Moderator: In completing the first 32 episodes of season 1, we drew to a close our discussions on the topic that remains a contested concept. The fact most of my guests agreed there was a western way of war, but couldn't agree with what it was, was no surprise. There have been some expressed with real clarity. Here's Nina Kollars.

Nina Kollars: The western way of war from a person like me who thinks about cyber, and innovation, and how militaries can adapt, from the US perspective it sounds like wars that are fought on someone else's territory, certainly not on US territory, and they are technologically superior. You may have heard the language of multi-domain battle, all-domain battle, all-domain operations, that's leveraging space in cyber, that were superior in these ways and that they're decisive. They're not drawn out, and they overall reduce opportunities for casualties to our own forces. It's an away game in which victories framed by network information, machines and in this case, in an area of great power competition, it's a potentially equally powerful adversary.

Moderator: Nina went on to describe how reality differs from that theory.

Nina Kollars: The concept, I think it's wrong and I think that's the problem. In particular the pathologies that come with being the United States and those are hard-won pathologies of decades of entrenched, both fighting between our services, we have a lot of inter-service competition, and then our defence-industrial base. They have every reason to continue wanting to believe in this concept as being somehow useful. I think there are reasons, and these are not malicious reasons. I think that there are real reasons to want there to be reduced casualties and there are real reasons to want a war to be fast, and to want to do it with things and not with bodies. All of those things are laudable and true, and I think our military leadership can be respected for wanting all of that. The problem is it's incredibly expensive and it exacerbates the development of future war-fighting concepts that are not realistic, in ways I can't even imagine. It's hard for me to, without some sense of derision, talk about the western way of warfare because I'm not sure we're doing it responsibly.

Moderator: I enjoy that first question because it gives you a window into the views of the guests. There are no formatted questions on the shows. We have deliberately invited speakers who will challenge the orthodoxy of policy. Here's Wilf Owen in the episode titled the 'Death of Military Superiority', talking about enemies.

Wilf Owen: The spectres of Russia and China, as the 2 names we never seem to mention in terms of peer competitors, are absolutely it. If an enemy has got large amounts of ground forces and can deny you the use of your electronic spectrum and can deny you the use of aircraft and unmanned aerial systems and attack helicopters, then they've presented you with a significant challenge. I think the important thing to understand here is if we're calling this a western way of warfare, it's development is accidental. I don't think
anybody actually sat down and planned this because how we plan to fight the Cold War was air/land battle, but we took account of the fact that the enemy had sophisticated air-defence systems and things like that. We've fallen into this because a lot of those systems stayed around for a very long time in terms of capability and they were very easy then to use against an enemy who couldn't contest them. I think it is time for a fundamental rethink about how we, if nothing else, protect our ability to use those domains. That's a fairly sophisticated technology-based conversation which has to flow from better ideas rather than just better technology.

**Moderator:** James Heappey, in answering the first question, came up with a surprising conclusion.

James Heappey: The fight that we were fighting in similarly close country was completely asymmetric and our adversaries were cunning. They were willing to be illegal at all times. Whereas previous generations, a British Army officer would've gone through their careers reflecting on a western way of war that really was stacked in their favour because the economic might of your country, the ability to generate mass in your armed forces was what matters. Actually what matters now is your ability to adapt quickly to a set of operational circumstances, to outwit your adversary, to re-equip quicker to counter their threat and then to get beyond them and take them on. I'm sad to say, in my time in the armed forces and in the time I've left, I don't think that that's what we've been able to do. I thought Nick Carter, the CDS, gave a speech last week that was spot on when he pointed out our adversaries have been watching, and learning, and outwitting us over the last 20 years. I fear therefore that the blunt answer to your question of what does the western way of war mean for me perhaps right now means outwitted, outgunned, outflanked.

**Moderator:** Politicians and military leaders are not averse to spreading some pixie dust on their visions of the future. (TC 00:10:00) That's a theme and it's worried some of our guests. Here's Nina Kollars again.

Nina Kollars: The notion that we want to leap ahead with technology is a fundamentally destabilising idea. It's not just destabilising for adversary, it's problematic for us because it can also undermine and create gaps in the way that we fight, that we had not anticipated. So, leaping blindly into these things is terrifying for me.

**Moderator:** Others have worried the sales pitch by digital industries have been selling our leaders a pup. My favourite reply about this was from Wilf Owen when we were talking about simulation and augmented reality.

Wilf Owen: I would say the 1 thing that simulation can never match is changing a track at night in the pouring rain when you haven't slept for 36 hours. You can't simulate changing the power pack on an armoured personnel carrier or a main battle tank. You can't simulate trying to give orders in NBC kit when you haven't eaten for 3 days, and armies that spend lots of time in the field are basically inoculating themselves against the human physical hardships of operating and being able to continually operate. Just being able to deal with cold, keep yourself dry. A lot of the technical aspects of combat are processes and procedures, but what makes those processes and procedures work is having the manpower with the confidence, the training, and the physical endurance to actually make them work as and when it should. The example I always give is imagine marching 200km and then conducting a river crossing to move straight into a forming-up point, to then cross the start line into an attack all done on radio silence. You cannot replicate that in the virtual environment. It's something you have to go out and do in Northern Europe in the winter, or in the Middle East in the height of summer.

**Moderator:** We've referred many times to that moment of watershed in the 1980s, when the allies shifted doctrine to precision under the guise of air-land battle. It is a concept that has survived unscathed in the subsequent 40 years. Yet, at it's heart, air/land battle relied on the theory of combined arms and along the military history of military operations, shaped by the theorists of great military leaders. Whilst that moment in the 1980s was seismic, such grand changes don't happen often. Osby explained why that is.
Philip "Osby" Osborn: If you think that tomorrow is going to be the same as yesterday, then steady as she goes, stick with the plan, remain interoperable, work hard at being interoperable. If however you think that tomorrow is going to be different to yesterday, then you probably have to change the plan. I think most militaries are predisposed to stick with the plan. They are predisposed to do tomorrow what they did yesterday. They are attracted by fads and fashions, but major strategic change is really, really systemically difficult. You'll have guessed from what I've been saying that actually I think tomorrow will be different to yesterday. Therefore I think the plan has to be different to yesterday. That doesn't mean it's not founded on clear interoperability with the US, but that's not it alone and I think there are many things that we need to think about nationally and internationally from a non-US perspective. If we have clarity of thought then we are more useful to the US than if we blindly follow them.

Moderator: Given the narrative of senior serving military personnel about the transformational inflection point attributed to cyber, data and autonomy, it can be tempting to think we're at this moment right now. That doesn't seem to be the view of many guests. Osby put it like this.

Philip "Osby" Osborn: I think the first thing is, what is required of our militaries cannot be a zero-sum calculation. Many would talk about information capabilities being really important. I have talked about information capabilities being really important. There's more sub-threshold activity, there's more cyber activity. Information is an operational domain. If we use data better we get quicker decisions, our decisions are more informed, we can deceive better. All of those things are true, but they're not zero-sum. If you want to be competitive in the virtual space, you've still got to be competitive in the hard-power space. If you don't scare people with your ability to deliver violence, then your softer-power capabilities, they are not with our worth, but they certainly have less worth than the capabilities that are backed up by your hard power. I think the first thing we have to recognise is what we're not seeing is a shift of required military capabilities away from hard power to hybrid. I think they're broadening to include hybrid capabilities and then that gets you into, is it defence and security, etc. I think you have to recognise that what we require in a military instrument is broader. It is more difficult than probably a conversation about affordability and prioritisation, but you have to start from the military instrument and what's required of it got broader, rather than what can I afford.

Moderator: This idea of people being central to fighting has emerged as a theme. It was surprising how many critiqued the way we train the minds' of military leaders. William Scott Jackson told us why this is so important. To win, you want to build on strategic capabilities that provide competitive advantage, not fundamental ones.

William Scott Jackson: Most people focus on what you might call fundamental capabilities. As we know at the moment in the military, there are cyber capabilities, there are technical capabilities, there are numbers of ships, types of ships, all sorts of stuff, but those fundamental capabilities are the same as everybody else. You might be a year or 2 ahead or a year or 2 behind, but you're basically just playing catchup. These fundamental capabilities can never provide an ongoing advantage or a competitive advantage to any organisation, including the military. What you need to look for is what's called strategic capabilities. These are ones that provide a long-term advantage. What they are in a formal sense is they're something that's valuable towards your strategic advantage? The fundamental things we've described are valuable, but these strategic ones have got to be valuable as well. The reason I mention that in particular is because they've also got to be very rare, so not everybody's got them, but they've also got to be what's called inimitable which means it's not easy to copy or build them. This is where it gets interesting and tricky. They've got to be rare, hard to copy and valuable. Cyber ability isn't particularly rare, it's fairly easy to copy, although it is valuable. It fails on those criteria. So, we need to look for something else. And it turns out that technical skills of any description or technical stuff, equipment or anything else generally speaking fails on the criteria because it's always copyable and this is why you're always playing catchup. So, it turns out strategic capabilities are
human factors because they're much more difficult to define, to create, and they're quite often hard to copy. In something like the military, they're often based in the previous culture or the history of the organisation which makes them even more difficult to copy. You could say, I don't know if this is true, but the particular culture of the British Army is that people use their initiative. Where did that come from? Was that deliberately built? Was it a set of training courses or is it how it's always been and people are coming and being indoctrinated into that way? These human factors tend to be much more difficult to copy and bizarrely they're very rarely focused on.

Moderator: It's somewhat worrying we seem less capable of developing greater leaders ourselves. The inimitable Mike Clark puts it in perspective against the reality of conflict.

Mike Clark: I think it's a fact of human nature. There's nothing particularly British about this. The question would be, are we better at developing those commanders? Richie Benaud was a great Australian cricket captain. He was very successful over many years and he was always being asked, 'What's the secret Richie?' He used to say, 'It's 90% luck and 10% talent, but don't try it unless you've got the 10%.' That's absolutely true, there's an awful lot of luck involved. There's another sporting idea which is to say that sport does depend a great deal on luck, but the harder you train the luckier you get. In a way, I think what that means in reality is if you're a good commander and you're commanding a good force then you can ride your bad luck. Your bad luck doesn't kill you. Your bad luck is just something you get over. So, you ride your bad luck and you ruthlessly exploit your good luck.

Moderator: Mike went on to talk about our issues with cultivating the talent we need.

Mike Clark: I think there are some indications here. 1 is, General Mungo Melvin was talking about this endlessly and I think he was right. He said, 'We don't cultivate in Britain the philosopher solider.' We send officers on staff courses, but we certainly don't want to send them to university in the middle of their career because they want to go off on command tours. They don't get a promotion because they get a PhD at the age of 35 or 40. Yet, in the United States they have had some very good commanders who've dealt with the complexities of modern warfare. We used to call them the Super Ruperts. These are the people who can handle all the things the Duke of Wellington had to handle, but they have to handle them over hours, not months. He had months to sort out all his allied problems. These guys have hours or days and they've been very good at doing it. The United States has the luxury of being able to send some of its brightest off to think much more deeply about the nature of warfare, but also the nature of the politics in which they operate and you can see the difference. If you look at the David Petraeus' and the Jim Mattis' and the Mc Masters, different characters all of them, but you can see the way there's a production line of these characters that come through. In Britain's case, I know you've talked to Graeme Lamb in this series. Graeme never went through that. As it happens, he is quite a philosopher soldier, but that's just good luck, and I'm very glad he is, but when we turn up these characters it's because they emerge that way from the campaigns, not that we have trained them up to try to do that. I think there is a big issue there. I think we should think more about the sort of things that Mungo Melvin has been talking about for years and be prepared to rethink the career path for the people we think will become senior commanders.

Moderator: The current iterations of professional military education have often been covered and I've sometimes asked guests for their advice to students starting on or in their courses. My favourite response was from Professor Pete Mansoor.

Pete Mansoor: My piece of advice would be to talk it seriously. Your family is going to benefit from having you at home, but having you at home might be you're off on the patio or in the library reading your work, reading a book, reading about your profession. This is the last chance you're going to have before retirement to put a lot of effort into learning your profession. If you don't take advantage of it, the people who will suffer will be those soldiers who end up in body bags in the next war because you haven't done your job mentally. The other thing I would say is that PME is only the beginning. This shouldn't be a one and done
kind of thing where, I have this year of education and now I can go back to square bashing. You've got to maintain the rigour of your personal study and reading at a professional level well into the future, and General Petraeus was a great example of this. Every night in Iraq, usually about 10:30PM at night when he was done with the day's emails, would read for a half an hour or 45 minutes. In his case, he read about a lot of commanders who were in similar circumstances to him and had to take over commands in the midst of a war. He read about Grant, and Matthew Ridgway in the Korean war, Grant in the Civil War. Read Team of Rivals. He, even in the midst of this war where sleep is limited and he's got a lot on his plate, he's continuing his professional development.

Moderator: There has been an undercurrent in many of these episodes that describes the differences between the western way of warfare and the approaches of adversaries as 1 completely mismatched. Ziya Meral described this when he was talking about religion and combat, but Graeme Lamb captured the core of it beautifully.

Graeme Lamb: Complacency cripples, hubris kills, and we are in real danger today in protecting what was of being guilty of both those accounts if we do not get our head around the way that we're being challenged today, the nature of aggressive and violent competition, and other ways of warfare which are being played against us. I think it was one of the Russians, their defence minister in 2005, said, 'Russia is an undeclared war.' If I was in Iran, I would feel the sanctions that were placed against me that we were at war, and yet somehow, only 1 side is playing and it's not us.'

Moderator: Graeme went on to talk about Sun Tzu.

Graeme Lamb: Quote, 'If one party is at war with another and the other party does not realise it is at war, the party who knows he's at war always has the advantage and usually wins.' What's interesting in that quote is not the fact that you think, that's interesting. It's the fact that one party can be at war and the other party doesn't realise it. We have defined war in a way which matches, goes back to my opening thoughts, this force-on-force, this simple, violent, what I called conflict of great armies, the Battle of Kursk, Arnhem, airborne against airborne, all of that. Whereas, the truth in there is here's an old doodle way long before we got into what we call national sovereign nations, force-on-force battles. He is talking about the same, and he uses the term, and they understood war in those days in no uncertain terms. The answer is, if one party-, and the other party doesn't realise it. That's the war we're in today.

Moderator: I usually finish shows by saying I could talk to guests for hours. Kieran the editor told me I say that too much. 30 minutes doesn't seem to have been enough with any of them. All we aim to provide is some thought-provoking dialogue that challenges you to be better at the profession of arms. I'd like to thank the guests, the producers, and our sponsor. I'd also like to thank the listeners. Season 2 is on the way with a star-spangled line-up.