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# Bill Moyers' Journal

## "The MX Debate"

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# The MX Debate



[*Tease — aerial views of Salt Lake City, its surroundings, and the Great Basin*]

**BILL MOYERS** [*voice-over*]: This is Salt Lake City. It borders the eastern edge of the Great Basin. Thousands of square miles of desert where the Air Force is planning to locate the MX, perhaps the most expensive weapon system ever built. The people of Salt Lake have mixed feelings about the deployment of MX in their state.

**WOMAN** [*voice-over*]: I don't think there's any necessity for this type of weapon at all. And I think that we're just discussing the end of the world when we're discussing weapons like that.

**WOMAN** [*voice-over*]: Industry and the population growth and stuff that it would involve would be worthwhile. I wouldn't mind seeing it come. If we're going to get blown up for one thing we might as well get blown up for having the MX missile.

**MAN** [*voice-over*]: The more I hear about it, the less I am attracted to it.

**WOMAN** [*voice-over*]: Well, I think it's probably something that we all have to have whether we want it or not.

**MAN** [*voice-over*]: I'm against it from an environmental standpoint. I think it's going to ruin our Great Basin out there.

**MAN** [*voice-over*]: It puts an awful burden on someone wherever it's located.

**MAN** [*voice-over*]: I'm in favor of the MX simply because I think it would be the greatest deterrent to nuclear war.

**MAN** [*voice-over*]: There's a need for it, but I think they're building it in the wrong place.

**MOYERS** [*voice-over*]: Tonight, here in Salt Lake City, we're going to be hearing a lot about the MX and the arms race in a special live debate from Symphony Hall.

**ANNOUNCER** [*voice-over*]: Live from Symphony Hall in Salt Lake City a special edition of Bill Moyer's Journal. The MX Debate.

[*Bill Moyers' Journal opening*]

[*Interior, Symphony Hall, Salt Lake City, Utah*]

**MOYERS** [*at the podium*]: I'm Bill Moyers. We're here to consider the MX. The development of this huge land based missile system will have consequences for us all. It will affect the strategic balance of power, the arms race, our relations with the Soviet Union and our allies, our defense budget, and thus, our taxes, and our economy. The people it will affect most immediately live here in Utah and in neighboring Nevada, for the Air Force proposes to use large areas of both states as prime locations for two hundred MX bases. There are many questions about what that would mean to the people who live here. And to deal with some of those questions the state of Utah has organized this public forum. In the audience are both Governor Scott Matheson of Utah and Governor Robert List of Nevada. And we're pleased to welcome them, the people who have gathered in Symphony Hall, and all of you across America to this consideration of MX. We'll hear from representatives of the administration, the Department of Defense, and the Air Force, as well as experts ranging from a nuclear physicist to a sociologist. And we'll hear from citizens of Utah and Nevada who, if the project continues, will be living with the MX. Our discussion and the question and answer session that will follow will deal with three main questions. Do we need the MX? How should the MX be deployed and based? And finally, what would be the social, economic, and environmental impact of the MX? Before we begin the discussion this evening, we'd like to give you some background on our nation's strategic arms policy which leads to the first question, do we need the MX.

[*Film segment begins*]

**MOYERS** [*voice-over*]: When we talk of strategic arms we're talking of the most destructive force that man has

ever known, enough power to destroy an enemy on a scale that was unimaginable thirty-five years ago. Only once in history has nuclear power been used in a war. We dropped the atomic bombs which destroyed Hiroshima and Nagasaki in 1945 and effectively forced the Japanese to surrender, ending World War II. We have never again used nuclear weapons against a military target. The Soviet Union has never used them. Yet for thirty years we and the Russians have assembled huge nuclear arsenals, monuments to the fundamental and seemingly irreconcilable distrust which lies between us. Our current nuclear arms policy is complex, a world of throwweights, payloads, and re-entry vehicles. But it grows out of a couple of simple basic assumptions: nuclear vulnerability makes us weak, nuclear strength is a deterrent. Deterrent means that if the Russians throw us a nuclear punch we can take it and throw back a counterpunch so deadly they'll wish they had never started a fight. Our strategic defense rests on what's called a triad. It gives us three ways to deliver that counterpunch— a triple threat of weapons. In the air B-52s; under-the-seas, Poseidon subs; and on land, Titan and Minuteman missiles. The triad is designed to survive. If one or more legs is crippled by enemy attack the others will still be able to launch a counter attack. If our subs were knocked out, the bombers and ICBMs could fight back. If both bombers and ICBMs were destroyed, the subs could retaliate. The current strength of the triad gives us a numerical advantage over the Russians in submarine missile warheads and bomber weapons, but a disadvantage in ICBMs. At least for the next decade our policy of deterrence is based on the fact that both the sea and air legs of the triad represent a force so formidable the Russians would not provoke it. For now, our Poseidon submarine fleet is believed to be invulnerable to surprise attack. The scheduled edition of new Trident subs and missiles during the 1980s will give our sea-based force increasing power and accuracy. The oldest of American strategic weapons, the B-52 bomber, will probably be outmoded in the 1990s. In the meantime, the B-52s have been continually upgraded, most recently, with the addition of cruise missiles to provide a flexible and highly mobile attack force. It is the vulnerability of our land base missiles, our ICBMs, which is in question. Currently, the giant Minutemen and Titans represent about thirty percent of American strategic forces. ICBMs, on the other hand, represent seventy percent of Russian nuclear attack force. The Soviets consider the land-based missile the centerpiece of their nuclear arsenal, and their development of it has been outpacing ours. Military strategists are concerned that the Russians have gained the ability to target their ICBMs with almost pinpoint accuracy to destroy American Minuteman and Titan missiles in their concrete silos. In military jargon, the survivability of our land based missiles is in doubt — in doubt because of this silo-busting Russian missile, the SS-18. It can deliver a multiple payload of ten to thirty nuclear warheads with a high degree of accuracy. What should we do about the Soviet capacity to destroy our missiles in their silos? The pentagon's answer was supplied by President Carter on September 7th, 1979. He announced full scale development of the MX, Missile Experimental, a major new land-based missile system.

**PRESIDENT CARTER** *[on film]*: The system is survivable, it's verifiable, it has a minimum impact on the environment, it's affordable in cost, and it's consistent with our SALT goal of deep reductions in strategic arms.

*[End of film segment — return to Symphony Hall debate]*

**MOYERS** *[at the podium]*: David Aaron, as a principal White House advisor to the president, the deputy assistant to the president for national security affairs, what does the White House see Russians up to in the world that warrants an MX?

**DAVID AARON:** Bill, I think that's one of the basic questions that has to be answered when you address the question of why an MX system. I think your introduction has made very clear that the basic responsibility of the United States government, indeed of the United States people, is to maintain a deterrent against nuclear war. That means maintaining a stable strategic balance, it means taking whatever actions may be necessary to preclude Soviet strategic nuclear superiority. But we have to look at what deterrence means. What it means is what the other guy thinks, what the Soviets calculate to be their risks, their opportunities and that's where your question comes in, because the people that we have to deter are the same people who a few months ago invaded a neighboring country, overthrew its government, arranged for its president to be murdered, and are presently engaged in killing hundreds and even thousands of Afghans who are fighting against the Soviet invasion. And they're also the same people who have spent over $100 billion on a new generation of ICBMs which have brought about a fundamental change in the strategic balance.

**MOYERS:** Does the White House believe that Soviet strategy includes the possibility one day of a first strike against the United States?

**AARON:** The question of a first strike has to be looked upon, it seems to me, in this way. The Soviets have paid $100 billion to acquire the capability to threaten our ICBMs. In our judgment, we must respond to that, because if we do not, we will undermine our alliances, because people will not have confidence that we're prepared to defend ourselves. It will undermine arms control because the Soviets will conclude that we will not take the steps necessary to defend ourselves and we will encourage the Soviets to try to make vulnerable the rest of our strategic deterrence.

**MOYERS:** So the White House does assume that within the Soviet strategy there is a presumption of the possibility of a first strike.

**AARON:** What you have to conclude about a first strike is that if they were willing to pay $100 billion to have that capability, we have to take the steps necessary to preclude the possibility that they might think there's an advantage in it for them.

**MOYERS:** Mr. John Lehman, you're a former member of the National Security Council and President Ford's deputy director of the Arms Control and Disarmament Agency. If the Soviets did attack our land missiles could we not deal them a devastating blow with the 7,000 warheads we would still have on bombers and submarines, and if that's so, does it really matter if one of the legs of our triad is weak?

**JOHN LEHMAN:** Well, Bill, there are two problems with that formulation. First, the capability in hand and recognized by both sides that the Soviets have an option that we do not have, which is to hope to remove the prompt counterforce retaliatory capability of the United States—

**MOYERS:** To hit our silos and our land-based missiles?

**LEHMAN:** —to hit our silos, leaving us with the remaining bomber force, which by the way is also quite vulnerable and would not have a high percentage of survivors in a surprise attack, and principally with the warheads, the 4,000 or so submarine launched warheads that we have, presuming they were not also caught in port, which is the normal configuration of about half of them, then the president would then be faced with the choice of either attacking with those retaliatory forces that are not directed, do not have the capability to bring the conflict to a close by hitting the remaining military capability of the other side, but you would have a mixture of counter-value soft target weapons principally available to the president and he would have to launch a retaliation against the population centers of the Soviets in the full knowledge that they would not have had to expend under the current balance, even as much as fifty percent of their own hardened silos remaining which would guarantee—

**MOYERS:** So you don't—

**LEHMAN:** This would guarantee a second strike from the Soviets which would devastate our own population centers.

**MOYERS:** So you're saying that our submarines and our Air Force retaliatory power is insufficient without the other leg of the triad, without the land-based missiles being secure.

**LEHMAN:** I believe that's absolutely the case. There's a synergism in our triad. That means they depend one upon the other for the effectiveness to carry out a conflict scenario if that's required.

**MOYERS:** Herbert Scoville, you were once assistant director of the Arms Control and Disarmament Agency, formerly deputy director of research of the CIA, and now you're president of the Arms Control Association. All we spent on defense so far, did not prevent the United States from losing in Vietnam, it did not prevent Iran from seizing our hostages, it did not prevent, as David Aaron said, Russia from taking over Afghanistan. As you look at the world, aren't our more pressing needs to upgrade and strengthen our conventional forces instead of spending this much money on more nuclear deterrent?

**HERBERT SCOVILLE:** Well, they certainly are. Putting more money and hundreds of billions of dollars into the kind of thing we're talking about with the MX system, at this time is a bad waste of our money because it does not improve our security and we can use that same amount of money on our conventional forces or in satisfying the social needs of our country.

**MOYERS:** Why do you say it does not improve our security, because the two speakers just before you assured us

that it did.

**SCOVILLE:** Well, the reason it doesn't improve our security is because the MX system is designed to have the capability of threatening the Soviet deterrent force in a first strike. In other words, it is a potential first strike weapon.

**MOYERS:** The MX is a first strike?

**SCOVILLE:** That's right and furthermore it is no good at hitting Soviet silos, which it is designed to be able to do, if it is launched in a second strike. Because in a second strike, it would only be hitting an empty silo.

**MOYERS:** In other words, the Soviets would have thrown their missiles at us. [*applause*] The Soviets would have thrown their missiles at us and before they hit, you say we would have responded with the MX.

**SCOVILLE:** No, not before we hit, but any of our MX missiles that happen to be left over, and we retaliated against the Soviet force, the Soviets are certainly not going to leave their remaining missiles, the fifty percent that they didn't fire in their first strike, they're not going to let them sit in their silos while we destroy them. They're going to launch them at the moment they get a sign of warning that we have launched our second strike. So firing counter-silo missiles in the second strike is the surest way to make sure that any residual Soviet missiles get fired at every target they can think of in the United States.

**MOYERS:** Well, if you're correct, then the premise of the MX is that we would absorb a first strike and then hurl our MX back at them. What is your response, David Aaron, to that proposition? If two thousand Soviet missiles were coming at us or how many of them, do you think any president would sit there and wait?

**AARON:** Well, what we would like to do is to have the capability to not have to fire when we think our computers tell us we ought to fire. We would like to be able to have a deterrent that was secure enough so that we didn't have to launch upon warning or launch when the computers told us to do it. But I want to go back to something which Dr. Scoville said, because it's not correct.

**MOYERS:** All right.

**AARON:** The MX, as we have planned to deploy it, is not a first strike weapon, it will not give us a first strike to destroy the Soviet deterrent, it will not even give us the capability to destroy the Soviet ICBM force in the sense that they will not have anything left over in that force. So that whole concern, I think, is exaggerated. But I think it does underscore a very important point. Because what Dr. Scoville is saying is that if the Soviets begin to feel as vulnerable as we are, they're going to react. And I only hope that we're capable of reacting as well.

**MOYERS:** Dr. Scoville, do you agree with that, no you don't agree with that. We have two fundamental disagreements here. David Aaron of the White House says the MX is not a first strike weapon and Herbert Scoville, you assure us it is.

**SCOVILLE:** Well, I'm very glad to here David Aaron say that it's not a first strike weapon. And the president has also said that we have no intention of launching a first strike. But if you're a Soviet leader who has to think about his security just the same way that David Aaron and Harold Brown and the president have to worry about U.S. security, when you see a force being built up against you, which has two thousand warheads which have the accuracy so that each warhead can threaten a single Soviet ICBM silo, then they would sit there and worry that this would be a first strike threat against their ICBM force which is seventy percent of their total deterrent.

**MOYERS:** What do you think they would then do if they see this as a first strike?

**SCOVILLE:** One of the things they would do, and several of the things they would do, are very dangerous for our security. And that's just the reason that I'm saying the MX does not improve our security. The easiest thing for them to do, and the cheapest thing for them to do is to do just what you were talking about a moment ago, put their missiles on launch-on warning, so that—

**MOYERS:** Which means?

**SCOVILLE:** Which means they could be launched within the fifteen minutes it takes our warheads to go from the United States, or the fifteen or thirty minutes it takes our warheads to go from the Unites States to the Soviet Union.

**MOYERS:** That presumes we would strike first.

**SCOVILLE:** Well, they would do that as a hedge against the fact that we might strike first, if they were worrying about that. They would put them on this launch-on warning. Now the trouble with that is that then it depends on computers whether a nuclear weapon will be fired. And the last thing in the world we want is the Soviet Union to put their missiles on launch-on warning and in fact, increase the risk by several orders of magnitude that we'll all be involved in an accidental nuclear war because the computers failed.

**MOYERS:** John Lehman, you're shaking your head.

**LEHMAN:** That logic is really worthy of the Mad Hatter. I mean I haven't heard anything as ridiculous in years. [*applause*] You know— [*boos*]

**MOYERS:** This is not a popularity contest.

**LEHMAN:** For eleven years, since I came to Washington I've been sitting listening to Pete Scoville apologize and explain away what Russians have been doing. As the administration recently testified in that ten year period that Pete's been apologizing for them, they've spent $240 billion more than we have on defense. We could have bought the whole MX system, fifty attack submarines, another twenty Trident boats, a thousand F-16s, a thousand F-18s. I'm sorry to steal your lines, Bill, but this is an enourmous disparity of effort over the last ten years and all through that Pete has opposed every single major system to redress this balance and apologize for and said that it is meaningless, every single new deployment that the Soviets put out.

**MOYERS:** But what evidence is there, John—

**LEHMAN:** —And I would really like to hear how you explain that dual standard, Pete.

**MOYERS:** But what evidence is there, John Lehman, that the Soviets intend to use this capacity they have for a first strike against which the MX is designed to defend us?

**LEHMAN:** Bill, that's a strawman argument. As Henry Kissinger recently wrote, I mean, never in the history of the world has a nation achieved a kind of nuclear and military preponderance across the board, and not translated into political and geopolitical gains. That has never happened. And the fact that they have this superiority and have built the capability to take our counterforce capability under attack, does not mean they plan to launch a pre-emptive attack, which I don't believe anybody in the Kremlin plans that. But they do know that this determines the geopolitical atmosphere in which decisions like Afghanistan and our decision on what to do in the Persian Gulf, are taken. And it sets a context in which it makes it much more difficult for us to defend Western interests then they to defend theirs.

**MOYERS:** Do you agree, David Aaron, that— [*applause and booing*] Do you agree that if we do not build the MX, we will be perceived by the Soviets as vulnerable?

**AARON:** Yes, I certainly do. I think that there's no question in my mind that the Soviets have invested a lot of money in this system, they have invested in the Command Control. And I just don't think that it's very prudent for any of us, when you really think about deterring a nuclear war and all the accidents of history and all the problems that can happen in the world, to depend upon the goodwill of the Soviet Union not to exercise an option that it has.

**MOYERS:** But do we want to spend $60 to $100 billion dealing with perceptions of vulnerability? Aren't there better ways of sending messages to the Soviets and to our allies? For example, you raised the question of Afghanistan and I think you mentioned Iran, shouldn't we have moved into the Persian Gulf with conventional forces, something that we could use, something that would confront them where they are and send the message that way instead of spending $60 to $100 billion dealing in the perceptions of vulnerability, which is what the MX represents. [*applause*]

**AARON:** I wish we were just talking about perceptions of vulnerability but facts are facts. They have the systems, they have the capabilities and I think we have to pay attention to Winston Churchill when he says he never argues with arithmetic. Now this doesn't mean that we're not going to be able, or shouldn't try to meet the problems of the Persian Gulf and elsewhere; we should and we can. But without the fundamental strength of our strategic nuclear deterrent, if we can't deter that, if we can't deter nuclear war, if our deterrent is being undermined, we're going to

have more crises. We're going to have more crises in locations, we're going to have more contingencies that we have to meet, not fewer ones. So, there's no substitution for a strong nuclear deterrent.

**MOYERS:** Herbert Scoville, you've been jumped on from both sides here tonight, and what they seem to me to be saying to me— what they seem to be saying in respect to something that I read someone else had written once who said, 'Military forces do not exist simply to do certain things in war, but to fulfill political and psychological roles in peace. Now, do you think that the MX would fulfill such a role, a political and psychological role?

**SCOVILLE:** No, I don't think it does fulfill that role, because it doesn't do the job that it's supposed to do—

**MOYERS:** Which is? [*applause*]

**SCOVILLE:** It doesn't do the job of providing an invulnerable force or basing mode for our ICBMs. And secondly, what it does do, it increases the risk that the Soviets would actually launch an attack, rather than being a deterrent, because it is a direct threat to the Soviet deterrent itself. And in a time of crisis they are certainly going to launch a pre-emptive strike against our ICBMs, knowing that we could destroy those, theirs, if we fired first. So, it doesn't meet the criteria which Harold Brown, as secretary of defense, has said over and over again, we must never deploy any weapons system that could increase or give the Soviets an increased desire to go forward and launch a nuclear strike. Now that's just what this weapon system does, it gives the Soviets an incentive to launch a pre-emptive strike against us in time of crisis. That is dangerous. [*applause*]

**MOYERS:** Go ahead.

**AARON:** I would be— I would be— I would take the same position if the facts weren't contrary to what you say. The president, as we went through this, had all of these concerns in mind: how much counterforce discourages the Soviets from a build-up and how much of it is dangerous and would provoke the kind of attack that Pete talks about. The president is concerned with the shelter system, will the Soviets still have an incentive to attack, will they gain more from attack than refraining from attack. We went through these things very systematically. We took a year and a half to do so. The president was involved in every step. We had not just the Pentagon look at it. We had not just the joint chiefs of staff. We also had our intelligence agencies. We had outside experts, we had panels of scientists. We went through it extremely carefully. And the fact of the matter is that this is not a provocative weapon system. It will do the job of defending against the Soviet threat. It is responsive to increased threats. Those are the facts, and Pete, appealing to a different set of facts, and then saying therefore, the system doesn't work, is really just not correct. [*applause and booing*]

**MOYERS:** John Lehman, we talk about the MX as being invulnerable to attack, but the Minuteman missile was started in 1968 and by 1978 was deemed to be obsolete because it had become vulnerable. What guarantee do we have that the MX won't be obsolete by the time it is in fact put into operation? [*applause*] You're not supposed to be cheering the chair!

**LEHMAN:** I just can't let that last interjection of Pete's go by. I mean, everything that the Soviets have in the way of counterforce is O.K., but if we have it it's bad, and destabilizing. That's illogic.

**SCOVILLE:** No, I didn't say that.

**LEHMAN:** That's what you said, because they have it. Now the question of the vulnerability of the Minuteman, we got 20 good years out of the Minuteman, and the cost effectiveness of that system — and it still has a lot of residual cost effectiveness in keeping the peace — was damn good value. And if we get 20 years— [*booing*] if we get twenty years out of the MX, that will be very good value for the money put into it. Nothing is permanent, nothing is constant in the military balance. MX will not stay invulnerable forever, but it will certainly stay invulnerable for the foreseeable future as far as our— the requirements for surviving missiles are concerned.

**MOYERS:** We'll come back to some of these questions and take questions from the audience to these panelists later in the program, but it's time now to turn to the second basic question, how should the MX be deployed and based? For that here's an introduction to the scheme proposed by the Air Force and approved by President Carter.

[*Film segment begins*]

**MOYERS** [*voice-over*]: This is the MX, Missile Experimental. Seventy-one feet long, almost eight feet in

diameter, weighing one hundred and ninety-thousand pounds. It will have a range of 6,000 miles and be able to carry ten nuclear warheads. The Pentagon wants to bring two hundred missiles to combat readiness by 1989. What Americans are getting for the billions we will spend on the MX is a missile which is operationally capable of doing almost anything the Soviet SS18 can do. In particular, it can deliver each of its multiple nuclear warheads to within several hundred feet of an enemy target 6,000 miles away. When the MX is ready, the Pentagon says, America will no longer be vulnerable to the Russians silo busting capability. The MX does not have to be deployed as a land-based ICBM. It could be launched from submarines or from on-board attack bombers. In fact, the Air Force initially supported an airborne MX system. But a variety of factors, including rising fuels costs, led to a major shift of position. By 1976, the Air Force was strongly recommending placing the MX on land. This left planners with two key decisions: how to base the MX, and where. They had to consider five issues: survivability, verification, life span, environmental impact, and cost. Survivability is simply the potential to withstand a Soviet surprise attack with enough missiles to counterattack. Verification is required by the SALT arms treaty under which the Soviets will be permitted to verify the number of missiles we say are based there. The accepted method of verification is the use of photos transmitted from satellites. In other words, any basing mode must provide a view to the searching eye of a Soviet spy in the sky. The life span of the basing mode involves an educated guess. How long will it remain survivable before some new Soviet strategic innovation makes it vulnerable to attack and therefore, obsolete. The environmental impact of basing must, under federal law, be carefully evaluated and planned for. Finally, the cost. Some basing modes are clearly less expensive than others. The options on land were many. Off-road countryside crawlers, railroad or interstate roamers, canal and deep pond submersibles, lake bottom creepers, tunnel movers, garage dashers, air mobile lifters, and dispersed shelters. Out of this mixed — and, some said, Rube Goldberg — collection of proposed homes for the MX, the Pentagon has finally selected one. It's known as a multiple protected shelter system, nicknamed by some the 'shell game,' a descriptive title. Two hundred transporter containers will randomly shuffle MX missiles among 4,600 empty shelters. Presumably, it will be as difficult for the Soviets to guess the location of each missile as it would be to guess which shell hid the pea. They would be forced to destroy all 4,600 shelters to assure the destruction of 200 missiles. This would take more warheads than the Russians currently have without seriously depleting their reserves. Should they build more missiles, the Pentagon claims we could increase the number of shelters. Each of the MX missiles will be deployed on a closed circular roadway, a race track. Each of the 200 race tracks in the system will contain 23 horizontal shelters, approximately one and a half miles apart. A transporter erector-launcher, or TEL, will periodically move the missile back and forth among the 23 shelters on each race track. This prototype, while not exactly like the final version, gives you some idea of its size and shape. Covered and hidden under a huge shield which moves with it, the TEL will deposit the missile in one shelter while the shield deceptively continues to visit each of the others. An outside view from the ground or a satellite would not reveal where the missile is hiding. In the event of an enemy attack the missile will move from its shelter to the roadway for immediate launching. Some variations in the launching method are still under consideration, including one in which the TEL could push through the top of the hardened shelter, or another in which the shelter could be vertical, like our current ICBM silos, rather than horizontal. Complicated final assembly procedures of the missile at the race track conducted in open view easily visible from a spy satellite will permit verification. In addition, each race track will be closed with an elaborate barrier after one MX is unloaded and assembled. The barrier would make it difficult to add any other missiles to the race track without being easily detected. It would be hard, if not impossible, to cheat. This is the MX system as presently planned. The favored site location is the Great Basin desert area of Nevada and Utah.

[*End of film segment — return to Symphony Hall debate*]

**MOYERS** [*at the podium*]: Dr. William Perry, you are the Undersecretary of Defense for Research and Engineering. Why do you believe the land-basing for the MX is the superior way?

**WILLIAM PERRY:** What is necessary, Bill, is to have a diversity basing so that we are not confronted with a situation where one part of our strategic force becomes vulnerable to attack and we are left totally without a nuclear deterrent in that case. We solved this problem by going both to a land-based system and to a sea-based system. In 1980 we are confronted with the problem where a land-based system is vulnerable to attack and we are depending on a sea-based system. And we will be depending on it for a good many years in the future.

**MOYERS:** Right now we're depending upon that leg of the triad?

**PERRY:** We are. By 1990 we may very well be in the opposite situation where the submarines themselves are vulnerable to attack and we will be very happy that we have restored the invulnerability of the land-based system.

**MOYERS:** You're saying that right now our land-based missile system is vulnerable? And we're relying upon a sea-based—

**PERRY:** It will be vulnerable in the next few years. Yes.

**MOYERS:** Let me quickly ask you, since you are not the father of this project but you're certainly a midwife to it, in a very stragegic position, let me quickly ask you some specific questions for informational purposes about landbasing. Given that so much is gonna be at stake for the Soviets, won't they go all out to penetrate the location of the MX and how can you be sure, in an open society such as ours, that you're going to keep the location of that particular missile secret?

**PERRY:** We have two different ways of preserving the security of the system, Bill. One of them is maintaining the secrecy of where the missile is located. We have very elaborate ways of planning to do that. But in addition to that, even if the Soviet war planner were to believe that he had penetrated— Even if he were to believe he knew where those missiles were located, he still could not launch an attack against the system because, even if he knew where they were located when his missiles were launched, he could not be sure that our ICBMs would be in the same shelters when they arrived. And that is because we have designed this system so that the missiles could be moved quickly from shelter to shelter in an emergency.

**MOYERS:** But do you really think you could move what would be a total million pound weight, thirty miles an hour, without leaving some kind of seismic or other traits that could be detected by increasingly sophisticated devices?

**PERRY:** Yes. [*applause*]

**MOYERS:** If— All right. For example, I heard someone the other day say that plutonium gives off characteristics of such long duration that clever espionage could pick it up.

**PERRY:** There are perhaps a dozen different what we call observables that might be associated with the presence of that missile.

**MOYERS:** Observables?

**PERRY:** Observables— Things that could be detected in the presence of the missile.

**MOYERS:** So, what do you do about those?

**PERRY:** We simply devise simulators for them so that the transporters that do not have the missile in them have the same sort of detectable signals. It's a decoy system.

**MOYERS:** Doesn't it cost a lot more to try to make everything look like the real thing?

**PERRY:** Yes, it does.

**MOYERS:** If the MX takes direct hits, won't the fiber optics melt and won't the radioactivity disturb the microwave and electromagnetic communications making it very difficult for our controllers to communicate with the missiles and give them orders?

**PERRY:** We have three or four different redundant ways of communicating with the missiles, Bill.

**MOYERS:** Alternative ways?

**PERRY:** Alternative ways, any one of which is sufficient to communicate. The one which probably would survive all of these different moves you're talking about would be a launch command given from our airborne command and control stations in medium frequency radio signals. This would not be susceptible to the nuclear effects and would not be concerned with lines being destroyed on the ground.

**MOYERS:** You mean we would have an alternative command center airborne at all times?

**PERRY:** We have, yes. We will.

**MOYERS:** But I thought the Air Force had rejected the airborne MX because of the vulnerability of aircraft? [*applause — to the audience*] No, no, it's a journalistic question.

**PERRY:** The vulnerability of the aircraft that they're concerned with in the airborne MX and in the B-52 is the escaping of the base. In other words, the airplanes are vulnerable when they are at or near their base. They can— An opponent could launch a barrage attack on the base. But if the airplane is flying at an unknown location, that vulnerability goes away.

**MOYERS:** I know this is going to strike you as an inane question, but won't the drivers of the vehicles be knocked off of their seats by just a nuclear blast? [*laughter*] That's just a simple question that appears to me. I mean isn't that—? [*applause and laughter*] I didn't mean that as a pejorative question.

**PERRY:** Bill, if the shelter— If the transporter and the driver are out in the open when a nuclear bomb arrives, the driver being knocked off the seat is going to be the least of his problems. [*applause*] The system gets its security by being in the shelter at the time, at the time the missile arrives. And that's crucial to the success of it.

**MOYERS:** At one point, the Air Force was recommending a tunnel system for the MX, but tests show that one hit by a bomb sent shock waves throughout the tunnels that would disrupt the entire system. How can we really know, Dr. Perry, what will happen to the MX? Won't there be massive confusion at the time of a nuclear attack? And isn't there a high probability that the system could be damaged?

**PERRY:** The system will be damaged— If they attack many shelters at once, every shelter that they attack will be damaged. Shelters that are not attacked will not be damaged. And the airplane, then, sending the command to control system will be able to communicate directly with that shelter. The point though of the system, Bill, is not which ones are damaged and which ones are not. It is to present the Soviet Union with an unacceptable problem.

**MOYERS:** Which is?

**PERRY:** They cannot— they cannot believe that they could successfully attack that system with their present forces, with the forces we project they might have during the '80s.

**MOYERS:** And you believe that the MX will be that deterrent?

**PERRY:** Yes. I really find the discussions of they do this and we do that rather arcane. The system is designed to prevent all of that from happening. It prevents it from happening by simply making the target so difficult to attack that no rational planner could believe that he could be successful at it. That is the key.

**MOYERS:** William Van Cleave, you're the Director of Defense of Strategic Studies at the University of Southern California, a consultant of the Defense Science Board and, among other things, a senior defense and national security advisor to Ronald Reagan. Given all these questions and the fact that we can't be absolutely sure of what would happen until the MX is precisely tried, what are your unanswered questions about the landbasing mode of the MX?

**WILLIAM VAN CLEAVE:** The principal unanswered question I have has to do less with the technical operational uncertainties of the full system than it does with my concern over the timeliness of the response. We're in a very bad situation. The reason we're in this very difficult position is simply because the Soviets have expended the effort, enormous effort, to make our deterrent force vulnerable while we have not kept pace. Instead we've sat by and allowed the Soviets both to reduce our options and to increase the vulnerability of our force. John Lehman pointed out that we had the Minuteman force for twenty years. We could have had that longer if we had earlier taken the measures necessary to retain its survivability and we did not largely because of SALT, I believe. Now, is there a need for a more survivable and more capable land-based ICBM force? Absolutely, in my viewpoint. Would the force with the system now being proposed by the administration work? I believe with further improvement in a technical and operational sense, it's a credible system.

**MOYERS:** But you have some problem with it?

**VAN CLEAVE:** I doubt that it's a politically credible system.

**MOYERS:** What do you mean?

**VAN CLEAVE:** Well, we now see a growth in the political opposition to the system that we cannot ignore. [*applause*]

**MOYERS:** Political opposition to the basing of this system here in Utah or political opposition of another kind?

**VAN CLEAVE:** I'm referring principally to the former.

**MOYERS:** To the basing of the MX here in Utah and Nevada?

**VAN CLEAVE:** I think that that is a very difficult problem we're facing right now. But I would also refer to another one. And that is the political uncertainty of this administration's intention, if it is re-elected, to continue this particular system. In the face of the opposition and in the face of the problem that it is — whatever its advantages — it is still a system essentially for the '90s. The '80s.

**MOYERS:** Your problem, as I understand you, is not necessarily with the method of basing which Dr. Perry has outlined, but with whether or not the administration has the will to carry it through despite the opposition?

**VAN CLEAVE:** No, that's not quite it. My problem's a little bit different from that, and, again, it has to go with preserving options and with handling the critical matter of timing.

**MOYERS:** Would you base the MX in a different way? And, if so, what way?

**MOYERS:** The questions are the following. First of all, if this were the only alternative, I believe it deserves our support. I do not believe it *is* our only alternative. There are other alternatives. [*applause*]

**MOYERS:** Which ones?

**VAN CLEAVE:** They're alternatives which the Air Force and DOD have themselves favored and found preferable to this system in the past.

**MOYERS:** Which one would you prefer, Mr. Van Cleave?

**VAN CLEAVE:** I would suggest the following: I would suggest this year that we appropriate all the funding requested for the MX program; that we begin fullscale engineering development of the MX missile but, at the same time, we do R&D on modifying and canisterizing the Minuteman III.

**MOYERS:** You mean taking the missiles that are presently in the silos — the Minuteman III, our existing land-base — and upgrading them, retrofitting them, modernizing—

**VAN CLEAVE:** One of our major options or alternatives to this system which, in my view, could be made significantly operational pre-1985 while the MX program we now face is essentially post-1985, would be to redeploy the existing Minuteman III missiles in existing deployment areas, but not necessarily at the expense of the current MX system. What I would like to do is not foreclose the options this year. I don't think we're ready to lock ourselves in to a particular system. I'd like— I'd like a choice open to Mr. Reagan in January. [*applause and boos*]

**MOYERS:** Dr. Perry, take just that simple— Out in the bleachers of Ebbets Field there's a rumbling going on. [*laughter*] Dr. Perry, what about the case that Mr. Van Cleave just made? Why don't we take the Minutemen III in their present silos and improve them so that they perform the function of being in vulnerable which you anticipate the MX will be?

**PERRY:** The only way to improve them, to make them invulnerable is to build two- or three- or four-thousand more silos which I presume is what Dr. Van Cleave meant. The only— I have no problem with doing that compared with the MX program except that it takes longer, it's more expensive, is less effective, has even greater political uncertainties. [*applause*] The timing factor here is not the time it takes to modify the Minuteman missile and develop the TEL and test it. That could be done as Dr. Van Cleave suggested before 1985. The problem is the same as the problem in Utah and Nevada. We have to fulfill an environmental impact statement. We have to go through a land acquisition program. Those are the facing items in the schedule. And it would be no less complicated in the stage

where the Minuteman's located than here.

**MOYERS:** Why did you want to put the MX, Dr. Perry, all in one location here in Utah and Nevada? Why not spread out whatever benefits there are economically and whatever cost there is? Why didn't you— [*applause*] Why didn't you spread it out in more than one area?

**PERRY:** We are still looking at other areas beside Nevada and Utah. We're looking at the possibility of deployment in a large area in northern Texas and New Mexico. The study on that is not yet completed, Bill, but it seems clear so far that that can be done. It will be more expensive to do that, to split the basing that way. Even so, it may be something worth considering.

**MOYERS:** Sidney Drell, you're a member of the president's Science Advisory Committee and executive head of theoretical physics at Stanford University's Linear Accelerator Center. Do you have an alternative to the land-based MX?

**SIDNEY DRELL:** Yes, I do. I do believe it's important to attend to the survivability of our forces. My opposition to the MX that we've been hearing is that I see that it is just not a good technical solution to a serious problem. We have studied other basic schemes and proposed as an idea the deployment of the MX missile on small submarines moving in near coastal waters. The basic principle is to use mobility, invisibility of the water, and to take the missiles away from shore. The idea of preserving diversity of our forces is an important one, which I support, and therefore we have talked not about just more of the same Trident submarine. We have talked about a basing system, small non-nuclear slowly moving submarines that could take advantage of proximity to our shore, the messier environment of operating in shallow, at shallow depths and in near coastal waters. And this is a proposal we have studied and propose as a way of solving the problem.

**MOYERS:** Well, let me ask Dr. Perry about that. Take just the four tests that the president applied to the MX. Is the shallow water submarine carrying the missiles survivable? As survivable as the land-based MX in your judgment?

**PERRY:** A totally different issue, Bill. And a much more difficult question to answer. We know what the threat to our land-based ICBM system is. We know what to do about that threat.

**MOYERS:** So, if you go to the sea, you really— you still are abandoning the land-based missiles?

**PERRY:** We still are— What we are doing is putting all of our strategic deterrent eggs in a submarine basket.

**MOYERS:** Dr. Drell is disagreeing.

**DRELL:** It seems to me that it's not a question of whether you're at sea or on land. It's a question of what sort of operational procedures you introduce. For example, when you're worried about the submarines, you look at their command and control. You look at the guidance system for accuracy. You look at the problem they must face with the antisubmarine warfare capabilities of the Soviet Union. I'm here talking about the submarine system that is one-tenth in weight or less than each of our individual Trident boats. I'm talking about a non-nuclear submarine which has very much lower signals for acoustic detection in the waters near the coast. It takes advantage of its coastal proximity to have the capability of more robust command and control to achieve better accuracy using coastal radiators. Without being technical in detail, it is a totally different system and I believe the issue of diversity has to do with different threats to the system, different operational procedures, different failure modes. It has nothing to do whether it's on land or on water.

**MOYERS:** What is the operational— [*applause*] Before we go to some questions from the audience, what is the operational — and I'd like to have Dr. Perry respond to this after you do, Dr. Drell — what is the operational advantage of the shallow underwater submarine carrying MX missiles over the land-based mode as you see it?

**DRELL:** Well, let's look at the problems of the racetrack. First of all, it is a system that gives us no survivable megatonnage against the projected Soviet threat until almost the entire 4600 launchpoints or shelters are constructed. That is the nature of a multiplane point system. You must have more targets than there are threatening warheads. Even under the SALT II limits, which we don't have ratified, one has to build more than two-thirds to three-fourths of that system before you gain anything. When you put a submarine to sea where it can move around, is invisible, you gain survivable megatonnage for your deterrent with each step in proportion. The whole issue of deception,

concealment, secrecy, which is required for the racetrack deployment in the middle of our society, that will be avoided. Will we *really* be secure? Will we really feel secure after the MX is deployed, that we have maintained secrecy over many months at a time in our society, or are we trying to compete with the Russians on their turf — secrecy and deception? [*applause*]

**MOYERS:** Dr. Perry, do you believe that the submarine has those advantages?

**PERRY:** I'm a strong supporter of submarines in many different applications. The submarine that Dr. Drell was talking about, as you point out, is not yet designed. It's only a concept. I do believe that we are quite capable of designing, developing, building and testing that kind of a submarine that would have many of the properties that Dr. Drell described. My problem with that is a simple problem and it rests in his description of the submarine's being visible in the ocean. They are invisible today. By the 1990s whether we will have learned a way or whether the Soviets will have learned a way of making the oceans transparent is precisely the issue. My judgment is that we ourselves will be able to detect and locate Soviet submarines at sea in that time period. I have no reason to believe that the Soviets will not be able to do a similar thing.

**MOYERS:** Isn't there— Aren't you worried that the same proposition applies to the land-based basing mode [*applause*] that no matter what we do— I mean, hasn't the history of military technology been that the system which is invented is finally overcome by technology it spawns, and—

**PERRY:** Measure and countermeasure. And it happens in submarines, happens in the land-based systems, and our security comes from the diversity of the systems. Having both land-based systems and submarine systems so that they become vulnerable at different times in history. We have an opportunity to respond. We don't want to put our entire security in one system.

**MOYERS:** Thank you very much. [*applause*] I have some sympathy for men and women who deal in such technical issues, trying to answer the untechnical questions of journalists and politicians. And so I'm going to go to the audience now and put some of the burden on you and let's take a few minutes before we go to the third panel for questions from the audience to any member of the first two panels, to either side of me. [*to the audience*] Yes? A question from microphone number one here.

**WOMAN:** Yes. I would like to ask this question on behalf of my new little baby, whom I had hoped would have a good future. Perhaps in the future we will have SALT agreements again. Perhaps nuclear powers will even agree to disarm. And I want to know what we're gonna do with all these MX missiles. What I'm really asking is how can we ever beat this sword into a plowshare?

**MOYERS:** David Aaron, do you want to try that? And then Mr. Van Cleave.

**AARON:** I would say that the most important thing in trying to get real arms control is to maintain an adequate strategic posture so that the Soviet Union will be prepared to really reduce its forces, limit them and constrain its technology. We have shown restraint in the strategic area. The Soviet Union has not. And we have to take the actions necessary to defend ourselves. Now, will the MX fit in to an effort to reduce strategic arms? I think the answer to that is clearly yes. We're not proposing to deploy 4000 MX missiles in order to have a survivable deterrent. We're proposing not to deploy 1000 MX missiles. We're proposing to deploy 200. And deploy 4000 shelters so that the Soviets won't be able to attack them. This dividing of the survivability problem from the level of deployment is extremely important if we're ever going to negotiate reductions. We would like to get to a position where all the vulnerable systems were reduced, where hopefully all the systems were reduced. And let me just say something. President Carter is not a president who is known as an enthusiast of nuclear weapons. He came to this decision reluctantly. He knows the American people have not learned to love the bomb. And he hopes the American people never learn to love the bomb. But he's counting on their good sense to recognize that in order to deter a nuclear war, in order to negotiate real reductions, we have to be able to protect ourselves as well.

**MOYERS:** William Van Cleave, do you see a time and, if so, how do we get there when the swords will be beaten into plowshares, as this mother asks?

**VAN CLEAVE:** I have enough trouble with present day problems that I can see. My self-esteem is not up to tackling the impossible, which is worrying about this very hypothetical long-range problem. I think what we have to

understand here very clearly is that we're in the terrible situation we're in precisely due to our attempts at arms control which have failed. Arms control was supposed to be two-sided and even-handed; it was supposed to contribute to stability and reduce the need for strategic programs. The Soviet Union has built up a force despite a decade of SALT, that is now forcing us to measures to look to the survivability of our deterrent forces. SALT has had other pernicious effects as well. It has channeled the choice of our options for doing this. It says we cannot defend the force. It says we cannot significantly increase the force. It says that we can conceal it only within certain parameters. And it says that we can only make it quasi-mobile. It's done one other thing. With its emphasis on limiting missiles and launchers, it tends to drive us to larger missiles such as the MX. I support the capability the MX represents but I think without SALT, strategic logic would dictate that we put that capability in a larger number of much smaller missiles that would be much more easy to conceal, much more easy to make mobile and would not require the type of system which many of you now oppose. So you can thank SALT for that.

**MOYERS:** We'll come back to SALT later in the program I hope—a question from the second microphone.

**MAN:** Mr. Perry, you indicated that shallow underwater, as you see it, has a unknown future before it's detectable. We are told that our land-based system has no future as far as being detectable. Where do we go at the end of 4,600 shelters, where do we go to keep up with this race, another 5,000 shelters, another state, into west Texas? Where does it all end in move, counter-move, move?

[*applause*]

**PERRY:** The Soviets are confronting us today, 6,000 nuclear warheads in their ICBM force. We have not found any simple, easy solution or any single solution for dealing with that problem and still maintaining the desired invulnerability of our forces. We believe that it is necessary to have a diversity of forces in order to deal with that problem. We also believe that we should put every effort, continuing effort, and in this I differ with Dr. Van Cleave, into arms control as a way of trying to bring this race to an end. But we are convinced that a unilateral disarmament is not a solution to the problem. Nothing that we have done in that vein over the last decade has had any influence at all in slowing down the Soviet arms race.

**MOYERS:** Question?

**MAN:** The triad philosophy aside, my question concerns Dr. Drell's SUM-mode. The SUM detraction appears to be the future vulnerability to attack. Soviets submarine ship or air attack would involve a massive movement of observable forces to sea and into our areas along our coastlines. It seems to me then that some SUM would provide us what we desperately want—early warning. So, if SUM's possible attack vulnerability is its greatest disadvantage, is it not its greatest advantage—early warning of Soviet intentions with time to react and or defuse the situation?

**MOYERS:** Your question is?

**MAN:** Is not its disadvantage also its greatest advantage in giving us great, I'm talking in terms of weeks, possibly, early warning?

**MOYERS:** What about that Dr. Drell?

**DRELL:** Well, I think that's quite true. I doubt we would sit quietly if a mass of Soviet ASW forces—

**MOYERS:** ASW meaning?

**DRELL:** Anti-submarine warfare forces, excuse me, were to come close to our shores. I think we might make that a rather difficult environment for them to operate in. We might generate noise, we might try and confuse them or harass them. I can't see us sitting by and letting massive forces of the Soviet Union come close to our shores.

**MOYERS:** But, I think his question was, does the submarine MX give us earlier warning than the land based MX would give us.

**DRELL:** It's hard to say. I think it's— the notion of attacks out of the blue with no warning, strike me as the least sensible concern for us to deal with when we're talking about nuclear survival.

**MOYERS:** You think the attacks would be deliberate and following a certain—

**DRELL:** I think that— I tend to think that's so. But to answer the question, it would take a massing of resources to try and find these submarines. I think they would fail. But it would take a massive effort of resources to try and find. I'm talking about a large number of submarines, you understand, forty or fifty deployed, each carrying about two MXs encapsulated external to the pressure hull. And to try and attack a large number of such submarines would take a vast number of Soviet naval resources.

**MOYERS:** And could be detected.

**DRELL:** They would be detected and they would presumably be made to be a little uncomfortable off our shores.

**MOYERS:** Let's go to the question now. Number two.

**MAN:** This question is for Mr. Aaron. I'm concerned that the United States government is spending millions of our tax dollars developing defense systems that it later finds inadequate and then discards. For example, the neutron bomb that was pushed so heavily in Congress just a few years ago, today we hear nothing about it, except that the government has discarded it in favor of the MX system—

**MOYERS:** Question?

**MAN:** —without explanation to us. What guarantee do we have that the government won't find the MX system inadequate half-way through its building? [*applause*]

**AARON:** Well, I think Dr. Perry indicated the MX system is responsive, it can deal with future threats, it does have the capacity to do that. It also has the capacity to deter the Soviets from trying to build up more threats against it because they will simply be piling more and more strategic power into what are somewhat vulnerable aim points. I'd just like to make a point about the neutron bomb. We haven't forgotten about it. The program continues. There is, the steps are taken to make it possible, if we decide we have to, to deploy it. So the program is not completely on the shelf.

**MOYERS:** Herbert Scoville indicated he'd like to answer that question about a guarantee that the MX won't be obsolete half-way through its operational deployment.

**SCOVILLE:** In fact, I think I would say that it probably will be obsolete before it becomes operational. [*applause*] The MX— The MX racetrack depends on the Soviets not having a significantly larger number of warheads than we have shelters. They will— they could have by 1985, 6,000 warheads which is why we had 4,600 shelters. The trouble is we won't have the 4,600 shelters until 1990 or 1989. Now, the Soviets can have 10,000 or 15,000 warheads by 1990 when the MX will be vulnerable. And that is completely inadequate, the 4,600 shelters is inadequate to deal with the problem. So the system is not going to be useful at the time it becomes operational.

**MOYERS:** Herbert Scoville. [*applause*] If— a follow-up question, then we'll come to you sir. If the Soviets keep building the warheads the race, in effect, goes on. Are you saying that we need an agreement with the Soviets to limit arms if the MX is to make any sense?

**SCOVILLE:** Absolutely. If you have no way of stopping the total number of Soviet warheads, all you have is an unending race in which probably we'll be blindfolded, because we won't know how many warheads they have, and it will go on forever.

**MOYERS:** John Lehman?

**LEHMAN:** The survivability of MX has nothing to do with SALT, at least SALT II. We have no way of knowing under SALT II whether their, the Soviets, are indeed adhering to a so-called 10RV limit. And, in fact—

**MOYERS:** RV being?

**LEHMAN:** Re-entry vehicle.

**MOYERS:** Right. Ten warheads on a—

**LEHMAN:** If MX is to become vulnerable, the Soviets have to deploy enough re-entry vehicles to saturate the entire system. To do that, first, they would have to deploy more missiles at this rate, because to keep the capability,

accuracy in order to kill an MX silo requires a high enough yield so that within the error of probability that you'll have— you are assured of taking out that silo. That means you have to have a certain minimum size warhead. And you can't put more than a certain number of warheads on a Soviet missile. So under the current projected deployments of missiles it is not foreseeable that they could deploy enough hard target killing warheads without going to more missiles. Now eventually they can do that, but if they do that we will know well enough in advance so that we can take measures to begin to overlay a sight defense to that system.

**MOYERS:** A response, I see two hands—

**DRELL** It's a technical point—given the technology that we are projecting for the Soviets when we say they can threaten our Minuteman force, there's every reason to credit them with the technology by the end of the 1980s to put three times as many hard target silo killers on their present missile force with no new missile construction. In fact the MX racetrack does desperately require SALT II, because only with SALT II that they are limited to ten warheads per large missile. That is one of the most important features of SALT II which I wish were ratified at this point. Without that limit the Soviets certainly could triple their number of warheads and, as Dr. Scoville said, the racetrack will never catch up to the threat.

**MOYERS:** William Van Cleave, and then we'll take two more questions.

**VAN CLEAVE:** My two points are very simple, but I think, somewhat profound. First of all—

**MOYERS:** A little modesty—

**VAN CLEAVE:** SALT has nothing to do with what the Soviets plan to do, simply because the Soviets plan what they want to do before they accept the terms of a SALT agreement. [*applause*] Secondly, if the Soviet Union were to go ahead and add all of these re-entry vehicles in order to defeat our planned deployment, no one should have any doubt any longer about Soviet intentions. [*applause*]

**MOYERS:** Yes sir?

**MAN:** A technical study made public on Tuesday by either the Department of Defense or by the Air Force, disputes the claim that a new missile system such as SUM—

**MOYERS:** SUM being the submarine.

**MAN:** Right. Would be cheaper and better than the planned MX race track deployment. Such action by the Department of Defense or by the Air Force on the eve of this debate, after having repeatedly denied the existence of such a report, I find to be unconscionable. This action strengthens my belief that feasibility tests of principal competing modes are absolutely essential in preference to staff studies.

**MOYERS:** Question?

**MAN:** My question, [*to Moyers*] I've taken 43 seconds. My question is, what feasibility tests for competing modes have been made or are contemplated?

**PERRY:** I'd like to correct some misinformation, first of all. The two studies that were being referred to have been underway for several months. They have been widely advertised. For example, Dr. Drell, one of the SUM proponents, was well aware of the studies, and was sent a draft of the studies to review. But the study was not done by the Air Force, it was done by the Navy. And therefore, presumably had no vested interest in that particular outcome. Let me correct those points first of all. The study did conclude, as you suggest, that there was no particular advantage to the SUM system.

**DRELL:** I welcome the existence of those studies because, as a technical person looking for an alternative to a clearly flawed race track, I was hoping we would find some studies being made in the Pentagon of these ideas, which may not turn out to be the best ones, but which looked good to me. What I learned from that study, and I welcome very much, were that in fact there have been very little, they were based on very thin analytic basis. I am quite happy to have those studies now to criticize before you. First of all—

**MOYERS:** Quickly—

**DRELL:** Very quickly, but very deeply. First of all, they said SUM was unlikely to be available before the 1990s. They suggest therefore, it would take us longer to build simple little, non-nuclear boats, than it took us to build the first nuclear powered submarine and then to redesign it and put to sea the Polaris boat. That to my mind is unreasonable. Secondly, they said that it would not be cheaper. I have been through the cost analysis and it's a matter of assumptions. I just will say I disagree. I think the, using their cost methods and reasonable assumptions and our basing ideas, the SUM system would be ten billion dollars cheaper than they said. Finally, they said it has no advantage vis-a-vis the antisubmarine warfare problem, to the Trident. I just don't know how anybody can say that without a detailed study that I know has not been done, since you're dealing with a boat that is putting out less than one-tenth the power, is operating in different waters, is making very different acoustic weight, or magnetic anomaly signals, is a very much smaller and quieter boat.

**MOYERS:** Thank you. [*applause*] Last question here.

**MAN:** I would like to direct my question to Mr. Aaron. It's fairly simple. I want to know if the United States government has any long range plans for global disarmament, and if so, what are they? [*applause*]

**AARON:** We had hoped that right now we would have a SALT II agreement and we would be in the process of trying to negotiate real serious and severe reductions in a SALT III negotiation. We would like to turn down the strategic arms race. That's our program, that's our plan. But it takes two to do it, we can't do it by ourselves. And if we try to do it by ourselves, we really undermine the incentives on the part of the Soviet Union to show restraint themselves.

**MAN:** [*inaudible*] has been perpetuating the arms race till this point, and my next question—

**AARON:** Let me say that I don't think that's right, I don't agree with Mr. Van Cleave. I think we have made progress in SALT. I think we can be gratified that we have a SALT I agreement. I think we can be pleased that we're not engaged in both a defensive strategic arms race as well as an offensive one. I won't deny that we are in an offensive arms competition, and I think we have to put ourselves in the position that we were in during the ABM negotiations of having the capacity to protect ourselves so that we can finally convince the Soviets it's time to turn it off.

**MAN:** Do you honestly think that this will convince the Soviets to turn it off?

**AARON:** Well, I think we have to be prepared to negotiate as much as possible to do that. But at the same time, if we can't convince them to turn it off, we've got to protect ourselves.

**MOYERS:** Thanks for those questions. We'll be back to the audience later. But having considered roughly whether we need the MX and how it should be based, let's raise the issue of its impact on Utah and Nevada. Here's a glimpse of what the MX means for this part of America and the people who live here.

[*Film segment begins*]

**MOYERS** [*voice-over*]**:** This is the number one Air Force choice as the location for the MX racetrack basis, the Great Basin of Utah and Nevada. Thousands of square miles of what at first site appears to be a barren expanse of desert. But this is land that is home to third and fourth generations Utahans and Nevadans who live in towns with names like Hinckley, Deseret, and Enterprise. And it was home to their ancestors who journeyed west to conquer this land and stay to live with it. It was home to generations of native Americans for centuries before them, the Ute, Hoshute and Shoshone, the North Paiutes, and the South Paiutes. Some of the descendants still live here. The Great Basin is also home for the antelope, the eagle, the prairie dog, and the cougar. Nevertheless, the Great Basin looks desolate, vacant, and hence, available. In fact, one Air Force general described it as a big sponge suited for soaking up enemy warheads in the event of a nuclear attack directed against MX bases. MX planners were quick to disown the big sponge as a descriptive label. They've been equally quick to mount a major campaign to convince the residents of Utah and Nevada that the Great Basin can survive the MX and even benefit economically from it. On any scale the dimensions of the MX bases are huge. The racetrack bases will sprawl across 45,000 square miles of federally owned land, an area roughly the size of Pennsylvania and will require the building of some 10,000 miles of special roadway. Planners claim the actual area restricted to public use and each of the 200 racetracks will be less than 60 acres, a total of 25 square miles off limits. The force that must be mobilized to construct the MX system is mind boggling. The construction effort will be the largest public works project in U.S. history. It would dwarf the

Alaska pipeline and the Hoover dam. At its peak it would require 20 to 30,000 construction workers. They will live and work for several years in an area where the relative population density is now half a person per square mile. When the construction force withdraws, 15,000 Air Force and civilian personnel will be left behind to operate the bases. As much as the threat to its fragile ecosystems, or the loss of water and mineral rights, it is the mass of humanity poised to descend on the Great Basin which concerns its residents. They fear that the MX construction project will create a series of 'boom towns' across southwestern Utah and southeastern Nevada with increased crime, strain on public services from hospitals to schools, and social ills, divorce, alcoholism, and drug abuse. Whatever the result, one thing is certain, life here will be different. Utah is already a state facing enormous growing pains. The proposed Intermountain Power Project is a 3,000-megawatt coal generating plant, the largest in the country. IPP, as it's known, is scheduled to be at the peak of construction in the mid-'80s when the MX project will also be full-swing. Then there are the Central Utah Water Reclamation Project, synthetic fuel development in the Eureka basin, and new school construction costing a billion dollars. So people here are asking if the MX will not overtax the state's capacity for orderly growth. The governor of Utah, Scott Matheson, has suggested that it's not enough to ask if the MX should or can be built. The question should also be asked, 'But at what cost, and to who, and with what long-term result?' Under federal law the Air Force has been required to answer those questions. It must prepare an EIS, an environmental impact statement, reporting as accurately as possible, the social and environmental effects of MX deployment in the Great Basin. The Air Force will be examining the MX project as it affects energy and nonrenewable resources, water resources, air quality, archeological and historical sites, native Americans, land use and land rights, public health and safety and terrestrial and aquatic ecosystems. The list is not exhaustive, but representative of the scope of the environmental concerns with which the Air Force must deal. To gain some measure of the public attitude and concerns in the Great Basin, the Air Force has conducted a series of what are termed 'scoping sessions' in various communities. Some sessions led to angry confrontations between skeptical residents and defensive Air Force officials.

[*Interior, "Scoping Session"*]

**MAN:** We got a chance right now to support a land-based missile that will stop the Russians from taking over superiority in the world.

**MAN:** I don't feel the MX missile system is a valid or a wise use of America's land here in Nevada.

**MAN:** Frankly, I have a hard time believing the things that you've been saying here today. [*applause*]

**AIR FORCE OFFICIAL:** I wonder how many people in Russia, if they were trying to deploy this, how many town hall meetings would a Russian air marshall come to and try and explain the case to the people?

**MOYERS** [*voice-over*]**:** The scoping sessions have made it clear that many Utahans and Nevadans are upset about MX. They are torn between a patriotic desire to support the national defense and a concern for the quality of life in their states. Ranchers wonder whether precious water and grazing rights can be adequately protected. Miners wonder whether mineral rights that represent their livelihood can be guaranteed. The Great Basin listens to the politicians, the Air Force generals, the experts, and waits; waits, wonders, and worries.

[*End of film segment — return to Symphony Hall debate*]

**MOYERS** [*at the podium*]**:** Stan Albrecht, as a professor of sociology at Brigham Young University and a specialist in the effects of rapid growth in local areas, what is going to happen to communities around here when the MX arrives?

**STAN ALBRECHT:** Bill, I think one of the primary concerns being registered by the citizens of this state, as well as the citizens by the state of Nevada, is the very question that you ask. What will the MX system, assuming it is deployed, mean for the small rural communities of this state? Given the relative smallness of these communities, given their geographic isolation, given their social and cultural homogeneity, given the demographic history that they exhibit long periods without migration, older populations, I think we can predict the social impact on these communities will be far greater than many of the other impacts that we have talked about, we've given greater attention to.

**MOYERS:** What do you mean, 'social impact'?

**ALBRECHT:** Social impact. Let me identify two major areas of concern very quickly. First of all, what we frequenly refer to as community infrastructure, the ability of the community to provide educational facilities, police and fire protection, housing, things of this nature. And then on the other level, something that is probably much more difficult to either define or measure, and that is the whole issue of breakdown in community, the problem of community cohesion, community integration. And it's really the breakdown at this level that we believe as sociologists contributes primarily to the social pathologies that we oftentimes observe in boomtowns, pathologies like increased crime rates, increased delinquency rates, higher suicide rates, things of this nature.

**MOYERS:** Those have happened where boom-growth has occurred for reasons other than the arrival of a national defense system, right? Coal mining, uranium mining—

**ALBRECHT:** Yes, yes. Most of the data dealing with these problems does come from energy development communities, the communities that have grown very rapidly as a result of a new coal mine, new power plant.

**MOYERS:** If we are willing to take that kind of growth in such areas for economic purposes, for uranium mining, etc., is there any reason why as a sociologist, you find people more unwilling to take it for a defense purpose?

**ALBRECHT:** I think the willingness to 'take that', using that phrase, has probably decreased rather significantly for whatever reason, whether it's economic, mining, power plant, or whatever. This does not mean though, that these communities cannot reap a great many benefits from growth. And I think that's the other side of the question that needs to be dealt with.

**MOYERS:** Will these communities that you've looked at in Utah and Nevada be able to handle this boom-growth brought on by the MX?

**ALBRECHT:** The benefits are primarily economic. They tend to be exported. The costs are primarily of a social nature, they tend to remain in the local communities and I very seriously question the ability to adjust adequately to the impact that will be imposed upon them.

**MOYERS:** What do you mean, the benefits are exported?

**ALBRECHT:** Benefits in the form of economic benefits primarily.

**MOYERS:** Have you ever heard of a case where large scale rapid population growth has been handled well by a small community suddenly overrun by the arrival of such large forces?

**ALBRECHT:** Not if that community has experienced growth of the magnitude that we're talking about here tonight.

**MOYERS:** You're really talking about sufficiently large growth.

**ALBRECHT:** Yes, very definitely.

**MOYERS:** Antonia Chayes, you are the undersecretary of the Air Force with responsibility unsought for this part of the MX. Why do you think the rapid population growth brought on by the MX will be handled any differently here from the circumstances described by Professor Albrecht elsewhere?

**ANTONIA CHAYES:** Because we will see to it, that it is handled well. *[laughter]*

**MOYERS:** We being—

**CHAYES:** Despite the jeers, let me explain what I mean. We can plan growth, growth is not one or two years. We're talking about a build-up that begins in 1982-3, goes on with peak years in 1987 and tapers off in 1989-90. What we mean is that if the states and local communities join with the federal government in planning for that growth, the benefits will not be exported, the size of the economic boom, the indirect industries, the indirect growth can be controlled. We're talking really about numbers that are not that staggering. We're talking about a steady state employment of 14,000 direct employees and 4,000 indirect. And even that can be made less.

**MOYERS:** By steady you mean the number of employees left after the construction is over.

**CHAYES:** Right. Even in the peak year of 1987 where we would anticipate 35,000 direct employees involved in construction and even giving the highest numbers of 30,000 indirect, that is seven percent of the present

Nevada-Utah total labor pool. There, we're even assuming the worst case, that we don't take up the unemployment slack.

**MOYERS:** Secretary Chayes, you and professor Albrecht disagree on something. He said that most of the ecnomic benefits are exportable. I'm not sure though what that means professor Albrecht. And you said, secretary, that they're not exportable. Now could we address that for just a moment. What do you mean when you say that they are exportable? Do you mean the money that is made leaves the community?

**ALBRECHT:** What I mean by the benefits being exportable is that the advantages of rapid industrialization tend not to accrue to the local residents.

**MOYERS:** To whom do they accrue?

**ALBRECHT:** They go to outside construction workers that are imported to the area. They go to industries. What oftentimes happens in a rural community is that the local establishments, the local grocery stores, instead of really benefitting, is replaced by a chain store. So the benefits again go to an organization that exists outside the local community. This is what I mean.

**MOYERS:** And you say that that's not going to happen?

**CHAYES:** Well, I am saying that figuring conservatively, we say that an annual payroll of $170 million a year will exist in these areas. Now that can be controlled up or down to a certain extent by the state planning. States *do* control the economic development. I have seen states— I come from an area that is losing industry in New England and is making valiant efforts to gain industry. In New Hampshire that has succeeded. The states of Nevada and Utah can control that by the efforts that they make — those additional benefits. In fact, you talk about the social cohesion, there are drains out of these rural areas now. People's children are leaving and they're going to be big cities, not only the big cities in the state, but the big cities out of the state. We've talked to many people in the deployment area who say we welcome the MX because that will give economic opportunities, jobs for our children and make them want to stay.

**MOYERS:** Secretary Chayes, as I understand it, in order to meet the Air Force's own time table for making the MX operational in the '80s, you're going to have to do a thorough environmental and social impact study by November of this year. Can you really do that?

**CHAYES:** Yes. [*applause and booing*] You better believe we can!

**MOYERS:** Professor Albrecht is shaking his head.

**ALBRECHT:** I would like to respond to that. I think the work that has been completed to this point, particularly in the social area, has been totally superficial. I think there's absolutely— [*applause*]

**MOYERS:** Why do you say that? Why do you say it's superficial?

**ALBRECHT:** It's easy for us to deal with things like numbers of new classrooms that will be required. Most of the work that I have seen that has been accomplished, that has been completed to this point, deals at that level. We can sit down and count the number of new school children that are going to arrive in the community. We can then calculate the number of new classrooms that will be required to house those new students. We can project the number of policemen who will be needed. One of my colleagues once made the observation that people in boom towns do not commit suicide because of inadequate sewer systems. They commit suicide because of inadequate social systems. So the problem I see is that as long as we deal on the fairly superficial level of simply counting numbers we're not going to get at the basic issues of community that are so important to current residents of these counties in Utah and Nevada. [*applause*]

**MOYERS:** Secretary Chayes, the lion's den is yours.

**CHAYES:** I invite you to look at the work we are doing because I don't think that is fair. We're not simply counting miles of sewer pipe, we are not simply counting classrooms or hospital beds. We're doing very complex, state-of-the-art, socioeconomic modeling. Now it is true, we can only state the kinds of services that would be expected to deal with the influx. We cannot assure that the states will provide those services. But many of those

services are federally funded. We have provided for the planning process by our military construction appropriations in 1980, and it will be repeated in '81 and '82, funds to help the states to develop the capacity to do that kind of planning. What you're talking about is not analysis. What you're talking about is social planning. And of course, the states have to do the kind of planning, or maybe the localities where the impacts would be. If you even have 5,000 more people in some of these rural areas, you're going to strain the systems. And whether that amounts to suicide or whether that amounts to juvenile delinquency, yes we know, this has taken place, studies have shown this in Wyoming and elsewhere. But those very same studies show that the kinds of services that we know well how to do, social services, can mitigate that so they really aren't problems.

**MOYERS:** Frederic Wagner, you're an environmentalist who has conducted ecological studies of the Great Basin. Do you believe that the Air Force can measure in advance what the MX will likely do to the Great Basin from an ecological standpoint?

**FREDERIC WAGNER:** I'm going to have to add some fuel to this fire. The Air Force has spent six to ten years developing and researching the MX missile. As of a week ago the subcontracts had not yet been let for many of the environmental assessments. And this is a matter of studying impacts that are of such enormity and complexity that they can't be studied in the matter of a few years. The total resources committed to those assessments are miniscule in comparison to what's really going to be needed to determine those.

**MOYERS:** Let me ask you a question, Mr. Wagner. After the MX is obsolete, if it becomes obsolete, can any damage to the desert be repaired? Can the desert be reclaimed?

**WAGNER:** We've seen on the film strip their mark, and we read it repeatedly, that deserts are fragile. What that means is that they're easily disturbed and they recover at a glacial pace. There are some ways of mitigating desert damage, but those become increasingly difficult as you reach lower and lower rainfall levels. And we're dealing with an area of rainfall somewhere between four and eight inches where some of the mitigation — ways of mitigation — have not yet been determined.

**MOYERS:** We have invited to the stage here four citizens of Utah some of whom are for the MX and some of whom are not. One is — actually, three are from Utah, and one is from Nevada — who have some questions to put to the panel. And I'll turn the chair over to them collectively. Sylvia Baker is from Baker, Nevada. She is a rancher's wife and a mother. Richard Jefferson owns a grocery store in Milford, Utah, population 1,300. Carol Nielson is from Lynndyll, Utah, population 94. I made sure that was 94, not 94 households. She says 94. She's a housewife. Her husband is the mayor. And Cecil Garland on the end down there is from Callao. And he says the population of Callao is about 19. [*applause*] He is a rancher. Cecil, what question would you like to put to any one of these three panelists?

**CECIL GARLAND:** Well, I believe I'd like to kinda address mine to any one of them or maybe to all of them, maybe to everybody here and you too. It seems to me that I been hearing the experts justify being experts here tonight and it hasn't really made me feel a lot more secure. [*applause and laughter*] Well, it degenerated into discussion on what mode was the best, the land mode, or the sea mode, or the air mode. I'd like to suggest a fourth mode, I'd call it the commode— [*more applause and laughter*]

**MOYERS:** Cecil, you are prejudicing the audience. Would you please ask a question.

**GARLAND:** —in which the concept of war as a way to settle things was flushed down the drain. The question I'd like to ask, cause we talk an awful lot of peace is but we do damn little about it. Now I'd like to ask if we're going to spend $35 billion up to a $100 billion on the MX system, which can possibly annihilate civilization, is anybody willing in this panel or anywhere else to spend say a hundred percent of that to go over the earth with an audio and visual system to describe the horrors of nuclear war, what happened to Nagasaki and Hiroshima, to the people so that they might decide that sanity is better than insanity?

[*standing ovation*]

**MOYERS:** Thank you, Cecil, for that question. Secretary Chayes will try to answer it. That's the prerogative of the chair. [*applause*]

**CHAYES:** As a strong arms controller myself I have to say that our restraint in not building up to the limits of SALT I was not reciprocated by Soviet restraint. [*applause*] Please do not misunderstand that this president, who first and

foremost in his program in 1977 was arms control, is building a very expensive, survivable system for any other reason than deterrence. And it is simply a difference in theory. I know you won't cheer, but please think about it.

**MOYERS:** Carol Nielson from Lynndyl, do you have a question?

**CAROL NIELSON:** Yes, I do. I think one reason for the emotional outpouring over MX is that we're being forced to think the unthinkable, to consider what we would really rather not. But I believe it was Socrates that said that the fears that people have about what might happen is always worse than what might actually happen. We hear a lot about the fears that people have about MX. I would like to know, Secretary Chayes, what is the positive side of the coin from an economic and environmental standpoint?

**CHAYES:** Well, I think the positive side from an economic viewpoint is that there will be 12,000 jobs. There will be a payroll, as I said, of $170 million per year. And if the state wanted more, there could be more. I know it's hard to believe, but there will be environmental, there can be environmental advantages, if we plan this very well. [*booing*]

**MOYERS:** Go ahead and tell, what environmental values, then Mr. Wagner can—

**CHAYES:** I'm not saying there won't be environmental disadvantages, I'm not saying that we will not disturb a fragile desert ecology, we will. Ten thousand miles of roads will make a difference. [*laughter*] The extensive water use in construction will make a difference. But we will be finding water sources, sources that cannot be searched for and found commercially because it costs too much, but sources that do not cost too much for a defense system of this magnitude. The benefits to the flora and fauna, to the grazing, for that will be very great. These states will no more, these states are, really don't know much about what they have. There are some areas of study— [*booing*]

**MOYERS:** Let her finish.

**CHAYES:** Hear me out. Hear me out.

**MOYERS:** Please, please, let her finish.

**CHAYES:** We have worked, if you look back at our milestone two EIS published in 1978—

**MOYERS:** That's an environmental impact statement—

**CHAYES:** —environmental impact statement — we learned a great deal then. And that was a study simply to pick a basing mode about these states. We are now doing intensive drilling, for example. Other states know a great deal about their water resources. Nevada and Utah know very little comparatively speaking. These valleys have not been drilled. There have been some drilling for shallow aquifers, not for medium aquifers, and almost no drilling for the very deep aquifers. These things we are doing. You will know what water you have. Now, like the system or not, whether it gets built or not, these values are very, very important for any development that might ever occur in the state. [*applause*]

**MOYERS:** Mr. Wagner, would you add something to that? Do you believe that there are some ecological benefits?

**WAGNER:** Well, I'd like to address just the question of water.

**MOYERS:** All right.

**WAGNER:** And it's true what she says that the water resources in those regions of Utah and Nevada have not been adequately explored. There are a number of aquifers known. Some of these are self-contained. Some are fed by rainfall or snow from the mountains. Some interchange with each other. But in fact, the whole working of the system is inadequately known and that's one of the frightening parts. Because we're, because the water demands of this program are going to be tremendous and we don't know what the water impacts are. And this is another point in this, in what I said earlier, that we're being rushed into this whole effort without really having an adequate assessment of what the situation is.

**MOYERS:** Mr. Wagner, I've read that the MX will need 100 billion gallons of water. I don't know if that's a true assessment or not. Does that sound reasonable?

**WAGNER:** I don't know what it's based on.

**MOYERS:** Is that true, Secretary Chayes?

**CHAYES:** No, that is not true. We are really talking about 12,000 acre feet a year. We're talking in the one valley of the one area that would contain a main operating base. And there's one in each state that we would plan 6,000 acre feet in any one valley. That's only 77 percent of Carson City, Nevada. We're talking at the peak period of construction, and that's what uses most of the water, the construction, 2,500 acre feet in any one valley. That is far from the numbers that you have heard.

**MOYERS:** I'd like to turn to Richard Jefferson, our grocery store owner in Milford. And let me ask you a question, Mr. Jefferson. If the MX is needed do you believe that Utah and Utahns should sacrifice in the national interests and for the national defense?

**RICHARD JEFFERSON:** Not any more than the rest of the nation. [*applause*] Wherever there's a military base someone sacrificed something, either their land was taken away from them, or their water was taken away from them, or both. They were compensated for it, but to take up people's roots, there's no way you can pay.

**MOYERS:** Do you have a question you'd like to ask of any of the—

**JEFFERSON:** Yes. I'd like to ask Mrs. Chayes. Water is a commodity that's bought and sold, traded here in the west. Now is the Air Force going to buy water rights or are you going to take them from us, or what?

**CHAYES:** We have made the statement publicly, the president has made the statement that we will abide by state law. That is the important point number one. We do not intend then to take private rights. We don't believe we would have to purchase water rights. In fact, though, we have been offered water rights already in certain areas. If we were not able to tap new resources it would be our preference to lease water rights. We're certainly contemplating buying water. This is what our standard way of doing things is. But we do not intend to permanently purchase water rights.

**MOYERS:** Sylvia Baker, you've been quiet. What's on your mind about the MX?

**SYLVIA BAKER:** One of the things I'd like to know about is what kind of security system for the missiles, for the shelters on the racetrack, will be employed. And will this security system under the point security plan be adequate security for the missiles, for the system under duress, under threat of sabotage, or spying activities. And the other side of that coin is how can you at the same time as you provide adequate security also protect and provide for the multiple use of those lands adjacent to the racetracks, that use being made by livestock producers, miners, recreationists carrying on their everyday affairs? And what kind of surveillance or security measures will we have to undergo in order to use those lands? The additional part of that question—

**MOYERS:** Could she answer that first. I'm getting lost, not her. Go ahead.

**CHAYES:** We did a very careful study as to whether point security would work. It is our belief that point security will work. It has worked well in far more populated areas where we have the Minuteman. We have examined very closely the present uses and these are primarily mining exploration, grazing and some sparse recreational use. A point security system would not work in a densely populated area where there were many houses. One of the reasons that we prefer Nevada and Utah is that there is not that kind of density scattered throughout the area. There are not many farm houses. There're really not any farm houses. The kinds of surveillance systems that we're talking about are radar. They're mobile. They have alarms that are set off by numbers of events, cars moving and so on. And these can be observed. We can predict and we anticipate some growth, some additional movement in the area that is probably related to the curiosity of the system if not the operation of the system. And our studies show that we can handle this and still preserve location uncertainty. And therefore, we feel relatively confident that this can be managed. In my view an MX system that required area security, that would have to exclude all other uses, would simply not be buildable and we would have to be looking for an alternative.

**MOYERS:** If some of you who have questions from the audience would move towards the microphones, I'd like to ask one of Professor Albrecht, who is our expert here on boom towns and the effect of rapid growth on small communities. What could the Air Force do in order to help these communities get ready so that not only will the adverse affects be diminished, but the positive benefits of the MX will be enhanced. What could be happening now? And is it?

**WAGNER:** We haven't yet devised a way to recreate a species.

**MOYERS:** Cecil Garland, did you have a quick question? Because we have just about two more minutes in this televised part of this Town Hall.

**GARLAND:** I have a copy of the *Lincoln County Record* here which has got a letter in it from the good undersecretary here to the—

**MOYERS:** I don't think we're gonna have time to read it.

**GARLAND:** —chief of staff. But the governor of the state of Utah and the state of Nevada have both suggested that the Air Force ought to be looking in some other place, maybe like Plains, Georgia. [*applause*] And this letter says from the undersecretary, which I'd like to get a comment on, that we're gonna go someplace and do a fake study. We'll trump environmental objections to it, throw the whole thing out and come back to Utah and Nevada. Now—

**MOYERS:** Is that in fact what's happening? The clock is running—

**CHAYES:** Baloney. I never said that. Baloney.

**GARLAND:** Well, here's the— If the Air Force keeps this up, they could walk into the yard and I wouldn't believe them if they said hello.

**MOYERS:** I'm sorry. Yes, sir. Very quickly.

**MAN:** Dr. Albrecht, don't you think that the— the people that live in this area, such as myself, have the guts and the ability and the patriotism to make this thing work if it has to be? [*applause and booing*]

**MOYERS:** The question was, doesn't Dr. Albrecht think that the people who live in Utah and Nevada have the guts to make this MX system work if it has to be in the national interest?

**ALBRECHT:** I'm not sure that's a question. I think it's really a rhetorical statement. And I don't know how one responds to it. [*applause*]

**MOYERS:** Whatever it is, the time for the televised part of this discussion is over. The people at the forum here in Salt Lake City will continue to question the panels, but we must say goodbye to those of you in the television audience. Obviously, we have not touched all the questions. We haven't even explored the big ones in the depth that they deserve. But I am grateful for the panelists for coming here and submitting to these questions and to you for participating as well. Television may quicken our interest and our awareness, but it is no substitute for personal investigation and reflection. So we'll attach a bibliography to the transcript of this broadcast, including the writings, the literature of many of the participants of the panel so that you can explore the issues further. We're very glad that you could join us there all across America. I'm Bill Moyers. For the Public Broadcasting Service and for our hosts in Salt Lake City, good night. [*applause*]

[*Credits — as question and answer session continues*]

**MOYERS:** And these questions may be directed at any member of the panel.

**MAN:** This question is directed towards Mr. Aaron, the president's assistant, and Undersecretary for Defense, Mr. Perry. I think one lesson that we learned from the Vietnam era that defense analysis isn't always about arms development but rather the analysis of what United States Congress will fund. Congress is presently attempting to balance the United States budget. The USDA Food Stamp program, upon which millions of United States children depend upon, will end on June 1st without immediate reauthorization. If the MX is only going to provide us with marginal additional national security, how is the President and Congress dealing with that age old perennial question, bread or bombs? [*applause*]

**MOYERS:** Bill Perry? . . . [*fade to black*]

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