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No. 137

Senate

The Senate met at 9:01 a.m. and was called to order by the President pro tempore [Mr. THURMOND].

PRAYER

The Chaplain, Dr. Lloyd John Ogilvie, offered the following prayer:

Dear Father, today we focus our attention on a question we need to ask every day: Who gets the glory? Our purpose is to glorify You in all we say and do. And yet so often we grasp the glory for ourselves. Help us to turn attention from ourselves to You and openly acknowledge You as the source of our strength. You have taught us that there is no limit to what we can accomplish when we do give You the glory. May our realization that we could not breathe a breath, think a thought, or give leadership without Your blessing, free us from so often seeking recognition. Make us so secure in Your up-building esteem that we are able to build up others with whom we work.

We glorify You, gracious God. We consecrate the decisions of this day, and when the Senators come to the end of the day, may they experience that sublime joy of knowing it was You who received the glory. Amen.

PLEDGE OF ALLEGIANCE

The Honorable CONRAD BURNS, a Senator from the State of Montana, led the Pledge of Allegiance, as follows:

I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

RECOGNITION OF THE ACTING MAJORITY LEADER

The PRESIDING OFFICER (Mr. BURNS). The Senator from Arizona.

SCHEDULE

Mr. KYL. Mr. President, today the Senate will resume consideration of

the Comprehensive Nuclear Test-Ban Treaty, with approximately 6 hours of debate time remaining. As a reminder, the two amendments in order to the treaty must be filed at the desk by 9:45 a.m. today.

By previous consent, at 4:30 p.m. the Senate will resume debate on the conference report to accompany the Agriculture appropriations bill. Following 1 hour of debate, the Senate will proceed to a cloture vote on the conference report. Therefore, the first rollcall vote of the day will occur at approximately 5:30 p.m.

For the information of all Senators, this week will be extremely busy so that action on the CTBT and the Agriculture appropriations conference report can be completed. The Senate will also begin consideration of the campaign finance reform legislation and take up any conference reports available for action. Senators may expect votes throughout the day and into the evening.

RESERVATION OF LEADER TIME

The PRESIDING OFFICER. Under the previous order, the leadership time is reserved.

EXECUTIVE SESSION

COMPREHENSIVE NUCLEAR TEST-BAN TREATY

The PRESIDING OFFICER. Under the previous order, the Senate will now go into executive session and resume consideration of Executive Calendar No. 3, which the clerk will report.

The legislative clerk read as follows: Resolution to Advise and Consent to the Ratification of treaty document No. 105-28, Comprehensive Nuclear Test-Ban Treaty.

The PRESIDING OFFICER. The Senator from Nevada.

Mr. REID. Will the Chair inform the two managers what time is remaining for both sides on the debate.

The PRESIDING OFFICER. The Chair advises the Senator from Nevada that the majority has 2 hours 53 minutes; the minority, 3 hours 23 minutes.

Mr. REID. I say to my friends from Arizona and Virginia that we will try to speak now and even out the time.

Mr. President, I give myself such time as I may consume.

We have heard a lot about nuclear testing recently, but no one has experienced nuclear testing as has the State of Nevada. Just a few miles from Las Vegas is the Nevada Test Site. There we have had almost 1,000 tests, some above ground and some below ground. You can travel to the Nevada Test Site now and go and look at these test sites. You can see where the above-ground tests have taken place. You can drive by one place where bleachers are still standing where people—press and others—would come and sit to watch the nuclear tests in the valley below. You can see some of the buildings that still are standing following a nuclear test. You can see large tunnels that are still in existence where scores and scores of tests were set off in the same tunnels. You can go and look at very deep shafts where underground tests were set off.

The State of Nevada understands nuclear testing. At one time, more than 11,000 people were employed in the Nevada desert dealing with nuclear testing. Now, as a result of several administrations making a decision to no longer test nuclear weapons, there are only a little over 2,000 people there. Those 2,000 people are there by virtue of an Executive order saying we have to be ready if tests are deemed necessary in the national interest. So the Nevada Test Site is still there. The people are standing by in case there is a need for the test site to again be used.

The cessation of testing caused the largest percentage reduction of defense-related jobs in any Department of Energy facility. Today, as I indicated,

• This "bullet" symbol identifies statements or insertions which are not spoken by a Member of the Senate on the floor.



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there are a little over 2,000 of those jobs.

The State of Nevada is very proud of what we have done for the security of this Nation. Not only have we had the above-ground nuclear tests and the below-ground nuclear tests, but we have Nellis Air Force Base which is the premier fighter training center for the U.S. Air Force—in fact, it is the premier fighter training center for all allied forces around the world. I had a meeting recently with the general who runs Nellis Air Force Base. He was preparing for the German Air Force to come to Las Vegas to be involved in the training systems available for fighting the enemy in fighter planes.

Also, 400 miles from Las Vegas and Nellis Air Force Gunnery Range, you have Fallon Naval Air Station. It is the same type of training facility, not for the Air Force but the Navy. Virtually every pilot who lands on a carrier has been trained at Fallon. It is the premier fighter training center for naval aircraft—Fallon Naval Air Station.

There are many other facilities that have been used over the years. Today, we have Indian Springs Air Force Base which is 50 miles out of Las Vegas—actually less than that—where they are testing drones, the unmanned aircraft. So we have given a lot to the security of this Nation; we continue to do so.

When we talk about nuclear testing, I can remember as a young boy, I was raised 60 miles from Las Vegas.

We were probably 125 miles from where the actual detonations took place. We would get up early in the morning at my home in Searchlight and watch these tests. They would announce when the tests were coming.

We always saw the flash of light with the above-ground tests. Sometimes we did not hear the sound because it would sometimes bounce over us.

We were the lucky ones, though, because the winds never blew toward Searchlight or Las Vegas. The winds blew toward southern Utah and Lincoln County in Nevada.

As a result of these above-ground tests, many people developed radiation sickness. They did not know it at the time. People did not understand what fallout was all about.

Yes, in Nevada, we understand nuclear testing as well as anyone in the world.

Nevada is going to continue its national service whether this treaty is ratified or not. We have already stopped testing in the traditional sense.

I want everyone to understand that even though I am a supporter of this treaty, I believe it would be much better, rather than having everyone march in here tonight and vote up or down on this treaty, that we spend some more time talking about it. I am convinced it is a good thing for this country, a good thing for this Nation, but I have some questions. We should answer some questions.

I have the good fortune of serving on the Energy and Water Subcommittee of

the Appropriations Committee. I am the ranking Democrat on that subcommittee, with the head Republican on the subcommittee, Senator DOMENICI of New Mexico. It is our responsibility to appropriate the money for the nuclear defense capabilities of this country. We do that. We spend billions of dollars every year.

One of the things we have tried to do, recognizing we do not have traditional testing—that is underground testing or above-ground testing; of course, we do not do above-ground testing—is to provide other ways to make sure our nuclear stockpile is safe and reliable. No matter what we have done in the past, we have to make sure our weapons are safe and reliable.

How can we do that? We are attempting in this country to do the right thing. We have the Stockpile Stewardship Program under which we are conducting tests now. They are not explosions. We are doing it through computers. We have some names for some of our tests.

One of them is subcritical testing. What does that mean? It means we set off an explosion involving nuclear materials, but before the material becomes critical, we stop it. There is no nuclear yield. Then through computerization, in effect, we try to determine what would have happened had this test gone critical. That is an expensive program, but it is a program that is absolutely necessary, again, for the safety and reliability of our nuclear stockpile.

About 2 years ago, I gave a statement before our subcommittee. This was a statement on the Comprehensive Test Ban Treaty on which we had a hearing. In that statement, I wrote about the loss of confidence in new weapons that could not be tested under the treaty and how this loss of confidence would prevent recurrence of the costly and dangerous nuclear arms race of the past 50 years.

I wrote about the confidence between former adversaries that would come from the treaty because no longer would we or they have to worry about significant new imbalances in deterrent forces, because no new weapons could be built.

I wrote about how that confidence would lead to more and more reductions in nuclear stockpiles and move the world even further away from nuclear annihilation.

I wrote about how the international example of refraining from nuclear testing, along with stockpile reductions, would reduce the incentives for non-nuclear states to develop nuclear weapons.

I did not write 2 years ago about the upcoming Comprehensive Test Ban Treaty review conference in which only states that have ratified the treaty will have effective membership.

That review conference will be able to change the conditions under which the treaty goes into force, and the United States, I am sorry to report,

will have no place at that table unless the treaty is ratified by this Senate before that conference.

I wrote about more than the benefits of this treaty. I also wrote about some of its uncertainties and some of the concerns, I believe, we need to study and review, and about the debate that is needed for their resolution.

I pointed out that a prohibition against any and all nuclear explosions would reduce confidence in stockpile reliability and safety unless some other means was developed to maintain that confidence.

I noted that the Stockpile Stewardship Program was conceived to provide that other means. We have had 2 years of experience with this program, but I wrote about the uncertainties faced by science-based stockpile stewardship. I noted the plan depends critically on dramatic increases in computational capability. That is why in our subcommittee we have worked very hard to spend hard-earned tax dollars to develop better computers. The development of computers is going on around the world, but no place is it going on at a more rapid pace than with the money we have provided through this subcommittee. We are doing it because we believe through computerization, we can have a more safe and more reliable stockpile.

It is only through, as I wrote, these dramatic increases in computational capability and equally dramatic increases in resolution with which non-nuclear experiments can be measured that we can go forward with certainty of having a safe and reliable nuclear stockpile.

I noted persistent support by Congress and the administration was absolutely necessary, not on a short-term basis but on a long-term basis. I noted Congress and the administration had to support the science-based Stockpile Stewardship Program; that we must set the pattern for the world; it can be done, and we can do it.

I did say that the support of Congress and the administration was absolutely necessary but not necessarily sufficient because the stewardship program is being developed at the same time that its architects are learning more about it. It is a study in progress. I wrote then, and I believe now, the learning process will continue.

I pointed out that the test ban treaty would not prevent nuclear weapons development. It would only inhibit the military significance of such development. We are not going to develop new weapons. We have not developed new weapons.

Let's talk, for example, about what can be done. You can have the development of crude nuclear explosives that are difficult to deliver, but these could be developed with confidence without testing. We know, going back to the early days of things nuclear, that "Fat Man" had not been tested. That was the bomb that was dropped on Hiroshima. There was no test. It was a huge

weapon, as large as the side of a house. They had to build a pit in the runway to load it. They had to reconfigure the B-29 so it could drop this huge weapon, but it was not tested.

Stopping testing is not going to stop the development of nuclear weapons. Rogue nations and other nations can develop these weapons if they see fit. But these crude weapons will not upset the deterrent balance.

Also, some say the treaty would prevent the introduction of new modern weapons that could weaken strategic deterrence. For example, nations could not build sophisticated new weapons; they would be stuck with what they have. What they have may be good, may be bad.

I pointed out the treaty could not guarantee total cessation of nuclear testing because very low-yield tests and higher yield "decoupled" tests might not be detected with confidence. You could have small, very small tests. It would be very hard to detect.

You could also have the situation where a signatory nation could execute a high-yield "unattended" explosion. What does that mean? What it means is that for a high-yield "unattended" explosion in a clandestine operation—nobody could identify the signatory nation that was being noncompliant.

For example, let's say someone developed a nuclear device and secretly dropped it in the ocean and then left. When the device went off someplace deep in the ocean, the country that dropped it in the ocean could certainly know that it exploded. But others could not identify who did it. It would be very hard to develop or make a new stockpile doing it this way, but it is possible. There are ways around everything.

But in spite of all these things that you could throw up as ways to get around the treaty—the "decoupled" tests and dropping them in the ocean, of course, you can do those kinds of things—but in spite of that, the positive nature of this treaty far outweighs any of these things that I have mentioned.

I did say in that statement I made before our subcommittee that the United States takes its treaty obligations seriously. We would not in any manner do what I have just outlined. But other nations might conduct themselves in that fashion. You cannot conduct your foreign policy believing that everybody is going to do everything the right way.

I do say that in all of these areas of uncertainty, I wrote about the need of the United States for a prolonged, comprehensive investigation and debate. That is where we have failed. We should have had hearings that went over a period of years, not a few days.

It is through consultation and the testimony of experts, and debate among Members of this body and the other body, that the issues and questions can be properly framed, examined, and resolved.

I was overly optimistic when I wrote in the conclusion of my statement to the hearing as follows:

These uncertainties and their associated issues will be the subject of intense debate by the Senate as we move toward a policy decision that will define an appropriate balance between the treaty's costs, its risks, and its promised benefits.

There has been no intense debate. I was too optimistic because we did not "move" toward a policy decision; we did not do anything. We stumbled, lurched perhaps. I was too optimistic because intense debate has not been conducted by the Senate. There have been a few little things that have gone on. For example, in my subcommittee we have done a few things. But we have needed extensive debate.

What have we had in the last few days, literally? We have had some experts come in. We have had some hurriedly conducted hearings. That isn't the way you approach, perhaps, one of the most important treaties this country has ever decided.

I think the chairmen and the ranking members of both the Armed Services Committee and the Foreign Relations Committee, during the last few days, have done the best they could under the circumstances. I commend them for trying. But I do not think we should base this treaty on what has gone on in the last few days.

I was too optimistic because I did not realize we would enter a time agreement to debate this most important issue for 14 hours. I do not think it is appropriate. I think it prevents amendments that may be necessary.

I indicate that I rise in support of this treaty. I do it without any reluctance. I do say, however, that we should have more debate. We should have more consultation. We should have more hearings. That would allow us to arrive at a better, more informed decision.

I have heard some people speak on this floor saying they want more information. They are entitled to that. I think we are rushing forward on a vote on this. We should step back. I think if there is an opportunity today to avoid the vote this afternoon or tomorrow, we should do that. I do not think we need to rush into this.

The President has written a letter indicating, for the good of the country, this vote should be put off. I agree with that. I am not afraid to cast my vote. I have indicated several times this morning that I will vote in favor of the treaty. I do not, for a moment, believe that there are others who feel any differently than I in our responsibility. Our job is to cast votes. I only wish Members were given the time and opportunity to become as informed as possible so that all Members are given an opportunity to improve this treaty—through debate, through dialogue, and perhaps even through amendment.

Again, I rise in support of this treaty, not because I had an opportunity to consider all the issues and the expert

opinion on these issues. I rise in support of the treaty because on the whole we are much, much, much better off with it than without it.

I have only a partial list of prominent individuals and national groups in support of this test ban treaty: Current and former Chairmen and Vice Chairmen of the Joint Chiefs of Staff; former Secretaries of Defense; former Secretaries of State; former Secretaries of Energy; former Members of Congress; Directors of the three National Laboratories; we have other prominent national security officials; arms control negotiators; we have many prominent military officers who have been members of the Chiefs of Staff; scientific experts from all over the United States with the greatest academic institutions; we have Nobel laureates—more than a score of Nobel laureates who support this treaty—former senior Government officials and advisors; ambassadors; national groups; medical and scientific groups; public interest groups; religious groups.

I have eight or nine pages of prominent individuals and national groups in support of the Comprehensive Nuclear Test-Ban Treaty that I ask unanimous consent be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

PARTIAL LIST OF PROMINENT INDIVIDUALS AND NATIONAL GROUPS IN SUPPORT OF THE CTBT—OCTOBER 9, 1999

CURRENT AND FORMER CHAIRMEN/VICE-CHAIRMEN OF THE JOINT CHIEFS OF STAFF

General Hugh Shelton, Chairman of the Joint Chiefs of Staff.

General John Shalikashvili, former Chairman of the Joint Chiefs of Staff.

General Colin Powell, former Chairman of the Joint Chiefs of Staff.

General David Jones, former Chairman of the Joint Chiefs of Staff.

Admiral William Crowe, former Chairman of the Joint Chiefs of Staff.

General Joseph Ralston, Vice Chairman.

Admiral William Owens, former Vice Chairman.

FORMER SECRETARIES OF DEFENSE

Robert McNamara.

Harold Brown.

William Perry.

FORMER SECRETARIES OF STATE

Warren Christopher.

Cyrus Vance.

FORMER SECRETARIES OF ENERGY

Hazel O'Leary.

Federico Peña.

FORMER ACDA DIRECTORS

Ambassador Ralph Earle II.

Major General William F. Burns.

Lt. General George M. Seignious II.

Ambassador Paul Warnke.

Kenneth Adelman.

FORMER MEMBERS OF CONGRESS

Senator Dale Bumpers.

Senator Alan Cranston.

Senator John C. Danforth.

Senator J. James Exon.

Senator John Glenn.

Senator Mark O. Hatfield.

Senator Nancy Landon Kassebaum.

Senator George Mitchell.

Representative Bill Green.

Representative Thomas J. Downey.

Representative Michael J. Kopetski.
Representative Anthony C. Bellenon.
Representative Lee. H. Hamilton.

DIRECTORS OF THE THREE NATIONAL LABORATORIES

Dr. John Browne, Director of Los Alamos National Laboratory.

Dr. Paul Robinson, Director of Sandia National Laboratory.

Dr. Bruce Tarter, Director of Lawrence Livermore National Laboratory.

OTHER PROMINENT NATIONAL SECURITY OFFICIALS

Ambassador Paul H. Nitze, arms control negotiator, Reagan Administration.

Admiral Stansfield Turner, former Director of the Central Intelligence Agency.

Charles Curtis, former Deputy Secretary of Energy.

Anthony Lake, former National Security Advisor.

PROMINENT MILITARY OFFICERS—SERVICE CHIEFS

General Eric L. Shinseki, Army Chief of Staff.

General Dennis J. Reimer, former Army Chief of Staff.

General Gordon Russell Sullivan, former Army Chief of Staff.

General Bernard W. Rogers, former Chief of Staff, U.S. Army; former NATO Supreme Allied Commander.

General Michael E. Ryan, Air Force Chief of Staff.

General Merrill A. McPeak, former Air Force Chief of Staff.

General Ronald R. Fogleman, former Air Force Chief of Staff.

General James L. Jones, Marine Corps Commandant.

General Charles C. Krulak, former Marine Corps Commandant.

General Carl E. Mundy, former Marine Corps Commandant.

Admiral Jay L. Johnson, Chief of Naval Operations.

Admiral Frank B. Kelso II, former Chief of Naval Operations.

Admiral Elmo R. Zumwalt, Jr., former Chief of Naval Operations.

General Eugene Habiger, former Commander-in-Chief of Strategic Command.

General John R. Galvin, Supreme Allied Commander, Europe.

Admiral Noel Gayler, former Commander, Pacific.

General Charles A. Horner, Commander, Coalition Air Forces, Desert Storm, former Commander, U.S. Space Command.

General Andrew O'Meara, former Commander U.S. Army Europe.

General Bernard W. Rogers, former Chief of Staff, U.S. Army; former NATO Supreme Allied Commander.

General William Y. Smith, former Deputy Commander, U.S. Command, Europe.

Lt. General Julius Becton.

Lt. General John H. Cushman, former Commander, I Corps (ROK/US) Group (Korea).

Lt. General Robert E. Pursley.

Vice Admiral William L. Read, former Commander, U.S. Navy Surface Force, Atlantic Command.

Vice Admiral John J. Shanahan, former Director, Center for Defense Information [19].

Lt. General George M. Seignious II, former Director Arms Control and Disarmament Agency.

Vice Admiral James B. Wilson, former Polaris Submarine Captain.

Maj. General William F. Burns, JCS Representative, INF Negotiations, Special Envoy to Russia for Nuclear Dismantlement.

Rear Admiral Eugene J. Carroll, Jr., Deputy Director, Center for Defense Information.

Rear Admiral Robert G. James.

OTHER SCIENTIFIC EXPERTS

Dr. Hans Bethe, Nobel Laureate; Emeritus Professor of Physics, Cornell University; Head of the Manhattan Project's theoretical division.

Dr. Freeman Dyson, Emeritus Professor of Physics, Institute for Advanced Study, Princeton.

Dr. Richard Garwin, Senior Fellow for Science and Technology, Council on Foreign Relations; consultant to Sandia National Laboratory, former consultant to Los Alamos National Laboratory.

Dr. Wolfgang K.H. Panofsky, Director Emeritus, Stanford Linear Accelerator Center, Stanford University.

Dr. Jeremiah D. Sullivan, Professor of Physics, University of Illinois at Urbana-Champaign.

Dr. Herbert York, Emeritus Professor of Physics, University of California, San Diego; founding director of Lawrence Livermore, National Laboratory; former Director of Defense Research and Engineering, Department of Defense.

Dr. Sidney D. Drell, Stanford Linear Accelerator Center, Stanford University.

NOBEL LAUREATES

Philip W. Anderson.

Hans Bethe.

Nicolaas Bloembergen.

Owen Chamberlain.

Steven Chu.

Leon Cooper.

Hans Dehmelt.

Val F. Fitch.

Jerome Friedman.

Donald A. Glaser.

Sheldon Glashow.

Henry W. Kendall.

Leon M. Lederman.

David E. Lee.

T.D. Lee.

Douglas D. Osheroff.

Arno Penzias.

Martin Perl.

William Phillips.

Norman F. Ramsey.

Robert C. Richardson.

Burton Richter.

Arthur L. Schawlow.

J. Robert Schrieffer.

Mel Schwartz.

Clifford G. Shull.

Joseph H. Taylor, Jr.

Daniel C. Tsui.

Charles Townes.

Steven Weinberg.

Robert W. Wilson.

Kenneth G. Wilson.

FORMER SENIOR GOVERNMENT OFFICIALS AND ADVISORS

Ambassador George Bunn, NPT Negotiations and former General Counsel of ACDA.

Ambassador Jonathan Dean, MBFR negotiations.

Ambassador James E. Goodby, Ambassador to Finland and to U.S.-Russian Nuclear negotiations.

Ambassador Thomas Graham, Jr., Special Representative of the President for Arms Control, Non-Proliferation and Disarmament.

The Honorable Paul Ignatius, Secretary of the Navy.

The Honorable Spurgeon Keeny, Deputy Director of ACDA.

The Honorable Lawrence Korb, Assistant Secretary of Defense.

Ambassador Steven Ledogar, CTBT negotiations.

Ambassador James Leonard, Deputy U.N. Representative.

Jack Mendelsohn, senior arms control negotiator.

Lori Murray, Assistant Director of ACDA.
Ambassador Michael Newlin, Deputy Assistant Secretary of State for Export Controls and Policy.

Ambassador Robert B. Oakley, U.S. Ambassador to Pakistan.

Daniel B. Poneman, Senior Director, National Security Council.

The Honorable Stanley Resor, Secretary of the Army and Undersecretary of Defense for Policy.

The Honorable John Rhinelander, Legal Adviser to SALT I Delegation.

Elizabeth Rindskopf, General Counsel of CIA and National Security Agency.

Ambassador Robert Gallucci, DPRK Agreed Framework negotiations.

The Honorable Lawrence Scheinman, Assistant Director of ACDA.

Ambassador James Sweeney, Special Representative of the President for Non-Proliferation.

Ambassador Frank Wisner, U.S. Ambassador to India.

FORMER GOVERNMENT ADVISERS

Paul Doty.

Richard Garwin.

John Holdren.

Wolfgang Panofsky.

Frank Press.

John D. Steinbruner.

Frank N. von Hippel.

NATIONAL GROUPS

MEDICAL AND SCIENTIFIC ORGANIZATIONS

American Association for the Advancement of Science.

American Geophysical Union.

American Medical Students Association/Foundation.

American Physical Society.

American Public Health Association.

American Medical Association.

PUBLIC INTEREST GROUPS

20/20 Vision National Project.

Alliance for Nuclear Accountability.

Alliance for Survival.

Americans for Democratic Action.

Arms Control Association.

British American Security Information Council.

Business Executives for National Security.

Campaign for America's Future.

Campaign for U.N. Reform.

Center for Defense Information.

Center for War/Peace Studies (New York, NY).

Council for a Livable World.

Council for a Livable World Education Fund.

Council on Economic Priorities.

Defenders of Wildlife.

Demilitarization for Democracy.

Economists Allied for Arms Reduction (ECAAR).

Environmental Defense Fund.

Environmental Working Group.

Federation of American Scientists.

Fourth Freedom Forum.

Friends of the Earth.

Fund for New Priorities in America.

Fund for Peace.

Global Greens, USA.

Global Resource Action Center for the Environment.

Greenpeace, USA.

The Henry L. Stimson Center.

Institute for Defense and Disarmament Studies (Saugus, MA).

Institute for Science and International Security.

International Association of Educators for World Peace (Huntsville, AL).

International Physicians for the Prevention of Nuclear War.

International Center.

Izaak Walton League of America.

Lawyers Alliance for World Security.
League of Women Voters of the United States.
Manhattan Project II.
Maryknoll Justice and Peace Office.
National Environmental Coalition of Native Americans (NECONA).
National Environmental Trust.
National Commission for Economic Conversion and Disarmament.
Natural Resources Defense Council.
Nuclear Age Peace Foundation.
Nuclear Control Institute.
Nuclear Information & Resource Service.
OMB Watch.
Parliamentarians for Global Action
Peace Action.
Peace Action Education Fund.
Peace Links.
PeacePAC.
Physicians for Social Responsibility.
Plutonium Challenge.
Population Action Institute.
Population Action International.
Psychologists for Social Responsibility.
Public Citizen.
Public Education Center.
Saferworld.
Sierra Club.
Union of Concerned Scientists.
United States Servas, Inc.
Veterans for Peace.
Vietnam Veterans of America Foundation.
Volunteers for Peace, Inc.
War and Peace Foundation.
War Resisters League.
Women Strike for Peace.
Women's Action for New Directions.
Women's Legislators' Lobby of WAND.
Women's International League for Peace and Freedom.
World Federalist Association.
Zero Population Growth.

RELIGIOUS GROUPS

African Methodist Episcopal Church.
American Baptist Churches, USA.
American Baptist Churches, USA, National Ministries.
American Friends Service Committee.
American Jewish Congress.
American Muslim Council.
Association General Secretary for Public Policy, National Council of Churches.
Catholic Conference of Major Superiors of Men's Institutes.
Church Women United.
Coalition for Peace and Justice.
Columbian Fathers' Justice and Peace Office.
Commission for Women, Evangelical Lutheran Church in America.
Covenant of Unitarian Universalist Pagans.
Christian Church (Disciples of Christ) in the United States and Canada.
Christian Methodist Episcopal Church.
Church of the Brethren, General Board.
Division for Church in Society, Evangelical Lutheran Church in America.
Division for Congregational Ministries, Evangelical Lutheran Church in America.
Eastern Archdiocese, Syrian Orthodox Church of Antioch.
The Episcopal Church.
Episcopal Peace Fellowship, National Executive Council.
Evangelicals for Social Action.
Evangelical Lutheran Church in America.
Fellowship of Reconciliation.
Friends Committee on National Legislation.
Friends United Meeting.
General Board Members, Church of the Brethren.
General Board of Church and Society, United Methodist Church.
General Conference, Mennonite Church.

General Conference of the Seventh Day Adventist Church.
Jewish Peace Fellowship.
Lutheran Office for Governmental Affairs, Evangelical Lutheran Church in America.
Mennonite Central Committee.
Mennonite Central Committee, U.S.
Mennonite Church.
Methodists United for Peace with Justice.
Missionaries of Africa.
Mission Investment Fund of the ELCA, Evangelical Lutheran Church in America.
Moravian Church, Northern Province.
National Council of Churches.
National Council of Churches of Christ in the USA.
National Council of Catholic Women.
National Missionary Baptist Convention of America.
NETWORK: A National Catholic Social Justice Lobby.
New Call to Peacemaking.
Office for Church in Society, United Church of Christ.
Orthodox Church in America.
Pax Christi.
Presbyterian Church (U.S.A.).
Presbyterian Peace Fellowship.
Progressive National Baptist Convention, Inc.
Religious Action Center of Reform Judaism.

The Shalom Center.
Sojourners.
Union of American Hebrew Congregations.
United Church of Christ.
United Methodist Church.
United Methodist Council of Bishops.
Unitarian Universalist Association.
Washington Office, Mennonite Central Committee.
Women of the ELCA, Evangelical Lutheran Church in America.

Mr. FEINGOLD addressed the Chair.
The PRESIDING OFFICER. The Senator from Wisconsin.

Mr. WARNER addressed the Chair.
The PRESIDING OFFICER. The Senator from Virginia.

Mr. WARNER. Mr. President, I thought it was understood that we would alternate sides as we proceeded this morning.

Mr. REID. I would only say to my friend from Virginia, I am happy to alternate. The only thing is, you will have to speak less than we do. Your speeches will have to be shorter because you have less time. I spoke with the Senator from Arizona. What is the time now?

The PRESIDING OFFICER. The majority has 2 hours 53 minutes; the minority, 3 hours 2 minutes.

Mr. REID. So it has narrowed down to about the same time. Fine, we will alternate back and forth.

Mr. WARNER. The time—

Mr. REID. Is very close to being equal.

Mr. WARNER. As an opponent to the treaty, I would like to proceed, Mr. President.

The PRESIDING OFFICER. Is that all right with the Senator from Wisconsin?

Mr. FEINGOLD. My understanding is, I would be next in line after the Senator from Virginia.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from Virginia.

Mr. WARNER. I thank the Senator from Wisconsin.

During the period of last week, a number of Senators sought to obtain from the President a letter addressing his views on the timing of a vote on this treaty. Over the weekend, in consultation with the White House staff, I learned that this letter would be delivered. It was delivered to the Senate leadership yesterday afternoon.

I shall now read it and place it in the RECORD:

DEAR MR. LEADER:

Tomorrow, the Senate is scheduled to vote on the Comprehensive Test Ban Treaty. I firmly believe the Treaty is in the national interest. However, I recognize that there are a significant number of Senators who have honest disagreements. I believe that proceeding to a vote under these circumstances would severely harm the national security of the United States, damage our relationship with our allies, and undermine our historic leadership over 40 years, through administrations Republican and Democratic, in reducing the nuclear threat.

Accordingly, I request that you postpone consideration of the Comprehensive Test Ban Treaty on the Senate floor.

Sincerely,

BILL CLINTON.

Throughout this debate, the hallmark has been differing views, differing views by honestly motivated colleagues on both sides of the aisle. I am not suggesting everyone on this side, in other words, is opposed to the treaty, but the practical matter is, there seems to be a division along this aisle.

In addition, as recited by my good friend, the deputy leader of the Democrat side, the Senate has received communications from a wide range of individuals, again, on both sides of this issue. The Armed Services Committee held three consecutive hearings. Secretary Schlesinger came forward with a very clear statement in opposition to the treaty and expressed, on behalf of five other former Secretaries of Defense, the same viewpoint. That occurred immediately following the current Secretary of Defense, Secretary Cohen, appearing before the Armed Services Committee, together with General Shelton, and taking the view in support of the treaty. All through last week intermittently these communications came to the Senate in writing, orally or otherwise—former Secretary of State Kissinger, former National Security Adviser Brent Scowcroft, again, communicating their desire to see that the treaty not be voted upon at this time.

I mention that because of the seriousness of the treaty, one that lasts in perpetuity—theoretically, in perpetuity—asking this Nation to take certain steps with regard to our ability to monitor the effectiveness and the safety of our nuclear arsenal. To me, it is clear such a treaty should only be voted on when those types of conflicting opinions have been, as nearly as possible, resolved. The laboratory Directors, likewise, came before our committee; they are not involved in the political arena. But one after the other in testimony tried to indicate where they are in the test program. We

are not there yet. It could be anywhere from 5 and, one even said, 20 years before the milestones now scheduled are put in place for this substitute scientific, largely computerized test program will take the place of the actual tests.

Against that background—and I speak only for myself—I have joined with Senator MOYNIHAN and, hopefully, others in preparing a Dear Colleague letter, which will be circulated this morning, with the Senator from Virginia opposed to the treaty, prepared tonight to vote against it or tomorrow, whenever the case may be, and my distinguished colleague, the senior Senator from New York, who spent much of his lifetime in foreign affairs, a recognized expert, steadfastly in favor of the treaty and prepared to vote in support of it. I find on both sides of the aisle there are Senators of a like mind who believe that in the interest of national security, today is not the time to vote for that treaty.

The letter from the President, it was hoped by some, would refer to his belief as to the scheduling of when this treaty should next be addressed in terms of a vote by the Senate. It is clear; his last paragraph does not address that issue. He simply says: Accordingly, I request that you postpone consideration on the Senate floor.

Given that situation, it seems to me it is incumbent upon, hopefully, a majority of Senators, hopefully 25 or more from each side, to come forward and state that they firmly believe the final consideration of this treaty should be laid at a time beyond the current Congress and that final vote should not take place until the convening of the 107th Congress. The Senate at that time would review the entirety of the record. A new President will be in office, and the combination of a new President and his perspective, the Senate constituted, as it will be in the 107th, and that point in time is the critical moment for this Senate to determine the merits and demerits of this treaty to the extent that, through reservations and other means, changes could be brought about and then, if it is the desire of the majority of the Senate, to move towards a vote.

That, to me, is a reasonable course of action. Next year constitutional elections of the United States take place. We all are very familiar with the dynamics of that critical period in American history, particularly in the months preceding the election. Should this treaty be subjected to the rifts of the dynamics of an election year, given its importance to our national security? Clearly in this Senator's mind, I say no. My distinguished colleague from New York has joined me in the same conclusion. This country has exercised a leadership role in arms control for 40 years. Indeed, this treaty has—not in my judgment in its present form—in the minds of others a potential to be another milestone in our progress towards arms control and the

reduction of the threat of nuclear weapons.

In fairness to all sides, would it not be wiser to delay the vote and make certain it is the consensus of a majority of this Chamber, before that decision is finalized today or tomorrow, the majority of this Chamber saying we concur in the observation for a number of reasons, one of which clearly came before the Armed Services Committee, and that is, that the Intelligence Committee, on its own initiative, has initiated a new study of the capabilities of the United States to monitor low-level tests of actual weapons, should some nation, a signatory to this treaty or otherwise, decide to test live weapons.

We are at a crossroads in history which will affect this Nation for decades to come. What possible rush to judgment compels a vote tonight or tomorrow? Would it not be more prudent that such a vote now be by a majority of the Senate in support of the two leaders, Senator LOTT and Senator DASCHLE, both of whom have handled this matter, in my judgment, conscientiously, always foremost in mind the security interests of this country today, tomorrow, and the indefinite future? I salute both leaders.

That is my brief opening. I wish to continue and summarize what our committee did last week. We received over 15 hours of testimony from a wide range of witnesses, from the Secretary of Defense and the Chairman of the Joint Chiefs to current and former National Laboratory Directors and career professionals in the field of nuclear weapons. We also received letters from many public officeholders, former Secretaries of Defense, State, Secretaries of Energy, Chairmen of the Joints Intelligence, and former lab Directors on the merits and the pitfalls of the CTB Treaty. Other public officeholders came forward in favor, but there is a strong division.

I don't think anyone, the President or, indeed, the Senate, could have foreseen the outpouring of conscientious opinion, opinions directed solely in the best interests of this country, not politics, by these former officials. They are in the RECORD for all to see. These are people with decades of experience in national security. Their statements reflect honest disagreements, disagreements primarily with the stance taken by the President and senior members of his administration.

In my view, the body of facts that the Armed Services Committee has accumulated over the past several days clearly puts the arguments of many of the administration officials in serious question. We have learned we do not have the full confidence in the United States' technical capability to verify this treaty to the zero-yield threshold that President Clinton unilaterally imposed, more or less, on this country. And other countries can conduct military-significant live bomb tests at levels below our detection capability.

That is the essence of it. We do not have all of the seismic equipment, in the judgment of the Intelligence Committee, in place and ready to meet the deadlines of this treaty so we could detect another nation that desired to use live tests in violation of their commitments under this treaty.

We have learned that our nuclear weapons will, to some degree, deteriorate over time. That is pure science. The physical properties of the materials deteriorate over a period of time. We cannot guarantee the safety and reliability of our highly sophisticated nuclear weapons in perpetuity—always remember, in perpetuity. Testing is needed.

The Stockpile Stewardship Program is the concept of a substitute for the live testing that we have had these 50 years. That 50-year record of testing gives us the confidence today, and for a number of years forward, in the reliability and safety of our stockpile. But there is some point in time, due to the deterioration of weapons, and other factors, that we will have to shift to a new means of testing. The administration's proposal under this treaty is the Stockpile Stewardship Program. It is a computer simulation substitute for actual testing. The scientists tell us this will not be proven—this substitute—for perhaps 5, 10, maybe up to 20 years. I repeat, milestones are being put in place, but there is no certainty as to when, collectively, those milestones will constitute a system to replace actual testing. The estimates vary from 5, 6, 7 years, perhaps out to 20.

Yet we are being asked to ratify a treaty affirming that we shall never again, in perpetuity, actually test any of our nuclear weapons. We have learned the CTBT will do nothing—not a single thing—to stop proliferation by rogue nations and terrorists. Iraq and Iran will sit back and laugh. Right now, Iraq is defying the world over similar arms control agreements, similar U.N. sanctions, and the United Nations is entangled in what appears to be a hopeless debate over how to resolve the need to continue to monitor Saddam Hussein's program of weapons of mass destruction. A clear example of how the most well-intentioned international agreements have failed is right there, today.

Rogue nations can easily develop and field, with a high degree of confidence, a single stage device—a “dirty old bomb,” as they refer to it—without any testing. Ironically, the first weapon dropped by the United States was never tested with an actual test.

Many of my colleagues, again, honestly disagree on the conclusions, pointing out that reasonable people can examine the same body of facts and reach different conclusions. That is my grave concern. We should not be ratifying a treaty as long as reasonable doubt to that degree exists as to whether the treaty is in the national security interest of the United States. The stakes are far too high.

The Armed Services Committee began its hearings with a closed hearing, where we heard from career professionals and experts with decades of experience, from the Department of Energy, the National Laboratories, and the Intelligence Committee. Their testimony focused on recent facts—facts that were not fully known at the time this treaty was signed by the President some 2 years ago. Their assessment is they would have to go back and reexamine a lot of facts to determine the viability, or lack of viability, of the capability of this Nation to monitor low-level tests.

Much of that information we learned was developed over the last 18 months. Therefore, those facts were not available to the Congress or the President when the CTBT was signed in 1996. The information presented to the Armed Services Committee on Tuesday is highly classified and, of course, cannot be discussed in open session. But one fact is very relevant. Because of disturbing new information, the Intelligence Committee—on its own initiative—decided to revisit and update the 1997 NIE, national intelligence estimate, on the U.S. ability to monitor the CTBT. I have been informed, as have other members of the committee, that it will take until next year to complete that work. That is a clear, credible basis for not moving forward today or tomorrow on a vote.

I advised Secretary Cohen and General Shelton on the following day, Wednesday morning, when they testified before the Armed Services Committee that they had the opportunity to make their case for this treaty before the elected representatives of the American people, and that they did. I believe the burden is on the administration to prove—maybe beyond a reasonable doubt—that ratification of this treaty is in the national security interest of our Nation. They simply did not make that case. And I say that with all due respect to my good friend and former colleague, Secretary Cohen.

We are being asked to give up—permanently—our tried and true, proven ability to maintain the safety and reliability of our nuclear stockpile and to rely instead on a computer simulation and modeling capability that will not be fully developed or proven for many years—if at all. We are being asked today to put at some degree of risk our nuclear deterrent capability, in exchange for the promise that we may have a way to adequately certify that capability at some uncertain future date. The question before the Senate is, Can we afford to take such a gamble? This Senator believes the answer is no.

For more than 50 years, one of the top national security priorities of every American President has been to maintain a credible nuclear arsenal and deterrent to aggression against ourselves and our allies, and it has worked. The credibility of the United States in the world is a direct reflection of our military capability. If that

credibility is ever called into question by our inability to ensure the safety and reliability of nuclear weapons—a vital segment of our military capability—then we have done our Nation a great disservice. The stakes for this debate are very high.

For 50 years, our nuclear umbrella—the deterrent provided by the U.S. nuclear arsenal—has kept peace in Europe. Unquestionably, the threats in Europe following World War II were deterred by this capability. Yet it is that very deterrent that could be jeopardized by this treaty. Dr. Schlesinger stated it clearly when he asked, “Do we want a world that lacks confidence in the U.S. deterrent or not?”

I hope all Members will take the time to examine carefully the body of facts that the Armed Services Committee and, indeed, the Foreign Relations Committee have accumulated and recorded for Senators.

Simply put, the CTBT, at this time, jeopardizes our ability to maintain the safety and reliability of our nuclear arsenal—perhaps not right away but almost certainly over the long run. According to Dr. James Robinson, Director of Sandia National Laboratory: “To forego testing is to live with uncertainty.”

Much has been said about what other Presidents have done. They have all examined the possibility of entering into some type of international treaty. But no previous President has ever opposed a test ban of zero yield and unlimited duration. President Eisenhower insisted that nuclear tests of less than 4.75 kilotons be permitted and, in fact, continued low-yield testing through his administration’s test ban moratorium. President Kennedy terminated a 3-year moratorium on testing when the adverse consequences of the moratorium were realized, and he declared that “never again” would the United States make such a mistake. President Kennedy then embarked on the most aggressive series of nuclear tests in the history of the U.S. nuclear weapons program. President Carter also opposed a zero-yield test ban while in office.

To have an effective nuclear deterrent, we must have confidence in the safety and reliability of our nuclear weapons. These weapons are the most sophisticated designs in the world. It is a certainty that, over time, these arsenals, high explosives, and electronic components contained in these weapons will experience some level of deterioration. That is simple science. The nature of our nuclear weapons program over the past five decades provides little practical experience in predicting the effects of these changes.

What do we say to our sailors, soldiers, airmen, and marines who live and work in close proximity with these nuclear weapons? What do we say to the people of our Nation, and indeed nations around the world, who live in the vicinity of our nuclear weapons? These are weapons that are stored in various locations around the world,

that rest in missile tubes literally several feet away from the bunks of our submarine crews, that are regularly moved across roads and airfields around the world. How can we take any action which in any way jeopardizes or calls into question the safety of these weapons? As Dr. Bob Barker, former Assistant to the Secretary of Defense for Atomic Energy, told the Armed Services Committee on Thursday, “to leave in place weapons that are not as safe as they could be is unconscionable.”

History tells us that weapons believed to be reliable and thoroughly tested, nevertheless, develop problems which, in the past were only discovered, and could only be fixed, through nuclear testing. As President Bush noted in a report to Congress in January 1993: “Of all U.S. nuclear weapons designs fielded since 1958, approximately one-third have required nuclear testing to resolve problems arising after deployment.” In three-quarters of these cases, the problems were identified and assessed only as a result of nuclear testing, and could be fixed only through testing. Let me emphasize, most of these problems were related to safety.

The Clinton administration has proposed remanufacturing aging weapons rather than designing and building new ones. The problem is that we simply don’t know if this new approach is possible. Almost every weapons designer we have heard from over the past 3 years has raised concerns with any attempts to change components, such as plutonium and high explosives, in the heart of the weapon. Many of the materials and methods used in producing the original weapons are no longer available. To assure that the remanufactured weapons work as intended most agree the new weapons would have to be validated through underground nuclear testing.

Every system will become obsolete at some point in time—if for no other reason, for deterioration due to aging. CTBT will not allow us to replace aging or unsafe systems in the future.

Supporters of the treaty, argue that if a problem with the stockpile is identified, the President can always exercise “Safeguard F” and withdraw from the treaty and test. The military leaders and the three lab directors have all conditioned their support for CTBT on the guarantee that the President would exercise “Safeguard F” and withdraw from the treaty if a problem develops with our nuclear stockpile. But how realistic is that? It is highly unlikely that this safeguard would ever be used by the United States to withdraw from the treaty even if serious problems should occur in the stockpile. Has the United States ever withdrawn from a treaty? We are struggling today under the weight of the ABM Treaty which was signed in 1972 with a nation that no longer exists: withdrawing from the treaty is simply without precedent.

And what would the international ramifications be of such a withdrawal

from the treaty? Wouldn't it be worse to withdraw years down the road, after other nations have presumably followed our lead, than to simply not ratify in the first place?

In addition, the notion of being able to test quickly in an emergency is unrealistic. Even if the United States should decide to withdraw from CTBT, the lab directors report that it would take at least 2 to 3 years of preparation before a test could be conducted, and our testing infrastructure continues to deteriorate. By withdrawing, the United States would be announcing to the world that we have such a serious problem with our nuclear deterrent that we have lost confidence in the reliability of our nuclear stockpile, and that we must initiate a program to repair or replace the weapon or weapons and conduct tests to confirm the results. Such an action would be highly destabilizing.

Proponents of the CTBT have asserted that the treaty will have no adverse impacts on U.S. national security, that we will be able to confidently maintain and modernize U.S. strategic and theater nuclear forces to the extent necessary without ever conducting another nuclear explosive test. In fact, the CTBT will force the United States to forgo any number of important initiatives that may be required to ensure the long-term viability and safety of our strategic and theater nuclear deterrent forces.

The CTBT will lock the United States into retention of a nuclear arsenal that was designed at the height of the cold war. Many of the nuclear systems that we developed to deter the Soviet Union are simply not suited to the subtle, and perhaps more difficult, task of deterring rogue states from using nuclear, chemical, or biological weapons. Such deterrence will require the United States to possess nuclear weapons that pose a credible threat to targets such as rogue state biological weapon production facilities that may be located deep underground in hardened shelters. At the same time, for such weapons to be credible deterrents, they must not threaten to create significant collateral damage or radioactive fallout. Such weapons do not exist today in the U.S. arsenal.

I am also concerned that this treaty's zero yield test ban is not verifiable. It is difficult, if not impossible, to detect tests below a certain level. And testing at yields below detection may allow countries, such as Russia, to develop new classes of low-yield, tactical nuclear weapons. This possibility makes recent statements by senior Russian officials claiming that they are now developing tactical nuclear weapons especially troubling. For example, this August, the Russian Deputy Minister for Atomic Energy, Lev Ryabev, stated that a key Russian objective was the development of a tactical nuclear system. This April, President Yeltsin reportedly approved a blueprint for the development and use

of non-strategic nuclear weapons. Would we be able to detect tests of such tactical weapons? The development of any nuclear weapon, regardless of its yield, is militarily significant to this Senator.

Further, countries that want to evade detection can do so by masking or muffling tests in mines, underground cavities, salt domes, or other geological formations. I am convinced that the United States and the international community cannot now, and will not in the foreseeable future, be able to detect such cheating or testing below a certain level.

Proponents of the CTBT argue that the International Monitoring System established under the treaty will put in place capabilities exceeding those that the United States and its allies can field today. These monitoring sites will be owned and operated by the host countries, which I believe calls into serious question the reliability of the information collected and, thus, its value to our ability to detect a nuclear test.

Proponents of CTBT also argue that although the treaty may not be verifiable through detection methods, the on-site inspections make the CTBT verifiable. I disagree. The treaty requires an affirmative vote of 30 of 51 members of the Executive Council to initiate an inspection. The likelihood of obtaining that number, which could include such countries as Iran and North Korea, is remote, if not impossible. Further, the United States would have to present a case to the Executive Council which would most likely compromise sensitive U.S. intelligence sources and methods. The timelines imposed by the treaty for on-site inspections permit considerable coverup and deterioration of evidence. In addition, there is no guarantee that Americans will be on the inspection teams. In fact, any state is explicitly permitted to block inspectors from countries it does not like. The treaty gives the inspected state the final say in any dispute with inspectors.

Finally, ambiguities in the CTBT may allow other nations to legally circumvent the clear intent of the treaty. The treaty does not define what constitutes a nuclear test. However, President Clinton has said that the United States will interpret nuclear test to mean any nuclear explosion, thus all tests are banned unless they are zero-yield. However, if other signatory nations interpret a less restrictive definition, they could conduct very low-yield tests and argue that they are not violating the language of the treaty.

I am concerned that while the United States would adhere to the CTBT, thereby losing confidence over time in our nuclear deterrent, other countries would capitalize upon U.S. deficiencies and vulnerabilities created by the CTBT and violate the treaty, by escaping detection and building new weapons.

I believe the risk the CTBT poses to U.S. national security by far outweighs

any of the benefits that have been identified.

Mr. President, I shall reengage in this debate as the day progresses. I will pursue with Senator MOYNIHAN the final presentation of our Dear Colleague letter in the hopes that a number of Senators will see the wisdom in giving the leadership of the Senate the support they deserve should a decision be made not to go forward today. That decision should embrace very clearly that it would be in the Senate's interest, in the Nation's interest, and our security interest to revisit this treaty in terms of a final vote in the balance of this Congress.

I yield the floor.

The PRESIDING OFFICER. The Senator from Wisconsin is recognized.

Mr. FEINGOLD. I thank the Chair.

Mr. President, I rise today in strong support of Senate advice and consent to the ratification of the Comprehensive Nuclear Test Ban Treaty.

As a member of the Senate Committee on Foreign Relations, I have advocated for consideration of this treaty since President Clinton submitted it to this body for advice and consent on September 22, 1997. Now, more than 2 years later, this important treaty is being considered on the Senate floor. While I am pleased that we are having this debate, I am concerned about the manner in which we reached this point. I regret that the Foreign Relations Committee, of which I am a member, had only one day of hearings on this important arms control agreement and that the committee did not consider and mark up a resolution of ratification.

I am concerned that this debate is too limited in duration and scope. This is obviously serious business. And I hope that the manner in which this treaty was brought to the floor does not doom it to failure. This treaty should be fully debated on its merits. And this body should have the opportunity to offer any statements, declarations, understandings, or conditions that we deem necessary. But this treaty should not be defeated simply because the Senate has backed itself into a corner in which the choice is to vote up or down now without the option to postpone this important vote in favor of further consideration. Some of our colleagues have expressed their desire for further consideration. But they have said that if they are forced to vote today, they will oppose this treaty—not necessarily because they do not support the treaty, but rather because they feel they cannot yet fully support it without further study.

I think putting Senators in this position is an irresponsible course of action.

As my colleagues know, I support this treaty. And I will vote in favor of it today should it come to that. But I hope we will consider the consequences of defeating this treaty, not on its merits, but because of the political box in

which we find ourselves. This treaty must not fall victim to politics. The consequences of its defeat will be felt from Moscow to New Delhi to Beijing to Baghdad. And this body, the greatest deliberative body in the world, would be sending the message that we did not want to spend more time on one of the most important issues facing the world today.

We do live in dangerous times, Mr. President. Weapons capable of mass destruction have replaced more conventional weapons in our world. New threats continue to emerge. But we have the power to stem the tide of nuclear proliferation. Perhaps we cannot stop it completely. But we can make sure that the nuclear arms race is stopped in its tracks and we can make it extremely difficult for those with nuclear aspirations to develop a weapon in which they can have high confidence.

And we should do everything in our power to make the world safer for future generations. And if that includes delaying the vote on this treaty, then we should swallow our political pride and do that.

As a number of my colleagues have already said, both in committee and on this floor, the idea of a nuclear test ban dates back to the Eisenhower administration. For more than 40 years, Presidents of both parties have advocated for such a treaty.

In a speech delivered on June 10, 1963, President John F. Kennedy discussed his support for the negotiation of a comprehensive test ban treaty. He said—and I quote:

The conclusion of such a treaty, so near and yet so far, would check the spiraling arms race in one of its most dangerous areas. It would place the nuclear powers in a position to deal more effectively with one of the greatest hazards which man faces in 1963, the further spread of nuclear arms. It would increase our security—it would decrease the prospects of war. Surely this goal is sufficiently important to require our steady pursuit, yielding neither to the temptation to give up the whole effort nor the temptation to give up our insistence on vital and responsible safeguards.

Mr. President, those words are as relevant today as they were when President Kennedy spoke them 36 years ago. Nuclear weapons are still one of the greatest hazards on the planet. And they have been joined by chemical, biological, and other weapons of mass destruction. President Kennedy spoke from the perspective of the cold war and the still escalating arms race with the Soviet Union. Now, in 1999, the cold war is over and the Soviet Union is no more. But we are on the brink of another nuclear arms race, this time in south Asia. India and Pakistan are watching, Mr. President. And we have the opportunity to end their nuclear aspirations once and for all. Or to give them the cover they need to continue testing.

We have the opportunity today at long last to become a party to a comprehensive nuclear test ban treaty that

will both stop the nuclear arms race in its tracks and maintain our option to withdraw from its provisions if our national security is threatened.

I hope that will be our paramount consideration in the coming hours as we decide whether to put this treaty up for a vote today or tomorrow.

Mr. President, as many of my colleagues have noted throughout this debate, there are many reasons why the United States should become a party to this important treaty. I will address three of them here.

First, this treaty will allow the United States to maintain our strong nuclear deterrent. This treaty does not require the parties to dismantle their existing nuclear stockpiles. It does not prevent them from maintaining those stockpiles through scientific means. Rather, this treaty prohibits further nuclear testing. The United States has not conducted any nuclear tests for 7 years, and the administration has testified that we have no intention of performing any further tests. The Departments of Defense and Energy already have a substantial database of information on the more than 1,000 nuclear tests that we have already performed. And this information has been the basis for the development of the Stockpile Stewardship Program, which the high-ranking administration officials have testified is an effective mechanism for maintaining the safety and reliability of our nuclear arsenal.

Second, this treaty will help to create a worldwide nuclear status quo. Parties to the CTBT will be unable to conduct nuclear explosive tests to improve their existing weapons or develop stronger ones. This means that the nuclear arms race will be literally frozen where it is. This is beneficial to the United States for several reasons. It will allow us to maintain our nuclear superiority. It will protect us from the threat of stronger weapons in the future. And, in fact, it ensures that we will have the dubious distinction of having won the nuclear arms race.

The third point in favor of this treaty I will make is this: the CTBT is effectively verifiable. Some have argued that this treaty is not verifiable. It seems that argument echoes in these halls every time we debate an arms control treaty. But, again, that argument rings hollow. Verification is a tricky thing. All treaties, including arms control treaties, are largely based on good faith among the parties to them. Good faith in the sense that the parties who have ratified the treaty have promised to comply with the treaty's provisions. Collectively, the parties have agreed to a set of provisions, in the case of the CTBT to not perform nuclear tests. Alone, a country can decide to no longer perform nuclear tests—as the United States has already done—but no other nation knows for sure if that country is living up to its promise.

Under a multilateral treaty such as the CTBT, all parties have agreed to

the provisions and are subject to a verification regime that otherwise would not exist. The CTBT says that if one party to the treaty has evidence that a test has occurred, that party can request an onsite inspection. This inspection will occur if 30 of the 51 members of the CTBT's Executive Council agree that the evidence warrants such an inspection. This type of onsite inspection cannot occur outside the CTBT regime, Mr. President. And this inspection will allow the parties to the treaty to obtain information that cannot be obtained outside the treaty regime.

No one here will claim that any treaty is 100 percent verifiable or that some countries may try to cheat. But the Pentagon has said that this treaty is effectively verifiable. And that is the key. The International Monitoring System created by this treaty includes 230 data gathering stations around the world in addition to those already operating in the United States. Last week, Secretary of Defense William Cohen told the Senate Armed Services Committee that "the information collected by these sensor stations would not normally be available to the U.S. intelligence community." In addition to this enhanced capability, the United States is also permitted, under the provisions of the treaty and in accordance with international law, to use our own national technical means to detect nuclear tests.

Mr. President, some people say that, because the United States has already made the decision not to do any further nuclear testing—and indeed that we have not tested in seven years—that this treaty is unnecessary. They claim that the CTBT merely reinforces what we have already done and that there is no real benefit to our ratification. In fact, as many of my colleagues have already addressed during this debate, and as I have already noted, there are many benefits to this treaty. We retain our leadership in the arms control arena. We maintain our nuclear superiority. And, importantly, we gain the ability to request and participate in onsite inspections of suspected nuclear testing abroad. And, if the President is unable to certify that our nuclear arsenal is sound, we have the option to withdraw from the treaty.

Mr. President, in urging my colleagues to support this important treaty, I will again quote President Kennedy:

The United States, as the world knows, will never start a war. We do not want a war. We do not now expect a war. This generation of Americans has already had enough—more than enough—of war and hate and oppression. We shall be prepared if others wish it. We shall be alert to try to stop it. But we shall also do our part to build a world of peace where the weak are safe and the strong are just. We are not helpless before that task or hopeless of its success. Confident and unafraid, we labor on—not toward a strategy of nuclear annihilation but toward a strategy of peace.

Thank you, Mr. President.

Mr. President, I yield the floor.

The PRESIDING OFFICER. Who yields time?

Mr. WARNER. Mr. President, I yield to the Senator from Arizona such time as he may consume.

The PRESIDING OFFICER. The Senator from Arizona.

Mr. KYL. Thank you, Mr. President.

Mr. President, a number of us have concluded that we cannot support ratification of the CTBT, that it will be defeated. But some have urged that we put the vote off out of concern that rejection would send an undesirable message to the world.

I believe, however, that we should vote precisely because the world would get a desirable message that the Senate took a stand that treaties such as this must meet at least minimum standards for sensible arms control. The CTBT fails that test. It is a sloppy, altogether substandard piece of work, and it deserves rejection.

Our colleague, DICK LUGAR, opposes the CTBT ratification, as he has explained, because he does not believe the treaty is of the same caliber as arms control agreements that have come before the Senate in recent decades. He cites two of the CTBT's many deficiencies: "an ineffective verification regime and a practically nonexistent enforcement process."

Contrary to what treaty supporters have argued, the CTBT's rejection would strengthen the hands of U.S. diplomats on such matters in future negotiations. When they insist on more effective provisions, citing the need to satisfy a rigorous U.S. Senate, their warnings would become credible and influential. Such warnings would help free the United States from having to go along with wrong-headed treaty terms dictated by countries that lack U.S. responsibilities around the world.

I note that as a good example of our negotiators changing their position from that originally supported by the administration to go directly to the heart of key objections to this particular treaty. As you know, no President had ever sought a zero-yield test ban treaty in perpetuity. In this case, the Joint Chiefs of Staff argued that we should not have such a treaty.

The original position of the administration in the negotiations was to grant the United States an option without having to invoke the supreme national interest clause to retire from the treaty after 10 years and not to insist upon a zero-yield but, rather, to permit low-yield, what are called hydronuclear tests. Over time, our negotiators' position was undercut, and in the end, according to the very people who negotiated the treaty, in order to reach an agreement with other countries, the United States conceded on those and other important points. Those are two of the critical deficiencies in this treaty.

By rejecting the treaty now, the Senate would strengthen the hands of our future diplomats who negotiate these

arms control agreements to enable them to make the point to their counterparts that the United States is serious about treaties at least achieving minimal standards; we consider these to be the kinds of minimal standards that are necessary to bind the American people; and those negotiators would know that Senate ratification would not occur unless the terms were as proposed by the United States.

As I said, no other President ever supported a zero-yield treaty, let alone one that would bind the United States forever, and neither should the Senate.

If we proceed today to reject the CTBT, future U.S. negotiators will be more inclined to seek the Senate's advice before the deal is finalized and the administration demands our consent. This will serve the U.S. national interests in various ways.

First, the Senate was never intended to be a rubber stamp, approving any ill-advised treaty negotiated by an administration. Our constitutional duty in treaty-making is to perform the equivalent of quality control. Under the Constitution, the Senate's role is of equal stature with the President's. We in the Senate are entitled—indeed, we are obliged—to second guess the President's national interest calculations regarding treaties.

There would inevitably be complaints from abroad, including from friends, if we upset the CTBT apple cart. But that unpleasantness would be minor and transitory, especially in light of the permanent harm the CTBT would do to our national security. The embarrassment of the President for buying into such a flawed treaty in the first place is not desirable, but the Senate cannot avert it at any price.

Consider again Senator LUGAR's words:

[The CTBT] is problematic because it would exacerbate risks and uncertainties related to the safety of our nuclear stockpile.

Those are the stakes, and they are serious. That crucial observation should put into perspective the issue of likely complaints from foreign foes and friends.

The Senate must fulfill its constitutional duty to ensure that treaties meet at least minimum standards. We do the Presidency no favors by shirking, and we do the Senate and the Nation harm if we accede to the President's diplomatic recklessness simply to spare him the chore of mollifying the other states that forged the flawed treaty.

A query to my colleagues who are interested in delaying this vote to avoid the embarrassment of rejecting a treaty negotiated by the administration: Will the Senate defer to the President on the Kyoto Global Warming Treaty or the ABM multilateralization or demarcation treaties?

Some administration spokesmen have used the offensive argument that Senate rejection of the CTBT would be a message to the world that we are not serious about arms control. To the con-

trary, rejecting this treaty will help establish that we demand real arms control—not the show, not the empty symbols, not the flimflam treaties that cannot accomplish their purposes. In rejecting the CTBT, we will be asking the world to join in real antiproliferation measures, such as enforcement of the nonproliferation treaty which Russia, China, and North Korea violate every time they spread nuclear weapons technology.

I quote again from Senator LUGAR:

If a country breaks the international norm embodied in the CTBT, the country has already broken the norm associated with the nonproliferation treaty.

Mr. President, that is because 185-some nations have agreed not to possess these nuclear weapons, except for the nuclear powers. The testing is simply a redundant violation of the possession in the first place, which is already a violation of the NPT. So this treaty won't accomplish its minimal objective.

Second, enforcement of the United States resolutions requiring inspection of Iraq: It would be very helpful if our allies would help in this very meaningful and important activity rather than undercutting the United States at every turn.

Again, Senator LUGAR hit the point squarely:

The CTBT verification regime seems to be the embodiment of everything the United States is fighting against in the UNSCOM inspection process in Iraq . . . [which is] best not repeated under the CTBT.

Third, perhaps we could get their support in our efforts to free U.S. policy from the dead hand of the ABM Treaty and to deploy missile defenses.

These are real, meaningful actions against the proliferation of weapons of mass destruction rather than empty symbolic gestures.

In asking the Senate to postpone the vote on this treaty until he has the votes, the President is asking, first, to spare him personal embarrassment; and, second, to give him a chance to bind the United States to a treaty that most do not think should ever go into force. The CTBT will not improve with age.

Most Senators would have been content never to have voted on the treaty. But the President has now denied the Senate that option. He will not agree to forbear demanding consideration of the treaty next year when he hopes to have the votes to pass it. Republicans have not politicized this debate, but it is clear that unless we defeat this treaty now, it will be a political issue next year when allegedly changed circumstances—created, for example, by a new test by India or Pakistan—will give the President the pretext to revive the debate.

It has become clear that the assurances we may now get from the President and our Democratic colleagues will not be the ironclad commitments we recently agreed were necessary to induce the Senate to defer this vote.

Therefore, to avoid the President politicizing the issue next year, we should vote now.

Sometimes it is necessary to say or do the right thing and just let the chips fall where they may. Ronald Reagan knew he would ruffle lots of foreign feathers—including some of our respected allies—when he called the Soviet Union an evil empire and when he stood his ground against Gorbachev in Reykjavik in favor of strategic defense. These messages he sent were criticized by many as disruptive. They were sound. They served our national interests and the interests of decent people around the world, and history has judged them favorably.

The Senate now has a chance to demonstrate strength and the good sense worthy of Ronald Reagan. If we do it, we will be flouting much conventional thinking, but we will, in fact, enhance our Nation's diplomatic strength, protecting our national security and vindicating the wisdom of America's founding fathers who assigned to the Senate the duty to protect the country from ill-conceived international obligations.

Let the Senate vote to reject the CTBT.

THE PRESIDING OFFICER (Mr. CRAPO). The Senator from Nebraska.

MR. KERREY. Mr. President, in the waning days of his administration, President Eisenhower proposed a test ban treaty to end all nuclear tests in the atmosphere, in the oceans, and under the ground. Nearly four decades later, the Senate stands on the verge of a vote on ratification of the Comprehensive Test Ban Treaty. I will vote in favor of ratification. I regret the move to postpone a vote because I am of the firm conviction this treaty will help end the proliferation of nuclear weapons and increase the safety of the American people.

President Eisenhower proposed the test ban having recognized the increasing danger posed by nuclear weapons. At that time, the threat was very real. The American people had a vivid understanding of the devastating consequences of nuclear weapons.

Those of us in our fifties remember the threat and the fear that we had as children—the duck and cover drills, the constant reminders of the devastation that a single nuclear weapon could produce to our cities and to our communities. In many ways, the problem we have today comes from our success because the fear we once had has been displaced by a false sense of complacency, a sense of security that, in my view, is not justified, given the facts.

I would like to illustrate this danger by a realistic scenario, in my view, with a single Russian nuclear weapon. It is possible for a small band of discontented or terroristic members of either the Russian society or some other nation to raid a silo of Russian missiles in the Russian wilderness. Soldiers who are poorly trained, sparsely equipped, and irate at not having been paid in a

year are easily overtaken or are willing to cooperate.

Let's pick one city to illustrate the damage. I, again, call to my colleagues' attention that this kind of game playing, this kind of example was quite common as recently as 10 years ago. But today, when you ask what kind of damage could occur as a result of a single nuclear blast, you are apt to have people scratching their heads, wondering what could happen. So let me take Chicago as an example.

First of all, unlike many of the other threats in the world, if a rocket left Russia, it would arrive in Chicago within an hour, probably taking a trajectory over the top of the world across the Arctic pole. It would detonate in Chicago within an hour, and on a bad day it would hit a target within a few hundred yards off Lake Michigan.

We spent a great deal of time assessing the danger of the nation of China. Their missiles are not connected to their warheads. Their warheads are disconnected; they are not together. It would take them several days and they are not targeted with the accuracy and would not arrive with the same swiftness as an unauthorized or accidental launch coming from Russia.

The first effect of the blast would be the nuclear flash. The air would be heated to 10 million degrees Celsius. The blast would move out at a few hundred kilometers a second and its heat would be sufficient to set fire to anything combustible at a distance of 14 kilometers. People within 80 kilometers would be blinded. The blast effect would follow. It would travel out from ground zero. Within 3 kilometers, those who had not already been killed would die from this percussive force.

The details of this kind of a blast needs to be understood by the American people as this debate goes forward, because the good news of the end of the cold war has been replaced with the bad news that we are increasingly at risk of individuals or nonnation state people who choose to do damage to the United States of America and do not care if they die in the execution of their mission. They are willing to attack the United States of America and they are willing to take American lives without regard to the fact that they may die in the execution of their mission.

A single Russian nuclear weapon launched accidentally, or a single nuclear weapon assembled by some rogue nation and delivered by whatever the means to the United States of America, would do more damage than any other threat we currently have on the horizon. A single Russian submarine that was taken over by a similar sort of dissident faction could launch 64 one-hundred-kiloton weapons at the United States. I do not come here to alarm anybody about this. I come simply to remind people that nuclear weapons are still the only threat that could kill every single American. It would not take thousands to bring the United

States of America to its knees. It would not take the kind of total attack we once feared from the Soviet Union to bring America from being the most powerful economic and military force on the Earth to being somewhat short of No. 1, not only putting us at increasing risk but putting the rest of the world at risk as well.

CTBT is by no means the only thing we must do in order to reduce the risk of proliferation. I would like to go through a few ideas prior to talking about both our capacity to verify and the confidence I have that we can maintain our stockpile without the need to test.

First, we have to maintain our intelligence capabilities: our ability to collect intelligence, to process, to disseminate, to deliver that intelligence to warfighters is far and away the best in the world. Talk to our allies in Kosovo, in Bosnia, in Desert Storm; talk to any of those whose lives were at risk and were allied with the United States of America in a military effort and they will tell you our intelligence collection and dissemination capability gave us the capacity to do the impossible.

Our intelligence agencies, from time to time, make very highly publicized mistakes. Unfortunately, the publicity given to those mistakes gives some a lack of confidence in our capability of doing our mission. That lack of confidence is misplaced. We are an open society. As a consequence, we tend—correctly so—to examine the things we do when we make mistakes. Unfortunately, at times it produces a situation where we are afraid of doing things because we are worried we are going to make a highly publicized mistake and therefore that mistake is going to ruin our career or make it difficult for us to advance. As a consequence, we sometimes are a little too cautious.

Americans should not suffer the illusion we currently have the intelligence capacity to know everything that is going on in the world; we simply do not. Indeed, we should not. We are not, as well, allocating enough resources, in my view, to make certain policymakers of the future are informed so conflicts that might occur can be avoided and so nuclear threats can be confronted before they emerge to be challenges.

The second tool that must be maintained to confront the emerging nuclear threat is not only a strong military but an intent to use that military to meet any individual or nation state that threatens the United States of America. Our military is the envy of the world. While we must avoid the temptation of using our military forces in situations not vital to U.S. interests, we must also continue to maintain the will to use military force in instances in which our national security is at risk.

The third tool is national missile defense. I support the creation of a limited national missile defense designed

to protect the United States of America from rogue state ballistic missile launches and accidental launches. While the success of the recent test of a prototype missile defense system demonstrates that limited national missile defense is possible, we must also realize it is not a panacea for the dangers we will confront.

The fourth tool in our effort to secure the post-cold-war peace is further reductions in the American and Russian nuclear arsenals. I have argued on the Senate floor previously the President should immediately take bold action to restart the arms control process. If we do not drastically reduce U.S. and Russian nuclear arsenals, the danger of their accidental use or proliferation will increase exponentially. I recognize that deep reductions—while decreasing the chance of unauthorized or accidental launch—could actually increase the danger of material proliferation. Therefore, any such parallel reductions in our nuclear forces must include arrangements and a U.S. commitment to provide funding to secure and manage the resultant nuclear material. This is the fifth tool. We are fortunate we will not begin from scratch on this problem. We can build on one of the greatest acts of the post-cold-war statesmanship, the Nunn-Lugar Cooperative Threat Reduction Program.

The final piece of the nuclear safety puzzle is the Comprehensive Test Ban Treaty. I support the CTBT because I believe it will enhance U.S. national security, reduce nuclear dangers, and keep the American people safe. Let me explain how.

First, a fully implemented CTBT will all but halt the ability of threshold states from establishing an effective and reliable strategic nuclear force. The inability of nations such as Iran and North Korea to conduct nuclear tests will make it much less likely for them to become nuclear powers. Along the same line, the inability of existing nuclear states to conduct further nuclear tests will impede, if not stop, their efforts to make technological advances in yields and miniaturization, advances already achieved by the United States.

Bluntly speaking, we have the most effective and deadly nuclear force in the world. Therefore, to maintain our existing nuclear edge, it is in our interest to ratify the CTBT and to halt the nuclear development advancement of other nations.

In addition, we all have experienced coming to this Chamber to vote on a sanction imposed upon an individual nation as a consequence of us judging correctly that that nation poses a threat and, in many cases, a potential nuclear threat to the United States of America.

We struggle with that vote because we know a unilateral sanction by the United States of America will oftentimes be used by our allies as a means for them to capture the market share of some product we were selling to that

nation. With this treaty, it is far more likely the Security Council will support multilateral sanctions that will enable us to get the desired effect without us having to suffer adverse consequences as a consequence of unilateral sanctions.

In the post-cold-war era, nuclear weapons have become the Rolex wristwatch of international security, a costly purchase whose real purpose is not the service it provides but the prestige it confers. Ratification and implementation of the CTBT is in our national security interest precisely because it will help slow the expansion of the nuclear club and make it more difficult for nations to acquire these deadly weapons.

Opponents of the CTBT focus their criticisms on two main points: verifiability of the treaty and the safety of our nuclear stockpile. Let me address each of these issues separately.

First, we can effectively monitor and verify CTBT. I purposely say "effectively monitor and verify" because absolute verification is neither attainable nor a necessary standard. But it is the standard that some have attempted to establish as a benchmark for ratification. No treaty is absolutely verifiable.

My support for this treaty comes from my firm conviction that by using existing assets, the United States can effectively monitor and verify this treaty. I base my convictions on the testimony of Gen. John Gordon, Deputy Director of Central Intelligence, and on the briefings on this topic received by the Intelligence Committee over the years and, most important, the performance of those men and women who work in a variety of agencies whose task it is to collect, to process, to evaluate, to analyze, and to disseminate intelligence to national customers, as well as war fighters who are defending the people of the United States of America.

The United States has the capability to detect any test that can threaten our nuclear deterrence. The type of test that could be conducted without our knowledge could only be marginally useful and would not cause a shift in the existing strategic nuclear balance. In addition, the United States has the capability to detect the level of testing that would be required for another country to develop and to weaponize an advanced thermonuclear warhead.

Our intelligence community is the best in the world. This gives us an enormous lead over every other signatory. Public disclosures of intelligence community problems may have shaken confidence in our intelligence capabilities, but let me assure my colleagues that their confidence should not be shaken. U.S. intelligence has the ability to know what is occurring around the world regarding the development of nuclear weapons. It is our intelligence community that largely gives Secretary Cohen and General Shelton

their confidence to say the treaty should be ratified because it is in our national interest to do so.

I will briefly describe how we will know what is happening when someone tries to cheat. I will use all caution to make certain I give away nothing that will provide our enemies with indications of what our sources or our methods are, but I urge colleagues who doubt this to get full briefings on what our collection capability is and what we are able to do to determine whether or not somebody is in violation of this treaty.

I will briefly describe, as I said, and because the existence of this highly secretive organization, the National Reconnaissance Office, has finally been declassified—we are able now to admit that from space, the United States can see you and can gather signals intelligence. I urge colleagues to get a full briefing on what the NRO can do in a classified fashion. I believe my colleagues fully understand the significance of what I just said.

Every part of the globe is accessible from space. There you will find satellite reconnaissance either watching or collecting electrical signals from those who would do damage to the United States of America. That is a tremendous capability that no one else can equal. This global accessibility from space is just one feature of a very complicated and complex system of collecting and analyzing information.

The National Security Agency is a second feature. They exploit foreign communications. That is the official unclassified description of its mission: NSA exploits foreign communications. Recently, Hollywood has enjoyed making a couple of movies showing how NSA is a threat to our Nation. Nothing could be further from the truth. It is a Hollywood make-believe story that is completely inaccurate and false. NSA is not a threat to us. If you are an unfriendly foreign government wanting to cheat on CTBT, NSA is certainly a threat to you.

To quote from their official unclassified agency description: "They are on the cutting edge of information technology." They know what is going on in the explosion of information technology.

There is a third area beyond NSA, and that is called MASINT. It is a pretty strange term for most people. It means measurement and signatures intelligence, the recognition that in addition to being seen and being heard, objects, especially electronic objects, have other signatures. Like your personal signature—if we collect enough information about someone's signature, it is not like anything else, it is unique, and we know exactly what it is, and we are collecting MASINT.

The Central Intelligence Agency gives us a fourth important feature. The CIA employs a network of agents around the world who constantly provide what is called HUMINT, human intelligence. HUMINT is a term of art

which simply recognizes people tend to talk, and when they do talk, we try to have an agent listening. If an agent hears something, it is fed into a fifth and important feature of the agency, and that is the CIA Directorate of Intelligence.

The men and women of the CIA DI sift through enormous amounts of data every day and separate fact from fiction, truth from lies. Through their analysis of all intelligence sources, they provide policymakers with crisp statements of what our potential adversaries are doing and not doing. If information is out there to get, we will get it. If it is important, we will analyze it and understand it. Once we understand it, policymakers will make sound decisions if someone decides to cheat on the CTBT.

I am trying to paint a picture of just how sophisticated our intelligence community is. It is a community that on occasion has been fooled, but it has not been fooled often, and it has rarely been fooled for very long. We have a world-class intelligence capability. We can count on the intelligence community to monitor the CTBT and effectively verify it.

A second argument that has been used against the treaty by some is based upon the suspension of nuclear testing required by the CTBT and the argument that this will jeopardize the safety and reliability of the U.S. nuclear weapons stockpile. I have an extremely high level of confidence in the nuclear stockpile even without continued testing.

The science-based Stockpile Stewardship Program, on which the United States is spending \$4.5 billion a year, is maintaining our technological edge without the need for further testing for the foreseeable future. This program is based on the most advanced science in the world. It is based on over 50 years of nuclear experience. It is based on the results of over 1,000 American nuclear tests. It is a program that relies on the ability and ingenuity of U.S. scientists to maintain our nuclear edge. But it is also a program that recognizes the need to build in adequate safeguards to ensure safety and reliability.

The Stockpile Stewardship Program requires a rigorous annual review of the entire nuclear stockpile. As a part of this regime, both the Secretary of Defense and the Secretary of Energy must certify to the President on an annual basis the stockpile is safe and is reliable. Should either Secretary be unable to offer this certification, the President, in consultation with Congress, is prepared to exercise the right of the United States to withdraw from the treaty and to resume testing.

The United States has not conducted a nuclear test for over 7 years, but the American people should understand our nuclear stockpile is safe. Both the safeguards and the science exists to continue to assure its safety well into the future. And since we have made the decision we do not need to test, it only

makes sense that we use the CTBT to end testing throughout the world.

Reflecting on his time in office, and his failure to achieve the goal of a nuclear test ban, President Eisenhower stated: "Disarmament . . . is a continuous imperative. . . . Because this need is so sharp and apparent, I confess I lay down my official responsibilities in this field with a definite sense of disappointment."

The Senate now has the opportunity to ratify the Comprehensive Test Ban Treaty. We should ratify this treaty because, just as when it was first proposed nearly 4 decades ago, it is a positive step toward reducing nuclear dangers and improving the safety of the American people.

I yield the floor.

Mr. BIDEN addressed the Chair.

The PRESIDING OFFICER. The Senator from Delaware.

Mr. BIDEN. Mr. President, I see my friend from the great State of Montana is up to speak. I ask the chairman of the—

Mr. SPECTER. Will the Senator from Delaware yield for a question?

Mr. BIDEN. Yes, I would be happy to yield.

Mr. SPECTER. Mr. President, the question that I have for the Senator relates to the letter from President Clinton to our distinguished majority leader, Senator LOTT, where President Clinton has asked that the Senate not consider consideration of the Comprehensive Test Ban Treaty.

I believe it is very much in the national interest that we not vote on the treaty today because it would undermine national security by sending a message to the world that we are not for this treaty. I think it would encourage nations such as India and Pakistan, and perhaps rogue nations such as Libya, Iraq, and Iran, to test.

But the first of two questions which I have for the Senator from Delaware is whether the President might go further. The Senator and I attended a dinner last Tuesday night with the President. We both had occasion to talk to the majority leader and have heard the public pronouncements. The majority leader has set a threshold, asking that the President commit in writing that he would not ask to have the treaty brought up next year. I believe we have to find a way to work this out so the treaty is not voted on.

The first question I have of the Senator from Delaware is, What are the realities of getting the President to make that request? He has come pretty close in this letter. Why not make that additional request?

Mr. BIDEN. In response to my friend from Pennsylvania, I will say that I, obviously, cannot speak for the President. But he has gone awfully far. He says: "I believe that proceeding to a vote under these circumstances would severely harm the national security of the United States, damage our relationship with our allies, and undermine our historic leadership," et cetera.

"Accordingly, I request that you postpone consideration of [this] Test Ban Treaty on the Senate floor."

Unless there is something incredible that is likely to happen in the next 8 months, the President is not going to be—and I realize this is a legitimate worry on the part of some; that the President will wait until the middle of an election year and raise a political issue by forcing people to vote for or against this treaty—but the likelihood of changing the votes of 22 Republican Senators between now and the election is zero, I would respectfully suggest.

So what the President has done here is done the only thing I think a chief executive—Democrat or Republican—should do; that is, he did just as Jimmy Carter did when he asked for SALT II to be taken down. He did not make a commitment he would not try to have it brought up. That is not what his letter said. What he said is: Bring it down. Don't vote on it now. It is not in the national interest.

To have a President of the United States say, the treaty I, in fact, negotiated—I want to go on record as saying you should not consider it at all during the remainder of my term in office, surely damages his ability to deal internationally.

So I think he is observing the reality of the circumstance, which means that there will be no vote next year on the floor of the Senate—for if that were the case, you might as well go ahead and have the vote now.

The letter Jimmy Carter sent—and I shall read it—said:

In light of the Soviet invasion of Afghanistan, I request that you delay consideration of the SALT II Treaty on the Senate floor.

The purpose of this request is not to withdraw the Treaty from consideration, but to defer the debate so that the Congress and I as President can assess Soviet actions and intentions, and devote our primary attention to the legislative and other measures required to respond to the crisis.

As you know, I continue to share your view that the SALT II Treaty is in the national security interest of the United States and the entire world, and that it should be taken up by the Senate as soon as these more urgent issues have been addressed.

Sincerely,

JIMMY CARTER.

This letter of the President of the United States—this President—goes a lot further than President Carter went in pulling down SALT II. But for the President to go beyond that, it seems to me, is to be beyond what we should be asking any executive.

The Senator from Virginia has worked mightily to try to resolve this. He has gone so far as to draft a letter which a number of Senators are likely to sign, if they have not already signed, saying: In addition to the President asking this be brought down, we the undersigned Senators ask that it be brought down. And we have no intention of bringing that treaty up next year. We do not think the treaty should be brought up in the election year.

To make the President, from an institutional standpoint, guarantee that

he is now against the treaty that he ratified, it seems to me, is to be going beyond institutional good taste.

Mr. HELMS. Will the Senator yield?

Mr. BIDEN. For a question, I would be happy to yield.

Mr. HELMS. I want to ponder a question to the Chair.

Mr. BIDEN. Surely.

Mr. HELMS. It was my understanding—perhaps mistakenly—that we were to go from side to side in our discussions. If that is not the case, I ask unanimous consent that it be the case, when both sides are on the floor seeking the floor.

The PRESIDING OFFICER. The Chair will respond. There has been a unanimous consent request that has been agreed to that to the extent possible that will be done. In this case, the ranking member sought recognition, and no other person sought recognition.

Mr. HELMS. The Senator has been on his feet 20 minutes here. And two Senators have taken the floor from him. I want it to be understood I do not want that to happen again.

Mr. BIDEN. Mr. President, it was not my intention—I thought the Senator from North Carolina, in effect, acknowledged that I should take the question from the Senator from the State of Pennsylvania. I apologize.

Mr. HELMS. I did not think it would be four questions.

Mr. BIDEN. Mr. President, I am not propounding the questions. I am just trying to answer the question. I hope I answered the Senator's question.

Mr. SPECTER. I believe I asked one question.

Mr. BIDEN. Yes.

Mr. SPECTER. I had one more.

I believe I asked one question. I had one more. I would like leave to ask one more question.

The question I have for Senator BIDEN is, Is there any other way procedurally that this vote can be put off? We are considering the treaty. There is a unanimous consent request, and while I do not agree with what the Senator said in his first response—I believe the President can say more without being against the treaty. And I believe there are political considerations which are behind not having the matter brought up in fair consideration to Senator LOTT's request there be a commitment not to take it up all year. I think it highly unlikely that there would be a shift among Republicans on a procedural matter to find 51 votes—50 votes plus the Vice President. But we are dealing here with matters of extraordinary gravity. I hope this matter can be worked out short of a procedural vote.

But I direct this question to the Senator from Delaware, whether there is any other procedural alternative to getting this vote off the Senate agenda.

Mr. BIDEN. Mr. President, I will respond very briefly and then yield to my friend from North Carolina.

My knowledge of Senate procedure pales in comparison to the Senator

from North Carolina. I am not being solicitous. That is a statement of fact. But it is my understanding that the only procedural means by which we could move from this treaty to other business without a vote would be if there were a motion to move from the Executive Calendar to the legislative calendar. That would, as I understand it, require 51 votes. That is the only thing of which I know. I do not know if anyone is going to do that.

Mr. HELMS. Will the Senator yield?

Mr. BIDEN. I yield the floor to my friend.

Mr. HELMS. I ask the Parliamentarian for his views on it now, to get that settled.

The PRESIDING OFFICER. The Parliamentarian advises that the Senator's statement is correct.

Mr. BIDEN. Mr. President, that may be the first time my procedural judgment has ever been ruled to be correct on the floor of the Senate. I am very happy the Senator suggested I ask that.

Mr. HELMS. I think the Senator has forgotten many times when he was correct.

Mr. BIDEN. The Senator is very nice to say that. Seldom procedurally. I yield the floor.

Mr. HELMS. I ask the distinguished Senator from Montana, who has been awaiting a chance to speak, be recognized for such time as he may require.

The PRESIDING OFFICER. The Senator from Montana.

Mr. BURNS. I thank the chairman of the Foreign Relations Committee and the Chair.

I listened to the exchange. It is very interesting. Why we are in this debate was not initiated by this side of the aisle. This whole process was not initiated by this side of the aisle. It was a reaction that was initiated by our friends on the other side. That is irrelevant right now. What is relevant is our Nation's security and the merits of this treaty and how it affects us and our national security. We have but one deterrent for the safety of the people who live in this country, and that is our reliable nuclear capability. Once it is questioned, then our ability to deter in this world of uncertainty would be damaged.

I rise to record my opposition to Senate passage of the Comprehensive Test Ban treaty. This treaty bans all nuclear testing forever. Thus, it is a ban on "bang" for all time; it is not a ban on bombs. No one ought to be under the illusion that this treaty ends nuclear weapons development by America's foes. At home, an essential part of the administration's plan to implement the treaty is a "safeguards package". The mere existence of the safeguards package speaks for itself: without them, the treaty poses too many risks. Unfortunately, the treaty we are asked to vote upon contains none of the safeguards because the terms of the treaty expressly preclude making the safeguards package part of the treaty. In

other words, the treaty prohibits meaningful reservations. Consequently, we are asked to bet on the come that the administration can deliver all that is promises in the safeguards package, not only in the next few years but far into the future. We are told that the Joint Chiefs of Staff support the treaty with the safeguards and is unable to comment on the merits of the treaty without the safeguards. I fully understand the Chain of Command. Our leaders also understand the Chain of Command. We do not have to read too much between the lines to conclude that without the safeguards package, this treaty poses unacceptable risks to our national security.

A total ban on all nuclear testing for all time has never been supported by prior Presidents—and for sound reasons. This administration's best sales pitch for a total ban on bangs for all time is that it is an important step in the direction of doing away with the threat of nuclear war. This is a nice dream and a great idea for another planet. But on earth it is a downright dangerous false hope. The complete ban treaty has a fatal flaw in the real world: the treaty is unenforceable. In one sentence, the fatal flaw is that violations cannot be verified.

The best intentions humans can conceive are of no use if the treaty is not implemented not only by us but also by the other nuclear players. And what is the score? Well Russia and China have not ratified this treaty and they are unlikely to do so. Even if they did, either one could veto any attempts at enforcement by the U.N. Security Council. North Korea did not even participate in the negotiations about the treaty. India and Pakistan have not signed on to the treaty. The score on rogue nations such as Iraq and Libya varies but we have to ask whether they could be trusted to keep their commitments anyway. The administration has, once again, gone off and negotiated a deal that is not acceptable to the Senate. I suppose the White House media spin will again be that the United States will suffer a loss of world leadership if the Senate does not buy this pig in a pike treaty. Well maybe the negotiators should have thought of that before they put American's credibility on the line. The spinmeisters should re-read our Constitution. Treaties must be acceptable to two thirds of the Senators. That requirement has been there since the founding of the Republic. The White House should not pretend to be shocked when the Senate turns down a treaty that it does not like because the treaty has no teeth. There are too many undefined characters in the world who are unaffected by this treaty.

This treaty is not a good idea for a number of other reasons. The agreement puts international handcuffs on nuclear technology testing by the United States. Our country needs to have access to the testing of current and possible future nuclear weapons,

defensive as well as offensive. We know that some nations play fast and loose with nuclear weapons technology. This is not the case generally in the United States and is not the case specifically in Montana where we maintain many Minutemen III missiles. Part of the Safeguard Stewardship and Management Program proposed by the Administration to sell this treaty is to assure us that the nuclear stockpile remains safe and reliable. But tests needed to create the data base and methodologies for stockpile stewardship have not been done during the seven year moratoria our nation has voluntarily followed on testing and would not be done under the mandatory terms of the treaty before us. Simply stated, the technology for stockpile stewardship is unproven. Key safety and reliability data can only be obtained from the actual testing of weapons. We cannot take a chance on when or whether our nuclear weapons will go off. Can you imagine putting all your faith in an airplane flying right without making actual flight tests? The pilots I know still think an aircraft has to be flown before they are convinced of its safety and reliability. Likewise, data from past tests cannot adequately predict the impacts of ongoing problems such as aging taking into account the highly corrosive nature of materials with a shelf life of 20 years. What do we do in 25 years? The administration's answer is to rely upon computer simulations or, as a last resort, to withdraw from the treaty. The stakes are too high to depend upon theoretical models and any treaty can be killed by a later law. But I submit these actions are closing the barn door after the horses are gone. Montanans as well as all Americans must have confidence in the safety and reliability of the refurbished nuclear warheads remaining in our country. Our troops in the field must also have confidence in the nuclear weapons they carry. This test ban treaty precludes us from undertaking the technology testing that is essential for keeping confidence in our nuclear deterrent capability.

The cold war may be over but the threat posed to the United States from nuclear weapons in hostile hands is far from over. Russia refuses to ratify Start II and continues to insist (along with the administration) on strict compliance with the 1972 ABM Treaty. If ever there was a lesson about not freezing nuclear technology in time, the ABM Treaty is the model. Most Americans still do not know that our country is absolutely defenseless against ballistic missile attack not only from Russia but also from any where else. There is mounting evidence that China has stolen priceless nuclear secrets from our national laboratories. Only a complete fool would think that the actions of the Chinese indicate that they would curtail their rapid advancement towards being a nuclear power, with or without this test ban treaty. Neither India nor Pakistan have signed on to

this treaty and I suppose the administration will try to blame that on the Senate somehow. I submit, however, that the positions of Pakistan and India on their nuclear status have nothing whatsoever to do with this debate in the Senate. We are aware that there are half dozen rogue nations out there. They must really lick their lips when they think about America not testing nuclear weapons anymore. Who seriously thinks this treaty will slow down despots who pose current and future irresponsible and, perhaps, irrational nuclear threats to the United States? The administration is making a serious error in judgment in mixing up what States say at diplomatic conferences with what they go back home. This is not the time to handicap ourselves by assuming test ban obligations that we would keep but others would either violate or ignore.

I have been called by many representatives of other states and heads of states. I asked one question: Will the signing of this test ban treaty change the attitude of the Russians? Answer: No. By the PRC, the Chinese? No. Will it change the attitude in India or Pakistan or North Korea or other suspected rogue entities? No. Then why do we put ourselves in jeopardy by not testing?

In conclusion, I believe this treaty is fatally flawed because it is not enforceable and will be ignored by the very nations we distrust. Moreover, to retain a credible nuclear deterrent capability, we must retain our ability to test our weapon systems for safety and reliability. Therefore, this treaty hurts us while helping our potential enemies. My vote is to oppose advice and consent.

I yield the floor.

Mr. REED. Mr. President, I rise to express my support for the Comprehensive Test Ban Treaty. I believe the real question before us is whether or not the world will be safer with or without the nuclear test ban treaty. I believe we are safer.

From a very self-interested standpoint, if this treaty is adopted, it gives us the very real potential of locking all of our potential adversaries into permanent nuclear inferiority because they will not be able to conduct the sophisticated tests necessary to improve their technology, particularly when it comes to the miniaturization of nuclear warheads. It will, also, I think, contribute to an overall spirit which is advancing the cause of nuclear disarmament and also ending the proliferation of nuclear weapons.

On the other side of the coin, if we step back from this treaty today and vote it down, I think we will set back this progress in trying to reduce nuclear arms throughout the world. All of us have come to this floor with different viewpoints, but I suspect we would all say the process we have undertaken is somewhat suspect. I spent 12 years in the Army, and I learned to grow up under the rule of "hurry up and wait." Well, this process resembles

"wait and hurry up." The President submitted this treaty to the Senate over 2 years ago. Yet for months, no action was taken. Then last week, suddenly it was announced that we would conduct a very limited debate, that we would have hastily constructed hearings, and that we would move to a vote.

I think that process alone suggests that we wait, at least—as we consider more carefully this treaty to discharge our obligations under the Constitution—for a thorough and detailed analysis of all the consequences. Indeed, this is a very complex subject matter, as the debate on the floor today and preceding days has indicated.

I believe we need to take additional time. I hope we can take additional time. But if the measure were to come before this body for a vote, I would vote to support the treaty because, as I have said, I think passing this treaty would provide a safer world. Rejecting this treaty would, I think, disrupt dramatically any further attempts at a significant comprehensive reduction of nuclear weapons throughout the world.

I think it is somewhat naive to suggest that if this Senate rejected the treaty, we could simply go back next week and begin to negotiate again on different terms. I think we would be sending a very strong and dangerous signal to the world that we, rather than carefully considering this treaty, have rejected it almost outright. I think, also, together with other developments, such as our genuine attempts to look for a relaxation of the ABM Treaty, rejection could be construed as not suggesting we are serious about nuclear disarmament but, quite the contrary, that we ourselves are beginning to look at nuclear weapons and nuclear technology in a different light, a light less favorable.

Let me suggest something else. This treaty will not prevent us from testing our nuclear technology. It will prevent us, though, from conducting tests involving nuclear detonation. We can in fact go on and test our technology. We have been testing our technology constantly over the last 7 years without a nuclear detonation.

This treaty would not ban nuclear weapons. This treaty also would provide for an extensive regime of monitoring sites—over 300 in 90 countries. It would allow for onsite inspection if, in fact, a significant number of signatories to the treaty were convinced that a violation took place. These additional monitoring sites, together with the onsite inspections, are tools that do not exist today to curb the proliferation of nuclear weapons and the development of new nuclear weapons.

There has been some discussion about our ability to monitor the development of nuclear weapons and, indeed, to monitor clandestine tests of nuclear devices. I think the suggestion has been made—and I think it is inaccurate—that a nuclear detonation could take place without anybody

knowing anything at all about it. That is not the case at all. Just last week, there was an article in the Washington Post entitled "CIA Unable To Precisely Track Testing." If you read the article, it is clear that the CIA was able to detect two suspicious detonations at a Russian test site in the Arctic from seismic data and other monitoring devices. What they could not determine is whether this detonation was high explosives of a nonnuclear category or a nuclear detonation. But certainly we will have indications, if there is a clandestine test, that the possibility of a nuclear detonation has taken place. That alone will give us, I believe, the basis to go forward and ask for onsite inspections and for an explanation, to use the levers of this treaty which we do not have at this moment.

So the issue of verification, I think, is something that is quite obvious and prominent within this treaty, and the means of verification were discussed at length by my colleague from Nebraska who pointed out all the different techniques our intelligence service has to identify possible violations of this treaty and, with this treaty, to be able to press those violations in a world forum so we can ascertain whether the treaty has been adhered to or violated.

The whole notion of controlling nuclear testing is not new. Throughout this debate, my colleagues have discussed the initiatives that began as early as the 1950s with President Eisenhower. Then, in 1963, President Kennedy was able to sign, and the Senate ratified, the Limited Test Ban Treaty which outlawed nuclear explosions in the sea, atmosphere, and in outer space. In 1974, we entered into a treaty with the Soviet Union—the Threshold Test Ban Treaty—which prohibited underground testing with yields greater than 150 kilotons. In 1992, Congress passed the Hatfield-Exon-Mitchell amendment which called for a moratorium on testing. We are still observing today.

Also, I think it would be appropriate to point out that in fact for the last 7 years, we have not detonated nuclear devices. Yet each and every year, our scientists, the experts in the Department of Defense and Department of Energy, have certified that our nuclear stockpile is both safe and reliable. So the assertion that we can never assure the reliability and safety of our nuclear stockpile without testing has been disproven over the last 7 years. We have done that.

Now, I believe we can in fact maintain a nuclear stockpile that is both safe and reliable. We can do it using the new technology we are developing, including but not exclusively related to, computer simulations. We can do it by investing, as we are each year, billions of dollars—over \$4 billion—so we can ensure that we have a safe nuclear stockpile and that these weapons would be reliable if we were forced to use them.

There is something else I think should be pointed out. This treaty has

been endorsed and recommended to us by the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, and the Secretary of Energy. These are individuals who take very seriously their responsibility for the national security of the United States. But some might suggest, well, they are part of this administration and we really know that, reading between the lines, their recommendation might not be as compelling as others.

But such logic would not suggest or explain why individuals such as Gen. John Shalikashvili, a former Chairman of the Joint Chiefs of Staff; Gen. Colin Powell; Gen. David Jones; or Adm. William Crowe would in fact be supportive of the Comprehensive Test Ban Treaty. Nobody would suggest why other prominent military officers, such as John Galvin, former Supreme Allied Commander in Europe; Gen. Charles Horner, who commanded the air forces in Desert Storm; Bernard Rogers, another former Commander of NATO and Supreme Commander in Europe, would also recommend and support this treaty. These individuals are concerned about security and have spent their lives in uniform dedicated to the security of this Nation and the protection of our people. They believe, as I do, that this will be a safer world with this treaty rather than if we reject this treaty. With this treaty, I think we can curtail dramatically the development of nuclear weapons by opposing powers to the United States.

It is true that you can develop a nuclear weapon without a test. You can develop the unsophisticated rudimentary weapons that were used in World War II. But you cannot develop the sophisticated technology which is the key to strategic nuclear power without nuclear testing.

If we accept this treaty, if we join with other nations, then we will be in a much stronger position, and the world will be in a much stronger position, to ensure that countries such as India, Pakistan, and North Korea will be very challenged to develop the kind of sophisticated nuclear weapons that will alter the strategic balance throughout the world. That in and of itself, I believe, will make it a safer world.

Of course, the elimination of testing will have a positive environmental effect. Even though our tests now throughout the world are restricted underground, there is always the possibility of leakage of radioactive material. And we know how devastating that can be.

There are those who have been here today who argued that we should reject this treaty because it is not 100 percent verifiable. I would suggest that we can, in fact, verify this treaty—that 100 percent is not the standard we would reasonably use. As I have indicated previously, we have already detected what we suspect are suspicious detonations in Russia. We would be even better prepared to do that with 300 more moni-

toring stations in 90 countries around the world. In fact, we would then have an international forum to take our complaints and to force an explanation, and, if necessary, an onsite inspection of a test.

I think we have an obligation to carefully review and consider this treaty. I believe that we do. And that consideration would be enhanced by additional time. I think it would be appropriate to take additional time. But it would be a terrible, I think, disservice to the process of nuclear disarmament, of nuclear nonproliferation, and of a saner world if we were to reject this treaty out of hand. And the world is watching.

President Clinton was the first head of state to sign this treaty. One hundred and fifty nations followed. Forty-one nations have ratified the treaty, and several more, including Russia, are waiting again for our lead in ratifying. Unless we are part of this treaty, this treaty will never go into effect because it requires all of the nuclear powers—those with nuclear weapons or with nuclear capabilities—to be a party to the treaty before it can go into effect. I hope we either in our wisdom consider this more, or in our wisdom accept ratifying this treaty.

Thirty-six years ago when the Limited Test Ban Treaty came to this floor, a great leader of this Senate, Senator Everett Dirksen, was one of the forces who decided to take a very bold step that was as equally daunting and challenging as the step we face today. His words were:

A young President calls this treaty the first step. I want to take a first step, Mr. President. One my age should think about his destiny a little. I should not like to have written on my tombstone, "He knew what happened at Hiroshima, but he did not take a first step."

The treaty is not the first step. But it is, I believe, the next logical step that we must take. I believe none of us want to look back and say that we were hesitant to take this step, that we were hesitant to continue the march away from the nuclear apocalypse to a much saner and a much safer world.

I yield my time.

The PRESIDING OFFICER. Who yields time?

Mr. HELMS. Mr. President, I yield time to the Senator from Kentucky.

The PRESIDING OFFICER. The Senator from Kentucky.

Mr. BUNNING. Thank you, Mr. President. I thank Senator HELMS.

Mr. President, this whole debate reminds me of what the great philosopher Yogi Berra once said: It is like "deja vu all over again."

I thought we pretty well settled this argument years ago—back in the 1970s and the 1980s—when the idea of unilateral disarmament through a nuclear freeze was proposed as the only way to end the nuclear arms race between the United States and Russia. We rejected the nuclear freeze concept. We put national security first. We won the cold

war, not through unilateral disarmament and symbolic gestures but through strength, and we defeated the evil empire. The world is safer and we have been able to substantially reduce the number of nuclear warheads and the threat of nuclear conflict.

So it is difficult to understand why this argument is back before the Senate today. It is difficult to understand why a U.S. President is back before us asking us to ratify an agreement which would tie this Nation's hands behind its back and jeopardize our national security.

None of us support nuclear war. We are all against nuclear proliferation. But agreeing to forego all future testing of nuclear weapons is not the way to get there. It is a matter of national security, of safety, and of common sense.

Because we refused to accept the siren call of the nuclear freeze movement in the 1970s, we won the cold war, and we have subsequently been able to reduce our arsenal of nuclear warheads from 12,000 to 6,000 under the START II treaty. The number is expected to be reduced further to 3,000 warheads by the year 2003. But despite these reductions and this progress, the United States must maintain a reliable nuclear deterrent for the foreseeable future.

Although the cold war is over, significant threats to our country still exist. At present, our nuclear capability provides us a deterrent that is critical to our Nation and is relied on as a safety umbrella by most countries around the world.

As long as our national security and our own nuclear deterrent rely on the nuclear capability, we must be able to periodically test our existing weapons as necessary to ensure their reliability and their safety.

Reliability is essential. If our nuclear weapons are not reliable, they are not much of a credible deterrent, and the nuclear umbrella that we and our allies count on for our mutual defense will have gaping holes in it.

We have to face reality. Our nuclear stockpile is aging. Our nuclear inventory is older than it has ever been, and nuclear materials and components degrade in unpredictable ways—in some cases causing the weapons to fail. Without testing, those potential problems will go undetected. Upgrades will not be possible. Reliability will suffer.

Safety is also essential. A permanent ban on testing would jeopardize the safety of our nuclear arsenal by preventing us from integrating the most modern advanced safety measures into our weapons. Even now our nuclear arsenal is not as safe as we can make it. Of the nine weapons systems currently on hand, only one employs all of the most modern and secure measures available. Safety modifications of this kind would require testing to make sure they worked as intended.

Sure, advocates of this treaty argue there are some other measures of test-

ing a weapon—safety and reliability. The Clinton administration has proposed an ambitious program known as the Stockpile Stewardship Program which would use computer modeling and simulations to detect reliability and safety. However, many of the components of this system are unbuilt and untested. The National Ignition Facility, which is the centerpiece of this program, is not scheduled to be completed until the year 2003. There are already reports that it is years behind schedule. It would be foolhardy to entrust our nuclear security to an unproven program which probably won't even be fully operational by the year 2010. Reliability and safety: There must be certainty; at this point only live testing provides that kind of certainty.

This treaty is based on a very noble, well-intentioned goal. There is no question that if the Senate were to ratify this treaty, it would be a grand symbolic gesture, but noble goals and symbolic gestures are no substitute for good policy and hard reality.

I have already talked about a couple of reasons why this treaty is not good policy—safety and reliability. But there are a couple of other reasons this treaty fails the hard-reality test, as well: Verification and enforcement. The hard reality is that the United States usually tries to live up to the agreements it signs. If we ratify this treaty, we will live by it; we have no guarantee other nations will be so inclined to follow the letter of the law.

Under this treaty, verification would be very difficult and enforcement would be impossible. It has no teeth. It is difficult now to detect nuclear tests with any confidence, and the verification monitoring provisions in this treaty don't add to that confidence level at all. Yes, we could request on-site inspections if we thought someone had been cheating, but that request would have to be approved by a supermajority in the 51-member executive council. In addition, each country under the treaty has the right to declare 50-square-kilometer areas off limits to any inspection.

Even if we did catch a cheater, the treaty has almost no teeth—possible trade sanctions. That's it, possible trade sanctions. And we know how difficult it is to maintain multilateral trade sanctions against Iraq, a country that blatantly invaded and looted a neighboring country and which consistently defies international inspection teams. No one can believe we would be more effective at enforcing sanctions against more responsible nations of greater commercial importance such as India and Pakistan. There are no teeth.

That brings us back to the hard reality. Would we obey the treaty? Yes, we would obey the treaty because that is the way we are. And others would obey the treaty if it suited their whims of the moment. The hard reality is if we ratify this treaty, we sacrifice our national security, jeopardize the safety

and reliability of our nuclear arsenal. And what do we get in return? A noble, symbolic gesture. Nothing more. It is not worth it.

I urge my colleagues to vote no. Unilateral disarmament was a bad idea in the 1970s and 1980s; it is a bad idea for the 21st century.

I yield the floor.

Mr. BIDEN. I yield to the Senator from Montana.

Mr. BAUCUS. Mr. President, I strongly support the Comprehensive Test Ban Treaty. Why? Various reasons.

First, we have an opportunity to vote this week. I will cast my vote in favor of ratification because I believe to do otherwise would be a tragic mistake with extremely dire consequences for our Nation and equally dire consequences for the world. However, given the likelihood the Senate will fall short of the two-thirds majority required under the Constitution for ratification, I will support efforts to postpone this vote. We cannot tell the world the United States of America, the leader of the free world, opposes this treaty. It would be a travesty.

The Comprehensive Test Ban Treaty gives America a unique opportunity to leave a safer world for our children and for our grandchildren. We cannot prevent earthquakes; we can't prevent hurricanes or tornadoes, not yet. I hope over time our ability to predict them—minimizing the destruction of human life and property—will improve. But we can prevent nuclear war. We can halt the spread of nuclear weapons. We can prevent nuclear fallout and environmental destruction caused by nuclear testing. And we can reduce the fear of a nuclear holocaust that all Americans have lived with since the start of the cold war 50 years ago. We can do all this, and we should.

Let me review some of the benefits we get from the Comprehensive Test Ban Treaty, and let me explain why this treaty will make the world safer for our children and grandchildren. First, under the CTBT, there is an absolute prohibition against conducting nuclear weapon test explosions by the signatories. This would include all countries that possess nuclear weapons, as well as those countries that have nuclear power or research reactors. It would also include countries that do not yet have nuclear facilities. This absolute prohibition of testing makes it much harder for countries that already have advanced nuclear weapons to produce new and more sophisticated nuclear weapons. Russia and China are prime examples.

The CTBT prevents the kind of arms competition we had during the cold war. For example, without nuclear tests the Chinese will be unable to MIRV ICBMs with any degree of reliability. The Chinese have no assurance of the effectiveness of putting multiple warheads on missiles because they would not be able to test. Many believe China has made enormous strides in

their nuclear weapons capability because of decades of espionage, but the CTBT provides one way to limit further sophisticated development.

The absolute prohibition on nuclear testing also helps prevent countries with smaller and less advanced nuclear weapons from developing more advanced nuclear warheads. This applies especially to India and to Pakistan. The strategy of using advanced nuclear weapons depends on confidence. It depends on reliability. India and Pakistan would not be able to build reliable and sophisticated nuclear weapons under the treaty.

The treaty's terms also help prevent nations that are seeking nuclear arms from ever developing them into advanced sophisticated weapons. I refer to countries such as Iran and Iraq.

The second major reason for adopting this treaty is that ratification is critical to our ability to enforce and maintain the Non-Proliferation Treaty, another treaty. The NPT is the bedrock of our efforts to stop the spread of nuclear arms to non-nuclear weapon states. Many of the nations that signed the NPT, the Non-Proliferation Treaty, and agreed to its indefinite extension did so on the understanding that there would be a Comprehensive Test Ban Treaty.

The third reason for support is the CTBT will improve the ability of the United States to detect nuclear explosions. Let me repeat that. It will improve our ability to detect current explosions, the status quo compared with today. The international monitoring system will have 321 monitoring stations, including 31 in Russia, 11 in China, and 17 in the Middle East. These stations will be able to detect explosions down to about 1 kiloton, the equivalent of 1,000 tons of TNT—much lower than the kinds of explosions we are talking about in this Chamber. In the case of a suspicious event—that is, a report of an explosion that could be nuclear, a mine site, or even an earthquake—any party can request an onsite inspection. With or without a treaty, we must continue all efforts at monitoring nuclear developments worldwide, but the treaty provides a system that far exceeds current capabilities of inspection.

Now, turning to two of the major objections to those who oppose the treaty: First, they claim actual nuclear tests—that is, explosions—are necessary to ensure that our stockpile of weapons works. We have put in place a science-based Stockpile Stewardship Program. Its purpose is to provide a high level of confidence in the safety and reliability of America's inventory of nuclear weapons. Under this program, our National Weapons Laboratories spend \$4.5 billion each year to check and to maintain these weapons. We can still test; we do test. We just cannot explode. The Secretaries of Defense and Energy, with the help of the Directors of the National Laboratories, the Commander of the U.S. Strategic

Command, and the Nuclear Weapons Council, must certify every year to the President that the necessary high level of confidence exists.

Do not forget, \$4.5 billion a year is spent on this. If they cannot give that certification to the President, the President can then use the so-called Safeguard F. What is that? That is the United States will be able to withdraw from the treaty and test the weapon that is in doubt; that is, if the President is not confident, the President can withdraw.

The Directors of our weapons labs, the Chairman of the Joint Chiefs of Staff, along with four of his predecessors, and an impressive array of Nobel Prize winners believe the Stewardship Program will provide appropriate protection for our national security.

The second objection against the treaty is that it is impossible to verify that all nations are complying with the treaty. That is true. It is true we cannot detect every conceivable explosion at low yields. But our defense agencies have concluded—the Department of Defense—that we will be able to detect tests that will have an impact on our national security, and that is the threshold of concern to us.

Let me go through a few likely scenarios that would occur if we reject the treaty. First and most immediate would be on the Indian subcontinent. India and Pakistan matched each other with nuclear tests. Kashmir remains one of the world's most dangerous trigger points. U.S. rejection of the test ban treaty would destroy our ability to pressure those two countries to halt further nuclear tests. Those countries would likely begin to develop more sophisticated nuclear weapons, heightening the probability of their actual use in the region.

The second adverse consequence of rejection is this: China would certainly prepare for more tests to increase the sophistication of its nuclear arsenal. At present, Chinese nuclear weapons do not pose a strategic threat to the United States. Our rejection of the CTBT would allow them to begin a long-term development program with testing that would make them such a threat.

The PRESIDING OFFICER. The Senator's 8 minutes have expired.

Mr. BAUCUS. I ask unanimous consent to proceed for 2 more minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. BAUCUS. The third adverse consequence is American efforts to promote nuclear nonproliferation would become much more difficult because other nations would believe America's moral authority and its leadership were destroyed by our rejection of the CTBT.

The United States has been the world's leader in promoting arms control. If we do not lead, no one else will. It is that simple. Our ratification of the Chemical Weapons Convention led

to its approval by Russia, by China, and others. Our ratification of the Comprehensive Test Ban Treaty will lead other countries to agree to a complete ban on nuclear explosions.

As a footnote, let me add the American people, by an overwhelming margin, understand the need to control nuclear testing. In a recent poll, 82 percent of Americans responded that they would like to see the treaty approved. That is not a sufficient reason to vote for ratification, but we should take note the public well understands the dangers of nuclear testing.

President Eisenhower began the first comprehensive test ban negotiations in 1958 with the goal of constraining the nuclear arms race and halting the spread of nuclear weapons. Mr. President, 31 years later we have an opportunity to make this goal a reality. That is the legacy I want to leave my son and all the children of Montana, of the United States, and of the world.

In sum, I think each of us has a moral obligation to leave this world in as good shape or better shape than we found it, and certainly ratification of the test ban treaty fulfills that moral obligation.

The PRESIDING OFFICER. The Chair recognizes the Senator from North Carolina.

Mr. HELMS. Mr. President, the distinguished Senator from Maine is here. I yield 15 minutes to the gracious Senator.

The PRESIDING OFFICER. The Chair recognizes the Senator from Maine.

Ms. SNOWE. Mr. President, I thank the distinguished chairman of the Senate Foreign Relations Committee for his effort and cooperation.

With this debate on the Comprehensive Nuclear Test-Ban Treaty, the Senate discharges one of its most fundamental and solemn duties, the stewardship of our national defense. I think there is little question among us that a world free of nuclear weapons would be a world more secure. Obviously, we all look forward to the day when we do not have to rely on our nuclear stockpile as a necessary deterrent. We know full well over 80 percent of the American people share that point of view. But the fact is, that day has not yet arrived. Until it does, as the world's last remaining superpower, we walk a line both fine and blurred. This debate must be about how we walk that line. It should be about how we balance our clear and shared interests in a nuclear-free planet within the reality of a post-cold-war world.

The reality is this: At the same time the world looks to us to provide leadership in stopping the proliferation of nuclear weapons, so, too, does it rely upon us for a credible nuclear deterrent that will keep in check international aggressors, nations that seek to undermine democracy and freedom. That is the challenge before us, to move towards our shared goal in a responsible and measured manner, ever mindful

that a post-cold-war world does not mean a world devoid of duplicity or danger. That is the dynamic we can neither escape nor ignore. That is the dynamic that must inform each and every one of us as we consider the ramification of a zero-yield treaty of unlimited duration.

The question is not whether we support nonproliferation measures. We obviously make that as one of our key national security objectives. The question is, Are we going to support a treaty that is a significant departure from what every Chief Executive of the atomic age, except President Clinton, has laid down for criteria in any test ban treaty? Are we going to support a treaty predicated on a program that is yet to be tested and may remain unproven for decades? Are we going to support a treaty that assumes reliable verification when we know we cannot always detect low-level tests, when we know that rogue nations such as North Korea, Iraq, or Iran could develop crude first-generation nuclear devices with no testing at all? In fact, the CIA Director George Tenet stated, back in 1997, in response to questions submitted to him by the Senate Select Committee on Intelligence:

Nuclear testing is not required for an acquisition of a basic nuclear weapons capability. Tests using high explosive detonations only could provide reasonable confidence in the performance of a first generation device. Nuclear testing becomes critical only when a program moves beyond basic designs, incorporating more advanced concepts.

We cannot even verify what is going on in Iraq with Saddam Hussein. We all recall we set up an onsite inspection program as a condition for his surrender in the Persian Gulf war. Today he has systematically and unilaterally dismantled the U.N. weapons inspection system regime.

So these are the pressing issues that confront us about the ratification of the Comprehensive Test Ban Treaty. That is why I am disappointed, regretting that we have had politics permeate both sides of the political aisle, both ends of Pennsylvania Avenue with respect to this debate. Because the ratification of any treaty, and certainly this one, is a solemn and unique responsibility for the Senate, and we should accord this debate the level of gravity it deserves. It is not just about process and procedure. It is certainly not about politics. It is about policy; what is in the best interests of this country as well as the security interests of the world. What is at stake is no less than our ability to stop proliferation and to ensure at the same time the continued viability of our stockpile.

When we get into debates about procedure and process, I think it ignores the overwhelming magnitude and gravity of the centerpieces of this treaty. We should not be making this agreement a political football. Duty, a constitutional duty, compels us to look at the facts before us.

I can tell you, after I sat through hours of deliberations and testimony on the Armed Services Committee last week, the facts are not reassuring. I know there is an honest difference of opinion among experts, among former Secretaries of Defense. But you have to look at the honest difference of opinion and take pause when you have six former Secretaries of Defense, two former Clinton administration CIA Directors, four former National Security Advisers, and three former National Weapons Lab Directors, all opposing the treaty before us.

Why? Because they believe a no-testing, unlimited duration policy at this time would fatally undermine confidence in the reliability of the U.S. nuclear stockpile as a sturdy hedge against the aggressive intent of once and future tyrants. That is a risk we simply cannot afford to take.

Consider the backdrop of the Rumsfeld Commission report in 1998. We are all too familiar with the stark fact that North Korea, Iran, and Iraq, to name a few, would be able to inflict major destruction on the United States within 5 to 10 years of making a decision to acquire ballistic missile capabilities.

Thanks to the testimony last week of three current National Weapons Laboratory Directors, we also know full well that the very program the administration proposes to rely on to monitor the safety, effectiveness, efficiency, and accuracy of the arsenal is between 10 and 20 years away from being fully validated and operational, and that is assuming it will work. That is 10 to 20 years. We could have weapons in our stockpile left untested and unproven for decades while rogue states acquire the means of mass destruction.

That is what we are addressing today fundamentally: a treaty that has ultimately been negotiated by this administration with a noble long-range goal that almost everyone accepts but one which requires this country to accept an unproven and incomplete computer-model-based system for the security of our nuclear deterrent in this age of weapons proliferation. In other words, we put the cart before the horse. We ought to know that our Stockpile Stewardship Program works first before we commit to any zero-yield, unlimited-duration treaty.

As the Director of the Lawrence Livermore Laboratory, Dr. Tarter, testified to the committee last week, the program is an approach that the country must pursue "short of a return to a robust schedule of nuclear testing." By closing the door entirely, we would be making a question mark of our nuclear stockpile.

As President Bush reminded us in 1993, one-third of all U.S. nuclear weapons designs fielded since 1958—one-third—have required nuclear testing to correct deficiencies after deployment.

In his words:

The requirement to maintain and improve the safety of our nuclear stockpile and to

evaluate and maintain the reliability of U.S. forces necessitates continued nuclear testing for those purposes, albeit at a modest level, for the foreseeable future.

Even within the Clinton administration, these conditions found a voice. According to Mr. Robert Bell, a member of the National Security Council staff, soon before President Clinton released his August 1995 statement of support for the treaty, Defense Department officials argued that the United States should continue to reserve the right to conduct underground nuclear tests at a threshold of 150 kilotons or below.

That would seem to be the prudent course on what we know at this moment in time. It is yet another fact today that we face a real danger of fewer and fewer scientists with the first-hand knowledge that comes from a testing process. Indeed, of the 85 remaining nuclear weapons experts at the Los Alamos and Livermore Laboratories today, only 35 have coordinated live underground tests.

Even as early as 1994, barely 18 months after the United States stopped underground nuclear testing, a report from the Congressional Research Service sounded an alarm, and my colleagues would be wise to read it. Back in 1994, it sounded the alarm that:

These trends . . . threaten to undercut U.S. ability to maintain the safety, reliability, and performance of its warheads; to correct defects that are discovered or that result from aging; and to remanufacture warheads. They also work at cross-purposes with President Clinton's declaration that the United States will maintain the capability to resume testing if needed.

Again, we must remember that these considerations must be made in the context of a treaty that raises the bar by allowing absolutely no testing at any level in perpetuity.

As Dr. John Nuckolls, the former Director of the Lawrence Livermore Laboratory, put it, even an "extended duration test ban" would trigger the loss of all nuclear trained expert personnel as well as "major gaps in our understanding of scientific explosives."

Again, the CRS in 1994 in its report said:

This skills loss is in its greatest jeopardy.

Director Tarter, the current Director of Lawrence Livermore Laboratory, testified before our committee last week. What did he say in his testimony?

It is a race against time. Before long, our nuclear test veterans will be gone.

We are counting on our current cadre of experienced scientists to help develop and install the new tools that are only now starting to come online.

We have now heard from our Directors: A minimum of 10 years and maybe as high as 20 years from now, the Stockpile Stewardship Program will be determined to be workable.

We have the loss of our nuclear scientists trained in the testing field. That is a safety net we cannot do without as we walk the tightrope of sustaining a credible strategic nuclear deterrent and aggressively promoting

global arms control. Consider that our successive agreements with the Soviet Union, and now Russia, will eventually reduce the entire American nuclear warhead stock to about 25 percent of its peak size in the cold war. Consider also that we maintain only 9 categories of nuclear weapons today from a level of more than 30 in 1985.

We are making remarkable strides, as we should, on our priorities in the arms control arena. But knowledge about the arms we must sustain as bulwarks against future military conflicts cannot be lost, and this fact suggests that time has not ripened for the United States to sacrifice a 50-year, fool-proof position to keep the testing option open as unprecedented arms reductions have occurred and must continue. Indeed, the administration itself agrees we need a viable strategic nuclear arsenal to deter conflicts that could arise in critical areas such as the Middle East, the western Pacific, or northern Asia.

In the view of the vast majority of treaty opponents and supporters alike who submitted opinions and testimony to the Armed Services Committee last week, the Stockpile Stewardship Program will produce low levels of confidence in many aspects of nuclear warhead capability for at least a decade to come and perhaps more.

Perhaps Dr. Robinson, the Director of the Sandia National Laboratory, put it best and simplest when he told the committee:

Confidence on the reliability and safety of the nuclear weapons stockpile will eventually decline without nuclear testing.

It was expert scientists, not politicians, who told the committee that the Stockpile Stewardship Program brings the U.S. nuclear weapons complex into uncharted waters of reliability.

So, too, is confidence key when it comes to another vital component of this treaty, and that is verification. At first glance, the technology behind the treaty's verification regime seems airtight. Article IV of the accord establishes a joint international monitoring system and international data center with a total of 337 facilities around the world. If these installations detect a potentially illegal underground explosion that subsequent diplomacy cannot resolve, the accusing state may request an onsite inspection.

Fair enough, you might say, until you read the fine print. Then you discover that the onsite inspection provision requires an affirmative vote by 30 of the 51 members of the Executive Council of the Comprehensive Nuclear Test-Ban Treaty Organization authorized under article II, an awfully high threshold. Article II does not give the United States or any of its allies permanent or rotating seats on the Council.

That is not all. Science itself throws a wrench into the treaty's verification mechanism.

According to a 1995 study by the Mitre Corporation, an established sci-

entific research center, neither the National Technical Means of the United States nor the Monitoring System envisioned by the treaty can detect very low-yield or zero-yield tests.

Finally, article V of the treaty establishes "measures to ensure compliance." The most important of these measures entrusts the Conference of States Parties, the treaty's ratifying governments, to refer urgent cases to the United Nations Security Council, a forum in which Russia or China could exercise a unilateral veto.

In other words, article V could mean if the United States diagnosed an imminent nuclear danger in a strategic region of the world, Moscow or Beijing might emerge as the final courts of appeal for sanctions or other punitive acts.

The day for a Comprehensive Test Ban Treaty may come where we could have a zero-nuclear testing regime for an unlimited period of time. It may arrive. And we may be confident that we will be able to verify that level, as well as the low-level detections of other countries when it comes to explosions. But I think we have to consider the facts as we know them now.

I think we have to look very carefully at the troubling aspects of the Stockpile Stewardship Program and whether it is a viable alternative to nuclear testing. In the strategic and scientific communities many say it is not, and maybe we will not know for 10 to 20 years. That is what we are predicating our nuclear deterrent strategy on.

So we have to vote—if we do vote today or tomorrow—on what we know today. We may know something differently in the future. But I submit that we cannot subject our security interests to what we might know 20 years from now.

I hope we will defer the vote on ratification because of all the current concerns that I and others have cited. We would do well to heed the advice of the letter that was submitted to the majority leader asking for deferral, the letter that was written by Henry Kissinger; John Deutch, a former CIA Director for the administration; and Brent Scowcroft, that we should defer until we can give more consideration to all of the issues that are before the Senate with respect to this treaty.

I yield the floor.

THE PRESIDING OFFICER. The Senator's time has expired.

Mr. BIDEN addressed the Chair.

THE PRESIDING OFFICER. The Senator from Delaware.

Mr. BIDEN. Mr. President, I yield myself 10 minutes.

I respect the Senator from Maine very much, as I do the Senator from Indiana, who put out the five-page statement on why he opposes the treaty. I want to speak to some of the things that some Senators have spoken to.

First of all, the Senator from Maine says we have to deal with the facts as we know them. I hope she will keep that in mind when she votes on missile

defense. I hope the rest of my colleagues, who say we have to deal with the facts as we know them, keep that in mind when we vote on missile defense.

I find it fascinating some of the very people who push the missile defense and the abandonment of the ABM Treaty—where we have only had basically one successful test, which is a far cry from what we are going to need to be able to develop a missile defense initiative—are the same ones saying: But we can't go ahead with this treaty because we don't know everything.

I respectfully suggest the ability of the scientific community to shoot multiple nuclear weapons out of the sky in the stratosphere and make sure not a single one gets through is an even more daunting and challenging program than the Stockpile Stewardship Program. But they seem to have no problem to be ready to abandon the ABM Treaty, which has been the cornerstone, since Nixon was President, for our arms control regime. But they have no faith. I find that fascinating, No. 1.

No. 2, I also find it very fascinating that everybody keeps talking about nonverifiability. I have heard more than once this morning—not from the Senator from Maine but from others—the dictum of President Ronald Reagan: Trust, but verify. That is constantly brought up: There is a reason why we can't be for this treaty. We can't verify it.

They say this treaty is not perfectly verifiable. That is true. But it is a red herring. This body has never demanded perfect verification.

Consider Ronald Reagan's treaty, the INF Treaty, that eliminated land-based intermediate-range missiles. That treaty was signed by President Reagan, the same man who coined the phrase: Trust, but verify.

Was the INF Treaty verifiable? Give me a break. No; it was not verifiable. It was not.

Listen to what the Senate Intelligence Committee said in response to Ronald Reagan's assertion: Trust, but verify my INF Treaty. The Intelligence Committee said at the time:

Soviet compliance with some of the Treaty's provisions will be difficult to monitor. This problem is exemplified by the unresolved controversy between DIA [the Defense Intelligence Agency] and other intelligence agencies over the number of SS-20's in the Soviet inventory.

Ground-launched cruise missiles pose a particularly difficult monitoring problem as they are interchangeable with long-range Soviet sea-launched cruise missiles.

This the INF Treaty did not ban.

We are concerned that the Soviets could covertly extend the range capability of a cruise missile, or covertly develop a new ground-launched cruise missile which prohibited long-range capability. . .

In an INF/START environment. . . the Soviet incentive to cheat could increase because of a greater difficulty in meeting targeting requirements.

Still, this Senate and my Republican colleagues—from DICK LUGAR, who

quotes that he fought for the INF Treaty, and others, had no problem saying that was a verifiable treaty. The ability to hide these things in barns, to hide them in haystacks, was greater than the ability of someone to muffle a nuclear explosion.

But no, I did not hear anything over on that side. I did not hear anybody saying: No, that's not verifiable. I guess that was a Republican treaty. Maybe this is a Democrat's treaty. Maybe that is how they think about it.

But I find this absolutely fascinating. It really—if my staff gives me one more suggestion, I am going to kill them. It says: The INF was approved 93-5. I thought I kind of made that point clear.

But at any rate, let me point out what else the Intelligence Committee said about that INF Treaty. It said:

Since no verification and monitoring regime can be absolutely perfect—

Let me read it again:

Since no verification and monitoring regime can be absolutely perfect, a central focus for the Committee—

That is the Intelligence Committee—

has been to determine whether any possible infractions would be of sufficient military significance to constitute a threat to our national security interests. This calculus is one which the Senate should bear in mind in its consideration of the treaty.

The Senate Intelligence Committee was right in 1988, and their standard is right today, even though this is pushed forward by a Democratic President instead of a Republican President.

To impose this utterly unrealistic standard of verifiability on Bill Clinton's test ban treaty, when no such standard was imposed on Ronald Reagan's INF Treaty, may be an effective "gotcha" in politics, but it clearly does not look to the national interest of the United States.

No inspection—no inspection—by the way, for onsite inspections in the INF Treaty, unless it was on prearranged sites. By the way, those of my colleagues who point out that we have to get 30 or 50 votes, our negotiators are pretty smart. We have 30 to 50 votes based on categories.

Let me tell you how membership on that committee would be determined.

The Executive Council is the decisionmaking body of the Treaty Organization. Among other things, it authorizes on-site inspections.

There are 51 seats on the Council, divided geographically. Ten seats are allocated to parties from North America and Western Europe.

Of these, the treaty provides that "at least one-third of the seats allocated to each geographical region shall be filled taking into account political and security interests, by States Parties in that region designated on the basis of the nuclear capabilities relevant to the Treaty. . . .

The chief negotiator, Stephen Ledogar, told the Foreign Relations Committee on Thursday that "this is diplomatic language" that assures that

the United States gets a de facto permanent seat on the Council.

Moreover, he said that there was an agreement among the Europeans and us that we would always have a seat.

Makeup of the Council is: Africa, 10 seats; Eastern Europe, 7 seats; Latin America, 9 seats; Middle East/South Asia, 7 seats; N. America/W. Europe, 10 seats; East Asia/Pacific, 8 seats.

There are 2-year terms.

A quick review of the candidates for seats that we should expect, in almost all instances, to get all the votes of the West Europe/North America group. So we start with 10.

Aside from Yugoslavia, Russia, and one of two others, the Eastern Europe group comprises strong United States allies. So that's another 5-7 votes.

Similarly, many of the Latin American states are either: (1) strong allies or (2) strongly favor the test ban. So we should usually get most of those 9 votes.

That gets us very quickly to the low-mid-20s, in most instances—even being conservative and assuming that we don't get all the votes in the above 3 groups.

That leaves Africa, 10 seats; Middle East/South Asia group, 7 seats; and the East Asia, 8 seats. There is where our work, depending on the makeup of the Council at the particular time, could get a little harder.

But even there the rosters have U.S. allies, or proponents of non-proliferation.

It is hard to see how we will not get to 30 in most instances.

In truth, it is more likely that most U.S. inspection requests, based on our intelligence and the data from the International Monitoring System, will be easily approved.

It should also be noted that, unlike the U.N., Israel is a member of a regional group, and will automatically get a seat on the Council under a special rule that guarantees that one seat within each region be filled on a rotational basis.

We can get 30 votes. We can get 30 votes any time we want. The reason why is we set up the committees the way we did. The flip side of that is, it will be hard for them to get 30 votes because the fact is that our intelligence community is saying we do not want onsite inspections in the United States. I don't know what treaty these folks are reading.

Let me make a second point. Here is the one lately that really gets me: The Soviet Union is going to be able to develop very small tactical nuclear weapons that, in fact, will lead to a different strategy in terms of their conventional defense. Guess what. We should all be standing up on this floor going hooray, we did it, because I remember last time we debated this issue of strategic weapons. What were we saying?

I watched, by the way, with great interest Dr. Edward Teller last night. I watched a long documentary because I

used to have to debate him around the country on SALT. He was wrong then; he is wrong now.

We used to argue that the real concern—I have been here for 27 years—was the Soviets seeking a first strike capability. Remember? The Soviets are seeking a first strike capability. And all of their actions were designed to do that. That is why they were building these new massive SS-18s with 10 nuclear warheads, independently targeted, et cetera, et cetera. Through the leadership of a Republican President, we have an agreement whereby they are going to dismantle those if we get the treaty, the START treaty, passed. So guess what we are worried about now. The exact opposite. We are worried now that they don't have a first strike capability, that they aren't seeking nuclear predominance, but they are acknowledging their conventional forces are so bad they need tactical nuclear defense on their territory.

As they say in my church, examine your conscience, folks. Take a look at what this is. We hear this thing, and the public says: Is it true, Joe, they really are developing a new tactical weapon? My response is, it probably is true. But guess what. They now have 10,000 tactical nuclear weapons.

I yield myself such time as I may consume.

They are worried now that they are going to be able to develop another smaller tactical nuclear weapon, as if this treaty has anything to do with that. Come on. Come on. What we should be doing is rejoicing in the fact that the whole emphasis in the Soviet program has shifted to a recognition that they have to defend their homeland—their judgment—and they do not have the conventional forces capable of doing that—their judgment—and so they are developing, allegedly, a very small tactical nuclear weapon—their judgment. Does that shift the strategic balance? Give me a break. Give me a break.

I find this one of the most fascinating debates in which I have ever been engaged. I don't know what we are talking about. When my friend from Kentucky stands up and says, I thought we decided against unilateral disarmament, me, too—an are-you-still-beating-your-wife kind of question. Who is talking about unilateral disarmament? Where is that anywhere in this treaty? Where does it say that? Where does it imply that? That is like my standing up and saying: I am very surprised my friends who oppose this treaty want to go to nuclear war; I am very surprised they are advocating nuclear war. That would be equally as unfounded and outrageous a statement as the assertion this treaty is unilateral disarmament.

I will repeat this time and again, and I will yield the floor in a moment. My problem is, we have a President of the United States of America who has sent a formal message to the Republican leader asking that a vote on this treaty

be delayed. Apparently, there is a consensus on the other side, thus far at least, not to allow it to be delayed. This is the total politicization of a national security debate. Could anyone have imagined before this came up, if a President of the United States of any party said: This issue, which is of the gravest consequence to the United States of America, I respectfully ask that you delay a vote on it, could anyone have imagined anything other than a response that says: Mr. President, we will concur with the delay, unless it was for stark political reasons? I can't fathom this one. I can't fathom this. I wasn't sure the President should have sent the letter in the first place.

If this treaty is defeated and India and Pakistan test, we are going to find ourselves in the ugliest political brawl we have seen in this place since Newt Gingrich left the House. You are going to have Democrats standing up on the floor saying: The reason why India and Pakistan have tested is because the Republicans defeated this treaty and gave a green light. That is not a provable assertion, but mark my words, we are going to hear it. Then the response is going to be even more political.

We ought to take a deep breath. My mom always said, when you lose your temper, take a deep breath, count to 10. Not that I have ever lost my temper in my life. You can tell I am not at all passionate about any of these issues. But let us count to 10. The President of the United States has asked this treaty vote be delayed. It seems to me it is common courtesy and totally consistent with national interests to grant that request.

I will speak to other aspects of this. Let me conclude by saying two things: One, to move to a very small tactical nuke on the part of the Russians is an absolute outward admission that they lack the capability in their minds for fighting the conventional war. Twenty years ago, we would have paid billions of dollars, if the Russians had come to us—I say to my friend from Massachusetts who knows a great deal about this—we would have been prepared to vote to pay them \$10-, \$20 billion if they would stop developing intercontinental range missiles that had the capacity to penetrate our airspace and in all probability hit hardened targets here. If they had said to us, we won't do that but we are going to build a very small tactical nuke, we would have paid them to do that. Now we hear on this side, if we pass this treaty, they are going to build tactical nuclear weapons that are very small, smaller than the 10,000 they now have and are able to have and legally can have. That is a very bad thing. That is why we should reject this treaty. So we encourage the Chinese to go from 18 to 800 or 8,000 nuclear weapons that have MIRV capability and are thermonuclear in capacity. That is wonderful reasoning.

There are legitimate arguments against this treaty, which I believe do not rise to the level of being against a

treaty, but I haven't heard them made this morning, with all due respect.

I yield the floor.

Mr. HELMS. Mr. President, I yield to the Senator from Arizona.

Mr. KYL. Mr. President, I want 30 seconds to respond to the challenge of my friend from Delaware with respect to unilateral disarmament. I think the point the Senator from Kentucky was making was that the United States will consider itself bound to the zero-yield standard. We will abide. But we know that certain other countries don't see the treaty that way, don't interpret the language that way. We suspect they have reason to and probably will be conducting so-called hybrid nuclear tests and, second, couldn't verify whether those kinds of tests are conducted. As a result, the United States would not be conducting any kind of nuclear tests, whereas other countries would have the capability and, indeed, the motivation to do so.

I believe that is what the Senator was talking about when he talked about the concept of unilateral disarmament.

Mr. BIDEN. Mr. President, I will take a minute to respond. I understand the point made. We have 6,000 intercontinental ballistic missiles that are on line right now. The Russians have a similar number. After you get by that, the numbers drop off precipitously. China is down in the teens. This unilateral disarmament notion or, as explained by the distinguished Senator from Arizona, I understand his point, but what are we doing? Are we going to give up? Are we freezing in place the fact that we stay at 6,000, and if they take the worst case of a stockpile that is in atrophy versus the dozen or more that the Chinese have? I mean, come on. Come on. You know, if you told me the Chinese had 6,000 nuclear weapons, MIRV capability, thermonuclear yield, or if you told me the Koreans and Libyans had that and the Russians had that, then you would have an argument. After the Soviet Union and then our allies, it drops off precipitously into double digits, max—max.

Mr. President, I yield 10 minutes to the Senator from Massachusetts.

The PRESIDING OFFICER. The Chair recognizes the Senator from Massachusetts, Mr. KERRY.

Mr. KERRY. Mr. President, I want to thank the Senator from Delaware for his terrific leadership on this issue over the last few days, and for a long period of time.

Let me quickly address, if I may, one point. The Senator from Delaware a few moments ago referred to the strange dynamic that has set in here in the Senate. I just want to underscore that, if I may, for a moment.

I grew up, as many of us did, looking at the Senate with a sense of great respect and awe for the capacity of the Senate to come together around the most significant national security issues that faced the country. I think all of us always looked at this institu-

tion as the place that, hopefully, could break through the emotions and find the most common sense solution that is in the interests of the American people.

Some of the great history of the Senate has been written about those moments where Senators crossed the aisle and found commonality in representing the interests of the Nation. I must say that in the 15 years I have been privileged now to serve here, representing Massachusetts, I have never seen the Senate as personally and ideologically and politically divided and willing to subvert what we most easily can define as the common national interest for those pure ideological or political reasons. And I don't think that is mere rhetoric when I say that.

I noticed when Presidents Reagan and Bush were in office, there was a considerable thirst on the other side of the aisle for adventures in Granada, Panama, and Somalia, and the obvious need to respond to the threat in Iraq and the Middle East. But suddenly, with President Clinton, we saw those very people who were prepared to support those efforts, even in a Granada or in a Panama, suddenly people argued that Kosovo didn't have any meaning, Bosnia didn't have meaning, and even Haiti, where there was an incredible influx of refugees and chaos right off our shore, failed to elicit the same kind of responsible international reaction as we had seen in those prior years. Now, regrettably, this treaty finds itself being tossed around as the same kind of "political football," to a certain degree. And I think that is unfortunate, and it certainly does not serve the best interests of the Nation.

Mr. President, preventing the proliferation of nuclear weapons is one of the most important issues facing the United States today. Since the end of the Cold War, we have made great strides in reducing the danger to the American people of the vast nuclear arsenal of the former Soviet Union. But the nuclear danger persists, and the job of nuclear arms control is far from finished. Multiple nuclear tests detonated by India and Pakistan emphasize the need for greater U.S. leadership on this critical issue—not less.

In the last week, we have been told by critics of the CTBT that, for a variety of reasons, it will increase, rather than reduce the danger from nuclear proliferation. I believe that a careful examination of the criticism of this treaty will show that, on balance, it will enhance—not undermine—U.S. national security interests.

First, critics argue that, in their desire to conclude a comprehensive test ban, the Clinton administration made key concessions resulting in a flawed Treaty that is worse than no Treaty at all. Let me say at the beginning that I believe the CTBT is far from perfect. I am not going to argue with my colleagues on the other side that you can't find a legitimate point of disagreement about the Treaty. I'm not

going to argue with those who don't like the way a particular compromise was arrived at in the treaty, or that think a particular principle might have been fought for harder and the absence of victory on that particular principle somehow weakens the overall implementation of the Treaty.

The negotiating record—which has been subject to great scrutiny in recent days—reflects as many compromises from the original U.S. position as triumphs in achieving our objectives. There are legitimate reasons for concern that we did not achieve all of the original goals of the United States in negotiating this Treaty. I certainly take to heart Secretary Weinberger's admonition that you should not want the end goal so much that you give up certain substance in arriving at that end goal. I think that is a laudable and very important principle around which one ought to negotiate.

But my colleagues in this body understand better than most the necessity of compromise in finding pragmatic solutions to the many difficult problems we face. And the compromises we agreed to in the CTBT will allow us to achieve the nonproliferation goals we seek.

What has often been lost throughout this debate is that the United States enjoys a tremendous technological advantage over the other nuclear powers in both the sophistication of our weapons and our ability to maintain them reliably. The Administration and the Congress initially agreed to seek a test ban that would permit only the lowest-yield nuclear tests, which was soundly rejected by our negotiating partners because it would essentially ensure that only the United States, with the technical capacity the others lack to conduct those low-yield tests, would be permitted to continue testing its nuclear stockpile.

As Ambassador Stephen Ledogar—the head of the U.S. negotiating team—testified before the Foreign Relations Committee last Thursday, the other four nuclear powers argued that they needed a higher threshold in order to gain any useful data. Russia argued that, if a testing threshold were to be established for the five nuclear powers, it should allow for nuclear yields of up to ten tons of TNT equivalent, hardly a level that constituted an effective testing restriction.

Our negotiators quickly rejected that idea, and President Clinton decided the best way to resolve the impasse and protect U.S. interests would be to pursue a policy of zero-yield—a ban should be a ban. The Russians were not happy with this proposal, but eventually were persuaded to accept a total ban on any nuclear test that produced any nuclear yield.

Clearly, the United States would have been better off if we had been able to negotiate a test ban that allowed us to continue testing. But it is ridiculous to argue that, because the CTBT does not protect the U.S. advantage it rep-

resents a dangerous capitulation on our part. To implement and verify a zero-yield test ban, we need not be worried about distinguishing between a low-yield test and a medium-yield test to determine if the Treaty has been violated. Any test of any yield is a violation. In this regard, the Treaty's strength is in its simplicity.

Second, critics argue that we shouldn't ratify the CTBT because we can't verify compliance. There has never been an arms control treaty that is 100% verifiable, and the CTBT is no exception. We will not be able to detect nuclear tests down to the most minute level of nuclear yield. But we will be able to verify that the Test Ban is accomplishing what it is meant to accomplish: an end to nuclear testing that advances the sophistication of current nuclear stockpiles or the development of new nuclear stockpiles.

The key to a successful verification system is that a potential violator must believe that the risk of getting caught is greater than the benefit of the violation. The lower the yield of the nuclear test, the smaller the chance of detection by seismic means. But at the same time, the amount of useful information a nation would get by conducting a low-yield clandestine test would be limited. As a result, a potential violator would likely decide that the risk of getting caught is greater than the benefit of conducting the test. In addition, clandestine testing will not allow any developing weapons program to approach current U.S. capabilities.

For those who are concerned about the danger from low-yield nuclear testing, I would also argue that defeating this treaty will make it more difficult, not less, for the United States to detect those tests by denying us the benefits of the International Monitoring System that will verify the CTBT. The International Monitoring System will include 50 primary seismic monitoring stations and an auxiliary network of 120 stations, 80 radionuclide stations for atmospheric measurements, 11 hydroacoustic stations to detect underwater signals, and infrasound monitoring as well. This system will be augmented by the very powerful national intelligence-gathering technologies currently operated by the U.S. and others.

The CTBT also allows any state party to request an on-site inspection of a questionable seismic event. The Treaty calls for on-site inspection requests to be submitted to the Executive Council of the CTBT Organization—the body charged with implementing the Treaty—along with supporting data, collected either from the monitoring and data mechanisms established under the Treaty or from national technical means. The Executive Council will have representatives from every region, and nations within each region will rotate membership on the Executive Council on a set schedule. The United States has reached agree-

ment with the nations in our region that we will always be one of the 10 nations representing our region, so we will always have a vote on the Executive Council.

Thirty of the 50 members of the Executive Council must approve an on-site inspection request. Critics have argued that it will be very difficult for the United States to garner the support of 30 nations to allow for an on-site inspection. They argue that our traditional adversaries will use the Executive Council to block inspections that are necessary to protecting the U.S. national interest.

It is true that countries such as North Korea, Iran, Iraq and their few supporters can be counted on to block U.S. and other requests for on-site inspections. However, most of the nations of the world have no interest either in pursuing nuclear weapons or allowing their neighbors to pursue them unchecked, which is why this Treaty enjoys such strong support throughout the international community.

Rogue nations would have to find support among more than 40 percent of the Executive Council to block our request for an on-site inspection. But it is unlikely that the United States would not be able to persuade at least 30 members of the merits and importance of our inspection request.

The CTBT will give us access to tools we otherwise would not have for monitoring nuclear tests, and an option for on-site inspection of seismic events that we do not fully understand. Defeating the treaty would deny our intelligence community the additional benefits of those additional tools.

Third, critics argue that the CTBT will not end nuclear proliferation, because key countries of proliferation concern will not sign or ratify. This is an important argument, because it goes to whether this Treaty can accomplish the fundamental purpose for which it is designed—stopping the proliferation of nuclear weapons.

It is true that countries will halt nuclear testing, or not, based on a calculation of their own national interest. But by creating an international norm against nuclear testing, the CTBT will add a powerful factor in a rogue nation's assessment of whether its national interest will be helped or harmed by the conduct of a nuclear weapon. A nation that chooses to test will face considerable costs to its political, economic and security interests. U.S. ratification of the CTBT will lay the basis for universal enforcement of the Treaty, even against the few nations that may not sign.

The CTBT is a critical component of broader U.S. strategy on nuclear nonproliferation, which has the Nuclear Non-Proliferation Treaty (NPT) at its core. In 1995, states parties to the NPT agreed to extend that Treaty indefinitely, in large part based on the commitment of the declared nuclear weapons states to conclude a CTBT. The failure of the United States to ratify

the CTBT will seriously undercut our ability to continue our critical leadership role in the global nuclear non-proliferation regime.

Formal entry-into-force of the Treaty requires ratification by the 44 countries that have nuclear power reactors or nuclear research reactors and are members of the Conference on Disarmament. And in my mind, it is altogether appropriate that a treaty banning the testing of nuclear weapons requires the participation of all the nuclear-capable states before it can enter into force. Of those 44, 41 have signed the CTBT, and 23 have ratified. All of our allies have signed the Treaty. Russia and China have signed the Treaty. Only India, Pakistan and North Korea have not signed.

Now, some have argued that the United States should be in no hurry to ratify the Treaty, that we should wait until Russia, China, India, Pakistan and North Korea have ratified. They worry that the United States will forfeit its ability to conduct nuclear tests with no guarantee that the countries we are most concerned about will make the same commitment. But the United States has already concluded that we do not need to conduct nuclear tests to maintain our vast nuclear superiority.

No one on the other side of the aisle is arguing we should go out and test tomorrow. Why? Because we don't need to test tomorrow. We don't need to test next year. We don't need to test for the foreseeable future, according to most scientists in this country, because we don't test the nuclear explosion itself for the purpose of safety and for making judgments about the mechanics of both the electrical and mechanical parts of a nuclear warhead.

The CTBT binds us to a decision we have already made, because it is in our national interests to stop testing. And if, at some point down the line, it becomes necessary to resume testing to preserve the reliability of our nuclear deterrent, we can withdraw from the Treaty to do so.

Clearly, we want countries like India and Pakistan to ratify the Treaty and commit themselves to refraining from nuclear testing. Aren't we more likely to convince them to do this if we ourselves have already ratified the Treaty? As Secretary Albright correctly pointed out on Thursday, waiting is not a strategy. During the debates on the Chemical Weapons Convention, there were those who advocated taking this passive approach to protecting our interests. But in fact, after the United States ratified the CWC, Russia, China, Pakistan, Iran and Cuba followed our lead. The best chance for achieving the nonproliferation goals of the CTBT is for the United States to lead. If the Senate were to reject the Treaty, international support for the test ban would be gravely undermined, and countries like India and Pakistan would have no reason to refrain from continued testing.

Aren't we better off with a treaty that gives us the capacity to monitor,

the capacity to continue to show leadership with India and Pakistan, the capacity to set up a process with China before the Chinese test in a way that gives them the ability to translate the information stolen—referred to in the Cox commission report—into a real threat to the United States?

That seems to me to be a very simple proposition. The Cox Report, and others, all acknowledge that at this point in time China has not created a new weapon or changed its nuclear capacity, using our information. And we know that, in order to do so, using on our information, they have to test. China has signed the treaty, and is prepared to adopt the restraints of this treaty. Those who argue that we are better off allowing China the window to go out and test and now profit from what it has stolen elude all common sense, in my judgment. How would the United States be better off with a China that is allowed to test and translate the stolen information into a better weapons system? That is not answered on the floor of the Senate. But some argue that that is the way they would like to proceed.

U.S. ratification of the CTBT won't end nuclear proliferation, but U.S. rejection of the Treaty undermine the credibility of U.S. leadership on non-proliferation, which will jeopardize U.S. work to prevent North Korea from developing nuclear weapons, to eliminate weapons of mass destruction in Iraq, and to block the sale of sensitive technologies that could contribute to proliferation.

Finally, critics argue that the United States will not be able to maintain a reliable nuclear deterrent without nuclear tests. I take very seriously the argument that, without nuclear testing, the credibility of the U.S. nuclear deterrent will be undermined. The security of the American people—and the security of our friends and allies around the world—depends on maintaining the credible perception that an act of aggression against us will be met with an overwhelming and devastating response. If I thought for a minute that U.S. ratification of the CTBT would undermine this deterrent, I would not—I could not—support it.

In fact, the United States has today and will continue to have in the future high confidence in the safety, reliability and effectiveness of our nuclear stockpile. This confidence is based on over 50 years of experience and analysis of over 1,000 nuclear tests, the most in the world.

Most of the nuclear tests the United States has conducted have been to develop new nuclear weapons; for the most part, we use non-nuclear tests to ensure the continued reliability of our nuclear arsenal.

This is a key point—even with no test ban, the United States would not rely primarily on detonating nuclear explosions to ensure the safety and reliability of our nuclear stockpile. Most of the problems associated with aging

nuclear weapons will relate to the many mechanical and electrical components of the warhead, and the CTBT does not restrict testing on these non-nuclear components. Moreover, we have already proven that we can make modifications to existing designs without nuclear testing. In 1998, we certified the reliability of the B-61 Mod 11, which replaced an older weapon in the stockpile, without conducting a nuclear test.

Looking to the future, the center of U.S. efforts to maintain our nuclear stockpile is the Science Based Stockpile Stewardship program, initiated by President Clinton in 1992. This 10 year, \$45 billion program has four major objectives: to maintain a safe and reliable stockpile as nuclear weapons age; to maintain and enhance capability to replace and certify nuclear weapons components; to train new weapon scientists; and to maintain and further develop an operational manufacturing capability.

And it is already working. Since our last test in 1992, the Secretaries of Defense and Energy and the Commander-in-Chief of Strategic Command have certified 3 times (and are about to certify for the fourth time) that the U.S. nuclear stockpile is safe and reliable. It is only in the distant future—2010 perhaps, but we don't know the answer to this yet—that conceivably the physics package of a nuclear weapon might provide the level of deterioration that might not be able to be replaced with totally new parts and therefore might somehow lessen our nuclear deterrent capacity. To enable us to respond to such a situation, President Clinton has established six Safeguards that define the conditions under which the U.S. will remain a party to the CTBT.

Presidential Safeguards A through F, as they are known, outline the U.S. commitment to maintaining a science-based stockpile stewardship program to insure a high degree of confidence in the reliability of the U.S. nuclear stockpile. The final safeguard, Safeguard F, states U.S. policy—as embodied in the official negotiating record of the CTBT—that, if the President is advised that the safety or reliability of the U.S. nuclear stockpile can no longer be certified, the President, in consultation with the Congress, will withdraw from the CTBT under the “supreme national interests” clause of the Treaty.

Now, critics of this Treaty have suggested that a future President, upon learning from his Secretaries of Defense and Energy that the nuclear stockpile can not be certified, and upon confronting all the scientific data that tells him our nuclear deterrent is eroding, will somehow fail to act—fail to invoke the “supreme national interest” clause—and withdraw the United States from the Treaty. I ask my colleagues, Is there one among us who, when confronted with this information, would hesitate to act? When the Congress is informed of the status of the

nuclear arsenal—and those reports are given in full to the Congress—is there anyone who doubts that the Congress would immediately demand that the White House take action to protect our nuclear deterrent?

Surely, the critics of this Treaty who doubt that a President could find the political will to withdraw the United States from the CTBT when our “supreme national interests” are at stake aren’t suggesting that there is a confluence of political factors that could possibly place the sanctity of a treaty above the sanctity of the lives of the American people. No one can tell me that any President of the United States is going to diminish the real national security interests of this country against some desire to keep a treaty in effect for the sake of having a treaty if, indeed, doing so will threaten the real interests of this Nation.

U.S. ratification of, and adherence to, the CTBT will not jeopardize our nuclear deterrent, because the United States does not today, and will not tomorrow, rely on nuclear explosions to ensure the safety and reliability of our nuclear stockpile. We have embarked on a high-tech, science-based Stockpile Stewardship Program that will allow the United States to maintain the superiority of its nuclear arsenal. And in the event that we can not certify the reliability of our nuclear deterrent, we have given notice to our negotiating partners that we will not adhere to the CTBT at the expense of our supreme national interests.

So, in effect, we are talking about what we could achieve by passing this treaty and showing leadership on the subject of implementing an international regime of monitoring and of nonproliferation, versus continuing the completely uncontrolled capacity of nations to provide a true threat to the United States.

Mr. President, critics of this Treaty argue that the United States today faces too many uncertainties in the realm of nonproliferation to commit ourselves to a leadership position on the CTBT. I can not speak to those uncertainties, but of the following, I am absolutely certain: if the Senate rejects the Comprehensive Test Ban Treaty, there will be more nuclear tests conducted around the world, not fewer, and we will be no better equipped than we are today to detect and monitor those tests; the U.S. nuclear arsenal will not be made more reliable—and other nuclear nations will have the freedom to conduct the necessary tests to bring their weapons on a technological par with our own, undermining the strength of our nuclear deterrent; and finally, the American people will be more vulnerable, not less, to the nuclear danger, because we will have undercut more than 30 years of work to build and fortify international norms on nuclear nonproliferation.

The Senate has before it today an opportunity to send a signal to the world

that the United States will continue to lead on international efforts to reduce the nuclear danger. We also face the prospect of acting too soon, after too little time for deliberation, and sending a signal that the United States can no longer be counted on to stand against the forces of nuclear proliferation.

It seems to me that when the President of the United States makes a request in the interest of our Nation to the Senate to delay a vote, it is only politics that would drive us to have that vote notwithstanding that request.

My plea would be to my colleagues in the Senate that we find the capacity to cool down a little bit, to have a vote that delays the consideration of this treaty so that we may proceed to answer properly each of the questions raised by those who oppose it, and, if need be, make changes that would not send the message that the United States of America is rejecting outright this opportunity to embrace a policy that from Eisenhower on we have fought to try to adopt.

I hope that the leadership of the Senate on both sides of the aisle can be prevailed upon to prevent a tragic misstep that I fear will have grave consequences for the strategic interests of the United States and our friends and allies.

The PRESIDING OFFICER. Who yields time?

Mr. HELMS. Mr. President, parliamentary inquiry, please. Somewhere down the line we are going to find it wise to yield back time. That would not forbid a Senator on this side from suggesting the absence of a quorum or any other routine motion of the Senate. Is that correct?

The PRESIDING OFFICER. That is not correct. The Senator would have to have debatable time left or there would have to be a nondebatable motion. There would have to be debatable time left or there would have to be a nondebatable motion before a Senator would be able to suggest the absence of a quorum.

Mr. HELMS. Very well. I thank the Chair for the information.

The PRESIDING OFFICER. Who yields time?

The Senator from Delaware.

Mr. BIDEN. Mr. President, I say to my colleagues on the Democratic side who want to speak on this treaty, if I am not mistaken, there is less than 1 hour—approximately 1 hour—left under the control of the Senator from Delaware, and 13 Members wish to speak to it; and, further, if my Republican colleagues conclude that they wish to yield back their time, the time is going rapidly as we approach this vote. I urge Senators, if they wish to speak, to be prepared, as my friend from the State of Connecticut is, to speak for 5 minutes.

I yield 5 minutes to my friend from Connecticut.

The PRESIDING OFFICER. The Senator from Connecticut.

Mr. LIEBERMAN. Mr. President, I thank my friend from Delaware.

As I have listened to my colleagues during this debate, I feel as if the Senate has backed itself at least into a procedural corner in the midst of a policy disagreement.

This is not the first time this has happened in the history of the Senate—not even in the 10½ years I have been here. But this is one of the most consequential times we have done so. For it seems to be a combination of reasons that are part ideological, part partisan, and part just plain personal. I hope we can find a way to work ourselves out of this corner because the stakes here are high.

As the debate has been going on, I have been thinking about the two big debates that have occurred here in the decade that I have been privileged to serve in this body. One was the gulf war debate and the other was the Middle East peace accords, the Oslo accords.

I think of the gulf war debate because I remember as President Bush dispatched a half million troops to the gulf that I was dismayed at how the reaction to that act by President Bush was dividing along partisan lines. It didn’t seem like a partisan question to me. People could have good faith opinions on both sides, but the opinions were not based on party affiliation.

I have the same feeling as I listen to this debate, and watch the lines harden. Something unusual and unsettling has happened to our politics when party lines divide us so clearly and totally on a matter of national security. That is not the way it used to be in the Senate. And that is not the way it ought to be.

The same is true of the procedural dilemma to which we have come. We have a President—and those of us who support this treaty—acknowledging that the votes are not there to ratify it now. That says that the opponents of the treaty have won for now.

So why push for the vote? If the President of the United States has asked that it be delayed because of his fear of the consequences of a vote failing to ratify on nuclear proliferation, this is not political. This goes to the heart of our security and the hopes and fears we have for our future and our children’s future.

But I will say if there is one thing, in my opinion, that would be worse than going ahead and voting, even though we know those who oppose ratification of the treaty have won. That would be for us as a majority to voluntarily say that we will prohibit the President or ourselves from raising the question of this critical and progressive treaty again for the next year and a half. I think to do that would send an even worse signal to India, to Pakistan, to China, and to Russia.

Let’s keep the hope of a more secure world alive. Let’s acknowledge that we have a common goal.

Is anybody for nuclear proliferation? Don’t we all agree that the atmosphere

is cleaner and the likelihood of nuclear proliferation less if nations can't test? Can't we find a way across party lines to do what we have done with other treaties—to adopt reservations or safeguards or conditions which allow enough of us to come together to ratify this treaty? Why are we heading toward a wall from which there will be no good return and no good result?

I have also been thinking of the Middle East peace accords and the Oslo accords because I remember what Prime Minister Rabin said.

If you are strong you can take risks for peace.

We are the strongest nation today in the history of the world. When it comes to strategic nuclear weapons, we are dominant. We have more than 6,000. If, tragically, for whatever reason, a few of them don't work we have such—in the marvelous term of the Pentagon—"redundancy" that we have thousands of others that we can rely on in the dreadful occasion that we might need to use them.

This treaty promises to freeze our advantage in nuclear weapons. Since we are the strongest nation in history and this treaty may well make us more dominant in the crucial, terrible arena of nuclear weapons, why would we not want to take the risk of ratifying this treaty? It is, in my opinion, a very small risk for increasing peace and security for all—for our children, for our grandchildren. If we decide that testing is once again required by the United States in pursuit of our national interests, that option is protected. The treaty language is very clear: We can—and I am sure we will—withdraw.

My appeal in closing is to say, Can't we find a way to come back to some sense of common purpose and shared vision of a future? Both sides have said on the floor that nuclear proliferation is one of the great threats to our future. We are hurtling down a path, as this dreadful power spreads to other countries of the world, many of them rogue nations, where we cannot rely on the bizarre system of mutual assured destruction that saved the United States from nuclear war during the cold war. If an accident becomes more likely, the consequences will be dreadful. Can't we find a way to avoid good old-fashioned gridlock, which is survivable on most occasions in this Senate, but I think potentially devastating on this occasion?

I appeal to my colleagues on the other side, whether there is or is not a vote now on this treaty, let's get together and figure a way we can sit, study the matter, talk to people in the Pentagon and people in allied countries, and see if we cannot find a way to agree on enough reservations, safeguards, and conditions to come back, hopefully next year, and ratify this treaty.

I yield the floor.

Mr. BIDEN. Parliamentary inquiry: If we go into a quorum call at this point, the time is taken out equally

from the opponents and proponents; is that right or wrong?

The PRESIDING OFFICER. It takes unanimous consent to be charged equally. Otherwise, the time will be charged against the side which suggests the absence of a quorum.

Mr. BIDEN. I thank the Chair.

Mr. President, I yield 10 minutes to the Senator from Massachusetts, Mr. KENNEDY.

Mr. KENNEDY. Mr. President, this may be one of the most important debates the Senate will have in this recent time. In my view, the ratification of the Comprehensive Test Ban Treaty is the single most important step we can take today to reduce the danger of nuclear war. Surely we are in no position to hold a premature vote today or tomorrow on this.

After 2 years of irresponsible stonewalling, the Senate has finally begun a serious debate on this treaty. This debate should be the beginning—not the end—of a more extensive and thoughtful discussion of this extremely important issue. The stakes involved in whether to ratify or reject this treaty are clear. Our decision will reverberate throughout the world, and could very well determine the future of international nuclear weapons proliferation for years to come.

We have a unique opportunity to help end nuclear testing once and for all. The United States is the world's premiere nuclear power. The Comprehensive Test Ban Treaty locks us into that position. No other nations have the capability to assure that their nuclear arsenals are safe and reliable without testing. We have that capability now, and the prospects are excellent that we can retain that capability in the future.

Over the past 40 years, we have conducted over 1,000 nuclear tests. We currently have extensive data available to us from these tests—data that would provide us with an inherent advantage under the Treaty. As Hans A. Bethe, the Nobel Prize winning physicist and former Director of the Theoretical Division at Los Alamos Laboratory, stated in an October 3 letter to President Clinton,

Every thinking person should realize that this treaty is uniquely in favor of the United States. We have a substantial lead in atomic weapons technology over all other countries. We have tested weapons of all sizes and shapes suitable for military purposes. We have no interest in and no need for further development through testing. Other existing nuclear powers would need tests to make up this technological gap. And even more importantly, a test ban would make it essentially impossible for new nuclear powers to emerge.

As the foremost nuclear power, other nations look to us for international leadership. We led the negotiations for this treaty. We were the first of the declared nuclear powers to sign the Treaty. Yet, now, because of our inaction and irresponsibility, we have made it necessary for the leaders of three of our closest allies to plead with us not to defeat the Treaty.

These three leaders—Prime Minister Chirac of France, Prime Minister Blair of Britain, and Chancellor Schroeder of Germany—wrote in an OpEd article in the New York Times last Friday that, "Failure to ratify the Comprehensive Test Ban Treaty will be a failure in our struggle against proliferation. The stabilizing effect of the Non-Proliferation Treaty, extended in 1995, would be undermined. Disarmament negotiations would suffer." They also go on to say that, "Rejection of the treaty in the Senate would remove the pressure from other states still hesitating about whether to ratify it. Rejection would give great encouragement to proliferators. Rejection would also expose a fundamental divergence within NATO."

Our relationship with our most valuable allies is on the line. It would be the height of irresponsibility for the United States Senate to send the world a message that we don't care if other nations test nuclear weapons, or develop their own nuclear arsenals. Surely, the risks of nuclear proliferation are too great for us to send a message like that.

The United States stopped conducting nuclear tests in 1992. Doing all we can to see that other nations follow suit is critical for our national security. Russia and China have both indicated that they are prepared to ratify the Treaty if the U.S. ratifies it. If the Senate fails to ratify it, the likely result is a dangerous new spiral of nuclear testing and nuclear proliferation.

Many of my colleagues have spoken about the fact that there is no guarantee about this Treaty. I argue that there is one guarantee—if we fail to ratify the Treaty, the consequences are grave, and could be catastrophic for our country and for all nations.

Last week, we held hearings in the Armed Services Committee on the Treaty, and I commend the distinguished Chairman and Ranking Member of that Committee for taking the lead on this extremely important issue. We listened to expert witnesses on both sides of the aisle, as they presented testimony on the Treaty and the Stockpile Stewardship Program.

General Shelton, the Chairman of the Joint Chiefs of Staff, testified that it was the unanimous conclusion of all of the Joint Chiefs, that the Treaty is in our national interest. General Shelton said, "The CTBT will help limit the development of more advanced and destructive weapons and inhibit the ability of more countries to acquire nuclear weapons. In short, the world will be a safer place with the treaty than without it, and it is in our national security interests to ratify the CTBT."

Some of my colleagues have referred to the Treaty as "unilateral disarmament." This characterization is grossly inaccurate, both in policy and in practice. A key element of our adherence to the Treaty, with the Administration's safeguards, is the Stockpile Stewardship Program.

Last Thursday, in the Armed Services Committee, each of the directors of our nuclear labs testified about that program. John Browne, the director of Los Alamos National Laboratory, said, "Through the Stockpile Stewardship program, we intend to demonstrate a technical excellence in weapons-relevant science and engineering that will project confidence in our nuclear capability. This technical excellence will be evident in our unclassified publications and presentations at scientific conferences. Other countries will see these accomplishments and will understand their connection to the quality of our weapons programs." With the Stockpile Stewardship Program, we will still be able to maintain a powerful nuclear deterrent.

Critics argue that the Treaty's not 100 percent verifiable. In reality, the Treaty enhances our current ability to monitor nuclear testing worldwide. It establishes an International Monitoring System, which creates a global network of 321 testing monitors. We would get all of the benefits of this larger system and only have to pay 25 percent of its total cost. The Treaty also establishes an on-site inspection system. Perhaps most important, it will hold other nations accountable for their actions, and require them to provide explanations for suspicious conduct.

We also have a safety valve in the Treaty—Safeguard F. The Administration didn't send this Treaty to the Senate as a stand-alone document. They sent it here with six Safeguards under which, and only under which, the United States will adhere to the Treaty.

As Safeguard F states, adherence to the Treaty is explicitly conditioned on:

... the understanding that if the President of the United States is informed by the Secretary of Defense and the Secretary of Energy that a high level of confidence in the safety or reliability of our nuclear weapons can no longer be certified, the President, in consultation with Congress, can withdraw from the Treaty.

The importance of this safeguard cannot be overstated. It ensures that we will be able to do what is necessary to maintain our nuclear arsenal.

President Kennedy, in his address to American University on June 10, 1963, spoke about the issue of verification while discussing the Limited Test Ban Treaty. He said,

No treaty, however much it may be to the advantage of all, however tightly it may be worded, can provide absolute security against the risks of deception and evasion. But it can—if it is sufficiently effective in its enforcement and if it is sufficiently in the interests of its signers—offer far more security and far fewer risks than an unabated, uncontrolled, unpredictable arms race.

These words still hold true today. The risks posed by ratification of the Comprehensive Test Ban Treaty pale in comparison to the risks posed if we reject it. We have the opportunity, with this treaty, to open the door to a world without nuclear testing—a world that

will be far safer from the danger of nuclear war.

Voting on the Comprehensive Test Ban Treaty is one of the most important decisions that many of us will ever make. This vote holds profound implications not only for our generation, but for all the generations in the future. It makes no sense to risk a premature vote now that could result in rejection of the Treaty. As the poet Robert Frost pointed out, "Two roads diverged in a wood"—and the one we take may well make all the difference between peace and nuclear war.

I reserve the remainder of my time and yield it back to Senator BIDEN.

The PRESIDING OFFICER. The Chair recognizes the Senator from Delaware.

Mr. BIDEN. Mr. President, I will yield myself 5 minutes.

The argument has been made that the United States will not be able to modernize its deterrent arsenal to meet new threats or encounter new technologies under the Strategic Stockpile Stewardship Program, and that is why some of my colleagues are saying we cannot go ahead with this treaty.

I want to make it clear, the test ban treaty does not prevent us from adapting most operational characteristics of a nuclear weapons system to changing military missions, should we determine we have to do that. Many important parts of a nuclear weapon can confidently be developed, tested, and integrated into nuclear weapons without any nuclear tests because they do not involve changes in the primary or secondary components of the warhead; that is, the so-called physics package.

Dr. Paul Robinson, the Director of the Sandia National Laboratory, told the Armed Services Committee on Thursday night:

Adapting deployed nuclear designs to new delivery systems, or even other delivery modes, is not constrained by the elimination of nuclear yield testing.

Let me put this in ordinary English. We keep being told here what has happened is, if we sign on to this treaty without this Stockpile Stewardship Program being fully completed, we are going to put ourselves at great disadvantage, amounting to nuclear disarmament; we will not be able to modernize our systems, and our systems are going to atrophy.

Dr. Robinson, the Director of Sandia, went on to describe a prominent success in the Stockpile Stewardship Program that is working now. We have nine deployed systems, nine different kinds of nuclear bombs. One of them is the B61 Mod-7 strategic bomb. That was adapted without any nuclear tests.

I have a photograph of that I will hold up now. That is a B-1 bomber. That red missile that is being dropped out of the belly of that bomber is a change in the B61 Mod-7 to a B61 Mod-11, in response to a different requirement.

What was the different requirement? The military said they needed a nu-

clear weapon that could destroy targets that were buried very deeply in the ground, and that Mod-7 version of the B61 nuclear warhead could not do that. So without any nuclear test, they tested a new system. It is called the Mod-11. That can penetrate the Earth deeply and destroy deeply buried targets.

This picture illustrates an important fact. You can test nearly everything in a nuclear weapon so long as you do not put enough nuclear material in it to cause an uncontrolled chain reaction. We did not set off this bomb, but we did test the bomb. You can take the plutonium out of the bomb, and put uranium in the bomb, and you can test it. It just doesn't set off this uncontrolled chain reaction. So this idea that we cannot change anything in our arsenal if we sign on to this is simply not correct.

By the way, the JASON Group, which is the most prestigious group of nuclear scientists in the United States of America, studied this, and they said the Strategic Stockpile Stewardship Program can maintain all of our systems. One particular member of that group, testifying before the committee, Dr. Garwin, points out that we can even exchange entire physics packages; that is the plutonium and that secondary package, that device that explodes it, that blows up. In my visual image of it, the best way to explain it, as I was trying to explain it to my daughter who is a freshman in college, what happens is you get this plutonium, and you have to have something to ignite it, set it off. So there is a secondary explosion that takes place, and it shoots all these rods into this plutonium at incredible speeds.

I yield myself 2 more minutes.

What happens is it detonates the weapon, this chain reaction starts, and you have a thermonuclear explosion.

The question has been raised whether or not, if we figured out that this plutonium was no longer either stable or functional or was not reliable, could you take out of the warhead the thing that makes it go boom, the thing that causes the chain reaction, the thermonuclear explosion, and put a new package in? Dr. Garwin says you sure can do that, without testing, without nuclear tests.

This year, the first W-87—that is another warhead—life extension unit was assembled in February for the Air Force at the Y12 plant in Oak Ridge. It met the first production milestone for the W-87 life extension.

These are major milestones and successes in the Stockpile Stewardship Program. I might add, as my friend from Massachusetts knows, nobody is suggesting we start to test now—nobody that I am aware of. I should not say nobody. Nobody I am aware of. There may be somebody suggesting it.

Preservation of the option of modernizing U.S. nuclear weapons to counter emerging defensive technologies, the phrase you hear, does not require ongoing nuclear testing. The most likely

countermeasures would involve changes to the missile and its reentry system, not to the nuclear explosive.

It is a red herring to suggest if we sign on to this treaty, we are locking ourselves into a system that is decaying and moving into atrophy and we are going to find ourselves some day essentially unilaterally disarmed. That is a specious argument.

Mr. KENNEDY. Will the Senator yield for a question?

Mr. BIDEN. I will be happy to yield.

Mr. KENNEDY. There were some questions raised in the Armed Services Committee.

The PRESIDING OFFICER. The Senator's 2 minutes have expired.

Mr. BIDEN. I yield time to the Senator.

Mr. KENNEDY. What assurances will we have that there will be continued funding for the Stockpile Stewardship Program? I imagine that the Senator agrees, if this is indeed a concern, that we would be glad to make funding for the Stockpile Stewardship Program mandatory. And, I doubt that there would be any hesitancy, on the part of our colleagues, to get broad support for this in the Senate, if that was what was needed so that ensuring funding for this important program wasn't an issue or a question.

Many of the witnesses at the hearings said: "How do we know there will be continued funding? They may very well cut back that program." Is this another area about which the Senator is concerned, that we don't know whether, year-to-year, the funds will be available for the Stockpile Stewardship Program.

Can he give us some insight about his own thinking on how we can give assurances to the lab directors that there will be adequate funding for that program in the future?

Mr. BIDEN. The Senator, as usual, puts his finger on one of the incredible flaws in our opponents' reasoning. They engage in circular reasoning. It goes like this: Without spending money on the Stockpile Stewardship Program, roughly \$4.5 billion a year for 10 years, we will not be able to attain, when the shelf life of these weapons is reached 10 years out or more, a degree of certainty that they are reliable and safe.

You say: OK, we will fund it; we are for it, and the President sends up that number.

Then they say: But we have a problem. Our Republican friends in the House won't vote for that much money, and we had to fight too hard to get it and they probably won't do it next year. The reason why, they go on to say, I am against this, although I think if we funded it, it would work and it would make sense, is my Republican colleagues in the House probably won't fund it; therefore, I can't be for this treaty because you guys are not funding the stockpile.

I find that absolutely fascinating, but it is the circular reasoning which is being engaged. It strings together a

group of non sequiturs that end up leading to a conclusion that makes no sense.

The Senator has been here longer than I. Can he imagine, if we vote this treaty down and other nations begin to test, and those who voted it down are saying, by doing that, we think the United States should be able to test, can you imagine this or future Congresses coming up with \$45 billion to perfect a Stockpile Stewardship Program which purpose and design is to avoid nuclear testing, to spend \$45 billion for the redundancy? Can the Senator imagine us doing that?

Mr. KENNEDY. I certainly cannot. The Senator has put his finger on one of the many reasons for supporting the Stockpile Stewardship Program which is to give the necessary assurances that funding for maintaining our weapons stockpile will be there year after year. This was something I noted was a concern during the course of our hearings—this question about the need for adequate funding. And, the Senator has responded to that concern. There is broad support, certainly on our side or for those who support this treaty, for giving the assurance that funding would be there. It is just one more of the arguments made by those who oppose this treaty that has now been rebutted. I thank the Senator.

Mr. BIDEN. I thank the Senator for his response. I will raise this when we get to the amendments. I wish to point out there is one other ultimate safeguard. The ultimate safeguard is in the amendment, our last provision, which says, if, in fact, we do not fund the stockpile and that causes the laboratory Directors to say, "We cannot certify," and that means the Secretary of Energy says, "We cannot certify," the President of the United States, upon that determination, must withdraw from the treaty and allow us to begin to test. I am amazed at the arguments that are being made on the other side.

Mr. KENNEDY. If the Senator will yield on that question, so the amendment makes a change to the safeguards and makes this a mandatory requirement on the President to exercise the Supreme National Interest if the stockpile cannot be certified?

Mr. BIDEN. Yes.

Mr. KENNEDY. And, that is the measure that is going to be advanced by the leadership, yourself included, to be a part of the Resolution of Ratification?

Mr. BIDEN. That is correct. By the way, it is much stronger than any President wants. It is section (E) of the amendment we sent. I will read it to the Senator:

Withdrawal from Treaty.—If the President determines that nuclear testing is necessary—

The antecedent to that is the lab Directors say it—

to assure, with a high degree of confidence, the safety and reliability of the United States nuclear weapons stockpile, the President shall consult promptly with the Senate

and withdraw from the Treaty pursuant to Article IX (2) of the Treaty in order to conduct whatever testing might be required.

It is pretty strong.

Mr. KENNEDY. I thank the Senator. It is about as clear as can be. I see our ranking member of the Armed Services Committee ready to speak, but I welcome again the comments of the Senator from Delaware about the risks to our international position if we fail to ratify or defeat the CTBT in terms of security and stability around the world and the continued possibility of nuclear testing over time.

As a member of the Armed Services Committee, I am pleased that we held narrowly focused hearings on the many national security implications of this treaty. It is important that we narrowly focused our attention on our own national security issues. But, these broader international security issues are powerful, and in rereviewing and reading again the letters, statements, and editorials sent in opposition to the Treaty, I think the importance of the broader international security issues, of further testing by other countries, and what the implications are going to be has been missed. I know the Senator addressed those, but I hope before we get into the final hours of this debate the Senator from Delaware will review that for the benefit of the membership.

Mr. BIDEN. Mr. President, I say to my friend from Massachusetts, this is another part of the circular reasoning. What I heard this morning on the floor and heard all day on Friday went like this: Without us being able to test, our 6,000 strategic nuclear weapons are going to become unreliable—which is ridiculous in my view. I strike the word "ridiculous." Which is highly unlikely. I am trying to be polite. It is hard.

Then they say because it is going to become unreliable, two things are going to happen. One is that our allies are going to conclude that our deterrent is no longer credible and, therefore, they are going to lose faith in us. What they are then going to do is decide—Japan and Germany, which are nonnuclear powers—to become nuclear powers, and we are going to be escalating the arms race by passing this treaty.

The same day in an unprecedented move, to the best of my knowledge, the leader of Germany, the leader of France, and the leader of Great Britain sent an open letter to the Senate saying: We, Germany, Japan, and France, have ratified this treaty. We strongly urge you, the Senate, to ratify this treaty in the interest of your country as well as ours.

One of those signatories was the Chancellor of Germany, the very country my friends on the other side say, if we pass this treaty, Germany will go nuclear. I guarantee—I cannot guarantee anything. I will bet—I guess I am betting my career on this one—I will bet you anything that if we turn down

this treaty and it is clear that it cannot be revived, within a decade Germany and Japan are likely to be nuclear powers, particularly Japan, because what is going to happen is, India and Pakistan are going to continue testing. They will not sign this treaty. They say they will sign it now if we do. They will not sign the treaty. As India tests more and they move to deployment, China will test more.

China will test in order to determine whether or not they can build smaller, lighter thermonuclear devices where multiple numbers can be put on missiles. They will move from 18 nuclear weapons to God knows how many. Then Japan, sitting there in the midst of that region, is going to say, mark my words: We, Japan, have no choice but to become a nuclear power.

We have spent 50 years of our strategic and foreign policy initiatives to make sure that does not happen. But that is what will happen. So now, at the end of the day, are we likely to be more secure 15 years from now with the scenario I paint? Which is more likely? Is it more likely that turning down this treaty is going to turn Japan and Germany into nuclear powers, increase the total nuclear capacity of China, and move India and Pakistan further along the nuclear collision path? Is that more likely?

Or is it more likely—which is their worst case scenario—that what is going to happen is we are not going to fund the stockpile, we are not going to be able, in 10 years, to count on the reliability of our weapons, the weapons lab Directors are going to come to the Secretary of Energy, the Secretary of Defense and say, we can't certify any more Messieurs Secretaries, and they go to the President of the United States and say, we can't certify, and the President is going to say, oh, that is OK; don't worry about it. We are going to be bound by the treaty.

Which is a more likely scenario? What do you think? Which is more likely, that even if the stockpile degrades, any country, from China to our allies, is going to say, gee, their B-60 M-11 may not function as they thought it would, and maybe they will only be able to fire off 4,900 strategic hydrogen bombs. Maybe they will only be able to do that; therefore, they have lost their deterrent capacity. They no longer have credibility.

That is what you have to accept. You have to accept those kinds of arguments to sign on to the notion that most of our Republican friends are arguing.

Which is the more likely scenario? I would respectfully suggest that 85 percent or 80 percent of the American people are right. They figured it out. They figured it out.

So I hope I have responded, in part at least, to the Senator's question.

Mr. KENNEDY. You did. I thank the Senator.

Mr. BIDEN. I yield to the ranking member of the Armed Services Com-

mittee, the Senator from Michigan, Mr. LEVIN.

The PRESIDING OFFICER. The Chair recognizes the Senator from Michigan.

Mr. LEVIN. I thank my good friend from Delaware. I thank him also for the leadership he has shown, both on the floor and off the floor, in trying to bring this treaty to hearings before the Foreign Relations Committee, so that the full Senate could look at the pros and cons of this in a deliberative way.

I start with a reference that Senator BIDEN made to three of our good allies—France, Germany, and Great Britain. The chairman of the Foreign Relations Committee is here and perhaps he will recollect otherwise; and I would trust his recollection on this, if he does—but I cannot remember when three of our closest allies' leaders have addressed a direct plea to the Senate. At least in the 20 years I have been here, I do not remember a letter coming in from the Chancellor of Germany and the President of France, and the Prime Minister of Great Britain pleading with us to ratify a treaty. That is how serious the stakes are in this debate.

The world is looking to the Senate. Sometimes we say that and believe it is true; but in this case we say it and know it is true. Because the world has signed on both to a nonproliferation treaty and to a Comprehensive Test Ban Treaty.

There are a few exceptions, obviously. There are some states which will not sign any such treaty. But except for a few rogue nations, the world has signed on to a nonproliferation treaty and a Comprehensive Test Ban Treaty. The world is looking at us, expecting our leadership.

Even though the world is looking to us to ratify, that does not mean we should ratify this treaty if it makes us less secure. We should do what is in our security interests. But unless all of our allies and the rest of the world are wrong, the world will be a much more secure place if we stop testing nuclear weapons and if other countries stop testing nuclear weapons as well.

How do we tell India "don't test", if we ourselves want to test? How do we tell Pakistan, "don't test; for God's sake, for your security and the world, don't test", if we say, oh, but we want to continue to test?

What does that do to our argument? I would suggest it destroys it. It destroys our standing to try to persuade countries that want to become nuclear powers, that want to add to their inventories, that want to improve their inventories—it wipes out our standing to make the argument, if we say everybody else ought to stop testing but us.

We are the only superpower in this world. That gives us certain responsibilities. But one of those responsibilities is that we should be not just a superpower, but we should be superwise as well. We should realize that we are not always going to be the world's only

superpower—nuclear or otherwise. We should behave with the realization that our actions today are going to affect the rest of the world, including the direction they go in terms of nonproliferation.

As I said, I would not care if every country in the world signed or ratified this treaty if it was not in our security interests. I think we ought to listen, we ought to understand what the rest of the world is saying to us, we ought to remember our own commitments. We signed up to the indefinite extension of the nonproliferation treaty, and made a commitment to the world to conclude a comprehensive test ban treaty. We should remember our own commitments. We should consider what our allies and the rest of the world are saying to us. But if it were not in our own security interest, I would not recommend that we ratify the treaty.

But we should surely listen to our top military leaders as to what they recommend to this Senate? What does the Chairman of the Joint Chiefs of Staff recommend strongly to the Senate? He says:

The test ban treaty will help limit the development of more advanced and destructive weapons and inhibit the ability of more countries to acquire nuclear weapons. It is true that the treaty cannot prevent proliferation or reduce current inventories, but it can restrict nuclear weapons progress and reduce the risk of proliferation.

General Shelton said:

In short, the world will be a safer place with the treaty than without it. And it is in our national security interest to ratify the CTBT.

Secretary Cohen said the following:

By banning nuclear explosive testing, the treaty removes a key tool that a proliferator would need in order to acquire high confidence in its nuclear weapons designs.

Secretary Cohen said:

Furthermore, the treaty helps make it more difficult for Russia, China, India, and Pakistan to improve existing types of nuclear weapons and to develop advanced new types of nuclear weapons.

Secretary Cohen said:

In this way, the treaty contributes to the reduction of the global nuclear threat. Thus, while the treaty cannot prevent proliferation or reduce the current nuclear threat, it can make more difficult the development of advanced new types of nuclear weapons and thereby help cap the nuclear threat.

What the three world leaders, to whom I referred before and to whom Senator BIDEN referred earlier, said in their article and in their letter to us was the following:

Rejection of the treaty in the Senate would remove the pressure from other states still hesitating about whether to ratify it. Rejection would give great encouragement to proliferators. Rejection would also expose a fundamental divergence within NATO. The United States and its allies have worked side by side for a comprehensive test ban since the days of President Eisenhower. This goal is now within our grasp. Our security is involved as well as America's. For the security of the world we will leave to our children, we urge the U.S. Senate to ratify the treaty. We

have President Chirac, Prime Minister Blair, Chancellor Schroeder of Germany, from their perspective, pleading with us to ratify this treaty. We have our top military leadership, uniformed and civilian, urging us to ratify this treaty. That is the kind of assessment which has been made of the value of this treaty. That is the kind of analysis which has been made.

We should think carefully before we reject it; before we defeat a treaty that is aimed at reducing the proliferation of nuclear weapons in the world; before we give up our leadership in the fight against proliferation; and our efforts to go after proliferators. We keep saying the proliferation of weapons of mass destruction is the greatest threat this Nation faces; our military leaders tell us this treaty is an important step in the fight against proliferation. Before we give up that leadership and defeat a treaty which is adding momentum to the battle against proliferators, we surely should stop and assess what it is this Senate is about to do.

It has been argued that we need testing for the safety of our stockpile. The answer is that the stewards of the stockpile, the lab Directors, for the last 7 years have been certifying safety and reliability of the stockpile based not on testing, which we have given up for 7 years already, but based on a Stockpile Stewardship Program which has allowed them to certify with a high degree of confidence that our stockpile is safe and reliable, without one test in the last 7 years.

Will they be able to do that forever? They think they can, but they are not sure. They told us they believe they will be able to continue to certify the safety and reliability of our stockpile without testing. They have also told us something else. Here I want to read a letter from them because there has been such a misunderstanding about what these three lab Directors have told us at our hearing. After the hearing, they wrote a joint statement from which I want to read:

While there can never be a guarantee that the stockpile will remain safe and reliable indefinitely without nuclear testing, we have stated that we are confident that a fully supported and sustained stockpile stewardship program will enable us to continue to maintain America's nuclear deterrent without nuclear testing. If that turns out not to be the case, Safeguard F—which is a condition for entry into the Test Ban Treaty by the U.S.—provides for the President, in consultation with Congress, to withdraw from the treaty under the standard “supreme national interest” clause in order to conduct whatever testing might be required.

People can quote different parts of the lab Directors' testimony. I was there for it. The bottom line is, while they cannot guarantee that the Stockpile Stewardship Program will always allow them to certify safety and reliability, they believe it will be able to do so, and therefore they are, in the words of one of them, “signed onto” this treaty. That is because if they can't certify the safety and reliability of our nuclear stockpile in some future year they have the assurance in safe-

guard F, by which we can withdraw from the treaty if we need to conduct a nuclear test. We have incorporated that safeguard and, indeed, strengthened it in the amendment to this resolution, that we will withdraw from this treaty and begin nuclear testing again if necessary. We do not want our stockpile to be unsafe or unreliable. Nobody does—none of us.

The question then is, Can we join the rest of the world, at least the civilized world, in a comprehensive test ban to fight the proliferation of nuclear weapons, and at the same time assure ourselves that if we need to test again, we will be able to do so by notifying the rest of the civilized world in advance that we retain the right to withdraw from the treaty and test if our security requires it? In other words, in the event the day comes when testing is needed to certify safety and reliability, we are putting the world on notice now that we intend to exercise that withdrawal clause.

Could somebody cheat? That is the other argument which has been used, that somebody could cheat at a very low level of testing, that somebody might be able to get away with it, that our seismic detection capability is not such that we would be certain we would catch a very low level test.

This is what Secretary Cohen says about the cheating question:

Is it possible for states to cheat on the treaty without being detected? The answer is yes. We would not be able to detect every evasively conducted nuclear test. And from a national security perspective, we do not need to. But I believe that the United States will be able to detect a level of testing, the yield and number of tests, by which a state could undermine the U.S. nuclear deterrent.

So the Secretary of Defense is testifying that militarily significant cheating would be caught, that a low-level test by a power would be taking a huge risk in cheating, because there are other means besides seismic detection to get evidence of a cheating. But most importantly, if a signatory to this treaty decided to cheat and take that risk, they could not undermine our nuclear deterrent. It would not be a militarily significant cheating that could occur without our knowing it seismically. We would not have to rely on other means in order to discover a militarily significant act of cheating. Plus, General Shelton and Secretary Cohen have both told us that the treaty, if it comes into effect, will increase our ability to observe and monitor tests because it will create over 300 additional monitoring stations in 90 countries specifically in order to detect nuclear testing.

I will conclude with two points. One, this Senate is not ready to ratify this treaty. Indeed, maybe it never will ratify the treaty. But it is clear now that this Senate will not ratify the treaty at this time. I believe at a minimum we should do no damage, do no harm.

There are many of us who have not focused adequately on these issues, by the way. This has been a very trun-

cated period of time for consideration, with very few hearings focused directly on the treaty. I know we had three hearings in the Armed Services Committee, and there was one in Foreign Relations last week that focused directly on this treaty.

We are here under a unanimous consent agreement which allows only one amendment by the majority leader and one by the Democratic leader to this treaty, an unusual restriction for consideration and deliberation of a treaty. No other amendments are in order; no other restrictions, conditions on a resolution of ratification, but the one. So we are here in a very restricted circumstance and a very short time limit. It is not a deliberative way to address a treaty. This Senate should do better.

At a minimum, my plea is, do no harm. Do no harm to the cause of antiproliferation. The way to avoid doing harm, regardless of where people think they are on the merits of the treaty, is to delay consideration of this treaty.

My final point has to do with the delay issue. There is a precedent for delaying a vote on a treaty even though a vote had actually been scheduled. The precedent is the most recent arms control treaty we looked at, I believe, which is the Chemical Weapons Convention. There was a vote actually scheduled on the Chemical Weapons Convention. There was a vote that was scheduled on the Chemical Weapons Convention for September 12, 1996. Shortly before that vote, Senator Dole, who was then a candidate for President, announced his opposition to the Chemical Weapons Convention. It was decided on the 12th, which I believe was the actual day scheduled by unanimous consent for a vote on the convention, it was decided to vitiate that unanimous consent agreement and to delay the vote on the Chemical Weapons Convention. A vote was set, by unanimous consent agreement, but given the opposition of one of the Presidential candidates—similar to what we have going on now, by the way, where we have opposing positions taken by Presidential candidates of both parties—it was decided then that it was the wiser course for the Senate to delay the vote on the Chemical Weapons Convention.

I said before on this floor last week that I think we are in an analogous situation to what occurred back in September of 1996. I raise it again for a very specific point. At that time, there were no conditions attached to the decision to delay the vote. The Senate agreed to vitiate the unanimous consent agreement, to delay the vote; but there was no requirement, no condition attached as to when it would be brought up or not brought up. It was simply to vitiate. People decided—we decided in this body—that it was a wiser course of action not to proceed under the circumstances—one similar to what exists now, but there are different circumstances now that are, I think, additional reasons not to vote at

this time, including the very narrow UC under which we are operating, with the strict consideration of a total of two amendments.

I suggest we look back—and we are going to do what each of us always does, which is follow our own consciences as to what is best for this Nation. In my judgment, ratification is best, but, clearly, that is not where the Senate is now. I hope there is a majority of us who believe, for various reasons, the better course of wisdom is that we not proceed to defeat this treaty at this time—whether it is because that defeat would constitute a blow to our leadership in the battle against proliferation in this world, as three major allies have told us, or whether it is because this institution has not had adequate time yet to fully understand and consider and deliberate over this very complicated treaty; for whatever reason—and many exist—I hope we will delay this vote. I cannot foresee a circumstance, as I have told my good friend from Virginia, where I would want to see this treaty brought up next year, given the fact that the election is at the end of next year. However, I can't preclude any circumstance from existing. I can't predict every world circumstance that would exist, where I would be comfortable saying we should under no circumstances consider this treaty, no matter what happens.

But I can, in good conscience, say I can't foresee any such circumstances because I can't. Will the world situation change? Will India and Pakistan begin testing because we fail to ratify? Will that then lead to China to begin their testing again? Will that have an impact on Russia? Will the political situation change in the United States where candidates of both parties will possibly decide that this treaty is in our best interest? Can I foresee any of that happening? No. Do I believe any of that will happen? No. But it could.

Circumstances can change. So I would not want to see us saying there are no circumstances under which anybody could even raise the question of consideration of this treaty next year. It is a very straightforward statement and, again, I conclude by saying, personally, I hope we delay the vote. Personally, I can foresee no circumstances under which this should be brought up next year. We should wait until after the Presidential elections, in the absence of some unforeseeable circumstance. But I hope that is what the Senate, in its deliberative wisdom, decides to do.

At this time, I have been authorized to yield 5 minutes to Senator DORGAN. I yield the floor.

The PRESIDING OFFICER (Mr. CRAPO). The Senator from North Dakota is recognized.

Mr. DORGAN. Mr. President, who will acquire nuclear weapons in the months and years ahead? Which countries? Which groups? Which individuals, perhaps, will acquire nuclear weapons? Many would like to acquire

nuclear weapons. Terrorist groups would like access to nuclear weapons. Rogue countries would like access to nuclear weapons.

The cold war is over, the Soviet Union is gone, the Ukraine is nuclear free; the two nuclear superpowers are Russia and the United States. Between us, we have 30,000 nuclear weapons. What responsibility do we have as a country to try to prevent the spread of nuclear weapons to other countries and to reduce the nuclear weapons that now exist? Well, we have a lot of responsibility. It is our requirement as a country to exercise the moral leadership in the world, to reduce the dangers of nuclear war, and stop the spread of nuclear weapons.

Some have never supported any arms control agreements. I respect that. They have a right to do that. I don't agree with it. I think it is wrong. Nonetheless, there are those who have never supported any arms control agreements. Yet, arms control agreements work. We know they work.

I ask unanimous consent to show a piece of a Russian Backfire bomber wing on the floor of the Senate.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. DORGAN. This is a piece of a wing sawed off of a Russian Backfire bomber. This bomber wasn't brought down from the skies with hostile fire. This bomber wasn't destroyed because of conflict. This piece of wing came from a Russian bomber because this country and the Russians have an agreement to reduce the number of bombers, missiles, and submarines in our arsenal, and reduce the number of nuclear warheads.

This other item is copper wiring, ground up from a Russian submarine that used to carry missiles with nuclear warheads aimed at the United States of America. Did we sink that submarine in hostile waters? No, it was destroyed and the wiring ground up by the Cooperative Threat Reduction Program, under which the United States assists in the destruction of bombers, missiles, and warheads in Russia. We bring down the number of weapons in our stockpile; they bring down the weapons in theirs. The delivery systems are brought down as well.

Does arms control work? Of course, it works. We know it works. That is why I am able to hold the part of a Russian bomber here in the U.S. Senate. Of course, it works. There are some who have never supported any of this. They have that right. But, in my judgment, the decision not to support aggressive arms control efforts is inappropriate and wrong.

Now we are debating the issue of whether we will have a Comprehensive Nuclear Test-Ban Treaty—something that was aspired to by President Eisenhower nearly 40 years ago. A Comprehensive Nuclear Test-Ban Treaty was something that President Eisenhower lamented he was not able to accomplish. Forty years later—after

years of negotiation—2 years ago, it was sent to the Senate, signed by the President, and asked to be ratified in the Senate. It was sent to the Senate Foreign Relations Committee. I know there have been debates about it, but there was not one hearing in that Foreign Relations Committee in 2 years on the CTBT. And then, with 10 days' notice, it is brought to the floor of the Senate for a vote. Some say, well, that is fine. That is a consideration. That is not thoughtful consideration; that is a thoughtless way to handle this issue.

This is a serious issue, a big issue, an issue with great consequence. Ten days, no comprehensive hearings—that is a thoughtless way to handle this issue. India and Pakistan have detonated nuclear weapons literally under each other's chin. They don't like each other. That is an ominous development for the world. The question of whether it could result in a nuclear exchange or a nuclear war is a very real question. Can we as a country intervene to say, do not explode these nuclear weapons, do not test nuclear weapons? Do we have the ability to say to India and Pakistan that this is a dangerous step?

Mr. President, we had better have that resolve. That resolve must come from us.

I have heard a lot of reasons on the Senate floor why this should not be ratified all from the same folks who have never supported ratification of any treaty that would lead in the direction of arms control. All of the arguments I have heard, in my judgment, are not relevant to this treaty. It is proposed that somehow this treaty would weaken our country.

Here is what would happen when this treaty is ratified. The number of monitoring stations across the world will go to well over 300. We will substantially enhance our capability to monitor whether anyone explodes a nuclear weapon.

Here is what we have now. Here is what they will have if the CTBT enters into force.

How on Earth can anyone credibly argue that this doesn't strengthen our ability to detect nuclear explosions anywhere on the Earth? It is an absurd argument to suggest that somehow ratifying this treaty will weaken our country.

The last four Chairmen of the Joint Chiefs of Staff, all the senior military leadership now serving in this country, including Gen. Colin Powell, and previously retired Joint Chiefs of Staff support this treaty. Would they do so because they want to weaken this country? Of course not. They support this treaty because they know and we know this treaty will strengthen this country. It will strengthen our resolve to try to stop the spread of nuclear weapons. The Joint Chiefs of Staff say in a very real sense that one of the best ways to protect our troops and our interests is to promote arms control, in both the conventional and nuclear realms, arms control can reduce the chances of conflict.

Gen. Omar Bradley said, "We wage war like physical giants and seek peace like ethical infants."

There is not nearly the appetite that, in my judgment, must exist in this country—and especially in this Senate—to stand up for important significant issues—serious issues. That is what we have here.

The military leaders say this treaty is in this country's security interest. The scientists, 32 Nobel laureates, the chemists, physicists, support ratification. Dr. Garwin, who I was out on the steps of the Capitol with last week, who worked on the first nuclear bomb in this country, says this treaty is in this country's interest. We can safeguard this country's nuclear stockpile, the scientists say; we can do that, they say. And the detractors say, no, you can't. These detractors—let me talk for a minute about this.

National missile defense: They say: Let's deploy a national missile defense system right this minute. The Pentagon and the scientists say we can't, we don't have the capability. Our friends say: No. We don't agree with you. You can and you have the capability. They say: We demand you do it, and we want you to deploy it.

On the Comprehensive Nuclear Test-Ban Treaty, the detractors say: Well, it would weaken this country because we can't detect nuclear tests and we can't maintain our stockpile. And the military leaders and the scientists say: You are wrong. We can safeguard our stockpiles. We can detect nuclear explosions.

This selective choosing of when you are willing to support the judgment of the best scientists in this country or the military leaders of this country is very interesting.

Last week, Tony Blair, Jacques Chirac, and Gerhard Schroeder, the leaders of England, France, and Germany, sent an op-ed piece to the New York Times asking this country to ratify this treaty. That ought not be the position this country is in. This country ought to be a leader on this issue. Now, we are being asked by our allies to please lead. We ought not have to be asked to provide leadership to stop the spread of nuclear weapons. What are we thinking of?

Last week, the chairman of the Foreign Relations Committee referenced comments from the Governor of my State on the floor of the Senate, saying he is worried that the nuclear stockpile is not safe and pointing out that we have nuclear weapons in our State.

It is an interesting and brand new argument that I hear. I have not heard anyone stand on the floor of the Senate in recent months saying we have a real problem with the safety of the nuclear stockpile. This is just a straw man. That is what this is.

I know the majority leader thought it was probably an interesting strategy to bring up the treaty without comprehensive hearings, without comprehensive discussions and debate, and without much of an opportunity for the

American people to be involved in the debate on a Comprehensive Nuclear Test-Ban Treaty, and then say we want to vote on it. We are going to kill this thing.

You know those who think that way I guess can grin all the way to the vote tally. But there won't be smiles on the faces of those around the world who rely on this country to be a leader in stopping the spread of nuclear weapons. This country has a greater responsibility in this area, and we can exercise that responsibility by voting to ratify this Comprehensive Nuclear Test-Ban Treaty.

The PRESIDING OFFICER (Mr. VOINOVICH). The Senator from Delaware.

Mr. BIDEN. Parliamentary inquiry: How much time is under the control of the Senator from Delaware?

The PRESIDING OFFICER. Twenty minutes.

Mr. BIDEN. Is there time on the amendment once the amendment is called up?

The PRESIDING OFFICER. There will be 4 hours equally divided on each of the two amendments that may be called up.

Mr. BIDEN. One last parliamentary inquiry. Am I able to call up the Democratic leader's amendment now, and would the time begin to run on that amendment now?

The PRESIDING OFFICER. The Senator may proceed.

AMENDMENT NO. 2291

(Purpose: To condition the advice and consent of the Senate on the six safeguards proposed by the President)

Mr. BIDEN. Mr. President, on behalf of the Democratic leader, I call up amendment No. 2291.

The PRESIDING OFFICER. The clerk will report.

The legislative clerk read as follows:

The Senator from Delaware (Mr. BIDEN), for Mr. DASCHLE, proposes an amendment numbered 2291.

Mr. BIDEN. Mr. President, I ask unanimous consent that reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

Strike all after the resolved clause and insert the following:

SECTION 1. SENATE ADVICE AND CONSENT SUBJECT TO CONDITIONS.

The Senate advises and consents to the ratification of the Comprehensive Nuclear Test Ban Treaty, opened for signature and signed by the United States at New York on September 24, 1996, including the following annexes and associated documents, all such documents being integral parts of and collectively referred to in this resolution as the "Treaty," (contained in Senate Treaty document 105-28), subject to the conditions in section 2:

(1) Annex 1 to the Treaty entitled "List of States Pursuant to Article II, Paragraph 28".

(2) Annex 2 to the Treaty entitled "List of States Pursuant to Article XIV".

(3) Protocol to the Comprehensive Nuclear Test-Ban Treaty.

(4) Annex 1 to the Protocol.

(5) Annex 2 to the Protocol.

SEC. 2. CONDITIONS.

The advice and consent of the Senate to the ratification of the Treaty is subject to the following conditions, which shall be binding upon the President:

(1) STOCKPILE STEWARDSHIP PROGRAM.—The United States shall conduct a science-based Stockpile Stewardship program to ensure that a high level of confidence in the safety and reliability of nuclear weapons in the active stockpile is maintained, including the conduct of a broad range of effective and continuing experimental programs.

(2) NUCLEAR LABORATORY FACILITIES AND PROGRAMS.—The United States shall maintain modern nuclear laboratory facilities and programs in theoretical and exploratory nuclear technology that are designed to attract, retain, and ensure the continued application of human scientific resources to those programs on which continued progress in nuclear technology depends.

(3) MAINTENANCE OF NUCLEAR TESTING CAPABILITY.—The United States shall maintain the basic capability to resume nuclear test activities prohibited by the Treaty in the event that the United States ceases to be obligated to adhere to the Treaty.

(4) CONTINUATION OF A COMPREHENSIVE RESEARCH AND DEVELOPMENT PROGRAM.—The United States shall continue its comprehensive research and development program to improve its capabilities and operations for monitoring the Treaty.

(5) INTELLIGENCE GATHERING AND ANALYTICAL CAPABILITIES.—The United States shall continue its development of a broad range of intelligence gathering and analytical capabilities and operations to ensure accurate and comprehensive information on worldwide nuclear arsenals, nuclear weapons development programs, and related nuclear programs.

(6) WITHDRAWAL UNDER THE "SUPREME INTERESTS" CLAUSE.—

(A) SAFETY AND RELIABILITY OF THE U.S. NUCLEAR DETERRENT; POLICY.—The United States—

(i) regards continued high confidence in the safety and reliability of its nuclear weapons stockpile as a matter affecting the supreme interests of the United States; and

(ii) will regard any events calling that confidence into question as "extraordinary events related to the subject matter of the Treaty" under Article IX(2) of the Treaty.

(B) CERTIFICATION BY SECRETARY OF DEFENSE AND SECRETARY OF ENERGY.—Not later than December 31 of each year, the Secretary of Defense and the Secretary of Energy, after receiving the advice of—

(i) the Nuclear Weapons Council (comprised of representatives of the Department of Defense, the Joint Chiefs of Staff, and the Department of Energy),

(ii) the Directors of the nuclear weapons laboratories of the Department of Energy, and

(iii) the Commander of the United States Strategic Command, shall certify to the President whether the United States nuclear weapons stockpile and all critical elements thereof are, to a high degree of confidence, safe and reliable. Such certification shall be forwarded by the President to Congress not later than 30 days after submission to the President.

(C) RECOMMENDATION WHETHER TO RESUME NUCLEAR TESTING.—If, in any calendar year, the Secretary of Defense and the Secretary of Energy cannot make the certification required by subparagraph (B), then the Secretaries shall recommend to the President whether, in their opinion (with the advice of the Nuclear Weapons Council, the Directors of the nuclear weapons laboratories of the Department of Energy, and the Commander of the United States Strategic Command),

nuclear testing is necessary to assure, with a high degree of confidence, the safety and reliability of the United States nuclear weapons stockpile.

(D) WRITTEN CERTIFICATION; MINORITY VIEWS.—In making the certification under subparagraph (B) and the recommendations under subparagraph (C), the Secretaries shall state the reasons for their conclusions, and the views of the Nuclear Weapons Council, the Directors of the nuclear weapons laboratories of the Department of Energy, and the Commander of the United States Strategic Command, and shall provide any minority views.

(E) WITHDRAWAL FROM THE TREATY.—If the President determines that nuclear testing is necessary to assure, with a high degree of confidence, the safety and reliability of the United States nuclear weapons stockpile, the President shall consult promptly with the Senate and withdraw from the Treaty pursuant to Article IX(2) of the Treaty in order to conduct whatever testing might be required.

Mr. BIDEN. Mr. President, to put this in context, one of the unfortunate ways in which this debate has developed, in my view, on this very important treaty is that the President of the United States when he put his signature on the Comprehensive Nuclear Test-Ban Treaty attached to it a number of conditions when he referred the treaty to the Senate. He sent up, along with the treaty, a total of six conditions that he said he wanted added to the treaty before we ratified the treaty.

As we all know, in previous arms control agreements, it has been our practice in the Senate to add conditions to treaties. When it was agreed that we were given essentially an ultimatum that if we wanted to debate this treaty at all, we had to agree to the following time constraints.

I was under the impression that the starting point for this debate would be what the President said he wanted, which was he wanted us to ratify the treaty itself and the six conditions. I found out later it was only the treaty.

Although we were entitled to an amendment on each side, the Democratic side, or in this case the Democratic leader's amendment would have to be what the President said he wanted as part of the package to begin with in order to be for the treaty.

Usually what has happened, as the chairman of the Foreign Relations Committee knows, we debated at length, for instance the treaty on the Chemical Weapons Convention we had extensive hearings in the Foreign Relations Committee. The outcome of those hearings was that we voted on, or agreed upon, or we negotiated a number of conditions. There were 28 conditions before we brought it to the Senate floor.

That is the usual process. But since we didn't have the first formal hearing on this treaty until after it was discharged—that is a fancy word for saying we no longer had any jurisdiction—and it was sent to the floor, here we are in the dubious position of having to use 2 hours on the one amendment we have available to us, an amendment to

ask that the President's whole package be considered. That is where we are.

The amendment that has been submitted by the Democratic leader contains six conditions that corresponded to the six conditions that the President of the United States said were needed in order for him to be secure with the Senate ratifying this treaty. These conditions were developed in 1995 before the United States signed the treaty. They were critical to the decision by the executive branch to seek the test ban treaty in which the standard would be a zero yield; that is, zero yield resulting from an uncontrolled chain react—a nuclear explosion.

We in turn think it is critical that in providing the advice and consent to this treaty, the Senate codify these six safeguards that the President of the United States said were conditions to the Resolution of Ratification. Let me explain why.

The safeguards were announced by President Clinton in August of 1995. They were merely statements of policy by the President, and there is no way for President Clinton to bind future Presidents with such statements. However, we can.

Conditions in a Resolution of Ratification, by contrast—which is what I am proposing now—are binding upon all future Presidents. Therefore, approval of these conditions will lock them in for all time, so that any future President or future Congress, long after we are gone, will understand that these safeguards are essential to our continued participation in the Comprehensive Test Ban Treaty.

Administration witnesses who testified before the Armed Services Committee and the Foreign Relations Committee underscored the importance of these safeguards during the Senate hearings last week. I suspect that is why our Republican friends didn't allow Members to bring these up as part of the original instruments. So we started off as we would had it come out of committee, with the actual treaty, plus the conditions attached. I expect the reason they didn't want this side to do that is it would strengthen the hands of those who were for the treaty.

I understand the tactical move, but I think it is unfortunate because, as we all know, the witnesses who testified from the administration, others from the laboratories, and others who were with the laboratories and were in former administrations, all those people who testified underscored the importance of these safeguards. In other words, they didn't want the treaty without these safeguards.

During the testimony before the Armed Services Committee, Dr. Paul Robinson, Director of Sandia Laboratory, testified:

The President's six safeguards should be formalized in the resolution of ratification.

General Shelton, Chairman of the Joint Chiefs of Staff, stated:

The Joint Chiefs support ratification of CTBT with the safeguards package.

Of the six conditions, the first, the third, and the last are interrelated and probably the most important. The first condition relates to the Stockpile Stewardship Program. Anyone who has listened to this debate now understands what that is. The Stockpile Stewardship Program will be essential to ensuring the safety and reliability of our nuclear weapons in the future. It requires this condition: That the United States shall conduct a science-based Stockpile Stewardship Program to ensure a high level of confidence in the safety and the reliability of nuclear weapons in our active stockpile.

As we have all heard over the course of this debate, this Stockpile Stewardship Program is a 10-year, \$45 billion, or \$4.5 billion-a-year, project that is designed to maintain the nuclear stockpile, and it will involve cutting-edge science, as it already has. It is already underway, and the Directors of the three National Laboratories have testified they believe they can maintain the stockpile of our nuclear weapons if the funding is provided.

Already there have been difficulties, particularly in the other body, in securing this level of funding. This first condition our amendment contains will assure that the funding will be there. The third condition which is in the amendment before the Senate requires that the United States "maintain the basic capability to resume nuclear test activities prohibited by the treaty in the event that the United States ceases to be obliged to adhere to the committee." That means countries have to have a place to test the weapons underground.

We could let our underground test facilities go to seed and not maintain them, so that when the time came that we ever did have to pull out of this treaty, we would not be prepared to be able to resume testing. So we say as a further safeguard against the remote possibility that we will not be able to, through the Stockpile Stewardship Program, guarantee the reliability and safety of our weapons, a condition of the United States staying in this treaty is that the Congress appropriate the money and the President and future Presidents use the money to maintain the facilities necessary to be able to resume this testing if that event occurs.

The effort to maintain this capacity is also well underway, I might add. It is also tied to the Stockpile Stewardship Program. Subcritical experiments—and we use certain phrases so much around here, sometimes it is easy to forget that most Members don't have nuclear weapons as their primary responsibility, and people listening on C-SPAN or the press aren't—although many are required to spend time to know what certain phrases mean. A subcritical experiment means a country can set off an explosion that doesn't start a chain reaction. It only becomes critical when there is a chain reaction, which makes it a nuclear explosion. Subcritical means before the rods go banging

into the plutonium and something is started. That is a chain reaction.

The subcritical experiments at the Nevada Test Site, which are a vital part of our stockpile stewardship, also enable test site personnel to keep and hone their skills and practice the procedures for actual nuclear weapons tests. Translated, that means we have specialized scientists who in the past have participated in the over 1,000 nuclear detonations we have used over the history of our program, and that without having detonated a nuclear explosion since 1992, these skilled scientists still keep their skills honed by going into this test site facility and doing subcritical tests; for example, using uranium instead of plutonium or performing other tests that don't require a nuclear explosion.

We are not only maintaining the capability of being able to do a nuclear explosion; we are maintaining the necessary personnel. The fact that subcritical experiments are scientifically valid and challenging also serves to make work at the test site worthwhile and attractive to skilled personnel.

The reason I bother to mention that, in an argument against the treaty by one of the scientists who testified, I think before Senator HELMS' and my committee, the Foreign Relations Committee, he said: We really like to make things go boom. He said: I'm a scientist; I like to make them go to the end of the experiment. I like to conduct them that way. But I can do it without making them go boom.

What people worry about now, if you are not going to "make 'em go boom," if you are not going to explode them, some will say scientists won't want to be involved in that; it is not as exciting as if they could actually test. That is an argument that says we will lose a whole generation of nuclear scientists who know how to conduct these tests and know how to read them.

Other scientists come along and, with the laboratories, say: No, no, no; we can keep all the interest we need to keep in a group of young scientists who will replace the aging scientific community who have been performing the tests because we will do what we call subcritical tests at the sites where we used to do the critical tests.

Part of the agreement, part of the understanding, the requirement, is these facilities have to be maintained as opposed to saying we have a treaty now, we will not do nuclear explosions, so why spend the money on maintaining these facilities?

The answer is: To keep scientists interested and to bring a whole new next generation of brain power into this area so they will have something they believe is worthwhile to do, as opposed to them going out and inventing new widgets, or deciding they are going to develop a commercial product or something. That is one of the legitimate concerns.

The second concern has been: Once you pass this treaty, you know what

you are going to do; you are going to stop funding the hundreds of millions of dollars it takes over time to maintain this place to be able to explode a nuclear weapon if we need to.

We said: Do not worry about that; we are going to pass a treaty, and we commit to spend money to continue to do it. If we do not, it is a condition not met and the President can leave the treaty. That is the third condition.

The sixth condition is a failsafe mechanism, available to future Presidents in case the critics of the stockpile program turn out to be right. Again, I might point out the critics of the stockpile program, including my good friend, and he is my good friend, are the very ones who have great faith in the Star Wars notion, great faith in the ability to put this nuclear umbrella over the United States so not a single nuclear weapon could penetrate and blow up and kill 5, 10, 20 million Americans. They have faith in that scientific capability, whether it is laser-based space weapons or whether it is land-based systems. But they do not have faith in the ability to be able to test a weapon that has not been exploded.

I understand that. It is a bit of a non sequitur for me to suggest you can have faith in one and not the other. I point out, as a nonscientist, as a plain old lawyer, it seems to me it takes a lot more to guarantee if somebody flies 2, 10, 20, 50, 100 nuclear weapons at the United States, you will be able to pick them all out of the sky before they blow up and America will be held harmless, than it would be to determine the reliability of this bomb you take out of a missile, sit on a table at a test site, and test whether or not it still works or not without exploding it. One seems more complicated than the other to me. But maybe not. At any rate, after spending \$45 billion and all this scientific know-how, we have to continue to be able to guarantee the reliability of our weapons. We have a sixth condition.

Article IX of the treaty, I remind everyone, contains a standard withdrawal clause. I am talking not about the condition; I am talking about the treaty itself now. Article IX has a standard withdrawal clause, permitting any party who signs the treaty the right to withdraw 6 months after giving notice; that is, start testing.

We could ratify this tomorrow. We still have to wait for another 23 nations to ratify it, but we could reach the critical mass—no pun intended—where enough nations sign and the treaty is in effect, and 6 months after that the President of the United States says: I no longer think this is in the national interest of the United States of America. I am notifying you within 6 months we are going to start testing nuclear weapons and withdraw. That is what this article IX does.

But what we do is, if the President—and this is a quote:

... decides that extraordinary events related to the subject matter of the treaty have jeopardized its supreme interests[,]

—he can withdraw from the treaty.

Every year pursuant to the safeguard—I am back on the safeguards now—every year, we are saying, if this amendment is adopted, pursuant to safeguard 6, the National Laboratories' Directors at Las Alamos, Sandia and Lawrence Livermore, all three of them have to go to the Secretary of Defense and the Secretary of Energy and certify that the Stockpile Stewardship Program is still working and they, the scientists at our three National Laboratories say: We certify the reliability and safety of our nuclear weapons.

The President, then, certifies to the Congress that there is a high degree of confidence in a safe and reliable stockpile.

If any one of those National Laboratory Directors—and there is a redundancy in what they check. By the way, do you know how it works now? The way it works now, we have nine deployed systems, nine different types of hydrogen bombs located in the bellies of airplanes, on cruise missiles, in the bellies of submarines, on longer range missiles, or in a silo somewhere in the United States of America. Every year these National Laboratory Directors go out and get 11 of these warheads from each of those nine deployed systems. They take them back to the laboratories and they dissect them, they open them up, they look at them—to overstate it—to see if there is any little corrosion there in the firing pin, that sort of thing. It is much more complicated, but they check it out.

They take one of them and they dissect it, similar to what a medical student does with a cadaver. They bring in 11 people, 10 of whom they give a thorough physical, the 11th they kill, cut up, and see if everything is working when they look inside. They do that now, and there is redundancy in the system. The three laboratories do that.

Then they have to go to the Secretary of Energy and the Secretary of Defense and say: We can certify that our arsenal out there is reliable and safe.

But, if, under our condition 6, any one of those lab Directors says, "No, I don't think I can certify this year, I don't think I can do that," then the Secretary of Energy has to be told that, and the Secretary of Energy, who is their immediate boss, has to then tell the President: No, no, we can't certify, Mr. President. And under No. 6, safeguard No. 6, the President shall consult with us and must withdraw from the treaty.

Let me read the exact language. It says this under E, page 5 of the amendment, "Withdrawal from the treaty." "If the President determines," and I just explained how he determines—if it is sent to him by the lab Directors and the Secretaries of Energy and Defense who say we can't certify:

... if the President determines that nuclear testing is necessary to assure with a high degree of confidence the safety and reliability of the United States nuclear weapons

stockpile, the President shall consult promptly with the Senate and withdraw from the treaty pursuant to article IX.

He doesn't have a choice. He has to withdraw. That is the ultimate safeguard.

So for those over there who say if it turns out this Stockpile Stewardship Program doesn't work, they have to assume one of two things if that conclusion is reached. They have to assume the lab Directors are going to lie and they are going to lie to the Secretary of Energy. They are going to say: We can't verify this, we can't certify it, but we are going to do it anyway. They then have to assume the Secretary of Defense and the Secretary of Energy will say: Although we know we can't certify, we are going to lie to the President, and we are going to tell the President our nuclear stockpile is no longer reliable, but don't say anything, Mr. President.

And they have to assume, then, that the President, knowing that this stockpile is no longer reliable, would look at the U.S. Congress and say: I, President Whomever, next President, certify that we can rely on our stockpile.

They either have to assume that or they have to assume their concern about our stockpile is not a problem because the moment the President is told that, he has to call us and tell us and withdraw from the treaty, which means he can begin nuclear testing.

Remember condition 3. We said you have to keep those big old places where they do the nuclear tests up to date. So he can begin to test.

So what is the big deal? What are we worried about, unless you assume future Presidents are going to lie to the American people, they are going to lie, they are going to say we can rely on this when we cannot?

At the end of the process, if the President determines resumption of testing is necessary, then he has to start testing. That is what section 6 says. So we put the world on notice that we have a program in place to maintain a reliable stockpile.

If that does not work and we need to test, we put the world on notice as well today that we will and are prepared, politically and in practical terms, to withdraw from this treaty. I should emphasize that the certification process, as I have said, is extremely rigorous: For 3 years running, the lab Directors have certified to the safety and reliability of our stockpile, but only after detailed review by thousands of people at our labs.

The other three conditions involve the need to maintain several key elements of our national infrastructure. They require us to maintain modern nuclear laboratory facilities and programs in theoretical and exploratory nuclear technology and infrastructure of equipment and personnel, if you will—that is required—the continuation of a robust research and development program for monitoring, and, finally, our amendment requires the de-

velopment of a broad range of intelligence gathering and analytical capabilities and operations to ensure accurate information about nuclear programs around the world.

These six conditions should have been part of the treaty anyway, but they would not let us add them. We are going to add them now, with the grace of God and goodwill of our neighbors and 51 votes. These six conditions are essential to ratification of the treaty. If you do not want this treaty to work, then you will vote against this amendment.

I acknowledge if these safeguards are not there, nobody wants the treaty. The President does not want the treaty. The lab Directors do not want the treaty. No one wants the treaty. There may be others that would be useful to add or even necessary for ratification of the treaty, but the leadership has said we can only have one amendment.

They will recall that my own resolution, which led to this process, proposed only hearings and final adoption by March 31 of next year. I want to put that in focus. I see others want to speak, so I will yield, but I want to make it clear it has been said time and again on the floor by the leader himself—and I am sure he unintentionally misspoke—he said he received a letter from 45 Democratic Senators saying they wanted a vote.

Mr. HELMS. I don't want the Senator to yield at an improper time—

Mr. BIDEN. I will finish this one point, and I will be delighted to yield the floor.

Mr. HELMS. I have been following the amendment.

Mr. BIDEN. I know the Senator has, and I appreciate that. I appreciate the respect he has shown for the efforts I have been making, notwithstanding we disagree on this considerably.

I want to make this closing point at this moment, and that is, it has been said by the Republican leader, Senator LOTT, that 45 Senators demanded a vote on this treaty now. But 45 Senators signed a letter, including me. It was a Biden resolution—one that was about to be voted on when we were on another piece of legislation—that we have extensive hearings this year and that final action not occur until the end of March of next year, so everybody could have a chance to go through all of these hearings, so everybody could have a chance to debate what we are talking about at much greater length than today.

There has not been the bipartisan negotiation on conditions to this Resolution of Ratification that usually occurs during consideration of treaties.

Mr. President, I see my friend from North Carolina is seeking recognition. I will be delighted to yield the floor to him.

The PRESIDING OFFICER. The Senator from North Carolina.

Mr. HELMS. If the Senator will yield.

Mr. BIDEN. I will be delighted to.

Mr. HELMS. Mr. President, I compliment the Senator on the explanation of his amendment. I have been following him as he has been going along. We are far from being opposed to the amendment. We do not have any problem with the safeguards.

Mr. President, I ask unanimous consent that the pending amendment No. 2291 be agreed to and the motion to reconsider be laid upon the table.

Mr. BIDEN. Mr. President, reserving the right to object—and I obviously do not want to object to my own amendment—we do have a time problem. I would be delighted to do that if the Senator would allow the remainder of the time on this amendment to be used on the Resolution of Ratification, so we do not use up—I have a number of Senators who wish to speak. That means I will only have 20 minutes left to debate this entire issue. I will be delighted to have it accepted. I probably have about an hour or 20 minutes or 30 minutes or 40 minutes left on the amendment; is that correct?

Parliamentary inquiry: How much time is left on the amendment?

The PRESIDING OFFICER. Ninety-one minutes.

Mr. BIDEN. Mr. President, I ask unanimous-consent that the Senator's unanimous consent request be agreed to, with the condition that the remaining 91 minutes and the 2 hours remaining on the side of the Republican leadership be added to the time remaining on the Resolution of Ratification.

Mr. HELMS. Mr. President, I have no objection to that.

Mr. BIDEN. I have no objection to the unanimous consent request. I thank the Senator.

The PRESIDING OFFICER. Is there an objection to the request of the Senator from North Carolina with the proposed modification?

Without objection, it is so ordered.

The amendment (No. 2291) was agreed to.

Mr. SARBANES addressed the Chair.

Mr. BIDEN. Mr. President, we have been going back and forth. Senator SARBANES is seeking recognition, but I see our friend Senator BROWNBACK is here. It is his turn if he wishes to speak.

Mr. BROWNBACK. I am willing to yield to Senator SARBANES if he wishes to speak.

The PRESIDING OFFICER. The Senator from Maryland.

Mr. BIDEN. How much time does the Senator need?

Mr. SARBANES. Ten or 12 minutes.

Mr. BIDEN. I yield 10 minutes to the Senator from Maryland.

The PRESIDING OFFICER (Mr. INHOFE). The Senator from Maryland.

Mr. SARBANES. Mr. President, parliamentary inquiry. The amendment was adopted; is that correct?

The PRESIDING OFFICER. The Senator is correct.

Mr. SARBANES. I thank the Chair.

Mr. BIDEN. There was a motion to reconsider made as part of the unanimous consent agreement and the motion to table.

The PRESIDING OFFICER. That is correct.

The Senator from Maryland.

Mr. SARBANES. Mr. President, I rise in support of the Comprehensive Nuclear Test-Ban Treaty, the CTBT, to which the Senate has been asked to give its advice and consent. This is a landmark agreement that will help stem the tide of nuclear proliferation and reduce the risk of nuclear confrontation. In my view, it is a treaty that, on balance, will serve U.S. interests and strengthen U.S. security.

The Comprehensive Test Ban Treaty is a product of nearly 40 years of labor. The idea was first endorsed in 1958 by President Eisenhower, who recognized that the most effective way of controlling the development and spread of nuclear weapons was to ban their testing.

In 1963, the United States took the first step toward this end by signing and ratifying the Limited Test Ban Treaty, which prohibits nuclear explosions in the atmosphere, outer space, and under water.

Further limitations were established through the Threshold Test Ban Treaty, signed in 1974, and the Peaceful Nuclear Explosion Treaty, signed in 1976. Under those treaties, the United States and the Soviet Union agreed to halt underground explosions larger than 150 kilotons.

When the cold war came to an end, sentiment began to build for a comprehensive ban on nuclear testing. President Bush signed legislation establishing a moratorium on such testing that was joined by France and Russia and continues to this day.

In January 1994, the Geneva Conference on Disarmament began negotiations on a treaty to forbid all nuclear explosions. An agreement was concluded in August of 1996, and the following month, President Clinton became the first world leader to sign the new treaty. It was submitted to the Senate for advice and consent to ratification just over 2 years ago, on September 24, 1997.

The Comprehensive Test Ban Treaty is relatively simple and straightforward.

First, it prohibits all explosions of nuclear devices. It does not ban the development or production of nuclear materials, nor does it affect activities to maintain a secure and reliable stockpile. By establishing a zero threshold on nuclear yield that affects all countries equally, the treaty draws a clear and consistent line between what is permitted and what is not.

Second, the treaty sets up a regime of verification and inspections, consultation and clarification, and confidence-building measures. An International Monitoring System of 321 monitoring facilities is to be established, and all data will be stored, analyzed, and disseminated by an International Data Center. In addition, information that the United States obtains through its own intelligence can be used as the basis for a short-notice, on-site inspection request.

Let me emphasize that. Information that the United States obtains through its own intelligence can be used as the basis for a short-notice, on-site inspection request.

Third, the treaty creates an organization to ensure proper implementation and compliance, and to provide a forum for consultation and cooperation among States Parties. The new body will have a Technical Secretariat responsible for day-to-day management and supervision of the monitoring and data-collection operations, as well as a 51-Member Executive Council, on which the United States would have a seat. Both the Technical Secretariat and the Executive Council are to be overseen by a Conference of States Parties, which will meet at least annually.

Finally, the treaty provides for measures to redress a situation and ensure compliance, including sanctions, and for settlement of disputes. Violations may result in restriction or suspension of rights and privileges under the treaty, as well as the recommendation of collective measures against the offending party and the referral of information and conclusions to the United Nations.

As Stephen Ledogar, who was the Chief Negotiator of the treaty for the U.S., testified before the Foreign Relations Committee, the United States objected to the inclusion of specific sanctions because of concerns about appointing an international organization "to be not just the investigator and special prosecutor, but also the judge, jury, and jailer." He explained, "we reserve for a higher body, the United Nations Security Council in which we have a veto, the authority to levy sanctions or other measures."

The CTBT, which has been signed by some 154 countries and ratified by 48, has drawn broad support not only from among the American population, but from key U.S. military and intelligence officials and from our key allies.

It has been endorsed by the Chairman of the Joint Chiefs of Staff, Gen. Hugh Shelton, as well as former Chairmen Gen. John Shalikashvili, Gen. Colin Powell, Gen. David Jones, and Adm. William Crowe, and the directors of all three national laboratories that conduct nuclear weapons research and testing.

NATO's Defense Planning Committee and Nuclear Planning Group called for ratification and entry into force "as soon as possible." Thirty-two Nobel laureates in physics have written to the Senate stating that "it is imperative that the CTBT be ratified," and noting that "fully informed technical studies have concluded that continued nuclear testing is not required to retain confidence in the safety, reliability and performance of nuclear weapons in the United States' stockpile, provided science and technology programs necessary for stockpile stewardship are maintained."

Despite the importance of the CTBT for U.S. national security, formal con-

sideration of the treaty has not taken place over the last 2 years. Now we are suddenly called upon to register a judgment without the benefit of proper hearings and committee debate. While I have come to the conclusion that the merits of this treaty outweigh its risks, and that it is therefore deserving of Senate advice and consent to ratification, I do regret that an issue of such significance should be taken up without the normal course of hearings and proceedings leading up to the consideration of a measure of this magnitude.

Let me outline a few of the reasons why I support this treaty. First, it will help reduce threats to U.S. national security. A complete ban on testing makes it harder for countries already possessing nuclear weapons to develop and deploy more sophisticated new designs, and for those seeking nuclear capability to initiate a nuclear weapons program. As we know, relatively simple bombs can be built without testing, but creating smaller, lighter weapons that are easier to transport and conceal and that require less nuclear material is difficult without explosive tests.

With a global ban in place, a nation intent on conducting tests would take on the burdens not only of increased expenses and technical dangers, but also the risk of detection and imposition of international sanctions. In a very real sense, the CTBT locks in U.S. nuclear superiority while preventing reignition of arms races that constitute serious threats to our national security.

The CTBT also promotes U.S. security by strengthening the Nuclear Non-Proliferation Treaty, the NPT, which entered into force in 1970 and was extended indefinitely in 1995. The NPT is the bedrock of international arms control policy, representing a bargain in which non-nuclear weapons states promised to forego the acquisition of nuclear weapons and accede to a permanent inspection regime so long as the nuclear powers agreed to reduce their arsenals. In order to gain approval for permanent extension of the Nuclear Non-Proliferation Treaty, the five declared nuclear powers promised to negotiate and ratify a test ban treaty.

The CTBT further advances U.S. interests by providing additional tools to enhance our current monitoring and detection capability. The International Monitoring System will record data from 321 sensor stations—262 beyond what the United States possesses today.

The new facilities include 31 primary and 116 auxiliary seismic monitoring stations, 57 radionuclide stations to pick up traces of radioactivity, 8 hydroacoustic stations to detect explosions on or in the oceans, and 50 infrasound stations to detect sound pressure waves in the atmosphere. Thirty-one of the new or upgraded monitoring stations are in Russia, 11 in China, and 17 in the Middle East, all

areas of critical importance to the United States.

And one of the burden-sharing advantages of the treaty is that the United States will have access to 100 percent of the information generated by these 321 sensor stations but will pay only 25 percent of the bill for obtaining it.

Since the United States has not conducted a nuclear explosion in 7 years, and is unlikely to test with or without this treaty, the major effect of the CTBT is to hold other countries to a similar standard. It includes surveillance to identify warhead problems, assessment to determine effects on performance, replacement of defective parts, and certification of remanufactured warheads. Our policy is to ensure tritium availability and retain the ability to conduct nuclear tests in the future, should withdrawal from the test ban regime be required.

Thus, under the treaty, the United States will be able to depend on its nuclear deterrent capability, while other nations will find it much more difficult to build weapons with the degree of confidence that would be needed to constitute an offensive military threat. Any country that should test would find itself the subject of international response; whereas in the absence of a treaty, such behavior carries no penalty.

It has been suggested that the United States should wait until more of the nuclear capable countries—whose ratification is essential for the treaty to go into effect—have ratified before moving forward on the treaty ourselves. Yet what incentive have the countries with only peaceful nuclear reactors to proceed, when the one country with the greatest number of deployed strategic warheads is unwilling to do so?

Just as with the Chemical Weapons Convention, where U.S. approval facilitated ratification by Russia, China, Pakistan and Iran, U.S. ratification of the Comprehensive Test Ban Treaty will create increased momentum and pressure for others to come along. The treaty cannot enter into force without us, but it needs our support to convince others to join.

The PRESIDING OFFICER. The Senator's time has expired.

Mr. SARBANES. Mr. President, I yield myself 4 additional minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. SARBANES. Indeed, all of our major allies have weighed in with their strong support for this treaty, which is particularly significant since they rely on our nuclear deterrent for their own defense.

An article in the Washington Post on October 8 reported that:

The world's major powers, including America's closest allies, warned the United States today that failure to ratify the multinational nuclear test ban treaty would send a dangerous signal that could encourage other countries to spurn arms control commitments.

German Foreign Minister Joschka Fischer was quoted as saying:

What is at stake is not just the pros and cons of the test ban treaty, but the future of multilateral arms control.

I ask unanimous consent the full text of that article be printed in the RECORD at the conclusion of my remarks.

The PRESIDING OFFICER. Without objection, it is so ordered.

(See Exhibit 1.)

Mr. SARBANES. Perhaps as compelling as the case in favor of the treaty are the potential consequences of a negative vote. Senate rejection of the treaty could severely weaken the Nuclear Non-Proliferation Treaty, for which a review conference is scheduled next April.

It is entirely possible, as the Washington Post reported, that "some non-nuclear countries might regard failure to ratify the treaty as a broken promise that would relieve them of the obligation to comply with key parts" of the Nuclear Non-Proliferation Treaty. Such a result would not only undercut U.S. leadership and credibility on non-proliferation, threatening our policy objectives in Iraq and North Korea, among other places, but could increase the likelihood of resumed testing and aggravate the situation in South Asia.

Resumed testing would not only threaten regional security and U.S. strategic interests but could pose new challenges to public health and the natural environment. According to the Energy Department, more than one out of seven underground U.S. nuclear tests since 1963 vented radioactive gases into the atmosphere, and the problem will obviously be much worse in countries that do not take or cannot afford the same level of environmental protections.

Some have objected that the treaty will be difficult to verify, that it will prevent the United States from maintaining a safe and reliable nuclear arsenal. While no treaty is completely verifiable, I believe the CTBT will increase, rather than decrease, our ability to monitor the development of nuclear weapons and preserve, not forfeit, our nuclear superiority.

In his statement before the Armed Services Committee on October 6, Secretary of Defense William Cohen addressed this point at length. I will quote the Secretary because I think his observations are extremely important.

CTBT evasion is not easy; it would require significant efforts in terms of expertise, preparations and resources. In the end, the testing party has no guarantees that its preparation or its nuclear test will escape detection and possible on-site inspection, despite its best efforts. In addition, detection capability varies according to the location of the clandestine test and the evasion measures employed; a potential evader may not understand the full U.S. monitoring capability, thus adding to his uncertainty. Further, detection of a nuclear explosion conducted in violation of the CTBT, would be a very serious matter with significant political consequences. . . . Under CTBT, I believe the U.S. will have available sufficient resources to deter or detect, with confidence, the level of clandestine nuclear testing that could undermine the U.S. nuclear deterrent

and take timely and effective counteraction to redress the effects of any such testing.

I yield myself 2 additional minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. SARBANES. Moreover, to the extent Members are concerned with the adequacy of procedures for onsite inspections, I would remind them that, as with the Chemical Weapons Convention, these procedures were crafted with an eye not only to gaining access to other countries' facilities, but also to guarding against overly intrusive inspections within the United States. The lead U.S. treaty negotiator, Stephen Ledogar, explained to the committee how those procedures were developed:

This Treaty provides for on-site inspections on request by any Treaty party and with the approval of the Executive Council. No state can refuse an inspection. The U.S. position from the start was that on-site inspections were critical to provide us with added confidence that we could detect violations. And, if inspections were to be effective, they had to be conducted absolutely as quickly as possible after a suspicion arose, using a range of techniques with as few restrictions as possible. However, the U.S. also had to be concerned with its defensive posture, as well as an offensive one. It was necessary to ensure that sensitive national security information would be protected in the event of an inspection on U.S. territory. The U.S. crafted a complicated, highly detailed, proposal that balanced our offensive and defensive needs. There was resistance from some of our negotiating partners. However, by the time we were through, the Treaty read pretty much like the original U.S. paper put together jointly by the Departments of Defense, Energy, and State, the Intelligence Community, and the then-existing Arms Control Agency.

With regard to the security of our nuclear arsenal, the President has proposed six safeguards which will define the conditions under which the United States enters into the CTBT, and which, as I understand it, have been incorporated into the Resolution of Ratification. I ask the ranking member, these have now been adopted; is that correct?

Mr. BIDEN. That is correct, with some modifications making them even stronger.

Mr. SARBANES. And those dealt with the conduct of the Stockpile Stewardship Program, the maintenance of modern nuclear laboratory facilities, the maintenance of a basic capability to resume testing, should it become necessary, the continuation of a comprehensive research and development program to improve our monitoring capabilities, the continued development of a broad range of intelligence gathering, and the ability to withdraw from the CTBT if the safety or reliability of a nuclear weapon type critical to our nuclear deterrent could no longer be certified.

I believe these safeguards will ensure that U.S. national security interests can be met within the context of the treaty.

Mr. President, I support ratification, but there do not appear to be enough

votes to approve it. The President, in his letter requesting that action be delayed, stated that

... proceeding to a vote under these circumstances would severely harm the national security of the United States, damage our relationship with our allies, and undermine our historic leadership over 40 years, through administrations Republican and Democratic, in reducing the nuclear threat.

I agree with the President's assessment. Therefore, I urge my colleagues to join in voting to postpone consideration of the treaty while we undertake to build the necessary understanding and political support that will lead to its ultimate ratification.

If we cannot approve the treaty, ratify it, then surely we should delay its consideration, postpone its consideration while we continue to explore the matter further, rather than, in my judgment, doing the grave harm that would come to the national security, as the President has outlined.

I ask unanimous consent that two editorials from the New York Times in support of the treaty be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

[From the New York Times, Oct. 12, 1999]

FIGHTING FOR THE TEST BAN TREATY

Despite the important contribution it would make to a safer world, the nuclear Test Ban Treaty stands virtually no chance of mustering enough support to win Senate ratification this week. Allowing it to be voted down would deal a damaging blow to America's foreign policy and military security. The wiser course is to delay Senate action for at least a few months, as President Clinton requested yesterday, giving the White House more time to overcome the arguments of treaty critics.

But Republican senators are recklessly insisting on an immediate vote unless Mr. Clinton agrees to withdraw the treaty for the rest of his term. That is something he should avoid, because it would signal to the rest of the world that the White House, not just the Senate, is edging away from the Test Ban Treaty.

Mr. Clinton refuses to be bound by such conditions. Nevertheless some Senate treaty supporters, including Daniel Patrick Moynihan of New York, are trying to put together a deal under which Mr. Clinton would not give up on the treaty, while Senate Democrats would refrain from pushing it in this Congress. The White House suggests it could accept such an arrangement.

The message that Washington sends to the world matters a lot. One audience consists of countries like India and Pakistan, which are still trying to decide whether to sign the treaty and would be unlikely to do so if the Clinton White House gave up on eventual Senate ratification. For these countries to remain outside the test ban would encourage a dangerous nuclear arms race in south Asia that could easily draw in nearby countries like Iran and China. It could also fuel the ambitions of other intermediate powers, like Saudi Arabia and Taiwan, to join an expanding nuclear club.

Another group of countries includes established nuclear nations such as China and Russia. Like Washington, Beijing and Moscow have signed the treaty but not yet ratified it, and are observing a voluntary moratorium on nuclear tests.

As long as Mr. Clinton continues to campaign for the Test Ban Treaty and there remains a reasonable chance that Washington will someday ratify it, these countries are likely to refrain from further testing. But if hopes for eventual American ratification recede, China or Russia might be tempted to test again in an effort to improve their bomb designs and narrow America's present lead in nuclear weapons technology.

These considerations argue strongly for delaying the vote rather than giving up on it for this Congress. The treaty is backed by America's military leaders, public opinion and Washington's main allies. Good answers are available to the objections so far raised by Senate critics. True, the election-year political calculus is not favorable, and ultimately it may be necessary to wait until a new President and a new Senate take office early in 2001. But American interests are best protected if in the interim Washington does not disavow the treaty.

[From the New York Times, Oct. 8, 1999]

KEEPING THE TEST BAN TREATY ALIVE

If the nuclear Test Ban Treaty fails to win ratification next week, as it probably will, Senate Republicans will deserve much of the blame. The Republican leadership has behaved in a narrowly partisan fashion that paid little heed to America's international interests and trivialized the Senate's constitutional role in evaluating treaties. But the White House failed to put together a coherent strategy for assembling the needed two-thirds Senate majority, and then allowed itself to be outmaneuvered into a compressed timetable that left too little time for an intensive lobbying campaign.

The resulting failure will weaken American security. India and Pakistan will be more likely to develop their nuclear arsenals and China will be increasingly tempted to resume testing to exploit new weapons designs, some of which may have been stolen from the United States. The goal now should be to try to limit the damage by keeping open the possibility that the Senate can be persuaded to ratify the treaty in the months to come.

To that end, the White House must reject the terms the Republicans now offer for canceling next week's vote. These include the outrageous requirement that President Clinton not seek ratification during his remaining 15 months in office. That would make things worse than they already are, leaving other countries wondering whether Mr. Clinton has abandoned the treaty he signed three years ago. Unless the Republicans agree to a postponement without this timetable, the White House should let the Senate proceed toward a vote next week—trying, between now and then, to win as many extra Republican votes as possible. If that effort falls short, Mr. Clinton should concentrate his Presidential energies on building enough support to justify a new ratification effort as soon as possible.

Republican senators have raised several arguments against the treaty, most of which evaporate on close inspection. Some doubt whether American intelligence agencies can detect very-low-yield nuclear tests. Others worry that America's nuclear stockpile might deteriorate without testing. Some mistakenly believe that missile defenses will make arms control treaties unnecessary.

The Administration has answered these objections convincingly. Approving the treaty would speed creation of a stronger worldwide monitoring system. Despite doubts expressed yesterday by the heads of America's nuclear labs, Washington's stockpile stewardship program, based on computer simulations, can keep existing weapons reliable and nurture the scientific skills that could create

new ones if the treaty ever broke down. Missile defense can at best supplement arms control, not replace it.

There is every reason for Republicans of conscience to vote for this treaty, but little chance that they will. Mr. Clinton's challenge now will be to sway enough Senate votes to make ratification possible before he leaves the White House.

EXHIBIT 1

[From the Washington Post, Oct. 8, 1999]

U.S. ALLIES URGE SENATE TO RATIFY TEST BAN

(By William Drozdzak)

VIENNA, Oct. 7—The world's major powers, including America's closest allies, warned the United States today that failure to ratify the multinational nuclear test ban treaty would send a dangerous signal that could encourage other countries to spurn arms control commitments.

With the Senate scheduled to begin debating the treaty Friday, envoys from nearly 100 nations at a conference here, including Russia, China, Britain and Germany, expressed alarm that the United States appears to be on the brink of rejecting the Comprehensive Test Ban Treaty. The pact, which President Clinton signed in 1996, would prohibit nuclear test explosions world-wide.

Diplomats said British Prime Minister Tony Blair and French President Jacques Chirac will soon make rare personal appeals to the United States to approve the accord, prior to a possible Senate vote next week.

In Washington, it was unclear if a compromise would be reached to postpone a vote on the treaty. Both sides agree that the pact will be defeated if it comes to a vote on Tuesday or Wednesday as scheduled. In the latest blow to the accord's prospects, Sen. Richard G. Lugar (R-Ind.), an influential arms control advocate, declared his opposition.

Majority Leader Trent Lott (R-Miss.) was sticking to his position late today that a vote can be delayed only if the Clinton administration promises not to try to revive the treaty before the president leaves office. The White House has rejected that proposal, and Sen. Joseph R. Biden Jr. (D-Del.), the ranking minority member of the Foreign Relations Committee, said he is "not hopeful" that the vote could be postponed.

Here in Vienna, diplomats said that Blair and Chirac will urge American treaty opponents to forgo partisan politics and weigh the damaging impact a negative vote would have on U.S. leadership in the effort to halt the spread of weapons of mass destruction.

There was particular concern here that some non-nuclear countries would regard failure to ratify the treaty as a broken promise that would relieve them of the obligation to comply with key parts of another accord, the Nuclear Non-proliferation treaty. That pact is considered the linchpin of international efforts to limit the spread of nuclear weapons.

International anxiety also has been compounded by new worries over U.S. efforts to escape constraints imposed by the Anti-Ballistic Missile (ABM) Treaty, which limits the ability of the United States to build systems to defend against missile attack.

Russia and China say it would destabilize the strategic balance if the United States built a missile defense system, because Washington could be tempted to attack others if it felt invulnerable to retaliation. That could trigger a new arms race as other nations sought ways to overwhelm missile defenses.

Many nations are surprised by the Senate's hesitation to approve the test ban treaty, in part because the accord is widely regarded

abroad as locking in American nuclear superiority. Until recently, the treaty had gained strong momentum as the ratification process moved ahead and a world-wide sensor system was deployed to detect even the tiniest indication of a nuclear explosion.

More than half of the 44 nations with nuclear facilities whose ratification is necessary for the treaty to take effect have already done so. U.S. approval is deemed critical to persuade other nations, including Russia and China, to ratify. Even more important, India and Pakistan, who pledged to sign the test ban treaty under enormous international pressure, are said to be awaiting Senate action before making their final decision.

"It would be a highly dangerous step for the Senate to reject this treaty," said Peter Hain, Britain's minister of state for foreign affairs. "If the test ban treaty starts to unravel, all sorts of undesirable things could happen. It would send the worst possible signal to the rest of the world by giving a green light to many countries to walk away from promises not to develop nuclear arsenals." Hain and other delegates here spoke at a long-planned conference organized to discuss how to put the test ban treaty into effect.

German Foreign Minister Joschka Fischer said the rest of the world would be watching the Senate test ban vote closely because of its possible effect in eroding support for the non-proliferation treaty. "What is at stake is not just the pros and cons of the test ban treaty, but the future of multilateral arms control," Fischer said.

Diplomats fear that a failure to put the test ban treaty into effect soon would discourage some "threshold" countries—those close to developing nuclear weapons—from cooperating with intrusive inspections under the non-proliferation treaty. Such inspections are designed to prevent them from cheating and secretly developing nuclear weapons.

Jayantha Dhanapala, the U.N. undersecretary for disarmament affairs, said many countries agreed to a permanent inspection regime four years ago only on the basis of a written guarantee by the nuclear powers to negotiate and ratify a worldwide test ban as one of several key steps toward nuclear disarmament.

In a grand diplomatic bargain struck in 1995, the inspection program was made permanent for some 175 nations that have promised to forswear nuclear weapons. In exchange, the powers—the United States, France, Britain, Russia and China—pledged to reduce nuclear arsenals and approve a treaty that would ban test explosions that help upgrade their weapons.

"If the Senate rejects ratification, it would send a very negative signal that will act as a brake on the momentum we have achieved to control the nuclear threat, because some countries would see this vote as a betrayal of a promise," Dhanapala said.

The head of the U.S. delegation, Ambassador John B. Ritch III, said a main theme of the Vienna conference has been international alarm over isolationist thinking that has spurred Senate opposition to the treaty. He said foreign delegates found it difficult to understand how the Senate could consider backtracking from a ban on nuclear explosions even though polls show as much as 80 percent of the American public support the treaty.

China's representative here said that U.S. failure to ratify the test ban treaty would be "a very negative development" and joined others in expressing concern that the United States is shunning its obligations on global arms control.

"I don't like to talk about any country exercising world leadership, but in this case we

see that the United States must play a special role," Sha Zukang, China's top arms control official, said in an interview. Sha added that China is even more alarmed by U.S. efforts to develop a regional missile defense system than by the Senate's reluctance to approve the test ban treaty.

Boris Kvok, Russia's deputy chief of disarmament issues, said the U.S. decision on the test ban treaty would not affect the deliberations of Russia's parliament on the pact or alter his country's test moratorium. "But if the U.S. moves ahead with ballistic missile defense, it would be a disaster for strategic stability in Europe and the world. And we would have to start developing new weapons to correct this imbalance," Kvok said.

Mr. SARBANES. Mr. President, I yield the floor.

Mr. BROWNBACK addressed the Chair.

The PRESIDING OFFICER. The Senator from Kansas is recognized.

Mr. BROWNBACK. Mr. President, I yield myself up to 10 minutes to speak on the Comprehensive Test Ban Treaty.

Mr. President, there have been a number of arguments put forward against and for the Comprehensive Test Ban Treaty. We have heard, most recently, arguments for ratification of the treaty. I join my colleague from Maryland in noting that I think there would be a wide basis of support saying we should not bring it up at this time. But neither should we bring it up next year. I know a number of my colleagues on this side of the aisle would say it would be a good thing if we could agree not to go ahead and go forward with a vote now, but not to do that during this session of Congress, either the rest of this year or next year, so we won't constantly be going back and visiting this issue during this Congress. We have it on the floor and it is time to discuss it. I think people can agree that we won't hear it again this Congress, and we can move forward with that discussion and have this debate and not proceed to a vote if people think that would do more harm than good.

I want to address a number of arguments put forward by the President and by others on this Comprehensive Test Ban Treaty. I note the President stated in his weekly radio address that every President since Eisenhower—a Kansan—has supported this treaty. The reality of this is actually that no previous administration, either Republican or Democrat, has ever supported the zero-yield test ban now in this treaty before the Senate. Eisenhower insisted that nuclear tests with a seismic magnitude of less than 4.75 be permitted. Kennedy terminated a 3-year moratorium on nuclear tests, declaring that "never again" would the United States make such a mistake. He then embarked upon the most aggressive series of nuclear tests in the history of the weapons program. Carter, Reagan, and Bush all opposed a zero-yield test ban while in office. Even the present administration initially opposed a permanent zero-yield test ban before signing onto the CTBT.

It has been claimed that the CTBT hasn't been given enough Senate floor time. The unanimous-consent agreement provides for 22 hours of debate on the CTBT. By contrast, the START treaty had 9.5 hours; START II had 6 hours; the Chemical Weapons Convention had 18 hours. We are going to put a lot of time in on this. The White House insisted for 2 years that the Senate vote on the CTBT, using terms such as "now," "immediately," "right away." Now when we are ready to vote, they don't seem to be willing to enter into that debate and vote.

Another thing the President said in his news conference in Canada was this was being "politically motivated." I reject that, Mr. President. You do not consider items such as this with any consideration for political motivation. This is nuclear testing we are talking about. This is a critical issue to the world—to my four children. That is something you don't interject any bit of politics into. I reject that notion altogether.

There are a couple of other arguments bantered about quite a bit—one that I have taken most note of because it causes me the most pause to think is what would other countries think if we voted down the treaty? Would that cause more proliferation? I cannot read the minds of the leaders in China, Russia, Pakistan, or India, but there are people with a great deal of wisdom and experience who did hazard a guess in that area and have put forward thoughtful statements. One was put forward by former Secretaries of Defense Weinberger, Cheney, Rumsfeld, Laird, Carlucci, and Schlesinger. All of them signed this quote:

We also do not believe the CTBT will do much to prevent the spread of nuclear weapons.

Now, you have six former Secretaries of Defense saying that.

The motivation of rogue nations like North Korea and Iraq to acquire nuclear weapons will not be affected by whether the U.S. tests. Similarly, the possession of nuclear weapons by nations like India, Pakistan, and Israel depends on the security environment in their region, not by whether or not the U.S. tests. If confidence in the U.S. nuclear deterrent were to decline, countries that have relied on our protection could well feel compelled to seek nuclear capabilities of their own. Thus, ironically, the CTBT might cause additional nations to seek nuclear weapons.

That was a quote from the six former Defense Secretaries—Weinberger, Cheney, Rumsfeld, Laird, Carlucci, and Schlesinger.

This is a quote from General Vessey, former Chairman of the Joint Chief of Staff:

Supporters of the CTBT argue that it reduces the chances for nuclear proliferation. I applaud efforts to reduce the proliferation of nuclear weapons, but I do not believe that the test ban will reduce the ability of rogue states to acquire nuclear weapons in sufficient quantities to upset regional security in various parts of the world. "Gun-type" nuclear weapons can be built with assurance they'll work without testing. The Indian and

Pakistani "tests" apparently show that there is adequate knowledge available to build implosion type weapons with reasonable assurance that they will work. The India/Pakistan explosions have been called "tests," but I believe it to be more accurate to call them "demonstrations," more for political purposes than for scientific testing.

A letter signed by John Deutch, Henry Kissinger, and Brent Scowcroft says:

Supporters of the CTBT claim that it will make a major contribution to limiting the spread of nuclear weapons.

It is the same argument we hear time and time again, which I wish to be true because I want this to be a nuclear-free world. They say:

This cannot be true if key countries of proliferation concern do not agree to accede to the treaty. To date, several of these countries, including India, Pakistan, North Korea, Iran, Iraq, and Syria, have not signed and ratified the treaty. Many of these countries may never join the CTBT regime, and ratification by the United States, early or late, is unlikely to have any impact on their decisions in this regard. For example, no serious person should believe that rogue nations like Iran or Iraq will give up efforts to acquire nuclear weapons if only the U.S. signs the CTBT.

If you think about that, they are not going to respond to what we do.

This is a letter from Edward Teller to Senator HELMS. He says this in the letter, dated February 4, 1998:

The point I must make is that, in the long run, knowledge and ability to produce nuclear weapons will be widely available. To believe that, in the long run, proliferation of nuclear weapons is avoidable is wishful thinking and dangerous. It is the more dangerous because it is a point of view that the public is eager to accept. Thus, politicians are tempted to gain popularity by supporting false hopes.

This is a former Assistant Director, ACDA, Fred Eimer. He says this:

In conclusion, Mr. Chairman, the proposed treaty will put our nuclear deterrent at risk without significant arms control or non-proliferation benefits. Other nations will be able to conduct militarily significant nuclear tests well below the verification threshold of the Treaty's monitoring system, and our own unilateral capability.

I make these statements simply because this is a big issue. It is an important issue, and a lot of people have thought a great deal about it. I think it to be an inappropriate time to enter into such a treaty that would so limit the United States, given all the great concerns and testing and things going on around the world.

I want to give some final quotes of former Directors of the National Weapons Laboratories. They also oppose the CTBT.

Roger Batzel, Director Emeritus, sent this letter on October 5:

I urge you to oppose the Comprehensive Test Ban Treaty. No previous administration, either Democrat or Republican, ever supported the unverifiable, zero yield, indefinite duration CTBT now before the Senate. The reason for this is simple. Under a long-duration test ban, confidence in the nuclear stockpile will erode for a variety of reasons. I don't think it can be put forward any clearer than that. This is a key part of our deter-

rence. We simply cannot go ahead and enter into this treaty at this time at our own great loss and our own great peril.

I note again for my colleagues on the other side of the aisle that a number of us are very willing and interested that this not go forward for a vote. We don't want it to go forward for a vote in this session of Congress, either this year or next year.

The notion that it would be pulled down now, then somehow come back next year during the middle of a Presidential election, and be used as some sort of political tool at that time seems to many of us to be far more frightening, with what might happen in the political debate, with the atmosphere and the use of this treaty in its discussions for political purposes.

That is why we continue to support not voting on this now. Let's also agree that we will not do it during this session of Congress.

I have used up my allotted period of time. I yield the floor.

The PRESIDING OFFICER. The Senator from Arizona.

Mr. KYL. Mr. President, I know that earlier the Democratic side proposed an amendment which was accepted by this side. I did want to speak to that for just a moment because I don't believe anyone should suffer any illusions that the so-called safeguards that are part of this amendment are going to in any way enhance the treaty and make it more palatable. We accepted it because it is what is being done anyway. It wouldn't have to be added to the treaty. The President theoretically is pursuing these things. He should pursue them. But they are not going to make the treaty any better or worse.

For example, the first item is the Stockpile Stewardship Program. It has been assumed all along that there would be a Stockpile Stewardship Program. We don't have to amend this in order to achieve that.

The problem is, the Stockpile Stewardship Program is very troublesome even if you assume there would be assurance at the end of the day that it could do the job it was designed to do because some people are assuming that design is a total replacement of testing. It was never designed to totally replace testing but merely to give us a greater degree of confidence in the reliability and safety of our nuclear weapons, not that it could totally replace testing.

But even if you laid that aside, the notion was that the Stockpile Stewardship Program would be ready in a decade. This was announced about 3 years ago. Now we are being told it will be ready by the year 2010.

There are slips along the way that suggest problems with the Stockpile Stewardship Program. It is behind budget. We haven't been budgeting the amount of money that was indicated as necessary to maintain it—the \$4.5 billion a year. We have also not indexed for inflation. So each year that we supply the \$4 billion or so, we are getting

further behind because we are not indexing that to inflation.

We have also included other programs within the Stockpile Stewardship Program that were never intended to be funded out of it, such as the tritium production facility for our nuclear weapons. That was to be a separate area of funding. This administration has folded that into the Stockpile Stewardship Program, with the result that even more of the money necessary for the ASCI Program and other key parts of the Stockpile Stewardship Program will be shorted if we have to spend that money for tritium.

In addition to that, let me quote a letter I received from the former Director of one of our National Laboratories. This is a letter sent to me in September of this year from John Nuckolls who is the former Director at Livermore. Here is what he said:

A post-CTBT or other funding reduction would increase the uncertainty in long-term stockpile reliability. Current and projected funding is inadequate. Substantial additional funding is needed for SSP experimental efforts including construction of an advanced hydro facility.

I also note that the so-called ignition facility, which is planned as a part of this, is also behind schedule and over budget.

As Mr. Nuckolls pointed out, we are already behind. We are getting further behind, and I don't think anyone should put that much reliance as a result in the Stockpile Stewardship Program.

Another safeguard is the nuclear laboratory facilities and programs. Of course, we are going to maintain our nuclear laboratories and facilities. I don't think anybody would ever assume we were not going to do that. So this adds nothing to the treaty. The question is, Can you maintain these without nuclear testing? It turns out it is much more difficult to do so.

Again, quoting from Mr. Nuckolls' letter to me, I will quote the first part of his answer:

In an extended duration nuclear test ban, confidence in the stockpile would be adversely affected by loss of all nuclear test trained and validated expert personnel, major gaps in our scientific understanding of nuclear explosives, nuclear and chemical decay of warheads, accidents and inadequate funding of the Stockpile Stewardship Program.

All nuclear test trained/validated expert personnel would eventually be lost. Training of the replacement workforce would be seriously handicapped without nuclear testing, and expert judgment could not be fully validated. A serious degradation of U.S. capabilities to find and fix stockpile problems, and to design and build new nuclear weapons would be unavoidable.

In other words, what is perceived as a good thing—these nuclear laboratory facilities and programs—is actually being allowed to deteriorate without testing. We simply won't have the people available in order to maintain those facilities and to be prepared to do the things he says are necessary to be done. A serious degradation of U.S. capabilities would be unavoidable.

We are not talking about something hypothetical and unimportant. We are talking about the U.S. nuclear stockpile. This is the person who used to run this National Laboratory. He is telling us we had better be careful putting our reliance on that program.

The third of the so-called safeguards is the maintenance of nuclear testing capability. That is fine, except that we are not doing it. This President should be doing it. He claims to be doing it. But it is not being done. We now know it would take 2 or 3 years to get back to the point where we could test.

I again quote from Mr. Nuckolls' letter:

In an extended duration nuclear test ban, the nuclear test site infrastructure is likely to decay or become obsolete. Nuclear test experienced personnel would be lost. A series of nuclear tests to diagnose complex reliability problems and to certify a fix, or to develop new weapons could take several years. . . .

Nuclear testing has been essential to the discovery and resolution of many problems in the stockpile.

The point he is making is that you can't just say you are going to be able to resume testing unless you take active and take serious steps to maintain that readiness. We are not doing it. And he says in a test ban of this kind, we would not be able to do it.

The fourth item is the continued comprehensive research and development program. Of course, we are going to be doing that. Intelligence gatherings, analytical capabilities—we will do the best we can on that, although, as has been pointed out, it is inadequate.

Senator RICHARD LUGAR, an arms control advocate and an expert in this body, has concluded reluctantly that this treaty is not verifiable and enforceable and, as a matter of fact, it cannot be made so.

Let me quote from the Washington Times of today because it talks about how we negotiated this treaty and how we negotiated the provisions for verification and enforcement. Let me read from the story which is headlined, "Moscow, Beijing balk at monitors. Testing sites not included in nuke treaty." I am quoting now:

Russia and China refused to permit seismic monitoring near their nuclear weapons test sites that could have resolved some verification problems now troubling the Comprehensive Test Ban Treaty, according to U.S. government officials.

Clinton administration officials and congressional aides said the failure of U.S. negotiators to win the cooperation of Moscow and Beijing was a "negotiating failure" that undermined the treaty. It also is a key reason U.S. intelligence agencies said both nations could conduct hidden nuclear tests without detection.

Before I finish this quotation, let me point out why this is important.

Mr. BIDEN. If the Senator will yield, from what document is he reading?

Mr. KYL. The Washington Times, Tuesday, October 12.

Mr. President, I ask unanimous consent that The Washington Times article be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

MOSCOW, BEIJING BALK AT MONITORS

(By Bill Gertz)

Russia and China refused to permit seismic monitoring near their nuclear weapons test sites that could have resolved some verification problems now troubling the Comprehensive Test Ban Treaty, according to U.S. government officials.

Clinton administration officials and congressional aides said the failure of U.S. negotiators to win the cooperation of Moscow and Beijing was a "negotiating failure" that undermined the treaty. It also is a key reason U.S. intelligence agencies said both nations could conduct hidden nuclear tests without detection.

The officials, who spoke on the condition of anonymity because of sensitive intelligence issues, said the treaty's international monitoring system that includes 50 "primary" seismic stations and 120 "auxiliary" seismic stations does not include stations close to China's remote northwestern Lop Nur testing site in Xinjiang province, or Russia's arctic Novaya Zemlya.

U.S. intelligence agencies suspect the two locations were used recently for small nuclear test blasts.

China's test on June 12 may have been part of efforts by Beijing to build smaller warheads for its short-range missiles, or multiple warheads for its intercontinental ballistic missiles (ICBMs), U.S. intelligence officials said.

Two suspected nuclear tests detected near Novaya Zemlya on Sept. 8 and Sept. 23 are believed to be part of Russia's secret nuclear testing program.

U.S. intelligence agencies reported recently to policy-makers and members of Congress that Russia and China are the two nations are most interested and capable of conducting covert tests. "Both have locations where they could conduct secret tests that would not be detected," said one intelligence official.

The official said that during treaty negotiations from 1994 to 1996 at the Conference on Disarmament in Geneva, U.S. negotiators failed to press for Russian and Chinese agreement to tougher monitoring provisions in the treaty that would satisfy the concerns of U.S. spy agencies about cheating.

According to the official, "if Russia had been convinced to have one facility at Novaya Zemlya and China agreed to have one near Lop Nur, the level of verification would have improved greatly."

Russia and China also blocked a treaty provision that would have required treaty signatories to allow small explosive tests that would have "calibrated" regional seismic stations so they accurately measure underground blasts, the officials said.

Without the calibration, the regional stations will provide misleading or confusing data that undermines more accurate data provided by primary stations, they said.

A National Intelligence Estimate, the consensus judgment of all U.S. intelligence agencies, presented a finding in 1997 that said verifying the test-ban treaty will be difficult.

That estimate is currently being revised and is expected to conclude that because of the lack of verification and the possibility that states could conduct secret tests without detection, the treaty is even more difficult to verify, said officials close to the intelligence community.

Under the treaty, Russia will have six primary seismic stations and 13 secondary stations; China will have two primary seismic posts and four secondary facilities.

None of these stations, however, is located close enough to the main Russian and Chinese testing facilities to be able to detect tests conducted covertly inside underground caves, or tests of very small nuclear blasts, the officials said.

By contrast, the United States has five primary seismic monitoring facilities under the treaty, including one in Nevada, where the main U.S. nuclear testing site is located. It will also have 11 secondary sites.

Michael Pillsbury, a former acting director of the U.S. Arms Control and Disarmament Agency, said China would have agreed to better seismic monitoring if Beijing were pushed into it.

"Chinese officials have told me that if the Clinton administration had pushed harder they would have agreed to a primary site near the test site," said Mr. Pillsbury, who also took part in a recent Defense Science Task Force study on nuclear weapons, "but the Chinese had the impression the Clinton administration didn't place as a high priority on treaty verification as they did on maintaining good trade relations."

A Senate defense specialist said Russia agreed to allow more sensitive seismic monitors to be placed near Novaya Zemlya, but only if the United States agreed to provide Moscow with advanced computers and U.S. nuclear weapons testing data. The administration refused.

On Russia, the aide said the administration faces a dilemma. "Either they accuse the Russians of violating the treaty or concede the treaty cannot be verified," the aide said.

U.S. intelligence agencies are now saying that "you can have militarily significant developments below the [seismic] detection threshold," the aide said.

Administration officials have said verification is not as important as promoting the agreement itself as a deterrent to nuclear weapons proliferation.

"The CIA has indicated that they cannot verify to a hundred percent whether or not someone has conducted a nuclear test," Defense Secretary William S. Cohen said Sunday on NBC's "Meet the Press."

"But we believe with this treaty, you're going to have at least an additional 320 sites that will help monitor testing around the world," he said. "... We are satisfied we can verify adequately, not a hundred percent, but satisfy ourselves that there is no testing doing on that would put us at any kind of a strategic disadvantage."

Asked about the fact, that the United States cannot detect nuclear blasts below a few kiloton yield, Secretary of State Madeleine K. Albright said: "We can detect what we need to."

"Those that are below a certain level, we do not think would undercut our nuclear deterrent because they would be so small that they would not affect our nuclear deterrent capacity," Mrs. Albright said on ABC's "This Week."

A Pentagon official, however, said the Clinton administration is supporting anti-nuclear-weapons activists by supporting the test ban.

Mr. KYL. Mr. President, the Senate has a solemn obligation under our Constitution to be a backstop. We are not supposed to be a rubber stamp to treaties. If we were simply to rubber stamp whatever the President sent to us, our founding fathers wouldn't have provided a separate advice and consent responsibility for the Senate. As a matter of fact, we would be doing the Office of the Presidency a big favor by exercising that responsibility in a responsible way, saying that when we find

treaties that lack even minimal standards, then we need to say no, so that our negotiators in the future will be able to negotiate stronger provisions—provisions that we seek because we understand their importance and necessity for sensible arms control.

If we simply ratify what is acknowledged to be a flawed treaty, then our negotiators are never going to be able to say no to bad terms and we are always going to have to then go to the lowest common denominator in these treaties—treaties which then become bad for the United States; treaties which are unverifiable and unenforceable. Those are concepts that used to cause the Senate to say no, to say we won't approve a treaty that doesn't have good verification or enforcement provisions. Those are minimally necessary for sensible treaties.

Our negotiators tried to avoid a zero-yield basis in this treaty but they couldn't so they gave up. They tried to have a 10-year limit rather than having this treaty be in effect in perpetuity, but they couldn't get it done. So in order to make a deal, they said: All right, we will agree to something less. If they knew and if their counterparts understood that the Senate at that point would say: No, we are not going to ratify such a treaty, they would more likely have stood firm and been able to hold their ground.

The same thing is true with respect to these monitors. Administration officials have tried to suggest that actually we will have a better chance of monitoring in the future than we do today, while many of the experts have debunked that. The fact that the treaty calls for monitoring sites around the world is irrelevant if the sites are not placed in the positions that are best for detection of nuclear weapon explosions. What this article is pointing out is that when the United States tried to interpose that requirement on Russia and China, the Russians and Chinese said no, and we backed down. So now we don't have monitoring stations in key locations in the world near the Chinese and Russian test sites that would enable the United States to understand whether or not they have violated the treaty by engaging in nuclear tests.

Let me quote further from the article, while it points out that Russia and China will have some seismic stations:

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I think the point of this article and the point of the testimony of several of the people who came before the committees was that the people who negotiated this treaty gave up too soon on too many important provisions, and because they wanted a treaty more than they were concerned about the specific provisions—such as verification and enforcement—they were willing to commit the United States to a series of obligations that will have a profound negative impact on our nuclear stockpile and yet do very little, if anything, to ensure that other nations in the world will not proliferate nuclear weapons.

The President has signed the treaty. That doesn't mean the United States needs to ratify it. We should exercise our independent judgment, our constitutional prerogative, to provide, as I said, before the quality control. If we do that, this President and future Presidents' hands will be strengthened when they go to the negotiating sessions to talk about such things as where to place the monitors. Maybe the Chinese and the Russians and others at that time will understand they are not going to bamboozle our negotiators. Because the Senate provides a backstop, we will say no. That is the way the Founding Fathers understood we could ensure that the United States did not take on inadequate or offensive international arms obligations or limitations.

I have mentioned all the safeguards but the last one. These safeguards add nothing to the status quo. In fact, I hope they will be more robustly pursued than this administration has pursued.

Last is the withdrawal under the supreme interest clause. Even this was something that the administration sought to avoid when it negotiated the treaty initially. The negotiators understood how very difficult—in fact, how almost impossible—it is to invoke the supreme interest clause. There are two reasons for that. They are very simple. First, if a country hasn't tested for a decade and all of a sudden this clause is invoked, that country is, in effect, telling all the rest of the world, whoops, we have a problem; please excuse us while we test.

That is not a good message to send to the rest of the world. As difficult as the political inability to invoke this clause, if we think it is hard now to reject this treaty—which most on this side believe should be rejected—if we

think it is difficult now because world opinion will react badly to a negative vote by the Senate, what do Members think world opinion will be after the treaty has been in effect for a decade and all of a sudden the United States tries to withdraw from it because we need to test?

That is real pressure. It is a virtual impossibility. In fact, President John F. Kennedy said exactly that in speaking about the moratorium that he inherited from the Eisenhower administration. He said never again should we do that because it is not only difficult, it is impossible to go back to testing without political ramifications after having had a moratorium condition.

The supreme interest clause is certainly something that would be part of any administration's options; whether or not it is added to the treaty is irrelevant. The administration always has that option. It adds nothing.

The reason we were happy to accept the amendment offered by the Senator from Delaware is that it adds nothing to the treaty. We assume those provisions would be extant and therefore there is no reason to object to it. There is also no reason to celebrate because it adds nothing to what we already have.

As I said, unless we are a lot more serious about providing the funding that is called for under the amendment and doing the science that is required, we are going to find ourselves getting further and further behind, especially with respect to the Stockpile Stewardship Program.

I don't think we should say that the safeguard package has made the treaty any better than it was to begin with.

I ask unanimous consent to have printed in the RECORD a letter from John H. Nuckolls.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

JOHN H. NUCKOLLS,

Livermore, CA, September 2, 1999.

Hon. JON KYL,

U.S. Senate, Hart Senate Office Building, Washington, DC.

DEAR SENATOR KYL: This letter responds to your April 1, 1999 request for my answers to five questions concerning the effects of a nuclear test ban on the reliability and safety of the nuclear stockpile. My views do not represent LLNL.

1. To maintain confidence in the safety and reliability of the U.S. nuclear stockpile in absence of nuclear testing, the United States intends to rely on the Stockpile Stewardship Program to accomplish the goals previously achieved through nuclear testing. Setting aside the controversial issue of sustained funding for the Program, how confident should we be that the Program will achieve its goals? In your answer, please address not only the level of certainty we should have regarding the Program's technical goals, but also the goal of attracting and training nuclear weapons experts who could fix problems that may develop in the existing stockpile or design and build new nuclear weapons.

In an extended duration test ban, confidence in the stockpile would be adversely affected by loss of all nuclear test trained

and validated expert personnel, major gaps in our scientific understanding of nuclear explosives, nuclear and chemical decay of warheads, accidents and inadequate funding of the Stockpile Stewardship Program (SSP).

All nuclear test trained/validated personnel would eventually be lost. Training of the replacement workforce would be seriously handicapped without nuclear testing, and expert judgment could not be fully validated. A serious degradation of U.S. capabilities to find and fix stockpile problems, and to design and build new nuclear weapons would be unavoidable.

There are major gaps in our scientific understanding of critically important processes essential to the operation of nuclear explosives. These gaps create a serious vulnerability to undetected problems. Uncertainties in performance margins increase this vulnerability. Consequently, there will be a growing uncertainty in long-term reliability.

It cannot be assured that the powerful computational and experimental capabilities of the Stockpile Stewardship Program will increase confidence in reliability. Improved understanding may reduce confidence in estimates of performance margins and reliability if fixes and validation are precluded by a CTBT.

Key components of nuclear warheads are "aging" by radioactive decay and chemical decomposition and corrosion. Periodic remanufacture is necessary, but may copy existing defects and introduce additional defects. Some of the remanufactured parts may differ significantly from the original parts—due to loss of nuclear test validated personnel who manufactured the original parts, the use of new material and fabrication processes, and inadequate specification of original parts. There are significant risks of reducing stockpile reliability when remanufactured parts are involved in warhead processes where there are major gaps in our scientific understanding.

In spite of extraordinary efforts to prevent accidents, sooner or later "accidents will happen." Accidents (very probably those of foreign nuclear forces) are likely to generate requirements for incorporating modern damage limitation technologies in our nuclear warhead systems which lack these safety features. Without nuclear tests, confidence in reliability would be substantially reduced by the introduction of some safety technologies.

A post-CTBT or other funding reduction would increase the uncertainty in long-term stockpile reliability. Current and projected funding is inadequate. Substantial additional funding is needed for SSP experimental efforts including construction of an advanced hydro facility.

The uncertainty in long-term stockpile reliability may be reduced somewhat by increasing performance margins. Depending on national security requirements, operational measures may be feasible which compensate for uncertain stockpile reliability, e.g., limit arms control agreements so that large and diverse reserves of warheads and delivery systems can be maintained, use multiple independent forces on each target and maximize use of shoot-look-shoot.

2. Certification of U.S. nuclear weapons, once achieved through nuclear testing, is now accomplished through a process of review by experts. How crucial is the nuclear testing experience of those experts to their ability to perform the certification task? What level of risk would you associate with having a certification process in the future that utilizes only individuals who have had no nuclear testing experience?

Stockpile confidence would be reduced if certification were performed by experts lacking nuclear test experience. The level of risk

would be high unless arms control agreements were restrained, and substantially reserve forces maintained so that the capabilities of our nuclear forces substantially exceeded national security requirements.

3. Current U.S. plans are to maintain "the basic capability to resume nuclear test activities." In your view, is it technically possible to maintain the nuclear test site, together with the requisite skilled personnel, in a state whereby nuclear testing can readily be resumed if needed? How quickly do you believe that testing can be resumed?

In an extended duration nuclear test ban, the nuclear test site infrastructure is likely to decay and become obsolete. Nuclear test experienced personnel would be lost. A series of nuclear tests to diagnose complex reliability problems and certify a fix, or to develop new weapons could take several years.

4. In your experience, how vital has nuclear testing been to the discovery and resolution of problems with the U.S. stockpile?

Nuclear testing has been essential to the discovery and resolution of many problems in the stockpile.

5. Experts agree that nuclear testing can be conducted by other nations at low yields without its being detected. If other nuclear weapons states were to continue clandestine nuclear testing at low levels, do you believe that they could obtain significantly greater confidence in the reliability of their nuclear arsenals?

With a series of clandestine nuclear tests, Russia could increase confidence in the reliability of its nuclear stockpile. Advanced low-yield nuclear weapons could also be developed, e.g., tactical and BMD warheads.

China and other nations could improve their nuclear forces by clandestine tests of nuclear weapons, including tests of U.S. designs obtained through espionage? and Russian designs obtained through various means?

A "CTBT" with clandestine nuclear tests would incentivize and facilitate espionage. Achieving qualitative parity with a static U.S. stockpile would be a powerful incentive. Espionage is facilitated when U.S. progress is frozen, and classified information is being concentrated and organized in electronic systems.

These views are my own and do not represent LLNL.

Sincerely,

JOHN H. NUCKOLLS,
Director Emeritus, LLNL.

Mr. BIDEN. Mr. President, the Senator from Virginia would be next, but he has kindly yielded to the Senator from New Mexico.

My friend from Arizona keeps saying the "acknowledged flawed treaty." It is not acknowledged to be flawed by 32 Nobel laureates in physics. It is not acknowledged to be flawed by four of the last five Chairmen of the Joint Chiefs of Staff. It is not acknowledged to be flawed by the weapons lab Directors, et cetera.

I want to make it clear, he states some believe it is flawed. The majority of the people who are in command and have been in command—the Secretaries of Defense who have been mentioned—if we balance it out, clearly think this is not a flawed treaty.

I yield on the Republican time to my friend from New Mexico.

Mr. DOMENICI. Mr. President, there can be no question that this debate and the vote which might occur are very significant and historic events for the

United States. I very much want to be in favor of the treaty but I cannot favor the treaty because I believe essentially it jeopardizes U.S. security.

I wish every Senator had the opportunities I have had for the last 5½ years. I say that knowing full well my friend from Arizona, while he is not on the committee that funds the stockpile stewardship, is one of the rare exceptions in that he and a few other Senators have learned and worked very diligently to understand what we have been doing since we decided on behalf of the Senate in a Mark Hatfield amendment that we would not test nuclear weapons.

What has been the U.S. response to our scientific and nuclear community?

Essentially, what we have been busy doing can be encapsulated in the words "science-based stockpile stewardship." One might say, since that pertains to the safety of the weapons system, what we used to do could be called nuclear testing stockpile stewardship. That occurred since the beginning of our nuclear weapons programs. The United States had a formidable, perhaps the world's best, system of underground testing.

Testing became very important to those laboratories—there are now three that are principally called nuclear deterrent or stockpile stewardship laboratories. I am privileged to have two of them in my State. When I come to the floor, go to meetings, and talk about the fact this is an important program and these laboratories are important, it hardly ever comes into focus like it is today, like it was in our conference at noon, and like it has been for the last week as Senator JON KYL and others have spoken to the fact that what the United States has been trying to do is develop a science-based system. This system means supercomputer simulation and other techniques and skills to see what is going on in a nuclear weapon without any testing to assure the parts that might be wearing out are discernible and can be replaced and that the weapon, indeed, is safe.

Frankly, if nothing else, I pray this debate will cause Senators and Representatives, in particular in the important committees of jurisdiction, to understand the importance of this program if the United States continues on a path of no testing, for whatever period of time—and who knows, we may do that in spite of this treaty not being ratified by the United States. I do not want to engage in a maybe-and-maybe-not discussion on that, but the United States is trying hard. Nonetheless, my principal concerns about this Treaty—and there are many—center around four reasons, and three of them have to do with science-based stockpile stewardship.

First, the science-based stockpile stewardship is new; it is nascent; it is just starting. It is not finished. It has not been completed. It is not perfected. As a matter of fact, to the Senators who are on the floor, probably some of

the most profound testimony regarding America's stockpile of nuclear weapons occurred in the Armed Services Committee last week when sitting at the witness table was the Secretary of Energy, surrounded by the three National Laboratory Directors.

It goes without saying that our country owes them a high degree of gratitude and thanks for what they do, for they oversee the safety of our weapons under this new approach which is very different for them, and that is, no testing; they must certify that everything is OK without testing. Scientists and physicists steeped in knowledge about nuclear weapons—one of them is a nuclear weapons expert of the highest order—testified, and I will quote in a while some of the difficulties they see with reference to their responsibility.

Secondly, I do not know what to do about it, but the difficulty, as they testified, in securing the funding they need without new mandates imposed upon them is very uncertain. The difficulty is real and it is uncertain as to whether they will continually over time get sufficient resources.

Third is, and I say this with a clear hope that the Secretary of Energy and the President will listen, the unknown impact of the failure on the part of this administration to proceed with reorganizing the Department of Energy on stewardship efforts. I do not want to belabor in this speech the efforts that many of us went to in streamlining accountability of the nuclear weapons programs within the Energy Department. We called it a semiautonomous agency—so that Department, which is in charge of the nuclear weapons, including the profound things we are talking about with respect to their safety, will not be bogged down by rules, regulations, personnel, and other things from a Department as diverse as the Department of Energy.

As a matter of fact, the more I think about it, the more I am convinced they should get on with doing what Congress told them to do instead of this waffling out of it by putting Secretary Richardson in charge of both the Energy Department and a new independent agency—which was supposed to be created so it would be semiautonomous, and he will head them both under an interpretation that cannot be legal—just indicates to me that they are not quite willing in this Department of Energy to face up to the serious problems of our nuclear stockpile and such things as science-based stockpile stewardship.

Lastly, and for many who talked on the floor, the most important issue is the ambiguities and threats to our international security at the present time. I will talk about that a bit because some Senators are asking: How can you be against the treaty and at the same time say we ought to put it off?

Let me repeat, my last concern is the ambiguities and threats to our international security at present.

I will proceed quickly with an elaboration.

When the United States declared a unilateral moratorium in 1992, the onus was on the scientists and National Laboratories to design and implement a program that would ensure the safety, reliability, and performance of our nuclear arsenal without testing. This is an onerous, complicated task that has yet to be fully implemented and validated, and I just stated that.

Science-based stockpile stewardship was designed to replace nuclear tests through increased understanding of the nuclear physics in conjunction with unprecedented simulation capabilities. This requires a lot of money. In fact, full implementation of the stewardship program is more expensive than reliance on nuclear tests, and I do not say this as an excuse for moving back to testing. The truth of the matter is it proves we are very willing to keep our stockpiles safe, reliable, and sound, even if it costs us more money, so long as we do not do underground testing on the other side of the ledger.

There is no question that in addition, the validity of this approach remains unproven, and key facilities, such as the National Ignition Facility, are behind schedule and over budget, and it is supposed to be one of the integral parts of being able to determine the stockpile confidence.

This program will attempt to preserve the viability of existing weapons indefinitely. We no longer possess the production capabilities to replace the weapons, and maybe Senator KYL has referred to that. We have already gotten rid of our production facilities. Currently, seven highly sophisticated warhead designs comprise our arsenal. Each weapon contains thousands of components, all of which are subject to decay and corrosion over time. Any small flaw in any individual component would render the weapons ineffective. In addition, because we intend to preserve, rather than replace, these weapons with new designs, aging effects on these weapons remains to be seen.

I quote Dr. Paul Robinson of Sandia National Laboratory in his testimony last week:

Confidence in the reliability and safety of the nuclear weapons stockpile will eventually decline without nuclear testing. . . . Whether the risk that will arise from this decline in confidence will be acceptable or not is a policy issue that must be considered in light of the benefits expected to be realized [if you have a] test ban.

Are we ready today to accept a decline in confidence of our nuclear deterrent? Can we today accurately weigh the benefits on either side of the issue? I do not think so. On the other hand, we risk complete collapse of ongoing disarmament initiatives by prematurely rejecting this treaty. That is why I believe it is not inconsistent that I am not for it, but I would not like it to be voted on.

There are substantial risks with unknown consequences. Success of the Stockpile Stewardship Program requires recruiting the brightest young scientists. We have to begin to substitute for the older heads who know

everything there is about it and contain all of the so-called corporate memory with reference to the science testing and the like.

My colleagues all know that I have fought very hard to get the money for the Stockpile Stewardship Program. We came perilously close this year to having this part of our budget cut by as much as \$1 billion by the House. I think after weeks of saying we would not go to conference—it is not worth going to conference to fight—it was believed it would be better to stay at last year's level. They finally came to the point where we have a Stockpile Stewardship Program funded, but in an almost irreverent way.

Dr. Browne of Los Alamos said:

I am confident that a fully supported and sustained program will enable us to continue to maintain America's nuclear deterrent without nuclear testing. However, I am concerned about several trends that are reducing my confidence level each year. These include annual shortfalls in planned budgets, increased numbers of findings in the stockpile that need resolution, an augmented workload beyond our original plans, and unfunded mandates that cut into the program.

It is pretty clear that it is not what they would like it to be.

He also said he was

concerned about other significant disturbances this year in the stability of the support from the government, partially in response to concerns about espionage. This has sent a mixed message to the Laboratory that will make it more difficult to carry out

the stewardship program. According to this good doctor who heads Los Alamos, the task of recruiting and training the requisite talent is hindered by the current security climate at the laboratories.

I strongly believe that the establishment of a semi-independent agency for nuclear weapons activities will significantly enhance efforts to ensure the success of the Stockpile Stewardship Program. At the same time, this reorganization will require many months to accomplish. I ask my colleagues the following question: Should we make an international declaration regarding U.S. nuclear tests in the midst of a complete overhaul of the Department responsible for those weapons? I don't think so. Such an action would be premature.

Lastly, today we cannot clearly define the direction the world will take on nuclear issues. This concern speaks both for and against the treaty. Treaty proponents believe that U.S. ratification and the treaty's entry into force will curb proliferation. This treaty, if fully implemented, would enhance our ability to detect nuclear tests and create a deterrent to nations that may aspire to possess nuclear weapons capabilities.

However, others say, without question, this treaty is not a silver bullet. The administration has touted it as such. This treaty is only one measure of many that should comprise a solid nonproliferation agenda. For example,

this treaty would be acceptable if accompanied by substantive bilateral commitments with Russia and multilateral commitments among the declared nuclear powers. A framework for international disarmament, non-proliferation, and stability may very well include a Test Ban Treaty, but it should also be accompanied by binding commitments on future disarmament objectives, such as the Fissile Materials Cutoff Regime, and the Anti-Ballistic Missile Treaty.

We have only one treaty—one facet of a complex picture—before us today. It may contribute to achieving other disarmament objectives, but we are being asked to wager our nuclear deterrent on the hope that formal commitments from other nuclear powers and threshold states will be forthcoming. We sign on the dotted line that we will not utilize testing to maintain our stockpile, and we plead with the world to follow suit.

Or we reject the Treaty now and eliminate others' potential hesitation regarding future tests.

Only 23 of the 44 nations required for the Treaty's entry into force have ratified it. India, Pakistan, North Korea, Russia and China have not ratified it. Neither India nor Pakistan have even signed the treaty.

We should not rush to vote on this matter.

Regardless of the vote count, we risk either permanent damage to our non-proliferation objectives or the safety and reliability of the U.S. nuclear arsenal. Continuing our moratorium on nuclear testing and not acting on this Treaty is the best course of action for now.

We have time. Time to observe international changes and formulate a nuclear posture suitable for a new era. Time to evaluate the future of our bilateral relations with Russia and China. And time to first ensure the success of Stockpile Stewardship.

U.S. ratification would provide a positive signal and increase our leverage at the negotiating table in our pursuit of many non-proliferation objectives. If the Senate does not ratify this Treaty, which appears highly likely at the present, many of our current foreign policy initiatives will unravel.

Most importantly, a negative vote on the CTBT will further erode the Nuclear Non-Proliferation Treaty, NPT, itself. We secured indefinite extension of the NPT in 1995 by committing to lead negotiations, sign and ratify the Test Ban Treaty. There is an explicit link between our Article VI commitments to disarm and the CTBT.

Many other steps could be taken to demonstrate a good faith effort toward nuclear disarmament. The Test Ban Treaty is just one element of a comprehensive strategy to reduce nuclear dangers. The U.S. and Russia have already radically reduced stockpiles from their Cold War levels. Progress has been made in the negotiations for a fissile materials cutoff regime. Cur-

rently, all of the declared nuclear powers have a moratorium on testing, and two of those, Britain and France, have signed and ratified the Test Ban Treaty.

If the Senate votes against this Treaty, we will send the signal to the world that the U.S. has no intent to make good on its earlier commitments. START II will wither in the Duma; negotiations with Russia on START III and the Anti-Ballistic Missile Treaty will most likely falter. We would most likely witness a rash of nuclear tests in response. Killing this Treaty would inevitably also impact upcoming elections in Russia. To the Russians our actions in Kosovo underscored NATO's willingness to engage in out-of-area operations, even in violation of sovereignty. Anti-U.S. sentiments in Russia soared. Not only would a down vote on this Treaty play into the hands of the Communists and Nationalists, U.S. actions would essentially give Russia the go-ahead to begin testing a new generation of tactical nuclear weapons to secure its border against NATO.

We risk little by postponing consideration of this Treaty. We put our most vital security interests at stake by rushing to judgement on it.

In sum, defeat of this Treaty at this point will have a devastating impact on numerous current foreign policy initiatives that are clearly in the U.S. national interest. We can anticipate an unraveling of initiatives toward bilateral disarmament with Russia, and we will forfeit any remaining hope of preventing a nuclear arms race between India and Pakistan. We will open wide the door for China to proceed with tests to validate any nuclear designs based on the alleged stolen W-88 blueprints.

At the same time, Stockpile Stewardship is as yet unproven. We still do not fully understand the aging effects on our nuclear arsenal. Such aging effects relate both to the components which comprise the nuclear weapons and the scientific experts who initially designed and tested them. Also, as witnessed again this year, the budget for the full implementation of Stockpile Stewardship is anything but secure. In light of the current situation, ratification of this Treaty may put us at risk.

The timing of this debate is such that I have to weigh very carefully between the negative impact of this Treaty's possible defeat and the annual budgetary struggles for Stockpile Stewardship in combination with the scientific community's own doubts about the Stockpile Stewardship program.

We should maintain the moratorium on testing and postpone the vote on this matter.

It is irresponsible and dangerous to proceed now with the debate and vote on this Treaty. We have nothing to lose by maintaining our current status of a unilateral moratorium and having signed but not yet ratified the Test Ban Treaty. But we have everything to

lose regardless of the outcome of this vote.

I thank the Senate for listening and the leadership for granting me this time. I yield the floor.

Mr. BIDEN addressed the Chair.

The PRESIDING OFFICER. The Senator from Delaware.

Mr. BIDEN. I yield 10 minutes to my friend from Virginia.

The PRESIDING OFFICER. The Senator from Virginia.

Mr. ROBB. I thank the Chair and thank the distinguished Senator from Delaware.

Mr. President, on balance I personally believe the arguments for ratification of the CTBT are far more persuasive than the arguments against ratification. But I recognize the legitimacy of some of the arguments made against ratification. I recognize the credibility of some of those making those arguments. I respect the sincerity of colleagues who believe that ratification would be a mistake.

Having said that, I will not repeat all of the reasons that I would vote for ratification, if we are, indeed, forced to go ahead with the vote scheduled for later this afternoon. I would simply appeal to colleagues who oppose ratification not to let their feelings—their personal feelings—toward our Commander in Chief or their desires for a decisive political victory to weaken the role of the U.S. leadership in the international community or encourage additional testing by nations that might not otherwise do so, and thus make the world less secure and more dangerous.

On the politics, opponents of ratification at this time have already won. No one contends that 67 Senators are prepared to vote for ratification. No one is suggesting that this President or any future President is going to bring the treaty up for ratification again unless and until they have those 67 votes.

I happen to be one of the 10 Senators who engaged in an extended discussion of this treaty with the President and his national security team last Tuesday evening. Many others have been actively engaged in the debate from the very beginning. As I recall, there were six Republicans and four Democrats; and we were equally divided on the question of ratification.

I wish to commend all of the Senators involved in that process and throughout, but particularly those Republicans who stated during that meeting, very forcefully, why they oppose the treaty and why a ratification vote would fail but nonetheless were willing to help find a way to pull us back from the brink—for the good of the country and in the interest of a safer world.

In this instance, the President has acknowledged that if we go ahead with the vote, he will lose. But he is asking us not to defeat our own national interest as well by voting down this treaty.

The Senate, in pressing its case, however, for an up-or-down vote at this point, in my judgment, injures the

country's ability to lead and strikes a blow at American leadership around the world. Far more is at stake than defeating the policy and agenda of this particular President. Make no mistake, allies, friends, and enemies would view the defeat of the CTBT as a green light for more nuclear testing and further development of nuclear weapons, either strategic or tactical.

Defeat of the treaty will not be perceived as a signal of restraint. Just the opposite. Delay of consideration of the matter at least gives us the opportunity to address continuing concerns about monitoring and verification, as best we can, while delivering the message to other nations that we should proceed with yellow-light caution in regard to testing and development of their programs.

I have carefully reviewed the intelligence community's analysis of our CTBT monitoring capabilities—including the 1997 national intelligence estimate and the updating of that document—and admittedly, there are no absolutes when it comes to our ability to detect and identify some tests at low yields with high confidence. The more critical issue at hand, however, is the significance of possible evasion and the rationale that underlies such action and what it means for the inherent advantage we currently maintain with our nuclear arsenal.

I urge our colleagues to weigh very carefully the views of the intelligence community. The intelligence community believes we can effectively monitor the CTBT. We approved the Chemical Weapons Convention aware of the fact that denial and deception techniques would prevent us from confirming absolutely that production, development, and stockpiling were not going on. But as with the CTBT, we were able to approach the subject of monitoring with a high degree of confidence that signatories were not violating the CWC. As a result, implementation of that pact is contributing to our national security.

Senate hearings this past week suggest an emerging story at Novaya Zemlya but not outright violations of CTBT provisions. Transparency is lacking there, and perhaps a delay in consideration of the treaty will aid our efforts to sort out ongoing developments in this particular location. But defeating the CTBT on the concerns we have about this one site would represent a failure to understand what is in our broad national interest. Creating a normative global standard not to test will do enormous good and will act as a powerful force to stop would-be cheaters in their tracks.

It is reasonably clear to our intelligence community that Russia and perhaps others would not necessarily make gains in their thermonuclear weapons program through an evasive low-yield testing program without risking exposure of such tests to the international community. Given that reality, it simply begs the question:

Under what substantive rationale would Russia or another country proceed in light of the outcry and condemnation that would surely follow?

I believe this matter is ripe for an agreement we can negotiate among ourselves in the Senate, through unanimous consent, that delays CTBT consideration until the next Congress. I am prepared to support CTBT regardless of the political affiliation of the Commander in Chief. But due to the untenable circumstances in which we now find ourselves, we should honor the request of this Commander in Chief and delay a vote.

With that, Mr. President, I yield the floor.

Mr. HUTCHINSON addressed the Chair.

The PRESIDING OFFICER. The Senator from Arkansas.

Mr. HUTCHINSON. Mr. President, I yield myself 15 minutes to speak in opposition to the Comprehensive Test Ban Treaty.

I also sat through a week of hearings last week. I also, as a member of the Armed Services Committee, had the opportunity to hear our intelligence community, to hear representatives from the Department of Defense, and to hear the Directors of our laboratories. I respectfully reached a different conclusion as to what the evidence is. In fact, in my estimation, the evidence is strong enough to raise serious doubts about the wisdom of ratifying this treaty. The evidence, I believe, indicates that in fact Russia is currently testing low-level nuclear weapons and is seeking to develop, from their own public statements and the Russian media, a new type of tactical weapon, and there were suspected Russian tests as recently as September 8, 1999, and September 23, 1999.

I believe when we have these kinds of issues of the gravest weight to our Nation and to our Nation's security, when there are doubts about verification—and I think it is overwhelmingly clear from what I heard from the intelligence community—we cannot have assurance that we will be able to verify a zero-yield treaty. That was very plain and very clear from the testimony we heard. Verification is not possible. Therefore, it is not in the best interests of our Nation to ratify this treaty.

There are numerous reasons to oppose the treaty. We have heard many of them during the debate on the floor of the Senate. Many have been discussed very clearly. I will focus on one particular feature of this agreement which, in my view, is sufficient in and of itself to reject ratification of this treaty. That is the issue of the treaty's duration.

This is an agreement of unlimited duration. It is an agreement that is in perpetuity. That means if it is ratified, the United States will be committing itself forever not to conduct another nuclear test. It would make us dependent upon, totally reliant upon, the

Stockpile Stewardship Program. From what we heard from the Directors of the labs last week, the Stockpile Stewardship Program is, by all accounts, a work in progress. Some said it would take 5 years to reach the point where we could have confidence in the program; some said 10. One said it would be as long as 15 to 20 years before we could know whether or not this program was going to be of a sufficient confidence level that we could count upon it without reliance upon tests.

There are two major questions about this program. One is, Will it work? We are not going to know that for many years. Will it work sufficiently that we can rely upon high-speed computers and modeling and annual examinations without any kind of test to have the confidence that they are reliant and safe and that, should they tragically ever need to be used, we could count on them actually working?

The second very big issue is whether it will be funded adequately so the program can be developed to that level of confidence. We have every indication that this will be an area in which Congress in the future will seek to cut, an area in which there will not be the kind of commitment, the kind of resources to ensure the development of this Stockpile Stewardship Program to a point we can have absolute confidence in it.

I want Members to think about the duration of this treaty—forever. Are we so confident today that we will never again need nuclear testing, so certain that we are willing to deprive all future Commanders in Chief, all future military leaders, all future Congresses of the one means that can actually prove the safety and reliability of our nuclear deterrent? Are we that confident? I suggest we are not.

Proponents of the treaty will say that that is not the case, that this commitment is not forever. They will point to the fact that the treaty allows for withdrawal if our national interest requires it. Proponents of the treaty promise that if we reach a point where the safety and reliability of our nuclear deterrent cannot be guaranteed without testing, then all we need to do is exercise our right to withdraw and we would, at that point, resume testing.

This so-called "supreme national interest" clause, along with safeguard F, in which President Clinton gives us his solemn word that he will "consider" a resumption of testing if our deterrent cannot be certified, is supposed to give us a sense of reassurance.

The fact is, this reassurance is a hollow promise. I think supporters of the treaty realize it. The fact is, if the critical moment arrives and there is irrefutable evidence that we must conduct nuclear testing to ensure our deterrent is safe, reliable, and credible, those same treaty supporters will be shouting from the highest mountain that the very act of withdrawing from this treaty would be too provocative to ever be

justified, that no narrow security need of the United States could ever override the solemn commitment we made to the world in agreeing to be bound by this treaty.

If Members don't believe that will happen, they need only to look at our current difficulties with the 1972 ABM Treaty. I believe it provides a chilling glimpse of our nuclear future should we ratify an ill-conceived test ban at this time. As is the Comprehensive Test Ban Treaty, the ABM Treaty is of unlimited duration. There are many parallels. That is one of them. The ABM Treaty includes a provision allowing the United States to withdraw if our national interests so demand, another very clear parallel and treaty obligations are more clearly mismatched than with the ABM Treaty today. It is very difficult to imagine a situation in which the national security interests we have could be more clearly mismatched than with the ABM Treaty. Its supporters insist, though, that withdrawal is not just ill advised, but supporters would say it is unthinkable. The voices wailing loudest about changing this obsolete agreement are the same ones urging us today to entangle ourselves in another treaty of unlimited duration.

Earlier, Senator KYL rightly pointed out that the negotiators for this treaty originally wanted a 10-year treaty. Previous Presidents wanted a treaty of limited duration, but we have before us one that would lock us into a commitment in perpetuity.

Think of the ways in which the ABM Treaty is mismatched with our modern security needs. Yet we confront our absolute unwillingness to consider any option to withdraw. The treaty was conceived in a strategic context utterly unlike today's, a bipolar world in which two superpowers were engaged in both a global rivalry and an accompanying buildup in strategic nuclear forces. Now, today, is a totally different context and situation. One of those superpowers no longer exists at all. What remains of that superpower struggles to secure its own borders against poorly armed militants.

The arms race that supposedly justified the ABM Treaty's perverse deification of vulnerability has not just halted, it has reversed, no thanks to arms control. Today, Russian nuclear forces are plummeting due not to the START II agreement—which Russia has refused to ratify for nearly 7 years—but to economic constraints and the end of the cold war. In fact, their forces are falling far faster than treaties can keep up with; arms control isn't "controlling" anything; economic and strategic considerations are. Similar forces have led the United States to conclude that its forces can also be reduced. Thus, despite a strategic environment completely different from the one that gave birth to the ABM Treaty, its supporters stubbornly insist we must remain a party to it.

In 1972, only the Soviet Union had the capability to target the United

States with long-range ballistic missiles. Today, numerous rogue states are diligently working to acquire long-range missiles with which to coerce the United States or deter it from acting in its interests, and these weapons are so attractive precisely because we have no defense against them; indeed, we are legally prohibited from defending against them by the ABM Treaty of 1972.

Technologically, too, the ABM Treaty is obsolete. The kinetic kill vehicle that destroyed an ICBM high over the Pacific Ocean on October 2 was undreamed of in 1972. So was the idea of a 747 equipped with a missile-killing laser, which is under construction now in Washington State, or space-based tracking satellites like SBIRS-Low, so precise that they may make traditional ground-based radars superfluous in missile defense. Yet this ABM Treaty, negotiated almost three decades ago, stands in the way of many of these technological innovations that could provide the United States with the protection it needs against the world's new threats.

Now proponents of this new treaty will say we can always pull out, that if situations and circumstances change, we can always invoke our national security provision and we can withdraw from this treaty. If in the future we find we must test in order to ensure the stability and reliability and safety of our nuclear deterrent, we can pull out and do that. I suggest that that is not even a remote possibility. Once we make this commitment, just as we did on the 1972 ABM Treaty, there will be no withdrawing, there will not even be consideration of the possibility that it might be in our national interest to withdraw from a treaty to which we have made a commitment.

These new threats today have led to a consensus that the United States must deploy a national missile defense system and a recognition that we are behind the curve in deploying one. The National Missile Defense Act, calling for deployment of such a system as soon as technologically feasible, passed this body by a vote of 97-3, with a similar ratio of support in the House.

Just as obvious as the need for this capability is the fact that the ABM Treaty prohibits us from deploying the very system we voted to deploy. But does anybody talk about withdrawing from the ABM Treaty because it is in our national security interests? Absolutely not. I suggest we will be in the same kind of context should we ratify the treaty that is before us today.

Clearly, the ABM Treaty must be amended or jettisoned. The Russians have so far refused to consider amending it, so withdrawal is the most obvious course of action if United States security interests are to be served.

Listen to the hue and cry at even the mention of such an option today. From Russia to China to France, and even to here on the floor of the Senate, we have heard the cry that the United

States cannot withdraw from the ABM Treaty because it has become too important to the world community. Those who see arms control as an end in itself oppose even the consideration of withdrawal, claiming passionately that the United States owes it to the world to remain vulnerable to missile attack. Our participation in this treaty transcends narrow U.S. security interests, they claim; we have a higher obligation to the international community, they claim. After all, if the United States is protected from attack, won't that just encourage others to build more missiles in order to retain the ability to coerce us, thus threatening the simplistic ideal of "strategic stability"? That phrase, translated, means that citizens of the United States must be vulnerable to incineration or attack by biological weapons so other nations in the world may do as they please.

Even though the ABM Treaty is hopelessly outdated—almost 30 years old—and prevents the United States from defending its citizens against the new threats of the 21st century, supporters of arms control insist that withdrawal is unthinkable. Its very existence is too important to be overridden by the mere security interests of the United States.

Absurd as such a proposition sounds, it is the current policy of this administration, and it is supported by the very same voices who now urge us to ratify this comprehensive test ban.

The Clinton administration has been reluctantly forced by the Congress into taking serious action on missile defenses—thankfully. It admits that the system it needs to meet our security requirements cannot be deployed under the ABM Treaty. Yet so powerful are the voices calling on the United States to subjugate its own security interests to arms control that the administration is proposing changes to the ABM Treaty that, by its own admission, will not allow a missile defense system that will meet our requirements. It has declared what must be done as "too hard to do" and intends to leave the mess it created for another administration to clean up. All because arms control becomes an end in itself.

That sorry state of affairs is where we will end up if the Senate consents to ratification of the CTBT. Those treaty supporters who are saying now, "Don't worry, there is an escape clause," will be the same ones who, 5 or 10 years from now—when there is a problem with our stockpile and the National Ignition Facility is not finished and we find out we overestimated our ability to simulate the workings of a nuclear weapon—will be saying we dare not withdraw from this treaty because we owe a higher debt to the international community. That is what we will hear.

I don't represent the international community; I represent the people of the State of Arkansas. Our decision here must serve the best interests of

the United States and its citizens. Our experience with the ABM Treaty is a perfect example of how arms control agreements assume an importance far beyond their contribution to the security of our Nation. The Comprehensive Test Ban Treaty's unlimited duration is a virtual guarantee that this agreement will prevent us from conducting nuclear testing long past the point at which we decide such testing is necessary. As our ABM experience shows, we should take no comfort from the presence of a so-called "supreme national interest" clause.

Now, should we just put it off or should we vote on it? I believe our responsibility is not the world opinion. Our responsibility is, frankly, not the public opinion polls of the United States. The American people, as a whole, have not had the benefit of hearing the Directors of our National Labs or the DOD come and testify before us as to the difficulties of verification and the difficulties of developing our Stockpile Stewardship Program. If it is a flawed treaty—and I believe it is—if it is a defective treaty—and I believe it is—if it is not in our national security interest—and I believe it is not—then we should vote, and we should vote to defeat the treaty and not ratify it.

This is a treaty that I believe will not get better with age. It will not get better by putting it on a shelf for consideration at some future date. I believe it is flawed. I believe it is defective. I believe it is not in our national security interest. I believe it is our constitutional responsibility not to put it off but to vote our conscience.

I urge the defeat of what I believe is a flawed treaty.

I yield the floor.

The PRESIDING OFFICER (Mr. BROWNBACK). The Senator from Delaware.

Mr. BIDEN. Mr. President, I yield myself 2 minutes, and then I would be happy to yield to the Senator.

I want my colleagues to note—they may not be aware of it, and I wasn't until a few minutes ago—as further consideration of how this may or may not affect the events around the world there apparently has been a coup in Pakistan where the Sharif government fired their chief military chief of staff when he was out of the country. He came back and decided he didn't like that. He surrounded the palace and surrounded the Prime Minister's quarters. The word I received a few moments ago—I suggest others check their own sources—was that there is going to be a civilian government installed that is not Sharif, and that the military will do the installing. I cite that to indicate to you how fluid world events are. We should be careful about what we are doing.

I also point out that today before the Foreign Relations Committee, Dr. William Perry, the President's Korean policy coordinator and former Secretary of Defense, testified that failure to rat-

ify the CTBT will give North Korea "an obvious reason not to ratify the CTBT."

Dr. Perry, the Secretary of Defense in President Clinton's first term, endorsed ratification of the treaty. He said it serves well the security interests of the United States.

I cite that only because it is current.

Lastly, I would say that listening with great interest to the last several speakers I find it again fascinating that this is a lot more than about CTBT. It is about ABM. It is about what our nuclear strategy should be.

My friend from Arkansas, as well as others who have spoken, has great faith in our ability to erect a nuclear shield that can keep out incoming nuclear weapons in the scores, dozens, or potentially hundreds, which is a monumental feat, if it can be accomplished—we may be able to accomplish it—but don't have the confidence that those same scientists could figure out a way to take a weapon off the nose of a missile, look and determine whether or not it has deteriorated. I would suggest one is considerably more difficult to do than the other. But it is a little bit about where you place your faith.

Lastly, I, point out for those who are talking about verification—my friend from Arizona heard me say this time and again, and I would suggest you all go back and look at, if you were here, how you voted on the INF Treaty, the Reagan INF Treaty, or if you weren't here, what President Reagan said because many of my friends on the Republican side quote Ronald Reagan when he says "trust but verify." Nobody can verify the INF Treaty. The intelligence community—and I will not read again all of the detail; it is in the Record—indicated we could not verify the INF Treaty, and we said and the Reagan administration said and President Reagan said in his pushing the INF Treaty that no verification was possible completely. Yet with the fact that we didn't even know how many SS-20s they had, it was concluded that they could adapt those to longer range, interchange them with shorter-range missiles and longer-range missiles, and hide them in silos. But my Republican colleagues had no trouble ratifying that treaty, which was not verifiable, or was considerably less verifiable than this treaty.

If you quote President Reagan, please quote him in the context that he used the phrase "trust but verify." And he defined what he meant by "verify" by his actions.

The military under President Reagan said the INF Treaty was verifiable to the extent that they could not do anything that would materially alter the military balance. No one argues that we cannot verify to the extent as well. But it seems as though we apply one standard to Republican-sponsored treaties by Republican Presidents and a different standard to a treaty proposed by a Democratic President. I find that, as you might guess, fascinating. I will

remind people of it now and again and again and again. But I yield the floor.

The PRESIDING OFFICER. Who seeks recognition?

The Senator from Arizona.

Mr. KYL. Mr. President, I think my colleague from New Hampshire wishes to speak. Let me take a minute before he does to respond to two things that the Senator from Delaware said.

I find it interesting that North Korea would be used as the example of a country that will pursue nuclear weapons if we don't ratify the test ban treaty, according to Secretary Perry.

Mr. BIDEN. That is not what he said, if I may interrupt, if I could quote what he said.

Mr. KYL. Please do.

Mr. BIDEN. He said it will give North Korea "an obvious reason not to ratify CTBT." He did not say it will give them reason to produce nuclear weapons.

Mr. KYL. I think that is a very important distinction. I thank my colleague for making it because, clearly, North Korea is not going to be persuaded to eschew nuclear weapons by the United States ratifying the CTBT. North Korea will do whatever it wants to do regardless of what we do. That is pretty clear. To suggest that we need to ratify this treaty in order to satisfy North Korea is absurd.

North Korea is a member of the non-proliferation treaty right now. By definition, North Korea is in violation of that treaty if it ever decides to test a nuclear weapon because it would be affirming the fact that it possesses a nuclear weapon which is in violation of the NPT. North Korea is not a country the behavior of which we can affect one way or the other by virtue of a moratorium on testing. If that were the case, then North Korea would have long ago decided to forego the development of nuclear weapons because the United States hasn't tested for 8 years. Clearly, our actions have had no influence on North Korea, except to cause North Korea to blackmail the United States by threatening to develop nuclear weapons and by threatening to develop missiles unless we will pay them tribute. I don't think North Korea is a very good example to be citing as a reason for the United States to affirm the CTBT.

Moreover, I remember this argument a couple of years ago when the chemical weapons treaty was being brought before the body. They said this was the only way to get North Korea to sign up to the CWC, and we certainly wanted North Korea to be a signatory to that treaty because they might use chemical weapons someday. We ratified it. They still haven't signed up—2 years later. I don't think North Korea is going to care one way or the other whether the United States ratifies the CTBT.

To my friend's other point on the comparison between nuclear weapons and missile defense, I think it makes our point. Missile defenses can work.

They are not easy to develop. We have seen several tests that failed with the THAAD system. What it demonstrated to us was that testing is required to know that missile defense will work, just as the experts have all indicated testing is the preferred method of knowing whether our nuclear weapons will work.

So I think it makes the point that either for missile defense or for nuclear weapons testing it is the best way to know whether it will work. That is why we need to test both the missile defense systems that we have in development right now, and that is why we need the option of being able to test our nuclear weapons as well.

Mr. BIDEN. I wish to respond, if I may. I yield myself such time as I may consume.

Mr. KYL. We may put off the Senator from New Hampshire for a good time.

Mr. BIDEN. I hope not.

My friend from Arizona, as I said, is one of the most skillful debaters and lawyers in here. He never says anything that is not true. But sometimes he says things that do not matter much to the argument.

For example, he said nuclear testing is the preferred method. It sure is. Flying home is a preferred method to get there. But I can get there just as easily and surely by taking the train. It is preferred to fly home. I get home faster when I fly home. But the train gets me home. In fact, I can drive home. All three methods can verify for my wife that I have come from Washington to my front door. They are all verifiable. They all get the job done. It is the preferred method.

By the way, it is the preferred method to have underground testing. It is the preferred method to have above-ground testing. That is the preferred method to make sure everything is working.

If I took the logic of his argument to its logical extension, I would say, well, you know, my friend from Arizona wanting underground testing is, in fact, denying the scientists their total capacity to understand exactly what has happened by denying atmospheric testing. The preferred method is atmospheric testing. What difference does it make if we can guarantee the reliability of the weapon?

The question with regard to North Korea I pose this way: If we ratify the treaty, and my friend from Arizona is correct that North Korea does not, so what. There is no treaty. It does not go into force. They have to ratify the treaty for it to go into force. What is the problem? If a country is certain it will not matter, they are not going to ratify or abide. Then (a) they don't ratify, we are not in, we are not bound; (b) if they are in and they do a nuclear explosion underground, we are out, according to the last paragraph of our amendment. The President has to get out of the treaty. Must—not may, must. These are what we used to call in law school red herrings. They are effective but red herrings.

The last point, I heard people stand up on the floor and say: This country is already or is about to violate the NPT, the Nuclear Non-Proliferation Treaty, by exploding a nuclear weapon. Guess what. They are allowed, under the NPT, to blow up things: nuclear bombs, nuclear weapons, nuclear explosions. They don't call them "weapons"; they say it is a nuclear explosion, as long as it is for peaceful means. How does one determine whether or not an underground test which has plutonium imploded and has set off a chain reaction was for peaceful, as opposed to non-peaceful, means? That is a nuclear test.

We ought to get our facts straight. The distinctions make a difference. It is true; it is hard to verify whether or not anybody violated the NPT because if they are caught, that country says it was for peaceful reasons, dealing with peaceful uses of their nuclear capability.

I have heard a lot of non sequiturs today. My only point in raising North Korea was the idea that anybody who thinks we are going to be in a position that if we turn this treaty down there is any possibility we will stop testing anywhere in the world is kidding themselves.

I say to my colleagues, ask yourself the rhetorical question. Do you want to be voting down a treaty on the day there is a coup in Pakistan. Good luck, folks. I am not suggesting that a vote one way or another is dispositive of what Pakistan would or wouldn't do. But I will respectfully suggest we will be answering the rest of the year, the rest of the decade, whether or not what we did at that critical moment and what is going on between India and Pakistan and within Pakistan was affected by our actions.

I conclude by saying, in the middle of the Carter administration there was a little debate about this notion of a neutron bomb. The American Government put pressure on Helmut Schmidt, Chancellor of Germany at the time, to agree to deployment of the neutron bomb in Europe—a difficult position for him to take as a member of the SPD. He made the decision, and then President Carter decided not to deploy the neutron bomb. I remember how upset the Chancellor of Germany was. The Chancellor of Germany was not inclined to speak to the President of the United States.

I was like that little kid in the commercial with the cereal sitting on the table. There are two 10-year-olds and a 6-year-old. The 10-year-old asks: Who eats that? Mom and dad. Is it any good? You try it. The other kid says: No, you try it. They both turn to the 6-year-old and say: Mikey will try it.

I was "Mikey." I got sent to Germany to meet with Schmidt, to sit down at the little conference table in the Chancellor's office to discuss our relationship. I will never forget something Chancellor Schmidt said—and I will not violate any security issue; it is probably long past a need to be secure—in frustration, while he was

smoking his 19th cigarette similar to Golda Meir, a chain-smoker, he pounded his hand on the table and said: You don't understand, Joe; when the United States sneezes, Europe catches a cold. When the United States sneezes, Europe catches a cold.

When we act on gigantic big-ticket items such as a treaty affecting the whole world and nuclear weapons, whether we intend it or not, the world reacts. This is not a very prudent time to be voting on this treaty, I respectfully suggest.

I yield the floor.

Mr. KYL. Mr. President, I ask my colleague from New Hampshire to delay his remarks for a moment so I can make a point and perhaps ask Senator BIDEN, if he could answer a question regarding something he has said.

I think it is, first of all, dangerous to suggest that the Senate cannot do its business with respect to a treaty because a coup is occurring in another country. I fail to see, if the coup is occurring today and tomorrow, and we reject the CTBT, how anyone could argue our action precipitated this coup. Or somehow by failing to approve this treaty we caused unrest in Pakistan.

I ask the Senator to answer that question on his own time. First, I make another point. I wasn't trying to make a debater's point but trying to be absolutely conservative in what I said a moment ago.

Mr. BIDEN. I never thought the Senator was liberal in what he said.

Mr. KYL. And I appreciate that more than you know.

When I say that testing was the preferred method, what the lab Directors and former officials who have had responsibility for this have said with these highly complex weapons is that testing is the preferred method.

They have also said in contradiction to the Senator from Delaware that there is no certainty with respect to the other method, which is the Stockpile Stewardship Program, which is not complete and has not gone into effect and cannot provide certainty, in any event.

Dr. John Foster, who chairs the congressional committee to assess the efficacy of the Stockpile Stewardship Program, said this in his testimony last week:

I oppose ratification of the CTBT because without the ability to perform nuclear weapons tests the reliability and safety of our Stockpile Stewardship Program will degrade.

There is nobody who is more respected in this field than Dr. John Foster.

He further said the testing, which has been performed over the years, "has clearly shown our ability to calculate and simulate their operation is incomplete. Our understanding of their basic physics is seriously deficient. Hence, I can only answer that a ban on testing of our nuclear weapons can only have a negative impact on the reliability of the stockpile."

Dr. Robert Barker, former assistant to the Secretary of Defense for Atomic Energy, who reported the certification of the stockpile to three Secretaries of Defense, said:

Sustained nuclear testing is the only demonstrated way of maintaining a safe and reliable deterrent. Our confidence in the safety and reliability of nuclear weapons has already declined since 1992, the year we deprived ourselves of the nuclear testing tool. It should be of grave concern to us that this degradation in confidence cannot be quantified.

The point is that the reason testing is preferred is because it is the only demonstrable way of assuring ourselves of the safety and reliability of our nuclear stockpile. There could be, may be, in a decade or so, some additional confidence or assurance through a successful Stockpile Stewardship Program but we won't know that until the time. Until then, that is why testing is the preferred method. It is the only way to assure the safety and reliability of our stockpile.

To respond to that and to respond to the first question I asked, I am happy to yield to the Senator.

Mr. BIDEN. I will try to respond briefly.

No. 1, to suggest our actions would affect the international community should not be taken in the context and consideration of what is happening in the international community is naive in the extreme. It is not suggesting anyone should dictate what we should or should not do. It is suggesting that it makes sense to take into consideration what is happening around the world and what appropriate or inappropriate conclusion from our action will be drawn by other countries. We have always done that in our undertakings around the world. It is just responsible stewardship of our national security.

The suggestion was not that because there is a coup, failure to ratify this treaty, turning it down or ratifying it would have affected that coup. That is not the issue. The issue is there is a struggle today within Pakistan, evidenced by the coup, as there was within India, as evidenced by their recent elections, about what they should do with their nuclear capacity, whether they should test further, enhance it, and deploy it, or whether or not they should refrain from testing and sign the treaty.

The only point I am making is that our actions will impact upon that debate within those countries. The debate happens to be taking place in the context of a military coup right now in Pakistan. It took place in the context of an election where the BJP won and made significant gains in India just last week, but it does impact upon that.

We lose any leverage we have to impose upon Pakistan, which still wants to deal with us, still relies upon us or interfaces with us in a number of areas in terms of food, trade, and aid all the way through to military relationships. It does make a difference if we are able

to say to them, I posit: We want you to refrain from testing and sign on to this treaty if, in fact, we have done it. If we say: We want you to refrain from testing and sign on to the treaty, but by the way, we already have 6,000 of these little things and we are going to test ourselves, it makes it very difficult to make that case.

Lastly, I say with regard to Pakistan, it is not so much what anyone will be able to prove; it will be what will be asserted. We all know in politics what is asserted is sometimes more important than what is provable. It should not be, but it is. It does have ramifications domestically and internationally, I suggest.

Also, with regard to this issue of the preferred versus the only method by which we can guarantee the reliability of our stockpile, nobody, including the present lab Directors, suggests that our present stockpile is, in fact, unreliable or not safe.

We have not tested since 1992. The issue is, and my colleague knows this, the intersection—and it is clear if we do not test, if we do nothing to the stockpile, it will over time degrade, just like my friend and I as we approach our older years, as a matter of medical fact, our memories fade. It is a medical fact.

To suggest that because our memories fade we should not listen to someone on the floor who is 8 years older than someone else would be viewed by everyone as mildly preposterous because when that older person was younger, their memory may have been so far superior to the person who is younger now that they still have a better memory. It does not make a point. It is a distinction without a difference.

It is the same way with regard to our stockpile degrading. At what point does the degradation occur that it is no longer reliable? I asked that of Secretary Schlesinger. He said he thinks we are down from 99 percent to about 85 percent now, and he thinks there is no worry at that 85-percent level. But what he worries about, and then he held up a little graph and the graph showed based on years and amount of reliability this curve going down like this, at the same time there was a dotted line showing the Stockpile Stewardship Program and how that mirrored that ability to intersect with where we would intersect our confidence that our Stockpile Stewardship Program would be able to assure that the stockpile was reliable.

It comes around where the shelf life of these weapons occur about 10 years out. Everyone has said that between now and then, the overwhelming body of opinion is, from the Jason Group to other leading scientists, including these 32 Nobel laureates in physics, the Stockpile Stewardship Program is working now and will if we make the commitment to intersect at a point where the shelf life begins to change where it continues to guarantee.

We are never going to be in that line where it is so degraded that any lab Di-

rector will have to say: Mr. President, I cannot certify anymore.

But as a fail safe, no pun intended, for that possibility—that is why the amendment was just adopted—the amendment says in the last paragraph, if that happens and a lab Director tells the President that has happened and it cannot certify in terms of reliability, the President must get out of the treaty.

It is true; we are stringing together a lot of true statements that are not particularly relevant to the question, and the question is: Is our stockpile now reliable and safe? Is it a deterrent still? Do other people believe it? Is it a deterrent so that our allies believe it and they do not go nuclear, such as Japan and Germany? And is it a deterrent so that our potential enemies, such as China and Russia and others, believe it so they will not try to do anything that will jeopardize our security? That is the second question.

The third question is: Are we able to verify this?

My answer to all three of those questions is, yes, yes, yes. And the answer of the overwhelming body of opinion is yes, yes, yes. But just in case it is no, the President has to get out. He has to get out. We just adopted a condition, so he has to get out.

By the way, I listened to people being quoted, like Edward Teller. God love him. I had the great honor of debating him around the country on four setup debates. It was intimidating because he would stand there with those bushy eyelashes and say: My young friend from Delaware does not know—here is the guy who invented the hydrogen bomb. What am I going to say? Yeah, right?

I would listen to him, and he would even get me thinking he was right for a while. Then I would listen to what he said. Last night, I watched a documentary that is 7 or 8—actually, it is older than that; it was President Reagan's last year—on the Star Wars notion. Dr. Teller was sitting there, a very distinguished man, saying things like—and I will get the exact quote for the RECORD tomorrow—but he said things like: We must act now because the Russians are on the verge of having a missile defense capability.

On the verge; they were on the verge of collapsing. He is never right about his predictions, so far. But he did invent the hydrogen bomb. That is a big deal. I cannot argue with that. As my mother would say, just because you can do one thing well does not mean you can do everything well. If I need to blow somebody up, I want him with me. If I need somebody to predict to me what is going to happen in terms of our interest, of our adversaries, or us, he "ain't" the guy I am going to because he has not been right.

Here we are, we are going to do this weight of authority—we all learned, and, again, I am not kidding when I say this. Senator KYL is not only a first-rate lawyer, he has a first-rate mind.

We both went to undergraduate school and took courses in logic. We learned about the 13 logical fallacies. We engage in them all the time. One is the appeal of authority. I will take my authority and trump your authority. I have 32 Nobel laureates. Are you going to raise me with six Secretaries of Defense? I have four of the last five Chairmen of the Joint Chiefs of Staff, with what are you going to raise me? This is crazy.

What is true is that it is better to test if you want to know for certain whether weapons are reliable. I hope if I acknowledge that, he will acknowledge it is better not to test on one area: If you want to discourage others from testing. Just discourage. He does not have to agree that it would do everything, just discourage. It is better not to test.

If you tell your kid he cannot smoke and you are standing there smoking and saying: By the way, you can't smoke, it kind of undermines your credibility.

On the other hand, if you do not smoke—like I don't—and say to your kid, you can't smoke, they may smoke anyway; but one thing is for certain: If you are smoking—as my friend who is presiding would say in a different context—you might lose your moral authority to make the case.

I think we lose our moral authority to make the case internationally when we say: By the way, we are unquestionably the most powerful nuclear nation in the history of the world, and in relative terms we are far in excess of anyone else, including the former Soviets—now the Russians—that the Chinese are not, as they say where I come from, a "patch on our trousers," that the Libyans and others may be able to get themselves a Hiroshima bomb, but they are going to have to carry it in a suitcase—it "ain't" close.

But I tell you what: Because we worry about our reliability—even though we are going to spend \$45 billion, even though we have the best scientists in the world, the best scientists that we can attract from other parts of the world—we know we can put up a shield around America that can stop 10, 20, 100, 1,000 hydrogen bombs from dropping on the United States—but we believe that we have to test our nuclear weapons now or be able to test them in the near term in order to be able to assure that we are safe and secure and that you believe we are credible.

I will end where I began this debate a long time ago. When the Senator from New Hampshire and I were college kids, you used to ride along—he was heading off to Vietnam—and there used to be a bumper sticker which said: One hydrogen bomb can ruin your day. It just takes one. One hydrogen bomb can ruin your day.

We are not talking about one hydrogen bomb. No one is doubting that 1,000 people and 15 nations in the world can develop not a hydrogen bomb but a nuclear bomb like the one dropped on Hiroshima and Nagasaki. No doubt about

that. This is not going to stop that. This isn't going to guarantee that because you do not, everyone has to test that. They can do that without testing. We dropped it without testing it. The second one we did not test. So they can test; they cannot test.

But, folks, this is high-stakes poker. All I am saying to you is, you take the worst case scenario my friends lay out, that we have the stockpile, but we cannot guarantee it, and we cannot detect testing, and we have an escape clause—you get out of it because the treaty is not working. That is their worst case scenario. The escape clause is we have to get out because it says we must get out.

Let me tell you my worst case scenario. My worst case scenario is we, in fact, do not sign this treaty, and the Chinese decide all moral restraints are off—even though they are not particularly a moral country—we can now, with impunity, go and test and not be buffeted by world opinion in terms of affecting our trade or our commerce and the rest. We can go from 16, 18, 20—however many intercontinental ballistic missiles they have—we can now test to build lighter, smaller ones with that information we stole from the laboratories. We can now MIRV our missiles.

The Pakistanis and the Indians agree that: Look, what we have to do is now deploy nuclear weapons because the restraints are off.

I do not know what we do with that worst case scenario. There is nothing the President can say, such as: By the way, stop. Out. I want to pull out. You all can't do that. China, you can't do that. There is no way out of that one.

This is not like us making the mistake on a tax bill. This is not like us making a mistake on a piece of welfare or social legislation. We can correct that in a day. I have been here when we passed reforms on health care that within 6 months we repealed because we thought it was a mistake.

You cannot legislate on this floor of the Senate a course of action that the world is engaged in, a road that has been taken down away from non-proliferation to proliferation by a piece of legislation. I cannot guarantee the Presiding Officer that if this passes there will not be more proliferation of nuclear weapons.

But I am prepared to bet you anything, if we reject this treaty, there will be significantly more proliferation of nuclear capability than there was before because there would be no restraint whatsoever on the one thing every nation has to do to become a nuclear power that is not already a significant nuclear power—and that is to test.

I yield the floor.

Mr. KYL addressed the Chair.

The PRESIDING OFFICER (Ms. COLLINS). The Senator from Arizona.

Mr. KYL. Madam President, let me make a couple comments and then I will yield to the Senator from New Hampshire.

I appreciate the Senator from Delaware making a slight concession, and asking for one in return. His concession, of course, is that it is better to test. I think we would all agree it is better to test. The question is whether or not there is an adequate substitute if we do not test. And upon that the jury is still out.

He also asked the question: Isn't it also better not to test if we can persuade others not to do so by our own willingness to forego testing? I think that question has actually been answered because for 8 years we have had a moratorium seeking to persuade others not to test. During that time, we know of at least five countries that have tested: France, China, Russia, Pakistan, and India. So it is clear that our foregoing testing has not created the norm against testing that proponents of the treaty would like to see.

It is also not better to forego testing in an effort to get others to do so as well if, in fact, our own stockpile would be unduly jeopardized as a result. On that, there has been a variety of expert opinion testifying this past week suggesting that the reason it is better to test is precisely because we cannot confirm the safety and reliability of our stockpile to an adequate degree of certainty without that.

To the question of whether or not it is a fallacy of logic to quote experts, I would simply suggest that while it may not be the most persuasive argument in the world to quote experts in support of your position, it is at least some weight of evidence. Both sides have engaged in that. It is true that on many of these issues there are opinions on both sides of the issue.

Dr. Edward Teller certainly is an expert in nuclear weapons design and on many other matters that relate to it. But let's assume he does not know what he is talking about here and go to people whose job it was to verify a compliance with arms control treaties.

I ask unanimous consent to have printed in the RECORD a letter dated October 1, 1999, from Fred Eimer, Former Assistant Director of ACDA, the Arms Control Agency Verification and Implementation Office, to Senator HELMS.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

OCTOBER 1, 1999.

Senator JESSE HELMS,
Chairman, Committee on Foreign Relations,
U.S. Senate.

DEAR MR. CHAIRMAN: I write to express my opposition to the Comprehensive Test Ban Treaty (CTBT). Numerous experts have noted that this treaty raises serious questions regarding the ability of the United States to maintain our nuclear deterrent. I am particularly concerned, however, that the United States will be disproportionately harmed by the test ban. Other nations will be able to conduct militarily significant nuclear test well below the verification threshold of the Treaty's monitoring system, and our own unilateral capability.

I have listened with concern to the various claims being made regarding the CTBT's

International Monitoring System (IMS). It is important to note that the IMS will have serious limitations. While many in the U.S. recognize the IMS' technical limitations, it is being oversold internationally as a comprehensive, effective monitoring regime.

Supporters of the CTBT have sought to divert attention from the IMS' limitations by emphasizing that the United States will have its own national technical means (NTM) of verification and would have the right under the Treaty to request an on-site inspection. The United States cannot take comfort in these claims.

The U.S. has stated that an effective verification system "should be capable of identifying and attributing with high confidence evasively conducted nuclear explosions of about a few kilotons yield in broad areas of the globe". That degree of verifiability is a goal that is not achieved now, and it is far from certain that it will be met in the foreseeable future. It is very unlikely that the verification system will provide evidence sufficient for U.S. or collective action should tests of a few kilotons yield take place.

The capability of the U.S. and of the International Monitoring System (IMS) to detect seismic signals of possible nuclear test origin can be quantified. Charts can show what that capability is for the U.S. network, the current IMS and a possible future IMS for all areas of the world. Thousands of seismic events will be detected yearly by these systems. The verification task will be to determine which, if any, of these signals can be identified as being from nuclear tests.

The large underground tests conducted in past decades were easily verified as being of nuclear origin. However, identification of possible future tests in the kiloton yield range in violation of a CTBT will be a daunting task in most, if not all instances.

The relationship between detection and identification depends on a number of factors that will not be known. If charts are produced that purport to show the identification capability for areas of interest throughout the world, those charts would be a result of subjective judgements that are likely to be of limited and uncertain dependability.

You may recall that over the decades of the TTBT that there was much controversy about the yields of tests that were deduced from seismic signal magnitudes. This was true even though the Soviet test sites were studied more than almost any other part of the world and the signals in question came from relatively large tests.

It is certain that whatever the minimum detectable yield capability is of a seismic network, the verification capability, that is, the ability for identification is substantially worse, by as much as a factor of ten or more in some instances.

Furthermore, possible Treaty violators can take steps to make detection and identification more difficult. For example, the technique of "decoupling", that is, testing in a sufficiently large cavity, can reduce the seismic magnitude of a test. Every country of concern to the United States is technically capable of decoupling at least its small nuclear explosions.

While in the past primary reliance for obtaining verification related intelligence was placed on systems that collected photographic, seismic and other data, the CTBT's verification system includes on-site inspection (OSI). I believe that the value of OSI is very limited for the CTBT.

The CTBT's on-site inspection regime is unlikely to provide evidence of noncompliance. However, it may permit a country falsely accused of a CTBT violation to help clear its name. Tests large enough to be unambiguously identified do not need OSI. For

small tests the location of the source of the seismic signals would be so uncertain, that OSI would need to cover an impractical large area. Furthermore, it is highly dubious that the United States would get diplomatic approval for an on-site inspection since the treaty has a "red-light" requirement that 30 of 51 members must endorse such a step. The CTBT's negotiating record makes clear that an OSI request would be viewed as a hostile action.

Furthermore, the OSI regime associated with the Treaty has a number of as yet unsettled procedural and implementation issues. It is possible that some of these can be fixed. However, OSI has very little to offer for confirming that a nuclear test has been conducted, even if these issues are resolved.

In conclusion, Mr. Chairman, the proposed treaty will put our nuclear deterrent at risk without significant arms control or non-proliferation benefit. Other nations will be able to conduct militarily significant nuclear test well below the verification threshold of the Treaty's monitoring system, and our own unilateral capability.

Best regards.

FRED EIMER,

*Former Assistant Director, ACDA,
Verification and Implementation.*

Mr. KYL. In this letter he said:

Other nations will be able to conduct militarily significant nuclear tests well below the verification threshold of the Treaty's monitoring system, and our own unilateral capability.

In other words, the treaty is not verifiable.

Testifying last week, one of the experts acknowledged by Senator BIDEN, Dr. Paul Robinson, who is the Director of the Sandia National Laboratories, said:

The treaty bans any "nuclear explosion," but unfortunately, compliance with the strict zero-yield requirement is unverifiable.

Finally, the third and most prominent of all experts that I would like to suggest we pay some attention to with respect to verification is our own colleague, Senator RICHARD LUGAR from Indiana. I ask unanimous consent that his press release, dated October 7, 1999, be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

LUGAR OPPOSES COMPREHENSIVE TEST BAN TREATY

Senator Dick Lugar, a senior member of the Senate Intelligence Committee, Foreign Relations Committee and National Security Working Group, released the following statement today announcing his position on the Comprehensive Test Ban Treaty:

The Senate is poised to begin consideration of the Comprehensive Test Ban Treaty under a unanimous consent agreement that will provide for 14 hours of general debate, debate on two amendments, and a final vote on ratification.

I regret that the Senate is taking up the treaty in an abrupt and truncated manner that is so highly politicized. Admittedly, the CTBT is not a new subject for the Senate. Those of us who over the years have sat on the Foreign Relations, Armed Services, or Intelligence Committees are familiar with it. The Senate has held hearings and briefings on the treaty in the past.

But for a treaty of this complexity and importance a more sustained and focused effort is important. Senators must have a sufficient opportunity to examine the treaty in

detail, ask questions of our military and the administration, consider the possible implications, and debate at length in committee and on the floor. Under the current agreement, a process that normally would take many months has been reduced to a few days. Many Senators know little about this treaty. Even for those of us on national security committees, this has been an issue floating on the periphery of our concerns.

Presidential leadership has been almost entirely absent on the issue. Despite having several years to make a case for ratification, the administration has declined to initiate the type of advocacy campaign that should accompany any treaty of this magnitude.

Nevertheless, the Senate has adopted an agreement on procedure. So long as that agreement remains in force, Senators must move forward as best they can to express their views and reach informed conclusions about the treaty.

In anticipation of the general debate, I will state my reasons for opposing ratification of the CTBT.

The goal of the CTBT is to ban all nuclear explosions worldwide: I do not believe it can succeed. I have little confidence that the verification and enforcement provisions will dissuade other nations from nuclear testing. Furthermore, I am concerned about our country's ability to maintain the integrity and safety of our own nuclear arsenal under the conditions of the treaty.

I am a strong advocate of effective and verifiable arms control agreements. As a former Vice-Chairman of the Senate Arms Control Observer Group and a member of the Foreign Relations Committee, I have had the privilege of managing Senate consideration of many arms control treaties and agreements.

I fought for Senate consent to ratification of the INF Treaty, which banned intermediate range nuclear weapons in Europe; the Conventional Forces in Europe Treaty, which created limits on the number of tanks, helicopters, and armored personnel carriers in Europe; the START I Treaty, which limited the United States and the Soviet Union to 6,500 nuclear weapons; the START II Treaty, which limited the U.S. and the former Soviet Union to 3,500 nuclear weapons; and the Chemical Weapons Convention, which outlawed poison gas.

These treaties, while not ensuring U.S. security, have made us safer. They have greatly reduced the amount of weaponry threatening the United States, provided extensive verification measures, and served as a powerful statement of the intent of the United States to curtail the spread of weapons of mass destruction.

I understand the impulse of the proponents of the CTBT to express U.S. leadership in another area of arms control. Inevitably, arms control treaties are accompanied by idealistic principles that envision a future in which international norms prevail over the threat of conflict between nations. However, while affirming our desire for international peace and stability, the U.S. Senate is charged with the constitutional responsibility of making hard judgments about the likely outcomes of treaties. This requires that we examine the treaties in close detail and calculate the consequences of ratification for the present and the future. Viewed in this context, I cannot support the treaty's ratification.

I do not believe that the CTBT is of the same caliber as the arms control treaties that have come before the Senate in recent decades. Its usefulness to the goal of non-proliferation is highly questionable. Its likely ineffectuality will risk undermining support and confidence in the concept of multilateral arms control. Even as a symbolic

statement of our desire for a safer world, it is problematic because it would exacerbate risks and uncertainties related to the safety of our nuclear stockpile.

STOCKPILE STEWARDSHIP

The United States must maintain a reliable nuclear deterrent for the foreseeable future. Although the Cold War is over, significant threats to our country still exist. At present our nuclear capability provides a deterrent that is crucial to the safety of the American people and is relied upon as a safety umbrella by most countries around the world. One of the most critical issues under the CTBT would be that of ensuring the safety and reliability of our nuclear weapons stockpile without testing. The safe maintenance and storage of these weapons is a crucial concern. We cannot allow them to fall into disrepair or permit their safety to be called into question.

The Administration has proposed an ambitious program that would verify the safety and reliability of our weapons through computer modeling and simulations. Unfortunately, the jury is still out on the Stockpile Stewardship Program. The last nine years have seen improvements, but the bottom line is that the Senate is being asked to trust the security of our country to a program that is unproven and unlikely to be fully operational until perhaps 2010. I believe a *National Journal* article, by James Kitfield, summed it up best by quoting a nuclear scientist who likens the challenge of maintaining the viability of our stockpile without testing to "walking an obstacle course in the dark when your last glimpse of light was a flash of lightning back in 1992."

The most likely problems facing our stockpile are a result components degrade in unpredictable ways, in some cases causing weapons to fail. This is compounded by the fact that the U.S. currently has the oldest inventory in the history of our nuclear weapons programs.

Over the last forty years, a large percentage of the weapon designs in our stockpile have required post-deployment tests to resolve problems. Without these tests, not only would the problems have remained undetected, but they also would have gone unrepaired. The Congressional Research Service reported last year that: "A problem with one warhead type can affect hundreds of thousands of individually deployed warheads; with only 9 types of warheads expected to be in the stockpile in 2000, compared to 30 in 1985, a single problem could affect a large fraction of the U.S. nuclear force." If we are to put our faith in a program other than testing to ensure the safety and reliability of our nuclear deterrent and thus our security, we must have complete faith in its efficacy. The Stockpile Stewardship Program falls well short of that standard.

The United States has chosen to re-manufacture our aging stockpile rather than creating and building new weapon designs. This could be a potential problem because many of the components and procedures used in original weapon designs no longer exist. New production procedures need to be developed and substituted for the originals, but we must ensure that the re-manufactured weapons will work as designed.

I am concerned further by the fact that some of the weapons in our arsenal are not as safe as we could make them. Of the nine weapon designs currently in our arsenal, only one employs all of the most modern safety and security measures. Our nuclear weapons laboratories are unable to provide the American people with these protections because of the inability of the Stockpile Stewardship Program to completely mimic testing.

At present, I am not convinced the Stockpile Stewardship Program will permit our experts to maintain a credible deterrent in the absence of testing. Without a complete, effective, and proven Stockpile Stewardship Program, the CTBT could erode our ability to discover and fix problems with the nuclear stockpile and to make safety improvements.

In fact, the most important debate on this issue may be an honest discussion of whether we should commence limited testing and continue such a program with consistency and certainty.

VERIFICATION

President Reagan's words "trust but verify" remain an important measuring stick of whether a treaty serves the national security interests of the United States. The U.S. must be confident of its ability to detect cheating among member states. While the exact thresholds are classified, it is commonly understood that the United States cannot detect nuclear explosions below a few kilotons of yield. The Treaty's verification regime, which includes an international monitoring system and on-site inspections, was designed to fill the gaps in our national technical means. Unfortunately, the CTBT's verification regime will not be up to that task even if it is ever fully deployed.

Advances in mining technologies have enabled nations to smother nuclear tests, allowing them to conduct tests with little chance of being detected. Similarly, countries can utilize existing geologic formations to decouple their nuclear tests, thereby dramatically reducing the seismic signal produced and rendering the test undetectable. A recent *Washington Post* article points out that part of the problem of detecting suspected Russian tests at Novaya Zemlya is that the incidents take place in a large granite cave that has proven effective in muffling tests.

The verification regime is further bedeviled by the lack of a common definition of a nuclear test. Russia believes hydro-nuclear activities and sub-critical experiments are permitted under the treaty. The U.S. believes sub-critical experiments are permitted but hydro-nuclear tests are not. Other states believe both are illegal. A common understanding or definition of what is and what is not permitted under the treaty has not been established.

Proponents point out that if the U.S. needs additional evidence to detect violations, on-site inspections can be requested. Unfortunately, the CTBT will utilize a red-light inspection process. Requests for on-site inspections must be approved by at least 30 affirmative votes of members of the Treaty's 51-member Executive Council. In other words, if the United States accused another country of carrying out a nuclear test, we could only get an inspection if 29 other nations concurred with our request. In addition, each country can declare a 50 square kilometer area of its territory as off limits to any inspections that are approved.

The CTBT stands in stark contrast to the Chemical Weapons Convention in the area of verifiability. Whereas the CTBT requires an affirmative vote of the Executive Council for an inspection to be approved, the CWC requires an affirmative vote to stop an inspection from proceeding. Furthermore, the CWC did not exclude large tracts of land from the inspection regime, as does the CTBT.

The CTBT's verification regime seems to be the embodiment of everything the United States has been fighting against in the UNSCOM inspection process in Iraq. We have rejected Iraq's position of choosing and approving the national origin of inspectors. In addition, the 50 square kilometer inspection-free zones could become analogous to the

controversy over the inspections of Iraqi presidential palaces. The UNSCOM experience is one that is best not repeated under a CTBT.

ENFORCEMENT

Let me turn to some enforcement concerns. Even if the United States were successful in utilizing the laborious verification regime and non-compliance was detected, the Treaty is almost powerless to respond. This treaty simply has no teeth. Arms control advocates need to reflect on the possible damage to the concept of arms control if we embrace a treaty that comes to be perceived as ineffectual. Arms control based only on a symbolic purpose can breed cynicism in the process and undercut support for more substantive and proven arms control measures.

The CTBT's answer to illegal nuclear testing is the possible implementation of sanctions. It is clear that this will not prove particularly compelling in the decision-making processes of foreign states intent on building nuclear weapons. For those countries seeking nuclear weapons, the perceived benefits in international stature and deterrence generally far outweigh the concern about sanctions that could be brought to bear by the international community.

Further, recent experience has demonstrated that enforcing effective multilateral sanctions against a country is extraordinarily difficult. Currently, the United States is struggling to maintain multilateral sanctions on Iraq, a country that openly seeks weapons of mass destruction and blatantly invaded and looted a neighboring nation, among other transgressions. If it is difficult to maintain the international will behind sanctions on an outlaw nation, how would we enforce sanctions against more responsible nations of greater commercial importance like India and Pakistan?

In particularly grave cases, the CTBT Executive Council can bring the issue to the attention of the United Nations. Unfortunately, this too would most likely prove ineffective, given that permanent members of the Security Council could veto any efforts to punish CTBT violators. Chances of a better result in the General Assembly are remote at best.

I believe the enforcement mechanisms of the CTBT provide little reason for countries to forego nuclear testing. Some of my friends respond to this charge by pointing out that even if the enforcement provisions of the treaty are ineffective, the treaty will impose new international norms for behavior. In this case, we have observed that "norms" have not been persuasive for North Korea, Iraq, Iran, India and Pakistan, the very countries whose actions we seek to influence through a CTBT.

If a country breaks the international norm embodied in the CTBT, that country has already broken the norm associated with the Non-Proliferation Treaty (NPT). Countries other than the recognized nuclear powers who attempt to test a weapon must first manufacture or obtain a weapon, which would constitute a violation of the NPT. I fail to see how an additional norm will deter a motivated nation from developing nuclear weapons after violating the longstanding norm of the NPT.

CONCLUSION

On Tuesday the Senate is scheduled to vote on the ratification of the CTBT. If this vote takes place, I believe the treaty should be defeated. The Administration has failed to make a case on why this treaty is in our national security interests.

The Senate is being asked to rely on an unfinished and unproven Stockpile Stewardship Program. This program might meet our needs in the future, but as yet, it is not close

to doing so. The treaty is flawed with an ineffective verification regime and a practically nonexistent enforcement process.

For these reasons, I will vote against ratification of the CTBT.

Mr. KYL. Let me quote three or four lines from it.

He said:

If we are to put our faith in a program other than testing to ensure the safety and reliability of our nuclear deterrent and thus our security, we must have complete faith in its efficacy. The Stockpile Stewardship Program falls well short of that standard. . . .

At present, I am not convinced the Stockpile Stewardship Program will permit our experts to maintain a credible deterrent in the absence of testing.

He goes on the say:

Unfortunately, the CTBT's verification regime will not be up to that task even if it is ever fully deployed.

He concludes his statement with this paragraph:

The Senate is being asked to rely on an unfinished and unproven Stockpile Stewardship Program. This program might meet our needs in the future, but as yet, it is not close to doing so. The treaty is flawed with an ineffective verification regime and a practically nonexistent enforcement process.

For these reasons, I will vote against ratification of the CTBT.

So spoke Senator RICHARD LUGAR. I do not suggest that any of us here in the Senate are as expert as other people I have quoted, but certainly Senator LUGAR has a reputation for being a very serious and well-informed student of arms control issues, a proponent of arms control treaties. When he says, as he did with respect to this treaty, that it is simply not of the same caliber as other arms control treaties for the variety of reasons he expresses in his release, I think all of us should pay serious attention to that.

Madam President, it is now my pleasure, at long last, to turn to the Senator from New Hampshire, who has been very patient in waiting for Senator BIDEN and me to conclude.

Mr. BIDEN. Madam President, I won't take the time.

The PRESIDING OFFICER. The Senator from Arizona has the floor.

Mr. KYL. I yield to Senator BIDEN and then have a unanimous consent request.

Mr. BIDEN. Madam President, I want to print in the RECORD, without taking the time from the Senator from New Hampshire, some other quotes from Dr. Robinson from his testimony on October 7, 1999. I ask unanimous consent they be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

WRITTEN TESTIMONY OF DR. PAUL ROBINSON TO THE ARMED SERVICES COMMITTEE, OCT. 7, 1999

Nuclear effects tests carried out in underground test chambers were always a compromise to the actual conditions that warheads would experience in military use. Thus, this is not the first time that we have been challenged to do the best job simulating phenomena which cannot be achieved experimentally.

Mr. BIDEN. As well, I ask unanimous consent to print in the RECORD quotes from the October 7 testimony of Dr. Robinson, Dr. Tarter, Dr. Tarter again, Dr. Browne, Dr. Robinson, Mr. Levin, Dr. Robinson, Dr. Robinson, Dr. Tarter, Dr. Tarter and Dr. Browne; it is an exchange.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

LAB DIRECTORS' WRITTEN TESTIMONY—KEY QUOTES ON STOCKPILE STEWARDSHIP, OCTOBER 7, 1999, ARMED SERVICES COMMITTEE HEARING

Dr. Robinson, Page 5:

I believed then, as I do now, that it may be possible to develop the Science-Based Stockpile Stewardship approach as a substitute for nuclear testing for keeping previously tested nuclear weapons designs safe and reliable.

Dr. Tarter, Page 1:

The bottom line remains the same as it has been in my previous testimonies before this Committee. Namely, that a strongly supported, sustained Stockpile Stewardship Program has an excellent chance of ensuring that this nation can maintain the safety, security, and reliability of the stockpile without nuclear testing.

Dr. Tarter, Page 4:

In December 1998, we completed the third annual certification of the stockpile for the President and were able to conclude that nuclear tests were not required at this time to assure the safety and reliability of the nation's nuclear weapons.

Dr. Brown, Page 1:

I am confident that a fully supported and sustained program will enable us to continue to maintain America's nuclear deterrent without nuclear testing.

Senator LEVIN. . . . what you are telling us is that if this safeguard and the other safeguards are part of this process that you can rely on . . . , Dr. Robinson, you are on board in terms of this treaty; is that correct?

Dr. ROBINSON. I am on board that science-based stockpile stewardship has a much higher chance of success and I will accept it as the substitute.

Senator LEVIN. For what?

Dr. ROBINSON. I still had other reservations about the treaty—

Senator LEVIN. As a substitute for what?

Dr. ROBINSON. As a substitute for requiring yield tests for certification.

Senator LEVIN. Dr. Tarter?

Senator TARTER. A simple statement again: It is an excellent bet, but it is not a sure thing.

Senator LEVIN. My question is are you on board, given these safeguards?

Senator TARTER. I can only testify to the ability of stockpile stewardship to do the job. It is your job about the treaty.

Senator LEVIN. Are you able to say that, providing you can rely on safeguard F and at some point decide that you cannot certify it, that you are willing under that condition to rely on this stewardship program as a substitute for actual testing?

Senator TARTER. Yes.

Senator LEVIN. Dr. Browne?

Senator BROWNE. Senator Levin, if the government provides us with the sustained resources, the answer is yes, and if safeguard F is there, yes.

Mr. BIDEN. I thank the Chair, my colleagues, and my friend from New Hampshire.

Mr. KYL. Madam President, I ask unanimous consent to print in the RECORD, at a cost of \$3,228.00, a series of decision briefs and newspaper arti-

cles on the subject of the test ban treaty.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

[From the Center for Security Policy, Oct. 11, 1999]

DECISION BRIEF NO. 99-D 107

C.T.B.T. TRUTH OR CONSEQUENCES #1: A SAFE, RELIABLE NUCLEAR DETERRENT DEMANDS PERIODIC, REALISTIC UNDERGROUND TESTING

(Washington, D.C.): In various series settings over the past few days, President Clinton has made a number of pronouncements about the Comprehensive Test Ban Treaty in the hope of selling it to an unreceptive U.S. Senate. Many of his statements are misleading, some simply inaccurate; not a few fall into both categories.

Fortunately, the hearings held in the Senate Armed Services and Foreign Relations Committees last week provided needed rebuttals from respected former Cabinet and sub-Cabinet officers and other authorities. As a contribution to the Senate's deliberations, the Center offers highlights of these expert witnesses' testimony and other relevant information to help correct the record.

President Clinton: "Our experts have concluded that we don't need more tests to keep our own nuclear forces strong."

The Truth: The "experts" President Clinton cites may feel as he claims they do, but if so, they are ignoring historical experience and indulging in wishful thinking of the most dangerous kind. The more responsible among them make clear that their "confidence" in being able to keep the U.S. nuclear forces not only "strong" but safe and reliable is highly conditional—dependent upon an as-yet incomplete, unproven Stockpile Stewardship Program being fully funded for at least a decade (at a total cost of \$45 billion or more) and no problems that would require testing to correct developing in the meantime. For example, Dr. John Browne, the current Director of the Los Alamos National Laboratory told the Armed Services Committee last week:

"The issue that we face is whether we will have the people, the capabilities and the national commitment to maintain this confidence in the stockpile in the future, when we expect to see more significant changes. Although we are adding new tools each year, the essential tool kits for stockpile stewardship will not be complete until sometime in the next decade."

Last week's testimony, moreover, made clear the views of other "experts" who believe that the American deterrent cannot be kept safe and reliable—let alone strong—without periodic, realistic underground nuclear tests. These include the following:

Dr. James Schlesinger, former Secretary of Energy under President Carter (as well as former Secretary of Defense, Director of the CIA and Chairman of the Atomic Energy Commission): "In the absence of testing, confidence in the reliability of the stockpile will inevitably, ineluctably decline. In the seen years since our last test, confidence has declined. It is declining today and will continue to decline. . . .

"Why is such a decline in confidence unavoidable? Our nuclear weapons are highly sophisticated devices composed of thousands of components that must operate with split-second timing and with scant margin for error. Weapons are also radioactive, and thus subject to radioactive decay and chemical decomposition. Other components will age and will fail. All of the components must ultimately be replaced due to changes in material, changes in regulations, the disappearance of manufacturers, the changing of processes. That replacement can never be perfect."

Former Secretary of Defense Caspar Weinberger: "If we need nuclear weapons, we have to know that they will work. That is the essence of their deterrence. If there is uncertainty about that, the deterrent capability is weakened. The only assurance that you could have that they will work is to test them, and the only way to test them is the most effective way to test them."

"Since [U.S.] testing ended [in 1992] there have been no weapons 'red-lined' [i.e., removed from operational status for safety and/or reliable reasons]. The assumption seems to be that since we stopped testing everything's fine. Well, I can't share that assumption, I don't think that's correct, and I don't want to take a chance. You just aren't allowed any margin for error in this business. And this treaty gives a very large margin for error."

"And all of the discussion in other committees and a great deal of the discussion in public has been an attempt to show that the stockpile stewardship program will be an effective way of testing them, although everyone agrees it's not as effective as testing them in the way that we have done in the past with underground explosions, with all precautions to prevent any of the escape of the material into the atmosphere."

"You will have all kinds of statements made that the stewardship stockpile program will be able to be tested by computer modeling. We've had some less than reassuring statements that the computers that can do this best will be available in 2005 or 2008, which is a tacit admission that in the meantime, the stockpile stewardship program, as it's presently constituted, is not an effective way of testing. And the only way to be sure that these weapons will work and will be able to do their horribly lethal task is to test them and test them in the most effective way possible."

Admiral Henry Chiles, President Clinton's former Commander-in-Chief, U.S. Strategic Forces Command: "We are going to have to remove and replace almost all, if not all, of the non-nuclear components in those weapons with newly designed components. The older components are not available. They were originally manufactured by technologies that are obsolete, and they are not supported in our evolving industrial base. And without testing I know of no other engineering unit of comparable complexity that anyone would consider safe and reliable in a modern world."

Dr. Paul Robinson, the current Director of the Sandia National Laboratory: "I can state with no caveats that to confirm the performance of high-tech devices—cars, airplanes, medical diagnostics, computers or nuclear weapons—testing is the preferred methodology . . . actually nuclear testing of the entire system. . . . To forego testing is to live with an uncertainty. And the question is, what is the risk, can one bound the uncertainty, and how does that work out?"

"In the past, we used to change out the nation's nuclear weapons about eight to 10 years; we would replace an old design with a completely new design at that point in time. And so we had really very little effects due to aging of the system sitting in there. Today the stockpile is the oldest one we've ever had in the 54-year history of the program, so we're watching for new effects due to aging that we haven't seen before."

Dr. John Nuckles, former Director of the Lawrence Livermore National Laboratory under President Clinton: "It cannot be assured that the powerful computational and experimental capabilities of the Stockpile Stewardship program will increase confidence and reliability. Improved understanding may reduce confidence in the estimates to performance margins and reli-

ability if fixes and validations are precluded by the CTBT."

"The SSP will probably succeed in finding undetected stockpile defects and in narrowing the major gaps in our understanding of nuclear weapons which have eluded 50 years of nuclear testing. Nuclear testing would then be required to confirm this new understanding and validate the resulting stockpile fixes."

Dr. Troy Wade, former Assistant Secretary of Energy for Defense Programs and nuclear bomb designer: "Nuclear weapons are not like artillery shells. You cannot store them in a bottle or building and then get them whenever the exigencies of the situation prompt you to do so. Nuclear weapons are very complicated assemblies that require continued vigilance to assure reliability and safety."

"It is, therefore, a first-order principle that nuclear weapons that are now expected to be available in the enduring stockpile for much longer than was contemplated by the designers, will require enhanced vigilance to continue to ensure safety and reliability."

"I am a supporter, only because I believe it is a way to develop the computational capability to assure the annual certification process for warheads, that have not changed, or for which there is no apparent change. For nuclear weapons that do not fit that category, stockpile stewardship is merely—as we say in Nevada—a crap shoot. Nuclear testing has always been the tool necessary to maintain, with high confidence, the reliability and safety of the stockpile. I believe this treaty would remove the principle tool from the tool chests of those responsible for assuring safety and reliability."

"Maintaining the nuclear deterrence of the United States, without permitting needed testing, is like requiring the local ambulance service to guarantee 99 percent reliability any time the ambulance is requested, but with a provision that the ambulance is never to be started until the call comes. I believe this is a patently absurd premise."

Dr. Robert Barker, former Assistant for Atomic Energy to Secretaries of Defense Weinberger, Carlucci and Cheney and a nuclear weapon designer: "There are nine weapons in the continuing inventory; only three of those weapons have the three modern safety features of enhanced nuclear detonation safety, the fire resistant pit and insensitive high explosive. Three of the systems in the continuing inventory have only one of those features."

"Now, I believe to freeze an inventory in place in which every weapon is not as safe as it could be is unconscionable. I think that is a decision that the Senate really needs to take on and ask itself whether it is comfortable with making a decision to freeze the stockpile in a situation in which it is less safe than it could be. Should an accident happen, the loss of life, loss of property, as a result of not having included—it could have been precluded by the inclusion of one of these features—who is it that will take the credit or take the blame for that? I think any prudent program that called for a cessation in testing would have made sure that every weapon in the inventory was as safe as it could be before such a step was taken."

The bottom line

In his testimony before the Senate Armed Services Committee, Secretary Schlesinger cited remarks made by Dr. Victor Reis, President Clinton's erstwhile Assistant Secretary of Energy for Defense Programs and architect of the Stockpile Stewardship Program, in a speech delivered before he left office to the Sandia National Laboratory:

"Think about [the challenge of the Stockpile Stewardship Program]. We are asking to

maintain forever an incredibly complex device no larger than this podium, filled with exotic radioactive materials, that must create, albeit briefly, temperatures and pressures only seen in the nature of the center of stars. Do it without an integrating nuclear test and without any reduction in extraordinarily high standards of safety and reliability. And while you're at it, downsize the industrial complex that supports this enterprise by a factor of two and stand up critical new manufacturing processes; this, within an industrial system that was structured to turn over new designs every 15 years and for which the nuclear explosive testing was the magic tool for demonstrating success."

Dr. Schlesinger observed dryly: "Now, this challenge was laid down by the architect of the SSP. He understood the risks. The only thing that he might add to that statement is that, in order to validate the SSP, we would require nuclear testing."

The ineluctable reality is that the United States has already run potentially grave risks by not testing its aging arsenal for the past seven years. It perpetuates this moratorium—let alone making it a permanent, international obligation—at its peril.

DECISION BRIEF NO. 99-D 108

C.T.B.T. TRUTH OR CONSEQUENCES #2: THIS TREATY IS UNVERIFIABLE—IT MAY MAKE MONITORING OTHERS' NUKE PROGRAMS MORE DIFFICULT

(Washington, D.C.): In a daily drumbeat of remarks aimed at selling the Comprehensive Test Ban Treaty (CTBT) to an unreceptive Senate, President Clinton has repeatedly made the claim that this treaty is "effectively verifiable." While he and his subordinates acknowledge that all testing will not actually be detectable, they insist that any that would undermine our nuclear deterrent would be picked up by U.S. and/or international monitoring systems—the latter, the CTBT's proponents assert, representing a significant augmentation of the former. For example, Mr. Clinton recently declared: "The treaty will also strengthen our ability to monitor if other countries are engaged in suspicious activities through global chains of sensors and on-site inspections, both of which the treaty provides for."

The truth

Fortunately, authoritative testimony in the Senate Intelligence, Armed Services and Foreign Relations Committees last week provided needed rebuttals to such claims. While the most sensitive of that testimony was taken by the Intelligence Committee in closed session, an invaluable summary was provided by the Chairman of the Senate Select Committee on Intelligence, Sen. Richard Shelby (R-AL), in an appearance before the Foreign Relations Committee on 7 October. Highlights of Chairman Shelby's authoritative statement include the following:

"It's my considered judgment, as chairman of the Intelligence Committee, based on a review of the intelligence analysis and on testimony this week from the intelligence community's senior arms control analyst, that it's impossible to monitor compliance with this treaty with the confidence that the Senate should demand before providing its advice and consent for ratification."

"I'm not confident that we can now or can in the foreseeable future detect any and all nuclear explosions prohibited under the treaty. While I have a greater degree of confidence in our ability to monitor higher-yield explosions in known test sites, I have markedly less confidence in our capabilities to monitor lower-yield and/or evasively conducted tests, including tests that may enable states to develop new nuclear weapons or improve existing weapons."

"At this point, I should point out too that while the proponents of the treaty have argued that it will prevent nuclear proliferation, the fact is that some of the countries of most concern to us—North Korea, Iran and Iraq—can develop and deploy nuclear weapons without any nuclear tests whatsoever.

"With respect to monitoring, in July of '97, the intelligence community issued a national intelligence estimate entitled: 'Monitoring the Comprehensive Test Ban Treaty Over the Next 10 Years.' . . . The NIE was not encouraging about our ability to monitor compliance with the treaty or about the likely utility of the treaty in preventing countries like North Korea, Iran and Iraq from development and fielding nuclear weapons. The NIE identified numerous challenges, difficulties and credible evasion scenarios that affect the intelligence community's confidence in its ability to monitor compliance.

"Because the details are classified and because of the inherent difficulty of summarizing a very highly technical analysis covering a number of different countries and a multitude of variables, I recommend that members, including the members of this committee, review this document with the following caution: Based on testimony before the committee this week, I believe that newly acquired information requires reevaluation of the 1997 estimate's assumptions and underlying analysis on certain key issues. The revised assumptions and analysis appear certain to lead to even more pessimistic conclusions."

"Many proponents of the treaty place their faith, in monitoring aids provided under the treaty such as the International Monitoring System—IMS—a multinational seismic detection system, and the CTBT's On-Site Inspection regime—OSI. Based on a review of the structure, likely capabilities and procedures of these international mechanisms, neither of which will be ready to function for a number of years, and based on the intelligence community's own analysis and statements, I'm concerned that these organizations will be of at best limited, if not marginal margin.

"I believe this IMS will be technically inadequate. For example, it was not designed to detect evasively conducted tests which, if you are Iraq or North Korea, are precisely the kind you're going to conduct. It was designed, as you know with diplomatic sensitivities rather than effective monitoring in mind. And it will be eight to 10 years before the system is complete.

"Because of these factors and for other technical reasons, I'm afraid that the IMS is more likely to muddy the waters by injecting questionable data into what will inevitably be highly charged political debate over possible non-compliance. As a result, the value of more accurate, independently obtained U.S. information will be undermined, making it more difficult for the U.S. to make its case for noncompliance if it were to become necessary.

"And with respect to on-site inspection, I believe that the on-site inspection regime invites delay and confusion. For example, while U.S. negotiators originally sought an automatic green light for on-site inspections as a result of the opposition of the People's Republic of China, now, the regime that was adopted allows inspections only with the approval of 30 of the 51 countries on the executive committee. Members of the Committee will appreciate the difficulty of rounding up the votes for such a supermajority.

"I am also deeply troubled by the fact that the inspected party has a veto, a veto over including U.S. inspectors on an inspection team and the right of the inspected party to declare areas up to 50 kilometers off limits

to inspection. I understand these provisions mirror limitations sought by Saddam Hussein on the UNSCOM inspectors, which leads me to believe that some of the OSI standards could be what's cut out for Iraq. As a result of these and other hurdles even if inspectors do eventually get near the scene of a suspicious event, the evidence, which is highly perishable, may well have vanished.

In addition to Sen. SHELBY's summary of the information available to the Intelligence Committee, Dr. Kathleen Bailey—a highly respected former Associate Director of the Arms Control and Disarmament Agency—added the following points in her testimony before the Senate Armed Services Committee:

"The international monitoring system of the CTBT is designed or is capable of detecting greater than one kiloton of nuclear yield for a non-evasively conducted test. So, if Russia or someone else decides to conduct a test evasively, the IMS system will probably not be able to detect it.

"This is because there are various techniques that can be used to basically mask the fact that you tested. One of the most widely known is called decoupling, and I would here rely on an unclassified paper I heard a CIA official present last year in which he described the fact that a nation could put a nuclear device in a cavity, detonate it, and essentially the space around it in this cavity would muffle or mitigate the sound, so that the seismic signal is reduced by as much as a factor of 70. This means that a one-kiloton explosion could look like only 14 tons. So it would be well below the threshold of the international monitoring system."

The bottom line

The fact is that militarily significant covert nuclear testing can—and almost certainly will—be conducted at low-yields or in other ways aimed at masking the force of an explosion. Unfortunately, the history of arms control is riddled with examples of treaties where even clear-cut violations are excused or ignored by the other parties. Just as President Clinton has acknowledged a tendency on the part of his Administration to "fudge" the facts when the alternative of telling the truth will have hard policy implications, the Comprehensive Test Ban will prompt this government and others to take the most charitable view of ambiguous data, rather than conclude the treaty has been violated.

If anything, as Sen. SHELBY has noted, the very fact that a treaty is at stake will probably make it more likely, not less, that U.S. intelligence will be discouraged from ascertaining the true status of potentially hostile powers' nuclear weapons programs and behavior that may contravene the CTBT and/or the "international norm" it is supposed to establish and promote. Far from contributing to American security, the Comprehensive Test Ban would—in this fashion, among others—degrade that security.

DECISION BRIEF NO. 99-D 109

C.T.B.T. TRUTH OR CONSEQUENCES #3: PRESIDENT BUSH DID NOT 'IMPOSE' A TEST MORATORIUM—IT WAS IMPOSED ON HIM

(Washington, DC): One of the more pernicious misstatements being served up by Clinton Administration officials desperately trying to induce Republican Senators to agree to the ratification of the Comprehensive Test Ban Treaty (CTBT) is to the effect that former President George Bush "imposed a moratorium" on U.S. nuclear testing before leaving office. The most recent such misrepresentation was made on ABC News' "This Week" program on Sunday by Secretary of State Madeleine Albright. By so doing, they transparently hope to lend an

otherwise almost wholly lacking patina of bipartisanship to this accord.

The fact is that President Bush was eulched on the eve of the 1992 election into accepting legislative restrictions on nuclear testing that he vehemently opposed. This point was made clear in testimony before the Senate Armed Services Committee last week by Dr. Robert Barker, a nuclear weapon designer who served as the Pentagon's top nuclear weapons expert during the Reagan and Bush Administrations.

There should be no doubt whatsoever that President Bush and the entire administration that stood behind him believed that nuclear testing was necessary for the maintenance of a safe and reliable stockpile. I don't believe the technical facts have changed since 1993. I believe we are faced with a Comprehensive Test Ban Treaty not because the technical facts have changed but because some political issues are different now than were true in 1993.

President Bush's legacy

President Bush's attitude towards nuclear testing is made express in an unclassified passage from a classified report he submitted to the Congress on his Administration's last full day in office. This report was written to explain why the Bush Administration found a statute mandating an end to all U.S. nuclear testing, following a final series of underground tests, to be incompatible with the national security. It read, in part:

"... The Administration has concluded that it is not possible to develop a test program within the constraints of Public Law 102-377 that would be fiscally, militarily and technically responsible. The requirement to maintain and improve the safety of U.S. forces necessitates continued nuclear testing for those purposes, albeit at a modest level, for the foreseeable future. The Administration strongly urges the Congress to modify this legislation urgently, in order to permit the minimum number and kind of underground nuclear tests that the United States requires—regardless of the action of other states—to retain safe and reliable, although dramatically reduced, nuclear deterrent forces."

The reasons for President Bush's adamant position on the need to continue nuclear testing in order to assure the safety and reliability of the U.S. deterrent is not hard to comprehend in light of the experience described by Dr. Barker in his testimony on 7 October:

"During my six years in the Pentagon, from 1986 and 1992, the people in the nuclear weapons laboratories were even more experienced [than they are today since they] were doing nuclear testing. Well, every day of any year I could go to them and they would tell me my stockpile was safe, my stockpile was reliable—I could count on their judgment.

"Five times during that six-year period I was faced with catastrophic failures in the stockpile. The Department of Energy came to me on five occasions, and I found myself going to Secretaries Weinberger or Carlucci or Cheney, and telling them that a weapon in the inventory could not be trusted to do its job. And until we did further tests those weapons were basically non-operational, and we were faced with trying to deal with the situation of instantaneously having a weapons system not available to us . . . In every case where a change had to be made in order to fix the problem, a nuclear test was required to be sure that the fix worked."

President Clinton's Legacy

Dr. Barker also pointed out to Senate how the Clinton Administrations' ideological attachment to the idea of banning all nuclear testing—without regard to the implications for the safety and reliability of the stockpile—had a singularly perverse effect:

"It's one of the great ironies that there was a thing in existence back in 1993 called a test ban readiness program, which called for a significant number of tests each year for a decade in order to prove whether or not a scheme of calculation and non-nuclear simulation would provide a reliable replacement for nuclear testing. . . . That is the reliable, scientific even business approach. You do not change your calibration tool without comparing the results.

"No business would change its accounting system without verifying that the new system gave the same results of the new. No scientist would change the calibration tool in his laboratory without validating that the new tool gave the same result as the old. And in 1993 we were embarked upon a process of developing a set of tools that we could assess whether or not they would prove to be a reliable replacement for nuclear testing.

"The cessation of nuclear testing cut that whole thing off, and instead we jumped into the replacement and have denied ourselves the ability to ever calibrate it if we ratify this Comprehensive Test Ban Treaty."

The bottom line

No President since John F. Kennedy has voluntarily imposed the kind of unilateral moratorium on nuclear testing upon which Bill Clinton has insisted over the past seven years—and for good reason. And President Kennedy declared when he ended the three year testing moratorium he had adopted:

"We know enough now about broken negotiations, secret preparations and the advantages gained from a long test series never to offer again an uninspected moratorium. Some may urge us to try it again, keeping our preparations to test in a constant state of readiness. But in actual practice, particularly in a society of free choice, we cannot keep top flight scientists concentrating on the preparation of an experiment which may or may not take place on an uncertain date in the undefined future.

"Nor can large technical laboratories be kept fully alert on a stand-by-basis waiting for some other nation to break an agreement. This is not merely difficult or inconvenient—we have explored this alternative thoroughly and found it impossible of execution."

The fact is that President George Bush, many of those who served in senior ranks of his administration—notably, his Secretary of Defense Dick Cheney, his National Security Advisor Brent Scowcroft and his Secretary of Energy James Watkins have all expressed their opposition to this treaty—and his son, George W. Bush, have formally counseled the Senate against permanent unilateral and/or multilateral bans on nuclear testing. This counsel should be heeded—not misrepresented or ignored.

DECISION BRIEF No. 99-D 110

C.T.B.T. TRUTH OR CONSEQUENCES #4: THE ZERO-YIELD, PERMANENT TEST BAN'S PEDIGREE IS HARD LEFT, NOT BIPARTISAN OR RESPONSIBLE

(Washington, D.C.): President Clinton is fond of saying that the Comprehensive Test Ban Treaty (CTBT) is the "longest-sought, hardest-fought prize in the history of arms control." He and his subordinates and other CTBT proponents try, however, to confuse by whom the present, zero-yield, permanent ban on all nuclear tests has been so long sought and hard fought. This is not an accident. After all, as it has become clear that this arms control initiative has been the agenda not, as the CTBT's champions contend, for every President since Dwight Eisenhower, but rather for radical, left-wing anti-nuclear ideologies, its prospects for approval by the Republican Senate dwindle.

The fact is, as Senate Foreign Relations Committee Chairman Jesse Helms has ob-

served "not a single president before the current one has ever sought a zero-yield, indefinite duration CTBT." Actually, every one of his predecessors rejected such an approach.

President Reagan's legacy

Particularly instructive is the forceful 1988 rejection of nuclear test bans and other limitations on nuclear testing beyond those currently on the books that was sent by President Reagan to the Congress in September of that year. The highlights of this carefully prepared, interagency-approved report entitled, *The Relationship between Progress in Other Areas of Arms Control and More Stringent Limitations on Nuclear Testing* should be required reading for Senators now confronting the decision whether to advise and consent to the CTBT:

The Requirement for Testing

"Nuclear testing is indispensable to maintaining the credible nuclear deterrent which has kept the peace for over 40 years."

"Thus we do not regard nuclear testing as an evil to be curtailed, but as a tool to be employed responsibly in pursuit of national security."

"The U.S. Tests neither more often nor at higher yields than is required for our security."

"As long as we must depend on nuclear weapons for our fundamental security, nuclear testing will be necessary."

Why the United States Tests Nuclear Weapons

"First, we do so to ensure the reliability of our nuclear deterrent."

"Second, we conduct nuclear tests in order to improve the safety, security, survivability, and effectiveness of our nuclear arsenal. Testing has allowed the introduction of modern safety and security features on our weapons. It has permitted a reduction by nearly one-third in the total number of weapons in the stockpile since 1960, as well as a reduction in the total megatonnage in that stockpile to approximately one-quarter of its 1960 value."

"Third, the U.S. tests to ensure we understand the effects of a nuclear environment on military systems."

"Finally, by continuing to advance our understanding of nuclear weapons design, nuclear testing serves to avoid technological surprise and to allow us to respond to evolving threat."

"These four purposes are vital national security goals. As companion reports by the Departments of Defense and Energy indicate, they cannot currently be met without nuclear testing."

Reductions in Nuclear and/or Conventional Arms May Actually Increase U.S. Testing Requirements

"... It is important to recognize that there is no direct technical linkage between the size of the nuclear stockpile and the requirements for nuclear testing."

"Indeed, under [an agreement providing for] deep reductions in strategic offensive arms the reliability of our remaining U.S. strategic weapons could be even more important and the need for testing even greater. . . ."

"Similarly, neither reductions in strategic offensive arms themselves nor success in conventional arms reductions will eliminate the third reason for U.S. nuclear testing, the requirement to ensure we understand, from both an offensive and defensive standpoint, the effects of the environment produced by nuclear explosions on military systems. . . . Even in a world with reduced strategic arms and an improved balance in conventional forces, nuclear arms will exist. In such a world, understanding nuclear effects would be no less important."

Further Policy Caveats

"... The U.S. recognizes that neither nuclear testing nor arms control per se are ends in themselves. They are tools to be employed in the interests of enhancing national security."

"... It is clear that limitations as stringent as a complete ban on tests above either 1 kiloton- or 10 kilotons-yield pose serious risks and will almost certainly not prove to be compatible with our overall security interests. As the companion reports by the Departments of Defense and Energy make clear, such limitations have exceptionally severe effects on U.S. programs. In addition, we do not know how to verify such yield limitations."

The Bottom Line

The Reagan Administration report declared in closing that "A comprehensive test ban remains a long-term objective of the United States." It makes clear, however, that the circumstances under which such a ban might be acceptable are very different from those that applied at the time, or today: "We believe such a ban must be viewed in the context of a time when we do not need to depend on nuclear deterrence to ensure international security and stability, and when we have achieved broad, deep, and effectively verifiable arms reductions, substantially improved verification capabilities, expanded confidence-building measures, and greater balance in conventional forces."

Senators being asked to consider postponing a final vote on the Comprehensive Test Ban Treaty should understand that the practical effect of doing so would effectively be to agree that—despite its incompatibility with U.S. national security interests and its consistency with the sort of woolly-headed, radical disarmament notions Ronald Reagan eschewed—the CTBT's restraints would continue to bind the United States. For, under international legal practice, unless and until a nation formally gives notice of its intention not to ratify a treaty, it is obliged to refrain from actions that would undercut its object and purpose. Such notice should be given, and promptly.

DECISION BRIEF No. 99-D 111

C.T.B.T. TRUTH OR CONSEQUENCES #5: OPPOSITION TO A ZERO-YIELD, PERMANENT TEST BAN IS ROOTED IN SUBSTANCE, NOT POLITICS

(WASHINGTON, D.C.)—Advocates for the Comprehensive Test Ban Treaty (CTBT) have recently engaged in a form of political contortionism that would impress Houdini. Having insisted on the Senate's immediate consideration of this accord in time for a CTBT review conference held last week in Vienna, they were initially surprised, then seemingly pleased when Senate Republicans agreed two weeks ago to a fixed period for debate and a near-term vote. Accordingly, every single Democratic Senator and those relatively few Republicans who have declared their support for the CTBT agreed—obviously with the Clinton White House's blessing—to a "unanimous consent" agreement designed to do just that. In other words, when they thought they had (or could get) the necessary votes, the CTBT's proponents were quite content with this arrangement.

As it became clear that the treaty's opponents had easily the 34 votes needed to defeat President Clinton's permanent, zero-yield Comprehensive Test Ban, however, the Administration and its allies began to complain that the arrangement they had agreed to was no longer satisfactory. Suddenly, they claimed the CTBT was in danger of falling victim to "partisan politics" and that only by delaying the vote would that accord receive the deliberate consideration due it.

Unfortunately for the pro-CTBT contortionists, the announcement on 7 October by Senator Richard Lugar (R-IN) of his adamant opposition to the present Comprehensive Test Ban Treaty makes such arguments untenable. Sen. Lugar is, after all, a man with a record of unwavering support for arms control and unfailing willingness to pursue bipartisan approaches to foreign policy issues. His closely reasoned and well-researched grounds for his declared intention to vote against this CTBT makes it clear that he and other like-minded Senators will do so for legitimate, substantive reasons.

Reduced to its essence, Sen. Lugar's critique—which is likely to prove highly influential with other centrist Senators—reads as follows:

"The goal of the CTBT is to ban all nuclear explosions worldwide: I do not believe it can succeed. I have little confidence that the verification and enforcement provisions will dissuade other nations from nuclear testing. Furthermore, I am concerned about our country's ability to maintain the integrity and safety of our own nuclear arsenal under the conditions of the treaty.

"... While affirming our desire for international peace and stability, the U.S. Senate is charged with the constitutional responsibility of making hard judgments about the likely outcomes of treaties. This requires that we examine the treaties in close detail and calculate the consequences of ratification for the present and the future. Viewed in this context, I cannot support the treaty's ratification."

Highlights of Senator Lugar's critique should be required reading for Senators and their constituents alike:

Bad Arms Control: "I do not believe that the CTBT is of the same caliber as the arms control treaties that have come before the Senate in recent decades. Its usefulness to the goal of non-proliferation is highly questionable. Its likely ineffectuality will risk undermining support and confidence in the concept of multi-lateral arms control. Even as a symbolic statement of our desire for a safer world, it is problematic because it would exacerbate risks and uncertainties related to the safety of our nuclear stockpile."

No Safety Net on the SSP: "At present our nuclear capability provides a deterrent that is crucial to the safety of the American people and is relied upon as a safety umbrella by most countries around the world. One of the most critical issues under the CTBT would be that of ensuring the safety and reliability of our nuclear weapons stockpile without testing. The safe maintenance and storage of these weapons is a crucial concern. We cannot allow them to fall into disrepair or permit their safety to be called into question."

"... Unfortunately, the jury is still out on the Stockpile Stewardship Program. The last nine years have seen improvements, but the bottom line is that the Senate is being asked to trust the security of our country to a program that is unproven and unlikely to be fully operational until perhaps 2010."

"... The Congressional Research Service reported last year that: 'A problem with one warhead type can affect hundreds of thousands of individually deployed warheads; with only 9 types of warheads expected to be in the stockpile in 2000, compared to 30 in 1985, a single problem could affect a large fraction of the U.S. nuclear force.' If we are to put our faith in a program other than testing to ensure the safety and reliability of our nuclear deterrent and thus our security, we must have complete faith in its efficacy. The Stockpile Stewardship Program falls well short of that standard."

"... I am concerned further by the fact that some of the weapons in our arsenal are not as safe as we could make them. Of the

nine weapon designs currently in our arsenal, only one employs all of the most modern safety and security measures. Our nuclear weapons laboratories are unable to provide the American people with these protections because of the inability of the Stockpile Stewardship Program to completely mimic testing."

"At present, I am not convinced the Stockpile Stewardship Program will permit our experts to maintain a credible deterrent in the absence of testing. Without a complete, effective, and proven Stockpile Stewardship program, the CTBT could erode our ability to discover and fix problems with the nuclear stockpile and to make safety improvements."

An Unverifiable CTBT: "The U.S. must be confident of its ability to detect cheating among member states. While the exact thresholds are classified, it is commonly understood that the United States cannot detect nuclear explosions below a few kilotons of yield. The Treaty's verification regime, which includes an international monitoring system and on-site inspections, was designed to fill the gaps in our national technical means. Unfortunately, the CTBT's verification regime will not be up to that task even if it is ever fully deployed."

"The verification regime is further bedeviled by the lack of a common definition of a nuclear test. Russia believes hydro-nuclear activities and sub-critical experiments are permitted under the treaty. The U.S. believes sub-critical experiments are permitted but hydro-nuclear tests are not. Other states believe both are illegal. A common understanding or definition of what is and what is not permitted under the treaty has not been established."

"The CTBT's verification regime seems to be the embodiment of everything the United States has been fighting against in the UNSCOM inspection process in Iraq. We have rejected Iraq's position of choosing and approving the national origin of inspectors. In addition, the 50 square kilometer inspection-free zones could become analogous to the controversy over the inspections of Iraqi presidential palaces. The UNSCOM experience is one that is best not repeated under a CTBT."

Mission Impossible—Enforcement of the CTBT: "Even if the United States were successful in utilizing the laborious verification regime and non-compliance was detected, the Treaty is almost powerless to respond. This treaty simply has no teeth. Arms control advocates need to reflect on the possible damage to the concept of arms control if we embrace a treaty that comes to be perceived as ineffectual. Arms control based only on a symbolic purpose can breed cynicism in the process and undercut support for more substantive and proven arms control measures."

"The CTBT's answer to illegal nuclear testing is the possible implementation of sanctions. It is clear that this will not prove particularly compelling in the decision-making processes of foreign states intent on building nuclear weapons. For those countries seeking nuclear weapons, the perceived benefits in international stature and deterrence generally far outweigh the concern about sanctions that could be brought to bear by the international community."

Fraudulent "Norm": "I believe the enforcement mechanisms of the CTBT provide little reason for countries to forego nuclear testing. Some of my friends respond to this charge by pointing out that even if the enforcement provisions of the treaty are ineffective, the treaty will impose new international norms for behavior. In this case, we have observed that "norms" have not been persuasive for North Korea, Iraq, Iran, India and Pakistan, the very countries whose actions we seek to influence through a CTBT."

"If a country breaks the international norm embodied in the CTBT, that country has already broken the norm associated with the Non-Proliferation Treaty (NPT). Countries other than the recognized nuclear powers who attempt to test a weapon must first manufacture or obtain a weapon, which would constitute a violation of the NPT. I fail to see how an additional norm will deter a motivated nation from developing nuclear weapons after violating the long-standing norm of the NPT."

The Bottom Line

The Clinton Administration's transparent intent to use the CTBT as a political weapon against its critics makes Senator Lugar's statesmanship and courage in opposing this treaty as a matter of principle all the more commendable. Although the Indiana Senator has made clear his preference not to vote on the CTBT in the coming days, the substantive case he has made against this accord should be dispositive to his colleagues in deciding to reject the Comprehensive Test Ban Treaty now, rather than be subjected to endless political attacks until such time as the Treaty is once again placed on the Senate calendar.

DECISION BRIEF NO. 99-D 112

C.T.B.T. TRUTH OR CONSEQUENCES #6: HEED PAST AND PRESENT MILITARY OPPOSITION TO A ZERO-YIELD, PERMANENT TEST BAN

(Washington, D.C.): As the prospects for Senate rejection of the Comprehensive Test Ban Treaty (CTBT) on its merits have grown in recent days, the Treaty's proponents have become more reliant than ever on celebrity endorsements—especially those it has received for retired and serving senior military officers. Indeed, few advocates for the present, zero-yield, permanent test ban make their case for the CTBT without referring to the support it enjoys from past and present members of the Joint Chiefs of Staff, including a number of former JCS Chairmen (notably, Gen. Colin Powell).

Most recently, President Clinton declared in his Saturday radio address: "So I say to the Senators who haven't endorsed [the CTBT], heed the best national security advice of our military leaders." The trouble is, the best national security advice of our military leaders is to reject this permanent, all-inclusive test ban, not approve it.

Which Advice?

Setting aside the singularly unimpressive job the serving Chairman, Gen. Hugh Shelton, has done in his advocacy for the CTBT—at his reconfirmation hearing a few weeks ago, his endorsement was unintelligible; on NBC's Meet the press on 10 October, he gave a statement of support for the Treaty that was more articulate, but wholly inappropriate to the question he was asked, not once but twice—fans of the CTBT should be careful in relying too heavily upon their favorite officers to sell this Treaty.

Consider, for example, statements that three of the most prominent of these officers—General Powell, Admiral William Crowe and General David Jones—during their respective stints as chairmen of the Joint Chief of Staff

General Colin Powell, 30 September 1991: [In response to a question by Senator Malcolm Wallop (R-Wy) as to how Gen. Powell would respond to a Soviet proposal to halt testing.] I would recommend to the Secretary and the President [that] it's a condition we couldn't meet. I would recommend against it. We need nuclear testing to ensure the safety, [and] surety of our nuclear stockpile. As long as one has nuclear weapons, you have to know what it is they will do, and so I would recommend continued testing."

Gen. Powell, 1 December 1992: "With respect to a comprehensive test ban, that has always been a fundamental policy goal of ours, but as long as we have nuclear weapons we have a responsibility for making sure that our stockpile remains safe. And to keep that stockpile safe, we have to conduct a limited number of nuclear tests to make sure we know what a nuclear weapon will actually do and how it is aging and to find out a lot of other physical characteristics with respect to nuclear phenomenon.

"So I would like ultimately to go to a comprehensive test ban, but I don't think we'll get there safely and reliably until we also get rid of nuclear weapons. As long as we have to conduct testing."

Admiral William Crowe, 8 May 1986: [According to a contemporary press report] "Admiral William Crow, Chairman of the Joint Chiefs of Staff, said a comprehensive test ban—which many members of Congress have urged President Reagan to negotiate with Moscow—would 'introduce elements of uncertainty that would be dangerous for all concerned.

"Given the pressure from lawmakers for conventional weapons testing, 'I frankly do not understand why Congress would want to suspend testing on one of the most critical and sophisticated elements of our nuclear deterrent—namely the warhead's he told the Senate Foreign Relations Committee."

General David Jones per an Aviation Week article dated 29 May 1978: "General David Jones, Chairman of the Joint Chief of Staff, told a Senate Armed Services Committee meeting last week that he could not recommend an indefinite zero-yield test ban.

"He added that it is not verifiable, and that the U.S. stockpile reliability could not be assured. Gen. Jones said he is concerned over asymmetries that could develop through an unverifiable agreement with the USSR. He told Senators he is not convinced by the safeguards he has seen to date, and that it would not be difficult to overcome them."

Gen. Jones, according to a 27 May 1978 Washington Post article: Air Force Gen. David Jones, selected by [President] Carter to be chairman of the Joints chiefs, told the Senate Armed Services Committee at his recent confirmation hearing that "I would have difficulty recommending a zero-[yield] test ban for an extended period."

It falls to these individuals and those who are interested in their views to establish which position—their former ones opposing an open-ended, zero-yield test ban or their present ones endorsing it—actually reflect their "best national security advice." Suffice it to say that when they actually held positions of responsibility, all three went on record in favor of continued testing. Will their serving counterpart and his fellow members of the JCS undergo a reverse transformation after leaving office, in which capacity they have endorsed the CTBT? If so, which view will represent their best professional military advice (i.e., advice not influenced by political judgments or considerations)?

Leading Retired Military Officers Oppose the CTBT

Senators would do well to consider the views of other distinguished retired military officers. For example, in an open letter to Senate Majority Leader Trent Lott dated 9 September, ten retired four-star combat commanders (Marine Corps Commandant Gen. Louis H. Wilson and Assistant Commandants Gens. Raymond G. Davis and Joseph J. Went; Commander-in-Chief Strategic Air Command Gen. Russell E. Dougherty; Supreme Allied Commander, Atlantic Adm. Wesley McDonald; Commander-in-Chief, U.S.

Army, Europe Gen. Frederick J. Kroesen; Commander of U.S. Air Combat Command Gen. John M. Loh; Air Force Vice Chief of Staff Gen. Lawrence A. Skantze; Commander-in-Chief, Army Readiness Command Gen. Donn A. Starry; Commanding General, Army Material Command Gen. Louis C. Wagner, Jr.) joined more than forty other experienced civilian and retired military policy practitioners in opposition to the CTBT. They wrote, in part:

"We consider the Comprehensive Test Ban Treaty signed by President Clinton in 1996 to be inconsistent with vital U.S. national interests. We believe the Senate must reject the permanent ban on testing that this treaty would impose so long as the Nation depends upon nuclear deterrence to safeguard its security."

Importantly, in a 5 October letter to Senate Armed Services Committee Chairman John Warner, one of the most highly regarded JCS Chairman in history, Gen. John Vessey, forcefully urged the Senate to reject the present CTBT. Highlight of Gen. Vessey's letter include the following:

"Supporters of the CTBT argue that it reduces the chances for nuclear proliferation. I applaud efforts to reduce the proliferation of nuclear weapons but I do not believe that the test ban will reduce the ability of rogue states to acquire nuclear weapons in sufficient quantities to upset regional stability in various parts of the world."

"If the United States is to remain the pre-eminent nuclear power and maintain a modern, safe, secure, reliable and useable nuclear deterrent force, I believe we need to continue to develop new nuclear weapons designed to incorporate the latest in technology and to meet the changing security situation in the world. . . . The United States, the one nation most of the world looks to for securing peace in the world, should not deny itself the opportunity to test the bedrock building block of its security, its nuclear deterrence force, if conditions require testing."

"I . . . believe that the more demonstrably modern and useable is our nuclear deterrent force, the less likely are we to need to use it, but we must have modern weapons, and we ought not deny ourselves the opportunity to test if we deem it necessary.

The Bottom Line

The case for the Clinton Comprehensive Test Ban Treaty fundamentally comes down to a question of "confidence"—in the judgments of those who say that they are "confident" in the future viability of the U.S. deterrent or, alternatively, in the judgment of those who warn that history suggests such confidence is unwarranted in the absence of periodic, realistic underground testing.

It should, at a minimum, shake the confidence of Senators whose support for the Treaty rests substantially upon the endorsement of prominent retired military leaders that those leaders previously held a far more dire (not to say, realistic) view of the implications of such an accord for the U.S. deterrent and security.

[From the Center for Security Policy, Oct. 12, 1999]

DECISION BRIEF No. 99-D 112

C.T.B.T. TRUTH OR CONSEQUENCES #7: REALISTIC EXPLOSIVE TESTING IS REQUIRED TO 'RE-MANUFACTURE' EXISTING NUCLEAR WEAPONS

(Washington, D.C.): One of the most pernicious misrepresentations being served up in recent days by the proponents of the Comprehensive Test Ban Treaty (CTBT) is the claim that the U.S. deterrent stockpile can be maintained for the indefinite future without further underground tests. Since they explicitly rule out modernization of the nu-

clear arsenal, however, the only way a stockpile comprised of weapons having the highest average age in history could possibly be preserved in a safe and reliable condition would be if existing weapons types were to be substantially (if not virtually completely) remanufactured.

While advocates of the zero-yield, permanent CTBT deny it, neither historical experience and common sense support the proposition that U.S. nuclear weapons—comprised as they are of as many as 6,000 exactly manufactured parts, made of exotic and often dangerous materials and constantly exposed for years to high levels of radiation—will not undergo substantial changes over time. In fact as a result of such factors, former Assistant Secretary of Energy Victor Reis declared in congressional testimony in October 1997 that: "Just about all the parts [of those obsolescing devices] are going to have to be remade."

Why 'Remaking' of the Arsenal Cannot be Effected Without Testing

There are numerous, serious problems with undertaking such a program in the absence of nuclear testing. First, the production lines for building the stockpile's existing bombs and warheads were disassembled long ago. Reconstitution and recertifying them would take quite some time, would be very costly and probably won't be possible to effect with confidence absent realistic, explosive nuclear testing.

Second, it will not be possible to replicate some of the ingredients in weapons designed two decades or more ago; key components are technologically obsolete and no one would recommend using them when smaller, lighter, cheaper, more reliable and carcinogenic materials are now the state-of-the-art. In addition, federal safety and health guidelines prohibit the use of some of the materials utilized in the original designs.

Third, virtually everybody who was involved in designing and proving the original designs has left the industrial and laboratory complex, taking with them irreplaceable corporate memory that may spell the difference between success and failure in reproducing their handiwork.

An Authoritative Historical Review

These points were underscored in an authoritative report to Congress issued by the Lawrence Livermore National Laboratory in 1987. Among its relevant highlights are the following (emphasis added throughout):

"It has frequently been stated that non-nuclear and very-low yield (i.e., less than 1 kiloton) testing and computer stimulation would be adequate for maintaining a viable nuclear deterrent. A recent variant of this argument asserts that while such testing and computer stimulation may be insufficient for the development of new warheads, they would be adequate for indefinite maintenance of a stockpile of existing weapons. We believe that neither of these assertions can be substantiated.

"The major problem is that a nuclear explosive includes such a wide range of processes and scales that it is impossible to include all the relevant physics and engineering in sufficient detail to provide an accurate representation of the real world."

"A final proof test at the specified low-temperature extreme of the W80 (Air-Launched Cruise Missile) was done as the weapon was ready for deployment. The test results were a complete surprise. The primary gave only a small fraction of its expected yield, insufficient to ignite the secondary.

"Our experience with the W80 illustrates the inadequacy of non-nuclear and low-yield testing and the need for full-scale nuclear tests to judge the effects of small changes. Even though it has been argued that such a 'thorough' test should have occurred earlier, the critical point is that computer simulation, non-nuclear testing, and less-than-full-scale nuclear testing are not always sufficient to assess the effects of deterioration, changes in packaging, or environmental conditions on weapons performance."

"Testing of newly produced stockpiled systems has shown a continuing need for nuclear tests. Even an 'identical' rebuild should be checked in a nuclear test if we are to have confidence that all the inevitable, small and subtle differences from one production run to the other have not affected the nuclear performance. The current stockpile is extremely reliable, but only because continued nuclear testing at adequate yields has enabled us to properly assess and correct problems as they occur."

"Although tests of a complex system are expensive and time-consuming, one is hard-put to find an example anywhere in U.S. industry where a major production line was reopened and requalified without tests. Exact replication, especially of older systems, is impossible. Material batches are never quite the same, some materials become unavailable, and equivalent materials are never exactly equivalent. Different people—not those who did the initial work—do the remanufacturing."

"Documentation has never been sufficiently exact to ensure replication. A perfect specification has never yet been written. We have never known enough about every detail to specify everything that may be important."

"Tests, even with the limitations of small numbers and possibly equivocal interpretation of results, are the final arbiters of the tradeoffs and judgments that have been made. We are concerned that, if responsible engineers and scientists were to refuse to certify a remanufactured weapon, pressures could produce individuals who would. The Challenger accident resulted from such a situation and highlights an all-too-common tendency of human nature to override judgment in favor of expediency."

"Remanufacture of a nuclear warhead is often asserted to be a straightforward exercise in engineering and material science, and simply involves following well-established specifications to make identical copies. In the real world, however, there are many examples where weapon parts cannot be duplicated because of outmoded technologies, health hazards, unprofitable operations, out-of-business vendors, reproducible materials, lack of documentation, and myriad other reasons. . . . Not only must remanufacturing attempt to replicate the construction of the original weapon, it must also duplicate the performance of the original weapon."

"It is important to emphasize that in weapon remanufacture we are dealing with a practical problem. Idealized proposals and statements that we 'should be able to remanufacture without testing because expertise is not essential' are a prescription for failure."

The Bottom Line

Senators concerned about the Nation's ability to perform the needed modifications essential to any effort to "remanufacture" stockpiled weapon types should bear in mind a comment by one of the prominent scientists usually cited by CTBT proponents: Dr. Richard Garwin. In testimony before the Senate Foreign Relations Committee last week, Dr. Garwin declared: "I oppose modifying our nuclear weapons under the moratorium or under the CTBT."

Given historical experience and the scientific insights gleaned from it, no one who is serious about maintaining the U.S. deterrent for the indefinite future would argue that the existing inventory can be perpetuated without nuclear testing. Remanufactured weapons will have to be realistically tested, at least at low-yield levels, if we—and those we hope to deter—are to have confidence in their effectiveness.

[From the Center for Security Policy, Oct. 7, 1999]

SECURITY FORUM NO. 99-F 23

SIX SECRETARIES OF DEFENSE URGE DEFEAT OF C.T.B.T.

(Washington, D.C.): In an unprecedented public statement of opposition to a signed arms control agreement, six former Secretaries of Defense—one of whom, Dr. James R. Schlesinger was also (among other things) a Secretary of Energy in the Carter Administration—have written the Republican and Democratic leaders of the U.S. Senate urging the defeat of the Comprehensive Test Ban Treaty (CTBT).

This authoritative description of the CTBT's defects and the deleterious repercussions its ratification would have for America's nuclear deterrent should be required reading for every Senator and every other participant in what is shaping up to be a momentous debate over the Nation's future security posture. In particular, this letter—which clearly benefits from Dr. Schlesinger's vast experience as a former Chairman of the Atomic Energy Commission, former Director of Central Intelligence as well as a former Secretary of Defense and Energy (in the latter capacity, he was instrumental in dissuading President Carter from pursuing the sort of permanent, zero-yield CTBT that the incumbent President hopes to ratify)—does much to rebut the putative "military" arguments being made on behalf of this accord.

OCTOBER 6, 1999.

DEAR SENATORS LOTT AND DASCHLE: As the Senate weighs whether to approve the Comprehensive Test Ban Treaty (CTBT), we believe Senators will be obliged to focus on one dominant, inescapable result were it to be ratified: over the decades ahead, confidence in the reliability of our nuclear weapons stockpile would inevitably decline, thereby reducing the credibility of America's nuclear deterrent. Unlike previous efforts at a CTBT, this Treaty is intended to be of unlimited duration, and though "nuclear weapon test explosion" is undefined in the Treaty, by America's unilateral declaration the accord is "zero-yield," meaning that all nuclear tests, even of the lowest yield, are permanently prohibited.

The nuclear weapons in our nation's arsenal are sophisticated devices, whose thousands of components must function together with split-second timing and scant margin for error. A nuclear weapon contains radioactive material, which in itself decays, and also changes the properties of other materials within the weapon. Over time, the components of our weapons corrode and deteriorate, and we lack experience predicting the effects of such aging on the safety and reliability of the weapons. The shelf life of U.S. nuclear weapons was expected to be some 20 years. In the past, the constant process of replacement and testing of new designs have some assurance that weapons in the arsenal would be both new and reliable. But under the CTBT, we would be vulnerable to the effects of aging because we could not test "fixes" of problems with existing warheads.

Remanufacturing components of existing weapons that have deteriorated also poses significant problems. Manufacturers go out of business, materials and production proc-

esses change, certain chemicals previously used in production are now forbidden under new environmental regulations, and so on. It is a certainty that new processes and materials—untested—will be used. Even more important, ultimately the nuclear "pits" will need to be replaced—and we will not be able to test those replacements. The upshot is that new defects may be introduced into the stockpile through remanufacture, and without testing we can never be certain that these replacement components will work as their predecessors did.

Another implication of the CTBT of unlimited duration is that over time we would gradually lose our pool of knowledgeable people with experience in nuclear weapons design and testing. Consider what would occur if the United States halted nuclear testing for 30 years. We would then be dependent on the judgment of personnel with no personal experience either in designing or testing nuclear weapons. In place of a learning curve, we would experience an extended unlearning curve.

Furthermore, major gaps exist in our scientific understanding of nuclear explosives. As President Bush noted in a report to Congress in January 1993, "Of all U.S. nuclear weapons designs fielded since 1958, approximately one-third have required nuclear testing to resolve problems arising after deployment." We were discovering defects in our arsenal up until the moment when the current moratorium on U.S. testing was imposed in 1992. While we have uncovered similar defects since 1992, which in the past would have let to testing, in the absence of testing, we are not able to test whether the "fixes" indeed work.

Indeed, the history of maintaining complex military hardware without testing demonstrates the pitfalls of such an approach. Prior to World War II, the Navy's torpedoes had not been adequately tested because of insufficient funds. It took nearly two years of war before we fully solved the problems that caused our torpedoes to routinely pass harmlessly under the target or to fail to explode on contact. For example, at the Battle of Midway, the U.S. launched 47 torpedo aircraft, without damaging a single Japanese ship. If not for our dive bombers, the U.S. would have lost the crucial naval battle of the Pacific war.

The Department of Energy has structured a program of experiments and computer simulations called the Stockpile Stewardship Program, that it hopes will allow our weapons to be maintained without testing. This program, which will not be mature for at least 10 years, will improve our scientific understanding of nuclear weapons and would likely mitigate the decline in our confidence in the safety and reliability of our arsenal. We will never know whether we should trust Stockpile Stewardship if we cannot conduct nuclear tests to calibrate the unproven new techniques. Mitigation is, of course, not the same as prevention. Over the decades, the erosion of confidence inevitably would be substantial.

The decline in confidence in our nuclear deterrent is particularly troublesome in light of the unique geopolitical role of the United States. The U.S. has a far-reaching foreign policy agenda and our forces are stationed around the globe. In addition, we have pledged to hold a nuclear umbrella over our NATO allies and Japan. Though we have abandoned chemical and biological weapons, we have threatened to retaliate with nuclear weapons to such an attack. In the Gulf War, such a threat was apparently sufficient to deter Iraq from using chemical weapons against American troops.

We also do not believe the CTBT will do much to prevent the spread of nuclear weapons. The motivation of rogue nations like

North Korea and Iraq to acquire nuclear weapons will not be affected by whether the U.S. tests. Similarly, the possession of nuclear weapons by nations like India, Pakistan, and Israel depends on the security environment in the region not by whether or not the U.S. tests. If confidence in the U.S. nuclear deterrent were to decline, countries that have relied on our protection could well feel compelled to seek nuclear capabilities of their own. Thus, ironically, the CTBT might cause additional nations to seek nuclear weapons.

Finally, it is impossible to verify a ban that extends to very low yields. The likelihood of cheating is high. "Trust but verify" should remain our guide. Tests with yields below 1 kiloton can both go undetected and be militarily useful to the testing state. Furthermore, a significantly larger explosion can go undetected—or mistaken for a conventional explosion used for mining or an earthquake—if the test is "decoupled." Decoupling involves conducting the test in a large underground cavity and has been shown to dampen an explosion's seismic signature by a factor of up to 70. The U.S. demonstrated this capability in 1966 in two tests conducted in salt domes at Chilton, Mississippi.

We believe that these considerations render a permanent, zero-yield Comprehensive Test Ban Treaty incompatible with the Nation's international commitments and vital security interests and believe it does not deserve the Senate's advice and consent. Accordingly, we respectfully urge you and your colleagues to preserve the right of this nation to conduct nuclear tests necessary to the future of our nuclear deterrent by rejecting approval of the present CTBT.

Respectfully,

JAMES R. SCHLESINGER.
 RICHARD B. CHENEY.
 FRANK C. CARLUCCI.
 CASPAR W. WEINBERGER.
 DONALD H. RUMSFELD.
 MELVIN R. LAIRD.

[From the Center for Security Policy, Oct. 7, 1999]

SECURITY FORUM

SENATOR LUGAR DELIVERS KISS-OF-DEATH TO CTBT

(Washington, DC): As the Senate prepares to open debate on the Comprehensive Test Ban Treaty (CTBT), arms control's pre-eminent Republican champion in the Senate, Sen. Richard Lugar (R-IN) has delivered what is surely the kiss-of-death for this accord. In a lengthy and detailed memorandum released today, Sen. Lugar declared "I will vote against the ratification of the CTBT."

The Senator's reasons for reaching what was clearly a wrenching decision are characteristically thoughtful and powerful explained in the following excerpts of his memorandum. The Center applauds Senator Lugar for his courageous leadership in this matter and commends his arguments to his colleagues—and to the American people on behalf of whose security they are made.

[Press Release from U.S. Senator Richard Lugar of Indiana, a Senior Member of the Senate Intelligence and Foreign Relations Committees and the Senate's National Security Working Group]

The Senate is poised to begin consideration of the Comprehensive Test Ban Treaty under a unanimous consent agreement that will provide for 14 hours of general debate, debate on two amendments, and a final vote on ratification. . . . In anticipation of the general debate, I will state my reasons for opposing ratification of the CTBT.

The goal of the CTBT is to ban all nuclear explosions worldwide: I do not believe it can

succeed. I have little confidence that the verification and enforcement provisions will dissuade other nations from nuclear testing. Furthermore, I am concerned about our country's ability to maintain the integrity and safety of our own nuclear arsenal under the conditions of the treaty.

I am a strong advocate of effective and verifiable arms control agreements. As a former Vice-Chairman of the Senate Arms Control Observer Group and a member of the Foreign Relations Committee, I have had the privilege of managing Senate consideration of many arms control treaties and agreements.

* * * * *

I understand the impulse of the proponents of the CTBT to express U.S. leadership in another area of arms control. Inevitably, arms control treaties are accompanied by idealistic principles that envision a future in which international norms prevail over the threat of conflict between nations. However, while affirming our desire for international peace and stability, the U.S. Senate is charged with the constitutional responsibility of making hard judgments about the likely outcomes of treaties. This requires that we examine the treaties in close detail and calculate the consequences of ratification for the present and the future. Viewed in this context, I cannot support the treaty's ratification.

I do not believe that the CTBT is of the same caliber as the arms control treaties that have come before the Senate in recent decades. Its usefulness to the goal of non-proliferation is highly questionable. Its likely ineffectuality will risk undermining support and confidence in the concept of multilateral arms control. Even as a symbolic statement of our desire for a safer world, it is problematic because it would exacerbate risks and uncertainties related to the safety of our nuclear stockpile.

Stockpile Stewardship

The United States must maintain a reliable nuclear deterrent for the foreseeable future. Although the Cold War is over, significant threats to our country still exist. At present our nuclear capability provides a deterrent that is crucial to the safety of the American people and is relied upon as a safety umbrella by most countries around the world. One of the most critical issues under the CTBT would be that of ensuring the safety and reliability of our nuclear weapons stockpile without testing. The safe maintenance and storage of these weapons is a crucial concern. We cannot allow them to fall into disrepair or permit their safety to be called into question.

The Administration has proposed an ambitious program that would verify the safety and reliability of our weapons through computer modeling and simulations. Unfortunately, the jury is still out on the Stockpile Stewardship Program. The last nine years have seen improvements, but the bottom line is that the Senate is being asked to trust the security of our country to a program that is unproven and unlikely to be fully operational until perhaps 2010. I believe a National Journal article, by James Kitfield, summed it up best by quoting a nuclear scientist who likens the challenge of maintaining the viability of our stockpile without testing to "walking an obstacle course in the dark when your last glimpse of light was a flash of lightning back in 1992."

The most likely problems facing our stockpile are a result of aging. This is a threat because nuclear materials and components degrade in unpredictable ways, in some cases causing weapons to fail. This is compounded by the fact that the U.S. currently has the oldest inventory in the history of our nuclear weapons programs.

Over the last forty years, a large percentage of the weapon designs in our stockpile have required post-deployment tests to resolve problems. Without these tests, not only would the problems have remained undetected, but they also would have gone unprepared. The Congressional Research Service reported last year that: "A problem with one warhead type can affect hundreds of thousands of individually deployed warheads; with only 9 types of warheads expected to be in the stockpile in 2000, compared to 30 in 1985, a single problem could affect a large fraction of the U.S. nuclear force." If we are to put our faith in a program other than testing to ensure the safety and reliability of our nuclear deterrent and thus our security, we must have complete faith in its efficacy. The Stockpile Stewardship Program falls well short of that standard.

The United States has chosen to re-manufacture our aging stockpile rather than creating and building new weapon designs. This could be a potential problem because many of the components and procedures used in original weapon designs no longer exist. New production procedures need to be developed and substituted for the originals, but we must ensure that the remanufactured weapons will work as designed.

I am concerned further by the fact that some of the weapons in our arsenal are not as safe as we could make them. Of the nine weapons designs currently in our arsenal, only one employs all of the most modern safety and security measures. Our nuclear weapons laboratories are unable to provide the American people with these protections because of the inability of the Stockpile Stewardship Program to completely mimic testing.

At present, I am not convinced the Stockpile Stewardship Program will permit our experts to maintain a credible deterrent in the absence of testing. Without a complete, effective, and proven Stockpile Stewardship program, the CTBT could erode our ability to discover and fix problems with the nuclear stockpile and to make safety improvements.

In fact, the most important debate on this issue may be an honest discussion of whether we should commence limited testing and continue such a program with consistency and certainty.

Verification

President Reagan's words "trust but verify" remain an important measuring stick of whether a treaty serves the national security interests of the United States. The U.S. must be confident of its ability to detect cheating among member states. While the exact thresholds are classified, it is commonly understood that the United States cannot detect nuclear explosions below a few kilotons of yield. The treaty's verification regime, which includes an international monitoring system and on-site inspections, was designed to fill the gaps in our national technical means. Unfortunately, the CTBT's verification regime will not be up to that task even if it is ever fully deployed.

Advances in mining technologies have enabled nations to smother nuclear tests, allowing them to conduct tests with little chance of being detected. Similarly, countries can utilize existing geologic formations to decouple their nuclear tests, thereby dramatically reducing the seismic signal produced and rendering the test undetectable. A recent Washington Post article points out that part of the problem of detecting suspected Russian tests at Novaya Zemlya is that the incidents take place in a large granite cave that has proven effective in muffling tests.

The verification regime is further bedeviled by the lack of a common definition of a

nuclear test. Russia believes hydro-nuclear activities and sub-critical experiments are permitted under the treaty. The U.S. believes sub-critical experiments are permitted but hydro-nuclear tests are not. Other states believe both are illegal. A common understanding or definition of what is and what is not permitted under the treaty has not been established.

Proponents point out that if the U.S. needs additional evidence to detect violations, on-site inspections can be requested. Unfortunately, the CTBT will utilize a red-light inspection process. Requests for on-site inspections must be approved by at least 30 affirmative votes of members of the Treaty's 51-member Executive Council. In other words, if the United States accused another country of carrying out a nuclear test, we could only get an inspection if 29 other nations concurred with our request. In addition, each country can declare a 50 square kilometer area of its territory as off limits to any inspections that are approved.

The CTBT stands in stark contrast to the Chemical Weapons Convention in the area of verifiability. Whereas the CTBT requires an affirmative vote of the Executive Council for an inspection to be approved, the CWC requires an affirmative vote to stop an inspection from proceeding. Furthermore, the CWC did not exclude large tracts of land from the inspection regime, as does the CTBT.

The CTBT's verification regime seems to be the embodiment of everything the United States has been fighting against in the UNSCOM inspection process in Iraq. We have rejected Iraq's position of choosing and approving the national origin of inspectors. In addition, the 50 square kilometer inspection-free zones could become analogous to the controversy over the inspections of Iraqi presidential palaces. The UNSCOM experience is one that is best not repeated under a CTBT.

Enforcement

Let me turn some enforcement concerns. Even if the United States were successful in utilizing the laborious verification regime and non-compliance was detected, the Treaty is almost powerless to respond. This treaty simply has no teeth. Arms control advocates need to reflect on the possible damage to the concept of arms control if we embrace a treaty that comes to be perceived as ineffectual. Arms control based only on a symbolic purpose can breed cynicism in the process and undercut support for more substantive and proven arms control measures.

The CTBT's answer to illegal nuclear testing is the possible implementation of sanctions. It is clear that this will not prove particularly compelling in the decision-making processes of foreign states intent on building nuclear weapons. For those countries seeking nuclear weapons, the perceived benefits in international stature and deterrence generally far outweigh the concern about sanctions that could be brought to bear by the international community.

Further, recent experience has demonstrated that enforcing effective multilateral sanctions against a country is extraordinarily difficult. Currently, the United States is struggling to maintain multilateral sanctions on Iraq, a country that openly seeks weapons of mass destruction and blatantly invaded and looted a neighboring nation, among other transgressions. If it is difficult to maintain the international will behind sanctions on an outlaw nation, how would we enforce sanctions against more responsible nations of greater commercial importance like India and Pakistan?

In particularly grave cases, the CTBT Executive Council can bring the issue to the attention of the United Nations. Unfortun-

nately, this too would most likely prove ineffective, given that permanent members of the Security Council could veto any efforts to punish CTBT violators. Chances of a better result in the General Assembly are remote at best.

I believe the enforcement mechanisms of the CTBT provide little reason for countries to forego nuclear testing. Some of my friends respond to this charge by pointing out that even if the enforcement provisions of the treaty are ineffective, the treaty will impose new international norms for behavior. In this case, we have observed that "norms" have not been persuasive for North Korea, Iraq, Iran, India and Pakistan, the very countries whose actions we seek to influence through a CTBT.

If a country breaks the international norm embodied in the CTBT, that country has already broken the norm associated with the Non-Proliferation Treaty (NPT). Countries other than the recognized nuclear powers who attempt to test a weapon must first manufacture or obtain a weapon, which would constitute a violation of the NPT. I fail to see how an additional norm will deter a motivated nation from developing nuclear weapons after violating the long-standing norm of the NPT.

Conclusion

On Tuesday the Senate is scheduled to vote on the ratification of the CTBT. If this vote takes place, I believe the treaty should be defeated. The Administration has failed to make a case on why this treaty is in our national security interests.

The Senate is being asked to rely on an unfinished and unproven Stockpile Stewardship Program. This program might meet our needs in the future, but as yet, it is not close to doing so. The treaty is flawed with an ineffective verification regime and a practically nonexistent enforcement process.

For these reasons, I will vote against ratification of the CTBT.

[From the Center for Security Policy, Oct. 12, 1999]

SECURITY FORUM NO. 99-F25

RICHARD PERLE DISCOUNTS ALLIES' OBJECTIONS TO SENATE REJECTION OF THE COMPREHENSIVE TEST BAN TREATY

(Washington, D.C.): In an op.ed. article slated for publication in a major British daily newspaper tomorrow, former Assistant Secretary of Defense Richard Perle puts in perspective recommendations made last week by the leaders of Britain, France and Germany that the Senate agree to the ratification of the Comprehensive Test Ban Treaty (CTBT). Mr. Perle—an accomplished security policy practitioner widely respected on both sides of the Atlantic and, indeed, around the world—powerfully argues that the objections heard from Messrs. Tony Blair, Jacques Chirac and Gerhard Schroeder in an op.ed. article published in the New York Times on 8 October should not dissuade the United States Senate for doing what American national security and interests dictate: defeating the CTBT.

PASSION'S SLAVE AND THE CTBT

(By Richard Perle)

Always generous with advice, a chorus of European officials has been urging the United States Senate to ratify the "Comprehensive Test Ban Treaty." Last Friday, Tony Blair, Jacques Chirac and Gerhard Schroeder (BC&S for short) issued what Will Hutton, writing in the Observer, called "a passionate appeal" to the American Senator whose votes will decide whether the United States signs up to the fanciful conceit that the CTBT will halt the testing of nuclear weapons.

Advice giving is contagious, and Hutton has some of his own: to encourage the U.S. to ratify the CTBT, he urged Britain and France to phase out their nuclear weapons entirely—a suggestion they will passionately reject.

Now, the prospect of crowning the Western victory in the Cold War with a piece of international legislation that will stop the spread of nuclear weapons is certainly appealing. After all, a signature on a piece of paper would be a remarkably cheap and efficient way to keep nuclear weapons out of the hands of Kim Jong-il, Saddam Hussein and the other 44 regimes now deemed capable of developing nuclear weapons.

So what explains the need for passionate appeals from politicians and strident comment from leader writers? Why doesn't the Senate congratulate its friends on their wise and timely counsel and vote to ratify the treaty?

I suspect that one reason is the Senators—or at least the more responsible among them—have actually read the treaty and understand how deeply flawed it is, how unlikely it is to stop nuclear proliferation or even nuclear testing, and how it has the potential to leave the United States with an unsafe, unreliable nuclear deterrent.

Arms control agreements—especially ones affecting matters as sensitive as nuclear weapons—must be judged both in broad concept and in the details of their implementation. As a device for ending all nuclear tests, the CTBT fails on both counts.

It is characteristic of global agreements like the CTBT that they lump together, under a single set of constraints, states that can be counted upon to comply and those which intend either to find and use loopholes—the CTBT is full of them—or to cheat to defeat the constraints of the agreement. To make matters worse, states joining global conventions, even if they do so in bad faith, obtain the same treatment as those who join in order to advance the proper purposes of the agreement.

There can be little doubt that Indian participation in the "atoms for peace program" facilitated New Delhi's acquisition of nuclear weapons by legitimizing the construction of a Canadian designed reactor from which India extracted the nuclear material to make its first bomb. We now know that Saddam Hussein made full use of the information provided by Iraqi inspectors on the staff of the International Atomic Energy Agency (set up to police the Non-Proliferation Treaty) to conceal his clandestine nuclear weapons program. With knowledge of the sources and methods by which the IAEA attempts to ferret out cheating, Iraqis ensconced there (by virtue of Iraq's having signed the NPT) were better able to circumvent treaty's essential purpose.

In domestic affairs, no one would seriously propose that the police and criminals come together and sign agreements according to which they accept the same set of constraints on their freedom of action. Yet that is the underlying logic of the CTBT: a compact among nation states, some of which are current or likely criminals, others—the majority—respectful of international law and their treaty obligations. Because there can be no realistic hope of verifying compliance with the DTBT, this fundamental flaw, which is characteristic of global agreements, is greatly magnified. The net result of ratification of the CTBT would be (a) American compliance, which could leave the U.S. uncertain about the safety and reliability of its nuclear deterrent; and (b) almost certain cheating by one or more rogue states determined to acquire nuclear weapons.

Among the leaders in Congress who have taken a keen interest in arms control is Senator Richard Lugar from Indiana, a senior

member of the Intelligence and Foreign Relations Committees. A frequent floor manager in favor of arms control legislation, he has supported every arms control treaty to come before the Senate and has often led the proponents in debate. Last week he announced that he would vote against ratification of the CTBT.

I would be willing to bet that Senator Lugar has spent more time studying this treaty than Blair, Chirac, Schroeder and Hutton combined—which may explain why his view of the treaty is one of reason and not passion. Senator Lugar opposes ratification—not because he shares my view that the treaty is conceptually flawed—but because he believes it cannot achieve its intended purpose but it could “risk undermining support and confidence in the concept of multi-lateral arms control.”

Arguing that the CTBT is “not of the same caliber as the arms control treaties that have come before the Senate in recent decades,” Lugar concludes that the treaty’s usefulness is “highly questionable,” and that it would “exacerbate risks and uncertainties related to the safety of our nuclear stockpile.” He rightly points to the treaty’s “ineffective verification regime” and “practically nonexistent enforcement process.”

Senator Lugar’s careful, detailed assessment of the treaty contrasts sharply with the rugby cheering section coming from the London, Paris and Berlin offices of BC&S. Do BC&S know that the treaty actually lacks a definition of the term “nuclear test?” Rushed to completion before the 1996 Presidential election, Clinton abandoned in mid-stream an effort to negotiate a binding definition. Do they know that advances in mining technology permit tests to be smothered so they cannot be detected? Do they understand the composition and complexities of the U.S. nuclear stockpile or the importance of future testing to overcome any potential problems? Can they get beyond their passion?

“Give me that man/That is not passion’s slave, and I will wear him/In my heart’s core . . .” Sound advice from Will (Shakespeare, not Hutton).

[From the Washington Times, Sept. 14, 1999]

THE COMPANY YOU KEEP

(By Frank Gaffney Jr.)

Today has been designated by proponents of the Comprehensive Test Ban Treaty (CTBT) to be the “CTBT Day of Action.” The plan apparently is to use this occasion to flex the muscles of the unreconstructed anti-nuclear movement with phone calls baring the Capitol Hill switchboard, a demonstration on the Capitol grounds, Senate speeches and other agitation aimed at intimidating Majority Leader Trent Lott and Foreign Relations Chairman Jesse Helms into clearing the way for this treaty’s ratification.

An insight into the strategy was offered last Friday by Sen. Byron Dorgan, North Dakota Democrat, who suggested in the colloquy with Mr. Lott that he intended to tie the Senate into knots if hearings and action on the CTBT’s resolution of ratification were not promptly scheduled. The Majority leader responded by indicating he had already spoke to Sen. Helms about scheduling such hearings. He added portentously, however, that “I cannot wait to hear how Jim Schlesinger describes the CTBT treaty. When he gets through damning it, they may not want more hearings.”

Mr. Dorgan responded: “Mr. Schlesinger will be standing in a mighty small crowd. Most of the folks who are supporting this treaty are the folks who Sen. Lott and I have the greatest respect for who have served this

country as Republicans and Democrats, and military policy analysts for three or four decades, going back to President Dwight D. Eisenhower.”

This, then, is how the fight over the Comprehensive Test Ban Treaty is shaping up. It will be one in which the pivotal block of senators—mostly Republicans but possibly including a number of “New Democrats”—decide how they will vote less on the basis of the merits of this accord than on the company they will be keeping when they choose sides.

This is not an unreasonable response to a treaty that deals with a matter as complex as nuclear testing. Such testing is, after all, an exceedingly esoteric field, mostly science but with a fair measure of art thrown in. For the best part of the past 55 years, it has been recognized to be an indispensable methodology for ensuring the reliability, safety and effectiveness of America’s nuclear deterrent.

Now, though, the Clinton administration would have us accept that it is no longer necessary, that our nuclear arsenal can continue to meet these exacting standards even if none of its weapons are tested via underground explosions ever again. This represents a stunning leap of logic (if not of faith), given the contrary argument made by many CTBT advocates in other contexts—notably, with respect to the F-22 and missile defenses. These weapons, we are told, cannot be tested enough; they should not be procured, let alone relied upon, the party line goes, unless and until the most exacting test requirements have been satisfied.

Whom is a senator to believe? The answer will not only determine his or her stance on the CTBT. It will also say a lot about the senator is question.

My guess—like Sen. Lott’s—is that, at the end of the day, sufficient numbers of senators will be guided by James Schlesinger on a matter that threatens to propel the United States inexorably toward unilateral nuclear disarmament. Few people in the nation have more authority and credibility on this topic than he, the only man in history to have held the positions of chairman of the Atomic Energy Commission, director of central intelligence, secretary of defense and secretary of energy. Mr. Schlesinger’s career has been made even more influential in the Senate by virtue of his service in both Republican and Democratic Cabinets.

Then there are the 50 or so senior security policy practitioners who last week wrote Mr. Lott an open letter advising him that “the nation must retain an arsenal comprising modern, safe and reliable nuclear weapons, and the scientific and industrial base necessary to ensure the availability of such weapons over the long term. In our professional judgment, the zero-yield Comprehensive Test Ban Treaty is incompatible with these requirements and, therefore, is inconsistent with America’s national security interests.”

Among the many distinguished signatories of this letter are: former U.N. Ambassador Jeane Kirkpatrick; two of President Reagan’s National Security Advisers (Richard Allen and William Clark); former Attorney General Edwin Meese; and 10 retired four-star generals and admirals (including the former commandant of the Marine Corps, Gen. Louis Wilson). When these sorts of men and women challenge the zero-yield CTBT, as Mr. Schlesinger has done, on the grounds it will contribute to the steady erosion of our deterrent, will be impossible to verify and will make no appreciable contribution to slowing proliferation, responsible senators cannot help but be concerned.

To be sure, the Clinton administration and its arms control allies have generated their own letters offering “celebrity” endorse-

ments of the CTBT. Senators weighing these endorsements, however, would be well-advised to consider the following, obviously unrehearsed statement of support for the Treaty given by one such prominent figure—the serving chairman of the Joint Chiefs of Staff, Gen. Hugh Shelton. It came last week in a congressional hearing in response to a softball question from Sen. Carl Levin, Michigan Democrat, about why Gen. Shelton thought the CTBT is in our national interest. The chairman responded by saying:

“Sir, I think from the standpoint of the holding back on the development of the testing which leads to wanting a better system, developing new capabilities, which then leads you into arms sales or into proliferation. Stopping that as early as we can, I think, is in the best interest of the international community in general, and specifically in the best interest of the United States.”

Stripped of the veneer of this sort of support, the zero-yield Comprehensive Test Ban can be seen for what it is: the product primarily of the decades-long agitation of the looney left who, in their efforts to “disarm the ones they’re with,” have made themselves the kind of company few thoughtful senators should want to keep—on CTBT Day of Action or when the votes on this treaty ultimately get counted.

[From the Investor’s Business Daily, Sept. 13, 1999]

TEST BAN OR UNILATERAL DISARMAMENT TREATY?

(By Frank J. Gaffney Jr.)

The utopians in the Clinton camp have set their sights on another nuclear weapons treaty. It’s not designed to preserve U.S. military capability, but rather to disarm it.

A major campaign is on to press the U.S. Senate to approve ratification of the controversial arms control accord, the Comprehensive Test Ban Treaty (CTBT). It’s intended to ban permanently all nuclear weapons tests.

For the better part of 50 years, such testing has been relied upon by successive Republican and Democratic administrations to assure the safety, reliability and effectiveness of the nation’s nuclear deterrent.

Now we are told by the Clinton team and its allies that our arsenal will be able to continue to meet this exacting standard for the indefinite future without conducting another underground detonation.

What is extraordinary is that the claim is being made by many of the same people who regularly rail that the Pentagon is not doing enough to test its weapons systems to ensure that they will perform as advertised.

For example, such critics challenge the realism of the two successful intercepts recently achieved by the Theater High Altitude Area Defense missile defense system. Then there is the complaint that too much computer modeling and too little rigorous pre-production testing has been done to permit further procurement of the Air Force’s impressive next-generation fighter, the F-22.

So one might ask of CTBT proponents: Which is it going to be? Can we settle for computer modeling and simulations? Or is realistic testing essential if we are to trust our security and tax dollars to sophisticated weaponry?

Their answer? It depends: As long as the CTBT remains unratified, the administration position seems likely to remain that we can rely upon the current nuclear inventory, and simulations will assure their reliability. But simulations won’t allow us to develop new weapons.

Thus, it would be hard to modernize the inventory as strategic circumstances change.

For instance, how could we know if a new, deep-penetrating warhead will take out a hardened underground bunker if we can't test it?

Should the Senate give its advice and consent to this accord, however, that line seems sure to change. Then the CTBT's proponents will revert to form, free to acknowledge the obvious: The existing stockpile—comprised increasingly obsolescing weapons—cannot be maintained without testing, either. So by their logic, the next move would be to just retire all the weapons.

Consider the October 1997 congressional testimony of then-Assistant Secretary of Energy for Defense Programs Victor Reis: "Just about all the parts of our present nuclear weapons are going to have to be remade." No responsible scientists could promise, in the absence of explosive testing, that completely remanufactured thermonuclear devices will work as advertised. And no one will be arguing that point more vociferously than the antinuclear activists who are pushing the CTBT.

When challenged on this score, the White House blithely asserts it is pursuing a \$40 billion Stockpile Stewardship Program (SSP) to address such quality-control issues down the road.

Unfortunately, this capability will materialize—if at all—a long way down the road. It will take some 10 years to construct new facilities to house the various exotic experimental diagnostic technologies that are supposed to provide the same confidence about the performance of our nuclear stockpile as does nuclear testing.

Plus, no one knows for sure whether the SSP will actually pan out. Even before the CTBT is ratified, many of the treaty's supporters are urging Congress to delete the billions being sought each year for Lawrence Livermore Laboratory's National Ignition Facility and its counterpart facilities at the other nuclear labs.

Even if properly funded and brought on line as scheduled, though, it is unclear that the simulations provided by these experimental devices will be as accurate as underground detonations. And, of course, a test ban will preclude the one scientifically rigorous way of proving the simulations' accuracy.

The bottom line is that U.S. national security demands that we filed nothing but systematically and rigorously tested military systems, both conventional and nuclear. To be sure, computer simulations can contribute significantly to reducing the cost and the length of time it takes to develop and deploy such weapons. But we cannot afford to let any weapon—least of all the most important ones in our arsenal, our nuclear deterrent—go untested and unproven.

[From the Worldwide Weekly Defense News, Sept. 27, 1999]

TRUTH ABOUT NUCLEAR TESTING WOULD SINK TEST BAN TREATY

(By Frank Gaffney)

In the course of a Sept. 9 hearing before the U.S. Senate Armed Services Committee called to consider the nomination of Gen. Hugh Shelton to a second term as chairman of the Joint Chiefs of Staff, Sen. Carl Levin (D-Mich.) asked the general to explain why the Comprehensive Test Ban Treaty (CTBT) was in the national interest.

He responded in a halting, almost tortured fashion, saying: "Sir, I think from the standpoint of the holding back on the development of the testing which leads to wanting a better system, developing new capabilities, which then leads you into arms sales or into proliferation. Stopping that as early as we can, I think, is in the best interest of the

international community in general, and specifically in the best interest of the United States."

Translation: Unless my staff gives me a written text, I can't begin to explain the logic of this arms control agreement, which would make it permanently illegal to test any U.S. nuclear weapons, even though we are going to rely upon such arms as the ultimate guarantor of our security for the foreseeable future. Still, the party line is that we support this treaty and I am going to do so, no matter what.

The administration of President Bill Clinton established in 1993, long before Shelton became Joint Chiefs chairman, that there would be no further testing of U.S. nuclear weapons, with or without a CTBT.

The general inherited a position adopted on his predecessor's watch and with the latter's support that would be politically costly at this late date to repudiate. The fact remains, however, that the idea of trying to ban all nuclear tests (the so-called zero-yield test ban) was opposed by the Joint Chiefs of Staff, among other relevant U.S. government agencies, before Clinton decided to embrace it.

The reason the U.S. military counseled against such an accord was elementary: It is widely understood that a zero-yield treaty cannot be verified. Other countries can, and must be expected to, exploit the inability of U.S. national technical means and international seismic monitors to detect covert, low-yield underground tests.

Since the United States would scrupulously adhere to a zero-yield ban, it would be enjoined from conducting experimental detonations necessary to maintaining the safety and reliability of its nuclear deterrent.

U.S. military leaders are not expected to be experts on nuclear nonproliferation or arms control. The government hires lots of other people to do those jobs. Unfortunately, many of the policy-makers responsible for those portfolios lack the integrity or common sense one expects of men and women in uniform, hence their claims that the CTBT will contribute to curbing the spread of nuclear weapons.

This is, of course, fatuous nonsense in a world in which a number of countries have acquired such weaponry without conducting known nuclear tests, and others seek to buy proven nuclear devices or the necessary know-how and equipment from willing sellers in Russia, China and Pakistan.

Neither should the leadership of the American armed forces be seen as adjuncts to an administration's political operation. Rather, what is expected from such leaders is their best professional military judgment, the unvarnished truth, no matter how politically incorrect or inconvenient it may be.

The United States cannot afford to allow its nuclear arsenal to continue to go untested (it has already been seven years since the last underground detonation occurred) any more than it could permit its national security to depend on untested conventional planes, tanks, missiles or ships.

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[From the Washington Post, Sept. 10, 1999]

A TEST BAN THAT DISARMS US

When it comes to nuclear testing, nations will act in their perceived self-interest.

(By Charles Krauthammer)

Some debates just never go away. The Clinton administration is back again pressing Congress for passage of the Comprehensive Test Ban Treaty (CTBT). This is part of a final-legacy push that includes a Middle East peace for just-in-time delivery by September 2000.

The argument for the test ban is that it will prevent nuclear proliferation. If countries cannot test nukes, they will not build them because they won't know if they work. Ratifying the CTBT is supposed to close the testing option for would-be nuclear powers.

We sign. They desist. How exactly does this work?

As a Washington Post editorial explains, one of the ways to "induce would-be proliferators to get off the nuclear track" is "if the nuclear powers showed themselves ready to accept some increasing part of the discipline they are calling on non-nuclear others to accept." The power of example of the greatest nuclear country is expected to induce other countries to follow suit.

History has not been kind to this argument. The most dramatic counterexamples, of course, are rogue states such as North Korea, Iraq and Iran. They don't sign treaties and, even when they do, they set out to break them clandestinely from the first day. Moral suasion does not sway them.

More interesting is the case of friendly countries such as India and Pakistan. They are exactly the kind of countries whose nuclear ambitions the American example of restraint is supposed to mollify.

Well, then. The United States has not exploded a nuclear bomb either above or below ground since 1992. In 1993, President Clinton made it official by declaring a total moratorium on U.S. testing. Then last year, India and Pakistan went ahead and exploded a series of nuclear bombs. So much for moral suasion. Why did they do it? Because of this obvious, if inconvenient, truth: Nuclear weapons are the supreme military asset. Not that they necessarily will be used in warfare. But their very possession transforms the geopolitical status of the possessor. The possessor acquires not just aggressive power but, even more important, a deterrent capacity as well.

Ask yourself: Would we have launched the Persian Gulf War if Iraq had been bristling with nukes?

This truth is easy for Americans to forget because we have so much conventional strength that our nuclear forces appear superfluous, even vestigial. Lesser countries, however, recognize the political and diplomatic power conveyed by nuclear weapons.

They want the nuclear option. For good reason. And they will not forgo it because they are moved by the moral example of the United States. Nations follow their interests, not norms.

Okay, say the test ban advocates. If not swayed by American example, they will be swayed by the penalties for breaking an international norm.

What penalties? China exploded test after test until it had satisfied itself that its arsenal was in good shape, then quit in 1996. India and Pakistan broke the norm on nuclear testing and nonproliferation. North Korea openly flouted the Nuclear Non-Proliferation Treaty.

Were any of these countries sanctioned? North Korea was actually rewarded with enormous diplomatic and financial inducements—including billions of dollars in fuel and food aid—to act nice. India and Pakistan got slapped on the wrist for a couple of months.

That's it. Why? Because these countries are either too important (India) or too scary (North Korea). Despite our pretensions, for America too, interests trump norms.

Whether the United States signs a ban on nuclear testing will not affect the course of proliferation. But it will affect the nuclear status of the United States.

In the absence of testing, the American nuclear arsenal, the most sophisticated on the globe and thus the most in need of testing to

ensure its safety and reliability, will degrade over time. As its reliability declines, it becomes unusable. For the United States, the unintended effect of a test ban is gradual disarmament.

Well, maybe not so unintended. For the more extreme advocates of the test ban, nonproliferation is the ostensible argument, but disarmament is the real objective. The Ban the Bomb and Nuclear Freeze movements have been discredited by history, but their adherents have found a back door. A nuclear test ban is that door. For them, the test ban is part of a larger movement: the war against weapons. It finds expression in such touching and useless exercises as the land mine convention, the biological weapons convention, etc.

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[From the Washington Post, June 7, 1998]

PAPER DEFENSE

(By George F. Will)

In the meadow of the president's mind, in the untended portion where foreign policy thoughts sprout randomly, this flower recently bloomed concerning the Indian and Pakistani nuclear tests: "I cannot believe that we are about to start the 21st century by having the Indian subcontinent repeat the worst mistakes of the 20th century."

What mistakes did he mean? Having nuclear weapons? Were it not for them, scores of thousands of Americans would have died in 1945 ending the fighting in the Pacific. And nuclear weapons were indispensable ingredients of the containment of the Soviet Union and its enormous conventional forces.

Perhaps the president meant that arms competitions were the "mistakes." But that thought does not rise to the level of adult commentary on the real historical contingencies and choices of nations.

This president's utterances on foreign policy often are audible chaff, and not even his glandular activities are as embarrassing as his sub-sophomoric pronouncement to India and Pakistan that "two wrongs don't make a right." That bromide was offered to nations weighing what they consider questions of national life and death.

U.S. policy regarding such tests has been put on automatic pilot by Congress's itch to micromanage and to mandate cathartic gestures, so the United States will now evenhandedly punish with economic sanctions India for its provocation and Pakistan for responding to it. Because India is stronger economically, the sanctions will be disproportionately injurious to Pakistan.

India has an enormous advantage over Pakistan in conventional military forces. (It has the world's fourth largest military establishment, although China's army is three times larger than India's.) That is one reason Pakistan believes it needs nuclear weapons. Economic sanctions will further weaken Pakistan's ability to rely on non-nuclear means of defense.

This should be a moment for Republicans to reassert their interest in national security issues, one of the few areas in which the public still regards them as more reassuring than Democrats. But the Republican who could be particularly exemplary, isn't. Arizona Sen. John McCain says the first thing to do is impose "sanctions which hurt" and the second is "to get agreements that they will not test again."

So, automatic sanctions having failed to deter either nation, Washington's attention turns, robotically, to an even more futile ritual—the superstition of arms control, specifically the Comprehensive Test Ban Treaty, which the United States signed in 1996, but which the Senate has prudently not rati-

fied. The designation "superstition" fits because the faith of believers in arms control is more than impervious to evidence; their faith is strengthened even by evidence that actually refutes it.

Far from demonstrating the urgency of ratification, India's and Pakistan's tests demonstrate the CTBT's irrelevance. India had not tested since 1974. Pakistan evidently had never tested. Yet both had sufficient stockpiles to perform multiple tests. So the tests did not create new sabers, they were the rattling of sabers known to have existed for years. Indeed, in 1990, when fighting in the disputed territory of Kashmir coincided with Indian military exercises, the Bush administration assumed that both Pakistan and India had built weapons with their nuclear technologies and worried about a possible nuclear exchange.

The nonproliferation treaty authorizes international inspections only at sites declared to be nuclear facilities. Nations have been known to fib. The CTBT sets such a low-yield standard of what constitutes a test of a nuclear device, that verification is impossible.

Various of the president's policies, whether shaped by corruption, in competence of naïveté, have enabled China to increase the lethality of its ICBMs. The president and his party are committed to keeping America vulnerable to such weapons: 41 senators, all Democrats, have filibustered legislation sponsored by Sens. Thad Cochran (R-Miss.) and Daniel Inouye (D-Hawaii) declaring it U.S. policy "to deploy effective anti-missile defenses of the territory of the United States as soon as technologically possible."

Instead, the administration would defend the nation with parchment—gestures like the CTBT, which is a distillation of liberalism's foreign policy of let's pretend. Let's pretend that if we forever forswear tests, other nations' admiration will move them to emulation. Diagnostic tests are indispensable for maintaining the safety and reliability of the aging U.S. deterrent inventory. So the CTBT is a recipe for slow-motion denuclearization. But let's pretend that if we become weaker, other nations will not want to become stronger.

Seeking a safer world by means of a weaker America and seeking to make America safe behind the parchment walls of arms control agreements, is to start the 21st century by repeating the worst fallacies of the 20th century.

[From the Wall Street Journal, Oct. 12, 1999]

... WOULD BE EVEN WORSE IF IT SUCCEEDED

(By Kathleen Bailey)

It appears the Senate will either vote down the Comprehensive Test Ban Treaty or postpone a vote indefinitely. The treaty's supporters, led by President Clinton, argue that the CTBT is necessary to constrain nations that seek to acquire a workable nuclear weapons design. But the treaty would accomplish none of its proponents' nonproliferation goals. It would, however, seriously degrade the U.S. nuclear deterrent.

No treaty can stop a nation from designing and building a simple nuclear weapon with confidence that it will work. To do so doesn't require testing. One of the U.S. bombs dropped on Japan in 1945 was of a design that had never been tested, and South Africa built six nuclear weapons without testing.

By contrast, the U.S. today needs to test its nuclear weapons because they are more complex. They are designed to make pinpoint strikes against small targets such as silos. This dictates high-performance delivery systems, which, in turn, requires tight parameters on the allowable weight, size, shape, safety measures and yield.

Today's would-be proliferators are likely to target cities, not silos. The delivery vehi-

cles may be ships, barges, trucks or Scud-type missiles. The exact yield of the weapon will not matter, and there will be no tight restrictions imposed by advanced delivery systems. Safety standards will not be a crucial issue.

CTBT proponents also contend that the treaty will promote nonproliferation by creating an international norm against nuclear weapons. But there is already a norm against additional nations acquiring nuclear weapons: the Nuclear Nonproliferation Treaty, signed by every major country except India, Israel and Pakistan.

The NPT norm against the pursuit of nuclear weapons, established when the treaty went into effect in 1970, has been broken repeatedly, and not just by the three countries that refused to sign it. The list of states that have broken or are thought to have broken the norm includes Argentina, Brazil, Iran, Iraq, North Korea, South Africa, South Korea and Taiwan.

It is true, as treaty proponents argue, that the CTBT will inhibit nuclear-weapons modernization. But this is not a plus. It would keep the U.S. from modernizing its nuclear arsenal to make it as safe as possible. Already there are new safety measures that could be incorporated into the American stockpile, making it less likely that weapons will explode accidentally—but the U.S. is not incorporating these new safety technologies because they would require low-yield nuclear testing.

Modernization is also needed to make U.S. weapons more effective against the ever-evolving countermeasures by opponents. We know that deeply buried targets are a new problem, as are biological weapons. America may need to tailor its arsenal to a totally different type of targets in the future, which would require nuclear testing.

While the treaty would inhibit U.S. modernization, it would not affect those that choose to cheat. It would be easy for Russia, China, and others to conduct nuclear tests without being detected. This is because the CTBT is not even minimally verifiable.

Effective verification entails having high confidence that militarily significant cheating will be detected in a timely manner. In the case of the CTBT, we need to know the answers to two questions: What yield nuclear test can provide militarily significant information? Can the CTBT verification system detect to that level?

Five hundred tons of yield is a very useful testing level, although not sufficient to gain full confidence in all aspects of an existing weapon's performance or to develop sophisticated new nuclear weapons. The latter goals could be achieved for most designs with tests at yields between one and 10 kilotons. Tests at levels as low as 500 tons may be militarily significant.

The International Monitoring System of the CTBT is expected to provide the ability to detect, locate and identify non evasive nuclear testing of one kiloton or greater. But most cheaters are likely to be evasive. By taking some relatively simple measures, they could test several kilotons with little risks of detection. One method by which they may do so is through energy decoupling—detonation of the device underground—that can reduce the seismic signal by as much as a factor of 70. Thus, a fully decoupled one-kiloton explosion would look seismically like at 14-ton explosion, or a 10-kiloton explosion like a 140-ton one.

On-site inspection will not solve the verification problem. Even if we knew that a test would conducted, we almost certainly would not know exactly where it took place. Without knowing the precise location, the search area would be too large for a meaningful inspection.

If the Senate ratified the CTBT, it's certain that the U.S. would comply with it, foreclosing America's ability to modernize its nuclear forces. But other nations have a history of noncompliance with arms-control treaties. Thus the limited political benefits of the CTBT are not worth the high cost to America's national security.

[From The New Republic, October 25, 1999]
THE FLAWED TEST BAN TREATY—POOR PACT
(By Frank J. Gaffney Jr.)

If current vote-counts prove accurate and no last-minute postponement is agreed to, the Senate will not provide the two-thirds support necessary to ratify the Comprehensive Test Ban Treaty (CTBT). Although the Clinton administration acts as if this would be disastrous for the struggle against nuclear proliferation, defeat of the CTBT would actually be a victory for American national security.

As the administration has implicitly conceded by sending Energy Secretary Bill Richardson on a last-minute trip to Russia to negotiate better verification procedures, many senators harbor deep concerns about the treaty's verifiability. They are right to do so. U.S. intelligence suspects (but cannot prove) that both the Russians and the Chinese have conducted covert nuclear tests in recent months. In fact, it is impossible to verify a total, or "zero-yield," ban on all nuclear testing, since foreign monitors cannot reliably differentiate covert low-yield explosions from earthquakes or conventional explosions.

This would be true even if the sort of worldwide seismic monitoring system to be established under the CTBT (thanks largely to the administration's decision to put U.S. intelligence assets at the service of a multilateral organization) were in place. For political, if not technical, reasons, the data compiled by the "international community" will probably be even less conducive to a finding of noncompliance than the iffy information the United States often gets on its own.

Treaty proponents point to the CTBT's provision for on-site inspections. Such inspections are far from automatic and can be stymied by U.N. Security Council members determined to block them. If nations exploit well-understood techniques for muffling the seismic shocks that such events precipitate ("decoupling"), they can increase the yield of their tests without getting caught—as the United States proved in its own 1960 experiment.

Even if the CTBT were fully verifiable, it would be irrelevant to the proliferation of nuclear weapons. Explosive testing is simply no longer the sine qua non of a nuclear development and acquisition program. From Israel to North Korea, countries have acquired atomic devices without conducting identified nuclear tests. (Pakistan and India conducted their recent tests for political, not technological, reasons, and the tests took place years after each of them had gotten the bomb.) Even Clinton's CTBT point man, National Security Council staffer Steve Andreason, has publicly stated that this treaty will not prevent countries from obtaining "simple" weapons—which can be all too useful for terrorism and blackmail.

While the CTBT will not have the benefits the administration claims, it will cost the United States dearly by making it impossible to maintain the U.S. nuclear deterrent over time. That will be the practical and ineluctable effect of denying those responsible for ensuring the safety, reliability, and effectiveness of this deterrent the tool that they have relied upon for the vast majority of the past 55 years: realistic, explosive testing.

The exceedingly sophisticated nuclear weapons in the U.S. arsenal cannot prudently be kept "on the shelf" indefinitely. The current average age of these weapons is 14 years; they were only designed to be in service for 20. And none were planned or manufactured to remain viable in a no-test environment.

Indeed, experience suggests that problems with the nuclear deterrent probably exist already, going undetected ever since Congress voted to adopt a testing cutoff in 1992. On his last day in office, President Bush formally appealed for relief from this legislation, warning that "the requirement to maintain and improve the safety of our nuclear stockpile and to evaluate and maintain the reliability of the U.S. forces necessitates continued nuclear testing for those purposes, albeit at a modest level, for the foreseeable future." Although President Clinton tends to dissemble on this point, every administration until his recognized that periodic underground testing—at least at low levels of explosive "yield"—was necessary to detect and fix problems that unexpectedly, but chronically, appear even in relatively new weapons. Hence, no other president since World War II was prepared to accept the sort of permanent, zero-yield ban Clinton has embraced.

Moreover, the older the weapon, the more problematic it becomes to certify its safety and reliability through computer simulations alone. As complex nuclear arms age, their exotic metals, chemicals, and highly radioactive materials undergo changes that are exceedingly difficult to predict and model via computer methods. At a minimum, if such weapons are to be retained for the foreseeable future, they must be updated. As then-Assistant Secretary of Energy for Defense Programs Victor Reis told Congress in October 1997, "Just about all the parts [of the current arsenal's weapons] are going to have to be remade."

There are serious challenges to such a wholesale refurbishing program that even new experimental devices such as those being developed under the administration's more than \$45 billion Stockpile Stewardship Program will not be able to address with certainty, at least not for the next decade or so. First, the production lines for building the stockpile's existing bombs and warheads were dismantled long ago. Reconstituting them would require a lot of time and money. And, even if the original designs could be faithfully replicated, one could never be certain they would work according to their specifications without realistic, explosive testing to validate the product.

Second, it is impossible to replicate some of the ingredients in weapons designed two decades ago or earlier; key components have become technologically obsolete, and no one would recommend using them when smaller, lighter, cheaper, and more reliable materials and equipment are now readily available. In addition, federal safety and health guidelines now prohibit the use of some of the components utilized in the original designs.

Third, most of those who were involved in designing and proving these weapons have left the industrial and laboratory complex, taking with them irreplaceable corporate memory. With continuing nuclear testing, all these problems could presumably be overcome. Without such testing, the United States will be able neither to modernize its nuclear arsenal to meet future deterrent requirements nor to retain the high confidence it requires in the older weapons upon which it would then have to rely for the foreseeable future.

It is precisely for these reasons that the CTBT has been, to use Clinton's phrase, the "longest-sought, hardest-fought" goal of the anti-nuclear movement. Fortunately, more

than 34 senators have figured out that, were it to be ratified, the CTBT would set the United States on the slippery slope to unilateral nuclear disarmament. Whenever the votes are finally tallied on this accord, will the "nays" include any of the Senate's self-described New Democrats—whose partisans brought Clinton and Al Gore to power on a platform that prominently featured a more tough-minded approach to national security and defense issues?

[From the Washington Times, Oct. 12, 1999]
TIME FOR A CTBT VOTE
(By Frank Gaffney, Jr.)

In 23 years of working on nuclear weapons policy and related arms control matters, I have never seen anything like what happened last Thursday. That was the day Sen. Richard Lugar, Indiana Republican, released a six-page press release detailing the myriad and compelling reasons that would cause him to vote against the Comprehensive Test Ban Treaty (CTBT).

What makes this development so extraordinary, of course, is that Dick Lugar has an unparalleled reputation in Washington for his commitment to arms control in particular and his willingness more generally to rise above politics in the interest of lending bipartisan heft to foreign policy initiatives he believes to be in the national interest. With apologies to the Smith Barney marketeers, when Mr. Lugar speaks on treaties, people listen.

Rarely has it been more important that his Senate colleagues do so. Indeed, the Indiana senator has offered a critique of the CTBT that should be required reading for anyone being asked to vote on this treaty. He summarizes the reasons why he will vote against this treaty as follows:

The goal of the Comprehensive Test Ban Treaty is to ban all nuclear explosions worldwide: I do not believe it can succeed. I have little confidence that the verification and enforcement provisions will dissuade other nations from nuclear testing. Furthermore, I am concerned about our country's ability to maintain the integrity and safety of our own nuclear arsenal under the conditions of the treaty.

The impact of so withering an assessment—backed up by pages of painstaking analysis—was evident on Sunday as syndicated columnist George Will accomplished the intellectual equivalent of rope-a-dope in an interview with Secretary of State Madeleine Albright on ABC News' "This Week" program. Mrs. Albright was reduced to sputtering as Mr. Will read from one section of Sen. Lugar's indictment after another, unable either to challenge the authority of the indicter or effectively to rebut his damning conclusions.

Instead, she worked rather tendentiously and unconvincingly through her talking points about how Senate opposition to the CTBT signals that "We are not as serious about controlling nuclear weapons as we should be." Nonsense. To the contrary, the opposition to this treaty can be justified as much on its adverse impact on "serious" efforts to control nuclear weapons as on the fact it will undermine the U.S. nuclear deterrent. As Sen. Lugar put it:

"I do not believe that the CTBT is of the same caliber as the arms control treaties that have come before the Senate in recent decades. Its usefulness to the goal of non-proliferation is highly questionable. Its likely ineffectuality will risk undermining support [for] and confidence in the concept of multilateral arms control. Even as a symbolic statement of our desire for a safer world, it is problematic because it would exacerbate risks and uncertainties related to the safety of our nuclear stockpile."

In short, by making it clear the Comprehensive Test Ban Treaty is incompatible with U.S. national security requirements and bad for arms control, Richard Lugar has delivered the kiss-of-death to the CTBT. Without his support, it is inconceivable that a two-thirds majority could be found in the Senate to permit ratification of this accord.

The question that occurs now is: Since the CTBT is so fatally flawed and so injurious, will the Senate's Republican majority agree to let it continue to bind the United States for the foreseeable future? That would be the practical effect of exercising the option a number of GOP senators (including, it must be noted, Mr. Lugar) hope President Clinton will allow them to exercise—unscheduling the vote this week and deferring further Senate action on the Comprehensive Test Ban until after the 2000 elections, at the earliest.

Under international law, that would mean only one thing: Until such time as our government makes it clear the CTBT will not be ratified, the United States will be obligated to take no action that would defeat the "object and purpose" of the CTBT. This would mean not only no resumption of testing. Under the Clinton administration, there will certainly be no preparations to conduct explosive tests either—or even actions to stop the steady, lethal erosion of the nation's technical and human capabilities needed to do so.

If national security considerations alone were not sufficiently compelling to prompt the Senate leadership to stay the course and defeat the treaty, the conduct of the president and his surrogates should be sufficient inducement. After all, administration spokesmen are using every available platform to denounce Republicans for playing "political" games with this treaty. (Never mind that the president and every one of his allies on CTBT in the Senate had a chance to reject the time-agreement that scheduled the vote. As long as they thought their side would prevail, the 14 hours of debate were considered to be sufficient; only when more accurate, and ominous, tallies were taken did the proponents begin to whine there was too little time for hearings and floor deliberation.)

Moreover, in refusing to date to commit not to push for a vote in an even more politically charged environment next year, the CTBT's champions are behaving in a manner that can only encourage GOP speculation that the president and his partisans have every intention of using whatever deferral they are granted to campaign against the Republican majority—with the hope not only of changing minds, but changing senators and even control of the Senate in the upcoming election.

With Dick Lugar arguing that the zero-yield, permanent Comprehensive Test Ban Treaty must be defeated, Senate Republicans can safely do what is right without fear of serious domestic political repercussions. And, while there will be much bellyaching around the world if the CTBT is rejected by the U.S. Senate, the real, lasting impact will not be to precipitate nuclear proliferation; it is happening now and will intensify no matter what happens on this treaty. Neither will it be to inflict mortal harm or "embarrassment" on the presidency. No one could do more to demean that office than the incumbent.

Rather, the most important—and altogether desirable—effect will be to re-establish the U.S. Senate as the Framers of the Constitution intended it to be: a co-equal with the president in the making of international treaties; a quality-control agent pursuant to the sacred principles of checks-and-balances on executive authority, one that if exercised stands to strengthen the le-

verage of U.S. diplomats in the future and assure that the arms control and other treaties they negotiate more closely conform to American security interests. Mr. Lugar put it very well in his formidable press release of last Thursday:

"While affirming our desire for international peace and stability, the U.S. Senate is charged with the constitutional responsibility of making hard judgments about the likely outcomes of treaties. This requires that we examine the treaties in close detail and calculate the consequences of ratification for the present and the future. Viewed in this context, I cannot support the [CTBT's] ratification."

The PRESIDING OFFICER. The Senator from New Hampshire is recognized.

PRIVILEGE OF THE FLOOR

Mr. SMITH of New Hampshire. Madam President, I ask unanimous consent that Cline Crosier on my staff be granted the privilege of the floor for the remainder of the debate on this issue.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. SMITH of New Hampshire. Madam President, it was interesting to hear my colleague from Delaware. He is correct. I remember those signs, "One hydrogen bomb could ruin your day." I think the reason we are here today is a second hydrogen bomb that ruined their day. I think we need to make sure they understand we have the capability to respond in kind with weapons that will work. I think that is really the subject of the debate.

It takes a very confident person to criticize Edward Teller a little bit.

Mr. BIDEN. Madam President, if the Senator will yield, not on his scientific assessments, on his political judgment.

Mr. SMITH of New Hampshire. Right. The Senator from Delaware also said that if you can't verify the reliability or certify the reliability, you can always get out of the treaty. That is true. But my concern is, will it be too late to catch up at that point? How much time will have elapsed?

I wonder sometimes how the results of the cold war might have come out had we yielded to all of the arms control pressures and adopted every arms control agreement exactly as it was pushed upon us, not only in the Senate but also in the House over the years. I look at arms control agreements in the 1960s and 1970s and 1980s. In spite of the fact we had a full-scale Soviet expansion throughout the world and full-scale nuclear buildup and absolutely no verification for the most part and cheating year after year, time after time we still pushed hard for these arms control agreements.

Mr. BIDEN. Will the Senator yield for 30 seconds for me to respond? We did pass the ABM Treaty, SALT I treaty, the START I treaty, the INF Treaty, the CFE Treaty, and we did it during the cold war.

Mr. SMITH of New Hampshire. And the Soviets violated every one of them.

Mr. BIDEN. They seem to work.

Mr. SMITH of New Hampshire. They work if you want to accept the fact

that they violated it. We got lucky. That is the bottom line. As to the violations that President Reagan said trust but verify, in this particular case, I am not prepared to trust the North Koreans or the Libyans or the Iranians or the Iraqis or the Red Chinese, No. 1; and, No. 2, we cannot verify anything they are doing. That has been testified to over and over and over again.

I rise in very strong opposition to this Comprehensive Test Ban Treaty and, in doing so, know full well that we have one of the greatest communicators and spinners in American history in the White House. The idea will be that this will become a political debate in that how could anyone not be in favor of or how could anybody be opposed to a comprehensive test ban where we would ban the testing of nuclear weapons. That is the way it will be spun.

The answer is very simple. Because if you can't verify what the other side is doing, then you are at a disadvantage because we have the superiority of the arsenal. So if we don't verify that they are not testing, and we don't keep our stockpile up to speed because of that, and we don't know it is reliable and they do, then we are gradually losing that advantage. That is the issue.

In spite of all the spin we will hear over the next day or two after this treaty is voted on, that is the crux of the issue. Let us separate the spin. Let us take the politics out of this. Let us take the spin out of it and go right to the heart of it. We can't verify what they do, and if our stockpile is not reliable because we don't test, they gain on us.

The other point is, some of these nations, such as North Korea, might decide to test it on us and think nothing of it. Does anybody feel confident that the Iranians or the Iraqis would feel they had to test a nuclear weapon before they tried it on us? I don't feel that confident. I certainly don't think many in America do either. This treaty is wrong for our nuclear weapons program. It is wrong for America. It is wrong for the international community. It cannot be verified. It does not help us in maintaining our own stockpile.

Time after time the past several weeks, I have heard members of the administration try to spin this issue and claim that every President since Eisenhower has sought a comprehensive test ban. Basically, that is an attempt to hide the truth, to fool the American people into thinking this treaty would have had unanimous support from all of those Presidents. It wouldn't have had the unanimous support of those Presidents. To make those of us who oppose this treaty look as if we are standing out on the fringes is simply wrong. Yet that is the way it is reported. That is the way it is written. That is the way it will be spun tonight, tomorrow, and the next day by members of the administration as they