Is Limited Nuclear War a Thing?

[00:00:00] Speaker 1: Hello, everyone, thank you so much for coming today for a topic that is just as unsettling as it is important and kind of front and center in a lot of developments that we've seen from the war in Ukraine with Russia's alleged contemplation of low-yield nuclear weapons in the battlefield to the looming possibility of a conflict with China. Limited nuclear war is no longer a relic of the Cold War. It's now a discussion that is quite open. And military is often a plan and military establishment often think about limited nuclear war, but we're here today to kind of get into the weeds of beyond Russia and beyond China, but to look at this context from the regional perspective of Pakistan and South Asia, and also France, and of course, the United States. So I'm joined today by three really distinguished panelists, Dr. Rabia Akhtar, who is the Dean of Social Sciences at the University of Lahore, and also a fellow with Managing the Atom at the Belfer Center. Lenore Tramero, who is a Vice President at J.A. Green and Company. She was formerly in the Department of Defense as Deputy Assistant Secretary for Nuclear and Missile Defense Policy. And Héloïse Fayet, who's at the French Institute of International Relations as a Research Fellow in the Security Studies Program. So I wanted to start by actually looking at the South Asia context. This is a region where there's three nuclear powers, India, Pakistan, and China, with not necessarily the greatest of relations. And we've seen crises like the Kargil Conflict, and also multiple skirmishes between India and China on the border, and we've seen these conflicts remain conventional, below the nuclear threshold. And so I wanted to ask Rabia, what lessons can Pakistan's experiences offer about the feasibility of controlling escalation?

[00:01:50] Speaker 2: Thank you so much, Nicole. I would like to thank Carnegie for giving me this opportunity to be here. The thing with South Asia is that, as an academic, I always challenge the constructs that we have in the literature that come from the Cold War time. Terms like limited nuclear war, nuclear escalation, or war under the nuclear shadow. And these constructs came from a different world, and they do not help us understand as to what South Asia's nuclear dynamics are all about. During the Cold War, as you all know, it's a very learned audience, the adversaries were separated by oceans. They were buffered by time zones, and they were surrounded by an elaborate ritual of signaling. Washington and Moscow both had the luxury of distance, minutes, hours, even days to interpret and respond. But South Asia is not separated by continents. It is separated by seconds. And nuclear adversaries share not just the border, but also a terrain, history, and hair-trigger fears. Let me tell you that Rawalpindi and New Delhi are closer to each other than Washington is to Boston. So let that sink in. Fighter jets can cross borders in minutes. There is no buffer, there's no strategic depth, only compressed time and compressed space. So when we transplant Cold War metaphors here, we are not importing insight, we are importing illusions. So the idea of limited nuclear exchange assumes a degree of control that simply does not exist in our region. Even today, when the US talks of limited nuclear use, it does so from a position of geographic insulation and its nuclear battlefield is always far removed somewhere else. Pakistan and India cannot afford this luxury, neither physically nor politically. So in South Asia, the nuclear shadow is not a space for a maneuver, it is a cliff edge. There is no escalation ladder, there is only escalation landslide. And so I want you to work with this imagery when you think about South Asia. This is why Pakistan does not have a war fighting strategy. There's a lot of literature out there about Pakistan's tactical nuclear weapons, which to my academic mind are psychological tripwires. Because

India has a cold start doctrine, which is its limited war fighting doctrine, Pakistan's tactical nuclear weapons are introduced not to blur the lines, but to make the lines very visible and clear. There is only one thing that I would like to say with respect to limited nuclear war, that there's absolutely no space. Pakistan might appear to you to play the role of a mad hatter. And just as in Alice in Wonderland, the hatter's eccentricities and his unconventional tea parties celebrating unbirthdays challenge the rules and expectations of Victorian societies. Similarly, Pakistan's tactical nuclear weapons are employed for the same purpose. They're employed to let India know that there is no space under the nuclear shadow where any war could be fought. There's only an abyss. And with all due respect to nature, even that abyss is nuclearized. So there is absolutely no space to fight limited war, whether conventional or nuclear.

[00:05:33] Speaker 1: Thank you so much, Vivia. That was quite fascinating. And I'd like to turn actually to Eloise because the French perspective on this kind of final warning shot before massive retaliation is quite interesting when we're thinking about is this a limited nuclear concept? And so I want to ask about the current developments in France and the discussions about potentially assuming a greater role in European deterrence. Has that impacted France's thinking about the final warning shot? Or is the final warning shot even in the context of limited nuclear war? Is it limited?

[00:06:04] Speaker 3: Thank you so much for this question. Thank you for Carnegie to organize this panel. So I would like to say that I'm very glad to be part of this all-female panel. I think it's way too rare in this field. I think we are the only all-female panel of the whole conference. So I'm really glad to be here. So in fact, I was quite surprised by the discrepancy between the title of the panel. So is limited nuclear war a thing? And the question that you ask about the final warning or ultime avertissement, as we say in French, because in fact, the ultime avertissement is not limited, and it's not part of whatsoever a limited nuclear war strategy, because in that matter, and I think there is a close connection with the Pakistani understanding of limited nuclear war, nuclear war in Europe can't be limited due to the small size of the continent. So the final warning is, in fact, not a prelude to a nuclear war. It's not either a prelude to a nuclear exchange. It's mostly an additional political tool for the French president to have in mind that can give him, of course, greater flexibility in order to deter any adversaries. And in fact, so here I'm going to, I have to, I'm going to quote, in fact, the presidential speech of 2020, because as you might know, but the French nuclear doctrine is not written, for example, through a French version of the NPR, but it goes through presidential speeches. That usually needs a lot of post-speech explanation that we are tasked to in a think tank, so I'm glad to be here trying to do my Macron explainer. So yeah, basically, he say that if an adversary, a state adversary was mistaken about the French commitment to defend its vital interests, then the French nuclear arsenal and the French president is able to deliver a single and non-renewable, so final warning, and it's a clear signal that the conflict has changed nature and is made to reestablish deterrence. So it's not at all limited nuclear war, and in fact, it already exists in the French nuclear doctrine, and we don't see for the moment any issues for it to be applied to, let's say, other countries, because in fact, this idea that the French nuclear deterrence now has a European dimension is not new at all. It was already present in the strategic documents in the 70s, where the president at the time acknowledged the fact that the French nuclear arsenal was made to deter threats to the French territory, but also the approaches of

the French territory. So at that time, it was perceived, let's say maybe as West Germany, Northern Italy, Benelux, the UK, and nowadays, of course, considering the growth of the European Union, NATO, and the strengthened links between France and other countries in Europe, there is an acknowledgement that something that happens beyond the French borders, for example, in Poland, Romania, Baltic states, can have an impact on the French vital interests. And so in that regard, it's completely possible and also planned in the doctrine that if necessity arise, yes, there can be the use of this final warning to deter an adversary to attack, let's say, Poland, because it will have consequences on the French vital interests. But in fact, this final warning really comes, let's say, it's not, again, the beginning of something, the beginning of an escalation, but rather the end of a very long nuclear strategic signaling process that can be done, for example, through the Strategic Air Force. We have multiple means to demonstrate our willingness to use a nuclear weapon and to reinforce deterrence through the Strategic Air Force, also SSBN, and of course, also conventional matters. We have a more open discussion nowadays about the mutual support between nuclear forces and conventional forces in France, and it has to take place also in the European debate.

[00:10:29] Speaker 1: I think the European debate is quite interesting when we're thinking about this, because at the moment, the Russians frequently accuse the United States of being prepared to use low-yield nuclear weapons, and we've seen this with the 2018 Nuclear Posture Review, and also with the reintroduction of the Slickman. And so I would like to ask, Lenore, from your experience of working in the government, how much does U.S. planning about limited nuclear war actually reflect political leadership, or is there a political oversight on this, and what's the connection between the military planning and also the political establishment and policy?

[00:11:04] Speaker 4: Yeah, thank you so much, and thank you, Carnegie. Thank you, James Acton and George Perkovich and the Carnegie team for putting this together and having this discussion. I do think there's, you know, military implementation and options are a reflection of policy and strategy. So when I chaired in the early part of the Biden administration, we were preparing our Nuclear Posture Review. There was a flow to the planning for the review, and it really started with what will be our policy, and from the policy flows strategy, and from the strategy flows what capabilities you need. So it's really tied together, and I don't think there is a dichotomy between military options and what the policy or political overview is and there shouldn't be. And in fact, the office I worked in within the Department of Defense, the Office of the Secretary of Defense for Policy has a very strong link with STRATCOM, the Strategic Command, and in reviewing war planning and making sure that war planning is consistent with policy. So there is that specific link. And so ideally, you know, it should reflect consistency. What I would say is there are often issues with differences of interpretation. How do you interpret a policy or a strategy and how does that translate into capabilities? And there are some questions. For example, we all agree, well, a lot of folks agree that a nuclear war should never, cannot be won and should never be fought. But yet, the Strategic Command mission notes that the mission of USSTRATCOM is to deter strategic attack through a safe, secure, and effective and credible global combat capability. And when directed, is ready to prevail in conflict. So are we planning to win a nuclear war, I think is a valid question. And just coming back to your question about is limited war more likely, I think you touched on an important piece with more focus on lower yield nuclear weapons is reducing the threshold to using nuclear weapons, in my view. And so we

are at a very dangerous time where I think we need to focus a lot more on reducing the risk of nuclear war.

[00:13:42] Speaker 1: I mean, I think a lot of people would agree with you. When it comes to actually the, I wanna actually go more in depth about the divergence between the military and the policy establishment on the ability to control escalation. Because surely, you know, militaries plan to win wars. Is that necessarily reflected in the ability, the political leadership's thinking about the ability to control it? Because clearly, the military won't be involved with war termination or with efforts at de-escalation. So I actually, I wanna ask Rabia if you could elaborate on that, and then I'll turn to Lenore and Eloise on this.

[00:14:16] Speaker 2: So in India and Pakistan's case, escalation control traditionally has been outsourced to third parties, while India and Pakistan continue to provoke and test each other's thresholds whenever they've gotten into a crisis post-nuclearization since 1998. There has been Kargil crisis, then there was the 2001-2002 Twin Peaks crisis when the Indian parliament was attacked. We have seen the 2008 Mumbai attacks, and then two attacks, one in Uri in 2016, and Patan court, which led to surgical strikes by India. And then latest in their crises has been the Pulwama-Balakot crisis in 2019. And in all of these crises, the role that has been played by third parties, because the first call goes to Washington, has been played largely by the US. There has been some role played by China, by UAE, as well as Saudi Arabia to bring the temperatures down. But India and Pakistan, they might have an escalation control strategy, but it has not been evident in any of the crises. I have written about it, and I believe that this outsourcing of escalation control to third parties, because they believe that these third parties have a stake in the crisis. They have a stake in the region of South Asia not going nuclear, so they will always be present there. So they don't need to work towards their own crisis management or escalation control mechanisms, which are bilateral. Even though there is a presence of hotlines between DJMOs, there's hotlines between the ministries of foreign affairs, communication, I've seen, has been always the first casualty of any crisis. So unless and until India and Pakistan move towards development of bilateral crisis mechanism and have more track tools over it, because there might not be a third party interested in saving India and Pakistan from their crisis dynamics or escalation dynamics. So I do believe that until and unless we get into that zone, which unfortunately we're not, both countries are not talking to each other since 2019. There is a skeletal staff and high commissions of both countries, the visa regime is down. There is hardly any conversation that is happening. So in the next crisis, you can still predict that there is no bilateral escalation control measures that are going to save both of them. And if there is a third party in shape of US, which is now more closer in its partnership with India and does not really, is not that heavily invested in pushing Pakistan from the brink, then I do believe that we have a problem at our hands. So this outsourcing of escalation control needs to not become a comfort zone, which unfortunately it has over a period of years.

[00:17:34] Speaker 1: I mean, Elinise, when it comes to the outsourcing of escalation control and also the divergences between the political and military leadership, what is France's policy there and what is France's thinking when it comes to that?

[00:17:45] Speaker 3: Yeah, I think the strength of the French nuclear doctrine is there is strict compartmentalization, I would say, between military and politics. And

again, the nuclear weapons are only a political tool. And I think it's really well understood in France. Most of the debates and speeches on nuclear weapons come only from the president. He's the only one with the launch authority and he's quite well-surrounded, let's say, by a personal chief of staff who is well-versed in nuclear matters. And from what we have seen, even in one president with, let's say, a lesser military experience, when they arrive at the Elysée after their elections, they immediately are briefed on nuclear issues and they immediately understand the seriousness, I would say, of the tasks that is on their shoulder. So great responsibility, only a political tool. So I think it's already useful in this perspective of escalation control. But for sure, we still need to think about new ways to reinforce this mutual support between conventional and nuclear forces, especially given new domains of warfare. For example, cyber, the implication and the impact of AI in nuclear warfare space, sea-based warfare. And it's a lot of domains that we have to think about, cross-domain escalation, cross-domain deterrence. And I think we still have a lot of thinking to do about it. But also, France is quite heavily involved in the P5 process on strategic risk reduction. And as Javier was saying, it's really important to understand doctrines of your adversaries and also your allies. And so that's why it's important to maintain open channels of communications, open dialogues in order to better understand what is considered as escalatory, in fact, for a country, while maybe we would have not seen that as escalatory. But yeah, I can assure you after talking with many SSBN commanders, many pilots of a strategic air force, they really have in mind that it's only a political tool. And even if they can suggest options, it's only coming through a very secure chain of command from politics. But also, of course, the context, as you said, is changing. And I feel like the current debate about this European dimension of the French vital interest, but also escalation management in Europe, is taking place in an idea where the US tactical nuclear weapons are still deployed in Europe, and where a big part of this escalation management is, in fact, dedicated to NATO. So of course, if there is a complete withdrawal of these weapons, and if there is a complete lack of trust in the US extended deterrence, then in that case, we will have, I think, to rethink this escalation management in Europe, but not only by ourselves. It will be made, I think, in cooperation with, of course, the UK, that is the other nuclear power in Europe, and also non-nuclear weapon states in Europe, because they have a big role to play in escalation management, because, in fact, conventional forces have to be involved, of course.

[00:21:21] Speaker 1: Yeah, I wanna get back to conventional forces in a second, because I think what's quite important is actually the connection between conventional conflict and potentially limited nuclear use. But first, I wanted to ask Lenore about sole authority, and the role of the United States president in escalation dynamics. Do you see that as exasperating, the possibility of a limited nuclear war, or the ability to control a limited nuclear war?

[00:21:46] Speaker 4: Well, a lot of it will depend on the president. These are the president's weapons, and he has the authority to decide whether to use them. Of course, the order has to be legal, and so the military has a constitutional obligation to only carry out legal orders. Of course, that's subject to interpretation as well. So I think there's a lot more concern about the risk of nuclear war for the reason you say sole authority, but also the risk of miscalculation. New domains, the impact of emerging technologies that will exacerbate the risk of miscalculation that could lead

to a nuclear war that neither side intended. So all of those factors contribute to increased dangers today.

[00:22:32] Speaker 1: And, I mean, what technologies do you find to be most destabilizing when it comes to potential escalation dynamics?

[00:22:39] Speaker 4: There's risks in all of the new domains, in the cyber domain, in the space domain. A lot of it will contribute to exacerbating the fog of war. It's very difficult to attribute who is attacking you, whether you're being attacked. You can do reversible or irreversible attacks, but you might not know if you're being attacked or your satellite is not working or having a technical issue. It's also very difficult to, if you know you're being attacked, to be able to reliably say this is what's happened and to show the public. And so for all these reasons, and there might be very strategic effects on Earth coming from space, but again, there's been no nuclear detonation on the ground. You might have attacks against your nuclear command and control systems, which, for example, our AHF satellites do both nuclear command and control and tactical communications. So our adversary might be looking to deny us tactical communications capability in the context of a regional conflict, but we might see it as an attack on our NC3 systems and interpret that as a precursor to nuclear war. So there are a lot of elements that can exacerbate the risk of inadvertent escalation to nuclear use.

[00:24:15] Speaker 1: And the point about inadvertent escalation, I think might be very relevant to the South Asia context, especially certain targets. And I think what Lenore brought up about the NC3I point, how does Pakistan think about targets in terms of escalation? And also, what would be the targets in a limited nuclear exchange for Pakistan?

[00:24:35] Speaker 2: I wish I knew what would the targets be when it will come down to that brass tacks. But with respect to conventional weapons and nuclear escalation, there is definitely a real risk because any war in South Asia, I don't believe is going to start with nuclear. There is a lot of space between India and Pakistan where crisis instability exists. And because that crisis instability exists, there is always a chance that the crisis is going to escalate as has been the pattern over a period of years. The latest crisis in 2019 saw conventional escalation by both countries. This was the first time that Pakistan's mainland was attacked by Indian Air Force since 1971. And Pakistan's retaliation had been counter value restraint, but counterforce signaling. And Pakistan responded across the line of control, choosing targets, ensuring that there was proportionality of response and that there were no casualties because there were no casualties on Pakistan's side when India attacked in Balakot. But that being said, because strategic stability in South Asia is less dynamic of arms control and deterrence stability, to me, it is more about deterrence stability and crisis stability. And whenever there is a space for a crisis to happen because the conflict with Kashmir is unresolved, you will always have that space. Unless that is plugged, there would be this fear that next conventional conflict, if the war happens between India and Pakistan, goes to the second round of escalation and then the third round of escalation. And again, going back to this point of restraint, in 2022, there was an inadvertent accidental launch of Indian BrahMos missile, cruise missile, that landed inside Pakistan, Pakistan's territory. There were no casualties, it did not carry a warhead, and India investigated at their end and it accepted that it was an accidental launch, but it accepted after 48 hours of that missile being missing from its inventory. I think not enough credit of restraint is given

to both countries, given their history, but I do believe that India and Pakistan, the leadership on both sides does believe in restraint, just because the space and the geography, the terrain, does not afford them the luxury to fight any war because they don't have escalation control. They might, in their own strategies and doctrine, might think that they can control, but an incredible factor in that control and some sort of complacency comes from the third parties that always intervene. So escalation is controlled not because of their bilateral nature, but because of third parties coming in and pulling both countries apart. So there will always be space for inadvertent and accidental escalation. A lot of commentary that has come out on Pakistan's tactical nuclear weapons is that if they're employed in battlefield, then obviously delegation would need to be given to local commanders in order to proceed with what they are employed for. But the official statements that come out from Pakistan say that Pakistan maintains centralized control and that the weapons are still in a demated state because the warheads are not mated with missiles, and that is, again, a deliberate strategic choice so that enough time during the crisis is given to decision-making and we just don't jump to launching the warheads. So I think the literature does not acknowledge that restraint, and I wish that more academics and scholars engaged it with that way.

[00:28:57] Speaker 1: And I actually want to go back to one of the earlier points that Eloise brought up is on the conventional and the nuclear nexus. How does France think about the kind of non-nuclear deterrence side of it? Are there any capabilities that France envisions in a conventional conflict that could perhaps serve a deterrent role in lieu of a nuclear?

[00:29:15] Speaker 3: Yeah, first, I would like to go back to what Rabia said about restraints, and I think it goes back to the panel that we had yesterday in Russia, the first panel of the day explaining that both, in fact, the US and Russia showed some restraint in the context of the Ukrainian war, and in fact that the most important thing to prevent a nuclear escalation is really to make a clear difference between conventional warfare and a nuclear war that, again, should not be fought because it can't be won, and making really the cost of a nuclear use really higher than ever, not by deterrence, by denial, but rather through reinforcing the taboo around nuclear use, international pressures, and all the means that we can find in order not to think about nuclear use as the last step of an escalation ladder. I think it's really important, and that's quite present in the French nuclear doctrine to do, again, a clear separation between the two. But, that being said, yeah, so France is thinking about, so not conventional deterrence because it's kind of a forbidden expression in the French doctrine because we assess that the only real efficient deterrent goes through the destructive power of a nuclear weapon, but at least we have to acknowledge that there are some situations where we have to give the political power more options to react, and it goes, I think, mostly through deep-precision strikes, so long-range missiles, but more in a kind of theater dimension. So, for example, if one day European soldiers are deployed in Ukraine and they are targeted by missiles, long-range missiles, conventional long-range missiles from Russia, how do we answer, how do we react? And I think we need our own capability to react to such an attack, and it goes, in fact, through conventional long-range strikes. And there is, in fact, a European project called the European Long-Range Strike Approach that gather, I think, now six or seven European countries, so France, the UK, Sweden, and a couple of other countries in order to develop collective long-range, either ballistic or cruise missile. It haven't been decided yet.

But, yeah, I think the current context really forces us to rethink also the balance between deep-precision strikes, nuclear deterrence, and missile defense, and it also goes back to the panel that was yesterday on missile defense, but mostly theater missile defense in order, again, to think about what we want to prioritize in terms of defense. Thank you so much, Annalise.

[00:32:04] Speaker 1: I think we're gonna open up to questions and answers, so you can, if anyone has a question, you can fill that up on your application. The first question's actually from George Perkovich, and this goes to, actually, your last point, is if Russia had detonated three or four nuclear weapons on Ukrainian military targets in October of 22, how do you each think the U.S. would have responded? And would that make the challenge of nuclear war less abstract? Is it for all of you, yes. Lina, why don't you start? So, I think that was a real threat,

[00:32:40] Speaker 4: and I think the Pentagon spent a lot of time concerned about this and how to make sure that Russia didn't miscalculate and didn't use nuclear weapons, both in private discussions and publicly. And the U.S. has been very, very careful that was real engagement with China, with India, to put pressure on Russia as well. And so, I think if it had happened, it would have completely changed the course of the war. It would have completely changed the history. I think there were, is the right answer, we need to respond with nuclear weapons? Of course, Ukraine's not a NATO ally, but what would be the commitment to protect Ukraine? I think if there had been one or two uses of nuclear weapons, I think it's incumbent upon the United States and allies make clear that Russia wouldn't achieve its military objectives. And so, there's several ways to do that, continuing an escalating conventional war. The United States has not been directly involved in conventional conflict there. So, that would have been an escalatory option without resorting to the use of nuclear weapons, much stronger sanctions. And so, there are options. I think it would have been risky to use nuclear weapons. Of course, that's the problem with the issue of do we have a deterrence gap and do we need additional capabilities and specifically low yield nuclear capabilities to convince Russia not to use nuclear weapons? I personally don't, I think that's a solution. It's a wrong solution to the problem. I don't think Russia is going to decide to use nuclear weapons because they don't think the United States has sufficient low yield capabilities. And so, we need to do better. And I think it was a good example of the world coming together to make very clear to Russia and to warn Russia not to use nuclear weapons. So, I do think that was a success and we need to continue to increase deterrence in this way. And the best way to avoid a limited nuclear war or an all-out nuclear war, because there's unpredictability, there's risks. Once nuclear weapons are used, you can't control the escalation. There could be this good spiral out of control and those are the war plans. We don't have termination plans for war, as you mentioned. And so, it's very risky. And so, again, the best way to prevent a nuclear war is to prevent a conventional war. And we should have done that with Ukraine. There are lessons learned there, but I think deterrence did hold and the response to Russia was successful in terms of when tensions were high in the fall of 2022.

[00:36:16] Speaker 2: Would add something? Yeah, I would just briefly say that since it's a hypothetical that if Russia used low-yield or tactical nuclear weapons, the world wouldn't be polarized. It could be divided into countries that would say that nuclear taboo has broken, it's a really bad thing. But given the amount of casualties that there would be, the other half could say, so what was the fuss about? So, it could open up, it could normalize the use of tactical nuclear weapons in conflict

zones. So, you can't say for certainty that it would be an absolute bad thing out there. So, I think the world would be polarized thinking into camps of whether it was a good thing or a bad thing, the taboo is broken, how do we restore it? How do we get back to the scenes before that? Or should we accept the new normal and move on? And what lessons countries would take from it? It's like, it's open.

[00:37:18] Speaker 3: Yeah. And that's why I think it's very important to make nuclear weapons states understand that you can't achieve military goals through, with nuclear weapons. I think it's really the message that was conveyed by the US and allies and also China through to Russia when the risk of use was higher. And I remember, I think President Macron was asked the question on TV and he said that, yeah, because of course there is strategic ambiguity around what are the French vital interests and the French president can totally decide that Ukraine is part of the French vital interests. But in that case, yeah, because Ukraine is not part of NATO and part of the EU, maybe less connections between France and France and Ukraine. So, I think they would have been maybe a strong conventional and international response. But yeah, even if it's up to the president to decide, the nuclear option might seem less plausible at that time.

[00:38:18] Speaker 1: This gets to a good question from Heather Williams and it's about off ramps and getting off of an escalating crisis involving nuclear arms states. What could we be doing to develop those off ramps for the next time there's, hopefully there isn't, but perhaps in the next time we face a crisis like we did with the risk of nuclear use? Rabia, why don't you go ahead?

[00:38:39] Speaker 2: Yeah, sure. I think it's an excellent question. Those of us who think about nuclear risk reduction need to continuously think about off ramps. The first, in South Asia's case, I think communication is the key. Even though there are track twos that are happening, then there aren't enough track twos that are happening. And I think India and Pakistan, if they are not realizing it themselves by opening bilateral communication and putting Kashmir on the back burner for a while, while coming together and still discussing a huge host of issues that they have between them, then perhaps third parties need to continue to be invested and not take sides, given their respective partnerships with each country and bring these countries together in a track two setting, in a track 1.5, track one, pushing them to continuously talk to each other with emerging technologies and AI and military, AI and NC3 conversations. Some of these technologies are emerging in South Asia while they have emerged elsewhere. And that has consequences for both countries as they continue to modernize their conventional and nuclear militaries. So there need to be a conversation as to how cyber, for example, disinformation, deepfakes are going to affect their crisis dynamics. We're not talking about conventional war. We're not talking about nuclear war. We're talking about crisis space, which is very, very real between India and Pakistan. So we don't have to wait for the next crisis to happen. We need to make these two countries realize that they need to talk to each other, even though there are serious territorial disputes that need to be resolved.

[00:40:34] Speaker 4: Yeah, I'll jump in. I think we do have built in good mechanisms, dialogue, for example, the strategic stability dialogues to make sure that we understand each other's doctrine. And that's, assuming that we do understand each other is an incorrect assumption. I think we do need to be talking to each other. We don't talk to China. I think that's a problem. Or at least not regularly. But there's also the, we were talking about the military role. There's military to

military dialogue as well. And we had the example of General Milley calling his counterpart in the last months. He called twice. So in the last month, and then again, in the last few days of the first Trump administration to reassure China that the United States was not planning on attacking China. There had been some, this came out of the Bob Woodward book, saying that there had been some intelligence indicating that China thought that the United States might be planning an attack. And so General Milley called his counterpart, General Li, to say, look, we're gonna have an election. And then after, it was, I think, a few days after the January 6th insurrection saying, the United States, despite the chaos, the United States is not planning an attack on China. So I think we've got these built-in mechanisms that are crucial, that are used in that work. But I think with regard to emerging technologies that Rabia mentioned, I think they can play a very crucial role in several ways. Number one, they can build in resilience. And we need to focus more on resilience and survivability, strengthen numbers. And we need to place a lot higher focus on that, I think, both for conventional capabilities and for nuclear capabilities. We shouldn't be deploying nuclear weapons platforms that are not survivable. And so I think resilience and survivability builds in stronger deterrence. The second piece is using AI and automation to process data more quickly. I think that will help. I mean, there's two sides of a coin, but they can help process data and get better and faster information to decision makers earlier in a crisis. And that can allow for additional de-escalation options and engagement with an adversary if you see things earlier rather than at the 11th hour in the fog of war or in the midst of heightened tensions in a crisis. So seeing things earlier gives you more time to engage. And then the last piece, and it's related to that, is transparency. So you've got ubiquitous commercial sensing now that gives you a lot more transparency than we had 10 years ago. And so, again, being able to use cheaper, faster capabilities to see things earlier, and that goes with the faster data processing, but will build in, I think, more opportunities for off-ramps earlier in a crisis and earlier in a conventional conflict before it escalates to a nuclear.

[00:44:10] Speaker 3: Yeah, I think really the goal here is to reduce uncertainty. And so transparency is important, but at the same time, we feel like because of thanks to new technologies, we can have the impression that the battlefield is fully transparent. And so we have maybe the false feeling of transparency that can induce maybe more, I would say, aggressive behaviors or refusing some assessments because the data says otherwise. So I think, yeah, the use of emerging technologies in this context of escalation management must be very, very careful. But some other means and other ways we can think about is, of course, while first refusing the idea of tactical nuclear weapons, again, to make understand that we can't achieve military goals with tactical nuclear weapons. Also, dual-capable means. I think dual-capable missiles really carries a sense of, really carries uncertainty, so it's very important to have either conventional or nuclear missiles. And also, in fact, reinforcing the credibility of nuclear deterrence itself because if you convince your adversary that the attack is not worth it, that's really, he's going to face retaliation. Then in that case, he might be less tempted, of course, at the goal of deterrence, to attack you first. So modernization, but in a transparent way, is also very, I think, efficient and necessary to reduce paradoxically, maybe, the risk of escalation.

[00:45:42] Speaker 1: I actually wanna get into the prospect of off-ramps failing. And so my colleague, Ankit Panda, asked a question about limited nuclear use arising either to achieve military aims, such as stopping Indian mechanized

advances, or coercive ends, so like the Russian escalate-to-de-escalate concept. What are the best ways to think about follow-on responses? Perhaps, is it conventional? Are there other ways of responding to a limited nuclear strike? And how is that envisioned in the doctrines of each country? So Eloise, I'll actually start with you.

[00:46:18] Speaker 3: Yeah, I think it's a very tricky question, because we still have, in fact, to think about it. And again, this comes to the panel yesterday, when the real topic is, in fact, not preventing nuclear war, but rather preventing nuclear use. And of course, the traditional answer would be a nuclear deterrence, a fact that we can answer with nuclear weapons if a nuclear weapon is used. But if it's a tactical nuke, then how do we react to that? I don't really have a clear answer, in fact, to this question. I think there is still a lot of thinking to do, whether in our own countries, also with allies, with adversaries. But yeah, again, I would say raise the stakes, really, for the countries that will be tempted to use this kind of weapons, both with defensive means, but also really putting the stakes on a nuclear issue, the role of international community, the role of non-nuclear weapon states, and making sure that the conflict stays conventional, and there is absolutely no temptation to cross the threshold. But yeah, I don't have a clear answer to this one.

[00:47:39] Speaker 1: Rabia, do you have anything to add?

[00:47:40] Speaker 2: Yeah, so like I said, that the only country that has a limited war doctrine is India. And if it moves on with forward deployment of IBGs, and they are able to cross Pakistan's threshold, cross the border, come inside, and take some territory, then deterrence is already broken. Because Pakistan's deterrence strategy is not only to deter a nuclear war, it is also to deter a conventional war. And in that case, that's when the tactical nuclear weapons come into play, that they are there as a show of resolve to India that do not cross the border, because there is no space for even conventional war to happen. But if that happens, then tactical nuclear weapons, according to my academic understanding, there is no official word on it. The doctrine is not written, as you know. It's only official pronouncement. But my academic understanding is then that tactical nuclear weapons will be used to coerce India to go back and reclaim that space, because deterrence is already broken. What are you going to do more?

[00:49:02] Speaker 1: Lenore, you briefly touched on actually the response in the Ukraine context. I was wondering if you could think about this in the context of Asia or Asia-Pacific. How would the U.S. respond, for example, if China had a limited nuclear strike on Guam, for example?

[00:49:19] Speaker 4: Yeah, and I think this goes back to the title of the panel, right? Can we, you know, is limited nuclear war a thing? I mean, obviously, you've got a range of capabilities in terms of nuclear weapons capabilities, lower yield, you know, short range. But I think it's a mistake to think that you have to respond to the use of a nuclear weapon, especially a low-yield nuclear weapon, in the context of an escalating conventional war, and that the only response is a nuclear weapon. I think we need to look at deterrence more from a strategic deterrence point of view than just nuclear deterrence. And so within that broader frame, there are a lot of tools that we can use. Again, you know, escalating a conventional conflict, you know, using economic tools. And for example, the Commission on Strategic Posture in one of its recommendations noted that we do, you know, the Department of Defense is very

good at doing war planning. We've got a lot of war plans, conventional war plans, nuclear war plans, but that the Treasury Department should do sanction planning. There should be a range of plans to be able to respond to a conventional attack or the use of a nuclear weapon. And so we've got a lot of tools at our disposal. Some we use better than others, but this comes back to, there's a broader toolkit than just nuclear weapons. And the Biden administration, of course, introduced the notion of integrated deterrence. It was sort of unclear what they meant. I don't think the implementation was clear, but there are other tools, cyber, space, conventional economic tools that we should be building in and having plans as responses to different scenarios.

[00:51:24] Speaker 1: Well, you mentioned the Strategic Posture Commission, and there was a question actually directed to you about this from Kingston Wright. He says, a key rationale for augmenting US theater and low-yield nuclear options is the belief that Russia and China perceive an exploitable coercive advantage at the level of escalation by virtue of doctrinally lowering thresholds for nuclear use. Did the Strategic Posture Commission find such evidence for this perception? And if not, what drove the commission to recommend the development and deployment of theater and nuclear delivery systems with military attributes beyond the US current arsenal?

[00:52:00] Speaker 4: So there was a big focus on achieving consensus within the commission. So if you read the language closely, there's a range of options. And so it's increasing capabilities or having new structure or composition of capabilities. And so I think you need to look at the report in a broader way. It said specifically, we need to increase conventional deterrence, both in Europe and in Asia, and allies have a key role to play there. And we need to increase nuclear deterrence and that there was options of how to do that. I would say we don't need to increase the numbers of theater capabilities and certainly not introduce them into Asia or increase the number in Europe. There's other ways of doing this, but you need to look at the language carefully. So it did not say that, but it proposed a range of options that some would say are necessary. But if you read it closely, it doesn't say you have to do that. And it also took into consideration the current modern nuclear modernization program, which is a trillion dollars. I think the Congressional Budget Office is gonna come out in the next few days on an updated cost estimate over the next 10 years. So we've got a very robust nuclear modernization program in place that will modernize all the platforms, the nuclear warheads. And so we're introducing, I think we've got sufficient capability in that planned modernization program that we don't need to add. And in fact, adding new capabilities, like more new low-yield capabilities like the SLICOM N. We already introduced the W76-2 low-yield nuclear warhead to be carried on SSBNs, that this increased focus on lowering nuclear yield also comes with a real risk of lowering the threshold to nuclear use if we start envisioning weapons as warfighting weapons, which they are not.

[00:54:25] Speaker 1: Thank you. Actually, Héloïse, there's a question for you from Sanna Verschoenen. She'd like to know about the relationship between nuclear deterrence and missile defense and how France thinks about that, both at the national level, but also within NATO.

[00:54:39] Speaker 3: Yeah, yeah, good question, because historically, there is a kind of mistrust for in the French strategy, French thinking about missile defense. I mean, but it depends about which type of missile defense are we talking about,

because if it's short-range missile defense to protect bases, to protect also deployments abroad, then in that case, I think it's relevant to have some kind of missile defense, but like strategic-level missile defense, like the project of the Golden Dome for America, or also the European Strategic, I mean, the European Sky Shield Initiative. So this missile defense project was pushed mostly by Germany, is considered kind of useless in the French thinking, because, I mean, nuclear deterrence and the threats of attacking a country, if is mistaken in our commitment to protect our vital interests, is the best way, in fact, to deter any kind of nuclear or high-level conventional threats to the vital interest. And like strategic missile defense, I think would be considered as mostly a loss of money, and also not as efficient as the German public opinion would like to believe, that meaning to have the same level of defense that, for example, Israel has on its territory, and to project that on the whole European continent, it would not be feasible, in terms of technical capabilities, number of interceptors, the costs on everything. So yeah, I think the Israeli example gave maybe bad ideas to European thinkers. But again, I think it's important to rethink this balance between nuclear deterrence, missile defense, the precision strikes, and to have, I think, still a serious conversation about short-range missile defense, especially in terms of protecting operational level, I think, sites, but otherwise credible, and also like the US, of course, France is modernizing its nuclear arsenal, the two components, so both the SSBNs and the aircrafts are being modernized, also the missiles, new NOAA heads for the M51, new cruise missile coming into service in mid-30, also flexibility that is allowed, thanks to these two components, is still the best way, I think, to protect ourselves against missile attacks.

[00:57:16] Speaker 1: So we're about to, we're at five minutes left, and I actually, there's quite an interesting question from Raymond Wong about how do we know if we're in a limited nuclear war? And is it an incident-level concept, or does it refer to the entire series of exchanges? So Rabia, why don't you start? How does Pakistan know that they're in a nuclear war, a limited nuclear war, and what's the threshold where that becomes full-scale?

[00:57:38] Speaker 2: The only threshold would be when Indian forces are going to cross the mainland international border, because that's where Pakistan's dual double-sword deterrence lies, and if that breaks down, this means that the resolve and the religion of deterrence that we have been practicing all these years has broken down and is no longer viable, can lead to the use of tactical nuclear weapons to push Indian forces back into the Indian territory, and that's where escalation obviously has a real chance. According to India's doctrine, it will be massive retaliation if Pakistan uses nuclear weapons. Now, Pakistan does have a first-use strategy, but that first-use strategy is not without conditions, and that condition is when Pakistan faces an existential threat, and because of the dynamics of conventional superiority and asymmetry that exists between India and Pakistan, if that space, which I called a nuclearized abyss, if that space is encroached upon, then Pakistan for sure knows that it is a nuclear conflict. Limited or not is another discussion. I don't think that just by Pakistan using nuclear weapons in order to safeguard its territory, whether they are low-shields, whether they are tactical, the conflict can remain limited. Thank you.

[00:59:19] Speaker 1: Lenora, do you have anything to add on this?

[00:59:21] Speaker 4: I think that's a great question. I think we'll know we're at the beginning of a nuclear war. Whether that remains limited, I think, is anybody's, I

mean, you can't predict. There's too much uncertainty, too much risk. You can't control the escalation ladder. So my best answer is we'll know we're at the beginning of a nuclear war, and so will there be opportunities to de-escalate successfully? But I think saying we're gonna be in a limited nuclear war is the wrong frame. We're gonna be in a nuclear war. Sure.

[01:00:01] Speaker 3: No, fully agree with both Rabia and Leonor. I think we will know it when we are there, and if the vital interests of France are threatened, then, yeah, the president can decide on the final warning, and if it fails, then it will be the full-blown power of SSBN.

[01:00:19] Speaker 1: Well, I guess we've kind of determined that limited nuclear war might be a thing. I'm not sure. But thank you so much for coming, and everyone, thank you so much for your questions as well. Lunch is about to start, so make your way to the lunch area. I don't know the name of the building. Thank you. Ladies and gentlemen, we will now enjoy lunch in the meal room.