

# Prof. Ted Postol: How Iran War Bankrupted the US & Israeli Military

Follow me: Substack: [https://substack.com/@dialogueworks?](https://substack.com/@dialogueworks?utm_campaign=profile&utm_medium=profile-page)

utm\_campaign=profile&utm\_medium=profile-page X (Twitter): [https://x.com/Dialogue\\_NRA](https://x.com/Dialogue_NRA)

Patreon: [https://patreon.com/Dialogueworks?](https://patreon.com/Dialogueworks?utm_medium=unknown&utm_source=join_link&utm_campaign=creatorshare_creator&utm_content=)

utm\_medium=unknown&utm\_source=join\_link&utm\_campaign=creatorshare\_creator&utm\_content=

## #Nima

Hi, everybody. Today's Friday, May 1st, 2026, and our dear friend, Professor Ted Postol, is here with us. Welcome back, Ted.

## #Guest

It's nice to be back.

## #Nima

Happy May Day!

## #Guest

Happy May Day. Yesterday, incidentally, was my birthday, so...

## #Nima

Yes, so happy birthday. Congratulations. All the best, Ted.

## #Guest

Well, thank you. Right before May Day. That's why I was born on April 30th, in preparation for May Day.

## #Nima

Yeah. Let's start, Ted, with the latest, I think, when it comes to the war between Iran and the United States. One of the latest news is that, you know, we've learned that CENTCOM Commander Admiral Brad Cooper has briefed Donald Trump in the Situation Room about the potential final blow to Iran, according to Fox News. And what does it mean, Ted, for you to understand the situation? It

seems that something big is going to happen anytime soon, a new round of war. I don't know how long it will take, or are we going to see the same sort of 40 days or more than that, or as they call it, the final blow? I don't know. What is your understanding of the current situation?

## **#Guest**

It's very hard for me to understand the mindset that's going on. I assume that these military, you know, most of these military people are at least, in practical terms, you know, competent—some of them, of course, more than others. But I think there has to be an understanding that they're not going to bring Iran to its knees. So I don't know what they're going to do. I mean, if they do anything like strike, you know, power facilities or infrastructure, you know, critical infrastructure in Iran, it's going to precipitate a retaliation that, I don't know, I don't see how Israel and the United States can cope with. The American bases in the Persian Gulf are already hardly operating. I mean, most of the people on these bases have had to leave. They can't protect them.

So I don't know what Iran would do, but probably it would just continue. You know, the critical nodes within these bases, a lot of them have been destroyed. So the real utility of the bases is lower than the fact that there are a lot of buildings still standing. But, you know, one of the things you can do is just do more general damage to the bases. And the other thing that, of course, would be serious for the Israelis is for Iran to go back to its full-scale attacks on Israel, both of which I would expect. So I'm not clear what the upscale side of this attack would be. There's a news report I just read actually this morning that the Americans just delivered a shipload of some 11,000 tons of military equipment to Israel. I assume a lot of it is just dumb bombs and things, but, you know, I just don't know.

You know, it just means, you know, it's just going to be stuff to drop on Iran. But again, where are they going to drop it? It's very hard to see how it's going to make a military difference. The critical infrastructure that Iran needs to continue fighting the war is all underground. And there's no evidence that the underground structures are in any way vulnerable to these above-ground attacks. You know, there's modest levels of damage—damage to entranceways, yes—but these structures have been very well designed so that, you know, you damage one entranceway, there's another available. I really don't see how. It seems to me that if you had a realistic assessment of what the situation is, you'd say to yourself, we're in an endgame, and we just better try to resolve this in a constructive way.

That's the way I would assess the situation. I have no idea what these people are doing. You know, my joke with some people is I not only don't understand what they're thinking, I don't even understand if they're thinking. You know, it's that kind of thing. So, you know, maybe there will be a big attack. Won't surprise me. But I also will not be surprised if there's no real, certainly no military consequence to it. There may be more innocent people killed, which is, of course, extremely

unfortunate. But I don't see how they can, you know, really do significant military damage. It's just not in their reach. So I don't see anything but an end to the ceasefire if they go ahead and do something. And that's not in their interest. It's really not in their interest.

## **#Nima**

Ted, considering what has happened so far, and when you see someone like General Keith Kellogg mentioning that they can go into Khark Island because they want to reduce the Iranian capability or ability to export oil. So let's go to Khark Island, an island that is to the western part of the Strait of Hormuz. It's not even close to the Strait of Hormuz, but his argument is, let's capture that island and put pressure on Iran and the economy, because I think the Trump administration is getting to the point that the blockade is not working. It's not working, and that's why they need to do something else. And here, what Keith Kellogg is talking about is going and invading Khark Island and maybe putting pressure on Iran. How is that, militarily, how is that a reasonable or even viable choice for them?

## **#Guest**

Well, the argument, which I don't think is correct, is that it causes economic problems for Iran. They don't have the ability to produce and sell as much oil as they have been doing. But so what? I mean, the Iranians are pretty tough, you know that. And, you know, they're in a war for their survival. At least they believe it. I agree with them, actually. But, you know, you're not going to cause these people to cave in. They have a highly sophisticated, developed society there. They've got thousands of years of culture behind them. You know, it's silly to think that these people are going to cave in, and what they're going to do is retaliate.

We, the Americans, will leave them, and the Israelis will leave them no choice but to continue doing horrendous damage to the global economy, which of course will cause tremendous damage to the United States, tremendous damage to Israel, but more importantly, to the world. And, you know, I think we're looking potentially at famines down the line, you know, because of all the losses of fertilizers that we're seeing. We're looking at tremendous impacts on the manufacturing capability, the, you know, high-tech production of chips and things because of the lack of special materials like helium. You know, this is... The implications of this are profound and very, very far-reaching, but I don't think... I don't get the sense that the people in the White House understand this, or they're either denying it, or there's nobody who's thought it through.

These people live in a bubble. And incidentally, it's true of most of these political people. It's a problem generally. I've talked about this on occasion on your program because, you know, I meet these people and they think they know things because somebody in the intelligence community tells them something. But, you know, I have had access to the intelligence. I had full clearances to everything. And let me tell you, if you don't know before, specific pieces of information can be helpful. They can be helpful when you're doing your job. But, you know, if I want to know what is

our best assessment of the weight of the Sarmat missile, you know, because, okay, I'm doing an analysis.

I'm trying to understand something. But, you know, generally understanding the world, you're not going to get from these intelligence briefings because, first of all, when you get the general briefings, they're idiotic, because they're driven by all kinds of bureaucratic and internal kinds of prejudices. So you don't get anything. If you want to read a book about Iran, you don't read the intelligence. You read books about Iran by authors who know the country. And the only way to do that, to become educated, is to read open literature and to understand what it means. And most of these people in government jobs understand nothing. You know, I had a conversation with the president and CEO, both, of the Bulletin of the Atomic Scientists last week. It was incredible.

This woman understood nothing. And not only did she understand nothing, she didn't care. I actually lost my temper. And I know she thought it was because I was just generally cantankerous. I lost my temper because she was so indifferent during this discussion. She knew nothing. She arranged the meeting without reading a thing. She had no idea what she was starting. My wife, who's a senior executive, you know, when my wife heard how this meeting was conducted, her first statement was, you'd be fired in the job I was in if you ever conducted a meeting this way.

Coming into a meeting knowing nothing, not having read anything, prepared in any way, you know, and this is a person, she was in the government in a job. And my guess is if the Democrats retake the White House, she'll be back in the government in a job, not knowing anything, indifferent to the real facts, you know. And this is common. This is not uncommon. What's uncommon is when you meet a person like Chas Freeman, who's from a different generation. If you listen to Chas talk, you can see what an erudite, well-educated person he is. He didn't learn that in the government. He learned what was going on in the government. He understands how to work the system, what's going on in the system. That you learn when you're in government.

But you don't learn — all that erudition doesn't come from being in the government. None of it comes from being in the government. And so you have these people, they talk to each other, they think they know something, but they know nothing. They really know nothing. And the White House is a very extreme case of that. But let me tell you, when you look at the Democrats and the Republican senators and members of Congress, they're largely ignorant. And their staffs are largely ignorant. And, you know, sometimes you meet a person who really knows something. No question there are good people in these jobs, but they're few and far between because they're not really well educated. You know, they just don't have this background knowledge.

And that comes from education, and it comes from a sense, from an impulse to be inquiring about. You know, you have to have an input. You know, it's the— I don't know if I've mentioned this— Schopenhauer has this way, he calls it Schopenhauer's idiot. He talks about idiots as people who can be well-educated, they could be intelligent by the measures that are used to measure intelligence. You know, they can do arithmetic, they can read, they can remember historical facts, but they're

idiots because they have no knowledge, ability, or willingness, or character, as sometimes the way he might state it, to open their mind and eyes to the world around them. What they know is what's in their bubble.

And there's no looking outward. And he argues that most people are just functionally idiots. And you see that. I think I mentioned this in one — I don't know if it was here — but I was in a meeting with McGeorge Bundy very late in his life. And this guy, I mean, he wouldn't even look at you when you were trying to talk to him. You know, he wouldn't even look at you. You know, he was just like you weren't in the room. Now, the guy was, you know, he was intelligent in the sense that he, you know, he was a person of substantial intellect. But he was functionally an idiot. And, of course, his policies were functionally idiotic too.

And that's a, you know, that's an extremely capable person by the simple measures of capability, not the broader ones. And most of these other people are not even close. They're not even well-educated. You know, they go to prestige schools, but they don't learn anything. They sit around congratulating themselves on how much smarter they are. They think they know more than everybody else. They think they're experts. And they don't even know, you know, and it's just shocking once you step back and look at it. So who knows what these military officers understand. And, of course, they are under tremendous pressure. You can't go in and talk to this guy Trump and say, look, Mr. President, this is silly.

We can't. There's nothing militarily useful we can do. You go in there and do that, you're going to be fired. And, you know, some of them want to do the job more than they want the job. And we've seen some of these really fine military officers fired by this guy, Hegseth. These are the kinds of officers we want, I want, in the American military. But, you know, they paid the price by just saying, look, I'll give you the best answer I can give you, but it's the truth. Sorry, I don't want to hear that. You know, you're fired. So who knows what's going on in these briefing rooms with the president? No way of knowing. You know, Trump is obviously completely out of touch. You know, he...

## **#Nima**

It was a little article.

## **#Guest**

I don't spend a lot of time on this because I don't see it as actionable information for what I do. But I was just reading an article. This article was from Insider Discussions, which I believe are real. And, you know, this particular report, this journal article, was saying, well, you know, Trump no longer compares himself to Washington and Lincoln as presidents. He now compares himself to Alexander the Great and Napoleon.

## **#Nima**

He's like, what a, you know...

## **#Guest**

I mean, I know the guy has a problem. I mean, we all knew that before, but something else is going on now. I mean, there's some kind of serious, significant mental deterioration going on, further beyond what he already had, which was serious enough. So who knows what's going on in these briefings? I just have no way of knowing. But it's really a problem. Nobody in the US government wants to stand up and do anything about it. Nobody in a position to make a difference. So, not yet.

## **#Nima**

Ted, yeah, sorry for interrupting you. If they decide to attack Iran again, how do you see the situation with the stockpile of the United States? Because you mentioned sending weapons, sending missiles to Israel, or bombs to Israel. But how do you find these reports, for example, on CNN, which say in some areas, you know, considering JASSM, considering interceptors, THAAD interceptors, Patriot PAC-3, and our friend of this podcast, Larry Johnson, believes that the situation is far worse than what was reported on CNN. Wouldn't surprise me.

## **#Guest**

I think Larry is very informed. And I haven't been focusing on that, although I've been listening. And there's very little doubt in my mind that we are very short of weapons. But some of these weapons don't matter. For example, the Patriot PAC-3s have almost no intercept capability against ballistic missiles. So the fact that they're running out is really irrelevant, for example, for the Israelis. The things that could be important for the Israelis are, for example, the Iron Dome interceptors, which also are useless against ballistic missiles from Iran, but they are capable against drones. And the problem is that they've depleted most of their Iron Dome interceptors shooting at missiles they have no chance of intercepting.

They made a strategic blunder there. So I think the bulk of the damage that will happen once things get back going—and it looks like they will—I mean, it looks like at some point we are going to see the Iranians again launching attacks on Israel and elsewhere. And I think over time, the bulk of the damage is going to be from drones. The warheads are smaller, but they're much more accurate. There are large numbers of them. And, you know, over time, you can do a tremendous amount of damage with these significant but smaller warheads, plus what you can do with the ballistic missiles, which are significant by themselves but, you know, somewhat less precise. So I think Israel's in for a real bad time once the ceasefire ends.

And what worries me about Israel is that the political leadership is so crazy that eventually they could reach a point—it's not immediately in front of us now, but it could be over time—where they start losing, it becomes so apparent that they're losing to their own population, that they start

feeling pressure to think about using nuclear weapons against Iran. I don't believe the Iranians—you know, it's a funny situation, all this talk about the fear of Iran using nuclear weapons on other states. It seems to me the Iranians are extremely well thought out so far on this. Of course, now that the Americans and the Israelis have killed off much of the older leadership, there's a lot of younger leadership that may be more radical.

And that's really potentially problematic because it really is in Iran's best interest not to build nuclear weapons, but to be poised to build them. I mean, they have the perfect... Just by accident, a few days ago, I was having a chat with a very old friend of mine I hadn't talked with for a long time. It turned out he had been in Iran quite a while back during the negotiation for the JCPOA, and he was quite involved in it. And he was telling me about a conversation he had with Mohammad Zarif, you know, the negotiator of the JCPOA, a very erudite man. I mean, you know, tremendously well-educated, very sophisticated man. And this friend of mine was telling me how Zarif described to him why Iran should not have nuclear weapons. And he went through the argument I just gave you.

In fact, what got me started on this with my old friend is I was telling him my assessment of why it's not in Iran's security interest. And he said, well, that's exactly what Zarif told me. You know, Zarif had thought it through completely. And it wouldn't surprise me if Zarif and others are the architects of this policy once the JCPOA was abandoned—this policy of building up to 60% enriched uranium as a potential threat to, you know, to be a nascent nuclear weapon state. It would not surprise me if he played a role in that strategy, which is a brilliant strategy. The strategy is, look, we don't want to become a nuclear weapon state. You can see we have the International Atomic Energy Agency inspectors here. They're watching. We don't mind.

But, you know, we have this stuff now and, you know, we can do it if we need to, but we don't want to. So that's a very good posture to have. And I think, in fact, what I wanted to talk a little bit about today was the fact that that posture is still viable. And Iran, you know, really, the most intelligent thing for the United States or the West to do is to recognize the reality of Iran's potential. You can't wish this away. You can't bomb it away. It's all in caves and tunnels. You can't kill enough scientists. It's a country rich in scientists, talented people. You know, the expertise is there and growing. So you have to acknowledge it and deal with it. And you have a country that basically wants you to stop attacking them.

And in return, they're not going to build nuclear weapons, although they want to reserve the potential to do it. And you're not going to stop that. So reach a deal, because at some point, if they decide to build these weapons, there's going to be hell to pay for everyone, for everyone. The Israelis are going to be facing Saudi Arabia that's nuclear, Turkey, Egypt. You know, it's not just the Iranians who are smart enough to know they don't want this. But these Israelis, they're just so—they don't, you know, it's like there's no second step in their thinking. It's like dealing with these people at Stanford, my favorite place to kick. They talk about things and you always say, what's the next step?

Mike, Mike McFaul, you want to get rid of Putin. Well, what happens next? I don't know. Well, you're talking about something. You're talking about policy. Don't you think about—you're supposed to be a policy guy—don't you think about what a sequence of events means? The world is a sequence of events. It's happening all the time in front of you. And it's this kind of thinking, you see? And what I'm worried about is we'll get some people who have similarly short horizons in the leadership in Iran, and they will change the policy and proceed to build nuclear weapons. And that will be bad for Iran and for everybody else. But, you know, the Americans continue to provide no choice for the Iranians. So we had this—the Iranians proposed blending down the 60% enriched uranium in one of the talks.

So it got me thinking about what this means. And what it means is it will just take them a somewhat shorter time to build the nuclear weapons, but not dramatically so, which is not to say that it was a disingenuous proposal. It's simply to say that this country has a tremendous capacity right now to proceed toward becoming a nuclear weapons state. And I'd just like to make a few comments about that for your audience, because I think people might want to start thinking about this. Okay, so if you could put up the first slide, it's just a subject. It's a proposal to blend down its 60% enriched uranium. And slide two, the next slide, simply goes through the technical realities that have already been demonstrated.

And this is a very, very interesting situation because, first of all, I've been reading through the International Atomic Energy Agency reports. And one of the reports reported, this is just last year, that Iran has these IR-6 advanced centrifuges, and they have them in cascades. I'll remind the audience what these cascades look like if people are interested: 174 of these centrifuges in a cascade. And what they did, under International Atomic Energy Agency surveillance—so this was no secret—they took the output from one of the 174 cascades and put it into the input of another 174-centrifuge cascade and created, in effect, a 348-centrifuge cascade. I call them coupled centrifuge cascades.

## **#Guest**

What the report gave me was a critical piece of information I have not been able to find anywhere that I'm satisfied with, which was that they started out with 20% enriched uranium, uranium hexafluoride, and within 30 days, within one month, they produced 34 kilograms of 60% enriched uranium. Well, it turns out that that then tells me how much separative work each of these cascades was able to produce, each of these centrifuges was able to produce in the cascade. And it's about twice as high as what people generally talk about. People talk about 5 to 10 separative work units per centrifuge. The number seems to be about six or so for many organizations. Turns out it's about twice that.

It's about 12 or 13 separative work units. So what does that mean? Well, if you had 5% enriched uranium, you could produce about two and a half atomic bombs per year with a cascade like that, which means that in five years, you could produce 12 atomic bombs. So if this goes on for years and

years, and there's no reason to believe it couldn't, we could see 12, you know, and if a decision is made to start producing weapons-grade uranium hexafluoride, you could have a dozen atomic bombs just from the current 5% enriched uranium hexafluoride sitting in—this is with one of these coupled cascades. They could have six, seven, eight of them. It's very doubtful that the IR-6 centrifuges in Fordow were destroyed.

It's very doubtful. And maybe the entrances were severely damaged, but the interior was probably well protected. And they could have seven or eight of these single cascades or more, which would be four or five double cascades, you know, up and running. If not now, in a year, you know, they're still around. So if you have about nine weeks, you could take the available 20% enriched uranium hexafluoride, and you could produce another one and a half atomic bombs. And you can already produce about 11 atomic bombs in about 18 weeks from the 60% enriched uranium. So you're looking at a country that, in a few years, could have up to 20 or so atomic bombs. That's not anything you would laugh at.

I mean, that's a big... So this is what you're looking at down the road in, you know, in half a decade. So you can't stop it unless you want to drop atomic—well, atomic bombs won't be enough—unless you want to, you know, unless you can wipe out everyone in the country. God help us if that were tried. But, you know, this is what you're facing. This is a reality. So the question is, what could you be thinking about? You know, how can you deal with this reality? And next slide, I'll just take the next, what I would say, obvious steps. If you—yeah, we'll go to the next slide, thanks. So if you look at these estimates, assuming they only have a single double cascade, and the odds are that they have considerably more than that. I'll show you another slide shortly.

It's very unlikely that—it's extremely likely that they have the centrifuges from Fordow and thereby have many more than that. So this suggests that it's completely unrealistic to assume that Iran can be stopped with military force. You have to negotiate with them. And incidentally, you're negotiating with a country that has an incentive to agree. They don't want to build nuclear weapons because they have problems with their neighbors beyond Israel. And they're smart enough, unlike the people they're negotiating with, to understand that it's in their interest not to build a nuclear weapon.

So you really have to look at the situation, because as I mentioned earlier, if you force them or you put them in a situation where eventually an internal decision is made to go ahead and build nuclear weapons, the situation is going to be bad for everybody. You're going to have Pakistan wind up giving nuclear weapons to Saudi Arabia. Turkey and Egypt are going to go ahead and proceed to build their own atomic weapons. It's, you know, it's just not going to work. So this is an important thing. This indicates that the best approach is to negotiate with Iran. And you have to negotiate sincerely. I mean, you have to put real people involved in the negotiations.

Putting Steve Witkoff and Gerard Kirchner involved — these two guys, all they want to do is make money. I think they're more interested in going around to states making business deals than negotiating. They're ultra-Zionists. Nobody — the Iranians don't even want to look at them, let alone

negotiate with them. You have to bring in some real diplomats who are serious and who understand, you know, when you're negotiating, you have to understand what the other side has, the constraints the other side has, and the incentives the other side has. And you're dealing with another side, if you're the Americans, who has a big incentive to negotiate. They want to negotiate a situation.

By demanding they disarm, what the United States is now doing is saying, look, trust us. If you disarm — in fact, we don't even tell them what we're going to do, as far as I can see — we say you have to give up your uranium enrichment, and you give up your ballistic missiles and your drones. In other words, disarm yourself. So the Iranians sit there and they say, well, we're winning the war. Why, when we're winning the war, would we disarm ourselves? And of course, the answer is there's no reason to. So the situation is just absolutely ridiculous. So let me — why don't we go to the next slide and take — this is just a look at the situation up to the end of 2025.

## **#Guest**

The scale on the left vertical axis shows you 5,000, 10,000, 15,000 centrifuges. And if you look at the bars, you can see that hundreds of centrifuges are being produced in months of time as we go further toward the end of the time interval. So the manufacturing capacity of Iran was extremely high before the military attacks. Now, we don't know how much of the manufacturing capacity was damaged or destroyed in these two attacks that occurred in June and more recently, but it's quite likely that most, if not all, of the manufacturing capacity is underground in tunnels. So the answer to how many, what the manufacturing rate of centrifuges might be is, I don't know. But the answer is, it's very unlikely to be small or zero.

In fact, it's quite likely to be high — probably, possibly tens or hundreds of centrifuges per month. And that's not good news if you think you're going to crush the Iranian enrichment capability. It's very important to understand this. So, just to remind you, if we go to the slide — let me just go to slide seven first — I'll just show you. This is the report I'm referring to. And if we go to slide eight, I have shown the section of the report where they talk about the 20% uranium hexafluoride, enriched uranium hexafluoride, producing 34 kilograms of 60% enriched uranium hexafluoride in a month. So this tells us what the capacity of these centrifuges is. So if we go back to slide six, what was being discussed in the earlier slide I just showed you is two of these.

On the left, there's a 174-centrifuge cascade. On the right, there's another one. You take the output of the one on the left and you put it into the feed of the one on the right, and out comes your 34 kilograms per month of 60% enriched uranium hexafluoride if the input on the far left end is 20% enriched uranium hexafluoride. That's a lot of capacity. So basically, we're in a situation where we're at the end of the enrichment cycle. So if we go to slide 11, what's depicted in slide 11 is the red square. The red square shows you the amount of 25 kilograms of 90% enriched uranium that's in, on the left side, 3,165 kilograms of natural uranium. So that's just showing you the amount. And then each subsequent stage of enrichment is removing the uranium-238 from around it, concentrating it to eventually a nuclear weapon.

And as I explained earlier in the next slide, this process is an accelerating process. So just go to the next slide, Nima. There you go. So the way you can think of this is, if you have sugar in water, the concentration process is similar to boiling the water, and the separative work is, at a very conceptual level, the amount of time you're boiling at a given rate it takes to remove, let's say, 10% of the uranium-238 — in this case, the water. And as we look further and further to the right, if we look at the next-to-last column on the right, we have 50% enriched sugar in water, we see that the last step brings us to pure sugar. And the graph below shows us what the concentration curve as a function of boiling steps looks like.

So if we go to the next slide, this is what the enrichment process shows in separative work units. If we look at the red curve — I forgot to label the red — the red curve is a curve where the centrifuge cascade produces depleted uranium to 0.2%. So it starts with 0.711% uranium-235, and the depleted uranium is 0.02%. The blue curve shows that if the depleted uranium is 0.04%, it's a much less efficient process in terms of using the uranium, where you have 0.04% of the uranium in depleted uranium. So you're throwing away much more uranium-235. But let's look at the red side. What the red side shows, if you look at the left vertical axis, if you go to the top of the axis, that's 0.9 concentration — that's weapons-grade uranium.

If you look at where the red curve goes as far to the right as possible, that's about 5,500 separative work units. So starting out with about 3,165 kilograms of natural uranium, I need about 5,500 separative work units to get to a nuclear weapon. I can take this curve and reconstruct it. So the same curve—let me show you slide 14. And what this is, is the same curve, but what I've done is ask how much separative work do I need for a given level of concentration to produce weapons-grade uranium. So let's go to the next slide. I'll give you an example, show you what is going on here. All right, so let's look at the leftmost green vertical line. If I have 40% enriched uranium hexafluoride, I will need about 240 separative work units in order to get to 90% enriched—that's what it's telling me—in order to get to weapons-grade uranium.

So it takes me 2.8 weeks if I have one of these cascades, these double cascades. That's pretty good. If I have 60% enriched, it only takes me 1.4 weeks. So if I blend it down, you know, like the offer, well, it gives you a little bit of extra time, but not a lot. But it's an indication. The way to take this is as an indication of the fact that the Iranians have a tremendous capacity to do enrichment. And you're going to need to accept that capacity and negotiate with them because they have an incentive, they have a security incentive, to not proceed and build nuclear weapons. So you have to recognize their incentive to not proceed and build nuclear weapons and negotiate something where you can now have inspections of what is now going on.

Because now there are no inspections. You don't know how many cascades and centrifuges they have. You don't know how many they're building because they threw us out. The JCPOA required that we be able to monitor their construction of centrifuge cascades. We don't know what they're doing now. We have no idea how many they're building. In the end, we probably won't know how

many they built, even if we renegotiate. But that's not an argument to not get into a treaty arrangement with them, because without that treaty arrangement, this country is going to have—and if they decide to move, they're going to have—20 or more nuclear weapons in four or five years.

And they're going to have a dozen or more nuclear weapons within less than a year if they decide to do it. So this is crazy—not to get them to agree to something that they basically want to do, because they don't want to create a problem for themselves with their near neighbors. So the argument I'm basically trying to make, which I think is solid—if people have an alternative argument, I'm interested, you know, let me know. But I'm not interested in saying, oh, let's bomb them into the Stone Age. It's not going to work. It's not going to happen. So, you know, it's unrealistic, it's brutal, you know, it's immoral, and it's just not going to happen.

So instead of beating one's chest and saying silly things, it's important to think this through and look at the realities of the situation. It's really extremely important to do that. So I can show you one more slide, just so people know it exists—slide 17. This is just a summary of estimates of Iran's rate at which they can build nuclear weapons, given the centrifuge capacity and the total number they can build. The rate could be very high, but of course, if they don't have all the material—for example, if we look at the leftmost column in the first table, the bottom leftmost column—the enrichment level going from 60% enriched uranium-235 to two bombs per year with these cascades, you can do 35.6, 35.8 bombs per year. That's on the leftmost column.

But you don't have all that—you don't have so much 60% enriched uranium hexafluoride. You have only 440 kilograms of it, as is shown in the middle column in the bottom, in the bottom table—bottom of the middle column. So if you have that capacity, then in the rightmost column, you could build roughly 11 or 12 nuclear weapons. So between the 20% and 60% enriched uranium, you should be able to build 12 or 13 nuclear weapons, and then add another 11 or 12 nuclear weapons over a period of, you know, four or five years. And anyone who thinks that this thing could not go on for four or five years is really not thinking it through. And the Iranians can stand us off, and they will if they have to.

So this is a lesson in reality, is my argument. If there's another solution and it's realistic, someone needs to come up with one. Otherwise, we should stop playing with fire, because Iran has any—well, I don't, I won't suggest that I understand Iran's internal politics at all. I mean, everybody I've talked to who has a modicum of understanding of Iran talks about it as an extraordinarily complex, nuanced political environment. There's a wide, wide range of views among the political elite. And sooner or later, you could have a set of situations where those who want to go ahead and build nuclear weapons prevail. And that will be a bad thing for Iran, but it will also be a bad thing for everyone else.

And it's time to give those people who are arguing for a common-sense solution, those Iranians in the political leadership who say, look, this is the sensible way for our country as well as for everyone else—like a guy like Mohammad Zarif explained to this friend of mine. There are people like him in

Iran, and they're under attack. And the more that the irrational people in the United States and Israel prevail and continue hammering Iran, the more likely it will eventually become a point where, in the political leadership, those who want to proceed with building nuclear weapons will prevail. And that will be bad for Iran, and it will be bad for everyone else. The political dynamics are clear. You don't need 10 years of college to understand this. You just need to think.

And there's very little thinking. And I might add, it's also a problem with the American arms control community, because these guys don't think at all. I mean, every time you come up with an argument, they're just on automatic control. There's no analysis at all, which is why I got so upset at the Bulletin of the Atomic Scientists, because these guys, you know, they don't care. You know, they want to tell you they're experts and just write articles and, you know, what you should believe because they believe it. Because they live in their little bubble. They just talk to each other. But analysis really matters. And I'm trying to make that point with these talks, with your audience. It doesn't mean the analysis leads the way to a simple solution.

This may be a very undesirable solution for many people, but it's the only solution that I can see where we end up with a safer world. When I say we, I mean the Iranians and everybody else. And if we don't start thinking about what the real situation is and how to address this diplomatically, we are going to be in a boatload of trouble in the next few years. And we're already in a boatload of trouble because we are drifting inexorably toward a gigantic economic disaster. In the United States, we're in deep, deep, deep trouble. We're a tremendously rich country, but unfortunately, we have a very unfavorable distribution of wealth. Sixty percent of Americans live paycheck to paycheck. When their gas goes up, when the cost of a gallon of gas goes up by a dollar a gallon, most Americans cannot just avoid spending the money.

We are a country that's spread out. Our cities are built, they're low density. People have to drive around. It's not a choice. I can take public transportation because I'm fortunate enough to be well-to-do enough to live in a downtown area. I have a car with almost no mileage on it. It's 10 years old. I walk everywhere. I walk to the grocery. Most people can't do that. They don't have a choice. And when you're living from paycheck to paycheck and all of a sudden a significant part of your income disappears because you have to buy gas to go to work, you don't have money for food. And the food is going up in price, not only because the transportation costs are higher, but that's only the tip of the iceberg, because the farm—you know, my wife has a farm in the family—and we're now in the process of talking to a friend who rents land on the farm.

We're trying to understand what the price of fertilizer is going to be. And, you know, because the growing season is beginning, how much money is it going to cost to pump water onto the land? And, you know, because you need diesel fuel to pump the water. You know, this is going to result in increased costs for food and increased costs. So for the United States, which is a rich and privileged country, it's going to be a disaster. And the pressure on Donald Trump is going to increase

tremendously, more than it already is. And God knows what this lunatic and his incompetent staff are going to be up to in the next few months before the major congressional elections coming up. So the United States is going to see a lot of political turmoil.

More importantly, you have countries all over the world that are having trouble feeding their populations. There's going to be famine in these places. This is what we're looking at. And this is going to be happening—if we stopped right now, it's going to happen at some level. We have lost 13 million barrels a day of oil production already just from damage to existing facilities. This cannot go on forever. And people need to start thinking about how diplomacy can be used to stop this insanity. But, you know, I'll be accused of being on the wrong side, but I don't see how the Iranians can do anything differently from what they're doing if the West doesn't start seriously negotiating with them. Their incentive is to negotiate.

They have every reason to negotiate, but they need sanction relief, and they need to be able to carry on an enrichment program with the appropriate safeguards under the International Atomic Energy Agency so they can go about their business, which they are determined to do. It's not for us to decide whether or not they have the right to enrich. They have the right to enrich. That was decided when the Non-Proliferation Treaty was negotiated. You can't say you don't have the right to enrich and everybody else does. That, you know, that doesn't work—not if you're a country that aspires to have your own enrichment program. We can debate whether they need it or not and all this other stuff, but that's another discussion. And so I think diplomacy's really needed here.

## **#Nima**

Yeah. I think many good points were made during this talk, and I hope that we can reach some sort of sanity with what's going on in the Middle East. Everything is somehow getting more complicated. You know, I remember you talked about Michael McFaul. Just five days ago, he tweeted that Ukraine is winning. And just compare that with Ambassador Chas Freeman. It's hard to believe.

## **#Guest**

It's hard to believe. It's hard to believe. Well, I think I described this at one point. I don't know if I described it to you, but I had this, uh, you know, I've known him for many years. So I was at Stanford, and I had this discussion with him after a seminar, and I asked him, I actually asked him in this discussion, I said, what do you think you're going to accomplish? And he said, what do you want to accomplish? And he says, this is a real discussion. I mean, and, uh, he says, I want to get rid of Putin. And I said to him, how are you going to do it? He says, I don't know. I said, you want to get rid of him, and you don't know? What kind of policy is that?

Well, it's not a policy. I'm not arguing a policy. I said, well, you just made it. You made a policy statement. You think it's important to get rid of Putin. Who's going to replace him? Have you thought about that? This is, you know, here is a guy—it's hard to believe. This is what happens

when you have people who live in a bubble. This is a man, this is an example of a person who lives in a bubble. I had an earlier discussion with him, quite a lot earlier, where he was promoting—he was the lead person during the, you may recall, the Russian reset in 2009. The United States was going to reset the relationship with Russia and have good relations.

So the story you'll get from McFaul is, well, the Russians didn't follow through. That's what he'll tell you. Well, the real story is not what he claims. What the real story is, is he, along with Hillary Clinton, surprised the Russians with a proposal to put missile defense systems in Romania and Poland. Those missile defense systems were Aegis systems, which are capable of launching cruise missiles into Russia. The Russians looked at this and said, you know, this missile defense has no capability. In fact, I had to explain that to McFaul. He didn't know that this missile defense had no capability.

He was working on getting these things deployed, but he had no knowledge of what the capabilities were. I had to explain to him, you know, the radars are not powerful enough to see and guide interceptors. The interceptors are not fast enough to get to targets. This is a joke. This is a technical joke. What the system can do, though, is launch cruise missiles into Russia. Now, what do you think, Mike, the Russians are going to think? The Russians are going to think what I think. I think this is to threaten the Russians. I'm not a Russian, I'm an American. I'm just technically informed, unlike you. I think this is a threat against Russia.

Now, why do you think the Russians react against it? Why do you think this deal failed? It has to do with you, your ignorance, your complete lack of regard for understanding what you're doing, your disinterest in understanding your policies. You are in a position to ask the right questions. You didn't. You know, this is the con. So this guy, this guy's a bubble. He lives in a bubble, and he's an example. He's another example of the bubble I talked to you about earlier, who sits, called the meeting with me, a Zoom meeting. And she sits there, "Well, I don't know what you're talking about. What are you talking about?" Well, you called the meeting. I sent you materials. You didn't read them.

Well, I was busy. You were busy, huh? Don't you think I'm busy? She had a technical person on the Science and Security Board, this woman. He couldn't show up. He was too busy too. But I had an exchange with him in emails, and at one point, he said something to me in the emails. I have these emails, incidentally. I was thinking of giving a talk on it. He actually says to me something that caused me to write back to him and say, are you insulting me? Are you insulting me as, do you think I have no scientific capabilities? You know, this is insulting, what you're saying. So he writes back to me. This guy writes back to me, oh, Dr. Postol, I'm not insulting you. I understand that you know much more about these things than I do.

But he didn't take the trouble to show up at the meeting to talk about this. So it's in writing, you know. You know much more about this than I do. So I wrote him back and I said, why are you on the Science and Security Board of the Bulletin of the Atomic Scientists if you don't know anything

about this and you're not interested in learning? What's your job? Why are you there? To say, I'm a good guy. I'm for arms control, arms control, arms control. I'm a good man. I'm against instability. That's the community you're dealing with. That's the people on the right side. That's the people on the right side. So you can understand why I'm fed up with these people. And I am fed up. I'm totally fed up. But fortunately, they're fed up with me too.

## **#Nima**

Thank you, Ted, for being with us today. It was a great pleasure, and your sharing of your information, your understanding, your expertise with our audience is hugely appreciated here.

## **#Guest**

Well, if people are interested sometime, I know this is a little—I'd really like to talk a little bit about how centrifuges work. Because they are very interesting. I've been spending a lot of time understanding them in greater detail, and I have a lot of simple ways to explain them. And it might be fun for your audience.

## **#Nima**

It could be. Let's plan for next Friday at 2 p.m. Okay, you're on.

## **#Guest**

We'll talk about how centrifuges work.

## **#Nima**

Exactly. Let's talk about it. We'll talk about that.

## **#Guest**

And we'll summarize why it's important, of course, because it's not just a curiosity. But it's a science that has a direct impact on national security and global security. And so it's not hard to understand if somebody goes to the trouble of laying it out in a simple enough way. And it's a lot of fun for me to do that for myself.

## **#Nima**

Yeah, that would be interesting for our audience and for me. Okay, thank you, Ted. Next Friday. Great. Okay, exactly. Bye-bye.

## **#Guest**

See you soon.

**#Nima**

Bye-bye.