FUTURE WAR PAPER

The Main Battle Tank: A Force Multiplier in Years to Come?

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF OPERATIONAL STUDIES

AUTHOR: LtCol Frode Ommundsen, Norwegian Army

AY 2011-12

Mentor: Dr Wray R. Johnson

Approved: 23 April 2012

Date: [Signature]
DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF THE NORWEGIAN ARMY, THE MARINE CORPS SCHOOL OF ADVANCED WARFIGHTING, OR ANY OTHER NORWEGIAN OR UNITED STATES GOVERNMENTAL AGENCIES. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.
School of Advanced Warfighting

Executive Summary

Title: The Main Battle Tank (MBT): A Force Multiplier in Years to Come?

Author: LtCol Frode Ommundsen, Norwegian Army.

Thesis: MBTs have a continuing relevance to Western armies in dealing with tomorrow's conflicts. That said, how they will be used will change from what used to be common practice.

Discussion: The MBT started out as an infantry support weapon in WWI, which was followed by a long period as the major land based weapon system reaching its high point at the end of the Cold War. Today, the tank is more often organized in smaller formations, as a bunker-buster and a counter-sniper weapon than solely against other tanks. It is difficult, however, to predict what future wars will look like and to say that future wars will be fought between nation states or as war amongst people is probably not the answer. Future conflicts will consist of irregular as well as regular warfare. The important issue will be whether we are prepared to face both.

Lessons learned from Iraq and Afghanistan showed that MBTs performed well, fighting tanks as well as irregular opponents. The MBTs flexibility, protection, and effective weapon systems made it a most valuable force multiplier. Norway, as a part of the global society, will most likely have to face opponents conducting regular as well as irregular warfare in the years to come. These operations will most likely take place far from Norway, in places like Afghanistan. The MBT is more than only a sledgehammer, it has developed into a multi-tool and it fits into the Norwegian military toolbox.

Conclusion: The MBT will be a force multiplier in most Western armies for years to come. Its role has changed, but experiences from Iraq and Afghanistan underline the fact that the MBT is an adaptable force multiplier in regular and irregular warfare, in urban as well as rural terrain. Moreover, experiences underline that the MBT provides a unique capacity for force protection and deterrence by its mere presence. The former sledgehammer of the military tool box has proven to be a valuable multi-tool and will undoubtedly find its place in the Norwegian Army.
School of Advanced Warfighting

Table of Contents

Introduction ................................................................................................................................ 1

The Development of the Main Battle Tank ................................................................................ 2

The Nature of Future Conflict .................................................................................................... 4

What conclusions can be drawn from the US military and their use of MBTs in Iraq? ............ 5

What conclusions can be drawn from Euro-Canadian use of MBTs in Afghanistan? ............... 7

Will MBTs still fit into the Norwegian Army’s tool box of the future? .................................... 9

Conclusion ................................................................................................................................ 11

Endnotes ................................................................................................................................... 12

Bibliography ............................................................................................................................ 14
Introduction

A popular way of thinking about a land army is to envision a carpenter’s tool box, filled with various types of tools. All carpenters know how important the right tool is to get the job properly done. The main battle tank (MBT) has traditionally been the sledgehammer of the land warfare tool box. At present, several nations are reducing their tool inventory in order to cut their defense budgets and concentrate only on tools that they are using today and for what they think they will need for tomorrow. The MBT, one of the most dominant symbols of the armies of the Cold War, is often debated in this regard, and countries like the Netherlands have already decided to remove it from the tool box. However, MBTs are currently being used in Afghanistan and were used extensively in Iraq. Thus, arguably, MBTs have a continuous relevance in Western armies dealing with tomorrow’s conflicts. That said, how they will be used will change from what used to be common practice.

To support the above assertion, this paper will first lay the foundation by describing the development of the MBT and what future conflicts will look like. Thereafter, the research will seek to answer three questions:

1) What conclusions can be drawn from the US military and their use of MBTs in Iraq?
2) What conclusions can be drawn from Euro-Canadian use of MBTs in Afghanistan?
3) Will MBTs still fit into the Norwegian Army’s tool box of the future?
The Development of the Main Battle Tank

The tank was first introduced on the battlefields of World War One (WWI), at the battle of the Somme, and then used in large numbers by the British at Cambrai in 1917. The action of the tanks at Cambrai was described by German General Heinz Guderian in his book, *Achtung-Panzer!*, as successful. However, tanks did not dominate military thinking before WWII and the introduction of tanks as a "system," organized in armored divisions and corps, only was realized in WWII. France was one of the leading military powers in the 1930s but their way of organizing their superior tanks proved inferior to the German way of massing their armored units - a system later adopted by the western world in general, including the Soviet Union, as the world entered the period of Cold War.

The armies of the Cold War retained the tank as one of the major land-based weapon systems. The western part of Germany was packed with NATO armored and mechanized units prepared to meet the large numbers of Soviet tanks should war erupt. Tanks supported by artillery and air power were the dominant feature on both sides. NATO countries were numerically outnumbered, but their tanks were generally of better quality. That difference became obvious during the so-called Yom Kippur war of 1973, in which Israel was able to destroy six Soviet-made Syrian tanks for the loss of each of their own Western-made tanks.

The dominant role of the MBT was also as visible in 1991 when the heavy forces of the American-led coalition fought the armored army of Saddam Hussein. Airpower played a vital
School of Advanced Warfighting

role, but the heavy western MBTs dominated the land fight, with both sides organized into armored brigades within divisions and corps.

The culmination of the first Gulf War and the end of the Cold War appeared almost simultaneously. Western armies started to withdraw from Germany with armies filled with tanks. Indeed, NATO ended the Cold War with over 23,000 tanks. The former Warsaw Pact fielded some 52,000 tanks.\(^3\) With the end of the Cold War, several nations looked to lighter concepts, and Canada planned to drop the MBT completely.

However, as the world saw in Chechnya in 2000, as well as in Iraq in 2003, the MBT remains a major player. The MBT, designed to destroy other tanks, is now used more often in a role of supporting the infantry, a role especially valued because the tank provides outstanding protection for the supported infantry. In many ways the French tried to use their tanks in this manner at the beginning of WWII. However, this was unwise as they were facing the massed armored formations of the German army. Today, just the opposite is true. In that regard, Canada deployed a squadron of their veteran Leopard 1 MBTs to Southern Afghanistan, followed by a similar Danish deployment of a platoon of Leopard 2 MBTs. Both deployments later proved their worth as force multipliers and were highly successful in southern Afghanistan.\(^4\)

As alluded to earlier, the MBT started out as an infantry support weapon in WWI, which was followed by a long period as the major land based weapon system, organized into large formations and reaching its high point at the end of the Cold War. Today we see the tank more
School of Advanced Warfighting

often organized in smaller formations, tasked in combined tank-infantry teams as a bunker-buster and a counter-sniper weapon than solely against other tanks.

The Nature of Future Conflict

“The past is an uncertain guide to the future, but it is the only one we have.”

Max Boot.

By analyzing yesterday’s trends in warfighting, we get an idea of what the future might look like. However, we cannot be certain owing to the fact that dealing with the future is dealing with uncertainty. Nevertheless military organizations cannot wait to prepare until the challenge suddenly appears; then it will probably be too late.

British Army General Rupert Smith has noted: “War, in the essence of industrial war, no longer exists. Future challenges will be dealing with war amongst the people.” And yet fellow countryman Professor Colin S. Gray is much less sanguine that major interstate wars are at an end. Professor Gray warns us about focusing too much on today’s trends of irregular warfare.

Irregular warfare, often referred to as asymmetric warfare, is a term that became commonly used in military publications beginning in 1995. However, British lecturer and author Dr. Rod Thornton opines that irregular warfare as a type of warfare has been waged for centuries.

Thus, regular and irregular warfare are methods that have been conducted since mankind started waging wars, and lately NATO countries have been especially involved in fighting opponents that are using irregular warfare methods. On the other hand, the Gulf War of 1991 is a
School of Advanced Warfighting

classic example of regular warfare. Looking at the world today it would be naive to think that something similar could never happen again. Indeed, during the recent uprising in Libya, the rebels used, among other systems, MBTs in fighting Gadhafi’s forces.

Predicting the future is difficult and to get it 100 percent correct is impossible. To say that future wars will be fought between nation states or as war amongst people is probably not the answer to what the nature of future conflicts will look like. Future conflicts will consist of irregular as well as regular warfare. The important issue will be whether we are prepared to face both.

Questions

With the character of future of conflict settled, we now turn to the questions posed at the beginning of this paper.

First, what conclusions can be drawn from the US military and their use of MBTs in Iraq?

Operation Iraqi Freedom (OIF) evolved as a completely different operation than the Gulf War of 1991. However, British and American forces deployed in 2003, as in 1991, with large numbers of Challenger and Abrams MBTs. The American-led coalition force engaged in major combat operations, especially during OIF 1. However, after the remaining enemy armored units equipped with older Russian tanks were destroyed in fighting described as almost “a Turkey Shoot,” the enemy turned into mostly dismounted fighters using irregular as well as regular tactics.
Indeed, the RAND Corporation noted that the 1st Marine Division, with its some 150 MBTs, fought rather traditionally in OIF 1, with tanks and dismounted infantry as combined arms teams operating in urban areas. Heavy armor was also widely used during OIF 2 and during the battle for Fallujah the tanks played a leading role. However, the RAND report noted a transition from traditional organization in companies and battalions to platoons and even individual tanks assigned to support the infantry. According to the RAND report, the Marines stated that tanks were vital to preventing friendly causalities. The Marines therefore considered the MBT to be a major player in counterinsurgency. The protection afforded by the tanks was reported as supremely valuable as tanks could survive strikes that would have destroyed other systems. RAND also reported that the USMC Infantry Fighting Vehicle (IFV), the AAV-7, was more vulnerable than the tank and damage inflicted on USMC tanks could normally be repaired within a short time, there seldom being any structural damage to the tanks.

In his book, Thunder Run, David Zucchino tells the story of several armored strikes by a US Army brigade to seize Baghdad. The Second Brigade of the third Infantry Division operated in a rather unpleasant urban environment and had to fight its way into the Iraqi capital. What the brigade did in an urban environment was considered in American doctrines as far from ideal for tanks, but with great success nonetheless. Brigade MBTs took a lot of enemy small arms fire as well as anti-tank fire. Moreover, the brigade faced large numbers of dismounted enemy troops, as well as suicide bombs, some armored vehicles and minefields, but was still able to successfully conduct several runs into enemy territory. In conducting the runs the Second Brigade proved Guderian’s assertion that the engine of a tank is just as important as the cannon.
School of Advanced Warfighting

In the end, the lessons learned from OIF 1 and 2 show that MBTs worked well, fighting tanks as well as irregular opponents. Moreover, the MBTs operated with considerable success in rural as well as urban environments. The MBTs flexibility, protection, and effective weapon systems contributed significantly to success.

Second, what conclusions can be drawn from Euro-Canadian use of MBTs in Afghanistan?

NATO deployed MBTs to Afghanistan rather late in the conflict. The first unit, a Canadian squadron of 15 Leopards, was deployed in October 2006. Canada was at that time planning to give up MBTs and had only the Leopard 1C2 originally from the 1960s to deploy to Kandahar province. However, the need for combat enablers like the MBT was reinforced after conducting Operation MEDUSA, the largest combat action of NATO in Afghanistan to that point, where there were no tanks present.

The commanding officer of the Canadian Battle Group stated that, at first, he did not believe that MBTs were needed to fight insurgents, but when the Taliban started acting “conventionally,” assets like the tank certainly came into play. The tank squadron was reinforced with engineers and infantry and conducted operations as a combat team. Classical operations like breaching were conducted just as naturally as cordon and search operations. Canadian tanks never operated independently; nevertheless, their presence was a major reason for the Canadians dominating the battle space. Critics of the tank have raised concerns about possible collateral damage, but the experienced Canadian armor officer Major Trevor Cadieu stated that just the opposite occurred. Even tanks developed in the 1960s have fire control
systems that make it possible to engage with precision. It is all about having well trained crews, a fact underlined by the Israeli Defense Forces when they defeated Syrian armor on the Golan Heights in 1973, despite being outnumbered.¹⁹

The importance of combined arms teams, i.e., tanks and infantry working together, is a timeless lesson and Major Cadieu recommended that tanks always operate in no less than platoon strength.²⁰ The main gun of the Leopard 1C2, with a range of 3,800 meters, in combination with its armor protection, is the main reason that the old tank has performed well as a force multiplier, saving Canadian and Afghan lives.²¹ Canadian leadership acknowledged this by taking another step: replacing the Leopard 1 with the modern and even more capable Leopard 2A6M.²²

The second nation to deploy MBTs in Afghanistan was Denmark. The Danes are not unfamiliar with deploying MBTs abroad. In the 1990s Denmark deployed a tank squadron to Bosnia. In Afghanistan, the Danes chose to reinforce their Battle Group (BG) in Helmand with a platoon of Leopard 2s. Logistical challenges were solved and the tanks were deployed so rapidly that they soon turned out to be a force multiplier for the contingent that requested them.²³ Indeed the Danish experience was much the same as the Canadians, as Kim Hundevadt points out in his book, I morgen angriber vi igjen. In fact the MBTs were arguably decisive and just the tool needed. The Danish Leopards actually provided stability by their pure presence.²⁴

Thus, the Canadian and Danish experiences with the Leopards in southern Afghanistan demonstrate that the MBTs can be a most valuable force multiplier. The deployments also proved that the protection and accuracy of the tank is especially valuable.
School of Advanced Warfighting

Third, and finally, will MBTs still fit into the Norwegian Army's tool box of the future?

On 24 November 2011, the Norwegian Chief of Defense (CHOD) gave the Minister of Defense his official military advice: Forsvarssjefens Fagmilitære Råd (FMR). This document contains recommendations concerning the development of the Norwegian armed forces through 2021. The CHOD states in his introduction that Norway must be ready for today's as well as tomorrow's challenges at the national as well as the international levels. Regarding the Norwegian Army, the FMR recommends some changes but the basis of Norwegian Army planning will still be robust mechanized battalions within a brigade setting, and MBTs will still be a part of the brigade.

Regarding a future combining regular and irregular warfare, Norway needs to be prepared to fight both. The proposed structure is definitely structured to fight an opponent that fights regularly. However, an opponent fighting irregularly is hard to define. Looking at the experiences described in Afghanistan and Iraq we see one type of irregularity. That type of irregularity will, as the examples from Afghanistan shows us, suit the Norwegian mechanized structure.

Norway lacks the experience of deploying MBTs to combat operations abroad, but as Major Einar Aarboogh has noted in his master's thesis regarding the use of mechanized forces among civilian population, mechanized vehicles are well suited for this kind of operation. Major Aarboogh also noted that Norway's IFV, the CV 9030, provided a positive psychological effect on deployed troops. His research revealed that when in an engagement with the insurgents, the CV 9030 gave Norwegian soldiers the ability to keep the initiative through the fight as well as giving
them a psychological advantage. In that regard, the psychological advantage would probably be even more evident with a system that has longer range, better protection, and even greater accuracy than the IFV. In short, the MBT.

Main Battle Tanks are a part of the Norwegian CHOD’s recommended structure. Lessons learned from Iraq and Afghanistan demonstrate that the MBT is much more than a tank killer. Against an irregular opponent like the ones we are facing in Afghanistan today, the MBT provides a weapon system that has long range and accuracy. The MBT also provides good protection and, through its presence, offers a unique land-based show of force. MBTs work together in pairs, in platoon or companies, and with other units in combined teams acting as a force multiplier. The heavy weight and other challenges of logistics are just that, challenges, not show stoppers. There are commercial as well as military airplanes large enough to deploy MBTs to all places in the world with a suitable airstrip.

In the end Norway will, as a part of the global society, most likely have to face opponents conducting regular as well as irregular warfare in the years to come. These operations will most likely take place far from Norway, in places like Afghanistan. The MBT is recommended as a part of the Army structure; it is deployable and can serve as a multi-tool more than only a sledgehammer. The MBT still fits into the Norwegian military toolbox.
Conclusion

The MBT started out supporting infantry, followed by a long period as the major land-based weapon system, organized into large numbers culminating with the end of the Cold War. Since the Cold War we have seen, arguably, "devolution" to the role of supporting the infantry. The system of massing tanks has changed to a system of smaller groups of tanks, using their sophisticated weapon systems to take out targets in a manner to prevent collateral damage.

The postulate of this paper is that we must be prepared to face regular as well as irregular threats. In that regard, the MBT will be a force multiplier in most Western armies for years to come. Its role has changed, but the American experience in Iraq underlines the fact that the MBT is an adaptable force multiplier in regular and irregular warfare and that modern MBTs can operate in urban as well as rural terrain. Moreover Canadian and Danish experience underlines that the MBT provides a unique capacity for own force protection and deterrence by its mere presence. In conclusion, the former sledgehammer of the military tool box has proven to be a valuable multi-tool and will undoubtedly find its place in the Norwegian Army.
ENDNOTES


9 OIF 1 was the military campaign in March-April 2003 and OIF 2 was the beginning of the long counterinsurgency phase.


15 Leopard 1C2, often referred to as Leopard C2, is the Canadian upgraded version of the Leopard 1. Starting in 2000, the Canadian defense forces upgraded their Leopards by installing new components, including the addition of thermal sights and better fire control systems.


The Leopard 2A6 is a modern version of the Leopard MBT. It is heavier and better protected than the Leopard 1 series and is equipped with a 120 mm main gun. The M version has enhanced protection against mines and explosive devices.


26 Forsvaret, *Forsvarssjefens Fagmilitære Råd*, 31. Main Battle Tanks will still be a part of the Brigade, but by the end of the period decisions will be taken concerning if the current MBTs will be replaced or upgraded.


School of Advanced Warfighting

BIBLIOGRAPHY


