

PANEL FOUR

INTERNATIONAL LAW AND THREAT AND USE OF
NUCLEAR WEAPONS

Moderator: Dr. John Burroughs⁺

Panelists: Prof. David A. Koplow^{}; Kathleen Lawand^{**}; Prof. Charles Moxley Jr.^{***}*

JOHN BURROUGHS:

This is panel four, International Law and Threat and Use of Nuclear Weapons. I'm John Burroughs, Senior Analyst, Lawyers Committee on Nuclear Policy. We have on this panel Charles Moxley, Kathleen Lawand, and David Koplow. I'll introduce them as they come up. And first it will be Charlie Moxley. Among other things, he has his own arbitration and mediation practice. He's an adjunct professor at Fordham Law School. He's a distinguished ADR practitioner in residence at Cardozo Law School. He is the author of the book, *Nuclear Weapons and International Law in the Post Cold War World*. And not least, he's a member of the Board of Directors of Lawyers Committee on Nuclear Policy, my organization, and he conceived of and co-organized this conference.

CHARLES MOXLEY:

Thank you. Thank you all, very much. This has been a fascinating day. Now, after a lot of introduction to the rule of law and the commitment of the State Bar and the ABA to the rule of law, we have come to the point when we actually focus on it front and center. The particular area of international law we're going to discuss now is the law of armed conflict (although, the topic is considerably broader than that, of course). As mentioned earlier,

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the term “law of armed conflict” is essentially synonymous with “law of war” and “international humanitarian law” and the old Latin “*jus in bello*.” It’s essentially the regulation of the use of force within armed conflict.

The first point to note is that its content and applicability to nuclear weapons threat and use is largely not controversial. It is agreed by the United States and other nuclear weapons states that the law of armed conflict applies to nuclear as well as conventional weapons. We can question whether that is enough and whether we need another level of law that specifically addresses nuclear weapons. We will get to that question in today’s discussions later today, if time permits, but for present purposes, we’re going to look at the law of armed conflict, as it by all accounts, applies to all uses of force in armed conflict, including uses of nuclear weapons.

The approach I’ve taken in my book and in the article that John Burroughs, Jonathan Granoff, and I did together some years ago (which is in the program materials), in order to take the question of what the law is out of reasonable dispute, is that I have largely relied on statements of that law by the United States, including as set forth in U.S. military manuals. The point is that this part of the analysis does not appear to be controversial. The basic rules of that body of law that I’ll talk about are the rules of distinction, proportionality, and necessity, and their corollary, the requirement of controllability, and the rule of precaution, all as defined by the United States. Again, the applicability of these rules is not controversial at all. Where the rub is, and where the proponents and the opponents of the lawfulness of the threat and use of nuclear weapons disagree, is on how you apply these rules to the use of nuclear weapons. That is a very major point.

Professor Scott Sagan – and Scott, I’m delighted you’re still with us - made the point earlier that the JAG folks represent a huge law firm and have addressed this issue extensively. That is certainly my understanding, that there are broad statements from the U.S. military and the U.S. government as to the law applicable in this area and as to the commitment of the U.S. to follow the law of armed conflict as concerns nuclear weapons. The difficulty is in how they apply it. The premise, for our purposes, is that, if the U.S. is misapplying this law, if the application by the United States of the legal rules in this respect is misguided by the U.S. attorneys who are conducting the legal analysis in connection with these

weapons, then the conclusions are misguided. The gravamen of my remarks here is that there is reason to consider more deeply the requirements of international law and recognize that they are more demanding than the U.S. legal community within the military generally recognizes when it comes to applying this body of law to nuclear weapons threat and use.

The first rule I would mention is the rule of distinction or discrimination. To understand how the U.S. views this rule, I will read from the Law of Armed Conflict Desk Book, a 2010 U.S. Army manual. It says that parties to a conflict “shall at all times distinguish between the civilian population and combatants, and between civilian objects and military objects.” That’s the rule of distinction. You need to be able to distinguish. So if we look at that in a straightforward way, it’s a straightforward question as to whether, when we use a particular weapon, can we distinguish between lawful and unlawful targets?

A number of the speakers mentioned that the U.S. has, at times, moved towards what’s called “war fighting,” which means that we’re not taking the approach of mutual assured destruction and we’re not aiming at civilians; instead, we’re aiming at military targets. But there is the issue of co-location. I believe it’s broadly recognized and not controversial that the contemporary concept of the breadth of legitimate military targets is such that there are military targets near civilian centers, such as major cities, major urban centers, in the U.S., Russia, and other countries of the world. So in targeting such military targets, we still end up targeting civilians as a practical matter, even if the stated intent is to target the co-located military targets within the target area.

So the question is, when we use a nuclear weapon, even if directed at a military target, can it distinguish the non-military, the civilian persons and objects in the target area? This is a very important and serious question. I would submit that this would arise as a significant issue in most, if not all, situations where a nuclear weapon is used and certainly in the event of any use of large scale nuclear weapons (we’ll talk about low-yield nuclear weapons separately). It’s hard to imagine circumstances where there will be a real distinction between the military and civilian targets, unless you hypothesize really remote targets, such as, perhaps, a submarine at sea, or a remote missile field in the desert.

But that's only the first level of analysis. As I understand it, the way the internal legal community in the U.S. military has approached this issue is to consider whether a weapon can actually hit the intended target. My thesis here is that that's not adequate. It is true that we're much better at hitting targets than in the past. Our accuracy is extraordinarily good on a statistical basis, although there will still be weapons that go awry. This is something Scott Sagan and I have discussed. It's fine to consider the CEP or area within which the weapon will hit, but what about the ones that don't hit within that area? Any failure of accuracy, which is inevitable, is obviously much more serious with a nuclear weapon.

But the real point, I suggest, is that when we ask, "can we distinguish," for purposes of the rule of distinction, reducing the question to "can we hit the military target" really misses the point of the rule. The rule asks, "can we distinguish between military and civilian targets? To consider this question, it is clear that we should consider *all* the effects of nuclear weapons, not just hitting the target and blowing it up and the heat and blast there and the prompt radiation, but also the other inevitable effects, such as radioactive fallout and electromagnetic pulses and nuclear winter.

Radiation is inevitable. It would be an oxymoron to speak of a nuclear weapon that didn't emit radiation. Using a nuclear weapon is going to inevitably produce radiation. Also, something we haven't talked about very much today, is that when an explosion occurs at a high enough altitude, it spreads electromagnetic pulses that can impair electronic equipment of all kinds on the ground over extended areas. There's also the possibility of nuclear winter, as a number of speakers have talked about. There are studies, as I think Governor Brown referred to, which suggest, if I recall correctly, were there to be a nuclear conflict involving even a relatively small number of weapons in a back and forth exchange between the U.S. and Russia or India and Pakistan, it could precipitate nuclear winter. Huge amounts of smoke and soot that would be thrown up in the air that would block out the sunlight, with devastating effects on agriculture and human life. This is one of the long-term reverberating effects of nuclear weapons.

In sum, on the principle of distinction, it's not enough to hit the target. The other inevitable, known, unavoidable aspects of the nuclear strike, including the radioactive fallout and the potential

electromagnetic pulse and nuclear winter effects have to be considered in the legal analysis.

The other question in the rule of distinction analysis is, do we have to consider the potential for a nuclear responses and escalation? In a sense, it seems illogical that we would have to consider what's done by somebody else. But this is why we have spent so much time in this program on nuclear policy. We know, under the nuclear policies of nuclear weapons states, that there is a high potential for a nuclear response if a nuclear weapons state uses nuclear weapons. When this happens, you're going to have a nuclear response and likely escalation, and compounding effects, which would have to be considered.

The second of the three main rules of the law of armed conflict is the rule of necessity. I believe it was Scott Sagan who referred to this earlier and said that, if you can do a particular strike with a conventional weapon, you should do so, because it's not necessary to use a nuclear weapon. And if you can use a weapon with a lower level of destructive power, you should do so. You take it down to a lower and lower level. The principle of necessity requires us to go to the lowest level of destructiveness that can achieve the military objective. That's why, in our discussion about the effects of nuclear weapons, we focused on the revolution that has taken place in conventional weapons. They have become really very effective and highly accurate. As has been mentioned earlier, if you can hit a target right on the nose, as opposed to being only being able to hit it a half a mile out or the like, obviously you need much less firepower. And we're moving towards this prompt strike capability to hit any place in the world with high power conventional weapons within an hour, and it may soon be within a half an hour.

The point was made earlier that you may need to use several conventional weapons in situations where you might otherwise have considered nuclear weapons. Even multiple conventional weapons don't carry the same risks as nuclear weapons. They will carry huge risks of huge casualties, but not the types of ongoing injuries that Professor Arakaki told us about, which go on for generations. They don't pose risks of radiation, electromagnetic pulse, or nuclear winter.

In the context of the rule of necessity, we often hear the idea that there should be more of a focus on low-yield nuclear weapons. Those of us who have been working on this for years, know that

this interest in low-yield recurs every 10 or 15 years, going back to the '60s and the '70s, I believe. The idea is, that strategic weapons based deterrence isn't credible, because the possibility that we'd actually use nuclear weapons in the range of hundreds of kilotons or even megatons is not credible. So we consider focusing on the low-yield weapons because they're more credible as weapons that we might actually use, the implicit idea also being that their use would be more lawful. But is that correct? Not really, I suggest, because if you can achieve your military objective using the conventional weapons or even multiple conventional weapons, then, then the use of low-yield nuclear weapon would be unlawful under the rule of necessity. There are going to be some targets that can't be destroyed with conventional weapons, particularly certain hardened and deeply buried targets, but, even as to such targets, there are ways of addressing them other than destroying them. For a significant percentage of potential targets the U.S. might need to address, it could potentially address them with conventional weapons.

Similar consideration apply to the rule of proportionality, the requirement that there be some reasonable proportionality between the military value of a target and the level of collateral effects that result from the attack. Again, whether nuclear weapons use could comply with proportionality seems questionable. If you're using a nuclear weapon against a military target that's co-located with civilians, it's near a city, it's near urban areas, or it's close enough that there is a a likelihood that you're going to hit civilians, it's going to be very hard to comply with proportionality.

Now, there are hypotheticals where you talk about hitting a remote target at sea or in the desert or a missile base under a mountain, someplace where maybe a nuclear strike could arguably fit within the requirements of proportionality. Maybe you're going to take out a lot of missiles, so maybe you could satisfy proportionality there. But can you satisfy necessity? Can you satisfy other requirements? Again, there is the reality that you need, in making the legal analysis, to take into consideration all of the potential effects of nuclear weapons, not just the blast, fire, and prompt radiation, but also such further effects as radioactive fallout and potential electromagnetic pulse and nuclear winter effects, not to mention the potential effects of the target's likely responsive and likely escalatory responses. My understanding is

that the U.S. lawyers, in advising the military about the lawfulness of nuclear weapons uses, focus on the likelihood of hitting the target, without much, if any, focus or weight given to these other foreseeable effects of nuclear weapons uses. The U.S. military hasn't, to the best of my understanding, modeled and addressed potential radiation effects, electromagnetic pulse effects, nuclear winter effects, nuclear retaliation, and nuclear escalation effects. We're not adequately considering these effects.

This leads to a sense, that I'm projecting as a thesis, that it is very hard to see how a nuclear weapon strike by the U.S. could comply with any of these three rules of the law of armed conflict that I've mentioned. But there's a further point, that to me is a most central one. If one reads the U.S. military manuals and other statements of these rules, and considers how the rules are formulated, it is clear, in the U.S.'s own definition of such rules, that a weapon has to have effects that are subject to control by the user for the use to be lawful. This means a state contemplating using a nuclear weapon has to know that the weapon's effects can be controlled and has to assess whether the use of the weapon will comply with the law of armed conflict. I present as a thesis, that, if the effects of nuclear weapons are not controllable, then the use of such weapons cannot comply with the law of armed conflict.

I submit that the effects of radioactive fallout and potential electromagnetic pulse and nuclear winter effects, among others, have to be considered in the legal analysis because they're known, inevitable, foreseeable effects. These effects are simply not controllable. Even low-yield nuclear weapons produce radiation, and there are statements of the U.S. acknowledging this. The effects of nuclear weapons are also subject to weather conditions, climatic conditions, and many factors that can't be controlled.

Now, a fourth rule, and John you'll cut me off if I get at the point where I need to stop, but

JOHN BURROUGHS:

You should stop in a couple of minutes, Charlie.

CHARLES MOXLEY:

Okay. A fourth rule of the law of armed conflict is the rule of precaution, which requires that states take all reasonable measures to train their people and control their equipment so as

to be able to comply with the law of armed conflict. The U.S. maintains a high alert status that we've heard about today, wherein some 900 of our nuclear weapons are on instant alert, as I think Han Kristensen said. Russia and some other nuclear weapons states are doing the same. We have this high alert level, and we have this launch on warning policy that, in theory, we will respond to an incoming attack before it lands.

The experts tell us that the amount of time that the executive and the military would have to make a decision and act on it, is 10 to 30 minutes. So, because of this high alert status, we haven't given ourselves time to do a reasonable analysis. And this is unnecessary. Other countries, China, for instance, has a policy that's more conservative. To a large extent, they are separating out their weapons, not having them on high alert, and giving themselves time.

One final point I'll just make in two minutes, John, if that's okay, is in the area of risk analysis.

JOHN BURROUGHS:

Charlie, why don't you hold that for discussion?

CHARLES MOXLEY:

Okay. Fair enough.

JOHN BURROUGHS:

Because I think that's certainly worth talking about. So let me introduce Kathleen Lawand. She's currently Strategic Adviser to the Director of International Law and Policy, International Committee of the Red Cross. From 2012 to 2020, she was head of the Arms Unit in the Legal Division of the ICRC.

And there she oversaw the development and promotion of the ICRC's legal and policy positions on weapons of humanitarian concern. In that connection, I saw her in action at the 2017 negotiation of the Treaty on the Prohibition of Nuclear Weapons.

Can you speak, Kathleen? Well, we lost Kathleen for a moment. So Charlie, why don't you talk about risk analysis?

CHARLES MOXLEY:

Okay, I'll do it quickly because everybody's got a lot to say, and I want to hear the other speakers as much as everybody else does. The point about risk analysis is something everyone knows intuitively. It's that we need to evaluate the lawfulness of the use of weapons in military operations in advance. That's true in theory. That's why we have war rooms. In recent years, the U.S. has shown a demonstrated commitment to LOAC in its military engagements; it has the practice of getting JAG officers involved in process. But this practice of analyzing things in advance is particularly important if they're contemplating using nuclear weapons because the consequences are so extreme. That's obvious. So, the question is, how do we do this? How do we analyze potential risks?

I see Kathleen is here. So, I will wrap this up quickly. How do we do effective risk analysis? There are a lot of ways of analyzing risks, but the Joint Chiefs of Staff of the U.S. military have a manual on joint risk analysis. There are also a number of articles by military people who speak at West Point and who are very authoritative on the subject. The bottom line appears to be that the U.S. generally takes the position that we need to look at is all foreseeable risks of weapons. This is not specific to nuclear weapons, but a general policy that includes nuclear weapons. That's the theory, and part of the stated policy of the U.S. military. This means we need to look at the risks and assess them in terms of the operational desirability of a particular military strike and weapons use and also in terms of its compliance with LOAC/IHL. It means looking at the percentages and the values for each of the potential risks.

The final thought I'll leave you with on this: the most vexing question is, how should we, – and the legal community, including the JAG officials responsible for this, people who do this work - evaluate a low probability risk of an extreme, potentially apocalyptic effect, such as an event affecting thousands or even millions of people? How do we evaluate that in an operation that looks like a potential risk, but it's a low probability (perhaps one or two percent, or a half a percent) risk of existential effects in terms of how the military strike under consideration would play out? So, I'll leave you with that question. Kathleen, I'm glad you're back.

KATHLEEN LAWAND:

Thank you so much for inviting me, and special thanks to the New York State Bar Association International Section for organizing this important event. I'm really delighted to be here. I will be providing the perspectives of the International Committee of the Red Cross on the compatibility of nuclear weapons with International Humanitarian Law, IHL, the law of armed conflict.

I agree with much of what Charles has said on this. I will bring a slightly different perspective. But perhaps I will start by way of introduction by explaining why it is the ICRC has been so engaged on this issue of nuclear weapons and has been calling for the prohibition of nuclear weapons. We first called for nuclear weapons to be eliminated in September 1945, after witnessing firsthand the horrific consequences of the atomic bombing of Hiroshima, where alongside the Japanese Red Cross, we attempted as best we could to assist the dying and wounded. So we were there 75 years ago, and this experience marked us profoundly. And in the next seven decades, the ICRC and the broader International Red Cross and Red Crescent movement, of which the ICRC is a part, has regularly repeated this call.

And in March 2010, so over 10 years ago, and this was shortly before the NPT Review Conference, the president of the ICRC issued a historic appeal to states, to urgently take measures to prevent the use of nuclear weapons and to negotiate a legally binding international agreement to prohibit and eliminate them in accordance with existing commitments and international obligations. And our movement echoed this appeal one year later in 2011, an again, historic resolution. And our appeal was based on three observations. First, the catastrophic humanitarian consequences of any use of nuclear weapons. And this was based, as I said, on our firsthand experience including what we observed of the long-term impacts of nuclear weapons on human health due to radiation exposure, which the Japanese Red Cross to this day continues to treat. There are very few in number today but it continues to treat persons who were exposed to nuclear radiation 75 years ago as children, for cancers and other diseases and has been doing so for the last 75 years. The second observation is the lack of any adequate humanitarian response capacity nationally or internationally in case of use of nuclear weapons. As a major global humanitarian assistance movement, this is very much of concern to us. Our studies show, we would be incapable of providing

adequate humanitarian response in case of use of nuclear weapons.

And then the third observation, critically, was our conclusion that it is difficult to envisage any use of nuclear weapons that would be compatible with IHL, International Humanitarian Law. The ICRC was therefore heartened that in 2010, the NPT review conference expressed for the first time its deep concern at the catastrophic humanitarian consequences of any use of nuclear weapons. And it reaffirmed the need for all states at all times to comply with international law, including IHL. Nuclear weapons states parties also committed to accelerating progress on the steps leading to nuclear disarmament and to undertake further efforts to reduce and ultimately eliminate all types of nuclear weapons. Yet, as we know, there has been little progress to implement the NPT's disarmament obligations and commitments. The ICRC and the entire Red Cross and Red Cross movement therefore welcome the 2017 Treaty on the Prohibition of Nuclear Weapons, the TPNW or nuclear ban treaty, which comprehensively prohibits nuclear weapons notably on the basis of IHL.

And the treaty's preamble is very clear about this. Indeed, the ninth preambular paragraph provides that states parties to the treaty are, and I quote, "basing themselves on the principles and rules of International Humanitarian Law, in particular, the principle that the right of parties to an armed conflict to choose methods or means of warfare is not unlimited, the rule of distinction, the prohibition against indiscriminate attacks, the rules on proportionality and precautions in attack, the prohibition on the use of weapons of a nature to cause superfluous injury or unnecessary suffering, and the rules for the protection of the natural environment."

In a few seconds, I will outline some of the issues raised by nuclear weapons under some of these rules, building on what Charles has just mentioned. I would just mention that all of these rules are of customary law, binding on all states, in addition to being codified in Additional Protocol I to the Geneva Conventions. I'd like to mention as well that preambular paragraph ten of the TPNW goes on to say that any use of nuclear weapons would be contrary to the rules of international law applicable in armed conflict, in particular IHL.

So there's this very categorical statement in the preamble of the TPNW that any use of nuclear weapons would be contrary to the rules of international law applicable in armed conflict. I should mention that at the time of the treaty's negotiation, some states, such as Sweden, expressed the view that this provision does not reflect current international law, preferring instead, the International Court of Justice's formula that nuclear weapons are generally contrary to IHL as the correct statement of the law. I will not pronounce on this debate. Instead, I will look at what we believe are the major challenges to demonstrating use of nuclear weapons that would be compatible with IHL. Today, the TPNW is the only treaty at global level to comprehensively ban nuclear weapons, but from a strictly legal standpoint, when the treaty enters into force, it will be legally binding only on those states that have formally adhered to it through ratification or accession. Therefore, the question of the compatibility of nuclear weapons with the general rules of IHL covering the choice of all means and methods of warfare remains relevant.

And it is important of course, to recall, and I think others have done so before me, that the ICJ confirmed in the nuclear weapons case that the lawfulness of any weapon can be assessed against these general rules, distinction, proportionality, precautions, et cetera, and that nuclear weapons are no exception in this respect. It should also be recalled, and this is critical, and I will come back on this- that IHL must be respected at all times, whether in offensive or in defensive operations. There's no exception in extreme cases of self-defense for the obligation to respect IHL. Now for legal practitioners, the starting point for assessing the compatibility of any weapon with IHL is of course, the facts: the evidence of the weapons' foreseeable short term and long-term effects on civilians, on human health, and on the natural environment.

Charles mentioned the rule of distinction, that is the requirement to direct attacks against a specific military objective. I will skip over this therefore and turn instead, also given the shortness of time, to the prohibition of indiscriminate attacks. So an attack is indiscriminate if it is of, and now I'm quoting from the rule as stated in Additional Protocol I and similarly under customary law, an attack is indiscriminate if it is "of a nature to strike military objectives and civilians or civilian objects without

distinction,” either because it is carried out using a weapon that is incapable of being directed at a specific military objective, or the weapons’ effects cannot be limited as required by IHL- that is the weapons’ effects escape the control of the user in time or space. So even admitting that a nuclear weapon can be directed at a specific military objective, for example because it’s fitted with precision guidance, a key issue remains whether the forces released by the nuclear detonation and the effects of those forces can be sufficiently limited to the target.

We know that a nuclear detonation releases a combination of powerful blast waves, intense heat in the form of thermal radiation, high amounts of ionized radiation, which in most cases will be dispersed over very wide areas. The heat generated by the explosion may trigger intense fires and firestorms, the effects of which are uncontrollable. We’ve talked also about the impact of radiation and residual radioactive particles, so-called nuclear fallout created by the blast likely to spread far beyond the target area, potentially over great distances and across borders. So it seems therefore clear that there would be inherent difficulties in controlling or limiting the effects of nuclear weapons in space and in time. And these uncontrollable effects would indicate an attack, striking military objectives and civilians and civilian objects without distinction. And this is especially the case if nuclear weapons are used in or near a populated area.

Arguably, this would mean that the use of a nuclear weapon in or near a populated area would in all cases constitute an indiscriminate attack. It can also reasonably be concluded that the use of a nuclear weapon in or near a populated area would violate the rule of proportionality and attack, as Charles indicated. This rule requires that for an attack against a military objective to proceed, the expected incidental or collateral civilian casualties and or damage to civilian objects must not be “excessive in relation to the concrete and direct military advantage anticipated.” That’s a direct quote. To be clear, the advantage must be military. It must be concrete and direct, meaning it cannot be remote, long term, or hypothetical. This means that the overall objective of winning the war or defending the nation is too broad for the purposes of this rule and does not qualify as a concrete and direct military advantage under the law of armed conflict.

It is therefore clear that any use of nuclear weapons in or near populated areas would have severe and extensive immediate and long term direct and indirect consequences for civilians, which are today entirely foreseeable, given what we know about the effects of these weapons. We have briefly looked at how IHL protects civilians from indiscriminate and disproportionate harm. Now, what about protection of combatants? Is it lawful to use a nuclear weapon against enemy combatants in a desert, for example? Well, we would see a major impediment to that under the prohibition of weapons of a nature to cause superfluous injury or unnecessary suffering. This rule refers to injury suffered that is in excess of what is required to achieve the legitimate military goal sought. It aims to protect combatants, and compliance with this rule is assessed by reference to the weapon's designed injury mechanism- that is its designed effects on human health. And clearly, as has been described, the horrific short- and long-term illnesses, permanent disability, and suffering caused by radiation exposure raises serious questions about the compatibility of nuclear weapons with this rule. And then finally, we can mention rules aimed at protecting the natural environment. And I will go over this quickly for want of time. Customary rules of IHL into protecting the natural environment require that all means and methods of warfare be employed with due regard to the protection and preservation of the natural environment. And there, again, given what we know about a potential impact of radiation and the destructive nature of nuclear weapons and the long-term impacts of radioactive particles, et cetera, on the natural environment, there are major questions to be asked whether this rule could be respected.

IHL also prohibits the use of means and methods of warfare which are intended or may be expected to cause widespread long term and severe damage to the natural environment. And this rule, which is codified in Additional Protocol I to the Geneva Conventions, has not become part of customary law with regard to nuclear weapons, because a number of states have consistently objected to its application to nuclear weapons (unsurprisingly, these are nuclear weapons states). Nonetheless, the potentially severe immediate and long-term effects on the environment, even in the case of even a limited nuclear exchange, raise significant questions under this rule, given what we know about the major long-term disruption to climate and the severe food insecurity that

would be created for up to a billion people, even from a limited nuclear exchange involving just 100 nuclear weapons.

I will conclude my remarks on the notion of self-defense, by reference to the 1996 advisory opinion of the International Court of Justice, where the ICJ concluded that the use of nuclear weapons would generally be contrary to the principles and rules of IHL. However, the Court stated that it was unable to decide whether such use would be lawful or unlawful, and I quote, "In an extreme circumstance of self-defense in which the very survival of a state would be at stake." In this respect, the Court did not conclude that the use of nuclear weapons would be allowed in an extreme of self-defense. Rather it indicated that the state of international law and the facts at its disposal at the time in 1996 did not allow it to reach a definitive conclusion. For our part, the ICRC considers that the exercise of the right of self-defense, even in an extreme situation where the very survival of the state is at stake, can on no account release that state from its obligations under IHL.

In other words, there is no suspension of International Humanitarian Law in cases of self-defense. If this were the case, this would amount to the ends justifying the means and spell the end of law. This is very much about the rule of law and the rule of universal humanitarian principles, which are a critical underpinning of the world order. Self-defense must be exercised in compliance with IHL, whatever the circumstances, and not in violation of the very rules intended to mitigate the suffering caused by armed conflict and these age-old rules aim to impose limits on what is permissible in warfare. So to conclude, it is indeed very difficult to reconcile nuclear weapons with IHL. Thank you very much and sorry, I think I spoke a bit longer than I was meant to. Thank you so much.

JOHN BURROUGHS:

Thank you, Kathleen. I'm really delighted you are able to join us. Not everybody may know that the International Committee of the Red Cross is a leading authority or perhaps the leading authority on international humanitarian law. And I've delved many times into their two-volume study of customary IHL. Our next speaker is going to be David Koplow, a professor at Georgetown Law. Among other governmental positions, he served from 2009 to 2011 as Special Counsel for Arms Control to the General Counsel of

the U.S. Department of Defense. He has published five books and numerous law review articles regarding treaty negotiation, verification, and implementation and regarding the intersection between international legal standards and U.S. constitutional law.

DAVID KOPLOW:

Thank you, John. And let me extend my congratulations to you and Charlie and Jonathan, and to everybody else who's been involved in assembling and presenting this truly extraordinary day long program. It's a real treat to watch and to listen to extraordinary presentations by such a wide group of distinguished experts. I'm delighted to participate, and I'm delighted to see that the program has attracted a large audience and an audience, as you can see from the list of participants, with substantial expertise. So I look forward to the discussion that we'll be able to have at the end of this program and later in the day.

I thought that for my presentation, I would focus on one particular legal tool that I think has a lot to say about the international law applicable to the possession, threat, and use of nuclear weapons. That is the 1996 advisory opinion by the International Court of Justice. Although this decision is now almost 25 years old, it remains a primary source for study of the legality of nuclear weapons for two kinds of reasons. First, this is, I think, the most authoritative, thoughtful expert, widely acknowledged source. The International Court of Justice is entitled to great deference and respect for the work they've done in this matter. Secondly, this decision is maddeningly incomplete, incoherent, internally contradictory, and confounding for further analysis. So I'd like to pick at what the ICJ said in that decision.

I'll apologize in advance if some of my remarks have more the tone of a long-winded rant rather than a careful academic presentation because this could be the chance to get off my chest some points that I've had in mind for a long time. The ICJ began, I think appropriately, by determining that nuclear weapons are fundamentally weapons. They are unusual weapons, both in terms of the devastating power and the extraordinarily long-lasting effects, but they are weapons. And therefore, they are governed by the traditional law of armed conflict, international humanitarian law, that applies fully to all other weapons.

It takes some special analysis in handling, but fundamentally, the rules as articulated by both Charlie and Kathleen on proportionality and necessity and avoiding unnecessary suffering, apply to nuclear weapons as they do to all other circumstances. In evaluating the effects of nuclear weapons, the advisory opinion concluded that nuclear weapons are scarcely reconcilable with the fundamental principles of international humanitarian law. But the Court determined that it could not say categorically that in all circumstances any use of nuclear weapons must be a violation of international law. By the narrowest of margins, essentially an eight to seven decision, the Court decided that there might be some scenarios in which the threat or use of nuclear weapons could be lawful despite the unusual effects and power that the weapons might have. I'd like to zoom in on a couple of the circumstances under which the Court hypothesized that the use of nuclear weapons might nonetheless be legal.

Again, here you have to acknowledge that the Court is not completely clear in setting out its logic or the fact patterns they were concerned with. It requires some interpretation, some interpolation, but I think we can identify at least two categories of cases. The first concerns the possible use, as suggested by one of the states participating in the proceedings, of a small number of very low yield nuclear weapons against a military target that was located at a long distance from population centers. Here the scenario might be use of weapons against a naval fleet on the high seas, far from shore, or perhaps a use of nuclear weapons against a column of tanks on the desert someplace distant from population centers. The Court concluded that the use of a small number of very low yield weapons in those discrete circumstances might be such that the effects could be confined, could be controlled, could be limited in a way that would be compatible with international humanitarian law.

My reaction to that is, first, if this were a law school exam, I might have to give the ICJ a pretty good grade for having come up with a hypothetical scenario that meets some of the legal standards and that might dodge the applicable prohibitions and imagine a lawful use. But I think we should expect more than that from the World Court because the Court's decision here ignores the fundamental reality about how the United States and the other countries that possess nuclear weapons have built and designed

their arsenals, the strategic doctrines that underpin their potential use, and the testing and training that accompanies the nuclear programs. In fact, the U.S. and the others do not have arsenals that are optimized for that small scale limited remote use. Instead, the United States has large nuclear weapons.

We've got some small ones too, and I'll return to that point in a moment, but fundamentally the arsenal in the United States and elsewhere includes large nuclear weapons that are an order of magnitude bigger than the weapons that were used with such devastating effect on Hiroshima and Nagasaki at the end of World War II, and the scenarios for use do not involve using only a very small number. They involve massive uses of nuclear weapons. They do not involve principally targets that are remote from population centers. Instead, the weapons, the arsenal, and the doctrines for use focus upon the possibility of using them against military targets that are located in or near population centers in Russia, China and elsewhere around the world. And the forces are trained with that sort of big uses in mind. So while it may be possible to construct scenarios where a nuclear weapons use might be legal, that's not the reality. That's not what the world of nuclear weapons today is all about. The ICJ could and should have done better.

To illustrate this, I'd like to offer an extended analogy. This does take a moment, so please bear with me, but I think I can connect it back up. The analogy is to the world of chemical weapons. Chemical weapons are another tremendously important and deadly device that the New York State Bar Association could well put on a day long program about at some other time. But for now, the point is just that there's a treaty that deals with chemical weapons, the Chemical Weapons Convention. It constitutes a comprehensive and nearly universal prohibition against the wide range of chemical weapons activities. It restricts countries from manufacturing and possessing and testing and selling and using chemical weapons categorically. But there's a problem because many chemicals are dual use or multi-use in their nature. The same sorts of precursor chemicals that can be combined to make chemical weapons, are also used across the entire of the civilian economy for all sorts of benevolent purposes, from plastics to paints, to fertilizers, to insecticides.

You just could not, as a practical matter, ban all of those toxic chemicals, even though if you combine them in one way, you get fertilizer and insecticides, but if you combine them in another way, you get a nerve agent and mustard gas. So what the treaty does is to permit the possession of those toxic chemicals where they're used for purposes not prohibited by the treaty. Where they're used for peaceful, industrial, or agricultural, or pharmaceutical use, you can retain those chemicals. But the treaty says you can retain those chemicals only when they're in types and quantities that are consistent with the peaceful use. So you can't lawfully retain huge quantities of toxic chemicals and say, "Well, we're going to use these for insecticide" when they're not quite the right chemicals that we use for insecticide, and you're not holding them in quantities that would be appropriate for that use. You can use chlorine for swimming pool and for purifying drinking water, but you can't hold vast quantities of chlorine that would be incompatible with that use.

It seems to me that's the concept that the ICJ could and should have used in dealing with the legality of nuclear weapons in this remote possibility. What they could have said is that the possession and use of nuclear weapons might be lawful when you might use a small number of low yield weapons in a remote circumstance, but that's the only way that you can possess nuclear weapons. You can't possess large arsenals of large nuclear weapons and announce a strategic doctrine, and do the testing and training that would be appropriate for other kinds of uses. If only a small number of low yield weapons would be legal, that's the only kind of weapons you could possess.

The ICJ could have said that and did not. Now, I mentioned that the United States does possess a number of low yield nuclear weapons. And here it seems to me that the ICJ decision, the advisory opinion, has perversely led the world, reinforced the world's movement, in precisely the wrong direction. That is, many military authorities in the United States and elsewhere have sought to pursue low yield nuclear weapons, precisely because they would be more usable. The argument is that very large nuclear weapons are so powerful and so destructive that we would be self-deterred from using them in ordinary circumstances, but that as a war fighting technique or tool, it would be better to have low yield nuclear weapons. The ICJ decision seems to reinforce that instinct.

To me, that's precisely wrong. The world should not be seeking low yield nuclear weapons. We should not be seeking nuclear weapons that are more usable. We should seek to make the barriers against any use of any nuclear weapons as high as possible to preclude any possibility of any use of nuclear weapons. The ICJ decision in seeming to endorse this one scenario, I think takes us in the wrong direction.

So that's one scenario where the ICJ decision endorsed the possible legality of the use of nuclear weapons. The other, as Kathleen highlighted at the end of her remarks, is in some ways the opposite scenario. The ICJ determined that nuclear weapons use might be legal in an extreme circumstance where a country's sheer national survival was at stake. Again, they weren't completely clear as to what they meant by that, but it appears that this was a nod in the direction of the doctrine of deterrence: a doctrine of mutual assured destruction that many people would say gets some of the credit for preserving the world against the possibility of a World War III, and for avoiding the use of nuclear weapons, since 1945.

I don't want to debate today the validity of the doctrine of deterrence and determine exactly how much credit should go to the doctrine of deterrence, but as a legal matter, it seems to me here that the ICJ has the analysis exactly wrong. Nuclear weapons are governed by the law of armed conflict as are all other weapons. The use of nuclear weapons, even in a circumstance of national survival, is part of the law of armed conflict. The law of armed conflict does not have exceptions that say the law does not apply when there's a lot at stake, does not apply when you might be in danger of losing the war. The law of armed conflict applies at all times during an armed conflict, including when the stakes are at their highest.

There are some things that are just categorically impermissible even if you think you might gain some military advantage from doing them. You can never torture prisoners of war. You can never deliberately aim at civilians. You're never allowed to undertake attacks that are disproportionate, even if you think your national survival is at stake. So again, it seems to me that the ICJ, attempting in some plausible way to acknowledge the importance of the doctrine of mutual assured destruction and to acknowledge in some ways, the continuing viability of the deterrence relationship as the centerpiece for nuclear security

around the world today, has made a serious mistake. Well, I think that's probably where I should stop. There's more to be said, but I look forward to pursuing that in the discussion with the rest of the panel. Thanks.

JOHN BURROUGHS:

Thank you, David. I'm not sure that all the panelists heard the discussion earlier today, but we learned something from Scott Sagan in particular about how the U.S. military is approaching the application of IHL in the nuclear context. It's now declared policy, and has been for a number of years, that U.S. use of nuclear weapons will comply with IHL. Here's how I understand how the U.S. military lawyers approach this: a use of nuclear weapons has to comply in particular with requirements of necessity, proportionality, and distinction.

However, the requirement of distinction is interpreted rather narrowly to mean that the targeting must be against military targets. If you're not deliberately targeting civilians, then you're not violating the principle of distinction. It appears to me that in effect, they've read out of the picture the prohibition on indiscriminate attacks that Kathleen talked about. I believe there's a procedure within the U.S. government whereby weapons are inducted into the stockpile, and they're not inducted if they're considered to be inherently indiscriminate. Nuclear weapons have been inducted, so they weren't considered to be inherently indiscriminate.

And Charlie discussed quite clearly the requirement of necessity, but on proportionality, Kathleen, I think one can imagine circumstances where it could be argued that the requirement of proportionality is met. If you think that the enemy is about to launch an attack on your cities, you might think that collateral effects, killing or injuring tens of thousands, or even hundreds of thousands of civilians near the target might be proportional. I think that's the kind of grim calculus that comes into play here. So let me ask a question of our panelists, assuming that I've more or less correctly described how the U.S. military approaches the question of use of nuclear weapons. How would you assess that? How would you comment on it?

CHARLES MOXLEY:

John, I think I'd say that there's plenty of stuff in the U.S. military manuals against indiscriminate attacks and the U.S. manuals acknowledge the point that Kathleen made. They say expressly that you can't use a weapon if you can't control the effects of it. David, you may have a fix on this than I do, but it does seem to me that the flaw is in how the military is evaluating whether a weapon is indiscriminate. My sense is that the U.S. can say that these weapons are lawful by curtailing the analysis staying =very focused on a narrow view of the potential effects. They are making an assessment without considering radiation and nuclear winter and without considering the potential for a nuclear response and escalation, which would apply even to the remote use. The idea of the nuclear taboo has been around a while and I think people take it seriously. By crossing that line, wouldn't you precipitate the potential for broader use, even if you cross it with a remote use, that you referred to, David, where the weapon is used against a military fleet in the high seas or a remote troop of military targets?

DAVID KOPLOW:

It seems to me that there is very broadly, widely shared consensus on the legal standards. As John mentioned, the U.S. military has committed to the proposition that all military operations will comply with the law of armed conflict and all the rest of the applicable international law. Not just nuclear weapons or chemical weapons, but everything the U.S. military does will comply with applicable international and domestic law. And you're just right that there is a procedure requiring a legal review before any new weapon can be approved for purchase or entry into the arsenal. And that legal review applies exactly the kinds of standards that we've been talking about. The categories of legal analysis are, I think, not in dispute. The difficulty, I think, is how you apply those agreed criteria to close cases. Proportionality provides probably the best example of that. In a nutshell that says you can't do too much damage to civilians and civilian objects when you're pursuing an attack against military objectives, but how much is too much?

Depending on what you believe is at stake and what you believe our weapons would do, there's a wide margin of what might be considered to be "too much." The legal analysis done by

not just the United States, but I think all the other countries that possess nuclear weapons adopts the point of view that harm that would be inflicted by our use of nuclear weapons is not too much. It's enormous, it's extensive, it's long lasting, but it's not categorically disproportionate to the value that would be realized, the military gain that would be accomplished by their use. As an abstract matter, I think you can't get behind that. You just have to do it on a case-by-case basis where, in good faith, I think it's harder to argue that the analysis can be sustained.

JOHN BURROUGHS:

Kathleen, did you have comments?

KATHLEEN LAWAND:

Yes, sure. I would have a lot to say here, but I'll try to be brief. First of all, I should say, as I alluded to in my presentation, I think certainly if a nuclear weapon is used very far away from populated areas, let's say against an object, so we set aside the prohibition to cause excessive suffering to combatants, and so human combatants are not in the picture, I think there, we could imagine, yes, scenarios using a low yield nuclear weapon where the eventual harm to civilian areas could be deemed to be proportionate, that is, not excessive in relation to the military advantage anticipated. But we must not forget that even in that scenario the natural environment is protected as a civilian object. So you also need to look at what will be the impact on the natural environment and how much damage will be caused to the natural environment for how long, et cetera.

And this needs to be factored in as well in the proportionality calculation in that scenario of a low yield nuclear weapon in a desert. But then we also need to look at whether radiation will be spread through winds and other means to civilian areas. We look at the different hypotheses to test the law, but we have to look at the reality of how nuclear weapons will be used. And the fact is they will be used in or near cities. Planning is being done to use them against military objectives located within or close to cities. And even if hypothetically nuclear weapon states were planning only to use them outside of populated areas, the reality is use of a low yield nuclear weapon in a desert will eventually lead to a reprisal and

counterstrike, and therefore escalation, which by the way, is something that the ICJ itself noted.

The ICJ raised the question and stated clearly that there was this major risk of escalation, of use of nuclear weapons, such that their use would eventually move into cities, even in the hypothetical scenario that the use would begin outside of populated areas. Coming back to the prohibition of disproportionate attacks- again, I'll just repeat what I said earlier. It is extremely difficult to imagine a concrete and direct military advantage that would be so important as to justify the colossal civilian harm that would be caused if a nuclear weapon is used in or near populated areas.

So if we're looking only at that scenario, use in or near populated areas, it's extremely difficult to find what would be that concrete and direct military advantage. Which by the way, those terms, concrete and direct, refer to a tactical advantage. It is not, as I said, the objective of winning the war, defending the nation, the political aim. It is rather what, in that particular attack, that particular military operation, will be the advantage gained by the attacking force by launching this strike. I think nuclear weapon states themselves have not shown any concrete scenarios where proportionality could indeed be respected.

JOHN BURROUGHS:

Kathleen if I may be permitted to say something as if I was a panelist. I think that your stronger argument is that even if an attack in or near a city is arguably proportional, it would still violate the prohibition on indiscriminate attacks. That the problem with proportionality . . .

KATHLEEN LAWAND:

I couldn't agree with you more.

JOHN BURROUGHS:

The problem with proportionality analysis is that it involves balancing. I have another question. If you have a certain view of the United States and the world, as Les Aspin, Secretary of Defense, recognized three decades ago, essentially, the U.S. would be better off if there weren't nuclear weapons. There are no other or few

other sorts of major strategic systems capable of threatening the United States, and obviously the United States has a very strong military. But the U.S. is not the only player in the world.

There are other countries who may think, under current circumstances, nuclear weapons are really important to their defense and to anything ambitious they may want to do in the world. That leads in my mind to the following tough question for the United States: if the United States wants to limit or even essentially end its reliance on nuclear weapons, what does it do about the fact that other countries- I'm thinking in particular of Russia- seem almost to have doubled down on their reliance on nuclear weapons? That's the question.

CHARLES MOXLEY:

John, I think I'd say that's one of the strange ironies of the history of nuclear weapons is the following. During the Cold War, after the end of the Second World War, the U.S. made the decision to demobilize and not keep up its conventional military capabilities, and to just rely on nuclear weapons. And it let itself become inferior to the Soviet Union in the conventional weapons area to the point where, it was believed, that, if you had a Soviet incursion of a conventional nature into Western Europe, that would be a serious problem, and so, to counter this threat, the U.S. would rely on nuclear weapons. The irony is that, since the demise of the Soviet Union as a nation, the U.S., has built up its conventional weapons so much that now there is the argument that, for a lot of purposes, the U.S. could do without nuclear weapons, and is far more threatened by them being used by an adversary than there is a need for it to potentially use a nuclear weapon itself.

But I think your point is that, while we don't need nuclear weapons anymore, arguably, because conventional weapons could achieve most military objectives for us, other countries do need them because they're far weaker in conventional weapons, and so that just points to the challenge. Governor Brown was talking about the challenge, but this particular aspect of the challenge is even bigger than what he referred to at the time, because you probably can't control the nuclear weapons situation without getting some control over the conventional challenges that other countries have, namely that potential adversaries need a defense

against us because we're so superior in our conventional capabilities.

So I'll just put this question out there. Aren't conventional disarmament and nuclear disarmament so interrelated that we have to address them together, and that we're not ever going to really achieve much on the nuclear issue without somehow achieving something on the conventional?

DAVID KOPLOW:

That's certainly where I come down. John, I'm exactly on your premise that if, magically, nuclear weapons disappeared around the world overnight, the biggest winner would be the United States because we have such a massive superiority in conventional weapons and because nuclear weapons are the only system that really threatens the national existence of the United States. We have the most to lose by the continuation of nuclear weapons and the most to gain by their abolition, and other countries realize that too. For me, that becomes a reason why the TPNW, for all its other possible benefits, is too simple. It's unrealistic to expect that the world will get rid of nuclear weapons without dealing at the same time with defensive systems and with conventional weapons and with regional disputes and with verification and enforcement. I think you need to package all of that into a longer-term package that would include conventional forces as well as nuclear.

JOHN BURROUGHS:

Kathleen. Did you want to comment?

KATHLEEN LAWAND:

John, I think, from the International Committee of the Red Cross' perspective these are questions of strategy and of politics of how to link up these different streams of disarmament. We're looking at it strictly from an IHL perspective. And there, again, the fact that under the law of armed conflict these nuclear weapons pose very serious concerns and are arguably unlawful in most of the scenarios in which they would be used, must in and of itself drive disarmament efforts. And I would just also note that my understanding and my reading of the ICJ's advisory opinion is that it found that... and again, I'm not disputing the realpolitik of

disarmament which both Charlie and David have just mentioned and discussed. But from a legal standpoint the International Court of Justice found that there is an obligation to take effective measures towards nuclear disarmament, not general and complete disarmament, but nuclear disarmament. And what's more, it found that this is not just an obligation of means, it's an obligation of result.

Because these are legal commitments that have been made by states, yes, perhaps one could say this is the ideal of the law versus certain political realities of the world, but I think . . . Let's look at chemical disarmament, look at biological weapons disarmament, et cetera. There were times in history where all of weapons of mass destruction were lumped together in terms of states saying we need to deal with everything together. In certain regions of the world and the Middle East, notably, this is how it's also being approached. Let's deal with all WMD together. But the reality is, today, chemical weapons are comprehensively and universally prohibited.

They certainly are prohibited from a customary law standpoint, and the Chemical Weapons Convention is one of the most widely ratified instruments. So what I mean by that is that it is possible to silo- and this is a question of political will- nuclear weapons and get the job done just for nuclear weapons and then move on to other forms of disarmament. I do think it's possible, and it's a question of, yes, I realize there are political challenges today to doing this, but times change. This is what diplomacy is all about and goodwill and toning down rhetoric and reaching out. And this is where I believe the U.S. can play a very strong role there as well. It's about each nuclear weapon state looking at their own responsibilities and taking, dare I say it, the moral high ground and having the courage to take the first step and reach out.

JOHN BURROUGHS:

Kathleen, I hope it's okay with you if I consider those your closing comments. David and Charlie, would you like to make closing comments?

DAVID KOPLOW:

The closing comment I'll make would be the invitation to open up another kind of discussion. So far, we've been talking about the

use or threat of use of nuclear weapons. An associated important problem would be the legality of the possession of nuclear weapons. The advisory opinion was not directed to that, but that too would be something that we could pursue in depth. The general rule is that, as the ICJ stated, it's illegal to threaten to do an act that would be illegal to carry out. Therefore, presumptively, possession of nuclear weapons could be challenged. But it seems to me that's something that would deserve at least another hour's worth of panel, and I would be delighted to have you chair that one too, John.

CHARLES MOXLEY:

I would suggest picking up on David's point. One of the things that the ICJ advisory decision in 1996 said that we haven't focused on is what David just alluded to. The ICJ told us that it's unlawful for a state to threaten to use weapons that it will be unlawful for them to use. We saw today what the makeup of different nuclear arsenals are. We saw that the U.S. nuclear arsenal is very predominantly composed of the high-yield nuclear weapons. We saw the ICJ's language suggesting that, in extreme circumstances of self-defense, all bets might be off. Although the language of the court was not very clear, I don't think any serious international lawyer really thinks that's what the ICJ meant. Other parts of the ICJ decision concluded that, even the exercise of self-defense is subject to IHL. Kathleen addressed this point perfectly earlier on.

In reality, what we have is a U.S. nuclear arsenal that is primarily made up of high-yield nuclear weapons, whereas the U.S., in its arguments before the ICJ, basically defended the potential lawfulness of the potential use of low-yield nuclear weapons. As we've seen, however, the U.S. nuclear arsenal is dominated by high-yield weapons and they are included in our policy of deterrence along with the relatively few low-yield nuclear weapons we have. And our policy of deterrence is postured not only against nuclear strikes but also against any threat we deem against our "vital interests."

So I think there's a serious question of the lawfulness of the policy of deterrence insofar as we're threatening the use of the higher yield nuclear weapons. I think it's almost a separate question, but we'll have to have a second day because we're just scratching the surface on some of these issues.