# Part 1

Great! Greetings to everyone who is watching us. Hope you all are safe. My name is Konstantin Shabalev and today we, together with my colleague, media expert Sergei Chernavsky, are happy to introduce our guest. It's Tom Cooper, a military historian, writer and analyst from Austria. As Tom himself adds, Austria is Mozart, not kangaroo. But I hope that our audience is educated enough not to confuse. Hello Tom, how are you?

Hello, thank you. Fine, nice to be with you today.

Great. So among other things, Tom is known in Ukraine as an author of regular updates on the Russian-Ukrainian war. And almost six months have passed since our first interview. A lot of things changed and we'd like to discuss them with Tom. We tried to divide our conversation in several sections, like Tom does in his updates. So the first chapter of our talk is called The Ground War. And the first question is the following, Tom. We are forced to start with a sad topic. Earlier this week, Ukraine withdraw from Vuhledar. And you were describing this process almost live. And now we'd like to know your opinion on what consequences will it cause for Ukraine?

Vuhledar, it's a topic very frustrating topic because this was such a left down of a great unit that was fought fighting courageously and with huge skill for two years in that place alone not to talk about the Battle of Moschun northwest of Kiev back in March 2022 and was now left down by top political leadership in Ukraine, by the general staff of Ukrainian armed forces like, really it's in the most shameful way. And what should I tell you? It wasn't really an ordinary withdrawal. Everybody is calling withdrawal in Ukraine. Actually the last two or three days the defenses of the 72nd collapsed. The Russians attacked from three sides, drove in, captured, I don't know how many troops killed, I don't know how many troops, including plenty of wounded troops. Soldiers of the 72nd have demanded a withdrawal on time. There was no reaction from Kiev at all, as usually. I mean, it is a shameful episode in the history of Ukraine and nothing else. It is such a, meanwhile, typical failure of the political and military leadership in the country that I simply I cannot understand that something of this kind is happening and now what is what now? what is left of the 72nd Brigade? perhaps 1,000 troops who are tired, exhausted demoralized. Who is going to replace such an excellent defense position? For the next 30 or 40 kilometers in the western or nor-west direction, there is nothing. So when you ask me what is going to happen now or whatever, I'm not sure. I mean, the only thing we can actually expect is further Russian advance in western and northwestern direction or northern direction towards Pokrovsk. That's what's going to happen. I do not see the Ukrainian armed forces having a strong position on the way to Pokrovsk. That's the situation.

Okay, we'll talk about the Ukrainian command a bit later. And you mentioned Pokrovsk. Our second question was about this place. Russian army continues to slowly advance towards Pokrovsk. And what do you think? If they do manage to occupy it, what will be their next target? As I understand, it's some kind of point from which they can advance in different ways. Pokrovsk, that is related to Vukhleda and to the situation at the political top in Kiev and to the situation at the political top in Kiev and in the general staff of the Ukrainian armed forces. If they continue fighting this war the way they are doing this the last year or so, actually the last one and a half year, almost two years, Pokrovsk is lost already now. It's pointless to fight for it almost, because nothing is going to happen over there, except yet more losses for Ukraine and yet more victories for Russia. This victory is actually laughable, but okay, who cares? Point is this. You have a president who is fighting for some kind of imaginary US aid and spending and wasting his time with some kind of peace plan which he is then traveling to the United States and presenting it there to Biden and to Trump and so on. What peace plan? What peace plan? There is only one party in this war which can stop this war immediately. This is Russia. This is Putin. He can stop immediately. Ukraine has no chance to do anything of that kind. The United States has no chance of doing that. Germany has no chance. Whoever else has no chance. But Russia can stop it. But Russia has absolutely no reason to stop it. Because everything is working straight into Putin's hands. Then, the next point. Expecting the Americans now to start providing sufficient support for Ukraine to win this war, to at least liberate some kind of serious portion of territory inside Ukraine, is not going to happen. If nobody in Ukraine has realized this by now, well, it's about the time for somebody to start realizing it finally. But this is also not happening. So you are wasting, your political leadership is wasting time for some kind of fantasies around. The only thing I've seen them doing that is making sense in the last, let's say, two weeks was this conference with different manufacturers and designers of modern weaponry and trying to attract them into investing into Ukrainian sector of manufacturing, defense, equipment and ammunition and weaponry. And this is all. And this is also too little. And going also in some kind of chaotic direction. Because what is happening? You have, for example, Denmark financing the production of Bohdana, a self-propelled howitzer in Ukraine. Beautiful idea, really. You have also another company investing into production of ammunition for such howitzers in Ukraine. Also beautifully there. But who is going to protect this factory where this ammunition is going to be manufactured? Who is going to protect the factory where the Bohdanas is going to be manufactured, who is going to protect the factory where the portanas are going to be manufactured, and who is going to protect the power supply network which is necessary in order to manufacture this stuff. For this you need air defenses, and you are getting too little air defense systems from the west and even less surface-to-air missiles from the west. And nobody is going to invest obviously so far into, for example, Ukrainian companies like Luch and Artyom launching production of Ukrainian designed surface-to-air missiles. So this means, okay, you build something and then it's going to be destroyed by the Russians because you cannot protect it. Is that making sense to you? It is not making sense to me. And what we have actually here right now, or meanwhile, Ukraine is another typical example of Western warfare of the last 30-40 years. The West can lose another war. It can afford that. It has lost Iraq. It has lost Afghanistan. No problem. It can afford to lose Ukraine as well. Also no problem. We have all the time of the world. We are more concerned about the next vacation, new car, our internet connection, watching Netflix in the evening, football, whatever else, having fun. Everything is fine for us. But Ukraine, if you lose the war, there's no Ukraine left anymore. Nobody here in the West is understanding this situation. And nobody is taking corresponding measures. You get lots of promises. Ukraine is getting lots of promises. But in effect, nothing is happening. So you have a situation where the Western point of view and the Ukrainian point of view are at entirely different levels. The Ukrainian point of view is somewhere up here, the West, and who cares? And who cares if West loses again in Ukraine? Nobody cares, because we can afford that. And nobody in Ukraine right now is taking care, or sufficient care, to make this obvious in the West, firstly, and secondly, to say, okay, thank you very much, you do not want to help seriously, in the West, firstly, and secondly, to say, okay, thank you very much. You do not want to help seriously, in serious fashion. You do not want to help us to defeat Russia, whatever are the reasons, your fantasies about modeling the outcome and saving Russia from falling apart and saving Putin from losing face or whatever else. Okay, fine. Thank you. Then just finance this and that. Thank you very much. And that's all we need. Because this is the only way forward. Ukraine must make itself as much as possible independent from any kind of Western political or military influence. But at the same time develop its own defense sector, the industry, so well and protect it so well that it can actually manufacture, develop and produce, put to the field enough heavy armament, enough ammunition for its own needs and defeat Russia. You have no other way out of this situation. But right now, there are just conferences talking about talking, meetings, one meeting after the other. Tom, excuse me. People are meeting there and so on. Sorry.

You're almost answered on a bunch of our next questions. I can imagine, yes. But may I turn you back for a few moments to clarify one question which very bothers us. Me and Sergey, we are from Dnipro together. Do you think Russians can achieve Dnipro in a few months or next year? Dnipro, I mean not river, but city. Can the Russians reach Dnipro? Yes. Within one year or the next year?

Oh gosh, that's a good question. Let me check a map. I don't know all the distances by heart. Ukraine. Ukraine. Dnepro. Down Dnepro. No. Within one year, not. year not, next year not. But if the things go on like the last, let's say, one year, definitely by 2026. So by saying this, you mean that the war will still continue in 2026. Definitely. The way things are right now, no way this is going to stop even before 2030. Because Ukraine is not taking care to get the means to fight on its own without any kind of Western interference, which is nonsensical, nothing else. And at the same time, the West is not interested in helping Ukraine fight this war in any quicker fashion and more effective fashion. So you are actually going to have only the worsening of the situation, because you can see this for just one example. Every night, Russians are sending between let's say 15-20 and 50-60 shahid or geran attack UAVs over the Ukrainian airspace. At least one third of this, let's say at least five and more often 20-30 of this, are shot down by surface-to-air missiles which are supplied by the West. So this means an attrition of some, let's say, per week, that's something like 50, 60 surface-to-air missiles, which the West is not manufacturing. The West manufactures as many missiles perhaps a month, but not per week, which means that at some point in time, you're going to run out of surface-to-air missiles again. And the West is not going to do anything necessary to bolster, to rapidly increase the production of its surface-to-air missiles. Because if it would be doing something in this regards, it would be doing that already now. It would have announced this at least now, if not already two years ago. But it didn't do so. And therefore, sooner or later you're going to run out of surface-to-air missiles, probably this winter. As next, the Russians are then going to disable your power stations, power plants, and then when you don't have the electricity, how can you manufacture? You can't manufacture guns, you can't manufacture ammunition, and you can't keep your civilian supply with electricity. What then? So unless there is a significant change in these regards alone, there is no improvement of the situation. And then thirdly, there was these big announcements of Czech arms deal or Czech artillery ammunition deal. They have found some source, probably Turkey, and they are going to supply how many? Two million artillery shells in addition to what is going to come to production. Eventually, oh no, this is not really good. That is what the Western industry said to that, and because the Western industry said so, the politicians said so as well, and you haven't got even one million shares out of that deal by now and I'm not going to get one million shares by the end of the year. Why? Because only a part of the countries, of some 20 or something countries who have announced they're going to finance this position is ready to pay anything for the shells in question. Why? Because they are cheaper than the shells manufactured in Europe. I mean, again, the Ukrainian situation is up here, it's urgent, it's an emergency. The Western situation, how can we make more money out of this? That's the only thing that matters. Tom, you're telling quite scary and sad things. Maybe I will try to add some positive in our discussion. Let's talk about URSC. I was watching one of your interviews last month and you were quite enthusiastic on this topic. Do you still consider this operation successful or your opinion has changed? When you monitor war in general, every war is an extension of politics by other means precisely as defined by von Clausewitz in the 19th century or earlier. Anyway, in military sense, this was an excellent operation. Why? It drew into Russia, occupied territory, defeated lots of Russian units, destroyed even more Russian units, scared Putin to scare his entire regime and forced them to patch some sort of front line to withdraw, for example, units especially from northern Kharkiv to Kursk in order to form a new front line. The problem was the usual, namely, there is not enough supply of ammunition and there are not enough troops and units and especially not enough troops and units and especially not enough air defenses to drive this, to exploit this penetration into Russia to sufficient depth, which would be some 100 kilometers perhaps 150 kilometers instead, Ukrainian units drew some 25-30 kilometers maximum into inside Russia and with this this operation remains incomplete. So, at military level, it was an excellent idea and fantastic achievement. Absolutely no doubt about this. At political level, it ended nowhere for exactly the same set of reasons why all the other Ukrainian operations are ending nowhere, which is that the president is fighting a war for scoring propaganda points in the West, appeasing and pleasing the Western politicians who are not interested in him actually anymore, who are not interested even in supporting Ukraine seriously enough. And with this, we are ending this story. As long as Ukraine is running propaganda operations, it's not going to win the war. You cannot win a war with propaganda operations. This is something for bolstering morale on a temporary basis, lasts for, as we can see, two months, and then it's over. But there is no liberation of any kind of Ukrainian territory and Ukraine is not a step, not an inch actually, closer to liberation of Donbass and of Crimea. So politically, nothing has changed. So what should Ukrainians do with Kursk next? Well, hold it as long as you can, of course. You have no other solution troops are over there if you withdraw the troops now from from ukraine i'm sorry from russia from from the kursk oblast that would be a huge shame so another failure what why have you sent your troops to into russia why have you lost at least 300 killed and over 1,000 wounded so far in two months of fighting? For what? To withdraw now? Is that the aim of the operation? I think not. So hold out as long as you can. The question is how long can you hold? Right now the Ukrainians have relatively good positions, especially in, what is it, Orgoka and Sheput,ka area. They are up in the hills and when the Russians attempt to approach them they hit them from above, they see them on time, hit them from above and so on. So it's relatively easy. On the other side of the same hill, they can see it towards Lubimovka. So things are relatively simple. If they lose these hills, which can happen, then it's going to become unpleasant. Then the entire operation is going to end with a failure.

Tom, you mentioned mistakes of our political leaders. But you previously, while describing the Vukhlydar operation, you already mentioned the mistakes of Ukrainian Genstab. Yes. Military command. Can you name the main mistakes? And probably you could suggest how that mistakes could be corrected.

Well the primary mistake is the central is the over centralization and micromanagement by the top of commanders but highest commander especially ssuki what he is doing was okay, for example, to sort out the troubles in areas like, well, even that was too late, in Bahmut last year or in Avidivka early this year. There were too many elements from different units fighting in the same sector without coordination. But now there comes the problem. Sierski has taught his commanders that either they deliver him good news or they are in trouble so the problem is if they are in trouble they are going to get dismissed or something else so he is going to command their own units over their shoulder instead of them which is absolutely insane idea you do not do such things you have to train your units over their shoulder instead of them, which is absolutely insane idea. You do not do such things. You have to train your commanders. Sorry. That's Russian style as I can. Well, more or less Russian style. Yes. Point is to train your commanders so that you as the superior commanders in CSK position can trust them to tell you what is going on. Precisely the way it has happened. And not do you some kind of crazy favors through lying to you. That is the first point. The second point is to train your commanders so that you can depend on them to do a good job. And lots of Ukrainian commanders are still not doing a good job. I'm talking about battalion and brigade commanders. The command level in between of brigade commanders and CSK should actually be responsible for controlling the job of brigade and battalion commanders, but it's not doing that at all. It's like it's not there. I don't know why the officers in question actually paid, except perhaps from time to time to report something nice to Sierski. Why they should... Excuse me? Excuse me, my cat would like to take part in this interview. Where did I stop? Yes. You have groups of forces, and they should be doing the job which Sierski is currently doing. But Sierski's job should be to inspect and check that everything is working. And finally, you have a gen staff which is serving Sirsky as a commander instead of writing a new doctrine of the armed forces based on 10 years of bloody experience of the Ukrainian armed forces so that all the new commanders in the future, whether tomorrow or in two years from now, are instantly taught all of these experiences. But it's not doing that. It's serving CSK's purposes, which is centralized command and super control of everything and everybody. And what a surprise amid all of this actually chaos, centralized chaos, it's not working. It can't work. And it is never going to work the way it is organized right now. It didn't work when it was decentralized under Zaluzhny, and it's not going to work when it's over-centralized under Sirsky. Apparently, in Ukrainian armed forces, you simply can't find some middle way to delegating, to teaching your subordinates to do their job don't know how to describe it. And therefore, again, you have this superior commander who is controlling and commanding everybody. And then, you also have a president who is fighting a propaganda war instead of taking care to listen to advice of his military commanders who cannot even advise him properly because they are not listening to advice of their subordinates, then you have, as I said, you have a bardak, excuse me for expression. And this is what you have in Ukraine right now. I've mentioned also general stuff and the necessity to write a new doctrine of armed forces. This doctrine should also teach the commanders that after every single operation they have to sit down with their subordinates and discuss what went wrong and what was done well. This is not done. You have something like 60 brigades in Ukrainian armed forces and perhaps three are doing this right now. The 47th, the 3rd, and the 4th National Guard. Perhaps the 12th National Guard are of brigade as well. So you have less than 5% of the force is doing debriefs after operations. This is a catastrophe. This means that all the lessons learned and paid in blood every single day are lost. Because nobody is learning from them. We have seen this also in the Air Force, in the Air Defense Force. Oh, everything is fine. We are shooting down Shahids. We are shooting down Kinzals. We are shooting down Zircons. We are shooting down the Mars people and Jupiter people as well. And then 12, at least 12 Russian cruise missiles fly through that super turbo air defense system and hit a hospital in downtown of Kiev in July. And what is the Air Force reporting? It was just 12 missiles and we have shot down all of them, including those you can see on the videos coming down and hitting the hospital and killing women and children. The same also with F-16 which was shot down by our own forces. How long is it now? One month? We are going to investigate. One month later? Oh, who? We? We should investigate this or what? Excuse me,'s leave let's leave f-16s it came so far that the americans do not trust themselves anymore to ask what has happened to that f-16 because they know then there's going to be no reply sorry i wanted to say that let's leave F-16s for a bit later. We have a separate part for them. Our last question in this section, we already told you that lots of our audience is located in the southern Ukraine Ukraine in Kherson. What's your predictions for Kherson and Kherson region for this fall and the next year? My predictions? I said I'm not making predictions, I'm making post assessments. Let's say estimates. Okay, okay, okay, estimates. Just a second, I'm powering up a map of the battlefield. Well, what you can expect us next is that the Russians are going to attack from Vukhla, the directions towards what is the place, first in the direction of Bahatya and Konstantinopel, because there is nothing in between. There is just open terrain. There are no hills, no forests, just open fields. So they have something like 30 kilometers up to there. And this is where they are going to close this corner with something like a dozen of Ukrainian brigades in between of Vukhleda and southern side of the battlefield at Pokrovsk. In Pokrovsk itself, you have to expect them to drive around such fortifications still left in front of the town like Selidove, for example. That's what they are already doing. They are trying to surround Selidove by an advance from the southern side and then from the northern side as well, because the 15th Karadag is doing a very good job with defending Selidove, so they know they cannot take the town without surrounding it first. And thus forcing the 15th National Guard Brigade, National Guard Brigade to withdraw from there in order to avoid that encirclement. So once they do that, they are going to go up to Lysivka and Shevchenko and do a search for a way to start surrounding Pokrovsk as well. That is Pokrovsk. The rest of that operation, I mean, once they are in Pokrovsk as well. That is Pokrovsk. The rest of that operation, I mean, once they're in Pokrovsk, well, then I'm not sure what exactly they're going to do, but they're probably going to try to finish off Toretsk in between. Toretsk is going to take them another two or three months, probably, to complete, but not much longer, so we can expect that Toretsk is going to fall them another two or three months probably to complete, but not much longer. So we can expect that Torets is going to fall by the end of this year. Pokrovsk, I would say by March. Reaching Pavlovgrad might become their next objective, but it is going to take them another year. So sometimes in summer, autumn, next year, they might get all the way to Pavlovka. What else do we have in between? Up to front line. Excuse me, to may ask you to move it's southern to Kherson. To remain in the south. Well, basically, they need not attacking in the south. Well, basically they need not attacking in the south, they need not attacking in Southern Zaporozhia because everything is doing along their ideas in the east. So why attacking where they are not going to get to us? We have seen this this summer in the Robotinia area, for example, in, what is that? Excuse me, just to check to map. South of Velika Nova Circa in Urožajne, for example, okay, they have captured Urožajne, but they cannot hold it. So why is wasting their resources by deploying them somewhere else if they are successful in the east? And they are successful in the East. And they are successful in the East. So can I conclude that the situation for Kherson will remain the same for the next year? Yeah, for the next year, year and a half. As long as not something substantial happens in Kiev, for example.

# Part 2

Thank you, Tom. Let's move to the second chapter, which is called Air War. The first question will be about Russian Cubs guided bombs. There are reports that Russia has increased the range of its cabs from 30 kilometers to up to even 80 kilometers. The question is how much further can this range be increased? Okay, for a start. Russia didn't increase the range. The range was 60 to 70 kilometers already last year. This is simply physics. And this physics comes from the weight of the weapon combined with the speed of the aircraft carrying it at the time it's released, plus the attitude of the aircraft at the time it's releasing the bomb. So what happens, A-134 comes in at an altitude between 9000 and 12000 meters at a high subsonic speed. Which means something like 1100 km per hour. So then it enters a shallow climb and releases the bomb. The bombs drop from the aircraft, open their wings, and then they glide over 60 to 70 kilometers in a parabolic trajectory until hitting the ground. So the point is now the following. Depending on the sector of the front line, where they deploy such bombs, in some cases Russians are free to fly their Su-34s all the way over the Ukrainian positions. For example, in Vuhledar area the last two weeks, they were free to fly over Vuhledar because the glorious general staff of Ukrainian armed forces didn't take care to deploy at least proper air defenses of that place. Therefore, they could reach 70 kilometers behind Vukhledo. But in other sectors, for example, Kursk, they can't. In Kursk, the Ukrainian air defenses are strong enough that the Russians have to release their bombs from 70 kilometers away, from, let's say, 50 kilometers behind their front line, to reach a target only 20 kilometers behind the Ukrainian front line, 10 to 20 kilometers behind the ukrainian front line and then it appears to plenty of people that the range is shorter than just 30 kilometers in other cases the russians do not need to hit something that is further away than 30 kilometers so they are target they are releasing their bombs and they are stuck in targets just 30 kilometers away because the target is simply closer than and less well protected so correspondingly the range was always 60 to 70 km. And now it might be increased to around 100 km with help of rocket boosters. That means there is a rocket engine, rocket motor, sorry, installed at the rear of the UMPK and this is then powering the bomb and instead of glide bomb it's becoming a guided missile de facto. So that is the answer to your question. That's clear. Tom, is it true that Russians already developed not far-flying cabs but also more powerful cabs, I mean more heavier ones. For example, everyone knows about cab 500 but some people already say about cab 900 or something like that. Okay, let me clarify this. In the Soviet and therefore Russian Air Force, you have specific calibres of bombs. 250 kg, 500 kg, 1,000, 1,500 kg, 3,000, 5,000 and 9,000 kg bombs. These are the biggest bombs. FAB, Fugasna aviaciona bomba, 5000, 9000 was the biggest one. This 9000 means it is 9000 kg heavy or somewhere like that. So correspondingly for a 9000 kg bomb you need a bomber which can carry a bomb weighing 9 tons. That is the first point. The second point is, in order to make a glide bomb out of such a bomb, you need very big wings. Big wing surface. And the bigger the wing surface, the further it's flying. Which in turn means, the bomb itself is getting ever grow bigger and bigger. Correspondingly there is a big problem already with the bomb in a caliber of 3000 kg of 3 tons. The construction, this UMP construction, this module which is installed on top of the bomb and splitting wings so it becomes a glide bomb, is so big and so heavy that the bomb is weighting something like 4 tons. That means that a single SO-34 can only carry one at once. Also because of its sheer size. It is not only the size, it is the weight as well, because you have to consider you put a 4,000 kg bomb under an aircraft and to connect it to the aircraft you need a hard point, which is, we call this pylon in English, which can carry 4000 kg. And this pylon weights another 1000 kg. So now you have 4000 kg of a bomb, 1000 kg of the pylon, and then you put that on the aircraft, on SO-34, in between the engines. And in this way you have put 4000 in between the engines. And in this way, you have put 4,000 kg on the aircraft. SO-34 could theoretically carry 8,000 kg of bombs, but then it's going to fly for the next 200 km. But because of the threat of Russian bases, they have moved SO-34s away from bases close to Ukraine. Therefore, they have to fly very far away, from very far away from Volgograd in similar places. And therefore, they carry only one such bombardments. So that is theory. Why? Because so far, all I've seen, the biggest I've seen as deployed, was 1,500 kilograms. You're talking only about Russians or... Russians, Russians,500 kilograms. You're talking only about Russians? Russians. Russians. Just Russians. 1,500 kilograms. It could be that they have dropped one or two, 3,000 kilograms. There are prototypes of 3,000 kilograms heavy UMPK or CAB bomb, if you like it. It could be they have deployed two or three of these, but I haven't seen any clear evidence, any definite evidence that there is such a weapon in serious production in Russia. At least not its UMPK module. There are 3,000 kg bombs in Russian arsenals, and they are in production as well, but there are no UMPK modules which can be installed on such bombs and manufactured in series. So most of the times they're actually dropping bombs, UMPK bombs or cup bombs, if you like, of 250 kg and 500 kg. From time to time they're dropping those of 1,500 kg, but 3,000 kg, I haven't seen clear evidence for any so far. Even somewhere throughout the world, not only in Ukraine? When we're talking about around the world... Yes, the question is, are there any examples of applying such huge stuff, at least somewhere? Okay. Maybe on the Middle East or somewhere else. Okay, I see now what you mean. Here we have to distinguish between bombs designed and manufactured, originally manufactured in Soviet Union and nowadays in Russia, and between Western bombs. Why? Because Western bombs are made of parts which should assemble together as necessary. They are very flexible, they are modular, but they are construction. On Soviet-Russian bombs, everything is welded together. That's it. Bomb is delivered to the airbase as it was manufactured, as it was put together already in the factory. You can't change anything about it. So the question, fundamental question or the fundamental issue while developing the CAB or the UMP key was how to make a module which you can put on such a bomb which is already ready for use. And this means that every different caliber of bomb needs a different UMPK module. This module must be ever bigger and bigger because it needs ever bigger wings so that it can reach these 60 to 70 kilometers. Correspondingly, nobody tried to do anything of this kind outside of Russia. At least not with bombs bigger than 250 kilograms. North Koreans have a similar system like UMPK, which is useful for bombs caliber 250 perhaps 500 kg and I've seen them in use by Sudanese air force over Yemen for example of course this is also 7 years ago or something like that so this is all I have seen in regards to Soviet-Russian bombs when it comes to western bombs the situation is entirely different because Western bombs are modular and you can put the same kit on different calibre of bombs. You have bombs calibre of 125 kg, 250 kg, 500 kg and 1,000 kg. So, but let's say it's 1000 kg so you put the same guidance kit and the same set of wings on different calibre of bombs you have also you can also put you can also use specialized casings of bomb bodies like BLU 109 this is this bunker buster bomb of 1000 kg caliber or 2000 pounds as we have seen when Israel assassinated Nasrallah. This is a specially hardened casing which makes sure that the bomb penetrates, goes down to the ground, 20-30 meters to the ground before detonating. But the guidance system and the wings system for this bomb is still the same like on any general bomb with a caliber 250 km, because these bodies are all very flexible and modular. So this is the difference. However, there are no heavier, at least not in widespread tactical service, no heavier air-released bombs in Western service or of Western origin than 1,000 kg. There is one type, this massive penetrator, whatever, 10,000 kg bomb in the United States, but this is carried only by two bombers and that's it. No tactical aircraft can deploy it. So the heaviest bombs of this caliber are around 1000 kilograms in the West. What about Ukraine? Can Ukraine, for example, use our favorite F-16s to apply such stuff? Yes, of course. You could put two 1000kg bombs on F-16. What do you think? Is Ukrainian command going to use it? Yes, you have already under development such a weapon. I'm just not sure if it is caliber 1000kg, but you certainly have such a underdevelopment a weapon of 500 kg. That's very interesting. So let's stay on our favorite topic. What's your opinion of using of Western aircraft in Ukraine? Look, in order to use Western aircraft in Ukraine, you have to change the entire system how aviation is operating in Ukraine. And this is happening very, very slowly. It took the delivery of F-16s to Ukraine for the top civilian authority in Ukraine. I forgot the name, sorry now, to write a new set of regulations for pilots, for ground personnel, for ground control, and so on, for radar systems, and so on. Before that, you still had the same system like in the Soviet Union. So now you have to, in order to use, the next step in using Western aircraft is to teach your people, your troops, your ground crews and your pilots to speak English. Which is the next hurdle because despite all the talk about we are going to buy Western aircraft, whether Saab Gripen or F-16s or whatever else, of the last, let's say, 10 years or something like that, nobody in the Air Force took care to organize English language courses for sends pilots and ground personnel for training in the West, they first have to spend 6 months at least learning English. So, now once they learn English, only then can they start actual flying training on aircraft. Before they start this actual training, flight training on aircraft, they have to learn the basic principles, procedures of flying in the West, which are fundamentally different than those in the former Soviet Union. So even then, actually, they still do not instantly start training on aircraft, but they first learn the procedures and terminology in order to start learning flying aircraft or maintaining aircraft, arming them, refueling them, and so on and so on. So you have, every time a new group of Ukrainians is sent to West to learn flying F-16s or whatever else, it takes at least a year to get them so far that they start actually learning to fly the aircraft. Correspondingly, from this point of view, you can instantly calculate how long is it going to take for entire Ukrainian air force to convert to, let's say, F-16s. This is just F-16s. Another part is going to convert to Grippens. At least a unit is going to fly this sub-Avax aircraft and similar stuff. So this is a process that is going to take years. Excuse me. Can we say that today is too early to make conclusions about applying F-16s and other aircraft in Ukraine? It's not too early. Don't worry. Let's say even if the Dutch would junk all of their F-40 or whatever F-16s that are still around up on Ukraine tomorrow in the morning, it will still take you one to two years to train enough personnel to fly all of them. You do not have enough people. Someone is already flying. Just flying. Over Ukraine. You don't have enough pilots. You don't have enough ground personnel. You don't have the support infrastructure. You don't have enough pilots, you don't have enough ground personnel, you don't have the support infrastructure, you don't have the spares, you don't have maintenance facilities in Ukraine. You don't have it. It's simply not there. You mean that those aircraft which are already flying above Ukraine, they do not conduct any military mission. Oh, no, I do not say that. What do they do? There are five F-16s in Ukraine. This is the group that was delivered two months ago, and they are flying air combat soldiers, which is, I mean, air defense soldiers. No dispute about this. No dispute about this. But increasing this number to, let's say, 30 or something to something meaningful, you know, to a number that is making sense or having its effect upon developments on the battlefield, it's going. We also had a question that has been asked throughout Ukraine for about three years. Why don't we still have our own Iron Dome above Ukraine? What's about Ukrainian air defense? Yeah. Where should I start? Well, I mean, you're Ukrainian. You know it better than me. You grew up in Ukraine, if nothing else. I've never been to Ukraine. The first problem is that from the independence in 1991, 1992 until 2014, nobody cared about Ukrainian armed forces. So they were constantly decreased, decreased, decreased, decreased, downsized, downsized. Units were constantly disbanded. Air bases were closed. Nobody needed armed forces. There was peace everywhere. Everything was so beautiful. And well, it's a matter of fact that the Ukrainian economy wasn't particularly good. So you had a situation where there was no money for armed forces either. And therefore, although you had excellent companies which could design and manufacture new weaponry, nobody was buying this weaponry. And so these companies in some cases ended working for the Russians, and not only a few of them. So when the Russians needed some kind of tactical guided weapons, air-to-air missiles and so on, these were made, or at least major parts of them, major assemblies of them were made in Ukraine and then the Russians would either use these at home or sell them abroad, export them to whatever customers so now the 2014 came and there were lots of announcements and blah blah blah blah blah and nothing happened or the most that has happened was to overhaul MiG-29s and SO-25s and SO-24s and SO-27s. So they were overhauled. That means that they were taken apart, cleaned, refurbished, most important pieces were replaced, then everything was assembled, painted anew, and they received a new radio, they received new weapons management systems, MiG-29s have even received this new computer which is improving the performance of their radar. Beautiful. And that's it. Nobody came to the idea, obviously, to finance the installation of development, research and installation of new air-to-air missiles on MiG-29s or Azo-27s. So, this is the first point. In order to have such weaponry, whether air-to-air missiles or surface-to-air missiles, you should have had somebody who would manufacture them. Basically, you had several design bureaus like Luch, for example, who have designs of new air-to-air missile and its surface-launched version with a range of something like 100 kilometers, which is something which your armed forces would need urgently right now and then not in few examples but in thousands. But it's not there. Why? Well, because obviously somebody there is convinced that these are old companies and they are too complex and wasting too much money and doing nothing and they're useful and whatever else. Therefore, nothing is done. And now, even if Luch would start or actually give Artyom the production to launch this production, the serious production of this new weaponry, it would take at least a year to introduce it to service. On the other side, meanwhile, Artyom was heavily hit several times by the Russians this summer, so I don't even know how much of its underground facilities are still operational. So why didn't this happen? Because nobody in Kiev had the farsight enough to say, okay guys, listen, we have to build up, we have to invest into our defense sector, we have to reform it on time, and then let it start manufacturing new weaponry on time. Nothing happened in this regard, actually, even as of of was it autumn 2022 perhaps in autumn the last year and therefore you do not have in serious production you do not have new ballistic missiles, you do not have air-to-air missiles you do not have surface-to-air missiles. Although your companies have ready to use designs for them and they could put them into production. The next point is also that there is always this petty bickering about who is going to get the money for this. You have advisors to the government who are complaining that Artem and Luce they are old and this is too complex and let's not give them money, let's get this stuff from the West, which is nonsensical. It would have been better to pay Artyom already back in 22 to start manufacturing these new air-to-air missiles and surface-to-air missiles. However, the government back then was convinced that this war was going to end whatever in six months, twelve months or something. Therefore you didn't launch production on time. Even the Neptune anti-ship missile which is meanwhile also developed as a cruise missile was available on in prototype form. Some 12 or 15 examples around in February 22. And this first successful deployment against Russian guided missile cruiser Moskva was actually something like ultimate test of the weapon. Before that there was no operational unit in the Ukrainian armed forces operating Neptunes and ever since how many are manufactured? 15 perhaps a year 15 a year where you could need actually at least 500 of them and probably then develop them into land attack versions which could be launched from ASO24s, so you don't need to beg Germans, British, French, and the Americans for more storm shadows and similar stuff. You could have had all of this already years ago. Your government just failed to reorganize the defense sector to finance it properly, to launch the production. Right now, your defense sector is working with 40 to 60% of its capacity, which means actually that people are sitting there and working something like, let's say, four to five hours a day instead of eight hours a day in three shifts. This is insane. You're facing a war of extermination, and your defense sector is sitting there and waiting for better times. Because there's nobody in Kiev capable of reorganizing the financing of the sector and then the management of the sector itself. Nothing is happening. There are always big announcements, but until somebody from the West comes in, pays a lot of money, probably somewhere, and then invests a lot of money into one or the other factory, nothing happens. And that is why you don't have modern air-to-air missiles for your Suhoys and for your MiGs, and why you don't have enough surface-to-air missiles, and why therefore the entire production for your MiGs and why you don't have enough surface-to-air missiles and why therefore the entire production and the entire defense sector, its future functionality is under a big question mark.

# Part 3

Thank you, Tom, for such a comprehensive explanation of our situation. We have a few questions left. The last one from this section is about Russian and Iranian trade. Everyone in Ukraine knows that Russia buys Shahheads and ballistic missiles and everything else from Iran. From time to time, you're expressing your doubts about the actual amount of such military trade. Could you please share with us your thoughts? There is no alliance between Russia and Iran. There's a relation between a customer and seller. And there's lots of rivalry and lots of mistrust, especially from Iranians. So all these stories about ballistic missiles, where are they? I haven't seen any kind of Iranian ballistic missiles in Russia yet. Because we already destroyed all of them. Of course. A few weeks ago. You have even destroyed the secret depots where they were stored. Okay, seriously, no. There are no ballistic missiles in Russia. Except they have delivered them the last five days, say. No, it's not going to happen. And for a simple reason that the Iranians do not trust the Russians. I mean, study a little bit the history of Russia and Iran and their rivalry, and you're going to see that they hate each other, almost like Ukrainians and Russians are hating each other nowadays. So, and then check the history of the last 20-30 years and all the repeated attempts of Tehran to buy major weapon systems from Russia and every single one, almost every single one was screwed up, excuse me for expression, in one way or the other by the Russians. Then you have the situation in the Caspian Sea where the Iranians would like to bring in their ships for exploration of gas and oil. They know that it is there at the bottom of the sea but they cannot bring their ships to explore it, to find it and to start drilling for it and exploiting it because the Russians wouldn't let them do so. You cannot bring such a ship. These are big ships. They are very wide. They are very heavy. And you cannot, the Iranians cannot build them on their own on the Caspian, on their coast of the Caspian Sea. So they have, they would have to bring them via the river and channel systems of Russia from the Black Sea and so on. You know this better than me. So, the Russians wouldn't let them. They wouldn't let them. So this is the problem number one for the Iranians. Problem number two. As I said, every single major arms deal between Moscow and Tehran of the last 20 years, last 30 years actually, was messed up by the Russians. There would be an agreement, a contract was signed, Iranians would pay 50% advance and nothing happened. Or if something happened, the Russians would deliver something entirely different than the Iranians have ordered. That means, for example, the Iranians have ordered S-300 air defense systems, long-range air defense systems. Russia has delivered TOR, short-range air defense system, and such things. And in some cases, for example, Iranians, in one case, they went to Moscow and said, look, we want MiG-31s. Here is one billion for them, right on the table. Give us, deliver them in one or two years, whenever. The Russians pocketed money and did nothing. And then, two years later, after lots of complaints from Tehran, the Russians delivered yet more tours and books and such things instead. So why should Iranians trust them? They have no reason. Shahid UAVs, attack UAVs, was an exception from the rule. Why? Because the Russians were so stupid to pay for something that is worth perhaps $5,000, to pay $200,000 per single shahid. Your own hackers found this out. So it was a brilliant opportunity, nothing special, you know, no high technology from China actually. Okay, let them have it. We are cashing millions from this. And that is why Russians have such weaponry. But other Iranian weaponry, I haven't seen anything of that kind in Russia. I have seen mortars and mortar shells of Iranian origins in Ukraine, but not in Russia. So, that much about that. And even if this fat, everybody is calling it ballistic missiles. This is not a ballistic missile. This is an artillery rocket. It is similar like BM-27 or BM-30, which Ukraine is also operating. BM-27, not BM-30. And which Russia is already operating. This is a heavy rocket, which is relatively precise and has a range of 100-120 kilometers. Of course, if Iranians would deliver any to Russia, that would be a big problem for Ukraine because they have a big warhead. And if Iranians would deliver even just a few hundreds of them to Russia, Russian firepower would increase significantly. But so far I haven't seen an atom of evidence that any have been delivered to Russia. And there is a good reason for this. Because, for example, Iranian air force would like to acquire Su-35s. But if the Iranians acquire SO-35s, they do not only want the aircraft, but they want also the capability to maintain this aircraft at home, which in turn means they need the capability to manufacture spare parts for this aircraft at home. And the Russians, this is something the Russians won't deliver even to the Chinese not to talk about Iranians. So, as a bargain for such an eventuality, Iranians are holding back their ballistic missiles. And now, when Iran is almost in a state of war with Israel, even more so, they are not crazy to say, let's sell out our anti-missile arsenal to Russia we are going to earn a few billion but if they sell off their ballistic missiles they have nothing to shoot at Israel therefore all of these stories about thousands of Iranian ballistic missiles and blah blah blah blah to Russia and finally after all of this, mistrust, bad experiences and so on, Iranians have attempted to enter a sort of strategic alliance with Putin several times, and he has turned them down every single time. They have absolutely no reason to insist on some kind of alliance with him now. Why should they? So even this story with alliance and whatever else, this is all lots of fantasy and at least as much hysteria and if nothing else it's usually used in order to especially in the West for propagating some third point of issues. Like for example the first time that there was a talk about the sale of F-35s to Israel there was promptly a report that Iran is buying 100 Su-27s which is nonsense. Of course Iran never bought Su-27s but because it was buying them, because of fake news, Israel should get F-35s, no problem. This is how it works. Thank you, Tom. Let's hope they will not deal with each other. Last few questions, and let's try to cover them shortly. The first one will Russian Federation complete the railway to Crimea this year? Yes, sure. Isn't it already to Melitopol? I'm not sure. I'm not sure. Do you think this will cause huge consequences for us? Of course, because a railway from Nipro down to Melitopol, for example, is making things massively easier for the Russians. They do not need a carriage bridge anymore. They can transport 5,000 tons a day to Melitopol. It's perfect for them. And the Ukrainians can, of course, try to hit that with my missiles and so on and so on, but the Russians have it easier to repair a railway, then it's much more complicated to repair a bridge instead. So it is a perfect solution for them. Thank you. Regarding the bridge, what do you think? Is it possible to destroy the Crimean bridge with missiles? With missiles alone? Not really. You can damage it temporarily, close it for a few weeks or even for two months, and that's it. But you really need big missiles and really hefty hit, and very precise hit in a specific part of the construction. You mean ballistic missiles, not cruise? Ballistic missiles, yes. No, no cruise. Or cruise missiles, okay. I mean, it doesn't matter. You need something like a 2,000 kilogram warhead, and this must be extremely precise and hitting this particular part of the construction in order to drop a bridge. It is pointless to hit the middle of the bridge because you're just going to create a hole, a gap in the road. What is going to happen? We have seen this on so many other examples. Antonovsky Bridge, almost two years ago. Right now I don't see Ukraine having an ability to drop the bridge. Tom, we have the last question. You recently described the scenario for ending the war in the Middle East. You yourself called it almost fantastic. Yeah, it is fantasy, yes. Yes, so could you please describe more or less realistic scenario for ending the war in Ukraine? No, I can't because I have no idea how to end it. I mean, there is so much reform necessary alone in Ukraine. You need to reorganize the way your government is thinking, not only to say acting. You need to bring your population all to one side and say, guys, we are really in danger of extermination. If you are sitting at home and watching TV, you are screwing up, all of you, all of us. You don't even have this psychology. I mean, okay, you have lots of volunteers and people are really trying to help the country and so on, but a big part of the population is just sitting there and doing nothing for Ukraine. Then, as next, you would have to understand that you need many more women in your armed forces, in your industry, and so on, and so on. I cannot understand that you still have unemployed people at war. You have unemployed people in Ukraine. How can this happen? I said, your defense sector is idling around, working at 40 to 60 percent of capacity. And even if it would certainly like to work at higher capacity, but it can't because the government does not have the money for that. And so you have serious problems, very extensive problems, which I have no idea how to solve all of this. So therefore, I have no clear idea how can you solve the problem. Ideally you would manufacture let's say 500 to 1000 tanks a year, and then you would manufacture a similar number of heavy infantry fighting vehicles, that means vehicles as well armoured as tanks. You would manufacture not 1 million FPV drones a year, but 5 million of them. You would have enough pilots and crews for all of this. You would re-equip your anti-arm forces. You would have, ideally, you would have enough artillery ammunition and even more important you would have such missiles like like fat or rockets actually sorry artillery rockets like fat which which means you can deliver a warhead of 100 200 300 kilogram over range of 100 kilometers ideally you would need something like 20 at least 20 patriot sam batteries plus a similar number of Iris T and SAMP T you don't have anything of this and I don't see you getting anything of this not even enough to patch up your air defenses and so on and so on so I have no solution right now what you need is plenty of firepower and I mean really firepower in terms of 100, 200, 300 kilogram warheads being delivered and obliterating anti-Russian units. This is happening perhaps once a month, but this is too little. You would need this happening every single day. I also do not understand, I mean, how long is it now that you have got the first HIMARS? That was in summer 2022, so two years. And you are still not manufacturing HIMARS at home? I cannot understand this. Why not? You're all the time waiting for Americans to have mercy and send you another 30 rockets. ATACMS. Why is nobody manufacturing ATACMS in Ukraine? Out of mind of what? Instead, the government is being, as far as I have heard, is letting the Americans buy agricultural surfaces, real estate. I mean, it's not letting them buy it directly, but it says, okay, if some foreigner wants to buy it, let's do it. And Ukrainians don't have the money to do so, so foreigners are buying it. And the first foreigners who are so foreigners are buying it and the first foreigners who are doing so are the Americans so you're going to end as what heavily indebted lacking your own territory I don't know where this is heading I have no solution for this problem excuse me I mean Middle East is perfect in comparison. Thank you, Tom. I hope our audience will make appropriate conclusions from your words. And at the end, I would just mention that we're not publishing all of Tom's text. I'm talking to our audience, all of Tom's text for different reasons. But if you are looking for an interesting, competent overview of the events in the Middle East, I would probably suggest you to take a look at Tom's blog, because I believe that a person who spent almost 40 years studying this region probably knows a bit more comparing to those experts you are watching on our TV. So thank you so much, Tom. It was a big pleasure to talk to you and I hope we will have another interview a bit later. Thank you very much for inviting me as well. Please keep yourself safe and do the best for your country and for all of you. Thank you, Tom. Goodbye, everyone. Stay safe. Goodbye. Bye.