



WARNING

From the people who brought you “An Inconvenient Truth,” a film about our nuclear threat.

COUNTDOWN TO ZEROØ

DEMAND ZERO.

Discussion Guide

participant^o
MEDIA

A letter from the filmmakers

Three years ago, we began the journey of making this film. We wanted to make a movie about one of the greatest threats to humanity, the proliferation of nuclear weapons. Nuclear security is an issue that affects every one of us, regardless of nationality, religion or political affiliation. Our goal with this film is to make this issue something people will talk about and demand action. We also knew that the issue of nuclear security hasn't been fully in the public conscience since the days of the Cold War and the height of the Soviet/U.S. arms race. While there are many that remember the days of 'duck and cover' classroom drills, there are new generations of Americans and people around the world that think of nuclear weapons as a distant threat from a bygone era. They could not be further from the truth.

The globalization of the 21st century has produced positive and peaceful exchanges between peoples and nations, but it has also witnessed the dawn of the age of global terrorism. Today an accidental nuclear attack or terrorists acquiring nuclear materials and using them are all-too-real possibilities. We wanted to make a film that helps people understand the reality of today's nuclear threat — and motivates them to do something about it.

Everyone's voices need to be heard to demand that our leaders pursue policies that lead to the elimination of nuclear weapons. This guide offers resources and information to advocate going to zero. Please also visit TakePart.com/Zero to learn more about the issue and organizations involved in the film's Social Action campaign.

Thank you,

Lucy Walker and **Lawrence Bender**
Director Producer



Antenna, scene from COUNTDOWN TO ZERO

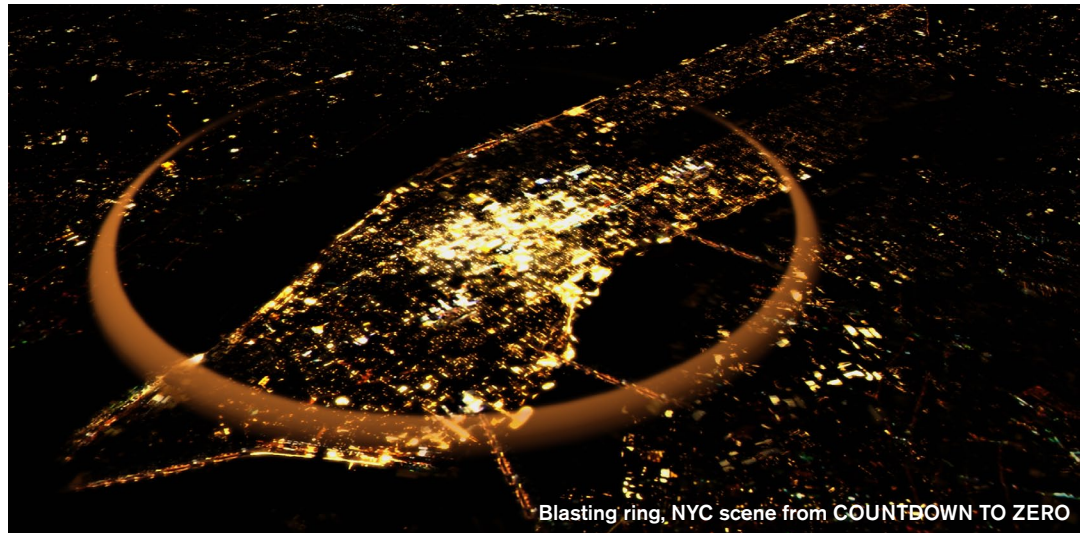








Countdown To Zero:

Movie and a Conversation

How to Start the Conversation

When you host a “Movie and a Conversation” you help to make a difference by starting a dialogue about a critical issue none of us can afford to ignore. Nuclear weapons pose the greatest threat to humanity in the 21st century, but collectively we can change this situation. The first step is using this guide to host a conversation. Here are tips to help you organize your event:



-  Purchase a DVD of the film and host a house party screening and conversation at your house!
-  If you are hosting the screening in a public place, please contact Swank (motionp@swank.com) for licensing rights. They can also provide a DVD.
-  Invite your friends, family and colleagues to see the film as a group and join you for a post-movie conversation.
-  Use the enclosed questions and discussion topics to guide your conversation.
-  Get involved with the organizations associated with the campaign. See page 8 for listing.
-  Join the campaign and take action at TakePart.com/Zero.

Lead A Discussion About The Film

Get Informed

What are the threats of nuclear proliferation and how do we stop them?

There are more than 23,000 nuclear weapons in the world — enough to destroy the world hundreds of times over. Russia and the U.S. possess the vast majority of these weapons. Russia keeps about 12,000 and the U.S. has approximately 9,613 total, though not all of these are active.

Nuclear weapons are kept by three other countries, officially. China has approximately 240 total, France has approximately 300 and the United Kingdom has approximately 160.

There are three other countries we know have nuclear warheads, Israel, India and Pakistan, although they have never officially declared this under the international treaty.

India has approximately 100; Israel approximately 75-200 and Pakistan approximately 70-90.

The existence of each of these stockpiles is a threat to domestic and international security. The U.S. and Russia keep thousands of their nuclear weapons ready to launch on a moment's notice. If even one of these weapons were to be launched — through accident or miscalculation — the consequences would be catastrophic.

The greatest nuclear threat today is a nuclear weapon in the hands of a terrorist who uses it to kill hundreds of thousands of people. Terrorist groups like al Qaeda have pledged to acquire nuclear weapons and use them. Nuclear weapons are found in countries involved in bitter regional conflicts, countries with weak central governments and/or security measures that make these deadly weapons vulnerable to theft. In the last two decades, there have been 25 instances of nuclear explosive materials being lost or stolen — and those are just the instances we know of.



Scene from COUNTDOWN TO ZERO

Lead A Discussion

Suggested questions for your discussion



1. **What did you think of the movie?**
2. **What did you think was the most interesting element in the movie?**
3. **Did the movie convince you that this is an issue we should be more concerned about?**
4. **If you had to describe this movie to a friend at a cocktail party, what would you say?**
5. **What would you say to people to convince them to see the movie?**
6. **Which part of the movie stands out to you and why?**
7. **From the information you received from the movie, which country do you feel poses the biggest threat? How should we address that threat?**
8. **Which expert in the movie did you feel made the most compelling case for nonproliferation?**
9. **In light of what you learned from the movie, what actions do you think the U.S. can take right now to reduce the threat of nuclear weapons?**
10. **What do you see as the biggest danger posed by nuclear weapons?**
11. **How do you think we could reduce the threat from these weapons?**
12. **How can we spread awareness about this issue?**
13. **Experts have suggested nuclear terrorism is today's greatest threat. How do you think we should guard against this?**
14. **How should we deal with countries who are potentially seeking nuclear weapons today?**
15. **What do you feel you can personally do to take action on this issue?**

Get Involved And Take Action

→ *Stay engaged and informed at*
TakePart.com/Zero

→ *Sign the Global Zero Declaration at*
TakePart.com/Zero

→ *Become a fan on Facebook at*
facebook.com/CountdowntoZero

→ *Join the movement on Twitter*
[#DemandZero](https://twitter.com/DemandZero)



→ *Join the call for the Comprehensive Nuclear Test Ban Treaty*
<http://www.projectforthechtbt.org/involvement> (details on page 9)

→ *Take action to ensure that all loose fissile material is secured in four years:*
<http://www.psr.org/1more4zero> (details on page 10)

→ *Tell you friends and family to host house parties to watch the film and take action with our campaign organizations!*

Getting to **ZERO**

How Can We Get to Zero?

Important steps must be taken to achieve a world free of nuclear weapons:

- ✓ Ratify the Comprehensive Test Ban Treaty, first in the U.S. Senate and then in the remaining holdout nations.
- ✓ Eliminate short-range, “tactical” nuclear weapons in future arms control treaties with Russia.
- ✓ Establish a regime to secure and control all fissile material.
- ✓ Negotiate a Fissile Materials Cutoff Treaty to halt production of fissile materials.
- ✓ Work with the U.S., Russia, Britain, France, China, India, Pakistan and Israel to gradually reduce each nation’s arsenal.
- ✓ Convince Iran and North Korea, using all aspects of international persuasion to convince them to stop proliferation by halting any weapons production, and reducing and giving up any current arsenal.
- ✓ Negotiate a verifiable treaty prohibiting nuclear weapons.

Get Involved With Our Campaign Alliances

Two Futures Project

American Friends Service Committee

Americans for Informed Democracy

Arms Control Association

British American Security Information Council
(BASIC)

Bulletin of the Atomic Scientists

Campaign for a Nuclear Weapons Free World

Campus Progress (Center for American Progress)

Carnegie Endowment for International Peace

Center for Arms Control and Non-Proliferation

Center for New American Security

Coalition for Peace Action

Center for Public Leadership at Harvard's Kennedy
School of Government

Colorado Coalition for the Prevention of Nuclear War

Connect U.S. Fund

CorpWatch

Council for a Livable World

Council on Foreign Relations

CSRwire

Daisy Alliance

Friends Committee on National Legislation

Georgia WAND

Global Zero

Global Security Institute

Government Accountability Project

Harvard Kennedy School's Belfer Center for Science
and International Affairs

Heal Utah

Interfaith Council for Peace and Justice

Justice Through Music

Living Liberally

Mainstream Media

Moms Rising

MoveOn Civic Action

National Security Network

North Suburban Peace Initiative

Nuclear Age Peace Foundation

Nuclear Watch of New Mexico

Off the Mat into the World

Peace Action

Peace Action West

Physicians for International Prevention of Nuclear War

People for Peace and Justice of Utah

Planetary Security

Ploughshares Fund

Prague Project

Project for Nuclear Awareness

Physicians for Social Responsibility

RVLDP

Southwestern Research and Information Center

ThinkProgress (Center for American Progress)

Tri-Valley CAREs

United Nations Association of New York

Women's Action for New Developments (WAND)

Comprehensive Test Ban Treaty

CTBT

What is the Comprehensive Test Ban Treaty?

The CTBT bans all nuclear explosions. The treaty was negotiated by the countries of the world in 1994 and opened for signature on September 24, 1996. It was originally signed by 71 nations, including the five nuclear-weapon States (U.S., Russia, UK, France, and China). There are currently 178 Signatories. In order for the treaty to come into effect, it must be signed and ratified by 44 specific countries. 41 of those countries have currently signed the treaty, though only 31 have ratified. The last three countries that must sign the treaty are India, North Korea and Pakistan. China, North Korea, Egypt, India, Indonesia, Iran, Israel, Pakistan and the United States all must ratify the treaty before it enters into force.

Why ban nuclear testing?

Nuclear testing is responsible for environmental damage and negative health effects for Americans. An estimated 80,000 Americans who lived in or were born in the United States between the years 1951 and 2000 will contract cancer as a result of the fallout caused by atmospheric nuclear weapons testing, according to an analysis of government studies by the Institute for Energy and Environmental Research. Also, nuclear testing encourages development of new and potentially more destructive weapons. It's unnecessary — recent scientific reports including one by [the JASON group] an independent group of scientists that regularly advise the U.S. government, show that our nuclear stockpile can remain reliable indefinitely with current maintenance practices. We do not need to test to maintain an effective stockpile. It's not in the best security interests of the U.S. If other countries are allowed to test nuclear weapons, they will be able to increase the capability of their weapons to the point where those weapons could reach U.S. soil. We should ban testing and use the monitoring and penalty systems of the treaty to ensure that no country will develop possession of a bomb, capable of reaching our shores.

What does the Comprehensive Test Ban Treaty (CTBT) do?

The CTBT bans all nuclear testing, and establishes an International Monitoring System (IMS) and an International Data Center (IDC). This monitoring system and data center enables participants in the treaty to detect any militarily significant test explosion in the world. The IMS network currently consists of 225 certified monitoring

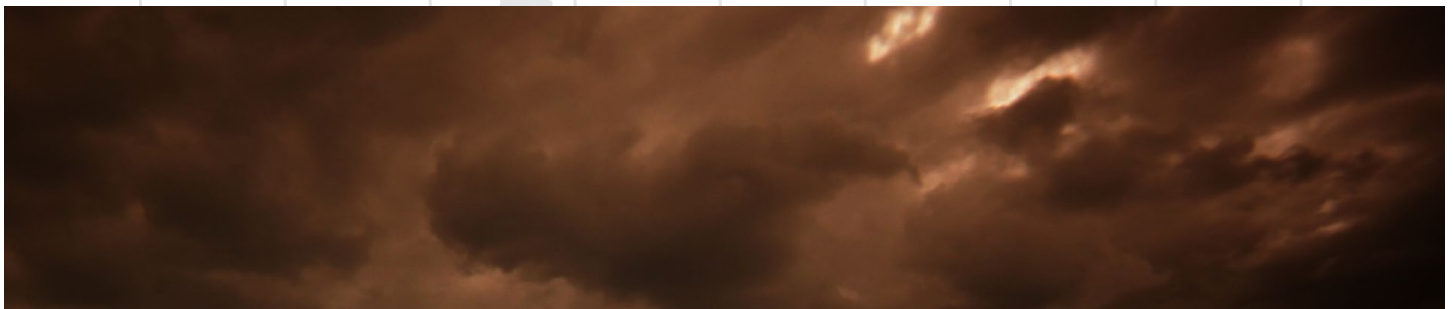
facilities all over the globe, including seismic, infrasound, hydroacoustic and radionuclide monitoring stations as well as radionuclide laboratories. The Treaty foresees the completion of 337 IMS facilities in all.

What's the status of the CTBT?

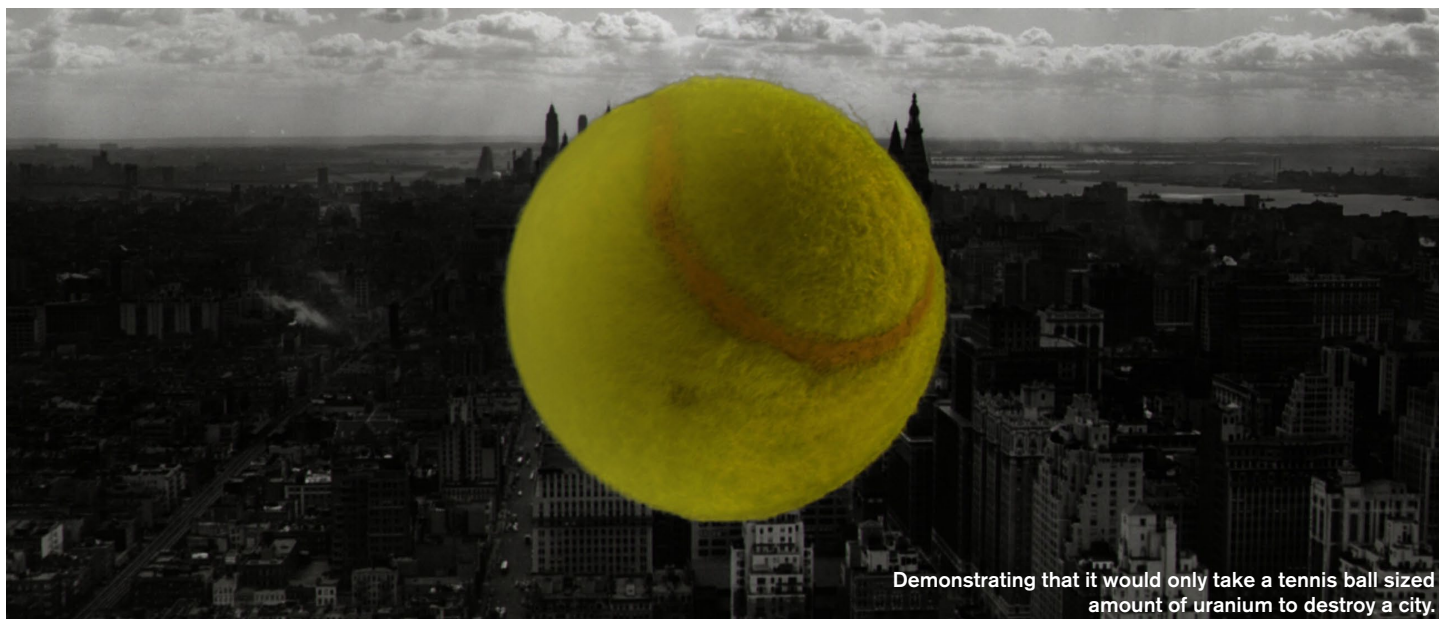
The U.S. has had a self-imposed moratorium on nuclear testing since 1992 in recognition of the potentially dangerous effects of testing and was the first to sign the treaty in 1996, but has yet to ratify the treaty. The CTBT will enter into force 180 days after it has been ratified by the 44 nations listed in its Annex 2. These 44 countries represent all who possess either nuclear power or research reactors. Of the 44, 41 nations have signed the Treaty and 35 have ratified it. China, North Korea, Egypt, India, Indonesia, Iran, Israel, Pakistan, and the United States are at present the last hold-outs for ratification. Of the Annex 2 nations, only North Korea, India and Pakistan have neither signed nor ratified the Treaty.

What can you do?

The U.S. is already a signatory to the Treaty. Now the Senate needs to vote in favor of ratification. Go to <http://www.projectforthectbt.org/involvement> and join the call for the Comprehensive Nuclear Test Ban Treaty.



Securing All Vulnerable Fissile Materials In Four Years



Demonstrating that it would only take a tennis ball sized amount of uranium to destroy a city.

What is Fissile Material?

Fissile material is highly enriched uranium (HEU) and plutonium, the essential ingredients for building nuclear weapons and powering nuclear reactors. Without this material, it's impossible to produce a nuclear weapon. Thus, effective control and elimination of fissile material is an essential step toward nuclear disarmament.

Roughly 1600 metric tons of HEU and 500 metric tons of plutonium have been produced around the globe. In mid-2009, the global stockpile of nuclear materials was large enough to build more than 120,000 nuclear bombs (that's five times the entire current global stockpile). From the perspective of nuclear terrorism, the most dangerous of the two nuclear weapons materials is HEU because it can be used in a gun-type bomb. A gun-type weapon requires 50-60 kilograms of HEU and is able to deliver a devastating yield. While much of this material can be found in the five official nuclear weapons countries (U.S., Russia, China, UK, and France), a portion of the world's fissile materials lies outside of these nations in more unstable regions of the globe.

Terrorist groups, including al Qaeda, have expressed a serious interest in acquiring weapons of mass destruction, which would include fissile material. With enough materials available worldwide to build 120,000 nuclear bombs, the possibility that a terrorist network could buy or steal such material is far too great. Failure to recognize the gravity of this threat could have devastating consequences.

What is the status of securing all loose fissile material?

The U.S. has been working with Russia and the former Soviet states since 1994 to secure their stockpiles of nuclear material. The National Nuclear Security Administration recently estimated that approximately 92% of the job is completed. All security upgrades have been completed for 210 out of 250 buildings with weapons-usable nuclear material in Russia and the Eurasian states. Security upgrades have been completed for 97 out of the established 110-130 nuclear warhead sites in Russia. All weapons-usable nuclear material has been removed from more than 47 sites outside of the U.S. and Russia.

However, there is still a great deal of work to be done. President Obama recently called for accelerating this mission so that all vulnerable nuclear material in the world will be secured in four years. To meet this goal, a significant push is required by the U.S. and countries across the world. The current net dismantlement rate for Russia and the U.S. is estimated at approximately 200-300 warheads a year. At these rates, it would take decades for the U.S. and Russia to dismantle the approximately 1000 total warheads each, compared to the 1990s when the average yearly dismantlement rate was 1300 for the U.S. and 2000 for Russia.

What can you do?

Go to <http://www.psr.org/1more4zero> and take action to ensure that all loose fissile material is secured in four years.

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TEXT "ZERO" TO 77177 GO TO TAKEPART.COM/ZERO

MAGNOLIA PICTURES AND PARTICIPANT MEDIA IN ASSOCIATION WITH WORLD SECURITY INSTITUTE AND THE HISTORY CHANNEL PRESENT A LAWRENCE BENDER PRODUCTION "COUNTDOWN TO ZERO"
MUSIC BY PETER GOLUB EDITED BY BRAD FULLER BRIAN JOHNSON CINEMATOGRAPHY BY ROBERT CHAPPELL GARY CLARKE BRYAN DONNELL NICK HIGGINS
CO-PRODUCED BY LISA REMINGTON EXECUTIVE PRODUCERS JEFF SKOLL DIANE WEYERMANN BRUCE BLAIR MATT BROWN PRODUCED BY LAWRENCE BENDER WRITTEN AND DIRECTED BY LUCY WALKER

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H
HISTORY MADE EVERY DAY

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