Prof. Ted Postol: Iran Already Achieved NUCLEAR DETERRENCE Against Israel

#Nima

Hi, everybody. Today is Friday, April 3rd, 2026. And our dear friend, our brother, Prof. Ted Postol is here with us. Welcome back.

#Ted

Yes, yes. Nice to be back. Always nice to be here.

#Nima

Let me start with the breaking news about the F-15 being shot down by the Iranian air defense system. Initially, CENTCOM refused to accept what had happened—they said it was fake news. Then later on, they decided to say, no, it was hit, and Donald Trump was briefed about the situation. It was an F-15E with two pilots. One of them was rescued by the United States and Israel, it seems, and the other—there's unofficial information coming out of Iran that one of them is in Iranian hands. I don't know how accurate that is.

#Ted

Could be, could be. Could be killed, too. It's very easy to die trying to get out of one of those planes.

#Nima

Yeah, yeah. And what can we know about the Iranian air defense system so far? Because yesterday Donald Trump came out and said everything was destroyed—the capabilities, the drones, the air defense systems, the missiles—everything destroyed. He was basically suggesting to the countries that are having difficulties with the situation in the Strait of Hormuz that everything is ready, just go there and take it, the Strait of Hormuz. What's your understanding of the battlefield today?

#Ted

Well, let me very candidly make it clear that I have no direct information on this, but I can, I think, speculate in a way that's potentially useful. I've been suspicious—and again, I want to be very clear, these are guesses I'm making. When I look at the way the Iranians are conducting the war in areas where I can tell what's going on, it's very clear to me that they've thought extremely deeply about

how they're going to fight this war. There's no question in my mind at this point. Now, of course, that doesn't mean every aspect of the war has been deeply thought through, nor does it mean that every aspect that's planned can be successfully executed. However, there are images you can find—in fact, I was looking at them just the other day.

Unfortunately, I didn't include it in my briefing today, but there are images you can see of underground tunnels filled with air defense interceptors—just filled with them. And seeing that led me to guess—and I want to underscore, this is a guess—that the Iranian air defense plan was to accept that they were going to take very heavy damage initially to their air defenses. Because once you put one of those systems out there, it's almost like, you know, in trench warfare, standing up with a bright orange vest on and yelling, "Come at me!" Once that radar starts emitting against an advanced adversary like the Israelis or the Americans, you really have a tough time keeping one of those systems functioning.

However, a very good strategy would be—and this is what I'd been thinking about earlier, but now I think we're beginning to see that strategy play itself out—to basically keep your air defenses underground and protected, and accept that initially, whatever air defenses you have exposed are going to be destroyed rather quickly and efficiently. But once the war goes on, you can't keep airplanes over target areas all the time. Combat jets, you know, they only have an hour or two over a target area at best. They burn fuel very fast when they're over a target because you can't just mosey around casually—you could be under attack at any time. So you need to be ready to hit the afterburners. You want to be able to move fast so you can maneuver; you have to be fast-moving to maneuver against interceptors.

So it seemed to me—I was guessing early, and of course it's still a guess now—that what the Iranians were doing, or were going to do, with their air defenses was to keep them largely protected. And every once in a while, put one up and probably use visual information more than anything else at first, before turning a radar on and actually going after something. And that's not impossible to do. Jets, just like drones, make a lot of noise. You should be able to hear jets at tens of kilometers away if you have good acoustic sensors. I'll actually show you some World War I acoustic sensors.

They're kind of a little bit of a joke, but they're real, and they were used—and used effectively. So what you do is survey the scene using less-than-optimal sensors. But remember, you have an adversary patrolling over your airspace all the time, looking for targets. So what happens is you get targets of opportunity. And when you get those targets of opportunity, you have a radar system that's cued to the sound system, or maybe to an infrared system. Infrared is hard to use during the day, but at night you may be able to use it to look for air targets.

But my guess is it's acoustic systems, because they're not nearly the joke people think they are. You can get 10 or 15 kilometers of range out of an acoustic system against a jet—that's all you need. You know, because they're going to be over your area. If you're in Tehran, you can have these

things all over the place. So once you have a bunch of them operating, and your air defenses are largely quiet, you use them as opportunities present themselves. And that's probably how we lost this F-15—we, the Americans. It was an American F-15, I think.

#Nima

It was.

#Ted

Yeah, and that's how we lost an F-35, you know. They're stealthy, but they still make noise. And when you're in close, the radar has enough power to track you. It's hard to find you in the clutter, especially when you have a low radar cross section. You fly low, you typically have jammer support when you're coming in. The jammer, of course, because you have a small radar cross section, doesn' t have to shout that loud. It's like, you know, if you're sneaking up on someone in a very noisy background, it's easier to get close—you can step on a twig and not be heard. So that's why the small radar cross section is very effective, especially when combined with jamming and other aids.

But these guys probably don't have all that electronic countermeasure support all the time. So the Iranians are sitting there, recognizing that one jet is a big deal. They didn't shoot down 50 or 100 jets, which would be militarily more significant, but one jet is a really big deal because it's a Western jet. You may lose pilots; they may capture pilots. If pilots get killed, that's also a big psychological effect. And the fact that your jets aren't impervious makes the pilots very cautious. For example, we saw in the Gulf War of 1991—so we're talking about 30, 35 years ago—when we, the Americans, had aircraft over Iraq all the time, and they were looking for Scud launch vehicles.

There were Scuds being launched at that time—shorter-range missiles, about 600 kilometers. And it turned out, you know, the first thing the pilots do when they see a Scud launch is start evading, because they don't know if it's a surface-to-air missile. You can't blame them; you don't want to die. You have no time to react if it is a surface-to-air missile. Then it takes a bit to figure out maybe it's not, and by that time the Scud is gone. The launcher may be gone too, because by then it might have scurried under some bridge or overhang.

So it turned out that at the end of the war, although we reported having destroyed a lot of the Scud launchers, we had actually destroyed none. There was a big air power survey done after the Gulf War of 1991, and in that survey—which had access to all the classified information, since it was after the war and no longer politically sensitive—they found that no Scud launchers were destroyed, even though we had probably thought, honestly, that we had taken out a lot of them. So a lot of milk trucks and water trucks were probably hit, innocent people killed, but no Scud launchers.

So my suspicion is that what's going on now is a cat-and-mouse game the Iranians are playing. They' re letting our pilots know—the American and Israeli pilots—that you may be up there wandering

around looking for something to kill, but there's something down there that can snap at you at any time and kill you. So you'd better be ultra-alert. And what that does is make you ultra-cautious, and it lowers your effectiveness because your attention is divided. So my guess is that's what's going on. And if that guess is correct, the Americans and Israelis will lose other aircraft—not a lot, but enough.

You know, every time you take off and you're a pilot, you know there's a real chance that some serious, capable interceptor is going to be fired at you. Modern interceptors are extremely difficult to deal with using modern airplanes. Their agility is very high, and the homing algorithms are extremely good. They have quite a high chance of hitting you, and they're coming in at high speed. You might get lucky and evade one, but the reason you shoot two interceptors at airplanes—well, actually, not necessarily. We do shoot two interceptors at ballistic missiles, but there's a different reason for that.

The reason you shoot two interceptors at an airplane is because the pilot will try to take an evasive maneuver if they see the interceptor coming. When they do that, they lose airspeed—the plane slows down a lot. A sudden maneuver creates a lot of drag, so now you're going slower, and it takes time to regain that speed. The second interceptor is two or three seconds behind the first, and it's moving very fast while you have much more limited maneuverability. That's why you fire two interceptors at airplanes.

Against ballistic missiles, if you had a high probability of intercept—like the Israelis falsely claim with their missile defense interceptors—you really wouldn't fire two interceptors at a target. Because if I have a 0.9 probability of hitting a missile, which is close to what they're claiming, then if I shoot two missiles, I have a 0.99 probability of hitting the target. That's because with a 0.9 probability, one out of ten times the missile would be missed. So when I shoot at that one out of ten that gets through, I kill nine out of ten of those too. Overall, that gives me about a 99% chance of destroying the incoming missile.

But if I have a limited number of interceptors, the smart thing to do is to fire only one interceptor at a missile, because I'm killing 90% of the incoming missiles each time I shoot. If I fire two, I might kill 99%, but I'm using up twice as many interceptors and depleting my capability. That's another reason why, when you see all these interceptors in the air over Israel, you have to ask yourself: why would anybody who knows what they're doing be shooting that many? And we can also see they're not hitting the targets, because we can tell what a real intercept looks like.

But all the data, if you know what you're looking at, points to very low performance against ballistic missiles. And in fact, I'll say this shortly—it shows a very, very serious strategic mismanagement of the interceptor forces they have. I believe, and I'll show it in one of my slides and we'll talk more about it, that Israel has made a strategic blunder in its use of the Iron Dome interceptor system, because the Iron Dome effectively has no capability against ballistic missiles. It's shown clearly—you can just see it. And they're firing interceptors, as I showed in earlier slides.

I can come back if you want to talk more about it. You know, you see all these interceptors in the air against a single ballistic missile—nothing being hit. Even if they do hit something, they've fired five interceptors, seven—it's crazy. Now, those interceptors are extremely effective against drones and cruise missiles. A drone or a cruise missile is easier to hit than an airplane. Typically, they don't go as fast, they don't react or maneuver when you're coming at them. They're sitting ducks for an Iron Dome interceptor. The ballistic missile is not. The ballistic missile is a waste of an interceptor, but a drone is not.

So they probably have above a 90% intercept rate against drones when they see them. Why did they waste all these interceptors? It was a strategic blunder. They should have been keeping those interceptors for the drone war that, you know, was part of the Iranian plan. To be quite honest, it kind of surprises me, because over the decades I've known a lot of Israelis—not all, only some of them are friends, because a lot of these guys I don't want to have anything to do with. But I've known a lot, I've met a lot. Remember, I'm at a prestigious university. We had a big program, an international security program. I had people as guests from Israel.

So I got to know quite a few of these characters, and they're great. Although not all of them are people I'd really want to associate with, they're all extremely intelligent. And that's not because "Jews are smart," like some people would say. It's because Israel is always at war, even when they're not starting wars. So when you're a young person—young people tend to be more idealistic, and they're also more ambitious—they want to do things they think are most useful to their society. And the very brightest are culturally channeled into different paths.

You know, if you grow up in Iran, and it's a culture where education is highly valued—especially technical and scientific education—and you're bright, the tendency is to go into one of those areas where people will respect you, and you also feel like you're contributing to your country. So they get very, very smart people. In Israel, it's the same thing. You know, they get that same kind of talent. Whereas in the United States, it's not the same. Here, you get people who are interested in military activities, but they're not necessarily smart. Some of them are. But one of the things that always struck me, when I was at the Pentagon and later on meeting all these Israelis, is how much smarter the average Israeli involved in national security issues is compared to their American counterpart.

And that's because you get all kinds of people interested in national security. You don't have this draw of—well, you know, if you come out of MIT or another competitive university, or even a not-so-competitive one but you've got a lot of talent—because a lot of talent does come out of the not-so-competitive universities—and you're really bright and you really want to make a difference, you go work for AMD or Intel or some other company, because that's the frontier of economic and commercial development. Or, if you're interested in the military, you might go in because you have a military background.

You get a lot of that in the United States. We have all these characters—they're Southerners, you know—and the South has a long tradition of military service. Those families are elite families; they tend to be very well educated. And when you meet a very well-educated, accomplished American military officer, there's a very good chance they came from the South. We have some from the North too, of course, but you know, because we have these cultural traditions. So when you look at this strategic stumble—this strategic blunder—with regard to the use of Iron Dome interceptors, you have to scratch your head.

You have to wonder why—how did the Israelis do this? My guess is that they deceived themselves. They became victims of their own propaganda. They were lying so much about the performance of this system that, either for political reasons or reasons of perception, they felt they had to keep firing interceptors at ballistic missiles—getting nowhere, but trying to make the population believe it was working. But that was a very bad decision, because now they're running out of interceptors, along with all the other problems they have. So I think this F-15 incident is just the tip of a big iceberg, and history will play out on this—but that's my guess about what's going on.

#Nima

Ted, you mentioned the situation with the Iranian ballistic missiles and drones. How do you see Iran responding to the attacks on Israel—on its territory? Because so far, what we've seen is they were mostly focused on radars and, you know... oh, yeah.

#Ted

But when they're finished with the radars, they're going to go about their business without any interruption. They're going to do what the Americans thought they were going to do. The Americans think they destroyed all the Iranian radars, and then they'd just fly around, you know—chewing gum, eating crackers, and shooting up Iranian targets. That's what they wanted to do. And that's what the Iranians looked like they prevented them from doing. Now, I don't think—the way I see it, the Iranian air defenses are not going to be tremendously robust, because, you know, you can only take them out once in a while and ambush people. But that has an effect over time, because the Iranians are playing the long game. They understood right from the beginning that they were going to get hammered very hard at the start.

They understood that. That's why everything's underground. That's why they spent decades building all these impressive tunnel structures—manufacturing facilities, fighting facilities. You know, you look at these photographs of the tunnels, they're amazing. They're big, spacious—which is good, because you want to be able to do things inside them. And they have launchers that can be moved around in the tunnel, from one section to another. I haven't seen photographs of this, but I'm sure the tunnels

have side passages you can go into, with doors where you can launch a missile. If you attack the opening after there's been a launch, you can repair that tunnel, because, you know, it's only the entrance that's been hit.

You have equipment in there for fixing damage, so you can launch missiles later. Again, the airplane can't just sit there—it's not like someone's waiting outside with a shotgun for the next missile to come out of the hole. The planes have a finite time over the target, and not only that, they have a finite time while they're potentially threatened by an air defense interceptor. So it's a very serious, deeply thought-out strategy on the part of the Iranians. I don't think this is an accident. I think you'll probably see more planes lost over time. I'm not sure there'll be a large number of them, but I'm not sure that matters. You know, it's a—

#Nima

We had another F-16 down over Saudi Arabia.

#Ted

It was hit by something, yeah. Right, right. So it's going to go on. This is going to go on. The pilots are going to know they don't have a free ride. And, you know, the pilots are professionals—they're going to do what they're asked to do. They're soldiers. But, you know, you don't behave the same way if you're in a trench fighting an adversary and you know there are snipers—you don't stick your head up as often. That means you don't always see everything that's going on around you. And that's what these intermittent ambushes—air defense ambushes—are going to do throughout the war. I expect they're going to continue. They may get worse.

You know, they may get more effective, because as the Iranians develop their tactics, they may get better at using these defenses. So I think that's my guess—it's just a pure guess about what's going on. They have all these interceptors stored underground. Why did they do that? They had to know that the air defense systems they had above ground were going to get whacked very early in the war. And once you whack them—once you take out the radars—they can't defend themselves. Then you go out and make sure you destroy every interceptor you can find, because you don't want those interceptors transferred to a working site somewhere. So the Iranians understood this, and it seems to me they thought about it. Why don't we take a look at slide two?

#Nima

Let me just pull it up.

#Ted

I just wanted to put a few ideas down, you know, write them out for my own focus in this discussion. First of all, I've already mentioned it—there's been extraordinary strategic mismanagement of air defense assets. The Israelis have fired a lot of Patriot missiles, which are ineffective against ballistic missiles. So, for example, all this talk you're now hearing about them running out of interceptors, that the ballistic missiles are going to be more effective—the ballistic missiles have been effective throughout the war. That's hardly changed. They may be slightly more effective because 5% of them, or 3% of them, weren't getting through before. But, you know, three out of a hundred is still a lot of hits.

So the air defenses really had very little effect, and it was a bad strategy to be firing lots of interceptors at ballistic missiles. You should have been saving them for the second part of the war, when the drones were going to start becoming important. And you had to know the drones were going to become important, because they're very accurate, as I'll describe later. And because they're very accurate and can be programmed, they're extraordinarily effective at causing damage. So that's one strategic blunder that the Americans and Israelis have both made. There are other—well, I don't know if you'd call them blunders—but other developments that are extremely important.

Iran now has very timely, high-resolution satellite data on the targets they might be shooting at, and that's being provided by China and Russia. Now, again—let me just spin this out, because there's a lot of talk from a very narrow perspective you hear. In the United States, you hear people who are for these wars, who really don't know what they're doing but they're for it. They say, "Oh, those damn Russians, they're giving them help with the satellites." Well, they need to be reminded that the United States was giving satellite data to the Ukrainians.

And not only was the United States giving satellite data to the Ukrainians, they were giving them missiles. The missiles the United States provided were being used against Russians and Russian territory. Vladimir Putin and other Russian spokespeople made it very clear: if you do this, we will take the opportunity, when it occurs, to pay you back. And this should have been absolutely understood—that this was what was going to happen. So the possibility that these high-resolution satellite images were going to become available in a timely way is also important. For example, you might move the Patriot radar every day.

But if I know that an hour ago the Patriot radar was operating at a given location, it's very unlikely that the radar will be at a different location an hour later. A day later, it might be—but an hour later, probably not. So now, if we go back to that slide, we have the next point. The ability of the drones to execute two-way communications is tremendously important, because I'll show how these drones communicate. We now have clear technical details of their communication systems. A drone can have a camera on it. You can have a drone that you program to go to a specific latitude, longitude, and altitude, and wherever it goes, it can run into something.

That's going to be accurate to within meters, but objects change. You may not have measured the location. If you measure the location from space, you may have inaccurate measurements of position. Certainly, if things can move, they're hard to hit. But now, if the drone can have a video camera on it and send the video signal up to a Starlink satellite—keep in mind, there are easily a million mobile Starlink satellite terminals now available—I'll show you later what one of these looks like. It's about a foot on a side, weighs half a pound, takes about 20 or 30 watts of power—easy to run. And you can get about 30 megabits per second uplink.

Well, that's easily enough for, you know, four or five megabits per second. In fact, even a few megabits per second gives you a low-resolution video—10, 20, 30 frames per second. That's plenty good enough for homing on a target. So this goes up to Starlink, passes the information through laser links to other satellites until it finds the satellite where the communication is set to go down. The operator on the other side sees the image, sends commands to the drone, and the drone can make final adjustments to hit the target. Well, this is not a minor development. This is a major development, because it means the efficiency—the killing efficiency—of the drone just goes through the roof.

And we're now seeing that. The Russians have implemented Starlink communication links on their drones. I'm sure the Iranians are doing it too, and I'd be surprised if they weren't already doing it before the Russians helped them, because they have the technology to do it. You go out and buy a Starlink terminal—say I buy one and send it to my Iranian buddy—because, you know, they're going to embargo it, but still. Or the Russians could put it in a truck and drive through Turkmenistan, or go across the Caspian Sea and drop it off.

So, you know, you only need hundreds of these things, let alone thousands. There are more than a million of them out there, and they're selling them as fast as they can. They're trying to manufacture these for a commercial market. This is where this war is profoundly different from other wars we've seen in the past—not entirely different, because if you look at the war in Iraq, for example, we saw the introduction of cell phones, which are very high-technology devices. But you can't build a cell phone. I can't build a cell phone. We can't build the chips for it, the sensing devices. Yet it's a commercial device—anybody can go out and buy it. It's not controlled.

There's no way to control it. There's no way to make sure that only certain people have the phone, because it's just this ubiquitous commercial device. So I can go out and buy them. All I need is a relatively competent person who knows how to connect the ringing mechanism to a detonator fuse, and I have a remotely controlled improvised munition that can be used to kill Americans occupying Iraq and cause a lot of damage. Now, you can do a lot of things to try to limit the effects—you can have jammers and stuff like that—but, you know, you can only be so effective. And if you have to deploy all these countermeasures, you're not just running along the roads and doing whatever you want.

You're being very careful because you don't want to get killed. Incidentally, it's not completely unlike the pilot who has to be more careful because they don't want to get shot at by an Iranian missile. And you don't know where the Iranian missile is—you don't know that you're being illuminated by the radar, potentially, until the very end, because the Russians who designed a lot of these radars that the Iranians are using have thought long and carefully about how to use optics and radio together. So these systems have optical telescopes, and they look for the airplanes.

And the reason they look for the airplanes is that they want to get a good measure of where the airplane is, so they only need to turn on the radar at the last second. That way, they can launch an interceptor toward it without letting anyone know something's coming. So you've got to spend a lot of your time searching the sky, you know, because during daylight, seeing an interceptor isn't so easy. At night, you can see it because it's got a plume. But even then, if it's coming at you, you don't see the cross-section of the plume—the plume looks smaller. So, you know, it's got to be... I mean, I know from my discussions with pilots—well, you know, I fly commercial airplanes with my knuckles on.

But, you know, I have lots of colleagues who are combat pilots. They'll tell you they're scared to death when they're flying over air defenses. They're being honest, because those air defenses are potent. And you have to react quickly enough—if you even want to just get out of the plane before you're hit, it takes time. And if you get hit, chances are very good you won't live. So you want to be out of the plane before it's hit. So, um, you know, this really puts a cramp in your style when you know there are air defenses. And now we're in a situation where there are these satellite constellations—and the satellite constellations are not controlled or controllable.

It's like when you and I, let's say, call each other on WhatsApp. We use it maybe because it's inexpensive—you know, it's free. But that communication is totally encrypted. Now, even if different governments have some backdoors into it, which some people claim, they can't easily monitor every conversation, even if they manage to find a backdoor for some of them. So that means when someone picks up the phone, there's a high chance that even if there's some failure in the encryption working fully, no one will know they're talking except the person on the other side. A very high chance. So if I'm sending you a video showing you where I'm homing, how does the other guy know?

How do we know? These links—there's no way to selectively turn off the links to these drones. So you've got a real problem there. Now, you could just turn off the whole area, say no links over Ukraine, but are you going to say no links over the Persian Gulf? People are using these things all over the Persian Gulf. So how are you going to, you know, give people—well, you're selling this thing, maybe there's some kind of encrypted number that identifies your particular communication system to the Starlink orbital satellites. But I don't know who owns this thing now. You know, someone in Wisconsin owns it.

Meanwhile, it's flying low over the water toward a base in Bahrain. You know, how do I know who really owns it and operates it? So it's a very difficult situation from the point of view of the American operator. All right, the other issue—well, I've already mentioned this—is the extreme accuracy. You literally have what's called first-person viewing, these drones called FPV. You can have an operator on each of the drones. My guess is there was an operator on each of the drones that destroyed the missile radars in the Persian Gulf, in Israel, and in Jordan. That's my guess, because those targets were really valuable. Maybe not all drones have these communication links, although it's not hard to do that.

And, for example, as the war goes on, if some of these drones don't have communication uplinks, I think we can expect that they will as the war continues. In other words, the drones will improve—and they'll improve in several ways. Al explains, for instance, that they'll be able to fly lower, more stably, and avoid hitting objects. That's important because, as I'll explain, radars have a very difficult time detecting low-flying objects. I'll also explain why that's the case and give your viewers a sense of how complex the problem of seeing a low-flying target really is. It's not simply line of sight—it's a mistake to think it is. There are lots of other things reflecting a radar signal at low altitude.

And you've got to pick out the small signal—the tiny signal—from a drone among birds, moving trees, thunderstorms. You know, those things aren't there all the time. But if I'm flying into Israel, for example, I don't have to come in over the water. I could fly over Lebanon first and then head south, low over buildings. My drone attacks don't have to come over the water, where what's called clutter tends to be lower—still a big problem, but lower. So these drones are going to become more and more difficult to detect when you have operating radars. Let me say that again: when we have operating radars. The problem you're going to have, though, is that the few operating air-defense radars you have now are going to little by little disappear. You can build drones.

In fact, they've found drones with radio detectors on them. So you can send drones out with radio detectors and use them in combination with, for example, satellite data. It's not the best technique for locating a radar, but, you know, best is the enemy of good enough. You just have to do it often enough to identify those, because the radars are becoming fewer and fewer. So my prediction is we're going to see fewer and fewer radars. There's some evidence I saw that the Israelis have already lost one of their Green Pine radars—maybe several of them. And the Green Pine radars are a really critical loss, because the Arrow missile defense system is not very effective. Again, I don't see any reason to believe it's shooting down, or has shot down, many ballistic missiles.

But it is a ballistic missile radar. It's a radar built to detect ballistic missiles, probably at a range of a couple hundred kilometers. Well, if you can see the missiles at that distance, you have about 60 seconds of warning. So if you're at home, 60 seconds isn't a lot, but it's enough. We know from historical data that it's enough time to take shelter. So that's important. Now, if they don't have that warning—and we're seeing a lot of evidence that much of the time now, probably an increasing amount of the time—the Israelis don't get any warning of attack. Something just blows up.

Well, when you're in that situation, it means you always have to be in a shelter. So you're sleeping at night on mattresses on the floor, or whatever, in shelters, because the shelters are typically communal. They have to be, because, you know, if the warheads are big enough—like the ballistic missile warheads are—that they can knock down your apartment building, you don't want to be in a safe room in the apartment. It's not adequate. If you're worried about artillery rockets, this was a big issue I was constantly dealing with when I was explaining why the Iron Dome wasn't even effective against artillery rockets. People would say, well, there are so few casualties.

Well, the reason is, if an artillery rocket goes into your building, goes through the roof, and explodes in your living room while you're in the safe room with steel doors and steel walls—because you went into the safe room in your apartment, which is convenient—you won't be killed. You won't even be injured. So when those warheads had smaller yields, they were very unlikely to kill people if they took shelter. And it was easy to have warning, because you knew when the missiles were launched. They were typically launched from Gaza or elsewhere. And, you know, the warning times were short. But even when the warning times were only tens of seconds, we know from statistical data—statistical data that shows—the casualties just go through the floor. They drop tremendously.

But you no longer have that situation, and people know it. So they can't get a night's sleep. That's going to have a cumulative impact on Israeli society, I predict. I'm sure it's also having an impact on the people operating these military bases. The bases, amazingly, had no bunkers built into them. I was stunned to hear that—not only did they have minimal air defenses—you'd say to yourself, you're up against this giant country, they're building drones like it's going out of style, thousands of drones, and you don't have air defense? You haven't thought about setting up even basic systems? Even if the air defenses are just lots of guns—you know, on ships they have these Phalanx guns—you can shoot down a drone with a gun if it's a sophisticated enough gun, because it's hard to hit them even with a rifle.

But, you know, you can build relatively inexpensive air defenses. They're only close-in, but if you put a few guns around your bunkers, you could keep your troops safer. But they have neither guns nor bunkers. So that's another incredible case of strategic mismanagement. I think we're now facing a situation where we have a near collapse of the early warning system—which I think will collapse if it hasn't already. It's hard to know how badly it's collapsed. And you're also going to have a collapse of any kind of air defense, which means the drones will just be coming in routinely, finding their targets, and destroying things. Now, the drones don't have as big a warhead as the ballistic missiles carry. But so what?

Death by a thousand cuts is still death. If I want to destroy a water desalination plant and I have the precision to hit those big pipes coming out of the Persian Gulf, carrying seawater up to a plateau where these membranes are used to desalinate the water, I can destroy those pipes. A hundred kilograms of high explosive on that pipe will open it—no question about it. The desalination plants, with all those diffusing columns, are in buildings that aren't hardened. So the fact that you have

drones and you're not using large-yield warheads doesn't mean you can't cause your adversary to suffer the death of a thousand cuts—especially when you have tens of thousands of ways to cut your adversary.

So the bottom line, if we go back to slide number two, is that Iran unambiguously has the ability and the resolve to respond in kind to any escalation taken by either the Israeli or U.S. governments. So when Mr. Trump says, "Well, I'm going to bomb you into the Stone Age," well, let me tell you, Mr. Trump, the Iranians can bomb you into the Stone Age too. Because anytime you want to know what it's like to live in the Stone Age, let me just turn off your heat and electricity, and you can live in your house and freeze to death, or swelter to death, or walk, you know, and not get food at stores. And, you know, you want to talk about the Stone Age.

You don't have to be bombed. Your house doesn't have to be hit directly to be in the Stone Age. All you have to do is turn off the electricity. I always tell my students, when I was teaching class, just imagine trying to use your cell phone and there's nothing—nothing at all—because the cell phone network isn't functioning, or the landlines aren't functioning. You're back in the 19th century. If there's no electricity, you're back in the 19th century. If you don't have gas or oil, you're back in the 19th century—and actually worse off. In the 19th century, they at least had some oil they could use.

So the world is facing—and I mean the whole world—a catastrophe if the United States does what it's threatening to do to Iran. The Iranians have said, "Look, we are in a war of survival. We've suffered under the boot of the West on our throats since at least the 1970s and before, and we've had it. We've reached the end. We've prepared for this war for 20 years. We've thought carefully about it. We've even gone so far as to have air defense systems hidden underground that we pop up once in a while, just to keep these guys nervous." So they've thought very carefully.

Everything you see the Iranians doing has clearly been thought out deeply. Very intelligent military minds, scientists, and engineers have considered how to use the resources available to Iran to the greatest effect. And the greatest lever—although all these levers of damage are tremendous—the greatest lever of all is the Strait of Hormuz. If, you know, France can't open the Strait of Hormuz for the United States—what a joke. I mean, the U.S. Navy is more powerful than all of Europe's navies put together, times ten, you know. And you're asking, "Why don't you go into that dark hole and see if there's anybody in there, if there's a snake in there?" You know, that's what's going on.

So the Strait of Hormuz is going to remain closed because the Iranians have thought it through carefully. They know how to continue. They know how to keep the weapons they can deliver protected. They'll lose some of them, but they won't lose a lot, and they'll be able to replace many of the ones they do lose, because I'm sure they have mechanisms for replacing things that are lost. They can keep this going forever. It's—well, if someone tries to take one of these islands in the Strait of Hormuz, they're crazy enough to do that. And I mean, as an American, it infuriates me that our political leaders would send our soldiers to be murdered. You know, it's one thing to send your soldiers to fight for something you think is important.

We have soldiers. I'm one of those people who believe we're spending too much on military activities, but I'm not against having a military. I'm against the size and scale of it. All countries need militaries to some extent, even if it's just for civil emergencies. So I'm not against having a military, but to take our best people—the ones who are most highly trained and conditioned—and put them out there to be murdered on these islands, because that's what's going to happen, is insane. The drones can be used like artillery. You look at artillery—just draw a circle around these islands—and you can see that long-range artillery can reach them. Artillery is a tremendous killer of infantry, and rockets as well.

And the Iranians have all these rockets—short-range rockets they've been building for years. They have lots of them. So why would you—what could you even do from that island? You know, go up against the Iranians? I mean, what can you do? You can't do anything from those islands that's militarily useful. So it's clear that the Americans are losing the war. And although they're lying like crazy—and this angers me—it's not only to the rest of the world, it's to the American people. It's to me and my friends, my soldier friends, whose lives I don't want to see thrown away for nothing. It's outrageous that you would do this to your own people. So that's the situation we're in now. Go ahead, I'm sorry.

#Nima

Ted, before we wrap up, there are always people thinking about escalation—and the ultimate escalation would be the use of nuclear weapons.

#Ted

Yes.

#Nima

A lot of people are talking about that. Before we wrap up, what's your understanding if the escalation reaches nuclear weapons?

#Ted

I think if escalation gets to nuclear weapons, Israel will cease to exist. I say Israel because I'm not sure Iran would cease to exist. If you drop fifty relatively low-yield nuclear weapons—well, I don't know exactly how high the yields are—you'd kill a lot of people, millions of people. But Iran's a big country. Incidentally, this shouldn't be taken as a statement of support or anything like that. I think it would be a human tragedy on a scale we've fortunately not yet seen. But Iran might not actually cease to be a country, even though Israel could do tremendous damage with tens of nuclear weapons. These weapons are finite in what they can do. You could kill millions of people, no question.

But Iran is a country of nearly a hundred million people. And, you know, God help us. I mean, I hope—well, I hope it never comes to that. But Israel—ten or eleven atomic bombs with the yields that Iran can now deliver—if they do the work after they've been struck, if they don't have nuclear weapons now and they say, "Okay, you've done this to us, and the fatwa no longer counts," because the fatwa says, if you do something like this to me, the gloves are off. You know, we can strike back. I don't regard that, incidentally, as anything peculiar about Islam. If you did that to my country, I wouldn't allow you to get away with it. I wouldn't want you to think you could ever get away with it, because I'd never want you to try.

And that's what I think the Israelis have to understand. If they try, they'll be destroyed, because ten nuclear weapons are enough to destroy Israel as a nation-state. We saw that in the last talk I gave—I talked a little about just Tel Aviv. I mentioned three nuclear weapons, and there are eight more that could be available immediately. And, you know, over time, there could be more available too. It doesn't have to be eleven nuclear weapons in the first few months. It could be eleven in the first few months, and then a year and a half later another one, and a year and a half after that another. You know, this doesn't have to be the end of the nuclear war. It's only the end if the world is destroyed.

When we think of these wars between Russia and the United States, where thousands of nuclear weapons get exchanged and these countries cease to exist, we don't assume there are additional nuclear weapons being used later on. But in a war confined to the Middle East, to Southwest Asia—who knows what we could see? And incidentally, let's hope we never see it. But the idea, of course, is that it could spread to a global war. And the number of people dying would be enormous, because if you lose the oil production capabilities—which would certainly be part of that outcome—the world would be starving.

There are all kinds of fertilizers and additional chemicals produced along with oil and gas. And a lot of countries around the world desperately need those fertilizers to grow enough food for their populations. This is going to be Armageddon on a scale people haven't even begun to grapple with. It's about time somebody in the White House woke up. And I'm talking about the White House—and Israel. I mean, right now the Israelis are telling the Americans, "We have different objectives than you have." Well, if I were in the White House—of course, that's never going to happen, I can assure you.

If I were in the White House and some Israeli of significance told me this, I'd say, "Let me tell you, Mr. Israeli, you don't get another weapon, you don't get another bomb, bullet, nickel, dime—anything—from the United States ever again if you try to do something inconsistent with our goals and objectives that gets us into more trouble. You want to go ahead and do it your way? Okay, but understand you are absolutely on your own. Forget about those billions of dollars per year you're getting from the Americans, and all those weapons and stuff like that. You just dig it up yourself and see how well you do. That's what I would do. I wouldn't say, 'Oh, I don't want to insult you.'"

Tough luck. We're the guys in charge—that's what I would say. You need us, and quite frankly, we don't need them. At least that's my view of the Israelis at this point. They've taken over our leadership—our political leadership in the United States—and it's unacceptable. I hope in the next few years we're going to eliminate that problem. I'm going to do everything I can, as an American citizen, to see that that changes. We are going to run this country—the Americans—and we're going to do it more sensibly. We're not going to threaten the whole world if we can retake control of this country. That's my objective over the next few years, if we can survive this terrible time. Thank you. Thank you, Ted.

#Nima

Great pleasure, as always.

#Ted

Well, I had a lot of slides on radar and how it works, and maybe we can do that.

#Nima

We have our next session.

#Ted

Let me just show you one slide to give you a sense. Go to slide number five.

#Nima

Number five.

#Ted

And then go to slide number six and number seven, and I'll explain the difficulties radars have. It's just the general hand-waving—you know, obviously I can't go through the calculations with you—but what I can show your audience is why things are so difficult, why you can't count on these radars over time, and what the adversary can do over time to chip away at even the small amount of radar capability you have. That's important, because when I say things are going to get worse, I'm talking about lots of things getting worse—not just the fact that there are a lot of drones and no interceptors. Things are going to get really worse, and the guys in the driver's seat are going to be the Iranian leadership. That's all. Thank you. I think they're angry. Can't understand why. Yeah. Anyway.

#Nima

Yeah, we're going to do another session talking about these things. I think they’re important—everybody should know about them. Thank you so much, Ted. Thank you.

#Ted

I hope this has been helpful.

#Nima

See you soon, Ted.

#Ted

Bye-bye, you.