

Able Archer: The "Games" to KILL Everyone (Are Back). | Prof. Ted Postol & Rainer Rupp

This is the insane story of Nuclear War Games in Europe and the little-known story of the most dangerous moment for in Europe after the Cuban Missile Crisis: the "Able Archer" war games of 1983. It's the story of how we escaped a nuclear holocaust because of the courageous sharing of war game secrets by the spies on the continent. I'm joined by Ted Postol, an MIT professor emeritus and nuclear weapons researcher, and Rainer Rupp a former Spy in the NATO headquarters. Ted walks through the real physical effects of a single airburst over Berlin, then Rainer connects that reality to the 1983 war scare, Able Archer, and the dangerous gap between nuclear planning and what nuclear weapons actually do. Links: Able Archer 83: https://en.wikipedia.org/wiki/Able_Archer_83 Operation RYAN: https://en.wikipedia.org/wiki/Operation_RYAN Neutrality Studies substack: <https://pascallottaz.substack.com> (Opt in for Academic Section from your profile settings: <https://pascallottaz.substack.com/s/academic>) Merch & Donations: <https://neutralitystudies-shop.fourthwall.com> Timestamps: 00:00:00 Introduction and nuclear war premise 00:01:06 One detonation over Berlin setup 00:05:02 Fireball heat and shockwave basics 00:13:08 Thermal burns and blast at 5 km 00:22:00 Firestorms shelters and mass death 00:26:21 1983 war scare Able Archer and RYAN 00:43:11 Pentagon view submarines and accident risk 00:53:14 Leadership blind spots and short warning time 01:09:42 2026 Europe nuclear debate and closing remarks

#Pascal

Welcome, everybody, back to Neutrality Studies. My name is Pascal Lottaz. I'm an associate professor at Kyoto University. And today, it's my great pleasure to be joined again, on the one hand, by Ted Postol, a professor emeritus at MIT who's been researching nuclear weapons and nuclear technology for many, many years. We're also joined by our German colleague, Rainer Rupp, a former intelligence professional in Germany. We've had him on the show before. Ted, Rainer, welcome.

#Ted Postol

Nice to be here.

#Pascal

I'm very glad to have both of you here. Today we want to talk about the insanity of nuclear weapons, and especially the insanity of people who say this is something we need to prepare for—

nuclear weapons use that needs to be prepared for. Ted, you've actually prepared some slides for us to show our European colleagues what it would mean if we were talking about nuclear war on the continent. So, Ted, please take it from here, and I'll start your slideshow.

#Ted Postol

Okay. Well, the point of this very brief discussion is simply to provide some factual foundation for what will follow. The hope is that we'll have a common factual understanding of some of the issues we'll be debating among ourselves. The basic points that need to be taken away from this discussion—assuming it's direct enough and gives you the information you need—are, first of all, that the destructive effects of nuclear weapons are so large and extensive that a nuclear war would effectively end modern civilization. It could potentially end human occupation of the planet, but that's not really knowable.

But it's certainly not out of the question that human extinction could accompany the large-scale use of nuclear weapons. And a second fact that will be emphasized in this discussion is that the statement I just made is an existential fact of physical reality. It's not a policy opinion—it's a fact. And because of that fact, when you sit down and talk about having a nuclear war—any kind of nuclear war among the large countries like Russia and NATO in the West—there's no way to define a sensible idea of winning a nuclear war. It simply results in the annihilation of everyone involved.

And if you can come up with an argument for winning it—and some people try to—it makes no sense in any meaningful human terms. So let me go to the next slide and start laying the foundation for my short discussion here. This is an aerial image of downtown Berlin and the surrounding areas. The little yellow circle shows a range of about five kilometers from the central point where I'll postulate that a single Russian strategic nuclear weapon might be detonated in the event of war. Let's keep in mind that a single nuclear weapon is a very unlikely outcome if these weapons start to be used. There would be hundreds of them used in Europe, maybe even more.

And so I'm only focusing on a single weapon, because it's difficult enough for a human being to comprehend the scale and destructiveness of these weapons. The objective here is to give you a visceral sense of the consequences of one of these detonations. I have a slightly different perspective in the next slide, just because of this figure here. In that slide, I show you where the nuclear weapon would be detonated. It would almost certainly be detonated at about two kilometers altitude, above what's called ground zero. The reason for that has to do with technical details of blast waves. It's not meaningful whether it's detonated at lower altitudes or not, but this is the altitude that, with very high probability, would be chosen by the Russians.

It doesn't mean that's exactly what would happen, but the general effects are essentially the same, no matter the altitude of detonation. In the next slide, we show what's called the fireball from this nuclear detonation. The fireball is a bubble in the sky—an atmospheric bubble. The air density inside the fireball at this point is about 1% of the density of the surrounding air. So what happens when

the detonation occurs is that, in a very short interval of time—hundreds of millionths of a second—the internal temperature of the weapon rises to maybe 100 million degrees Kelvin, or really, 100 million degrees Celsius.

And the center of the sun is about 20 million degrees Celsius. The surface of the sun is about 6,000 degrees Celsius, because the sun is much cooler at its surface. This fireball will form in about one second—it takes roughly a full second for it to develop and reach a diameter of over two kilometers. The center of the fireball will be 10,000 degrees Kelvin or more. So this is very hot. Inside the fireball, it's so hot that nitrogen and oxygen in the atmosphere undergo chemical reactions, producing nitric and nitrous oxides.

So the brownish cloud that you see from a nuclear detonation—I'll show you an image later—is from the nitric and nitrous oxides produced in the very high temperature of the initial fireball. Now, the surface of the fireball is about 8,000 degrees Kelvin, so it's a couple of thousand degrees hotter than the surface of the sun. And because of that, each unit area of the fireball is radiating light and heat at two or three times that of the equivalent surface area of the sun. But this is not 150 million kilometers away—this is just a few kilometers away, maybe 5 to 10 kilometers at most. And the light and heat from this fireball are by far the most destructive aspects of the detonation. People focus on the blast, and I'll talk a little bit about that, but it's really the light and heat from this fireball.

It's like bringing a piece of the center of the sun down to Earth and letting it release its energy. If we go to the next slide, you can see I've added a little yellow spherical region around the fireball. That's because, at the end of one second, the fireball initially expands, creating a bubble in the atmosphere. The temperature inside is so high that the air density is very low, and the pressure of this hot air creates the bubble. Eventually, the bubble reaches a size a little over two kilometers, where the pressure inside the expanding bubble becomes the same as the pressure of the outside air. So the bubble just sits there, not expanding, but it will rise buoyantly because it's a bubble in the atmosphere—just like a bubble under water would rise, buoyantly rise.

And in the process of expanding, it compresses—it acts like a giant, rapidly expanding piston against the surrounding air. So it creates a shockwave of enormous physical extent. Let me reemphasize that although the shockwave is impressively powerful, and I'll show you some of its effects, this is not the most destructive part of the fireball. It's the light and heat produced by the fireball. If we go to the next slide, we see these bright yellow lines. The lower bright yellow line shows the shockwave as it encounters the ground and reflects upward. So you see two semi-spherical shockwaves. One is what's called the primary shock—it's the shock from the initial fireball propagating outward, going upward and outward.

And you see a shock from below the ground propagating upward. That's the primary shock after it's reflected from the ground. At the corner where the primary and secondary shocks come together—keep in mind this corner is on the ground—you get an addition, a summation, of the two shockwaves. The reason for detonating at this particular altitude is to get that reinforcement of the

shock that occurs when the weapon is detonated at a chosen height. It gives you, uh, more ground destruction. Again, this is kind of a technical point because, um, this is a secondary effect in terms of killing, lethality, and destruction. Notice in the upper left corner, the time is now about four and a half seconds.

So this is a long time. I mean, keep in mind, if you are at a distance and could observe this with the proper protection, four and a half seconds is a long time to watch this thing evolve. And the scale is so tremendously large. In the next slide, we see what happens as the primary and secondary shocks propagate farther out. There's a stem formed on the ground. If you look at the lower right, you see a vertical shock stem of the reflected and primary shocks, known as the Mach stem, after the famous German scientist who described the effects of Mach numbers. This is where the coalescing of the two shockwaves is most effective at longer ranges. At shorter ranges, it doesn't matter—the blast pressure is so large.

In the next slide, I'll give you a sense of what happens at this five-kilometer range. For example, in the upper left slide, we see this structure. It was built at the Nevada Test Site in the 1950s in the United States. The structure is initially illuminated by the very early light from the fireball. The fireball is relatively small when it first forms, then it starts growing in size. As it grows, it cools but gets larger, and its brightness increases. It's brightest at about one second. At 0.1 seconds, it's not as bright as it will be at one second.

If we look at the upper right side, we see what happens to the front of the house when the fireball reaches its maximum size. You can see the front of the house burning off. Of course, the light is shining into the house, and things are literally exploding into flames. It's not just igniting—it's exploding into flames. The light from the fireball is tremendously intense. This is one second after the detonation, when the fireball reaches its maximum size. If we wait another ten seconds, the whole thing has been burned to a crisp. The shockwave then arrives at this distance of about five kilometers.

And you can see in the lower left corner the top of the house, the roof being stripped off. You can see the line of the shockwave arriving across the roof, and the front wall of the building buckling as the pressure wave envelops the house. Then maybe a second later—the shockwave takes about three seconds to pass—you see the house being crushed. Very high winds, about 300 kilometers per hour, accompany the shockwave and just tear the house to bits. So this phenomenon is at a distance of about five kilometers. There would be variations of this phenomenon out to a range of nearly ten kilometers—not as intense, but still significant—and there would be fires out to nearly ten kilometers.

And that's the big killer, as I'll show you. If you just want to get a sense of what things look like—let's go to slide 10, maybe 30 to 40 seconds. So this is half a minute after the detonation. You see this fireball—well, this mushroom cloud. The details aren't so important, but notice that the cloud has a pedestal at the bottom. If you were in this region, you couldn't see anything. The streets would be

filled with dust and burning debris, soot from the violently burning structures. You couldn't even see a street sign if you were with the fire department, out on the streets, trying to look around.

This is what happened in Japan during firestorms that weren't initiated by nuclear weapons. The firefighters couldn't even find their way around city locations they knew, because they couldn't see far enough from themselves to identify objects that would tell them where they were. As the fireball rises—the bright ball of superheated air I showed you earlier—it rises buoyantly, and the center of it rises more violently than the exterior, which rubs against the surrounding air. You get this toroidal kind of cloud structure, which we all know as the mushroom cloud. Now, just to end, let's take a quick look at several other slides to give you a feeling for the effects of what I call the thermal pulse.

It's maybe too abstract—this pulse of intense light and heat. I have three images here showing different things going on. The image on the upper left is of a school bus. You can see the surface of the bus burning off; the interior would be on fire. Anybody inside would be severely burned, to the point that they'd no longer be conscious—lucky for them, frankly. Their skin would be turned to carbon. On the upper right, you see a forested area with a cloud-like structure above the trees. That's the combusting gas coming off the trees, rising into the air from the light of the fireball.

This isn't from the blast wave that lifts things off the ground; it's from the thermal effects. On the ground, you can see this cloud-like structure—it looks hazy near the surface. That's just smoke generated by the amount of burning vegetation ignited by the light of the fireball. At the bottom, you see a tent-like shape; that could be a tree burning violently in the fireball's illumination. In the next slide, you see a classic scene—but it's misleading. This scene is actually much more violent than some of the ones I'm about to show you. The reason, as you'll see in the next slide, is that you have this vast area—maybe 300 to 500 square kilometers—set on fire all at once.

So you have this disk of fire, and the disk of fire heats the air over a vast area—hundreds of square kilometers. That air starts rising, and as it rises, it draws in cooler air from the surrounding region. You can see this effect in the next slide, where you see the disks of fire. The upper slide shows a pedestal that's emitting combusting gas. It's maybe a third or fourth of a meter in size, so the scale is very small. In the lower one, the scale is hundreds and hundreds of meters because it's a forest fire. You'll notice that the flames tend to slant inward, and that's because the winds coming through them toward the center are being generated by the rising, buoyant air within the disk.

So it's creating very strong ground winds. Those winds have an average temperature above the boiling point of water—so this is very hot air. The wind speed can easily reach 150 kilometers per hour because the winds are so close to the ground, and the environment is extraordinarily intense. In the next slide, I'm showing an environment from a large-scale forest fire. This is actually less intense than what you'd see in a city, because there's less combustible material on the ground to generate those ground winds. You can also see evidence of tornadoes—these tornadoes are generated by the fire winds. In a longer talk, I could explain how they form.

But for now, the point is to show you how intense these extraordinarily hot winds can be. If we go to the next slide, we can see a horrifying example of what happened to a man. This is a photograph—I think it's from Hamburg. This man was in a shelter. I'll show you what happens in a shelter. The shelter was becoming incredibly hot. People were trapped inside, and they tried to run. When they got out into the open air, it was so hot they just collapsed, and they were essentially incinerated. In the next slide, you see what happened to the people who stayed in the shelters. Those who stayed were also essentially incinerated—they were cooked, in effect, by the shelter itself.

The buildings above the shelters collapsed, and the shelters were covered with hot, burning embers. They couldn't get out because of those embers. Over several hours, the temperature inside the shelters gradually increased like an oven—like a pizza oven heating up as the bricks absorb the heat. These people were essentially desiccated. They were probably lucky in a tragic sense, because they died early—first from carbon monoxide poisoning, by all the evidence—so they didn't have to roast to death. They didn't have to go through that experience. When the shelters were opened, they found corpses like this, but the bodies disintegrated into soot once air from the outside came in and allowed them to oxidize further.

So, just to jump to slide 21 so we don't have to linger—this shows you, for those who know a bit about the area of Berlin, that the central region with the slightly reddish hue would be completely destroyed by this mass fire. The high winds, the extreme air temperatures—everything within this area would burn. Anyone there without an extraordinarily specialized kind of shelter would die. So essentially, everybody would die. And even if you were at Brandenburg Airport, the windows there would be blown out. You'd see small fires in the woodland toward the city from Brandenburg Airport. So essentially, you know, 400 to 500 square kilometers of area would be completely destroyed. Now, this is one nuclear weapon.

So, in the next slide, I just show a notional picture. This is the number of nuclear weapons that were used in the 1983 nuclear war game. Fortunately, it didn't happen. This is my very rough rendition showing the fallout clouds—radioactive material that would, of course, be coming from those clouds. Essentially, people in the target areas would be killed quickly, and people outside the target areas—very high percentages of East and West Germany, now unified Germany—would have died of radiation poisoning. I'll end it here, and we can use this as the baseline. I'm hoping this gives a baseline understanding of the potential consequences of a nuclear war breaking out. And of course, Reiner is one of our great heroes who helped prevent that in 1983.

#Pascal

It's absolutely shocking and insane—the level of destruction this could bring, and that there are people who think in terms of war games about it. Reiner, can you maybe tell us a little bit about 1983 and what went down back then?

#Rainer Rupp

Well, actually, we have a parallel developing now, because we were at the edge of nuclear Armageddon. But even today, hardly anybody knows anything about it, because it never became public. Even political decision-makers only learned about the intensity of the crisis many months later. So it was built on wrong perceptions. I mean, the Americans later said it was the "Russian war scare," which made them overreact. On the other hand, the Russians had every reason to be scared, because the American neocons—the "Prince of Darkness," Perle, Wolfowitz, and the whole lot—and I even had one of them come to my office at NATO headquarters at the time, trying to win us Europeans over to the idea of a limited and winnable nuclear strike, a decapitation strike against the Soviet Union.

#Pascal

You were working for NATO at that time. You were at NATO headquarters, and somebody came over to see you then.

#Rainer Rupp

Yes, they were touring—really touring. One of them even came to my office. They were trying to get the Europeans behind them, politically behind them. And theoretically, it worked beautifully, because with the new, very fast missiles that could reach Moscow and beyond within a maximum of ten minutes, with a precision of about fifty meters from the target, you could use small tactical nuclear weapons without causing major civilian damage. That was the presentation: you could decapitate targets—the military and civilian command, control, and communication systems.

As a result—I remember this even now, almost word for word—I was told that the mighty Red Army would run like a decapitated chicken on a farmyard: it would still run across the yard but wouldn't know what to do. And even if some of the silos, the ones with the deterrent or second-strike missiles, were supposed to survive, no Russian general or decision-maker would actually dare to take responsibility once everything had already happened. I mean, look—no decision could be taken.

Nobody wanted to take responsibility for launching a counter-strike against the United States, because then the full might of the American strategic forces would hit the Soviet Union. As a result, there would be chaos, uprisings, and the ordinary people—think of Iraq later, or nowadays think of Iran, what they expect in Iran—would dance in the streets. The simple Russian, or Soviet, people would celebrate that the communists and their administrative oppressors had been blown away. That was the idea: we would be rid of the Soviet threat once and for all.

So that was the idea, and they did everything to implement it. You see, on alternate weeks, I had to chair the Current Intelligence Group in the Situation Center at NATO. That's the innermost sanctum where all the intelligence information from member countries comes in, and where the CIA and the DIA send their assessments of new developments, and so on. And we could see—actually, I could see—the IMs, the Intelligence Memoranda from the DIA, about how they had discovered new

communication nodes—well, centers—of air defense systems in the north of Russia, in Murmansk and other places. And you can even read about it nowadays in, I think, Ben Fisher.

He's also still an official historian of the CIA. He actually published a very interesting paper—it was at least unclassified until recent years—on Able Archer and RYAN, the Soviet scare, put it that way. It described how the Defense Intelligence Agency and the U.S. Air Force systematically tried to find the communication nodes in the Soviet Union. How? By, for instance, flying the usual B-52 nuclear bombers toward the Soviet borders so it looked as if they were penetrating. And as a result, of course, the Soviet air defense radars would switch on and start communicating the information to the next center.

So if you look at all this through an espionage satellite, you can see where they are. All the information flows in—where the node is on the first level, then where the local node goes to the regional node, and on to Moscow or elsewhere. These things were systematically mapped out, and some of the material actually ended up on my desk when I was chairing the Current Intelligence Group in NATO's SitCen. As a result, we could see that they were actually preparing for something. The whole picture of it, however, escaped me. I didn't realize what the whole thing was really about. It only struck me at one moment—that was when the Korean airliner was shot down, flight 007, over Siberia, over Kamchatka.

#Ted Postol

Kamchatka.

#Rainer Rupp

Yeah, I think it was Kamchatka. And so it was... I don't know if you remember the situation, but it was a Korean airliner that took the northern polar route from Boston, I think, to Korea. It took the polar route—down along, I mean, not touching Soviet territory, but along the sea. And at one moment, just at the height where the Soviet restricted areas were—where they had their missile silos as a deterrent, their deterrent assets against an American attack—just at that point, when that started, an RC-135 American espionage plane, a spy plane, came from the U.S. direction. And they actually met at one place. And in that one place, the Korean airliner didn't continue along the coast to Korea but actually penetrated the restricted Soviet area. And it was the RC-135 spy plane that then flew on the normal flight path of the Korean airliner along the coast.

So the Soviets thought, "These daring Americans are penetrating our most secret space." So they sent up some big fighters and tried to wall off the 007 airliner. It was a big plane, actually—a Boeing. Yeah, that's the other thing: it was a larger version of the Boeing 707. It had four engines. I mean, the flight, the radar signature, looked the same. And for the pilot, it was dark, so it also looked the same. It didn't look like a passenger plane because all the shutters were down. That's what I think—the pilot, the poor pilot, who subsequently got the order to shoot that plane down,

thought. Because the plane—the so-called American plane—did not react to any warnings. Not even then. They fired some shots across the bow with, what do you call them, tracer munitions. And still, no reaction.

And then they got the order to take the plane down. Now, that created, of course, a big thing. But weeks later, I got a memo from the DIA—the Defense Intelligence Agency—on my desk. And that was like manna from heaven, a real windfall, because we now had all the modes, the strategic communication centers, how the air defense in the Soviet Far East worked. Because, of course, in such a situation, everything on the Soviet side was up in arms and active. I suppose they didn't even follow, in their alarm, all the secrecy and security protocols, etc. So that's what the Americans got out of it. Now, how you explain the whole thing is up to you. But that something was wrong—everybody realized that at the time. So, back to the situation. The point is that the Americans did support this—I mean, the two feet that were there.

And then came the situation of Able Archer. In this Able Archer exercise—which was an annual event—the Soviets thought, or rather, they were convinced, that this time the Americans, these “crazies,” were using the exercise as cover to attack, to launch a decapitation strike. And for the first time, in fact, the Pershing missiles were actually moved into the field, whereas before the exercise had only been done on paper. I'd have to look up my notes again, but the whole range of signals—indicators, I should say—that would signify to the Soviets that an attack was imminent, like changes of codes and other small elements, all went red.

The situation was that—again, I only learned this many years later, after I'd been out of jail for a few years—I met people in the East who had actually been working on Soviet airfields and so on. And they confirmed, or at least mentioned, that during Able Archer, yes, the Soviets had squadrons of fighter-bombers with tactical nuclear weapons sitting on the airstrip, engines running, waiting for the order from Moscow to go. They were ready to go after the Pershing units, to get them before they could launch—a preemptive strike, before they could take off and hit Moscow. So that's how far we were.

#Pascal

This was 1983. This was the situation long after the Cuban Missile Crisis, but it was for Europe—this was the European Missile Crisis. I mean, this could have ended the continent. And Ted, can you speak a little bit to this as well? Just what this means for the insanity of the continent—how close the Europeans were to annihilation?

#Ted Postol

Well, I think Reiner is far more expert on the situation in Europe. But let me describe my situation at that time. The peculiar thing about it was that I was an advisor to the Chief of Naval Operations. And, of course, my focus was on U.S. strategic forces. I had access to intelligence, but I wasn't

directly involved in intelligence operations. So I was focused on the day-to-day functioning of U.S. strategic nuclear military planning in the Pentagon. Quite honestly, I was unaware of this crisis while it was happening, even though I was in the Pentagon at the time.

But what I can say is that the United States was really poised to potentially strike back. Because one of the things we saw—and I want to underscore, I was not aware of what was going on in Europe at the time—but I was aware of our surveillance of undersea activities off the U.S. coast. This surveillance was acoustic, underwater sound surveillance. There was a system called SOSUS, the Sound Surveillance System, that we were operating. At that time, the Soviet submarines were well within the capability of SOSUS to be detected at long range. And by long range, I mean thousands of kilometers. Today, that's not true.

Soviet, or Russian, submarines are very quiet—much like American submarines—and they're undetectable by the sound surveillance system. I just want to point out the historical changes in technology. But at that time, we were able to observe Russian submarines off our coast. And all of a sudden, we started seeing them there. We saw Delta-class submarines. Before that, there was the Yankee-class, which had shorter-range missiles, maybe around 2,000 kilometers. But then the Delta-class had much longer-range missiles, and they started showing up off our coast. I remember going to the not-very-intelligent admiral who was heading my division and telling him, "You know, we have to consider putting the bombers on alert."

And of course, he told me, "Well, it's the Russians just bluffing." And I told him, "That's not your job. The political decision-makers have to decide whether or not they want to react to this. It's your job to explain to them what the potential military implications are. That's your job." If you ask me, I don't think the Russians are crazy enough to do anything. But if you ask me what our job is—our job is to make sure the political leadership is properly informed. Not to scare them unreasonably, but to make sure they know what's going on. And there were other theaters where things could have potentially gotten out of control, because at that time it was no longer possible for the Americans to do this.

At that time, we would use the sound surveillance system to get a rough estimate of where a submarine was operating—maybe within an area of 25 or 30 kilometers in radius. So we didn't know exactly where it was, but that was good enough to assign a U.S. attack submarine to that area. Their sonar systems had a much shorter range, but not so short that they couldn't acquire a Russian submarine-launched ballistic missile submarine. And so you always had the possibility of an accident in those situations. For example, when you're trailing a submarine, the American doctrine was to never use active sonar—in other words, never send out a ping so the enemy could detect your presence.

So you only use passive sonar—that is, you're just listening to the enemy. And it's very difficult to measure your range to them, because the intensity doesn't give you a good distance measurement. The acoustic path in the ocean between you and another submarine changes all the time, so

sometimes it's much easier to hear, and sometimes much harder. There's always the potential for an unwanted or unexpected collision. So, you know, you had this situation where the potential for a serious incident was enormous—quite high. These were the kinds of situations we had during the Cold War, where we could have really stumbled into a confrontation leading to a nuclear exchange. And especially—go ahead, please, go ahead. I'm not surprised that...

#Rainer Rupp

I'm not surprised, Tate, that you at the time didn't know anything about this Able Archer, the Russian reaction, and so on. Because even Ronald Reagan didn't know anything about it. Apparently, the documents—the declassified ones I've been studying since—show that we learned about all this, how close we'd been to nuclear Armageddon, a whole year later. And that actually triggered him to say, "That must never happen again, that we get that close." It pushed him to change his policy, which led to, or at least contributed to, the meeting with Gorbachev a year later. I think it was in Iceland—Reykjavik. So, yeah, I wasn't fully aware of what was going on.

I was only aware that the requests from Moscow were coming with such intensity that I could feel there was a real problem—that they genuinely feared something. They were interested in every little piece of information that could, in retrospect I understand, give a signal or indication in one direction or the other. At that time, I was serving in NATO, in the Current Intelligence Group, where everything comes together. I could actually document, by tracking the serial numbers of the papers coming through the Situation Center and the Current Intelligence Group, that there was no indication anywhere of an imminent strike against the Soviet Union. In the end, I heard from others, much later, that this helped to calm the situation down.

#Pascal

At this point, I just need to inform everyone: Reiner was working in NATO, and he forwarded the information he got to East Germany, and they passed it on to the Soviet Union. So this kind of intelligence sharing with the enemy actually helped calm them down—helped to, well, to ease this misunderstanding, or this chain of events, that could very well have led to an unintentional start of nuclear war. And that's only thanks to you, Reiner, for actually sharing this information with the East.

#Ted Postol

Let me take this opportunity to raise a point, and I'd be very interested to hear whether Reiner agrees or disagrees with me on this. My experience—which is now quite substantial—with various levels of political leaders, both in and out of government, is that people in high-level jobs, certainly in the U.S. government and sometimes among Europeans I've met at similar levels, are really not well informed. They may have access to all the intelligence that's available, but they don't know what to ask. They're not necessarily briefed by people who are knowledgeable. What happens in Washington is that you have these people who brief the upper-level leadership.

They know nothing. Then they just—well, they're there. I always joke with my friends; I call them "talking dogs." I call it "talking dog briefings." And, um, they don't have any primary knowledge of any kind—whether it's technical, political, or analytical. The result is that even when you have political leaders who you'd expect to be knowledgeable, they're not knowledgeable about politics—very, very, very important matters. Let me give you a specific example that I found particularly interesting, although there are many others. Over the years, by accident of my scholarly activities, I was brought to Stanford. I'm at MIT, but it brought me to Stanford at various times.

And, you know, I wouldn't say I'm a bosom buddy of Bill Perry, the former Secretary of Defense, but Bill and I know each other reasonably well. I discovered, through a series of accidents—which is a story in itself—that there was a false alert in 1996 in the Russian early warning system. That incident exposed the fact that the Russian system doesn't have the capability to monitor ballistic missile launches from the North Atlantic, from our Trident submarines. They have radar systems that can see the missiles only after they rise over the curved horizon of the Earth. But that cuts their decision-making and warning time by about fifteen minutes, because they can't see these things when they're launched. We can. The Americans have a system that can do that.

Now, this false alert—while serious, though not quite as serious as some people tried to overdramatize it—was extremely important because it revealed a very fundamental shortfall in Russia's early warning system. The shorter the warning time, the more likely there could be an error leading to the use of nuclear weapons. So, Bill and I were having a discussion at one point, and I started asking him about this incident. I assumed that, since he was Secretary of Defense at the time, he would have been fully briefed on it. But he had no idea the incident had occurred. None.

I had explained the whole thing to him. Now, Perry is arguably one of the most knowledgeable Secretaries of Defense the United States has had in modern times. He's trained in technical areas—he's a mathematician by training. He ran a company that was involved in intelligence gathering before he went into the government. So he was extremely well equipped to understand every detail I told him. There was no need to explain to him how a satellite worked or anything like that. He understood it. I mean, I could just talk directly with him and say, "Well, this satellite and blah, blah, you know, and so on," and he could immediately comprehend what I was talking about.

Yet, as Secretary of Defense, he was not made aware of this extraordinary vulnerability revealed by that incident. And to me, this shows how flawed and dangerous it is when decision-makers aren't properly informed—at least in the West. I get the sense it's not the same with Putin, because I listen to him very, very carefully. And when he talks, you know, to use an English expression, if you read between the lines of what he says, you can tell he's speaking from a much deeper knowledge than what he's actually talking about. But I really fear what's going on with the American political leadership—and I think Putin does too.

#Pascal

Reiner, in your experience, how does it work—the chain of command and how information moves up? Is it as serious as Ted is saying, also in Europe?

#Rainer Rupp

My experience is limited to the chain of command within NATO and the connections, for instance, with the war council. If you had, say, a crisis or a top-level staff exercise—a nuclear staff exercise—you probably heard about VINTEX, the biannual VINTEX exercise in which NATO, every two years, practiced the first use of nuclear weapons in the course of a conventional crisis against Soviet, Eastern European, or Warsaw Pact troops. An interesting element in that was the first time I participated in this exercise—I think it was in the late 1970s, probably 1979, after I'd been there for two years.

The exercise ended after NATO dropped the first tactical nuclear weapon on some military concentration in Eastern Europe. I mean, then the exercise was finished. I actually asked one of the older colleagues—because in NATO we had lots of high-level military officers—and I said, my civilian rank was equivalent to what my counterpart on the military side would have been, a lieutenant colonel or general. But since I was from the political side, I was in the Political Affairs Division of NATO—the civilian side, where policy has primacy at NATO headquarters, with lots of military advisors around.

And, of course, that explains that I was the head of the Current Intelligence Group, and there were a number of former-level military intelligence experts in that group. I advised, and at that very first time, I asked one of the more experienced, older participants in the CIG, "Why does it finish now? What happens? We used a tactical nuclear weapon against the Warsaw Pact forces in Eastern Europe—what happens now?" And she kind of said, "Well, that would finish it anyway, so we don't have to play on any further." Later on, I realized what this game, or gaming, was really for.

It was for policy reasons—to make sure that, in the case of a real crisis and a real decision to use nuclear weapons against the East, no member country would then stand up and say, "Oh no, but we've got this law, and we have this passage in the constitution—we can't participate," and so on. So, with every Vintex exercise, these kinds of catches were eliminated. Subsequently, they were removed at the national level so that, in a real war situation, it could be implemented without hiccups. In the course of these exercises, of course, the use of tactical nuclear weapons became bigger and bigger—the number of them kept increasing.

And in the end, the last exercise—that was already after the meeting of Gorbachev and Reagan—we actually used slightly over 153 tactical nuclear weapons in two waves. The first wave was a little over a hundred, aimed at Eastern European and industrial, but mainly military, targets. Then there was a pause of three days, and after that, the rest were used. So, all in all, I remember 153. And that was also the first time nuclear weapons were used on East Germany, because up to then the Germans had always insisted there would not be any nuclear weapons on East German territory.

But interestingly enough, this time there was, I remember well, a strike on Dresden—because of the historic parallel with the firebombing of Dresden and another military concentration in East Germany. And at that moment, interestingly enough, we had a very important exception: a politician from the CDU, the Secretary of State for Defense, who was in the nuclear bunker near Bonn in the Ahrtal. He was taking the position of the Minister of Defense and acted in the game—the Vintex game—as the Minister of Defense. He actually stopped German participation at that moment.

And he said, “No,” closed everything down, and went back to God, saying, “I’m not participating in this madness any longer.” And people had to accept that. Actually, I had contact after the end of the war, after my release—we had established contact and exchanged notes about those days. The other point I’d like to make, and this is again very relevant to the current discussion about whether Europe or Germany should have their own nuclear weapons, is that during Vintex, the target selection for the use of nuclear weapons in the East was always an American prerogative. The target selection was never ours—we never touched Russian territory. Never. Why?

It’s implicitly very clear, because the Americans knew that the moment he hit Russian territory, it would come back against American territory in the United States. And that’s the old question of the reliability of the U.S. nuclear umbrella for Germany. I mean, they were quite happy to fight to the last German in a war against Russia, or even to destroy most of Europe in the process. It reminds me of that famous saying: we had to destroy the village in order to save it. And I remember, in that context, a presentation at a nuclear planning meeting over Amagal, where I participated, where an American general presented the problems of the Fulda Gap. Does that mean anything to you—the Fulda Gap?

#Ted Postol

The Fulda Gap?

#Rainer Rupp

The Fulda Gap—through the Fulda Gap, thousands of Russian tanks were supposed to roll through, storming ahead, and within 48 hours they’d be reaching Calais and Ostend. And to stop this avalanche, of course, we’d have to use nuclear weapons. The Fulda Gap is in West Germany. And this general explained, “Yes, in the Fulda Gap we’ve got a real problem. The German villages are only half a kiloton apart from each other.” Oh, God.

#Pascal

Can I just interject here and say, you know, this is a really big topic, and it needs a lot of time to explain. But Ted, maybe, if we can bring it back as we’re closing—taking everything we’ve learned,

from the destruction of these weapons to the inability to properly manage them, with all the layers of bureaucracy and intelligence—what does that tell us about the current moment, when Europeans are actually thinking about creating more weapons here, and about where we'll be in 2026?

#Ted Postol

Well, it tells us that the situation is extremely dangerous, because people in influential positions—either decision-makers or their advisors—are basically completely ignorant. I mean, I was really struck by Reiner's point, you know, reminiscent of Wolfowitz coming to talk to this NATO group about how we were going to use nuclear weapons, in particular the Pershings, but just in general. Anyone who knew anything even close to the kind of presentation I gave earlier, at the beginning of our discussion, would know that it's completely delusional and would lead to the destruction of all civilization.

Yet this man, who is widely regarded in these weird circles of—well, I guess they're called neocons now—as an intellect, in fact knows nothing. He really knows nothing. When I was in the Pentagon, I met a lot of other civilian decision-makers who I'd describe the same way. These are people who could potentially be advisors to higher-level officials. And not to mention the military officers I met, who were generally also not knowledgeable about nuclear weapons—which, you know, isn't really their business.

I mean, the Chief of Naval Operations was a submariner who already knew a lot about nuclear weapons. At least he was afraid of them. I mean, he showed a great deal of respect and fear toward them. And he was interested in knowing enough to be able to, you know, think for himself about what he wanted to do. Now, I could talk a lot about the unwise positions he took, but at least he was trying to understand. These other people—they think they know everything. They think they know because they sat in a room without lights and said, "Oh yeah, it's a nuclear weapon, it's okay, it's not a big deal." Reiner, you wanted to say something, please.

#Rainer Rupp

I want to say it wasn't Wolfowitz personally who came to Brussels, but someone from that Richard Perle-Wolfowitz group. Frank Miller, maybe? Frank Miller? Yeah. No, it is... yeah. But the ignorance of these people—yeah.

#Pascal

The ignorance of these people, then, is probably the greatest danger to the whole thing. Don't forget, those are the people in ties and suits who will pretend to be the adults in the room when, in fact, they know not even a fraction of what you two understand. So the best hope I have is that there are enough people of your intellect working in these organizations, able to somehow stop the crazies from leading us into a nuclear Armageddon. But gentlemen, I'd really like to thank you for

this presentation. I mean, it's very important to understand just how close we've already come to Armageddon.

#Ted Postol

And we remain.

#Pascal

And the Europeans should never, ever...

#Rainer Rupp

Anyone who'd like to read more about this should just go and look. I mean, there's plenty written about it. Not everything is correct, but at least you'll see that it actually existed. Look it up on the Internet—Able Archer—RYAN, R-Y-A-N—which is a Russian acronym for "sudden nuclear missile attack."

#Pascal

Okay, I'll try to link this in the description below. And I'd like to thank both of you. We have to close this session now, but it was very, very insightful. Rainer Rupp from Germany and Ted Postol from the US—thank you very much for your time today.

#Ted Postol

Thank you very much.