

SPARE THE GUNS, SPOIL THE INSURGENTS
On the Successful Employment of Artillery during Stabilization Operations.

By

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INTRODUCTION

Our Army is in danger of becoming unbalanced with too much manoeuvre and not enough fires. We must make the necessary trade offs to ensure that our Soldiers continue to enjoy world class fire support.¹

Recent operations in Afghanistan and Iraq have demonstrated that there is a vital role for the artillery to play in operations other than war. Through historical analysis and an examination of lessons learned, this paper will demonstrate that there is a valuable role for artillery fires during stabilization operations. It will illustrate how the artillery can provide a deterrent to belligerents and deliver timely and accurate fires during surges of combat operations. Finally, this article will recommend several actions required to successfully employ artillery during stabilization operations in order to achieve overall mission success.

THE VIOLENT NATURE OF STABILIZATION OPERATIONS

To everything there is a season... a time to kill and a time to heal ... a time for war and a time for peace.²

Despite an overall focus on rebuilding and stabilization, combat action remains prevalent during the initial stages of stabilization operations. In his article *Planning for Conflict Termination and Post Conflict Success* William Flavin notes this unique paradigm by observing that “conflict termination is the formal end of fighting, not the end of conflict... although coercive military operations may end, the conflict may continue under other means such as terrorism, insurgency, cyber war, economic disruptions, political actions, or acts of civil disobedience.”³ Operation Iraqi Freedom provides an excellent example of the overlapping nature of combat and stabilization operations. On 1 May 2003, aboard the USS Abraham Lincoln, President Bush announced an end to major combat operations in Iraq. Despite the President’s very optimistic proclamation, some of the most intense combat operations of Operation Iraqi Freedom were yet to take place.⁴

A ROLE FOR THE ARTILLERY

*"Do not forget your dogs of war, your big guns, which are the most-to-be-respected arguments of the rights of kings."
-Frederick the Great*

As part of a joint, multi-agency effort to stabilize a theatre, the artillery can provide a robust deterrent to belligerents to dissuade them from resorting to combat. In addition, the artillery can provide timely, intimate fire support to ensure rapid firepower overmatch to dispersed manoeuvre elements struggling to engage the population and stabilize the theatre.

Deterrence through Presence: Kinetic Potential

The presence of artillery during stabilization operations provides pause to belligerents who might otherwise feel emboldened to attack friendly forces. This deterrent power is drawn from the artillery’s kinetic *potential* or what can be referred to as firepower insurance. During past stabilization operations this combat power has proven capable of disrupting and deterring belligerent activity and thus contributing to overall theatre stabilization.

Deployed as part of North Atlantic Treaty Organization's Implementation Force (IFOR) in Bosnia, the US 1st Armored Division (Task Force Eagle) developed presence missions for artillery pieces to deter the former warring factions from resuming their combat actions.⁵ In his study entitled *Field Artillery in Military Operations Other Than War* Dr Larry Yates observes that during operations in Bosnia "several artillery assets served to demonstrate a task force's firepower and resolve. A platoon of self-propelled howitzers – 'mobile pillboxes' – on patrol or serving as escorts for IFOR troops on a mission had an intimidating effect."⁶ Further to this, Lieutenant Colonel Peter S. Corpac who commanded Task Force 2-3 Field Artillery as part of Task Force Eagle observed that "we [IFOR] must be seen as a tough, disciplined and professional force capable of detecting and destroying threats with little or no collateral damage."⁷ In the event that the mere presence of artillery is insufficient to deter transgressors, artillery is capable of escalating the level of force and use non-lethal effects in an attempt to dissuade belligerents from action.

Deterrence through Non-Lethal Fires

While the artillery can provide significant deterrent by its presence alone, it's deterring power increases exponentially once it starts to fire. In his work *Field Artillery and Firepower*, British Major General (Retired) J.B.A. Bailey observes that "it [artillery] can deter by deploying and exhibiting the means to use credible, decisive, military force against transgressors. That credibility may require that it be used, or at least demonstrated on occasion."⁸ This theorem was confirmed in Somalia in 1992 when US forces fired artillery illumination as a force protection measure, as well as in Kosovo in 1999, when American and Dutch batteries fired artillery illumination rounds in order to discourage looters.⁹ Later in 2000, British gunners serving in Sierra Leone fired illumination rounds and successfully deterred rebels from assaulting their position.¹⁰

Although non-lethal in nature, these missions had a variety of effects. They had the obvious first-order effect of dissuading the intended target from continuing their actions through the threat of firepower retaliation, but their impact did not stop there. These missions also had a significant second-order effect on the local populace contributing to overall stability in the theatre. As an example, the 1st Battalion, 7th Field Artillery (1-7 FA) supporting Task Force Falcon as part of Kosovo Force (KFOR) in 1999 fired illumination rounds in support of infantry in contact. The aim of the fire mission was to "flush out" belligerents who were engaging US soldiers with sustained automatic gunfire. The illumination rounds were successful and the belligerents broke contact. Interestingly, the effects of those rounds went beyond those originally intended.

*The effect of the outbound rounds was equally dramatic to the residents of Gnjilane as local nationals scurried to their homes and left the streets deserted. The TF Falcon psychological operations (PSYOPS) teams exploited this mission to publicize the firepower and lethality that TF Falcon could bring to bear. The PSYOPS teams issued flyers to locals throughout the area, reassuring peaceful Kosovars and warning potential belligerents. The flyers read, 'This is KFOR artillery! Last night you witnessed illumination rounds being fired. Will the next rounds be high explosive? Cease your firing on the village immediately or become a KFOR target.'*¹¹

Despite the deterrent value of artillery, localized instances of combat are an unfortunate characteristic of stabilization operations. During spikes of violence, artillery will provide the best

all-weather fire support to ensure rapid firepower overmatch in the extremely fluid asymmetric environment.

TIMELY, INTIMATE FIRE SUPPORT

Should silver bullets from the sky be slow to arrive, be unexpectedly grounded, or meet unpredicted opposition, there is something uniquely comforting to ground troops about the organic close-support of their own artillery.¹²

Western military theorists have identified that the challenging tactical environment of stabilization operations will necessitate rapid access to fire support in order to defeat enemy elements. For example, in the publication *Complex Warfighting*, the Australian Army identifies the exigent characteristics of the operating environments in which their army will operate. The Australians observed that “the ability to detect the enemy from standoff range is much reduced, meaning that forces can find themselves in close combat without warning.”¹³ The document goes on to warn that “one well-armed individual enemy may inflict a strategic defeat unless our land forces can survive a surprise first strike and hit back effectively to overmatch the enemy.”¹⁴ The document concludes that to survive these encounters, manoeuvre elements require instantaneous access to firepower to ensure success.¹⁵ Artillery assets deployed to provide intimate support to the manoeuvre elements can provide that rapid firepower overmatch.

The Australian Army’s deductions have been substantiated during past counter-insurgency (COIN) and low-intensity conflicts. This environment favours the unconventional threat, who by hiding amongst the populace and refusing to mass in great numbers, will retain the initiative and often be able to choose the time and place of the engagement placing friendly elements in a precarious situation. Bailey observes that “the brute firepower of artillery will remain a precious asset... but more important, the technology of precision and penetration will create new possibilities in a form of combat in which infantrymen are especially vulnerable.”¹⁶

The role of artillery fires during NATO operations in the former Yugoslavia was usually organized around deterring the former warring factions from breaking the peace. Dr. Yates tells of how each IFOR operation would entail a disparate number of actors conducting missions such as information operations, civil affairs and PSYOPS, but notwithstanding this focus on the non-lethal aspects of stabilization operations, each manoeuvre task force would be prepared to engage with indirect fire should the situation warrant. He goes on to explain that “infantry troops on patrol knew that friendly artillery had targeted potential ambush sites along their route and that, in contrast to close air support, those fires could be called within minutes of encountering armed resistance.”¹⁷

The tactical environment of stabilization operations dictates that the employment of artillery is challenging to say the least. More importantly, it must be understood that its misuse is potentially catastrophic to achieving overall mission success. To this end, two rules must be followed by commanders employing artillery during stabilization operations: they must be prepared deviate from accepted doctrine and deploy and fight their artillery in a non-standard fashion; and they must ensure their artillery leaders relentlessly pursue the use of precise, proportional artillery effects to achieve their aim.

HOW TO EMPLOY ARTILLERY TO ACHIEVE OVERALL MISSION SUCCESS DURING POST CONFLICT OPERATIONS

Train and Organize to Fight in a Non-Standard Fashion

In order to capitalize on the deterrent effect of artillery or provide rapid access to fire support to manoeuvre elements, the commander must be willing to employ several non-standard actions to ensure his artillery contributes to overall mission success. To assist in achieving this success, the artillery will be forced to disperse and possibly deploy in smaller than battery-sized elements.

Dispersed Operations: The Size of Post-Conflict Areas of Operations

The population forms the vital ground of any stabilization operation in which a safe and secure environment is the endstate. To dominate this vital ground, western coalitions will be required to disperse their forces throughout the area of operations to achieve what Lieutenant-Colonel Wayne Eyre refers to as closing with and *destroying* the enemy while simultaneously closing with and *engaging* the populace.¹⁸ Eyre's observation reinforces the notion of contested nation building espoused by Frewen which dictates that the engagement of the population is an absolute necessity for military forces employed in early stabilization operations. To accomplish this, coalition forces will have to go where the people are, consequently, the artillery will have to follow.

History has demonstrated that the areas of operations in which western forces operate during stabilization operations can be vast. In 1965, British COIN forces in Borneo consisted of four infantry brigades supported by two artillery battalions along brigade frontages of 300-1100 kilometres. Conversely, for contemporary NATO forces deployed in Cold War Europe 16-20 kilometres was the norm.¹⁹ American operations in Vietnam demonstrated that in a war without fronts, "tactical necessity dictated that batteries be dispersed to cover the largest possible expanse of territory."²⁰ In 1995 while serving in Bosnia-Herzegovina as part of Operation Joint Endeavour²¹ the 1st Brigade Combat Team of the 1st Armoured Division, supported by a single artillery battalion, was responsible for an area of operations (AO) of 3,800 square kilometres and 115 kilometres of the zone of separation.²² More recently, the 1st Brigade of the 82nd Airborne Division provided the nucleus of Combined Task Force Devil in Operation Enduring Freedom that was tasked with controlling an AO the size of North Carolina while being supported by only two batteries of artillery.²³

These vast areas of operations and the requirement to provide intimate indirect fire support necessitate a departure from conventional doctrine, namely the centralization of fire support assets and the massing of effects. Paradoxically, in order to ensure fire support to the dispersed manoeuvre elements the artillery will not only have to disperse as well, but may be forced to adopt sub-sub-unit deployment as the norm rather than the exception.

A Low-level Fight: Troop Level Operations

If the manoeuvre elements are to disperse throughout the battlespace to engage the population, the artillery will have to follow. As was indicated above, the size of areas of operations during stabilization operations will dictate that smaller elements will be distributed throughout the area in a more dispersed pattern. Artillery leaders will thus be forced to divide their firing units into battery or even troop sized organizations in order to maintain indirect fire support.

The lesson to be drawn from this is that now, more than ever, training of lower-level leadership is imperative to the successful employment of artillery²⁴. Troop leadership will be challenged with a level of independence and isolation which varies significantly from doctrinal norms. In this dispersed environment, battalion and battery commanders will not be available to provide guidance and mentor junior leaders on the challenges of asymmetric warfare. As a result pre-deployment training must ensure that all artillerymen are capable of providing 24-7 fires to rapidly engage fluid enemy elements through 360 degrees. As artillery troops will be dispersed with very little mutual support, force protection will be paramount. A deployed troop of guns will not only have to maintain its ability to provide timely fire support, but must be able to defend itself from attack. To this end, each troop member's basic soldier skills must be exemplary and the troop must be prepared to defend itself from a variety of threats while always maintaining the ability to provide timely, intimate and most important, accurate indirect fires.

The Relentless pursuit of Precision, Accuracy and Proportionality

*Leaders no longer understand the need to calibrate or use MET (meteorological) data. The culture of relentlessly pursuing accurate fires is rapidly eroding.*²⁵

The nature of a population in stabilization operations dictates that the use of precision munitions and accurate fire is absolutely imperative to ensure overall mission success. Misapplied kinetic forces will be detrimental to mission success by alienating the populace and feeding recruits to insurgents while collateral damage caused by coalition fires will reinforce the notion that the government is incapable of providing for the security of the populace. To ensure these events do not transpire, commanders must understand these dynamics of a population in conflict and ensure that artillery fires are as precise, accurate and proportional as possible.

Precision and Accuracy: Emerging technologies, increased effectiveness

Emerging technologies in artillery fired precision munitions are changing the way that the artillery can assist in achieving overall mission success. As a result of technological innovations over the last several decades, the ability to use terminally controlled precise munitions is increasing exponentially. Developments such as the 155 mm M712 Copperhead Laser-guided projectile and the 155 mm M898 Sense and Destroy Armour (SADARM) have produced a firm technological foundation on which present and future precision munitions can be developed. The use of the global positioning system (GPS) for circular error probable (CEP) reduction, along with gun-hardened electronics and warhead/fuse technology²⁶ gives coalition forces a rapidly accessible, precise indirect fire capability which can improve kinetic effects on the enemy while also reducing collateral damage and negative effects on friendly and neutral members of the populace.

Major General Peter M. Vangjel, Chief of the Field Artillery, referred to the Field Artillery as "now, more than ever, a system of precision systems."²⁷ US Forces currently deployed

are using the technologies mentioned above to engage belligerents with a CEP of twenty meters using the Guided Multiple Launch Rocket System (GMLRS) at ranges from fifteen to seventy kilometres.²⁸ Also intriguing is the M982 Excalibur 155 mm GPS guided projectile which has revolutionized the provision of cannon fire support to manoeuvre elements. Major General Vangjel explains how its precision is transforming the modern battlespace:

The Excalibur (M982) extended-range cannon projectile is giving the BCT commander a precision capability previously unseen. Excalibur is allowing the ground commander to attack high payoff and the most dangerous targets in all types of weather and terrain with a payload one-third the size of GMLRS, enabling commanders to further minimize collateral damage. Excalibur has been employed against insurgent safe houses, reinforced fighting positions and in support of troops-in-contact with great success.²⁹

By allowing for the precision engagement of targets, kinetic effects can be focused on the enemy and collateral damage reduced. This capability is at the very heart of winning the hearts and minds of the population during stabilization operations. Unfortunately, despite technological innovations, the majority of rounds available to engage targets are still unguided, ballistic or “dumb” munitions. Although they lack a precise terminal guidance capability, there are still steps that can be taken to ensure that their fire is as accurate as possible.

The practice of being as accurate as possible must be relentlessly pursued by all artillery leaders, at each level of the chain of command. All efforts must be made to reduce the error budget to such a level that manoeuvre commanders can call for fire support confident that the effects will not negatively affect those who can still be swayed one way or the other. To achieve this several steps can be taken.

To achieve accurate predicted fire, five technical requirements must be fulfilled. While it is beyond the scope of this paper to conduct an in-depth analysis of the technical requirements of predicted fire, a brief overview of these five points is in order to demonstrate the steps that all leaders must take to minimize the error budget.

The five requirements of accurate predicted fire include accurate target location, accurate meteorological data, accurate firing battery location and survey, accurate equipment data and accurate computational devices.³⁰ In brief, the same technologies, namely GPS technology, which are facilitating the employment of precision munitions, are also facilitating the achievement of these five technical requirements. GPS devices combined with laser range finders are allowing batteries to accurately fix their own position, while at the same time allowing forward observers to produce an accurate target location. Muzzle velocity indicators and up-to-date equipment data are ensuring that non-standard conditions are adequately compensated for during firing, and the inclusion of accurate meteorological conditions will also minimize the error inherent in artillery fire. While modern technologies are minimizing these errors, they cannot be altogether eliminated. It is imperative that leaders at all levels relentlessly pursue a policy of reducing these errors as much as possible. Once all steps have been taken to ensure that artillery fire is as precise and accurate as possible, it is then the responsibility of leaders to ensure that their fires are proportional to the threat.

Proportionality: Swatting a Fly with a Buick

The use of overwhelming fire support, even if precisely applied, can have negative effects on coalition operations to stabilize a theatre. While western militaries may enjoy an

advantage in fire support “often the application of overwhelming force has a negative, unintended effect of strengthening the insurgency by creating martyrs, increasing recruiting and demonstrating the brutality of state forces.”³¹ To avoid this eventuality, commanders must be discriminating in their application of force, and ensure artillery fires are as accurate as possible. Bailey observed that “if fire is to be seen as discriminating and proportionate, identification of targets is a particularly sensitive matter, requiring detailed analysis and political judgment.”³² Bailey also went on to comment that while the massive firepower possessed by US forces during the Vietnam war was sufficient to secure military victories, the manner in which it was applied and the collateral damage it caused likely contributed to overall mission failure.³³

Leaders at all levels, and in particular artillerymen, must be fully cognizant of the negative impact the misuse of artillery can have. To this end, all steps must be taken to ensure that the error budget is minimized as much as possible, and the use of precision munitions such as the M982 Excalibur and GMLRS are exploited to their full extent. Observers must be pushed well forward and be intimately familiar with their supported manoeuvre element to ensure accurate target identification and location. Leaders in fire support coordination centers, command posts and on gun detachments must rigorously demand strict adherence to a practice of error reduction through training, supervision and use of technology to reduce the inherent error caused by meteorological, survey and equipment data. Finally, commanders must make precision munitions available to be used while senior military leadership must ensure that precision munitions are acquired in adequate numbers and available for use in theatre.

CONCLUSION

The requirement for world class fire support does not end with the cessation of conventional combat and the commencement of stabilization operations. During the turbulent initial stages of stabilization operations, the deployment of artillery will reflect coalition resolve and provide a deterrent to belligerents who would use violence to disrupt stabilization operations. When deterrence is inadequate, artillery fires are the only rapid, all-weather fire-support available to manoeuvre elements who are attempting to close with and destroy the enemy while also closing with and engaging the population.

To successfully employ artillery, leaders at all levels must be ready to deploy and fight in what might be deemed an unconventional fashion by dispersing throughout the battlespace and deploying artillery in smaller than normal firing units. Further, the use of artillery fires, or rather its misuse can seriously setback force operations. To avoid this, leaders at all levels must strictly ensure precise, accurate and proportional effects while avoiding negative effects against neutral or undecided elements of the populace. By following these practices, the artillery can assist in achieving overall strategic and operational success in stabilization operations.

NOTES

¹ Colonels Sean MacFarland, Michael Shields, Jeffrey Snow, *The King and I: The Impending Crisis in Field Artillery's ability to provide Fire Support to Maneuver Commanders*, White Paper, p. 4

² Ecclesiastes 3: 1-8

³ William Flavin, *Planning for Conflict Termination and Post-Conflict Success*, Military Review Autumn 2003, p. 96

⁴ Within the context of theatre stabilization, the battles of Fallujah in April and November-December 2004; Najaf in May 2004; and Tal Afar in September 2004, June and September 2005 occurred.

⁵ Aitken, p. 57.

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- ⁶ Dr. Larry Yates, *Field Artillery in Military Operations Other Than War: An Overview of the US Experience*, Global War on Terrorism Occasional Paper 4, Combat Studies Institute, Fort Leavenworth, p.35.
- ⁷ Lieutenant Colonel Peter S. Corpac, *Evolving Tactics, Techniques and Doctrine for Fire Support in Peace Enforcement Operations*. Field Artillery Journal, July-August 1999, p. 35.
- ⁸ Major General (Retired) J.B.A Bailey, *Field Artillery and Firepower*, (Naval Institute Press, Annapolis, 2004) p. 431.
- ⁹ Ibid, p. 427.
- ¹⁰ Ibid, p. 427.
- ¹¹ Lieutenant Colonel James M. Waring and Major C. Phillip Royce, *Role and Mission of the FA in TF Falcon, Kosovo*, Field Artillery Journal, May-June 2000, p. 26.
- ¹² Colin S. Gray, *Another Bloody Century*, (Wedienfeld & Nicholson, London, 2005) p. 193
- ¹³ *Complex Warfighting*, Future Land Warfare Branch, Australian Army p. 5.
- ¹⁴ Ibid, p.11.
- ¹⁵ Ibid, p. 12.
- ¹⁶ Bailey, p. 83
- ¹⁷ Yates p.36
- ¹⁸ Lieutenant-Colonel Wayne D. Eyre, *The Role of the Infantry in the War of the Snakes*, Canadian Army Journal Volume 9.1 (Spring 2006), pp. 80-90
- ¹⁹ Bailey, p.363
- ²⁰ Scales, p.85
- ²¹ Operation Joint Endeavour was US operations in support of NATO to enforce the Dayton Peace Accord
- ²² Corpac, p. 37
- ²³ Colonel Patrick Donahue, Lieutenant Colonel Michael Fenzel, *Combating a Modern Insurgency: Combined Task Force Devil in Afghanistan*, Military Review, March-April 2008, p. 25
- ²⁴ For an excellent article on the leadership and technical issues surrounding troop level operations see *B/377 PFAR: Platoon Based Fires in Afghanistan* by Captain Shane P. Morgan, First Sergeant Robert H. Levis, and Lieutenant Colonel Harry C. Glenn III (Field Artillery Journal, March-April 2008).
- ²⁵ MacFarland et al, p. 1
- ²⁶ David A. Sparrow, Cynthia Dion-Schwarz, *Gun-fired Precision Munitions For a Transformed Army*, Landpower Essay No. 03-4, Institute of Land Warfare, November 2003, p.3
- ²⁷ Major General Peter M. Vangjel, *State of the Field Artillery 2007*, Fires Bulletin, September-December 2007, p. 4
- ²⁸ Ibid, p. 4
- ²⁹ Ibid, p. 4
- ³⁰ Chief Warrant Officer 3 Xavier Herrera, *The Bottom Line for Accurate Massed Fires: Common Grid*, Field Artillery Journal, January-February 2003, pp. 5-9
- ³¹ Montgomery McFate, Andrea V. Jackson, *The Object Beyond War: Counterinsurgency and the Four Tools of Political Competition*, Military Review, January-February 2006, p. 14.
- ³² Bailey, p. 433
- ³³ Ibid, p. 379