Viewpoints

Staying Relevant? The Future Utility of Air Power

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Introduction

If there is, or indeed can be, such a thing as the 'western way of war', it has been characterised in the last few decades by the use of technology to replace bloodshed. Strategies have sought to tackle threats at range and, where possible, substitute systems and firepower for the loss of friendly troops. Technology has also allowed hitherto unprecedented situational awareness and a high degree of precision. Prosecuting the right target, however fleeting its exposure, in time and with minimal 'collateral' damage has become not only an achievable aim, but a concrete standard that is expected of western forces by the voting public in whose name they carry out the war. The downside to this supremacy is that public uproar accompanies mistakes on the battlefield, there is close scrutiny of armed forces' behaviour, and strategic decision-makers have at least one eye on the domestic implications for tactical and operational action.

Potential adversaries will be, of course, fully aware of the above factors. They have studied recent conflicts and would have been particularly naïve if they did not draw the simple conclusion that allowing western forces access to, and freedom of action within, their operating area is likely to lead to one conclusion – they will lose, and lose rapidly. They are, therefore, unlikely to play to our strengths to let this happen. The 1990s/2000s saw renewed emphasis placed on Counter-insurgency (COIN) – with the rise of the '*COINdinistas*' and much academic discussion on the, so-called, 'asymmetric' warfare adopted by the various insurgent enemies whom we faced at the time[1]. However, it is perhaps a slight western arrogance to think that an adversary would ever adopt *symmetric* warfare – why would any enemy counter strength with strength? Insurgent warfare throughout history has been a story of the underdog employing innovative techniques in an attempt to counter a militarily superior foe. Why should potential modern *state* adversaries, however sophisticated, not adopt a similar philosophy? How can western militaries maintain their edge in the face of emerging innovation?

I will therefore examine modern warfare from an adversary's point of view and look in more detail at the so-called 'hybrid strategy' that appears to be emerging. I will suggest that we need to take a different view of force development and will propose attributes that will give future air power utility against emerging threats.

Starting in the 1990s, Chinese military authorities, in the face of seemingly superior American forces in the Pacific, developed a philosophy to prevent the US from using their superior technology by exploiting surprise, by attacking the US dependence on sophisticated communications networks, and by keeping US forces at 'arms length'[2]. The latter was achieved by what has become known as an 'Anti-Access/Area Denial' approach (A2AD). The Anti-Access pillar aimed to hold US forward bases at risk, threatening potential US allies who may offer basing options by fielding large numbers of ballistic and cruise missiles and strike aircraft; the Area-Denial pillar aimed to limit US freedom of action, in particular on the high seas, threatening the US carrier groups with submarines and terminally guided ballistic missiles (amongst other systems). The A2AD philosophy has been seen to spread and recent years have

seen the proliferation of sophisticated surface-to- air missile systems, warning and control technology, ballistic and cruise missiles and, of course cyberwarfare capabilities. A2AD is, essentially an operational level technique, and some would say (particularly older 'cold war warriors') that the use of sophisticated Integrated Air Defence Systems (IADS) and attacks on the home base are not particularly innovative, but if an adversary were to adopt an A2AD philosophy at the *strategic* level, the west would be faced with an extremely demanding challenge to its military superiority. Essentially, what better way to prevent the West bringing its superior hard power to bear than to prevent it deploying in the first place – by dissuading the nations from going to war? We have seen trends in both Ukraine and Syria/Iraq that suggest future adversaries may well be developing this line of thinking. Emerging strategies that seek to act in this manner utilise all the levers of power available to decision-makers and have become known as 'gray zone' or 'hybrid' strategies[3].

So, how do these so-called hybrid strategies work ... and why are they so effective against western democracies? To answer these questions we must turn to the fundamental properties and values of our society. We are, and will hopefully remain, an open, liberal democracy and we tend to ally with those who share our values – and, again hopefully, this will continue notwithstanding recent electoral upsets. At the strategic level, the very nature of our society makes plain certain 'weaknesses' that may open us to manipulation by a devious adversary. Before analysing these factors, it must be emphasised that, although referred to here as 'weaknesses' - in that they provide points for enemy exploitation - these factors are fundamental to the very core of a democratic society ... every care must be taken when attempting to address them directly in order not to lose the freedom, transparency and democratic process that they represent, and form the core of our way of life. So, in more detail;

- We have an open society. Our politicians are accountable, our citizenry has a say. The domestic agenda and the views of the electorate will always be in the mind of our political leaders, if they wish to serve longer than the minimum term.

- There is now wide access to internet-enabled media/social networks etc that enables rapid political impact – essentially, in classical terms; we have empowerment of the 'mob'. Access to the internet also enables its use as a tool to wield influence, particularly by the dissemination of propaganda and contrasting narratives – the 'mob' can be easily manipulated.

- We want to be 'on the side of the angels'. We espouse and value legal norms; we wish our actions to be considered legitimate; and we value the institutions and mores of the liberal world order. When we take action we would prefer to build alliances or coalitions to underpin and strengthen our perceived legitimacy.

All three areas can provide entry points to an adversary who wishes to attack the nation's will to engage in conflict. Thucydides suggested that a nation resorts to force for reasons of Fear,

Honour, or Interest[4], and a clever hybrid strategy would aim to use subversion and manipulation to undermine these three reasons, both complicating decision-makers' calculus and confusing the voting public. Fear and interest were played against each other, for instance, in the 2005 Madrid train bombing – were Spain's interests served by taking part in the coalition campaign in Iraq worth exposing the Spanish population to the fear of violent attack? Clearly the Spanish government at the time thought not. More recently, votes in our own parliament on air strikes in Syria (2013/2015) have clearly restrained leaders and driven national strategy. Extending this into the future, would every NATO country be capable of convincing their terrified populations that the risk of war with Russia arising from solidarity over the Baltic States was in their interest? NATO solidarity would thus provide a clear target for 'hybrid' assault. Now, granted, such subversion has a long history in warfare – one only has to consider the German-engineered 'injection' of Lenin, via a sealed train from exile in Switzerland, into the febrile environment of revolutionary Russia and the subsequent cataclysm, to be convinced of how effective such techniques can be[5] – but today's interconnected society, and the rapidity by which information and opinion (and rumour and disinformation) can be disseminated, makes such actions more immediate, potentially easier, and 'tuneable' to achieve a range of effects. Emerging reporting about Russian interference in the recent US presidential election appears to demonstrate just how serious, and potentially insidious, these effects can be. So, in the future, embattled democratic governments will be faced with a battle of narratives and multiple 'truths', not only having to devise a strategy to defeat an enemy but also to maintain the support of allies and their own public, defend their legitimacy and to make sense of a confused, deliberately obfuscated and rapidly changing environment. Carl Von Clausewitz's dictum that war is an extension of policy is clearly key to this analysis - to be 'useful', war (and by extension military power) has to provide options and choices for policy makers and leaders[6]. The issue for us then is whether we, as purveyors of 'traditional' military power, can remain relevant. What can/must air power bring to the embattled future decision-maker faced by such a strategy?

First we must consider the actual nature of future war. Clausewitz's 'trinity' describing the eternal nature of war has stood the test of time well regardless of the type of action in which we have been engaged: Violence and enmity; Fog, Friction and the play of chance; and the Subordination of force to Policy, to varying degrees, have all characterised war. But, as Clausewitz also said, war changes its characteristics like a chameleon to meet a given case[7]. Much has been written about the nature of future conflict, particularly by the MOD's own futures think tank at DCDC, Shrivenham, but there is little to suggest that the 'trinity' will not continue to apply. Indeed, hybrid strategies deliberately seek to manipulate Clausewitz's elements and play them against each other – playing up hatred, undermining policy, obfuscating the picture, for instance. The one thing that is clear is another of Clausewitz's truisms that war is a '...collision of two living forces... [the enemy] dictates to me as much as I dictate to him'[8], to paraphrase – the enemy has a vote.

In a future conflict, against a clever adversary, it is clear, therefore that we must strive to provide military options that are flexible and adaptable to meet an ever-changing threat. Air power is to

a large degree unique in the range and flexibility of options it currently provides to our leaders. It can deploy rapidly, it has long reach, its effects can be scaled up or down as the situation requires, it is precise, it can be devastating, but it also can deliver effects across the entire spectrum of conflict. The challenge in developing a future force structure is ensuring that these unique attributes of air power remain relevant and, equally importantly, that it can continue to deliver. Whilst force planners have historically concentrated on numbers and technological capability, in future these measures, whilst still important, may be secondary in defining the strategic utility of air power – how useful air power will be to decision-makers. I therefore now suggest three alternative measures of utility.

As decision-makers are pondering strategy, air power must be **Available**. If air power is to be useful, it has to be able to get to the right place, in a contested environment, and be capable of delivering an appropriate effect where it is needed. As previously discussed, successive adversaries have seen that if they allow western air power into their operating area, they are likely to lose (well, they will certainly be prevented from continuing a 'conventional' campaign). Advances in C4ISTAR, precision and persistence have enabled the west a degree of dominance in the conventional battlespace … adversaries know this and will seek to prevent western forces from operating in their preferred manner. Nevertheless, clearly, the traditional air power focus on technological advances is important in maintaining any edge. Counter A2AD technologies such as hypersonics and stealth will play a part, but it is important to think about the problem more widely, embracing such innovations as operationally responsive space, high altitude pseudosatellites (HAPS), such as the Zephyr system operating in the stratosphere in a new way[9], and concepts such as swarming and manned/unmanned teaming. The other aspect of availability is that of reach; it is likely that basing of air power assets will remain a conundrum for future planners. Bases will become increasingly vulnerable under the A2AD paradigm and the persistent global defence engagement required to maintain access, basing and overflight permissions across the world will be vital. Air power's role in maintaining this engagement, with its ability to deploy rapidly with a small logistics footprint, and as a showcase of western technological and manufacturing prowess should not be underestimated. The partnerships and alliances formed by this global engagement are likely to be, however, major targets for any adversary using a hybrid strategy; nurturing such relationships is likely to be a strategically vital task, making the elevation of the importance of defence engagement in the recent SDSR extremely timely[10].

The next measure of utility is that air power must be **Affordable**. Short of a clear, existential threat to the nation, most democracies will always be faced with the continuing 'guns or butter' dilemma. There will always be many calls on limited budgets, so air power must represent good 'value for money' to the taxpayer. However, as the complexity of modern air platforms increases, so does the cost and thus the pressure to keep numbers of platforms to an absolute minimum. Force planners are faced with a dilemma – what is the optimum balance between quantity and capability? Traditionally in the combat air power arena, quality has won out, but with future fleets of combat aircraft potentially costing in the many 100s of millions of dollars,

can this remain the case[11]. With many calls on military power, there is a certain irreducible mass, so sooner or later a trade-off between mass and quality is inevitable. Simplifying the debate to almost absurd levels, there is an equation that reads 'One F22=X times F35=Y times Typhoon=Z times Hawk' ... and so on. What is the optimum balance? A force of simple aircraft will clearly not survive night one of a war against a peer competitor but a small number of highly capable platforms may be insufficient to deal with a myriad of tasks across the spectrum of potential conflict. As cost rises we also have to consider the rather sobering question of whether we can afford, or indeed, survive the loss of expensive platforms – especially in the connected democratic society mentioned at the beginning of the article. Loss of a significant, valuable or rare platform provides an immediate 'way in' for hybrid strategy, public opinion will be ripe for a manipulated narrative, and of course, even if the public approves the money, the chances of building replacements for today's exquisite technology, in time, are rare.

This example of the impact of public opinion leads to the third measure of utility. Air power must be **Acceptable**. Whilst the technical capability to strike targets at range with precision is important from a military perspective, in the court of public opinion discrimination and the avoidance of innocent casualties is vital. Again, in the era of the hybrid adversary, we can expect civilian casualty incidents to be exploited, and most likely fabricated, so the ability to make sense of a difficult, confused situation and to reassure leaders and populations of the efficacy and legitimacy of air power actions will be increasingly important. Sophisticated ISTAR, durable communication systems and a range of available effects will all underpin the utility of power. Fog, friction and chance will not go away, but we must continue to develop our ability to provide decision-makers with a clear picture, reliable communication, and precision of effect and its delivery. We have to strive to uphold our stated values and prevent an enemy exploiting disinformation or confusion. The remote nature of air power above the messy surface battle gives rise to some of its more durable and desirable qualities, however, it also plays to a narrative of remote and indiscriminate killing – the so-called 'playstation mentality'. Clearly, putting human beings at risk unnecessarily is also morally questionable but, in the battle for the narrative that is future warfare the ethical and moral aspects of remote must be clearly understood *and communicated* if air power is not to be unreasonably constrained.

War is, as Clausewitz says, '... not the action of a living force upon a lifeless mass ... but always the collision of two living forces'[12]. Future adversaries, chastened by western technological superiority, are likely to adopt so-called hybrid strategies to prevent democratic nations from bringing their might to bear in conventional conflict. Subversion, obfuscation and A2AD approaches will be used to dissuade western nations and alliances from entering conflict and threatening their interests. The vulnerabilities engendered by the very nature of democracy, emphasised by the interconnected and open nature of democratic societies leave them open to manipulation and confusion. It is likely that conflict will remain defined by Clausewitz's 'trinity' of violence and enmity; fog, friction and the play of chance; and the subordination of force to policy, but this article has suggested that force planners will need to look at the utility of force in a different way from the traditional lenses of mass and technical capability

if air power is to remain relevant. Decision-makers must be presented with air power options that are, in addition, available, affordable and acceptable. In summary, whilst much of the debate about the future of air power is centred on the highly technical challenge of future general war against a peer competitor, I would argue that, whilst it is important to strive to develop capabilities to fight in this scenario, our biggest future challenge will be in remaining relevant and useful to our leaders in the run up to conflict, and hopefully in the prevention of peer competition.

Notes

[1] Ricks, Thomas E. '*The COINdinistas*' Foreign Policy website **http://foreignpolicy.com/2009/11/30/the-coindinistas/**. Dated 30 Nov 09. Last accessed 2 Nov 16.
[2] Krepenevich, Andrew F. *Seven Deadly Scenarios: A Military Futurist Explores War in the 21st Century*, (New York,, NY: Bantam Dell, 2009)185-198.
[3] Hoffman, Frank, "The Contemporary Spectrum of Conflict: Protracted, Gray zone, Ambiguous, and Hybrid Modes of War." *2016 Index of US Military Strength*. The Heritage Foundation (October 2015).
[4] Thucydides. *The Peloponnesian War*, 1.76.2. The edition used was Strassler, Robert B. *The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War.* (New York: Free Press, 1996).
[5] For a very readable account of this stratagem, see Merridale, Catherine, *Lenin on a Train*, (Allen Lane, Penguin Random House UK, 2016).
[6] Clausewitz, Carl von, *On War*, Edited and translated by Michael Howard and Peter Paret. (Princeton, NJ: Princeton University Press, 1976), 87.
[7] Clausewitz , *On War*, 89.
[8] Clausewitz , *On War*, 77.
[9] The UK has already stated it will be purchasing such systems in support of special forces. HM Government, *National Strategic Defence and Security Review, Cm9161* (London: HMSO, 2015) para 4.46.
[10] HM Government, *National Strategic Defence and Security Review, Cm9161* (London: HMSO, 2015) paras 5.12-5.14.
[11] The Lockheed Martin F-35 Website. *Producing, Operating and Supporting a 5th Generation Fighter* puts the latest cost of the F-35B LRIP lot 7 at $104 Bn. **https://www.f35.com/about/fast-facts/cost**. Last accessed 2 Dec 16.
[12] Clausewitz , *On War*, 77.