



Those of us living today have been given the opportunity to save the world

'We have made nuclear weapons with our own hands and we know how to take them apart'

President Thomas, Dean Carter, thank you for the great honor you have bestowed on me today with this Award.

You know, in past years Morehouse has presented this Award to icons of the Civil Rights Movement, to statesmen and world leaders. So this year's choice is a bit of an anomaly, a bit of an outlier. I am none of these things. I'm just a medical doctor who has spent most of the last 45 years working in the ER of a community hospital and in a small urgent care who tried to raise my voice, as a doctor, about the greatest threat to human health and survival in the world today.

But perhaps there is a certain wisdom in this choice if it draws attention to the role that ordinary people, like me, like you, like all of us, must play if we are to avoid a nuclear Armageddon. And make no mistake, there is much we must do.

Five years ago experts like former Defense Secretary William Perry began warning us that we were closer to nuclear war than we have ever been—and that was before the Russian invasion of Ukraine and the flood of nuclear threats that President Putin has unleashed along with that invasion. Today there can be no doubt that the danger of nuclear war is very much with us, and yet we continue to act as though it were not.

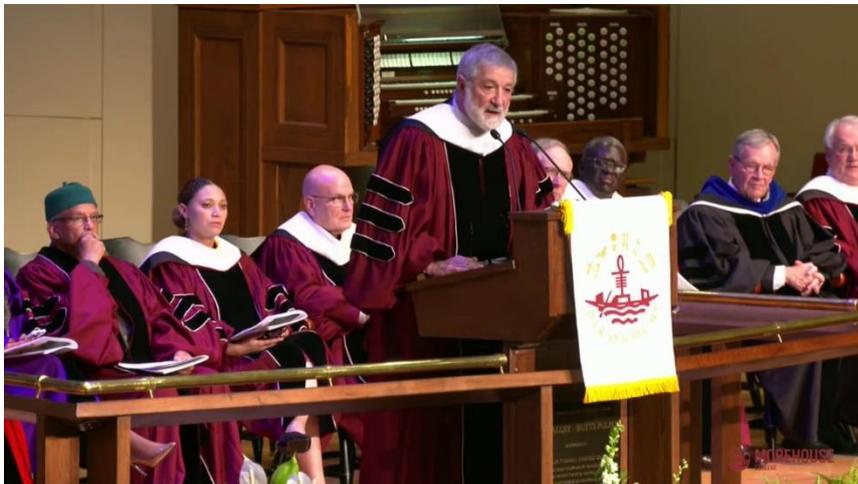
It was not always so. In the 1980's we all understood the enormous danger posed by nuclear weapons. There were movies, and books about nuclear war. We had nuclear nightmares. And as a result millions of people took political action to demand an end to the Cold War arms race. And we succeeded. In 1983 the US stationed Pershing missiles in Europe to be able to fight and win a nuclear war. And twice that year, in September and again in November we came within minutes of blowing up this planet. But less than 2 years later President Reagan and President Gorbachev joined together to declare that nuclear war can

never be won and must never be fought, and they ended the Cold War arms race and began to dismantle the enormous arsenals of nuclear weapons that they had built.

But when the Cold War ended we all began to act as though the problem had gone away. It had not. There were still thousands of nuclear warheads, still mounted on missiles on hair trigger alert ready to launch.

The danger **had** decreased somewhat with improved relations between the US and Russia. But then about 20 years ago those relations began to deteriorate and they are now the worst they have been since the Cold War. Relations between the US and China are the worst they have been since the 1970's with the very real threat that we will come to war over Taiwan. Nuclear tensions continue to rise in Korea. And the situation in South Asia, which gets scant attention here in the US, remains a disaster waiting to happen. India and Pakistan have gone to war 4 times; there is low level fighting almost every day on their border in Kashmir and if that fighting escalates again into open warfare, there is a high likelihood that it will lead to nuclear war with catastrophic results, not only for South Asia, but for the whole world.

Add to these geopolitical hot spots two other factors. First the growth of cyber warfare abilities. We used to worry that a terrorist group could gain access to one or two small nuclear weapons and attack a city, and that is still a real threat. But the greater danger is that terrorists might hack into the command and control center of a nuclear armed state and either directly launch that countries weapons, or, create a false alert and convince the country being hacked that it is under nuclear attack, inducing it to launch its own nuclear arsenal.



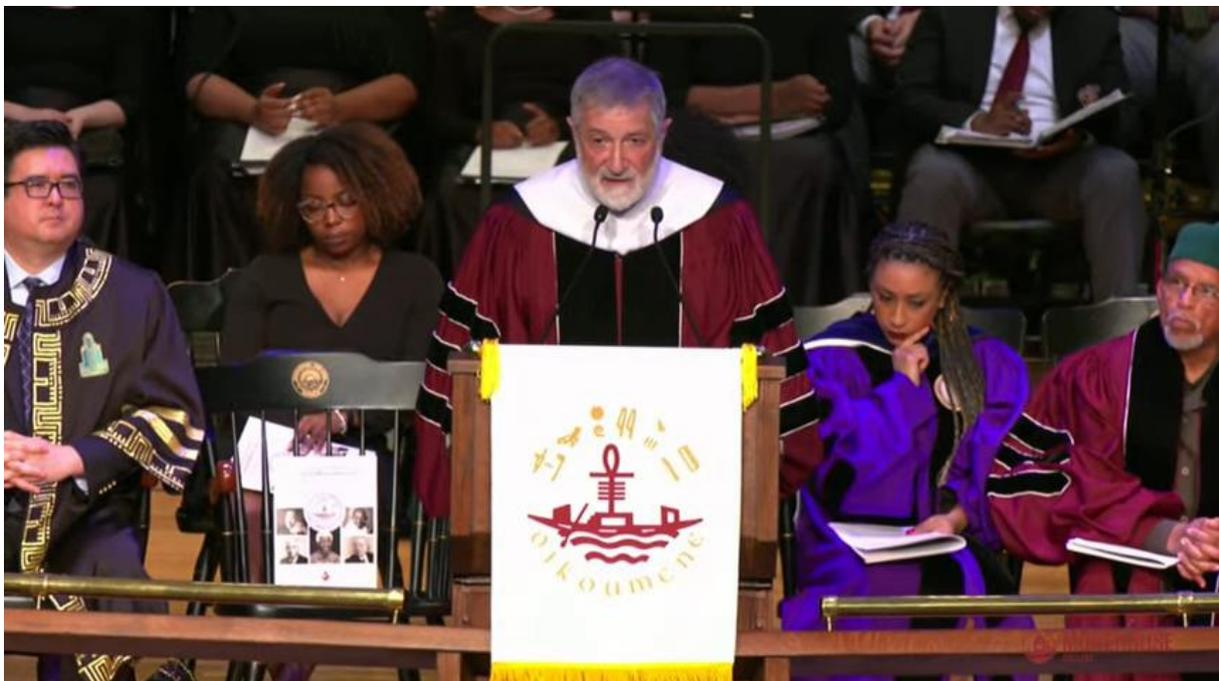
Finally we have to consider the role of climate change. All 9 of the countries that possess nuclear weapons claim that they plan to get rid of them someday, in the future, when the world is safer. But the world is not getting safer. And climate change is the principle factor making it more dangerous. As the climate crisis progresses over coming decades, and it will progress even if we do everything that we are supposed to, large parts of this planet will no longer be able to support their human population. There will be a tremendous increase in conflict within societies and between nations and migration on a scale that dwarfs anything we have ever seen. And if nuclear weapons are still on the table as this conflict unfolds, they will be used.

For all of these reasons we have to understand that if nuclear weapons are not eliminated it is not a question of “if” but only of “when” they will be used.

So let us remind ourselves of what is at stake, what will actually happen when nuclear weapons are used.

Let’s consider a large scale nuclear war between the US and Russia, and let me start by describing what a nuclear attack on a major city would look like today.

We all have seen images of Hiroshima and Nagasaki and these are important warnings about the destruction that nuclear weapons can cause. But Hiroshima and Nagasaki do not begin to prepare us for the devastation that modern nuclear weapons will bring. Hiroshima and Nagasaki were each bombed with one relatively small nuclear weapon. A major city like New York, or Moscow, or Atlanta would be targeted with 10 to 15 to 20 nuclear weapons, each 6 to 50 times more powerful than the Hiroshima bomb.



It is hard to describe to you 10 or 15 bombs going off all at once in different places. So I will use the model of a single very large 20 megaton explosion. The model actually underestimates what will happen, but it gives us an adequate approximation.

Within one thousandth of a second of the detonation of this bomb, a fireball would form reaching out 2 miles in every direction, more miles across. Within this area temperatures would approach those on the surface of the sun and everything would be vaporized. The buildings, the trees, the people, the upper level of the earth itself would disappear.

To a distance of 4 miles in every direction the explosion would generate winds in excess of 600 miles per hour. Mechanical forces of that nature can destroy anything that humans can build.

To a distance of 6 miles in every direction the heat would be so intense that automobiles would melt

And to a distance of 16 miles in every direction the heat would still be so intense that everything flammable would burn. Cloth, paper, wood, plastic, heating oil, gasoline—it would all ignite. Hundreds of thousands of fires, which, over the next half hour, would coalesce into a giant firestorm 32 miles across, covering over 800 square miles. Within this entire area the temperature would rise to 1400 degrees Fahrenheit, all of the oxygen would be consumed and every living thing would die. In the case of New York, some 12 to 15 million people dead in half an hour. In Atlanta, perhaps 3 million.

And if this attack were part of a large scale war between the US and Russia this level of destruction would befall every major city in both countries. All told perhaps 200 million people dead in an afternoon.

In addition, the entire economic infrastructure of both countries would be destroyed. There would be no cell phones, no internet, no electric grid, no food distribution system, no system for distributing gasoline or fuel oil or natural gas. No public health system, no banking system. No public safety system. All the things we depend on to sustain us would be gone. And in the months following the initial attack, most of those who did not die on the first day would also die—from starvation, epidemic disease, radiation poisoning.

But these are only the effects in the countries that actually fight the war. The rest of the world would also be caught up in this cataclysm. The fires ignited by these nuclear weapons would loft some 150 million tons of soot into the upper atmosphere blocking out the sun, and dropping temperatures across the planet an average of 18 degrees Fahrenheit. In the interior regions of Eurasia and North America temperatures would drop 45 to 50 degrees. These are conditions not seen on this planet since the coldest moment of the last ice age. And under these conditions all of the ecosystems which have evolved since the end of that ice age would collapse, food production across the planet would stop and the vast majority of the human race, 5 to 6 billion people, would starve.



Even a much more limited war, as might take place between India and Pakistan would cause enough climate disruption to kill over 2 billion people including 130 million here in the US.

Such a conflict would not mean the extinction of our species. It would be the end of modern civilization. No civilization in history has ever withstood a shock of this magnitude and there

is no reason to believe that the complex, fragile economic system that we all depend on would do any better.

What I have just described is not the scenario of a bad movie. It is the danger that we live with every day that we allow these weapons to continue to exist. Even if no country ever deliberately decides to launch a nuclear war, there is always the possibility of a war by accident and we know of at least 6 times so far during the nuclear weapons era when either Moscow or Washington actually began the process of launching their nuclear weapons—always in the mistaken belief that they were under attack—only to pull back at the last minute when it became clear that they were not.

It is hard to get our arms around this terrible truth. We look out on this beautiful city and we simply can not imagine that it can all be destroyed, suddenly, unexpectedly, at any time. We may know what will happen, but we cannot believe it.

We are here today, not because we have wise leaders, or sound military doctrine, and certainly not because we have infallible technology. We are here, as former Defense Secretary Robert McNamara famously observed because, “We lucked out...it was luck that prevented nuclear war.” And the current policy of all nine nuclear armed states is little more than a hope for continued good luck. But of course, our luck will not last forever, and sooner or later these weapons will be used.

But this is not the future that must be. Nuclear weapons are not a force of nature. It is not as though an asteroid is heading for Earth and there is nothing we can do. These are little machines, about the size of the chairs you are sitting in. or the lectern I am speaking from. We have made them with our own hands and we know how to take them apart. We have already dismantled more than 50,000 of them. We simply have lacked the political will to dismantle the 13,000 that remain.

And that is where we come in. It is up to us to create that political will, and we can do that. We know that because we have done it once already in the 1980's when we ended the Cold War arms race.



Over the last decade a movement has grown, mainly in the global South among countries that have had the wisdom to reject nuclear weapons, demanding that the countries that have these weapons stop holding all of humanity hostage to the whims of a handful of leaders, who hold our lives in their hands. Working through the International Campaign to Abolish Nuclear

Weapons they secured the adoption of the Treaty on the Prohibition of Nuclear Weapons in 2017 creating a powerful norm that brands nuclear weapons, not as symbols of national prestige, but as badges of shame.

That same year, here in the United States we started the Back from the Brink campaign to create a new nuclear policy based on the understanding that nuclear weapons do not make us safe, but are instead the greatest threat to our security. That campaign has now grown into a national movement supported by over 300 NGO's, and endorsed by cities and by state legislatures across the country, it is endorsed in a Congressional Resolution H. Res. 77, and it needs your support. Back from the Brink calls on the US to enter now into negotiations with all 8 of the other nuclear armed states for a verifiable agreement to dismantle their nuclear weapons. We cannot know that such an effort would succeed. It is possible that the US would launch this effort and others would not go along. But there is no reason to assume that because no one has ever tried before. And try we must, because we know what is going to happen if we fail.

We are facing an intimidating array of problems at this moment in time: the climate crisis, the ongoing scandal of racial and economic injustice, the assault on voting rights and women's rights to control their own bodies, on LGBTQ rights, and the attempt to censor what our children can learn about their own history. But somehow amidst all these challenges we have to find the time and the energy to also confront what is probably the gravest threat of all—the possibility that we will all be consumed in a nuclear holocaust.

As Reverend King famously observed shortly before his assassination, “It is a wonderful thing to work to integrate lunch counters, public accommodations, and schools. But it would be rather absurd to work to get schools and lunch counters integrated and not be concerned with the survival of a world in which to integrate.” Or as Coretta Scott King said a few years later, “All of our hopes for equality, for justice, economic security, for a healthy environment, depend on nuclear disarmament.”

To the students and young people here today I feel a certain sense of guilt. You didn't create this problem, and so, in that important sense, you are not responsible for it and shouldn't have to worry about it. But, in a more important sense you are responsible. Because if you, and me, and people like us do not take action these weapons are not going to go away and all of the terrible things I have described are going to happen. So a great burden sits on your shoulders.

But if this is a burden, I hope you will also look on it as something of a gift. We all want to do something good with our lives, we want our lives to matter. Those of us living today have been given the opportunity to save the world, and that is the best thing that any one of us can ever do with his or her life.

No one of us is expected to solve this problem all by ourselves, but neither can any of us step away from that part of the solution which is ours to do. Each of us must figure out how we will contribute to this effort. And if we all do our part we will succeed and I believe that some day, in the not too distant future, we will all be able to look ourselves in the mirror and say, “I helped save the world” and that will be a very great thing.

We have heard words of wisdom from many faith traditions today, so let me add some from my own Jewish tradition. In Hebrew Bible it is reported that God said, “Behold, I have set

before you life and death. Therefore, chose life that you and your children might live.” That is literally the choice before all humanity today. So let us pray that we choose wisely and that we act with courage, and determination so that, indeed, our children might live.