

CARNEGIE COUNCIL *for Ethics in International Affairs*

Nuclear Nightmares: Securing the World Before It Is Too Late

Public Affairs, Global Ethics Forum TV Series

Joseph Cirincione, Joanne J. Myers

Transcript

Introduction

JOANNE MYERS: Good afternoon. I'm Joanne Myers, director of Public Affairs programs, and on behalf of the Carnegie Council I'd like to welcome our members and guests and to thank you for joining us.

Our speaker is Joe Cirincione. He is often referred to as our nation's most inspirational advocate for reducing the threat of nuclear weapons. He is the author of a very compelling new book, entitled *Nuclear Nightmares: Securing the World Before It Is Too Late*.

As a recent member of President **Obama's** nuclear policy team and as the current president of the Ploughshares Fund, a global security foundation, he is often at the center of debates on nuclear nations, nuclear arsenals, and the threats of nuclear terrorism. We are delighted to welcome him to this podium once again.

In recent weeks, the **Obama administration's** successful **negotiations** with Iran, which temporarily freeze much of its nuclear program, have refocused our attention on the possibility of reducing the world's arsenal of nuclear weapons and the hope of eliminating one more nuclear nightmare. While the 20th century saw many revolutionary breakthroughs in science and technology, few of the leaps forward have had more of a direct impact on the world than the advances in nuclear science—specifically, the development of the atomic bomb.

We know that the risks of a nuclear incident did not end with the Japanese **surrender** on August 15, 1945. Many people at that time called for a ban on nuclear weapons in order to avoid a nuclear arms race and the risk of future catastrophes like the ones in **Hiroshima and Nagasaki**. Since that time, it has become all too apparent how much is at stake in constraining the missile and nuclear weapon capabilities of North Korea, Iran, and other rogue states, as well as terrorists. That's why bringing Iran into the discussion is so important for securing the world before it's too late.

Notwithstanding the fact that the Geneva Agreement that Secretary of State **John Kerry** and his negotiating partners announced was largely a holding action, which is meant to keep the Iranian nuclear program in check for six months while negotiators pursue a far tougher and more lasting agreement, it is still a beginning, even if many difficult hurdles remain.

Since the signing of this deal, there has been much discussion over these negotiations and what they mean for the future of arms control. Will this deal prevent Iran's nuclear breakout, or is it a step

that actually legitimizes Iran's path to nuclear weapons capability? For an educated answer, one delivered with the insight, wisdom, and experience of someone who has spent the major portion of his life trying to rid the world of nuclear weapons, please join me in welcoming this very influential sage, our guest today.

Remarks

JOSEPH CIRINCIONE: Thank you very much. Thank you for that gracious introduction. I very much appreciate it. [Rachel Maddow](#) was very generous with her comments on the jacket of my new book as well, and I am delighted I will be on her [show](#) later tonight.

Second commercial: Although I'm honored to be on Secretary [Kerry's International Security Advisory Board](#), the remarks I give are my own and do not reflect the views of the State Department, the government, or the United States.

Third commercial: I am the president of [Ploughshares Fund](#). We're an organization, a foundation, that for 32 years has raised over \$100 million and given it out to people with the best ideas for how to reduce nuclear threats. We are a public foundation. We rely on the generosity of our donors. So if you either have money or need money, please see me after and we'll talk.

Let's get started.

I doubt very much that any of you woke up this morning thinking about nuclear weapons. Why should you? We all have our own problems, our own challenges. But of all the issues we face in our personal life, our family, our community, our nation, there are only two that threaten destruction at a planetary level: global warming and nuclear weapons. Both of these have the potential for devastating everything we have built as human beings over the millennia. Both of them are caused by machines that we created. Both of these threats are preventable, reversible, but they require new leaders with a new vision for what the future should look like.

I'm going to talk about just one of those, the nuclear weapons threat. That threat comes in three flavors.

The [National Security Strategy](#) of the United States says that the greatest threat facing the United States is two of these threats—the threat that a terrorist group like [al-Qaeda](#) would get a nuclear weapon and there would be a nuclear 9/11; and the threat that new nations will get this weapon and these deadly devices will spread to many nations, large and small, stable and unstable. Both of these, the National Security Strategy says, require our outmost attention, our dedication to reducing and preventing those threats.

I think the National Security Strategy is right, and it with great distress that I have to tell you that our national resources aren't being put where our threats are. We say these are the greatest threats, but that's not where we put most of our money and it's not where we put most of our energy.

We do have programs that can prevent terrorists from getting these weapons. The good news is that a terrorist group can't build a nuclear weapon from scratch; they can't make the stuff, the highly enriched uranium or the plutonium that would form the core of a bomb. That requires an industrial facility, a large factory, billions of dollars, gigawatts of energy. That's a national facility. That should be [Hillary Clinton's](#) next book, *It Takes a Nation to Make the Material for a Bomb*.

But if a terrorist can get that material from some of the still-unsecured stockpiles in Russia or the

highly secured stockpiles in unstable Pakistan, then constructing a team that could assemble that material into a crude nuclear device—say the size of the bomb that destroyed [Hiroshima](#)—is easy. Smuggling it into the United States, easier still. And there's no shortage of suicide bombers to set it off.

So we have programs in place that are securing those material, that are enlisting the international cooperation of 40, 50 different countries and international agencies to try, as President [Obama](#) has pledged, within four years to secure all that material and eliminate it where possible.

If you do that, this will be, as [Graham Allison](#) of Harvard University says, the ultimate preventable catastrophe. This is something we can stop. It's just a race, [Sam Nunn](#) says, between cooperation and catastrophe. Can we get that cooperation quick enough, secure those materials quick enough, before something terrible happens?

That's threat number one.

Threat number two: Can we stop new states from getting those weapons? I am going to defer that discussion for the second part of my talk because I want to talk about Iran, the number one nuclear policy issue on everybody's mind, clearly the state that most people worry about getting the bomb. What happens if they get it? Will their neighbors then follow suit? Will Saudi Arabia get the bomb? Will Turkey try to get the bomb? Will this then ripple out in another proliferation wave?

But let me talk about the third threat, the one that we don't talk about all that much, but we should, which is the danger from existing stockpiles of nuclear weapons. There are 17,000 nuclear weapons still in the world. First, the good news: There used to be 66,000 at the peak of the [Cold War](#). We had 30,000 hydrogen bombs. The Russians had 30,000 hydrogen bombs. It was an insane period. We went nuclear nuts in the 1950s. When I was born, the stockpile of the United States consisted of about 150 nuclear weapons, right at the beginning of the 1950s. By the time [John F. Kennedy](#) swore the oath of office, there were 20,000. We went from 200 to 20,000 in a decade. We had them everywhere—nuclear torpedoes, nuclear depth charges, nuclear land mines.

The Army even had a nuclear bazooka, a two-person tube that would fire a small nuclear warhead about half-a-mile. It was the only nuclear weapon every built whose blast radius exceeded the range of the device. You know what that means? It's a suicide mission. Even the Army figured that out after a while and they canceled it—"Davy Crockett" it was called—by the end of the 1950s.

Fortunately for us, we had presidents who saw that we didn't need this number of weapons. I'm not talking about liberal Democrats. I mean rock-solid, conservative presidents like [Ronald Reagan](#), who said nuclear weapons were good for nothing, and he said he envisioned a day when nuclear weapons would be eliminated from the face of the earth. With [Mikhail Gorbachev](#), then the leader of the Soviet Union, he did the first cut, the first [treaty](#) that cut nuclear weapons. He slashed our arsenals and the Russian arsenals by 50 percent. [George H. W. Bush](#) followed him and cut them another 50 percent. [George W. Bush](#) cut them another 50 percent.

That's the path we're on now, with these arsenals steadily coming down. But they are not coming down fast enough. They are still here. As long as they're still here, in human fallible hands, there is the risk of catastrophe, the risk of danger.

I know I'm here to pump my book, *Nuclear Nightmares: Securing the World Before It's Too Late*, Columbia University Press, available online. We built a really cool website for this book, called nuclearnightmaresbook.com. You can follow the bomb all the way down and you can see some of

the threats I'm talking about and you can read the first chapter for free.

But there is a man named [Eric Schlosser](#), who wrote *Fast Food Nation*. Maybe you read his book. He just wrote a book called *Command and Control*. *The New York Times* just named it one of the Top 100 Books of the Year. *Command and Control* is about the nuclear accidents that we have had in this country where we almost blew ourselves up. There are 11 or—depending on how you count—14 different times we came close to blowing ourselves up.

There was an [accident](#) with a B-52 bomber flying over North Carolina which disintegrated in flight and several bombs dropped from the bomb bay of the B-52. One of these hydrogen bombs fell all the way to the ground. There were seven safety switches that are supposed to prevent that bomb from going off. Six of them failed. One small dollar circuit prevented that hydrogen bomb from destroying a good portion of North Carolina.

Just in [2007](#), in case you think this is ancient history, a B-52 flew off from Minot Air Force Base in North Dakota carrying six cruise missiles on its wings that it was bringing down to Barksdale Air Force Base in Louisiana for retirement. We were decommissioning them. They were going to be destroyed down there. Unbeknownst to the crew, by accident six live nuclear-armed cruise missiles were loaded on that plane. It flew those nuclear Cruise missiles all the way down. They landed. They spent the night on the tarmac. Nobody knew they were there. Guarded by just the normal security—a guard, a barbed wire fence.

The next day, one of the crew looked at the cruise missiles and saw there was a little red dot on the nose of the missiles, the dot that tells you that's nuclear, not conventional. He told his commander. His commander didn't believe him. They found out it was true. They picked up the phones and they called. The really bad news? Minot back in North Dakota never knew they were missing.

A friend of mine used to be the commander of the Strategic Command. He said if you had asked him before this happened what were the chances of this happening, he would have said, "Zero; it can't happen."

So you think you're safe? You think you don't have to worry about these kinds of accidents? If this kind of thing is happening in the United States, where we have the best command-and-control system in the world, what's going on in Russia?

What's going on in Pakistan, a country with 100 nuclear weapons, an unstable government, a collapsing economy, strong Islamic fundamentalist influences in the military and intelligence apparatus—oh, and al-Qaeda operating inside its national territory and several al-Qaeda-like groups; and an ongoing [conflict](#) with its nuclear-armed neighbor India. What happens if that country descends into turmoil? Who gets the weapons? Who gets the material to build the weapons? Who gets the scientists who know how to build the weapons?

For my money—and I say this in the book—Pakistan is the most dangerous country on earth. You're worried about North Korea? Pakistan is the most dangerous country on earth.

But I want to turn to the country that gets the most attention because this is the one that everybody is keyed up on, this is the one that has the highest political stakes. I want to talk about Iran.

Iran has been experimenting with nuclear weapons technology since the time of the [Shah](#). The Shah started a nuclear power program. He wanted to build 20 reactors in the country. We said okay. This was back in the 1960s, 1970s. The Shah was our guy. He said he wanted to have a uranium

enrichment facility. We said okay. He said he wanted to build a facility that could reprocess plutonium, take the plutonium out of the spent fuel rods. We said okay.

The Shah was overthrown. Fortunately for us, Ayatollah [Khomeini](#), who took command, shut down the nuclear power program, shut down the secret nuclear weapons program, said that was Western technology and he didn't want anything to do with it.

Then Iraq [invaded](#) Iran. Then Iraq used [chemical weapons](#) that killed tens of thousands of Iranians. Then the world did nothing.

So the Ayatollah restarted, secretly, the nuclear weapons program. We don't know this for sure, but the circumstantial evidence is pretty compelling. It's pretty clear that Iran did secret work—design work, experimentation, fabrication of certain parts—on nuclear weapons during the 1980s and 1990s.

The national intelligence estimate says that by 2003, right after we [invaded](#) Iraq, they shut that weapons program down. They took down the dedicated weapons part. But they kept on with the public part, the enrichment technology.

In order to understand what the stakes are with Iran, you have to do just a little tiny bit of physics. This won't be painful, I promise you. You have to understand what the issue is with Iran and centrifuges.

In order to use uranium for fuel or for a bomb, you've got to enrich it so that it has a higher concentration of a certain kind of uranium atom, U-235. When you dig uranium out of the ground—and Iran has uranium mines so they dig the uranium out of the ground—most of it is made up of a perfectly nice isotope, U-238. But U-238 doesn't go pop. When you hit U-238 with a neutron, nothing much happens.

What you need is that less-than-1-percent of natural uranium, so 1 in 100 atoms, that's U-235. You hit U-235 with a neutron, bang! It splits in half. Two other neutrons go out that could hit other U-235 atoms, if they were close by, and it releases nuclear energy that is millions of times more powerful than chemical energy, the normal source of energy that we use in our daily lives. Combustion engines, to make our own energy in our bodies—that's chemical energy, electron bonds breaking and unbreaking. But this is nuclear energy, the energy from the nucleus of the atom.

But you've got to get those U-235 atoms closer together. So what you do is you take that uranium, you refine it, you put it together with a fluoride gas, you turn it into a gas, and you put it into a centrifuge. So here's your centrifuge, about the size of a water heater. You take that gas and you put it in, you spin it around at supersonic speed. As every chemistry student knows, the heavier elements go to the outside. The U-238 goes to the outside. So you siphon off the gas in the middle, which has now got a slightly higher ratio. It's slightly enriched with U-235, that lighter, pop-able, fissionable atom. But it's only slightly enriched.

So you've got to put it in another centrifuge. You pump that gas and you do it again, and you do it again, and you do it again, and you do it again. You line up about 10,000 centrifuges and you do that for about three months. Now you've got something. Now you can stop. Now you've got uranium that's enriched not to 1 percent, but more like 3 or 4 percent U-235.

You can stop. You can take that gas out. You can turn it into a powder. You can put that powder into fuel pellets. You can put the fuel pellets into fuel lines. You put the fuel lines into a nuclear reactor.

They start fission. They heat up. They start splitting. It's a controlled fission. It creates heat. The heat turns the water into steam. The steam turns the turbines and you have electricity. Twenty percent of the electricity in the United States is made just that way.

But here's the problem. You don't have to stop at 3 percent. Same centrifuges, same facilities, a little different plumbing, a little different configuration, and you can keep going to 20 percent. You can make 20 percent enriched uranium for a different kind of fuel, the fuel you use in research reactors to make medical isotopes, for cancer treatment, for example. Iran is doing that.

Or you can keep going all the way to 90 percent. Now you stop, you take that gas out, you turn it into metal, you form that metal into a chunk the size of a small grapefruit, and you've got the core of a bomb. You have Nagasaki or Hiroshima. Hiroshima was that highly enriched uranium. That's what you have.

So what is Iran doing, fuel or bombs? Do you trust them? Well no, we don't trust them. We don't trust them because of the way they went about their program. We don't trust them because of the history of their program. We don't trust them because of what they did to our [hostages](#).

And they don't trust us. They don't trust us because of what we've done to their country—the 1953 [coup](#) that overthrew their democratically elected leader, [Mohammad Mosaddegh](#). Very few Americans know that history. Very few Iranians don't.

So there is mutual mistrust between these two nations.

So how do you solve this problem? The [deal](#) that was struck in Geneva is an historic milestone in the decades-long effort to try to resolve this problem, to try to make sure that Iran doesn't get a bomb, that whatever nuclear technology they possess is just for civilian purposes. That's a tough task.

So the deal that was struck in Geneva didn't try to do it all at once. It took a first step. It tried to lengthen the fuse. It tried to give more warning time. It tried to get a breathing space to freeze the program in place so that over the next six months we can try to conclude a final agreement.

We don't know if we can do that. President Obama on Saturday said the chances were 50/50. But while we talk, we don't want them to enrich. We don't want them to build. We don't want to be fools. So that deal freezes the program in place.

Here's what I mean. You remember a year ago Prime Minister [Netanyahu](#) was here at the United Nations and he held up that [cartoon drawing](#) of a bomb, like something out of a [Wile E. Coyote](#) cartoon, right? It looked a little foolish? Yeah, foolish like a fox. Very effective. He was on the front page of every paper around the world. It got people's attention. He had that bomb and he drew a red line across the top. He said, "If Iran crosses that red line . . ."

What was he talking about? He was talking about how Iran was steadily building up uranium enriched to the 20 percent level, that if they got enough of this—it turns out to be about 250 kilograms—they could quickly put that back in the centrifuges, whip it through, and in a matter of weeks or months, he said, they could turn it into enough material for the core of one bomb.

"Israel can't let that happen; the world can't let that happen," he said. "We have to do something about it."

Well, guess what we did? That's what the deal in Geneva does. It drains that bomb. It takes the

uranium out.

Iran has agreed to get rid of that 20 percent enriched uranium. They had gotten up to about 190 kilograms, so about 60 short of the red line. So they're getting there. They agreed to get rid of it and not make any more. To make sure they're getting rid of it, and to make sure they're not making any more, they agreed to increase the inspections. We have international inspectors, [IAEA](#) (International Atomic Energy Agency) inspectors there. They are now going to have daily visits to the sites, so they will be there every day to make sure they got rid of what they said they were going to get rid of and that they're not making any more. If they do cheat, we'll see them doing it. We'll have ample time to take action.

But the deal does more than that. It says that they are going to stop building any new centrifuges, stop installing any new centrifuges. They have about 19,000 installed now. Their plan is for 50,000. About half, about 11,000, are actually operating. They promise not to install any more and not to turn on the ones that are installed but aren't spinning. So you're really freezing the program in place.

There are other factors. They are also playing around with what's called a heavy water reactor that, if it went operational in two or three years, could start producing plutonium for a bomb, the other path. Hiroshima, highly enriched uranium; Nagasaki, plutonium. Two paths to a bomb. Iran is concentrating on the first, but you don't want to have them get started on that second. So it stops the construction of any major work on that reactor while we talk.

In exchange, we loosened up some of the grip we had on their assets. By "we" I don't just mean the United States. This was not a deal between the United States and Iran. This was a deal between the United Nations Security Council plus Germany, who participated in these talks. So Russia; China; the United Kingdom; France, who is driving a tough, tough bargain in these talks; and the United States; the UN Security Council, and UN—we agreed to loosen up some of the hold we have on Iranian assets that have been frozen in banks and financial institutions around the world. We're letting about \$7 billion of that out, to let them go. So they freeze the program; we give them a little financial relief.

But this is just an interim agreement. This just buys some breathing space, lengthens the fuse. It about doubles the time it would take them if they had decided to break out and go pedal-to-the-metal race for a bomb. What you really want is to have their program completely constrained, heavily inspected, rolled back, much less than what they have now. Can you get zero? Could you get the [Carthage](#) solution? Can you just raze it and then salt the ground to make sure they never do it again?

I'd like that. I wish we could get that deal. We could have gotten that deal in 2003, when there were no centrifuges spinning, when Iran came to the United States and said, "Let's talk." But then the [administration](#) wasn't interested in making a deal. In the words of Vice President [Cheney](#), "We don't negotiate with evil. We defeat it." So we didn't talk. We thought we could force their collapse. We thought we could coerce them into surrendering. It was a terribly misguided policy. By the end of the Bush administration, Iran had 1,000 centrifuges. They had zero in 2001.

Can you get them to go back to zero? Not right away. Not in this deal. Not any deal we hope to get by the middle of next year. Maybe eventually, but not now. That zero deal is not feasible. You can't get it.

So if you demand zero or nothing, what you are going to get is an Iranian bomb. Demanding zero centrifuges in Iran means Iran is going to go build a bomb. That mean the talks would collapse and

they'll go. Whether they build it slowly or quickly I don't know, but that means you lose your chance.

I always think of the [Aesop's Fable](#) about the dog with the bone in his mouth. He goes over a bridge and he looks down. He thinks he sees a dog with a bigger bone. In trying to get that bigger bone, he loses the one he has.

That's exactly the situation we are in now with Iran. People are saying, "We can get a better deal. We can get the whole thing." No, you can't. That's an illusion. If you try to get it, you are going to lose what you have.

So this is the moment that they're at, and it's an intensely political moment. Never underestimate the role of domestic political politics in national security strategy. There are fierce domestic politics around this.

Some very pro-Israeli factions want the zero option. President Obama's political opponents want him to fail. They compare him to [Neville Chamberlain](#) in [Munich](#). They want to do anything they can to show him as a weak, failed, dangerous president, naïve, doesn't care about American security, [whispering] might not even be American.

So you've got these political factions, ideological factions, other countries involved, all coming together in this. But let me tell you this may be the most important deal we make. I cannot overstate the potential impact of this deal.

For one, if you can get a successful deal that rolls back and constrains Iran's nuclear program so that they will not get a bomb and verifiably puts in an inspection regime that makes sure that there is no secret work going on, that we can see them if they cheat, the effect of that won't just be to stop what many people think is the number one nuclear threat facing us, but it will ripple across the nuclear policy spectrum.

It could enhance your efforts to convince North Korea to take a similar deal. North Korea and Iran are the only countries knocking on the nuclear power/nuclear weapon door. People say "countries like Iran and North Korea," but there are no countries like Iran and North Korea. There's only Iran and North Korea. There's nobody else in the world with programs as dedicated, as large, as those.

So if you can stop Iran, if you can contain and maybe even roll back North Korea, you can actually start talking about the end of proliferation, the end of the spread of the bomb that began 68 years ago in Hiroshima.

You could have confidence that diplomatic solutions can solve even the thorniest problems. You can create the security conditions that start to encourage people with very large arsenals, like the United States and Russia, to start decreasing more rapidly their arsenals, to keep that trend that goes from 66,000 down to 17,000, keep it going. The fewer weapons there are, the fewer chance there is of terrorists getting them, the fewer chance there is of an accident or a miscalculation or one of these weapons being used in anger. So that's what you want to do, that's where you want to go.

But let me just say there are also more possible geopolitical benefits. The president doesn't want to talk about this. Mr. [Rouhani](#), the president of Iran, doesn't want to talk about this. They just want to focus on the nuclear deal. But there is the possibility that if you can solve this key issue between the United States and Iran, you can open the way for strategic cooperation on other areas of mutual benefit to the two countries.

What am I talking about? Afghanistan for one. Remember, Iran and the United States cooperated to [overthrow](#) the [Taliban](#) in 2001. We had active daily, weekly communications with the Iranians in that effort. The man who was in charge of that, Ambassador [James Dobbins](#), is now our envoy to Pakistan and Afghanistan, perfectly situated to facilitate this kind of cooperation again.

Iran has an interest in the Taliban not coming back to power. So do we. They have an interest in stopping the drug trade out of Afghanistan; there are a million heroin addicts in Tehran. So do we. They have an interest in a stable [Iraq](#). So do we. They have an interest in making sure that the Shia-Sunni divide, which is splintering through the Middle East, doesn't engulf the region in chaos. So do we.

They have an interest in stabilizing [Syria](#). So do we. Now, there are different interests. We'd like to see Mr. [al-Assad](#) go. They'd like to see him stay. But can you get an agreement to at least have a ceasefire, to allow some humanitarian assistance in?

While the countries were negotiating the agreement on the nuclear deal in Geneva, they were having secret meetings right next door on Syria—we found out about them two days later—the U.S., Russia, European countries, Iran, Saudi Arabia. Now, would you imagine that those countries would be in the same room together a couple of months ago? Well, they were, and they are, and they are talking.

It's not very often that you get to see the hinge of history move. But we may be in such a moment. Now, none of this is automatic, none of this is possible, everything is tenuous.

When Mr. Rouhani was here to [speak](#) at the General Assembly, we had a dinner, about 30 of us, with Mr. Rouhani and Mr. [Javad Zarif](#). I had met Mr. Rouhani back in 2005 in Tehran when he was the nuclear negotiator. He's as skilled and as charming as ever. Ambassador [Bill Luers](#), who is in the audience, was at the dinner with us.

Now, the dinner was off the record so I can't talk about it. But he said similar comments in public. One of the phrases that he used in that dinner and that he uses publicly is that the U.S. and Iran have to learn how to manage their differences—not overcome their differences, not resolve their differences, manage them. A very careful choice of words.

That's what we're looking at. We're not going to be friends with the Islamic Republic of Iran, but we don't have to be enemies. We can manage our differences the way [Richard Nixon](#) managed our differences when he [opened up relations](#) with China. We can manage our differences the way Ronald Reagan managed our differences when he negotiated with Mikhail Gorbachev, the head of the Soviet Union.

Reduce the tensions. Still have differences, sometimes sharp. Remember, when Nixon went to China, the Chinese were arming the North Vietnamese that were killing our troops in Vietnam, and still you make the peace because of the greater strategic dividend. That's what's at stake with Iran.

So I congratulate you for staying involved with the Carnegie Council. I congratulate you for paying attention to these critical issues.

There are very rare moments in time when it matters so much what we decide to do and where citizen involvement is so important. So I encourage you to tell your senators what you want. If you want a deal with Iran, if you don't want the U.S. Senate to screw this up by pouring more sanctions into this debate, if you want diplomacy to have a decent interval to see if it can work, call Senator [Gillibrand](#), call Senator [Schumer](#), who are playing key roles in this; call your Congresspeople and let

them know.

It matters. I worked in the Congress for 10 years. People pay attention. Okay, maybe we don't call these days. Maybe we email; maybe you go there and knock on their door; maybe you send them a letter; maybe you visit them when they're home for the holidays. But let them know how you feel. Let them know what you want. Let them know that you want to give diplomacy a chance.

Thank you very much for letting me come and talk to you tonight. We have some time for questions.

Questions

JOANNE MYERS: Do you think it's ever possible that Iran will totally dismantle its infrastructure and go back to square one?

JOSEPH CIRINCIONE: I do think it's possible—not anytime soon—and let me tell you why. I don't base this on hope or a desire. I'd like that to happen. I'd like there to be zero. But I'm just looking at the underlying dynamics and what happened.

We look at this structure now and we go, "Ah, they've got 19,000 centrifuges." Well, 10 years ago they didn't have any. Ten years ago they weren't there. So this is temporary.

This was all built up during the presidency of the [Holocaust](#)-denying, epithet-spouting President [Mahmoud Ahmadinejad](#). He made this into a national cause célèbre. He used the nuclear issue to build support for an otherwise deeply unpopular regime.

Tens of thousands of people would come out at rallies and chant for Iran's right to this nuclear technology—not for nuclear weapons, for the nuclear technology, for the right to the energy of the future, that they thought we were denying them, the way we used to deny them their own oil. That was the message, and that worked, and the thing got built up.

But I think that what you have seen since the election of President Rouhani is a strategic shift in what the people want and in the calculations of the leadership.

President Rouhani was elected on basically one issue—the economy, stupid. How do you say stupid in Farsi? They have to restore the economy. The [sanctions](#) have crippled the economy, plus the incredibly inept fiscal management of the clerical regime, particularly under Ahmadinejad. They had negative 5 percent growth last year. The currency has dropped 60 percent in value.

If you take nothing else away from this, take away these three numbers. Sixty percent of the Iranian population is under the age of 35. Fifty percent of them are unemployed. That is an existential threat to the regime. It's not Israel, it's not us; it's 50 percent youth unemployment. No government can survive long with that. They have got to fix that. In order to fix the economy, they've got to get rid of the sanctions. In order to get rid of the sanctions, they've got to make a deal on the nuclear.

I think this nuclear program has become an albatross for them. But for their own strategic reasons—not to do us a favor, not because they are beaten into submission—but for their own strategic reasons they want out, and they are willing to trade this nuclear program, parts of it right now, for sanctions relief, for reintegration with the West, to stabilize their economy, to grow their economy, to become what they think they are destined to be, which is the leading country in the region. Remember, this is a 3,000-year-old civilization. That's the bigger game.

It is said that the Iranians invented chess. The Indians say they did. I don't know, but one of them did, and they're playing chess. They're looking moves ahead.

We think the nuclear program is really important. I don't think they think that. I think they're playing a bigger game and they are willing to trade. And once they trade, once you limit the program to 10,000 centrifuges under strict inspection, after a while you give them a face-saving way out. Five years from now what are you doing with those 10,000 centrifuges? What are they doing for you? It's much cheaper to buy the fuel than it is to make it.

I could see that program sort of withering away and closing up shop—but not right away. They have invested too much and there's too much prestige and there's too much pride. They can't give it up. No politician in Iran can make that deal now. But maybe one can make that choice four or five years from now.

QUESTION: Philip Schussel.

Do you think that Netanyahu's bellicose threats are helpful or hurt the situation?

JOSEPH CIRINCIONE: I think they have been helpful in the past, but I think we're past that point. I think it's always good—and Richard Nixon was the master at this—the madman theory. If they think that they're going to actually do this crazy thing and attack, it helps you in negotiations, as long as you are willing to negotiate. So I think that stick has been important.

There are some of my colleagues who think the only reason that we got the sanctions is because there was the threat of Israeli nuclear action, the only reason Iran is doing what it's doing. So I think there is validity to that. It is hard to say in international relations what actually causes—it's not actually a chemistry lab—but I believe that.

At this point, however, now that you've got what you wanted—remember, the point of the coercion, the sanctions and the threats, was to get Iran to the negotiating table, was to get them to stop the program. Well, they are at the table and they have stopped the program.

All we are looking for is six months to see if we can get them to stop it permanently and start to roll parts of it back. It's a short time. We spent 10 years watching them build it up. We can spend another six months to test the proposition that they might be willing to build it down.

QUESTION: I'm Allegra Levanne.

Can you please elaborate on North Korea? Are they totally insane?

JOSEPH CIRINCIONE: Yeah.

There's no place like North Korea. It's unique, it really is. It's unique in the world. It's one of the most opaque countries for us. We know much more about Iran than we do about North Korea.

And even what has happened this last week—I don't know if you know. [Kim Jong-un arrested his uncle](#), the man that was the regent, that was China's most trusted interlocutor with the regime. They dragged him out of a meeting, arrested him, denounced him—classic [Stalinist tactics](#). [*Editor's note: Two days after this event, it was reported that Kim's uncle was executed.*] Tearful denunciations by people who used to work for him.

I think they might be crazy internally. I mean isn't it insane to do what they are doing to their own

people, to starve tens of millions of people? Isn't that madness? I think it is.

But I don't think they are crazy internationally. In other words, I don't think they are irrational internationally. I don't think they would do something that would cause the collapse of their regime—for example, use one of their nuclear weapons. They know what would happen next.

What they care about more than anything else is preserving the regime. So even with North Korea, deterrence is alive and well. The assured response of a devastating strike, whether nuclear or conventional, on the regime, that would eliminate the regime, stays their hand.

But here, for me, this requires much more urgency. I am not a fan of the administration's policy on North Korea. I think we should be talking to them much more than we are. We have a policy that is basically to wait to talk to them until they do something to prove their good faith. We've been waiting for years.

I actually think we have to engage North Korea more, despite what they are doing internally, despite the turmoil in their country, to try to restrain their program and start to walk them back.

The lesson of North Korea of the last 20 years is when you talk to them, they are willing to freeze their program or even give it up. When you don't talk to them, that's when they take provocative action, testing missiles, testing nuclear weapons.

QUESTION: Susan Gitelson.

Your talk was reassuring, and it's so rational. If only the world could be that way. But at the same time, we can't help noticing that Iran has been supporting Assad in Syria, and Assad didn't mind killing a lot of his own people. Then there's [Hezbollah](#) and [Hamas](#) and other people, and this general divide between the Shiites and the Sunni. So how do we deal with that?

JOSEPH CIRINCIONE: This is actually the great tragedy of our era. We actually live in a period that is more peaceful than any time we've known in the last two centuries. There are fewer countries at war, there are fewer wars, there are fewer people dying from wars now, than at any time in the recent past.

One hundred and ten million people died in the first half of the 20th century, which was the bloodiest century in human history—almost all of them, by the way, in Europe, the bloodiest continent in human history. Europe is now at peace. We don't have wars in Europe. There is no major power conflict. The major powers in the world are not at war with each other, or near war with each other.

But we still have conflict, brutal conflict—machete conflicts, small arms conflicts, land mines conflict, aerial bombing conflicts. The slaughter in Syria is horrendous, millions displaced. So we see that tragedy and we see it more immediately than we have ever seen it before. That's why we sometimes think the world is spiraling out of control, that the world is more and more dangerous. But it isn't true. The world is actually more peaceful, more orderly, than it has ever been. And there is the potential for expanding that.

Did we do the right thing over the last couple of years in Syria? I don't know. I think we basically did what we could. But we now have a chance, whether we did it right and best, to stop the slaughter.

It started with an amazing turn of events in September, when we got Assad to [give up](#) his chemical weapons. Chemical weapons he denied even having, suddenly he is giving them up. We now have

an international team of inspectors in Syria that has destroyed all of Syria's chemical weapons production capabilities, destroyed all the munitions that were not filled, and is in the process of moving all the chemical weapons out of Syria. They are going to get them out by, more or less, the end of the month, over the next few weeks, something that people in September thought was impossible, inconceivable. It's like *The Princess Bride*, "inconceivable." "I do not think that word means what you think it means."

As it turns out, the inconceivable happens. When people say things are impossible, what they really mean is it's hard. Fortunately, we had a secretary of state who was dedicated to doing this and seized the moment, unexpected as it was, and made it happen.

Now, can you get that agreement to translate, as we are trying to, to a broader agreement for a ceasefire? I hope so, to get humanitarian relief in. Can you turn that ceasefire into a broader agreement, as we are trying to—what they call the [Geneva II talks](#)—into some kind of power-sharing arrangement? I don't know. But, personally, I think that's where the trends are going.

That's where the Iran deal helps. If you show that you are willing to accept a regime, accept Iran's regime—so instead of trying to change the regime you change the regime's behavior—other people pay attention to that and it builds up their confidence that maybe they can cut a deal with you.

So we try bit by bit, we try conflict by conflict, as best we can.

QUESTION: George Berstein.

In order to figure out what we can expect of Iran, in case we can make a deal, I'd like to put two matters up.

One is there are other countries that have nuclear energy but not nuclear weapons. Do they make their own nuclear fuel or do they buy it, and are they inspected daily, because what they do may apply also to Iran?

The second matter is Israel. Israel has nuclear capacity. Israel has nuclear weapons. So that seems to me would be a consideration, at least for Iran, as to how far they can go.

JOSEPH CIRINCIONE: Let me see if I can address all of these.

Number one, there are about 40 countries in the world that use research reactors or power reactors. Almost all of them buy the fuel from the countries who helped them build the reactors.

It turns out that reactors are like printers—the money is in the cartridges. So even though the reactors cost a couple of billion dollars, the fuel supply, that's what you want. So even in Iran, the Bushehr reactor, the one nuclear power reactor in the whole Middle East, the fuel comes from Russia. That's the deal. When it's used up, it goes back to Russia, which is what you want.

So you don't have to have an enrichment facility. In fact, the rule of thumb is it doesn't make any economic sense for a country to have an enrichment facility until they have 15 or 20 reactors. Otherwise it's just cheaper to buy it from the six or seven countries that make it and export it.

QUESTIONER: Israel has the machinery, does it not?

JOSEPH CIRINCIONE: Well, Israel has nuclear weapons. They built them themselves. These are uranium-based weapons. Yes, they have the machinery, they know how to do this.

So you don't have to have nuclear power to have a bomb. North Korea has plutonium-based weapons. They had a research reactor. I told you about enrichment. I won't tell you about reprocessing. But trust me, plutonium is made inside reactors and you can extract it.

Remember that U-238 atom that doesn't go pop, that is useless? Well, it turns out that neutron actually does do something when it hits it. When it hits it, it gets absorbed by the U-238 and some of those U-238 atoms transform under something called beta decay into another element. So they are no longer uranium; they become the next heavy element on the scale, neptunium, with another proton. But that has a very short half-life and that decays. One of those neutrons turns into a proton and becomes the next element on the Periodic Table—Uranus, Neptune, Pluto—plutonium. So now you have plutonium. Well, that's where plutonium comes from, from research reactors. So you can make it like North Korea did.

So that's why we don't really want other countries to have reprocessing or uranium enrichment, and the goal is to have as few countries as possible. As long as we have nuclear power, there are other ways to do it. What you really want to do is stop Iran from developing an enrichment facility because you don't want anyone else to have enrichment facilities and you want to shrink the ones that are here and put them under multinational control.

Europe, for example, has three countries that operate its enrichment facility so nobody is stealing the march on anybody else. There are three countries in control. That's one way of making sure that the machinery is used for peaceful purposes.

What was the last part of the question, Israel?

QUESTIONER: Yes, Israel. Purely as a political matter, not as a practical matter, it seems to me it would be hard for Iran to say, "Well, we'll give up all—"

JOSEPH CIRINCIONE: Oh yeah. Well, it is, it is hard. It's impossible to give a talk on the Middle East on nuclear weapons without having all the questions be about Israel. I've tried. I've tried to talk about Pakistan. I've tried to talk about Iran. Everybody wants to talk about Israel.

By the way, I should tell you I have a bias on this issue. I am heavily pro-Israel. My name is Cirincione, I was born in The Bronx, but I have family in Israel. My wife's family is there. My mother-in-law is in Netanya. My sister-in-law is in Jerusalem. So I am very heavily pro-Israel and I don't want anything to happen to that country; I don't want anything to threaten that country.

So I understand why Israel decided, even before there was an Israel, that they needed nuclear weapons. They had to start getting them for their own security. I understand that. But whatever value those nuclear weapons may have had in the early history of Israel, they are not necessary anymore. Israel has enough conventional military power to defeat any foe or combination of foes.

It has a vested interest in making sure no other country in the region gets the one weapon that can destroy Israel. In order to get that, in order to have their assurance, you can't just play nuclear Whack-a-Mole, you can't just keep whacking one country down after another.

At some point Israel is going to have to take the bombs out of the basement and put them on the negotiating table. But in order to do that it is going to have to be in the context of a regional peace settlement. It is going to have to be where all of the countries in the region recognize the territorial integrity of each other and there is no existential threat to Israel from outside its borders. That's a heavy lift.

But we might be a little closer to that than we think. These peace talks between the Palestinians and the Israelis, one of these days they are going to work. I say that because I have seen equally improbable peace talks work in my time.

We all have lived through some of the most remarkable times in human history, where things that people said were impossible actually happened. We have seen the [Vietnam War](#) end and that country unite and welcome back the people who bombed it, in the spirit of reconciliation and friendship. We have seen Germany [unite](#). We have seen Eastern European countries [overthrow](#) dictatorships that ruled them for centuries. We have seen the Soviet Union [collapse](#). We have seen Protestants and Catholics who swore "never, never, never" [shake hands](#) and together rule in Northern Ireland. We have seen a [man](#) walk out of a prison cell that held him for 27 years to become the leader of a free and democratically ruled South Africa, and it's a quote I think of all the time: "It's always impossible, it always seems impossible, until it is done." So even that can be done.

QUESTION: Matthew Olson.

You peripherally mentioned deterrence when you answered a question involving North Korea. I remember if Iraq ever attacked anybody with an atomic weapon, everybody would know where it came from and they would destroy them. If Iran did that, everybody would know where it came from and they would destroy them. Korea, same thing.

Now, you are the president of the United States and North Korea has three bombs, or Iran has two bombs or something, and they drop one of them. Are you going to fry 4 or 5 or 10 million people in response, none of whom had anything to do with that?

JOSEPH CIRINCIONE: This is a very profound question. One of my colleagues is General [Lee Butler](#), who used to command the Strategic Command. When he quit, he started a campaign, his own campaign, and then he joined with others—I was fortunate enough to work with him when I was at the Stimson Center in the 1990s—to eliminate nuclear weapons. He had this same view. He said deterrence was immoral, that it was immoral to respond, even when attacked, with this kind of reaction that would incinerate hundreds of thousands of innocent men, women, and children. The Catholic Church has the same stand; it says deterrence is immoral.

President Reagan talked in his memoirs about whether he would ever actually push the button. He said he wasn't sure he could do it, even if we were attacked. Could he really do that, knowing exactly what you are saying? So deterrence is very much a state of mind. We want people to think that we would do it. We'd want them to know. But in my mind there is a very real question, both morally and practically, about whether we should or could incinerate hundreds of thousands of people for the act of their leadership. It's not at all clear to me.

It's one of the reasons that in the end I don't think deterrence is stable. I don't think this balance of terror that we have, which is more diffuse now than it was during the Cold War, is stable. I think you are an optimist if you think that you could keep tens of thousands of nuclear weapons in human hands and not have some of them go off. It is going to happen.

So our job—our generation and the next generation—is to try to minimize the chance of a nuclear weapon ever being used again, as President Kennedy said, by accident, miscalculation, or madness.

For my money, you want to eliminate those weapons to the lowest as quickly as you can. Maybe you don't agree with me. Maybe you think it's crazy, we can't actually eliminate nuclear weapons. I can't think of a military mission that requires the use of one nuclear weapon today. There hasn't been for

68 years. And we have been in some tough spots and lost some tough wars and had troops and our citizens threatened in numerous instances, and we have never used a nuclear weapon. Neither has anybody else.

But maybe I'm wrong. Maybe you need 10. Maybe you need 50. Maybe you need 500. We have 5,000 weapons. And the really bad news is so do the Russians, in their active stockpile. Every step we do to reduce that, to bring that down, not only saves us money but makes us a whole lot safer.

That's what the Ploughshares Fund is doing. That's what I'm doing. That is the message of *Nuclear Nightmares*. Let's walk down that path. Let's reduce the risk. Let's try to prevent the use of a nuclear weapon ever again and get down to that world where we may be able to someday see the elimination of that very, very last nuclear weapon.

Thank you very much.

JOANNE MYERS: I sincerely want to thank you for one of the most poignant talks on this topic.

JOSEPH CIRINCIONE: Thank you very much. It's a real pleasure.

Audio

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Video Clip

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