

WHITHER ARMOR?



Clint Ancker

Periodically since its introduction in World War I defense analysts (military and civilian) announce the death of the tank, or wax eloquent on the unsuitability of the tank in various conditions. It has continued to the present day. The argument against the tank usually takes one of three forms. First, the tank is obsolete because an effective counter has been found. Second, the tank cannot be used in certain physical environments (usually the ones declared the most important for warfare at the time). Third, the tank is useless in some form of warfare (the one declared the wave of the future). Yet the tank endures in almost all modern armies today. So the question is: why? In reality, the existence of the tank is not predicated on a stand-alone weapon system, - a large, tracked, turreted, heavily armored and armed system employed in large quantities - but rather a broader concept of warfare. Here I am using Colin Gray's distinction between war - 'the use of violence to solve political problems' - and warfare - 'the methods by which war is prosecuted'. It is not the tank *per se* that persists (although they do); but the concept of combined arms using mobile protected firepower as the base.

Mobility, protection and firepower

While there are other forms of conflict (economic, political, informational), it is armed conflict, combat, that distinguishes war from the other forms. Since the early days of recorded combat, there are three essential capabilities for land combat - the ability to move around the battlefield to gain a position of advantage (mobility), the ability to deliver a blow sufficient to kill or psychologically demoralize an enemy (shock or firepower), and the ability to defeat such blows by the enemy (protection)[i]. Much of warfare's

evolution consists of attempts to gain a significant advantage in one or more of these capabilities. Over time, the proportion of these three has varied greatly, with one or more gaining ascendancy; while doctrine, technology, training, and leadership worked out ways to restore balance or tip the balance in favor of one to gain an advantage over the others.

The search to restore movement on the Western Front in World War I led to the development of the tank, which combined mobility (using the internal combustion engine and caterpillar tracks), firepower (machineguns and cannons), and protection (armor). It was the only system that combined all three into a single platform, even if the execution was marginal. By World War II the tank had been refined sufficiently to be a significant element in a war of movement and a major factor in warfare.

THROUGHOUT ITS HISTORY, THE TANK HAS PERIODICALLY BEEN CRITICIZED AS OBSOLETE

As mentioned above, throughout its history, the tank has periodically been criticized as obsolete. Terrain for which the tank was deemed unsuitable included forests, jungles, and urban terrain (which hindered mobility and severely limited its effective range, rendering it vulnerable). The types of forces that were deemed invulnerable to tanks were dispersed, highly mobile light infantry operating among the people (insurgents and terrorists). The weapons that made the tank irrelevant were nuclear weapons, air-delivered ordnance, and effective, long-range anti-tank guided missiles.

Yet the tank still survives among the armies of the world, and has actually seen a resurgence of interest and a widening of its utility.

TO CITE THIS ARTICLE: CLINT, ANCKER, "WHITHER ARMOR?", *MILITARY OPERATIONS*, VOLUME 1, ISSUE NO. 2, FALL 2012, PAGES 4-8.



The answer to this seeming contradiction lies in the continued need for a combination of mobility, firepower, and protection, even if the form is not a conventional turreted heavy metal system riding on continuous tracks, although it may. It is not the tank by itself that endures, but rather the combined arms team that is built around mobile, protected firepower, whether built around a conventional tank or some other platform.

**IT IS NOT THE TANK BY ITSELF THAT
ENDURES, BUT RATHER THE COMBINED
ARMS TEAM THAT IS BUILT AROUND
MOBILE, PROTECTED FIREPOWER**

Failures and military revolutions

When the tank has failed, it has usually failed for two reasons. First, a lack of imagination by those using it (the French in 1940). Second, a failure to employ it as part of a combined arms team that took advantage of the inherent utility of mobile protected firepower while providing means to overcome the real, but not crippling vulnerabilities, of such a system. The most notable failure of a tank-only force is probably the initial stages of the 1973 Arab-Israeli War. Based on their success in 1967, the Israeli Defense Force (IDF) focused their efforts on their air force and armored corps. This had two negative effects in 1973. First, it made their enemies' task much easier. Instead of having to find solutions to a combined arms force, they concentrated on only two major capabilities – airpower and tanks. For both, the Arabs found technological and doctrinal solutions. Second, because the IDF had focused on only two capabilities, once these were effectively neutralized, the IDF had no readymade solution to the problem. The end result was a near disaster for the IDF, a disaster that was only averted by reintroducing a combined arms approach to combat.[ii]

In the aftermath of the 1973 war, some mistakenly drew the conclusion that the anti-tank guided missile (ATGM) meant the end of the tank. The New York Times of 2 January 1974 featured an article that stated 'Infantry armed with modern antitank missiles can fight armor to a standstill and is on its way to restoration as the queen of battle....The effectiveness of such infantry against tanks and the steady development of mobile, accurate surface-to air missiles offer a second important weapons lesson: The tank-and-fighter bomber team, which has ruled most battlefields since 1940 has been eclipsed as the decisive tactical formation.'[iii] Actually, few tanks were destroyed by Sagger in 1973. It was the psychological shock and the lack of combined arms response that impacted the IDF so profoundly.[iv] Far from heralding the death of the tank, it was simply a wake-up call for a return to a combined arms solution approach to warfare.

The so-called Revolution in Military Affairs, sparked primarily by the overwhelming success of Desert Storm, also resulted in calls for the reduction or elimination of armored forces. Typical of this was *The Ghosts of Omdurman*, an article in the U.S. Army War College's journal, *Parameters*. The author argued that 'Lacking the allure of the victorious march through France, sticky counterinsurgencies and messy contingencies have been handed off to the light infantry and special operations forces, leaving the mainstream Army free to indulge in AirLand Battle in all its blitzkrieg spectacle'. Further on he states 'Tactically, armored pursuits are exotic and exquisite things, but infantry legions on patrol are the stuff of superpower

interventions.'[v]

The clear implication was that the time of armor was over and the time of light infantry had arrived. If ever there was a time to prove this, it was the aftermath of Operation Iraqi Freedom and the ensuing counterinsurgency campaign. Leaving aside the fact that the march to Baghdad that toppled Saddam Hussein's regime was spearheaded by a combined arms armor heavy force, the 3rd Infantry Division (Mechanized) and several other heavy combined arms teams of the U.S. Marine Corps and our coalition partners, the subsequent fight would seem to fit the mold that the author described: a fight optimized for light infantry and special operations. But what happened was almost the opposite. Light infantry units quickly demanded greater mobility, protection, and firepower. The High Mobility Multipurpose Wheeled Vehicle (HMMWV) was quickly modified by putting armor packages on it for greater protection and mounting weapons with greater firepower.[vi] It became, in essence, a very light armored vehicle, combining mobility, protection and firepower.

**THE CLEAR IMPLICATION WAS THAT THE
TIME OF ARMOR WAS OVER AND THE TIME
OF LIGHT INFANTRY HAD ARRIVED.**

Another adaptation was the employment of the Stryker medium weight wheeled armored vehicle. Its great on road speed allowed it to move from one area to another rapidly and arrive with more protection and firepower than the HMMWV. As the enemy became adept at attacking these vehicles, both were provided with increased armor protection. As the growth potential of the HMMWV was limited, it became too vulnerable to be the primary mover along routes threatened by improvised explosive devices. To address this, the U.S. Army adopted the Mine Resistant Ambush Protected (MRAP) vehicle. This large wheeled vehicle was designed specifically to balance mobility, firepower and protection for the environment in Iraq. And the tank?

Originally considered of little value against insurgents and in urban areas, the tank soon became invaluable. As one division commander put it 'No one wants to go downtown without tanks.'[vii] Tanks were not only useful in open desert terrain, they were increasingly of great value in urban fighting.[viii] The Marines in Fallujah asked for U.S. Army tank units to supplement their own armor, as the Marine Commander believed that 'Based on intelligence that revealed the formidable strength of the insurgent defenses in Fallujah, the Marines believed they did not have enough tanks and heavy fighting vehicles to quickly penetrate the outer defenses and spearhead the assault.'[ix] Units that at first deployed without tanks requested they be sent to Iraq because the combination of mobility, firepower, and protection proved to be invaluable when required to close with a competent enemy.

The diverse utility of armor

Urban fighting is not the only close environment where tanks in combined arms teams have proved useful. The idea that the tank is useless in jungle terrain has been demonstrated to be a fallacy many times over. The Japanese used them effectively in the capture of Singapore.[x] Field Marshall Slim's Defeat Into Victory has several references to the utility of tanks in jungle warfare.



'Tanks can be used in almost any country except swamp. In close country they always have infantry with them to defend and reconnoitre.'[xi]

And also:

'The Dismal Jimmies who had prophesied, one, that the tanks would never get to the line, two, that they could never climb the hills and, three, if they did the trees would so slow them up that the Japanese antitank guns would bump them off as sitting targets, were confounded. The tanks, lots of them...crashed up the slopes and ground over the dug-in antitank guns....It was the old problem of World War I – how to get the infantryman on to his enemy without a pause in the covering fire that kept his enemy's head down. It was solved in Arakan – and copied throughout the Fourteenth Army—by the tanks...'[xii]

A similar note was struck in Vietnam. The utility of armored forces was clearly evident. General Donn A. Starry in his work, *Mounted Combat in Vietnam*, reinforces the idea that combined arms forces built around armor and mechanized infantry were effective in an area originally thought to be inappropriate for them.

'It was widely believed that Vietnam's monsoon climate together with its jungle and rice paddies constituted an environment too hostile for mechanized equipment: it was further agreed that armored forces could not cope with an elusive enemy that operated from jungle ambush....It was not until 1967, however, when a study titled Mechanized and Armor Combat Operations, Vietnam...that the potential of armored forces was fully described....the study's findings [were] that armored cavalry was probably the most cost-effective force on the Vietnam battlefield....From early March 1965 until the cease-fire in January 1973, U.S. armored units participated in virtually every large-scale offensive operation....After eight years of fighting over land on which tanks were once thought to be incapable of moving, in weather that was supposed to prohibit armored operations, and dealing with an elusive enemy against whom armored units were thought to be at a considerable disadvantage, armored forces emerged as powerful, flexible, and essential battle forces....When redeployment began in early 1969, armored units were not included in the first forces scheduled for redeployment, and indeed planners moved armored units down the scale time and again, holding off their redeployment until the very end.'[xiii]

WHEN REDEPLOYMENT BEGAN IN EARLY 1969, ARMORED UNITS WERE NOT INCLUDED IN THE FIRST FORCES SCHEDULED FOR REDEPLOYMENT

While the examples above relate to the use of armor in jungles, its use in urban operations has also evolved over time. Probably the best example of this is the recently published Combat Studies Institute study *Breaking the Mold: Tanks in Cities*. From the forward:

'Few lessons are as prevalent in military history as is the adage that tanks don't perform well in cities. The notion of deliberately committing tanks to urban combat is anathema to

most. In Breaking the Mold: Tanks in the Cities, Mr. Ken Gott disproves that notion with a timely series of five case studies from World War II to the present war in Iraq....These cases demonstrate that tanks must do more than merely 'arrive' on the battlefield to be successful in urban combat. From Aachen in 1944 to Fallujah in 2004, the absolute need for specialized training and the use of combined arms at the lowest tactical levels are two of the most salient lessons that emerge from this study. When properly employed, well-trained and well-supported units led by tanks are decisive in urban combat...'[xiv]

The utility of armor in cities is further demonstrated by the October 2003 fight in Mogadishu, Somalia ('Blackhawk Down'). In that densely crowded city it was only a tank force that was able to rescue the embattled Rangers, after other attempts had failed. Similarly, in Iraq, Navy SEAL sniper Chris Kyle said "'They [the enemy] were all around you, everywhere,'" he soon realized, and the only safe way to enter [the city] was aboard armored vehicles.'

[xv]

Doctrinal disputes

The use of armor in Iraq's cities caused a change in U.S. Army urban operations doctrine, via the 2003 edition of the field manual on urban operations (UO). The following summed up the approach to armor in cities: 'Although masses of heavy force are not normally required, successful UO require all the combined arms capabilities of all Army forces.'

[xvi] Further, 'Other type forces – such as armor, artillery, and chemical – have essential roles in specific types of urban operations but are less applicable across the range of Army operations.'[xvii] And finally, 'UO requires an increased proportion of dismounted infantry and engineer capabilities. Armor is not required in the same high numbers.'[xviii] Three years later, in the next edition of the manual, experience in Iraq had changed the Army's position significantly. It now stated 'One tactic, effective combined arms task organization, includes an increased dismounted maneuver capability, **combined with armor** and combat engineers, continuous operations, and technological enhancement' (emphasis added).[xix] 'Armored forces and attack helicopters also can facilitate maneuver through shock action that can have a psychological effect, particularly against less well-trained threats and, in discrete instances, hostile crowds.'[xx]

What comes through in all of these examples is that the combined arms team that employs mobile protected firepower is useful in almost any environment.

A more recent attack on these systems comes from a consistent and long standing critic of the U.S. military and its conduct of operations, William S. Lind. Writing in the online journal, *The American Conservative* [xxi] he states: 'Each year, the Marine Corps picks a lucky city to host [Marine Week]...Public Square was full of tanks, artillery pieces, and Light Armored Vehicles....But against non-state opponents, those Marines are 0-4. They, along with the rest of our armed services, lost in Lebanon, Somalia, Iraq, and Afghanistan....' The clear implication is that these systems, tanks, artillery, and light armor, are irrelevant in what he calls 4th Generation Warfare. He further states 'Real wars with important outcomes are now fought and won by ragtag militias, gangs, and tribes...In a fair fight, the U.S. Marines would beat any of them, except perhaps Hezbollah. But what we think of as fair fights are jousting contests, tank against tank, fighter plane against fighter plane...Of course we want jousting contests [but] the forces of the Fourth Generation avoid them. We are left to tilt at windmills.'

[xxii]



But his critique misses the point. While one can argue endlessly about the best approach to conduct a counterinsurgency, it is not war if there is no fighting. Without fighting it is not a role for the military. The fighting in counterinsurgency has different rules, but it is fighting nonetheless. And when fighting, tanks and armored personnel carriers are useful, because, when you do fight, you need mobility, protection, and firepower. The firepower may be employed more discriminately, but it still must move around the battlefield and be protected. That is why in both Iraq and Afghanistan, there has been a resurgence in the use of armor.

One example is the Canadians in Afghanistan. In 2003, the Canadian army planned to do away with heavy armor, replacing their tanks with the Light Armored Vehicle (LAV). But circumstances in Afghanistan dictated the need for armor in this environment. When the decision to acquire and use tanks was made, a political science professor at the University of British Columbia trotted out the arguments that the tank was simply too vulnerable in that terrain against that enemy.^[xxiii] However, the Canadian experience was the opposite.

'By deploying tanks and armoured engineers to Afghanistan in October 2006 and supporting the acquisition of the Leopard 2, the leadership of the Canadian Forces (CF) has acknowledged the importance of maintaining heavy armour in a balanced force.... the hard-earned experiences of the Canadian Army and our allies in sustained combat in Afghanistan and Iraq have proven we must be prepared to get our hands dirty and come into physical contact with the enemy if we wish to define their strength, composition and intentions, and subsequently kill them. Canadian tanks and armoured engineers have better protected our dismounted infantry soldiers in Southern Afghanistan, allowing them to close with and destroy a fanatical and determined enemy in extremely complex terrain.'^[xxiv]

**THE CANADIAN EXPERIENCE WAS THAT
ARMOR BECAME AN INTEGRAL PART
OF A COMBINED ARMS TEAM THAT
WAS NEEDED TO DEFEAT A
DETERMINED ENEMY.**

The Canadian experience was that armor became an integral part of a combined arms team that was needed to defeat a determined enemy. While killing Taliban was not the only thing needed to succeed against the insurgents in Afghanistan, without the ability to do so, the rest of the efforts would amount to nothing. Appeals to 'a better narrative' and reforming the Afghan government and security forces, would all be for naught if the ability to close with and destroy an fighting force were not present. This is something that the proponents of '4th Generation Warfare' seem to omit from their calculus. An enemy that only has to face light infantry has a much simpler task than one that has to face a multi-faceted combined arms team.

This Canadian experience was mirrored by the U.S. forces which began deploying armor to Afghanistan in 2010 for the same reasons: the ability to deliver mobile, protected, firepower against an enemy that was increasingly able to fight light infantry effectively.

[xxvi]

Additional evidence that armor is valuable in urban operations is that both the U.S. and Germany have modified armor systems to improve their survivability in urban fighting. The U.S has two upgrade programs, one each for the tank and the Bradley fighting vehicle. Called Urban Survivability Kits (BUSK for the Bradley and TUSK for the tank), they provide increased protection for the crews against blast. The Stryker was also provided with increased protection against RPGs in the form of slat armor. The Germans have produced a version of the Leopard A6 designed specifically for urban combat which features increase crew survivability and a shorter gun tube for better maneuverability in restricted terrain.^[xxvii]

Factoring in airpower

The final argument against tanks is that they have outlived their usefulness because they are designed for tank on tank engagements and airpower has rendered these fights untenable. Some have argued that no county will take on a modern Western force in conventional combat when Western forces are so good at this kind of fight. This was part of the reasoning behind the lack of preparedness of the IDF in Lebanon in 2006. The Air Force had assured the IDF that they didn't need massed armor because any enemy massed forces would be dealt with by the Air Force. While the IDF did not face a massed army that provided lucrative targets for the air force, they did face an opponent that could only be defeated by capable battalion and brigade armored and mechanized combined arms teams. They concluded that combined arms forces, including mobile protected firepower, were essential even against irregular forces in urban and densely compartmented terrain.

**COMBINED ARMS FORCES, INCLUDING
MOBILE PROTECTED FIREPOWER, WERE
ESSENTIAL EVEN AGAINST IRREGULAR
FORCES IN URBAN AND DENSELY
COMPARTMENTED TERRAIN**

Partly as a result of this experience, the IDF has created the worlds heaviest armored personnel carrier, the Namer. It is built on the Merkava tank chassis and weighs nearly as much – but it provides a very high level of crew protection and is an integral part of their modernized ground-air combined arms team. Brigadier General Yigal Slovik, former commander of the IDF armored corps, in a recent Jerusalem Post article had this to say: 'Anyone who thinks you can win a war without tanks doesn't appreciate the power of an armored vehicle and what it can do with its armor and firepower on the battlefield.'^[xxviii]

Conclusion

While the tank has been the subject of criticism since its inception, it remains a key component of any effective, modern, combined arms team. There are armies that do not have mobile, protected, firepower. Some have been successful against armies which do (Hezbollah in Lebanon in 2006). But that does not mean that the tank is useless, any more than an insurgent's lack of space capability



means that space capabilities are useless. In fact, the tank, as part of a combined arms team, has proven itself quite flexible and adaptable and a significant contributor to tactical success in widely disparate circumstances. I shall close with some observations:

1. Mobile protected firepower is useful, even necessary, if a force has to close with and destroy a determined enemy.
2. Armor can be adapted to almost any environment and any threat.
3. The battle of tank versus anti-tank will probably not be solved to the complete advantage of one over the other.
4. It is not a single system, the tank, that is useful; it is combined arms that wins in combat. Mobile protected firepower is a critical element of combined arms.
5. Do away with armor and the enemy's problem is much simpler, allowing the enemy to concentrate its limited resources on what is left of the combined arms team.
6. While enemies may decide not to take a Western army on in a conventional fight, Western armies may decide to take on significant conventional forces in some circumstances (Operations Desert Storm and Iraqi Freedom). In these cases mobile protected firepower is often a dominant force, even if air power has destroyed much of the opposing forces' strength.

Clinton J. Ancker, III, Colonel (Retired), U.S. Army, is Director, Combined Arms Doctrine Directorate, US Army Combined Arms Center. He is also a member of Military Operations' Editorial Advisory Panel.

REFERENCES

- [i] See for example, Army Doctrine Primer, Development, Concepts and Doctrine Center, Shrivenham, UK, May 2011, p. P-22.
- [ii] See Finkel, Meir, *On Flexibility: Recovery from Technological and Doctrine Surprise on the Battlefield*, Stanford, California, Stanford University Press, 2011, Chapter 8, *The Israeli Recovery from the Egyptian Sagger Missile Surprise*, pp. 150-163.
- [iii] The memo, with the attached excerpt from the newspaper, is in my personal files. The extract was only a few column inches of the article, without the page number or title of the article attached.
- [iv] Finkel, *ibid*.
- [v] Bolger, Daniel P, *The Ghosts of Omdurman. Parameters*, U.S. Army War College, Autumn 1991, p. 33 and p. 39.
- [vi] Wright, Donald P. and Reese, Colonel Timothy R, *On Point II: The Transition to the New Campaign: The United States Army in Operations IRAQI FREEDOM May 2003-January 2005*, Combat Studies Institute Press, U.S. Army Combined Arms Center, Fort Leavenworth, Kansas, 2008, p. 504 on increasing the firepower of the HMMWV so they could act as guntrucks, and pp. 510-5-12 on the U.S. Army's project to provide increased armor protection for both HMMWVs and other wheeled vehicles.
- [vii] Comment by a former division commander in Iraq during a counterinsurgency seminar at Fort Leavenworth attended by the author.
- [viii] *On Point II*, op cit., p. 40 for an example of tanks being used to rescue a less well armored force in an urban environment, pp. 341-342 for another example of a true combined arms team with both light infantry, tanks and Bradleys used for urban fighting.
- [ix] *Ibid*, p. 351
- [x] *Understanding*, Joint Doctrine Publication 4, Development, Concepts and Doctrine Centre, Shrivenham, UK, December 2010, p. 3B-6.
- [xi] . Slim, Field Marshal Viscount, *Defeat Into Victory*, New York, David McKay Company, 1961, pp. 21.
- [xii] *Ibid*, p. 199-200.
- [xiii] Starry, General Donn A. *Mounted Combat in Vietnam*, Vietnam Studies, Washington D.C., Department of the Army, 1978, pp. v-vi.
- [xiv] Gott, Kendall D. *Breaking the Mold: Tanks in the Cities*, Combat Studies Institute, Fort Leavenworth, Kansas, 2006, p. iii.
- [xv] Plaster, Maj. John L., *American's Deadliest Sniper*, *American Rifleman*, July 2012, P. 38.
- [xvi] Department of the Army, FM 3-06 (FM 90-10) *Urban Operations*, Washington, D.C., June 2003. p. 4-3.
- [xvii] *Ibid*, . p. 4-12.
- [xviii] *Ibid*., p. 5-20.
- [xix] Department of the Army, FM 3-06: *Urban Operations*, Washington, D.C., October 2006, p. 4-5..
- [xx] *Ibid*., p. 4-6.
- [xxi] www.theamericanconservative.com
- [xxii] Lind, William S, *American Goes Jousting: Our splendid military is all for show*. <http://www.theamericanconservative.com/articles/america-goes-jousting/>, July 31, 2012.
- [xxiii] Cadieu, Major Trevor Cadieu, *Canadian Armour in Afghanistan*, *Canadian Army Journal* Vol. 10.4, Winter 2008, p. 9-10.
- [xxiv] *Ibid*, pp. 5-25.
- [xxv] Chandrasekaran, Rajiv, *U.S. Sending Tanks To Hit Harder At Taliban*, *Washington Post*, November 19, 2010, p. 1.
- [xxvi] McLeary, Paul, *Bradley upgrades done early, under budget*, *Army Times*, July 30, 2012, p. 24, and *On Point II*, p. 521.
- [xxvii] Personal observation by the author at an equipment display during U.S.-German Staff Talks.
- [xxviii] *Powering ahead*, *Jerusalem Post*, July 13, 2012, p. 15.