[Henry Kissinger:] One notion that has always attracted me was that we would sign the formal agreement only up to the point where we can have confidence in inspection. Confidence meaning maybe a twenty percent uh possibility of detection, that is at the level of twenty kilotons or so. That we use the remainder

of the test ban as a bridge to other arms control agreements and say that we are willing to run greater risks in this uh lower range if the Soviets are willing to agree to wider agreements at the same time.

[ER:] Uh I wonder why the Soviets seem uh, and have made the propaganda before the world, that they want to-to achieve disarmament more than we do. Now, they've done that uh quite naturally because they have confidence in something else. They think they're going to win their objectives of a-of a Communist world in other ways, and I wonder if we are not putting too much emphasis on just what we can trust, just what we can risk we can take, let's say eh without balancing what is going on in the world where they have the confidence that they can win much more easily than we can.

[Chet Holifield:] Well Mrs. Roosevelt, I think you've hit the nail on the head! We've only been discussing this one limited phase, and I think that we have to compete with the Soviets in the field of economics, in the field of culture, in the field of relations with the underdeveloped nations throughout the world. And I think that a strong program in this field is much more important to solve the world's problems and to keep [ER: Well I mean--] these new nations from going into Communism.

[ER:] [Holds hand up to Chet Holifield] Well what-what I think in relation to the test ban is, can we take certain steps in this direction? I would agree with your-your feeling that we should um do it for time and with a feeling that we were going to um ex-explore why-why they should want to cheat, do you see, to a great extent. But I would um--I-I would have a feeling that this was a--had to be weighed with all the rest of the questions and what can we do in arms control, and um that will move ahead with the knowledge all the time that it's not one problem, it's only one of many problems. (51:47)

[Henry Kissinger:] Well, I would agree that we need a much more careful and comprehensive arms control program than we have had. I would however also feel that we have to undes-to realize that we probably cannot compete with the Soviet Union in making sweeping propaganda proposals. And in the long run it may be more demoralizing for everybody if we make proposals only for propaganda reasons. I would--

[ER:] Well that, I think, would be bad anyway.

[Henry Kissinger:] Yes. I would hope--

[ER:] 'Cause that's dishonest.

[Henry Kissinger:] I would hope that any propos-- we make proposals only that we can really believe in, and that we can sell to our own people on the basis of-of their intrinsic merit.

[Lawrence Martin:] But when the negotiations begin again on March the twenty-first-- is it I think, that they begin? They've been postponed. Uh it's all agreed that we must all make proposals that we sincerely believe in and I think it's been hinted here that there's a danger that these proposals could be deceptive, that we could go into a proposal that would deceive the people. Uh-uh now, Mr. Holifield for instance, uh-uh would know congressional feeling. Do you feel that this question of-of test ban is fairly well understood by the Congress and by the American uh people? Or do you think they are in fact vulnerable to what Mr. Kissinger said, that is, to believing that something much bigger is being done than actually is taking place? (53:03)

[Chet Holifield:] I don't think that the American people quite understand the complexities of this problem. They-they don't understand uh for instance, the technical difficulties in detecting clandestine tests. Uh they have a hope for peace and-and-and a fear of war, and we all have that. But uh this is a very

complicated subject and uh I doubt if the average lay person that hasn't made a real study of the problem knows what it is. He-he decides it emotionally and not on the basis of-of real uh technology.

[ER:] Well that, after all, I think you would agree that's probably part of the British feeling-- is emotional.

[John Stracher:] Well of course, all people are emotional about peace and war, they'd be monstrous if they weren't. But I think we try very carefully in Britain, those of us who have to study these things, to study them objectively, to be perfectly clear that we can't just sign any old test ban treaty, that we must have a satisfactory one. It's a question of where, of judgement, where one puts that word satisfactory? What degree of imperfection, since there's bound to be some imperfection, one is willing to accept. And uh, I-I do put it to you that to uh reject or appear even to reject some degree of imperfection here, and therefore some acceptance of risk, because all policies have risk, is-is something which would be very bad for America and the world, and therefore I would be very sorry to see happen. (54:42)

[Chet Holifield:] I hope I haven't put myself in the position of advocating that position?

[John Strachey:] No, I'm sure not, no.

[Lawrence Martin:] Well as I understand it, there were two risks really that we've been told about. One is the risk that--the intrinsic risk of evasion, that they'll gain an advantage by testing clandestinely. And the other is-is a much more difficult thing to handle, it's the risk that this may be the wrong precedent, or may create illusions which would lead to further agreements of--

[ER:] Of confidence.

[Lawrence Martin:] Yes, yes.

[Henry Kissinger:] I-I think it's probably safe to say that the degree of imperfection of the inspection system which has been devised for the test ban if it were applied to say, uh the cutoff of nuclear production would be intolerable.

[John Strachey:] Oh very likely. {Henry Kissinger: Uh, so--} That's easier, isn't it, curiously enough to inspect?

[Henry Kissinger:] It now appears, [John Strachey: Yes.]. but then the test ban appeared easier at one stage. [John Strachey: Good point.] I would think it's easier, yes.

[John Strachey:] Probably easier.

[Henry Kissinger:] Probably easier.

[Lawrence Martin:] Well it would be a great danger to think just because we've solved say, the test ban problem, within certain limits, that the impression got around that we therefore solve the disarmament question, or the inspection question [John Strachey: Oh no.] this could be presumably.

[ER:] Or-or the uh impression got around that we had really taken a step towards arms control. We really haven't. Isn't that the truth? I mean--

[Lawrence Martin:] That is--

[John Strachey:] Oh I wouldn't agree, Mrs. Roosevelt. I think we have taken a very short, but indispensable step towards it.

[ER:] Well you have not taken one actually, you've taken one psychologically but you have made people think you've taken one. [John Strachey: No--] You think you've taken one?

[John Strachey:] I think it's probably the first, yes very short step as compared to the breakdown of negotiations and the full resumption of testing all around. Surely that is uh the full unleashing of the arms race again. [Unknown speaker: Yes] Even the moratorium you've had for the twenty-seven months has been a step in arms control. [ER: Well, I--] It's only a difference in words, not in arms control.

[Chet Holifield:] In arms development, not in arms control.

[All men speak at once]

[Henry Kissinger:] It's hard-it's hard to argue that it's a step towards arms control [Chet Holifield: Yes.] and that you are running no risks because [John Strachey: I didn't argue that--] progress is possible--

[John Strachey:] I didn't argue that we're running no risks, I never argued this. (56:52)

[ER:] Well what I'm sorry to say, we have to come to the end I think of our discussion. And-and um I-I would like to try to sum up because it seems to me that we have not um actually um clarified perhaps many things. But one thing I think we have clarified and that is that um uh we really eh have to have a risk, and we have to recognize it, and that we don't yet know that we're playing for time.

And now, I want to thank you all very much. Professor Kissinger, you were very kind to come. And you, Mr. Holifield, you had a difficult time to get here. And you, Mr. Strachey had a long ways to come. And you Mr. Martin. I thank you all and am grateful to you for coming. And next month, our program will be on a national Peace Corps. And until then I want to say to the audience, au revoir!

[Theme music begins 57:56]

[Credit Sequence:] [Credits over the top of show logo].

[Bob Jones:] [Voice Over] Chet Holifield is the new Chairman of the Joint Congressional Atomic Energy Committee. John Strachey is the Minister for Aviation of the Labour Party Shadow Cabinet. Henry Kissinger of Harvard is the author of *The Necessity for Choice*. Lawrence Martin is a political scientist at MIT and a member of the Institute of Strategic Studies, in London. Viewers who wish further reading on the subject, may send for the new Foreign Policy Association pamphlet on the nuclear test ban issue by Hans Beiter and Edward Teller. Enclose fifty cents and your name and address for Pamphlet No. 2, World Affairs Center, 345 East 46 Street, New York 17, New York.

Filmed portions courtesy of the Atomic Energy Commission.

On next month's program, Mrs. Roosevelt and her guests will examine the much discussed question of a national Peace Corps.

This program is a video tape production of WGBH-TV, Boston.

[Theme Music ends 59:24]

[Credit Sequence:] NET logo

[Bob Jones:] [Voice Over] This is NET. National Educational Television.

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