ANZAC RED FORCE BATTLE BOOK

PART 1:

OPFOR Doctrine

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Contents

FOREWORD

An introduction to DATE

1. The *Decisive Action Training Environment* (DATE) offers comprehensive resources for crafting fictional but realistic and relevant 'worlds' aligned to desired training outcomes. It offers a challenging contemporary set of geographic environments, adversary organisations, equipment, and doctrine. Together these *critical variables* provide the building blocks for assembling *Contemporary Operational Environments* (COE) that reflect the demands of anticipated future operations.

2. DATE is hosted online on the open-source US-based *Operational Environment Data Integration Network* (ODIN) and is delivered by the *US Training and Doctrine Command* (TRADOC) in cooperation with allies including Australia and New Zealand. The content provided offers the basis of a *contemporary Opposing Force* (OPFOR) that can cover the entire spectrum of military and paramilitary capabilities against which allied armed forces must train. It also provides the *baseline* geopolitical material to create the plausible and representative future conflict scenarios in which allied forces must prevail. The foundation of DATE is a detailed political reimagining of real-world physical geography known as *DATE-world*. It is made up of fictional nations and associated non-state groups organised by region: Africa, Caucasus, Europe, and the Pacific. For each carefully constructed nation, *DATE-world* offers a rich and iteratively developing narrative of their physical, political, military, social, economic, information and infrastructure environment.

3. Alongside these environmental descriptions, *DATE-world* provides a comprehensive virtual chart of the complete force structure of each nation. This resource can be interrogated at any organisational level from the highest national military command through formations and units down to each section sized entity with its assigned vehicle, weapons and other equipment. Further data and images about all these individual items, ranging from aircraft carriers through major systems down to individual small arms, can be found on the associated online '*worldwide equipment guide*'.

4. The multi-layered operational environment supplied by *DATE-world* provides the start point for creating training scenarios. To support this, DATE also provides an extensive OPFOR doctrine, articulated in a set of training publications; the US FM7-100 series. This *baseline* OPFOR doctrine is generic and is written for 'the State': an unspecified nation. The term 'State' is used as a generic placeholder until the name of a chosen fictional adversary replaces it. The doctrine is a representative composite of the methods of the forces of many contemporary nation states and their characteristics. It provides a common basic approach to strategy, operational art and tactics of any nation designated as the OPFOR. This offers underlying consistency across the training of US and allied forces.

5. The OPFOR that has been created has some key characteristics (identified in italics). It is *flexible*, meaning that it is scalable and tuneable to meet different training requirements. It is *adaptable* in that it plans to vary its methods and avoid the kind of fights that favour the US and its allies. Crucially, and unlike previous Soviet-based OPFOR, it does not stick rigidly to drills and deployment procedures – indeed it explicitly seeks to avoid being templated and will consciously learn and adapt its operational methods during conflict. In a similar vein, and again unlike previous training adversaries, the presented doctrine expresses its anticipated *thinking,* while or as the OPFOR will not dogmatically stick to prescribed methods and permits bold, creative *initiative*.

6. To operationalise the resources in ODIN, trainers and exercise planners build scenarios using the nations and forces from *DATE-world*. They create fictional narratives and, as required, overlay additional information to meet specific training needs. This may be created anew or taken from a growing library of training material that is also shared on ODIN. Where more detail of OPFOR methods and or variation between nations is useful and necessary, additional doctrine for specific countries or environments is created and shared online. Consequently, the available COE and OPFOR continue to evolve iteratively and the additional and/or updated material is typically made available to all users (mainly via ODIN).

Purpose and structure of this document

7. This is part one of a two-part ANZAC Battlebook.

   a. **Battlebook - Part one**. This provides an introduction to DATE OPFOR doctrine and an accessible reference tool for the information most likely to be required at training establishments and when units participate in or conduct exercise. It is a synthesis and summary of key content from the two relevant United States doctrine manuals, TC 7– 100.2, Opposing Force Tactics and FM 7 – 100.1, Opposing Force Operations. These documents remain available in both PDF form and as part of the online *Operational Environment Data Integration Network* (ODIN). Because part one of the Battlebook focuses on the foundational doctrine it is not expected to require frequent updates.

   b. **Battlebook - Part two**. This provides a reference document with the relevant ORBAT of selected enemy organisations. In the first instance this is the *North Torbian 6th Mechanised Division*, the *North Torbian Marine expeditionary Brigade* and the *Olvanan Asymmetric Warfare Brigade.* The document also provides tables of OPFOR equipment and some information about Tactics, Techniques and Procedures (TTP). Part two is expected to be subject to changes and particularly additions as new OPFOR organisations are required and the OPFOR TTP evolve.

Conventions

8. This document departs slightly from standard writing conventions. Because of the unfamiliarity of abbreviations used to describe OPFOR organisations and capabilities, the abbreviation is reintroduced on each page. While this is repetitive, it avoids readers who are selecting a passage in the middle of the document having to search for the meaning of that abbreviation. The NZDF defence force writing manual specifies that capitalisation should be minimised, however for clarity when introducing and reintroducing an abbreviation capitalisation is selectively employed. The OPFOR also use familiar terms in ways that differ slightly from Western practice, therefore wherever a term is used in its OPFOR sense it is italicised. Consequently, the reader can be sure that if they are reading a military term that is not italicised the conventional meaning applies.

Chapter 1 – STRATEGIC AND OPERATIONAL FRAMEWORK

Introduction to this chapter

1. This chapter provides an overview of how the State pursues its strategic purposes using force and other means. It begins by sketching the *National Security Strategy* and how the State envisages military and non-military efforts to pursue it, using a simple map example to illustrate concurrent pursuit of different strategic goals. The central role and structure of the *National Command Authority* (NCA) is outlined and illustrated, before explaining the slightly ambiguous OPFOR understanding of *Strategic Level Operations* that subsumes their notion of *Regional, Transition, and Adaptive Operations*. After using a flow diagram to show how a conflict might fluctuate between these different modes, the idea of concurrent goals within a *National Strategic Campaign Plan* is also schematically explained.

2. There are differences between OPFOR peacetime and wartime organisational arrangements. These differences and the role of the general staff and different headquarters in preparing for and conducting operations are stepped through. This provides the background for explaining military strategic planning and the key features: *Theatres, Areas of Responsibility, Operational Strategic Commands,* and *Field Group*s. Their purpose is amplified by illustrating them superimposed on an example map. The way that military planning proceeds from authority through the planning organisation to become a plan that is then executed is explained by a chart showing this process at every level.

3. The latter part of this chapter provides a discussion around three aspects of how the OPFOR fights that distinguish it from typical Western approaches. The first is the notion of how to confront an extra-regional power and their principles for doing so. The second is the concept of *systems warfare*, and the third is their intent to use paramilitary and irregular forces under the rubric of 'employing all means necessary'.

National Security Strategy

4. The *National Security Strategy* is the States vision of itself as a nation, what it wants to achieve and its rationale for how it does that.

> *The State's long-term and enduring **strategic goals** are to continually expand its influence within the region and eventually change its position within the global community.*

5. As opportunities or threats arise, the State will identify *specific strategic goal*s that support the overall goals. Examples include the protection of a related minority in a neighbouring country or preclusion of outside intervention.

6. To achieve its strategic goals the State intends to use four interrelated and complimentary instruments of national power. *Diplomatic-political, informational, economic,* and *military means* are all tools, or even 'weapons' to be continuously applied in peace or war. Unlike practice in liberal democratic nations, there are no clear boundaries between when they are used, and *informational means* are increasingly integrated with other three. In contrast to 'Western' practice, the military are therefore considered a lever to be used to pursue a 'peacetime' specific goal such as acquisition of natural resources located outside the States boundaries. Similarly, the State would automatically expect to use economic levers in pursuit of a nominally 'military' *specific strategic goal* such as the elimination of weapons, forces, or facilities that threaten the existence of the State.

7. In every situation the State would prefer to achieve its goals without resort to force, but values both, applying the threat of force without using it and use of the military instrument for other politically high priority purposes such as disaster relief or even harvesting crops.

National Command Authority

8. The State controls the application of the four instruments of national power through the *National Command Authority* (NCA). Reflecting the integrated approach to national power, five senior ministers sit with equal status on a committee chaired by the State's President. As shown at Figure 1, they are the Ministers of-

Foreign Affairs, Public Information, Finance and Economic Affairs, The Interior, And Defence. The role of the Minister of National Security, appointed by the President and sitting above the other ministers, is crucial. They head the *Strategic Integration Department* (SID) which is an agency responsible for integrating all the instruments of national power under one cohesive *National Security Strategy*, including minor ministries that are not part of the NCA. This is shown by the dotted lines on Figure 1.

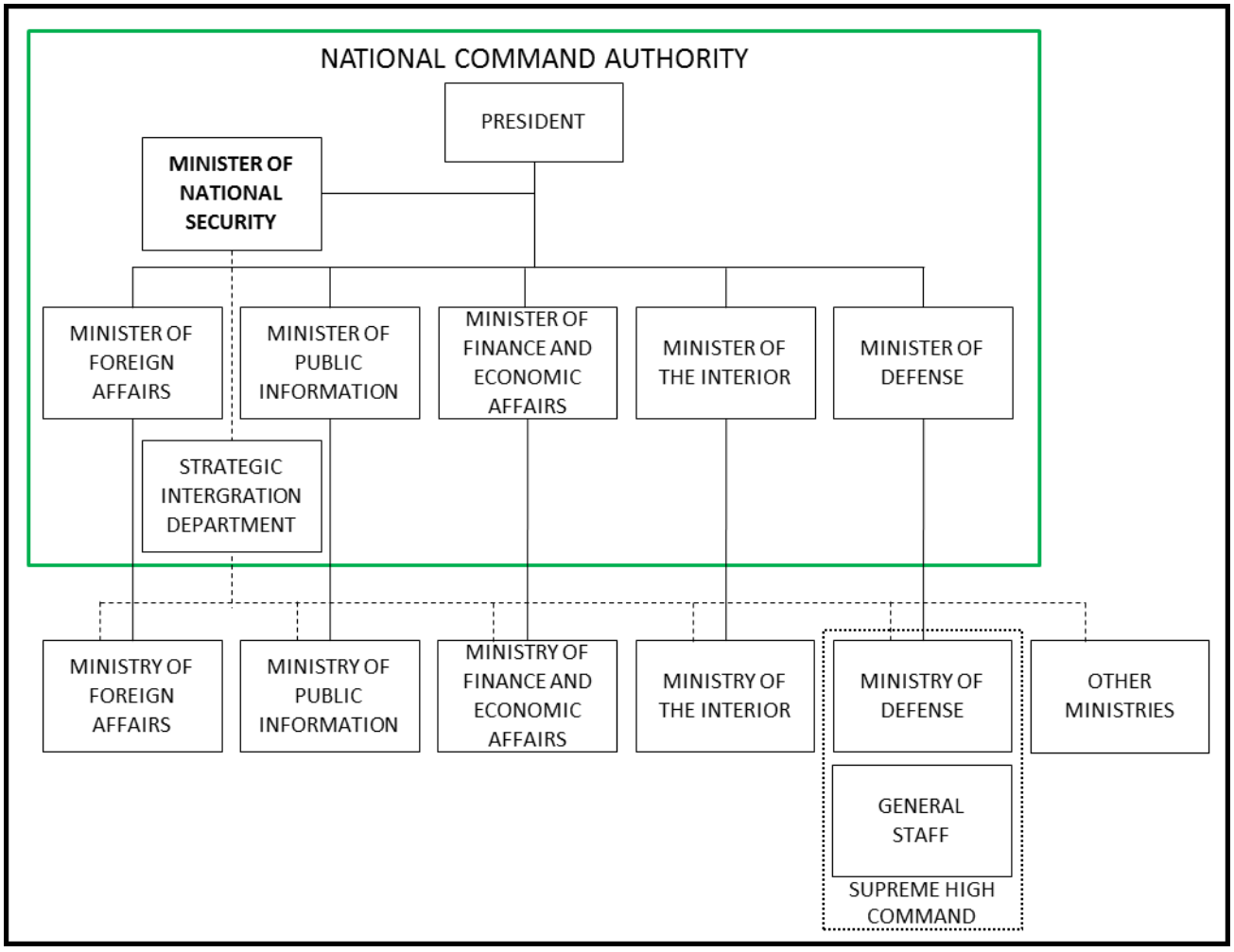

Figure 1 - The National Command Authority Structure

9. Note also that in wartime the *Defence Minister*, the *Ministry of Defence*, and the *General Staff* together form the *Supreme High Command of the Armed Forces* which has a close relationship with the Minister of National Security and *Strategic Integration Department* (SID). This is further explained below at paragraph **25.**

Types of 'operations' at the strategic level

10. At the strategic level, the OPFOR identifies four different types of operation: *strategic operations, regional operations, transition operations and adaptive operations.* (In the West these would be subcategories of strategy). They are different strategic approaches intended to deal with different levels of relative power between the State and its adversaries.

11. The integration and application of non-military means especially applies at the highest level, *strategic operations.* This is a general-purpose label used to describe operations against all kinds of opponents, potential opponents, or neutral parties, and is used especially where the State tries to achieve its ends (see Strategic Goals page 1-5) without resorting to armed conflict. *Strategic operations* share with Western military thinking and emphasis on the notion of attacking the enemy's centre of gravity, whereas the other types of OPFOR operation increasingly emphasise *systems warfare* and other concepts that are discussed in later in this chapter. These other three types of *strategic operation* anticipate the use of force and occur under different conditions depending on the relative power relationships between the state and the adversary.

a. **Strategic operations**—a strategic-level course of action that uses all instruments of power in peace and war to achieve the goals of the State's *National Security Strategy* by attacking the enemy's strategic centres of gravity.

b. **Regional operations**—a strategic-level course of action (including conventional and force-on-force military operations) against opponents the State overmatches, including regional adversaries and internal threats.

c. **Transition operations**—a strategic-level course of action that bridges the gap between *regional* and *adaptive operations* and contains some elements of both, continuing to pursue the State's regional goals while dealing with outside intervention with the potential for overmatching the State.

d. **Adaptive operations**—a strategic-level course of action to preserve the State's power and apply it in adaptive ways against opponents that overmatch the State.

12. The differences and relationship between these types of operation are schematically illustrated at Figure 2 below. The top line of arrows represents the spectrum of peace and war and immediately beneath that *strategic operations* covers the same span. Two vertical dotted lines represent the relative power of the State and its opponent. On the left of the left dotted line, the State overmatches: the arena of *regional operations*. In the area between the lines, power is similar: *transition operations*. On the right of the right dotted line the opponent overmatches the State: *adaptive operations*.

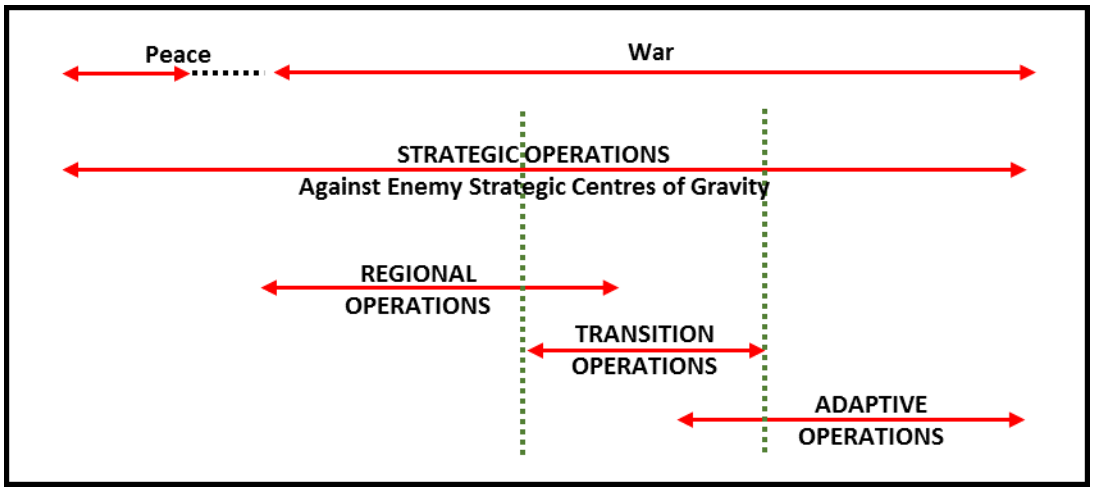

Figure 2 - Schematic locating Strategic, Regional and Adaptive Operations on the spectrum of conflict

13. The OPFOR concept of *strategic operations* is best understood as a universal and overarching course of action applying any or all the four instruments of national power, which continues in peace and war and geographically extends beyond the region. The focus is typically strategic centres of gravity such as soldiers' and leaders' confidence, political and diplomatic decision-making, public opinion, and the will to act. The state is willing to employ all means available: diplomatic initiatives, information warfare (IW), economic pressure, terrorist attacks, State-sponsored insurgency, direct action by special- purpose forces (SPF), long-range precision fires, and even weapons of mass destruction (WMD) against selected targets. It may not be apparent whether a military action is part of *strategic operations* or another type of *strategic level operation*, however attacks that inflict mass casualties or destroy high visibility targets but do not make operational or tactical sense may be mounted to influence a centre of gravity such as national will.

14. *Strategic operations* have a special relationship with operations in the region. Before the operations against a primary actor, *strategic operations* may be mounted to deter or coerce other regional actors. Once *regional operations* commence, the State emphasises the defensive use of *strategic operations* to prevent other parties becoming involved, relying primarily on *diplomatic-political*, *informational*, and *economic means*. However, if this preclusion of outside intervention fails and the state must shift to *transition* and *adaptive operations*, the military aspects of *strategic operations* become more aggressive with the intention of getting the extra-regional force to leave or cease deploying. While non-military means will dominate, violent action

may be used against key political or economic centres to support non-military instruments of power. Significantly, this is more likely than attacks against purely military objectives.

15. *Regional operations* are typically conventional in nature, but the OPFOR may also use unconventional weapons and forces. For example, to destabilise an opponent nation, it might employ Special-Purpose Forces (SPF) Brigades, affiliated guerrilla brigades, Information Warfare Battalions, and different insurgent organisations. These would likely be structured within one or more *Operational Strategic Commands* whose headquarters might remain within the State.

16. *Transition operations* occur when an extra-regional force starts to deploy into the region, and the State must begin to adapt in response to the changing threat. They are how the State plans to act to retain the *initiative* and keep pursuing national strategy whilst the balance of forces changes. The focus is preservation of the instruments of power and changing the nature of conflict to something for which the intervening forces are unprepared.

17. Once an extra-regional force intervenes with overmatching power, the OPFOR moves to *adaptive operations*, applying pre prepared branches and sequels to its strategic campaign plan, to avoid ceding the *initiative*. Its primary objectives are to preserve combat power, degrade the enemies will and capability to fight, and gain time for aggressive *strategic operations* to succeed.

18. The State tries to achieve its ends without armed conflict and therefore anticipates beginning to pursue its objectives by applying *strategic operations*, using non-military means, and perhaps the threat of superior military power. Where this is not sufficient or expedient, it might resort to military force against one of the regional opponents that it overmatches, thus *regional operations* commence alongside *strategic operations* (which continue to preclude or deter intervention by outside players). If extra regional intervention occurs, the State shifts to *transitional operations*. The transition between different operations is explained with the use of a diagram in more detail at Figure 3 below, offering one possible example of the interrelationship and transitions between them.

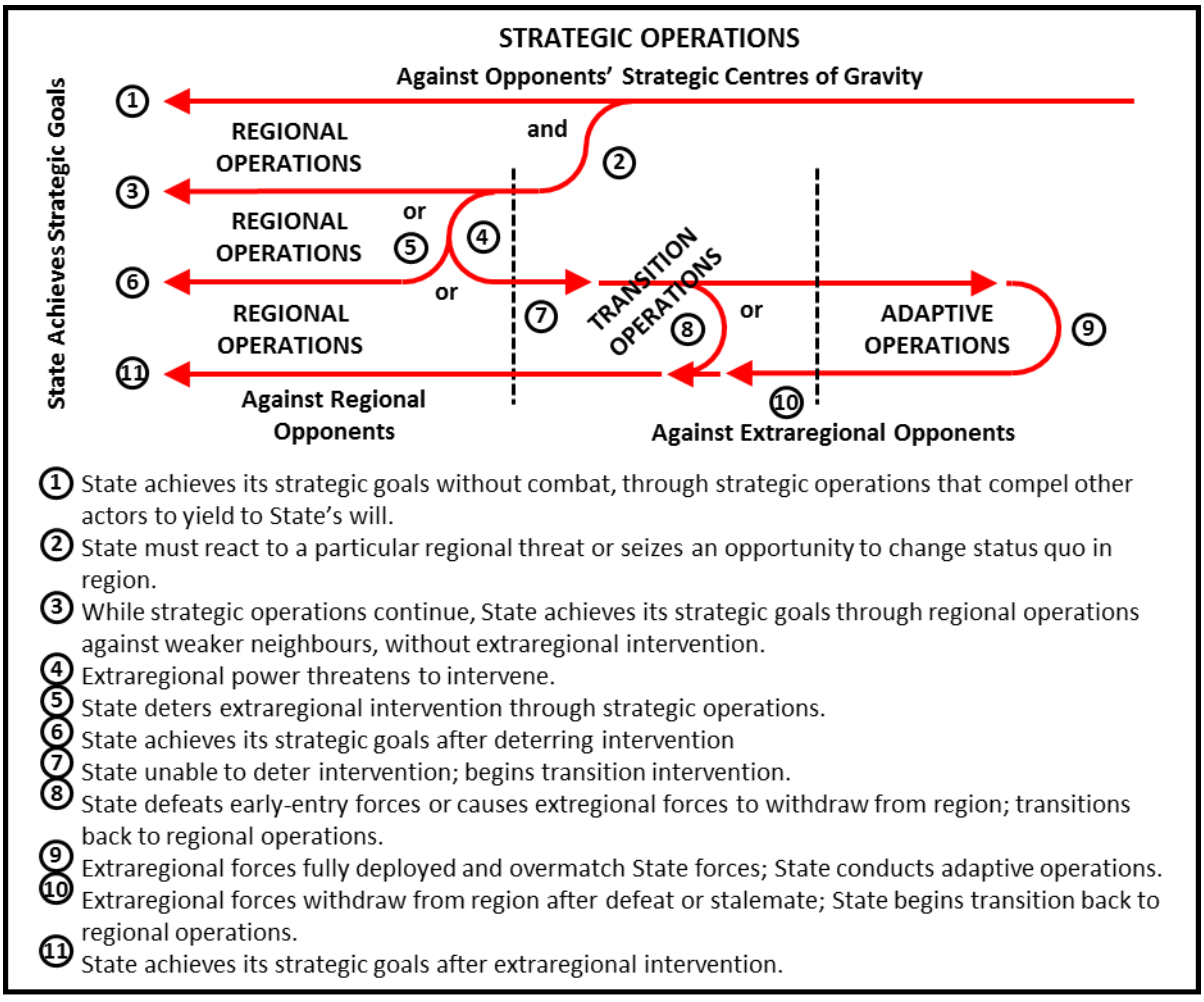

Figure 3 – Schematic showing branches and sequels at the strategic level

National Strategic Campaign Plans

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21. The State identifies separate strategic goals within a strategic campaign as illustrated schematically below at Figure 4. In this example, the OPFOR plans to concurrently pursue three strategic goals: conduct counterinsurgency, defend against invasion, and annex hostile territory. An NSCP always involves both military and non-military subordinate actions, although these are not shown in the schematic. There are many possibilities including -

a. A diplomatic-political campaign to convince potential intervening states that the annexation goal is limited;

b. A domestic informational campaign that highlights an invasion threat to both achieve a 'rally round the flag' effect and increase public alertness; and

c. An economic campaign that concurrently weakens the hostile state and gives the neutral country benefits.

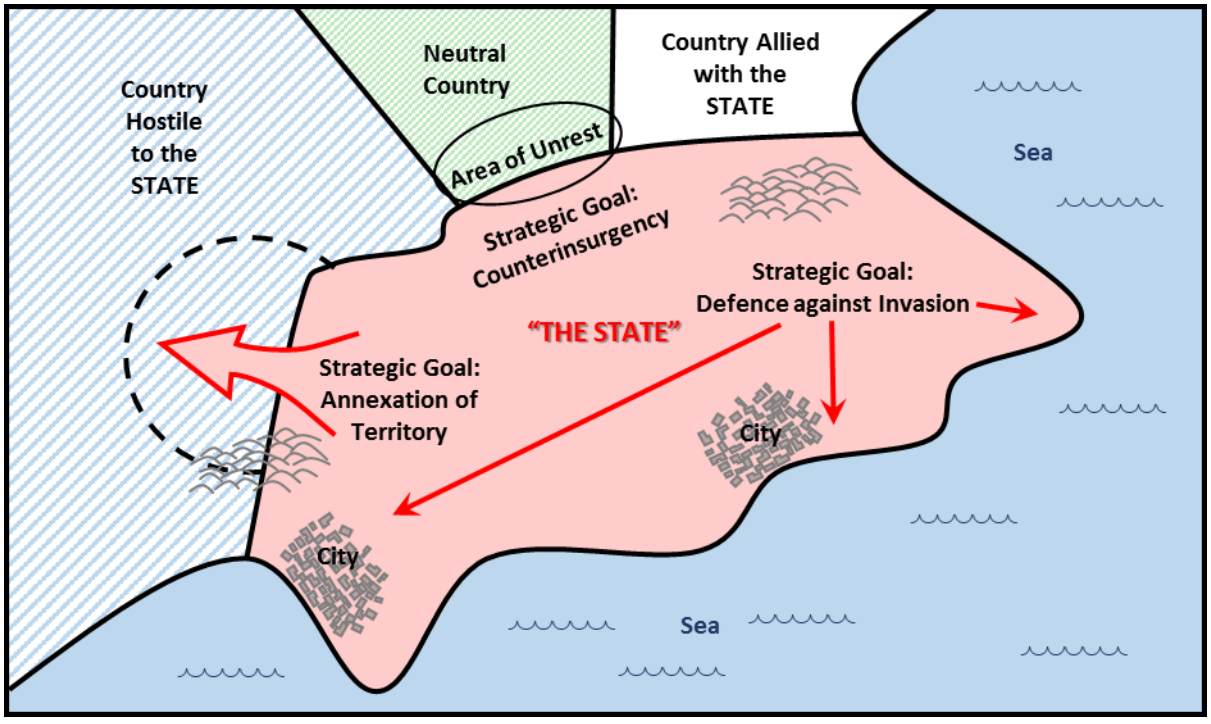


Figure 4 - Schematic showing how Strategic Goals integrate in a Strategic Campaign

22. The military-strategic aspects of the NSCP are planned at the next level down.

Military-strategic level Arrangements

23. **Peacetime Administrative Force Structure.** The OPFOR has an Administrative Force Structure (AFS) that differs from its main wartime fighting force structure. The primary role of the AFS is to staff, train, and equip the forces, but it also manages disaster response and support to other State agencies. At the highest level, the AFS is typically organised into Army Groups consisting of several Armies or Corps and then into separate Divisions and Brigades, although they may also be organised as Military Regions or Military Districts.

24. In wartime, the AFS commands first provide the forces that are used to create operational and tactical level fighting commands and then subsequently provide depot level and area support level administrative, supply, and maintenance functions, which may include reserve mobilisation. Each of the six[1] service headquarters is responsible for its own standing, reserve and militia forces within the AFS, and may retain direct control of major portions of strategic and scarce assets, such as air defence or special-purpose forces.

25. **General Staff.** In peace and wartime, the General Staff (GS) is not only the key link downwards to implement the military parts of national strategy, it is also highly influential upwards as it provides staff support to, and is the executive agency for, the National Command Authority (NCA). Under the command of the Chief of the General Staff, it has direct control of the six services, the Army, Navy, Air Force, Strategic Forces, Special Purpose Forces Command and (in war) the Internal Security Forces. It has three functional directorates: Operations, Intelligence, and Organisation and Mobilisation. The arrangements are shown below at Figure 5.

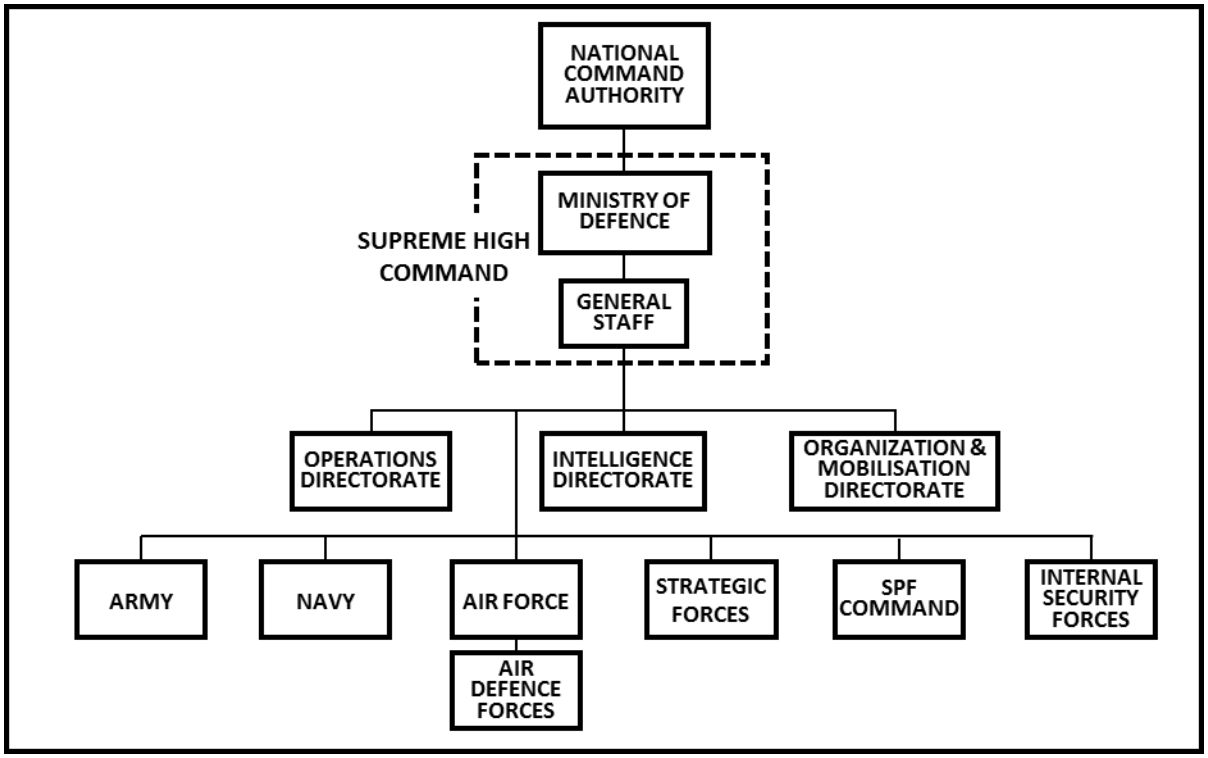


Figure 5 - General Staff, its three Directorates and six (in war) subordinate forces

26. The OPFOR implement military operations within geographically defined theatres, with the main operational organisation to implement strategic plan being Operational-Strategic Commands. These are standing Headquarters which are formed in peacetime to take responsibility for part of the plan. Field group and Theatre HQ may also be formed in wartime to address span of command issues and link operational effort with strategic focus of the Supreme High Command. This is further explained below.

27. **A Military Strategic Campaign Plan.** In response to the National Strategic Campaign Plan (NSCP), the Ministry of Defence and the General Staff, (which in wartime will together form the Supreme High Command) develop Military Strategic Campaign Plans (MSCP). These are developed and maintained in peacetime by the

[1] Noting that the sixth force, the internal security forces and their headquarters, are not part of the military in peace.

Operations Directorate which generates options and contingency plans for various situations that may arise and ensures military integration with other instruments of power by maintaining liaison officers in other ministries. In wartime, the Operations Directorate continues to review the MSCP and modify them or develop new plans based on guidance from the Chief of the General Staff (CGS). In peace, once a particular MSCP has the approval of the CGS, they issue it to the appropriate operational-level commanders and directs the formation of necessary operational headquarters. The plan will specify key features-

a. **Theatre(s) and HQ.** The clearly defined geographic theatre or theatres in which the Armed Forces will conduct the military campaign and for which the GS will create a Theatre HQ to centralise their control and align operational and strategic effort.

b. **Areas of Responsibility**. Areas of Responsibility (AOR) are the clearly defined areas allocated to different levels of command, so that a higher HQ AOR will be subdivided into the AOR of subordinate HQ.

c. **Operational Strategic Command(s) and HQ.** Operational Strategic Commands (OSC) are the OPFOR's main operational organisation and are formed to execute different operational level missions as part of the overall strategic plan. When the GS writes a particular MSCP it forms a standing OSC HQ capable of commanding whatever combined arms, joint, interagency or multinational operations will be required to execute each relevant part of the plan.

d. **Field Group.** The Field Group (FG) is the largest operational level organisation, formed during mobilisation, when the span of command in a Theatre will otherwise be too great, typically more than four or five subordinate commands. It groups one or more OSC and other subordinate organisations with a common HQ, a common AOR responsibility, and a common operational plan. They are always joint and interagency, and often multinational.

28. In peacetime, OSC exist as formed planning headquarters. In preparation for military operations, or for operational level training, the CGS, with National Command Authority (NCA) approval, confirms key aspects of an MSCP. Once this occurs the relevant Division, Brigade, and Battalion sized force elements are then redeployed from the AFS. If an OSC has contingency plans for participating in more than one NSCP, it may receive different force elements for different plans. The OSC model is highly flexible and allows for the assembly of a wide variety of combat, combat support, and combat service support units as well as the integration of paramilitary forces and other government agencies.

29. The above key features are illustrated at Figure 6 below, which envisages the same NSCP portrayed in Figure 4 above. In this situation there is a single Theatre in which four different OSC each have their own 'OSC – level' AOR. Note, however, that the two OSC AOR in the West are combined under a FG AOR (and therefore FG HQ), with one OSC responsible for two strategic goals (invasion and coastal defence) and the other just coastal defence.

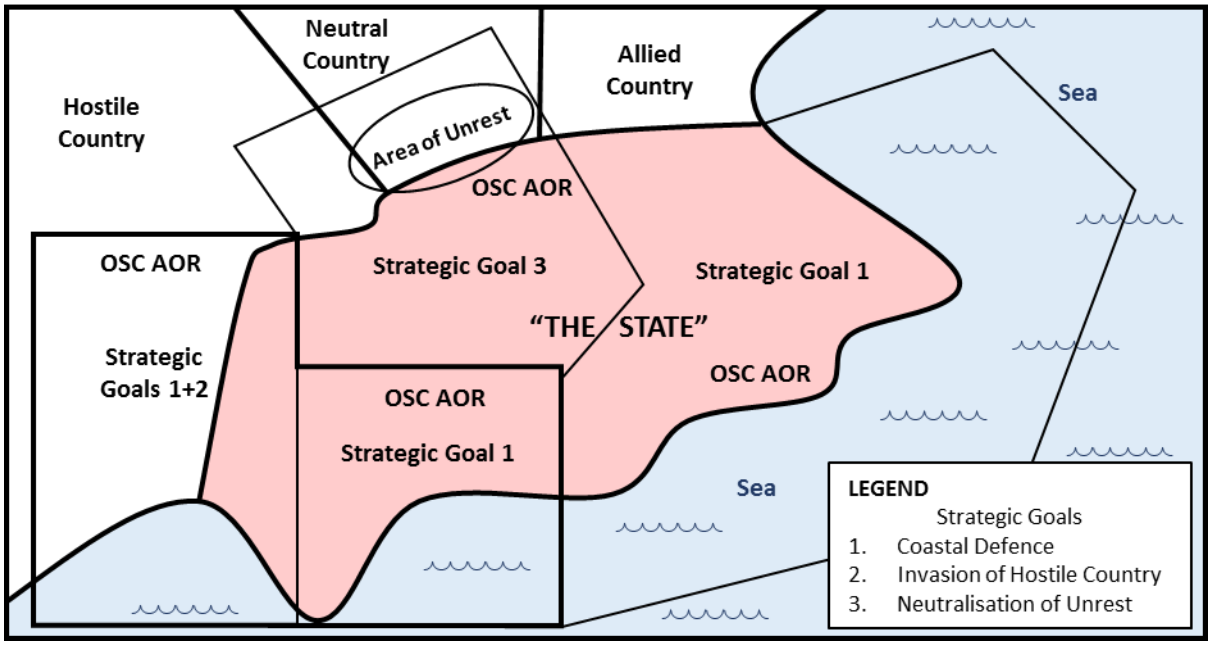


Figure 6 - The relationship of Areas of Responsibility, Operational-Strategic Commands and a Field Group

30. **Implementing Strategic Plans at the Operational Level**. Each command identified and tasked in a Military Strategic Campaign Plan (MSCP) prepares an operation plan that supports the execution of its role in that MSCP. From the General Staff down through the operational and tactical levels, the staff of each military headquarters has an operations directorate or section that is responsible for this planning. The plan at each level specifies the Areas of Responsibility (AOR) and task organization of forces allocated to that level of command, to accomplish the mission assigned by a higher headquarters. Once the commander at a particular level approves the plan, they issue it to the subordinate commanders who will execute it, and they in turn develop their plan for their mission.

31. In the OPFOR's AFS the largest tactical level organisations are Divisions and Brigades, and these are typically the building blocks of an Operational Strategic Command (OSC), (although they may be directly allocated to a theatre headquarters). An important OPFOR concept is the tactical group which describes a task organised divisional brigade that has received additional land forces to accomplish a mission. These may come from within the Ministry of Defence, the Ministry of the Interior, or from affiliates in forces or redeployed within the higher formation. The concept is further explained in the next chapter.

32. The way in which plans are prepared, approved, passed down through military channels and executed at every level from the strategic, through the operational level down to tactical level commanders is explained further in the next chapter.

Confronting an Extra-regional Power

33. The State anticipates that a major extra-regional power may intervene in a regional conflict and has devised a set of principles to apply in this situation. These provide an excellent example of how OPFOR often seeks an indirect approach.

a. **Control access into the region.** The State's force design strategy is focused on access control—to selectively deny, delay, and disrupt entry of extra-regional forces into the region and to keep their operating bases beyond continuous operational reach. Access-control operations are continuous throughout a strategic campaign and begin even before the extra-regional power declares its intent to come into the region. They come in three basic forms: strategic preclusion, operational exclusion, and access limitation.

   i. **Strategic preclusion.** Preclusion at the strategic level seeks to the use of multiple lines of operation to deter or severely limit extra-regional involvement. The primary target is adversary? national will, using diplomatic and perception management activities to manipulate regional, transnational and world opinion and disrupt coalitions. The secondary targets are economic and military, with the former attacked by manipulating global markets and international financial systems or conducting physical and information attacks against economic centres. The military may be attacked indirectly by disrupting power projection, mobilisation, and training capacity.

   ii. **Operational exclusion.** Exclusion seeks to deny access to forward bases of operation, especially those in other foreign nations. While diplomatic, economic or informational means are favoured, attacking population and economic centres is an option. The State will use multiple means to attack enemy forces all along the air and surface lines of communication especially at fragile and convenient targets such as ports, transfer points and even home stations.

   iii. **Access limitation.** Limitation seeks to constrain or interrupt any access into a theatre in order to limit the enemy's accumulation of combat power to a level and to locations that do not threaten the accomplishment of the State's strategic campaign. Measures include kinetic and other disruptive action against ports of disembarkation, such as fomenting political instability and rioting in order to divert adversary troops.

b. **Employ operational shielding.** In order to protect key elements of combat power from destruction by an extra-regional force, especially air missile forces, the state will use any or all of the following: complex terrain, non-combatants, risk of unacceptable collateral damage, countermeasure systems, dispersion, fortifications, and Information Warfare (IW).

c. **Control tempo.** Initially, the OPFOR employs a rapid tempo seeking to conclude regional operations before an extra-regional force can be introduced, or failing that, to set conditions for access control operations before that force can establish a foothold. However, if OPFOR cannot

end the conflict quickly, it may slow the tempo to prolong the conflict and exploit declining enemy commitment.

d. **Cause politically unacceptable casualties.** The OPFOR will try to inflict heavy and highly visible casualties to erode enemy will, especially domestic public opinion. It has the advantage of disproportionate interests underpinning a far greater willingness to accept military and civilian casualties to achieve victory.

e. **Neutralise technological overmatch.** To offset enemy Reconnaissance, Intelligence, Surveillance, and Target Acquisition (ISTAR) advantage, the OPFOR will avoid massed and linear formations in favour of concealment in complex terrain. Similarly, it will prefer to manoeuvre in adverse weather and times of limited visibility and exploit rugged terrain that offers cover. Not only will OPFOR conduct information attacks, but it will also seek to exploit an enemy's extensive array of ISTAR systems by flooding sensors with masses of conflicting and deceptive information. They will also focus their own efforts on the destruction of highly visible enemy systems as this gives high payoff psychologically as well as in shifting the balance of combat power.

f. **Change the nature of conflict.** The OPFOR will try to change the nature of conflict, particularly if an extra force is able to deploy over matching force. It will shift to preserving combat power by dispersing forces and adopting pattern-less operations to present the fewest targets possible. They seek contact on their own terms, preferring ambushing, raiding, and operating when physical or natural conditions degrade enemy systems. The OPFOR may also seek to impose change by using proxy irregular forces to attack civilians and soldiers outside of the theatre.

g. **Allow no sanctuary.** The OPFOR seeks to create a non-linear, simultaneous, and ubiquitous 'battlefield 'that denies enemy forces safe haven anywhere from home bases to the frontline. It estimates that targets further back along the line of communication will be larger and more vulnerable and thus the psychological effect of striking them will be greater. It finds particular value if its own or affiliated forces can strike in the enemy's homeland. OPFOR also seek to deny the enemy complex terrain as sanctuary by multiple means, but especially by conducting covert attacks and instigating political unrest and violence to render deployments within urban areas insecure.

Systems Warfare

34. The OPFOR have a distinctive approach to combat operations: systems warfare. While they use theories of victory and defeat that are familiar to Western audiences such as the 'centre of gravity', these are selectively applied. In contrast, systems warfare is considered universally applicable, but particularly relevant when fighting at a disadvantage. It can be summarised as an approach that strikes at key vulnerabilities rather than strengths and has similarities with the Western concept of Effects Based Operations (EBO)[2]. These vulnerabilities arise because of the interrelationships and interdependencies between combat systems.

35. **Combat system.** A combat system (see Figure 1-5) is a "system of systems" that results from the combination of four basic subsystems that are integrated to execute military operations, listed below with their interrelationships portrayed in Figure 7.

a. **Combat forces** (such as main battle tanks, IFVs and/or APCs, or infantry).

b. **Combat support forces** (such as artillery, SSMs, air defence, engineers, and direct air support).

c. **Logistics forces** (such as transportation, ammunition, fuel, rations, maintenance, and medical).

d. **C2 and ISTAR** (such as headquarters, signal nodes, satellite downlink sites, and reconnaissance sensors).

36. The combat system is characterised by interaction and interdependence among its subsystems. Therefore, the OPFOR will seek to identify key subsystems of an enemy combat system to target and destroy. Against a technologically superior extra-regional force, the OPFOR may use any or all subcomponents of its

[2] Effects-based operations (EBO) are defined here as operations conceived and planned in a systems framework that considers the full range of direct, indirect, and cascading effects—effects that may, with different degrees of probability, be achieved by the application of military, diplomatic, psychological, and economic instruments. (Paul Davies, EBO a grand challenge for the analytical community, RAND 2001)

own combat system to attack the most vulnerable parts of the enemy's combat system rather than the enemy's strengths.

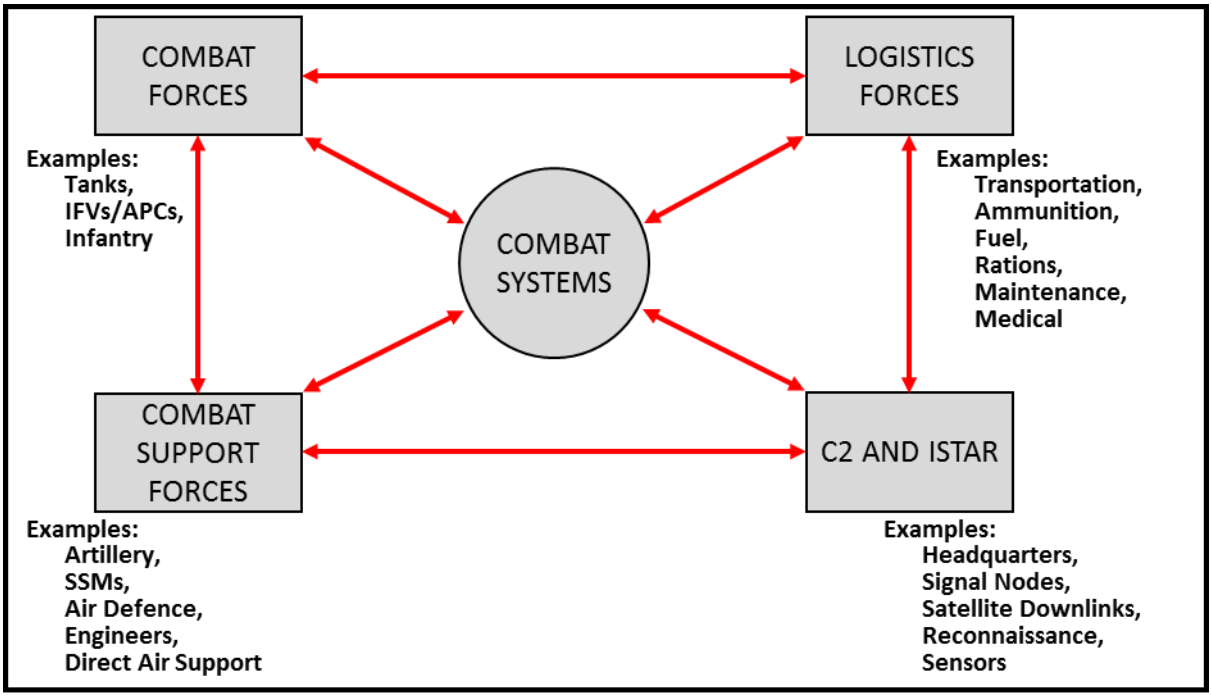


Figure 7 - The interrelationships of the elements of the Combat System

37. **Attack effects.** Attacking the enemy's logistics, C2, and ISTAR can degrade the overall effectiveness of the enemy's combat system without having to directly engage with superior combat and combat support forces. The growing reliance of some extra-regional forces on these systems offers opportunity. Attacking critical ground based C2 and ISTAR nodes or logistics systems and LOCs DEFINE can have a very large payoff for relatively low investment and low risk to the OPFOR. Modern logistics systems assume secure LOCs and voice or digital communications therefore are vulnerable in this area to technical attack and, the OPFOR can greatly reduce a military force's combat power by attacking a logistics system that depends on "just-in-time delivery." Furthermore, the removal of the function of one or more key subsystems can have a devastating psychological effect.

38. **Planning and execution.** The systems warfare approach to combat is a means to assist the commander in the decision-making process and the planning and execution of his mission. The OPFOR believes that a qualitatively and/or quantitatively weaker force can defeat a superior foe, if the lesser force can dictate the terms of combat. It believes that the systems warfare approach allows it to move away from the traditional attrition-based approach to combat. It is no longer necessary to match an opponent system-for-system or capability-for-capability and this newer approach is applied in both offensive and defensive contexts.

39. Commanders and staff will locate the critical component(s) of the enemy combat system, patterns of interaction, and opportunities to exploit this connectivity. The OPFOR will seek to disaggregate enemy combat power by destroying or neutralizing single points of failure in the enemy's combat system. The essential step after the identification of the critical subsystems and components of a combat system is the destruction or degradation of the synergy of the system. This may take one of three forms—

a. Total destruction of a subsystem or component.

b. Degradation of the synergy of components.

c. The simple denial of access to critical links between systems or components.

40. The destruction of a critical component or link can achieve one or more of the following:

a. Create windows of opportunity that can be exploited.

b. Set the conditions for offensive action.

c. Support a concept of operation that calls for exhausting the enemy on the battlefield.

41. Once the OPFOR has identified and isolated a critical element of the enemy combat system that is vulnerable to attack, it will select the appropriate method of attack.

Paramilitary and Irregular Forces

42. In the same way that the OPFOR uses 'all means necessary' and integrates all four instruments of national power to pursue strategic objectives, they integrate the creative use of unconventional forces within military plans.

43. The OPFOR anticipate extensive and creative use of paramilitary and irregular forces to provide depth and continuity to their operations. In peacetime, they cultivate and covertly support non-government paramilitary organisations not only to pursue common objectives in peace but to maximise future influence in war. The State is pragmatic, recognising and allowing that control over apparently ideological aligned groups can be tenuous and is ready to covertly fund even politically opposed groups for disruptive effect. It is equally willing to exploit criminal gangs, recognising that personal gain will often be a more reliable tool of control than ethnicity or a professed shared idealism.

44. **Internal Security Forces.** The Internal Security Forces (ISF), provide the OPFOR with major paramilitary capability and play a role in enabling irregular forces for unconventional operations. Some are capable of tactical level defensive action. While the ISF are part of the Ministry of the Interior, in wartime they are assigned to the Supreme High Command. Their peacetime domestic role of population control (both public order and monitoring of loyalty) and counterintelligence is then expanded to monitor the now-mobilised militia forces and provide security in the Support Zone, including where this extends into occupied territories. ISF units may operate within their own hierarchy of command or be assigned a command relationship within an Operational-Strategic Command. The latter is more likely if they are deployed beyond the State's borders.

45. During regional operations, units from the ISF may be tasked to secure key sites and control the population in newly seized territory. To prepare for this, in peacetime, teams of nationally or ethnically focused linguists and specialists work with counterparts from the external intelligence agency to populate comprehensive community databases and build relationships with potentially useful individuals in the relevant populations. This enables the ISF to rapidly apply both their social and political control methods as well as their sophisticated IT surveillance and monitoring tools in occupied areas. Linguistic and cultural engagement capability is another reason that the ISF may augment or replace regular military organisations to process and manage prisoners of war.

46. As OPFOR shifts to transition operations and the rear area threat in occupied areas increases, security of infrastructure such as bridges becomes a priority and the ISF evacuate important political prisoners and POWs to safe areas. They may take the lead in mobilising civilian labour and civil engineering capabilities for military tasks. Intelligence operations amongst local populations increase, not only for force protection purposes but also to prepare networks and resources for future operations, including supporting insurgency and Special-Purpose Forces stay-behind actions.

47. When the State completes transition to adaptive operations, the ISF play a key role in freeing up regular military formations for proactive operations. Particularly in complex terrain, the ISF may be employed to augment defences or take responsibility for defending less critical locations. In contested or enemy re-occupied areas, ISF cadre are expected to play a role in conducting harassing operations intended to tie down enemy forces in security tasks.

48. **Support to Insurgency.** The OPFOR regards support to and exploitation of insurgent forces operating against and within neighbouring countries as a valuable strategic tool. In peacetime, the State is acutely conscious of the need to finely balance covert support to insurgents against its relations with the government against which the insurgents are operating. Consequently, support activity may be kept at a low level intended to develop loyalty, build relationships, and develop intelligence networks amongst the insurgents. If so constrained, this activity is likely to focus on providing training by Special Purpose Forces (SPF) and delivering modest supplies of less sophisticated weapons.

49. The question of whether to promote and support an insurgency during regional operations will depend on several factors. If the OPFOR does not otherwise anticipate external intervention, it may minimise the method because of the potential for insurgents to later become opponents. Equally, fomenting insurgency may offer a means of both politically destabilising a neighbour and tying down their forces in security operations. In any event, OPFOR regards insurgents an enduring source of political and military intelligence and a potential source of guides and Scouts for regular OPFOR elements.

50. In transition operations, the OPFOR see clear utility in employing insurgent forces to support access control operations and impose delay on an intervening force. They will also be alert for opportunities to stimulate and support otherwise not politically aligned insurgent groups who nevertheless resent the intervention of extra-regional actors.

51. Insurgency plays a central role in the OPFOR vision of adaptive operations. They envisage insurgent forces supported by Special-Purpose Forces (SPF) conducting harassing operations, especially along the lines of communication and against sea and air ports. However, they anticipate going further than this. The OPFOR concept of adaptive operations already anticipates many regular forces operating dispersed and concealed amongst complex terrain to conduct ambushing and raiding operations in the manner of insurgent forces. The State considers that coordinated or integrated action between regular and irregular forces combines the insurgent's ability to use local knowledge to avoid and remain hidden from enemy strength while manoeuvring undetected, with the combat power and logistic resources of the regular state forces. Working together, such forces are well-suited to conducting systems warfare by, for example, selectively ambushing command and communications vehicles or raiding nodes such as forward arming and refuelling points.

52. Terrorist and criminal organisations. OPFOR typically do not make a philosophical and legal distinction between terrorists and other insurgents, but like Western nations they use 'terrorist' as a pejorative label. However, the state is pragmatic and recognises that it may be disadvantageous to be overtly linked to groups nominated as terrorists by the West. Consequently, contact with terrorist organisations is similar to contact with criminal groups: carefully managed by the Intelligence organisations. They anticipate that the threat of terrorist attacks against political and military leaders or general sabotage greatly complicates the security challenges for the adversary (who is this adversary). Similarly, criminal groups may be supported and encouraged to supply drugs and corruptly transact with adversary forces to erode military capability. Large quantities of counterfeit currency may also be circulated in order to erode economic stability.

Chapter 2 – TASK ORGANISATION, FUNCTIONS, COMMAND AND CONTROL

Introduction to this chapter

1. This chapter explains how the OPFOR structures and coordinates to control the fight. It begins by explaining how their concept of Command and Control (C2) addresses the uncertainty of battlefield communication, before describing both their principles of C2 at the operational level and such related ideas at the tactical level. The OPFOR five step process of C2 provides a useful frame to understand their approach and unpack its parts. Particular attention is paid to some important differences in the OPFOR understanding of the relationship between planning and preparation, and especially, decision-making. In order to provide even further information about the latter, and similarly to provide more than basic details of OPFOR command posts and communication security procedures, the reader is referred to annexes.

2. The OPFOR uses some unfamiliar concepts and uses some military terms differently. An important section explains what the OPFOR means by terms such as element, tactical group, or detachment and then unpacks the idea of functional tactics and their associated labels, as well as the terms that explain command and support relationships. Once the reader has these building blocks of understanding, another section briefly revises arrangements at the strategic level and then links these back to the operational level organisation and the formation of the very significant Operational-Strategic Commands. Closely related to these is a discussion of how the OPFOR emphasis on fires is reflected in the creation of Integrated Fires Commands at the operational level, and a short description of how a similar organisation is created for logistic support.

3. The final section of the chapter is a very straightforward step through the tactical organisational hierarchy from formation level, through units to subunits. As mentioned, at the end of the chapter, annexes (extracted directly from the US documents) provide further detail of OPFOR decision-making process, the OPFOR operation plan, types of command posts and more detail of the Integrated Fires Command structure.

Concepts of command and control

The OPFOR defines command and control as the actions of commanders, command groups, and staffs of military headquarters to maintain continual combat readiness and combat efficiency of forces, to plan and prepare for combat operations, and to provide leadership and direction during the execution of assigned missions.

4. The challenge that underlies the OPFOR approach to Command and Control (C2) is the uncertainty of battlefield communication. In the 19th century the Germans recognised that smoke, noise, and confusion made effective detailed conduct of battles impossible. In response and despite a tradition of obedience and subordination, they developed a culture which empowered initiative and proactive decision-making: Auftragstaktik[3]. In modern times, the OPFOR believes that communications are very vulnerable to attack or monitoring. Consequently, they have created a doctrine that similarly strives to give commanders the necessary tactical freedom of action within an authoritarian political and social structure.

5. For the OPFOR, the individual meaning of two words is important. The purpose of command is to establish, define, and accomplish the mission or aim. The purpose of control is to attain and sustain the mission or aim by applying maximum combat effectiveness from all available resources. The State has a deeply enculturated system of hierarchical political power and vertical loyalty. It is normal for leaders giving instruction at any level to refer to the authority of their superior, citing that superior's intended outcome as their 'command'. Control is what the superior has prescribed for various subordinates to do to achieve the outcome. The military build their command system on these ideas.

6. **Principles of command and control.** The OPFOR have three principles of Command and Control (C2), most evident at the operational level:

   a. **Centralised planning.** The state believes that to achieve its strategic objectives it is vital to coordinate and synchronise the effects of all the instruments of national power, especially the use of force. Furthermore, synchronisation may be especially important when applying systems warfare. Their centralised planning process emphasises envisaging contingencies and developing branches and sequels to respond to them. In peacetime, and in war when the situation allows,

[3] Usually translated as 'Mission Command'. However, this can be misleading since the Germans understand Auftragstaktik not principally as the use of mission-type orders, rather as a cultural philosophy that empowers latitude and delegated decision-making by building professional trust.

these are also extensively put through simulated war games. The main products of a centralised planning process are the operation plans that control execution of a formations part of the Military Strategic Campaign Plan.

b. **Decentralised execution.** The OPFOR anticipates that the tempo of operations and the likely difficulty of communicating will demand decentralised execution and low-level initiative. To achieve flexibility despite sometimes highly prescriptive plans, the General Staff typically issue mission-type orders for phases or stages of the detailed operation plan. These may be operational directives which have complete information or the more concise combat orders.

c. **OPFOR decision-making processes.** The OPFOR decision-making process is an adaption of John Boyd's OODA loop with an extra step. It is used, not only for rapid tactical decisions, but also as the structure of the deliberate process and is sometimes referred to as the 'combat decision process. It is explained in more detail at paragraph 13 below and expanded at Annex A of this chapter.

7. **Tactical concept of command and control.** The broader OPFOR principles of C2 apply at all levels, but the tactical C2 concept is based on the following three ideas and concepts (sometimes also confusingly referred to as principles).

a. **Mission tactics.** OPFOR units focus on the purpose of their tactical missions and will continue to act on that purpose even when details of an original plan have become irrelevant through enemy action or unforeseen events. The mission tactics concept emphasises a focus on the higher commander's intent or purpose.

b. **Flexibility through battle drills.** The OPFOR view battle drills as the means of executing battlefield functions 'automatically' and with minimal orders or instruction. They provide a way to build up not only intrinsic speed but also the tactical flexibility to rapidly manoeuvre or modify plans in practice.

c. **Accounting for mission dynamics.** This is the OPFOR term for a commander's obligation to recognise when enemy action battlefield conditions make the originally assigned mission irrelevant and thus require a new mission without superior direction. This OPFOR accounting for mission dynamics concept emphasises a subordinate's process of assessing the higher commander's intent under conditions of uncertainty and change.

8. **Staffing Structures for command and control.** The OPFOR use a common command structure at every level for simplicity. The basic elements are as shown at Figure 8, and additional functional areas are added as required. The higher the level of command, the larger and more complicated the staff provided. At the higher levels, each of the staff functional areas will have its own command posts and separate communication systems. Consistency of staff structures, processes, and the use of automation is emphasised to speed the Command and Control (C2).

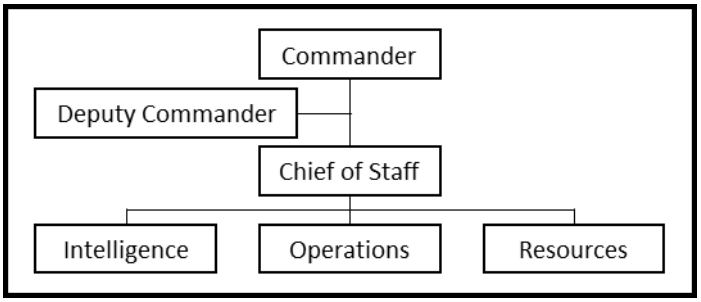


Figure 8 - Basic Command and Control Structure

9. **Processes of command and control.** The OPFOR considers C2 to be a continuous and overlapping process at all levels of command. It has these five steps, which are examined in the immediately following sections in turn -

a. Acquiring and processing information.

b. Decision making.

c. Planning.

d. Preparation.

e. Execution.

10. Readers should note that the OPFOR uses the term mission slightly differently to Western practice. A commander typically describes their own aim (in western terms, mission) as the objective, while assigning missions to subordinates.

Acquiring and processing of information

11. 11. Acquiring and processing information is the first step that initiates the C2 activity, but it is a continuous activity long begun before operations commence. It involves requesting, receiving, collating, analysing, and disseminating information both up-and-down the chain of command. (Note that the OPFOR consider physical collection separate to the C2 process.) Information requirements reflect the level of planning, so at the Strategic and General Staff level the focus is global and evaluates changes in military or political capabilities of foreign nations. The operational level is where most detailed situation evaluation and large-scale planning occurs. This places great demand and reliance on assured and trusted communications.

12. 12. Tactical level information requirements. At the tactical level the OPFOR will seek, as a minimum, information on the -

a. **Enemy.** Commanders will seek reliable information about strength, organisation locations, and defensive positions to conduct force? analysis. They will also pay particular attention to C2 systems, the disposition and likely use of precision weapons as well as the closely related enemy employment of un-crewed reconnaissance systems. Reflecting their own emphasis on deception, the OPFOR will pay close attention to potential enemy deception and superimpose different ISTAR assets on key to avoid it.

b. **Friendly forces.** OPFOR planners require information about friendly forces and their missions, not only to deconflict operations, but to maximise the synergies between concurrent effects on selected nodes, the crux of systems warfare.

c. **Combat environment.** Terrain, weather, climactic, seasonal and, if relevant, Nuclear Biological and Chemical (NBC)? Conditions are all considered key factors in determining routes, use of NBC weapons and, again reflecting OPFOR focus on deception and concealment such as what types of camouflage can be employed.

d. **Population.** Understanding the economic and socio-political make up of an area of operations and the potentially hostile, neutral or friendly attitudes are vital to not only exploiting local resources and planning appropriate levels of security, but also to devise perception management strategies to manipulate the population. Especially in urban areas, the OPFOR consider the population akin to a manoeuvre element that may obstruct or distract on the one hand and act as a sensor system on the other.

Decision-making

13. The OPFOR military decision-making process consists of five phases: assess, orient, decide, act, and adapt. These phases are not completely independent processes or stages of thought. Each phase overlaps and relies on the others.

a. **Assess.** The commander, usually assisted by their staff, develops estimates of both the friendly and enemy combat systems and analyses the following: mission, time and space, environment, capabilities and intentions, opportunities and risks. Reflecting on the OPFOR concept of systems warfare great emphasis is placed on seizing opportunities especially identifying vulnerabilities amongst enemy subsystems.

b. **Orientate.** The orientation step is used by the commander to give preliminary instructions for any preparation and processes that can or must begin immediately. This includes not only essentials like tasking ISTAR to inform the future decision, but also general guidance. This is similar to a warning order in western practice but will not usually identify the collective objective of the subordinate's missions as this occurs in the next stage when the commander makes the combat decision. During this early orientation phase, the commander and his staff develop several courses of action and compare them to assist with making the decision.

c. **Decide.** The decision step is where the commander determines and communicates his aim or objective (alluding to the notion of command), and concept for sustaining that aim (alluding to the notion of control). This includes assigning missions, resources, the contingency branches and anticipatable sequels, and the limits of the subordinate's discretion. The decision will thus include -

   i. Objective - the objective of the group and subordinate unit missions.

   ii. Opportunity - the opportunity that will be seized or created.

   iii. Method – the means that will be used to accomplish the objective and how the battlefield and forces are organised to accomplish it.

   iv. End State - the vision of the conditions as the operation ends and the follow-on intention.

d. **Act.** The decision implemented may be a staff-recommended course of action, a combination of several, or a brand-new solution. The commander may also keep non-selected variants as identified contingencies.

e. **Adapt.** Continuous updating and adaption of this operation plan is allowed due to the mission type orders and this parallel processing of plans.

Planning

14. OPFOR's use of terminology can differ slightly from Western practice. They treat planning, preparation and execution as three sequential steps, yet what we would recognise as planning is still occurring during preparation. Consequently, for the State, the term 'planning' mainly describes the more deliberate earlier part of the process.

15. Planning usually begins with receiving preliminary instructions to execute a relevant part of one of the already well-developed military strategic campaign plans. Where time is short, this is heavily based on the existing material with its branches and sequels. Adjustments and amendments are made, and new missions specified. At any level the commander uses the deliberate decision-making process to produce their decision and then conveys it to their chief of staff who begins development by the staff. The first product is detailed precise orders for the initial phase of operation only.

16. **Advances in OPFOR planning.** The OPFOR places great importance on time. Speed of planning and decision-making will permit controlling the pace of combat and retaining the initiative. Timely intelligence is vital for commanders, yet the quantity of information being collected, particularly from improved reconnaissance systems, has increased dramatically, e while the tempo of modern combat has reduced the time available to process it. To both address the challenge of reduced time and to better deal with ambiguity and sudden changes, the OPFOR have increased automation in decision-making and planning processes. Graphic display tools and digital transfer of orders are increasingly used extending the traditional OPFOR use of prepared calculations and formulas while reducing paperwork. Staff processes have been adjusted to permit parallel planning at every level, initiated by early issue of preliminary instructions that are rapidly passed down the chain of command.

17. **Planning framework.** The way in which plans are prepared, approved, passed down through military channels, and executed at every level from the strategic, through the operational level, down to tactical level commanders is illustrated at Figure 9 (next page).

18. **Planning factors.** Planning factors are guidance figures used to determine the likely space, time and/or resources to accomplish tasks. They are based on historical and trial data and are comparable to logistic planning tools employed in Western armies, such as estimated casualty rates of fuel consumption. However, the OPFOR use them more widely to provide other estimates such as expenditure of ammunition to destroy a particular target or the time for a type of unit to move from one point to another. They are regarded by the OPFOR as common-sense tools to speed up planning and rapidly deliver an estimate, rather than prescriptive directions.

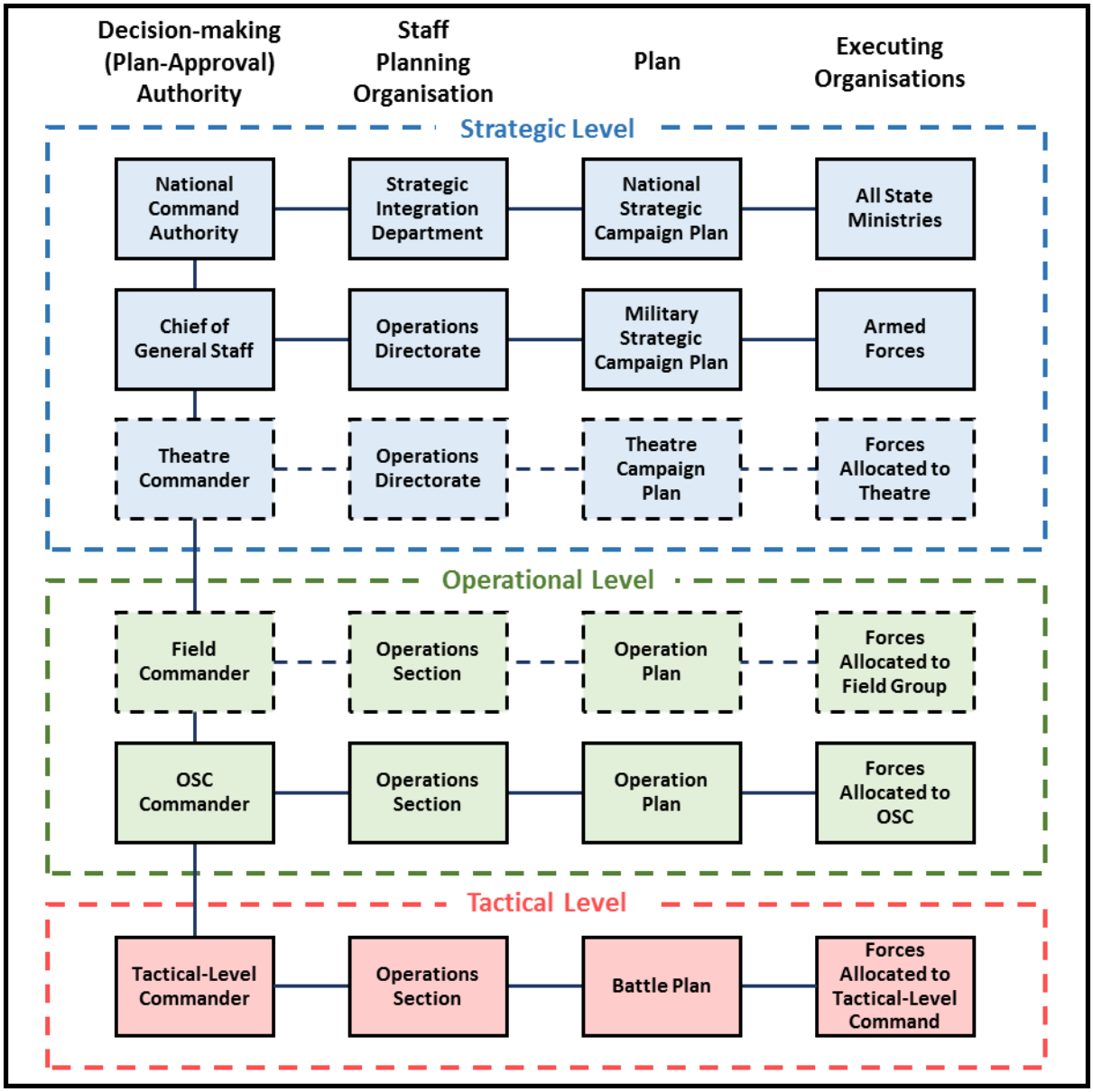


Figure 9 - The Framework for OPFOR planning from strategic through to tactical

19. **Forces analysis.** Forces analysis is a more detailed and sophisticated version of planning factors that provides guidance for the amount and type of force required to accomplish a particular mission against a particular kind of force under specified conditions. The baseline data for the system involves study of matters such as opponent's previous military operations and wider assessment of military technology. Forces analysis identifies vulnerabilities, strengths, and previous results in order to make recommendations to the commander for organisation of forces on the battlefield. It particularly identifies potential shortfalls in combat power. Like planning factors, forces analysis is principally a tool to save time not a solution template.

20. **Planning process output.** At operational and formation levels, the staff maintain and update the parts, branches, and sequels of the various Military Strategic Campaign Plans that they have a role within. Ideally, the OPFOR anticipates that any new plans will have a foundation in earlier ones, although new plans may be required from scratch. At these levels there are three main products:

a. **Operation plans.** Operational-level level commands produce operation plans that control the execution of their portion of a Military Strategic Campaign Plan, and which may be thought of as detailed master operation plans. They are produced well in advance. Each plan allocates forces and resources to missions, coordinates the actions of manoeuvre, fire support, and logistics and specify sequence and methods for each subtask. The minimum headings are explained at Annex B to this chapter.

b. **Preliminary instructions.** Once operations begin, the means by which commanders can make the earliest possible dissemination of information are preliminary instructions. The purpose is to allow subordinate headquarters to begin their planning process concurrently with the higher ones. They contain as much information as possible but may often be issued before the commander has made a combat decision. They are normally transmitted by electronic or secure voice means.

c. **Operational directives.** Operational directives deal with components of an operation plan and generally deal with a mission that is a phase of the operation plan. They are issued later in the C2 process and often make use of follow-on annexes, in order to allow issue before all information is available.

Preparation

21. As described earlier, the OPFOR understanding of preparation differs slightly from Western practice. They strive to accelerate their C2 process by conducting it in a parallel or overlapping way. This is initiated by the early issue of preliminary instructions but enabled by other features of their C2. These include commanders and staff being familiar with previously developed detailed operational plans and their branches and sequels, the use of battle drills and, now increasingly, the use of digital graphic orders formats. The OPFOR considers that preparation has three steps, which also vary slightly from what is done in the West.

d. **Dissemination of missions.** The OPFOR term dissemination of missions can best be understood in Western terms as the preparatory issue of orders. It describes the issue of preliminary instructions, of which there may be several iterations, the distribution of the master or operation plan, and the issue of variations or annexes to that plan. Importantly, an important difference is that an operation plan may be issued before the commander has made his combat decision on all parts of that plan.

e. **Execution orders.** The OPFOR term execution orders indicates that the commander has made his combat decision, and these are the directions to carry the operation out. However, the commander may still revise and reissue during the operation. They take two forms, the first of which has been introduced above -

i. **Operational directives.** Operational directives provide all the information required to accomplish a particular mission. A commander may issue them for conducting the next phase of the operation plan, implementing a foreseen contingency, or to make changes to the operation plan. As previously described, annexes to the operational directive may conveniently be used to provide delayed information or make changes.

ii. **Combat orders.** Combat orders are issued immediately before or during combat and are designed to direct units to perform a specific task or adjust a former mission. They typically consist of the enemy situation, the new or revised mission, the support available from the commander, and the time when the unit must be ready.

f. **Rehearsals.** The OPFOR expect all key phases of an operation to be rehearsed as realistically as possible and staff make provisions in order that troops can participate in rehearsals. Commanders often forego detailed planning in order to spend time with key subordinates during rehearsals.

Execution

22. The idea that ‘plans do not survive the first contact’ is ingrained in OPFO thinking. They teach that not only will friction and uncertainty distort the best of plans but that the enemy’s action will be intended to do this and to impose new realities. Their approach to execution has two features

a. **Planned flexibility.** The Command and Control (C2) approach is explicitly designed to be swift and flexible. In every case, planning starts from mission type orders, beginning a standardised streamlined process involving automated support. This produces the decision and the accompanying plans to implement it. Underpinning the C2 approach is the extensive prior planning, modelling, and forecasting that is invested in operation plans. These almost always have a series of variants or contingency plans which have already been issued to subordinates and can be implemented rapidly, without changing the concept or timeframes. Even with this

flexibility, OPFOR commanders are taught to be ready to bypass the planning process and issue briefs when the situation demands executive orders.

b. **Monitoring execution and sustaining the aim.** The OPFOR does not assume that directives will automatically be understood or carried out and places great emphasis on supervision after issue. Staff sections are responsible for proactively checking to ensure that subordinate elements have correctly understood the directives. Personal supervision is highly valued, and commanders may physically move to critical force elements to apply direct influence during combat.

Command posts

23. The OPFOR plans to command and control over its wartime forces from an integrated system of Command Posts (CPs). It has designed this system to ensure an uninterrupted control of forces.

24. CPs are typically formed in three parts: a control group, a support group, and a communications group. The control group includes members of the command group and staff. The support group consists of the transport and logistics units. Whenever possible, the communications group, is remoted from the control and support groups, because of its large number of signal vans, generators, and other special vehicles that would provide a unique signature.

25. As the OPFOR expects its C2 to come under heavy attack in wartime, its military planners have created a CP structure that emphasizes survivability through dispersal, stringent security measures, redundancy, and mobility. They have constructed a CP system that can sustain damage with minimum disruption to the actual C2 process, and in the event of disruption, they can quickly re-establish control. This extensive system of CPs extends from the hardened reinforced command facilities of the National Command Authority (NCA) to the specially designed command vehicles from which OPFOR tactical commanders control their units. Most operational-level CPs have been designed to be very mobile and smaller than comparable enemy CPs. The number, size, and types of CPs depend on the level of command. Further details are provided at Annex C.

26. **Command post types.** OPFOR ground forces use five basic and three special types of CPs. Not all levels of command use all types. Figure 10 shows that while all the levels of command shown may use all kinds of CP, those in brackets indicate where one may not be employed. The redundancy provided by multiple CPs helps to ensure that the C2 process remains survivable.

Level of Command	Basic					Special		
	Main CP	IFC CP	Forward CP	Sustainment CP	Airborne CP	Alternate CP	Auxiliary CP	Deception CP
CDET/Company			X	X				(X)
BDET/Battalion	X		X	X		(X)		(X)
BTG/Brigade	X		X	X	(X)	(X)	(X)	(X)
DTG/Division	X	X	X	X	(X)	(X)	(X)	(X)
OSC	X	X	X	X	(X)	(X)	(X)	(X)
Field Group	X	X	(X)	X	X	(X)	(X)	(X)
Theatre	X	X	(X)	X	X	(X)	(X)	(X)

Figure 10 - Table showing the types of Command Post formed

Communications security procedures

27. The OPFOR have strict communications security procedures. Before making contact with the enemy, most radio and radio-relay systems maintain a listening watch, with transmission forbidden or strictly controlled. OPFOR units typically observe radio silence when defending or departing assembly areas. During radio silence, wire and courier are the primary communications means. While moving toward the enemy, units normally limit radio transmissions to various code words informing commanders of their accomplished assigned tasks or if they have encountered unexpected difficulties. The OPFOR also uses visual signals, such as flags and flares, to a great extent during movement. Usually only the commander and reconnaissance forces have permission to transmit before battle is joined.

28. During offensive operations, OPFOR units maintain radio silence until the outbreak of battle, when those authorized to transmit may do so without restriction. When contact with the enemy occurs, units initiate normal radio procedures. Subordinate commanders inform the OSC commander—usually by code word—when they reach objectives, encounter NBC contamination, make contact with the enemy, or have important information to report.

Functional tactics, key terms and concepts

29. As part of their C2 process, the OPFOR use a standardised system to label their forces. It offers not only an efficient way of communicating their task, size, and purpose, but the use of functional labels in conjunction with battle drills gives a concise indication of how a component is expected to carry out its task.

30. **Size indicators: forces, elements and tactical groups.** In order to label groupings at brigade level or above, the OPFOR use the term force(s). Similarly, for groupings that are battalion sized or smaller, they use the term element(s). The formation size indicating label Division or Brigade is only used while its organisation remains unchanged from the peacetime Administrative Force Structure. However, if a Division is task organised and supplemented with different components, it is described as a Divisional Tactical Group (DTG). Similarly, a supplemented Brigade is labelled a Brigade Tactical Group (BTG). An example of the organisation of a BTG is provided further below at Figure 18.

31. **Detachments.** A detachment is a task organised combined arms battalion or company sized grouping designated to perform a particular task or mission. The term detachment is historical, as in the past smaller task organised groupings were created to operate independently. Detachments may be identified as battalion sized detachments (BDET) or company sized detachments (CDET). They may include -

a. Artillery or mortar units.

b. Air defence units.

c. Engineer units with obstacle, survivability, or mobility assets.

d. Heavy weapons units (including automatic grenade launchers & antitank weapons).

e. Units with specialty equipment such as flame weapons or helicopters.

f. Interagency forces up to company size for BDETs, or platoon size for CDETs.

g. Chemical defence, antitank, medical, logistics, signal, and electronic warfare units.

32. The organisation of detachments is straightforward as illustrated at Figure 11. In this case, it is a battalion detachment so that the attached force elements, such as engineers, artillery, or air defence are either of company size or platoon size. In the case of a company detachment, the attached force elements are of platoon or section size.

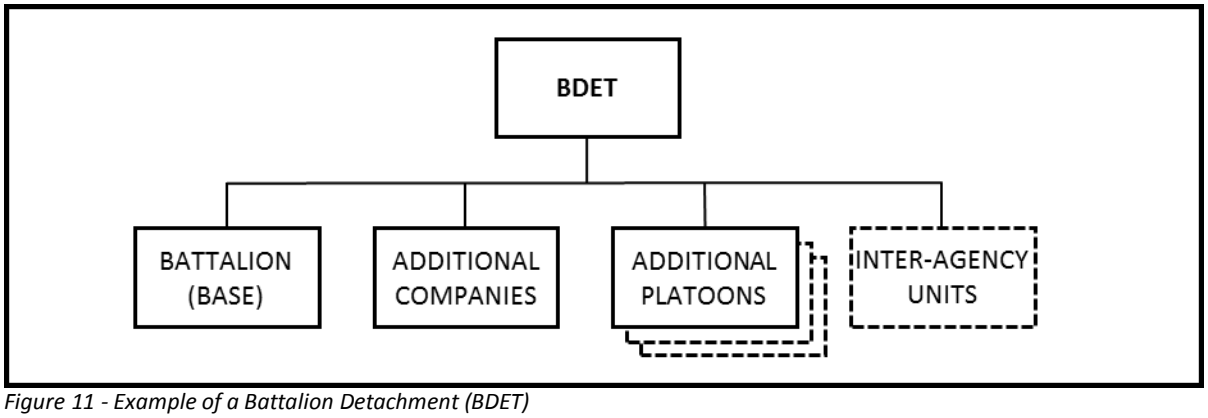


Figure 11 - Example of a Battalion Detachment (BDET)

33. **Functional tactics, labelling and organisation.** An OPFOR commander specifies the organisation of forces or elements within their level of command according to the tactical functions they intend these various components to perform in the planned offensive or defensive action. The clearest and most descriptive tactical term is used, for example, disruption, assault or security. The use of functional designations for these groupings on the battlefield allows for a clear understanding by subordinate units of both what their commander expects them to perform and what all other groupings are doing at the time. This method, sometimes referred to as functional tactics, also allows quick and concise reallocation of tasks in response to shifting situations, and furthermore is well-suited to eliminating confusion by using graphical directives. There are two broad types of functions: action and enabling.

a. **Action forces and elements.** One part of a unit or group of units is normally responsible for directly accomplishing the mission. It may simply be called the action force or action element, but usually the higher commander will give this grouping a more specific designation that

identifies the function or task that is to be carried out to achieve the mission. For example, if the mission of a unit is to conduct a raid, the sub grouping designated to complete that action might be called the raiding element. Similarly, a brigade that performs the main defensive mission might be called the main defence force.

b. **Enabling forces and elements.** All other parts of a unit or group of units that are not in the action force or element provide enabling functions of some kind and can be so labelled. They can also be labelled with the specific function or task they perform. For example, the part of the unit that clears obstacles to enable an action element to accomplish the mission is a clearing element. Other types of enabling forces or elements designated by their specific function may include -

   i. **Disruption force or element.** The disruption force or element operates in the disruption zone, disrupts enemy preparations or actions, destroys or deceives enemy reconnaissance and begins reducing the effectiveness of key components of the enemy's combat system.

   ii. **Fixing force or element.** The fixing force or element fixes the enemy by preventing a part of their force from moving to or from a specific location for a specific period of time, so it cannot interfere with the primary OPFOR action.

   iii. **Security force or element.** The security force or element provides security for other parts of a larger organization therefore protecting them from observation, destruction, or becoming fixed.

   iv. **Deception force or element.** The deception force or element conducts a deceptive action (such as a demonstration or feint) that leads the enemy to act in ways that are prejudicial to enemy interests or favour the success of an OPFOR action force or element.

   v. **Support force or element.** The support force or element provides support by fire other combat or combat service support and/or C2 functions for other parts of a larger organization.

34. **Command and support relationships.** In a similar way to how functional labels offer clarity and simplicity in tasking, the OPFOR use for standard terms to describe the command and support relationships between forces and elements.

a. **Constituent.** Constituent units are those forces assigned directly to a unit and form an integral part of it.

b. **Dedicated.** Dedicated is a command relationship identical to constituent with the exception that a dedicated unit still receives logistics support from a parent organization of similar type.

c. **Supporting.** Supporting units continue to be commanded by and receive their logistics from their parent headquarters but are positioned and given mission priorities by their supported headquarters.

d. **Affiliated.** Affiliated organizations are those of which operate in a unit's Area of Responsibility (AOR) in such a way that the unit may be able to sufficiently influence it to act in concert t for a limited time. No "command relationship" exists between an affiliated organization and the unit in whose AOR it operates.

35. Each of these four terms also specifies which grouping will provide the command, logistics, positioning, and tasking priorities as detailed in Figure 12.

Relationship	Commanded by	Logistics from	Positioned by	Priorities from
Constituent	Gaining	Gaining	Gaining	Gaining
Dedicated	Gaining	Parent	Gaining	Gaining
Supporting	Parent	Parent	Supported	Supported
Affiliated	Self	Self or "Parent"	Self	Mutual Agreement

Figure 12 - Table showing command and support relationships

Operational level organisation

36. The State integrates all the instruments of state power at the political-strategic level through the National Command Authority (NCA), as described in chapter one. The military instrument is wielded by the Supreme High Command and enabled by the General Staff (GS). For each theatre of operations, they will create a standing theatre HQ and subordinate operational Strategic Command (OSC) HQs. The OSC are the principal operational organisation and are formed to execute different operational level missions. If in wartime, the number of OSC exceeds the span of command of a theatre HQ, a Field Group may be raised as an intermediary HQ. The remainder of this section describes the OSC organisation and then Divisions and Brigades, which are the structures that direct the execution of combat actions.

37. **Operational Strategic Command.** The primary OPFOR operational organisation is the OSC. As discussed in chapter 1, once the General Staff writes a particular Strategic Campaign Plan (SCP), it forms one or more standing OSC HQs. Each OSC HQ is structured to be able to control whatever combined arms, joint, interagency or multinational operations are necessary to execute the relevant part of the SCP. However, the OSC HQ does not have any forces permanently assigned to it.

38. When the State prepares for operations, the forces and elements, interagency or multinational forces allocated in the SCP are assigned and come under command of the OSC. These might be from any part of the Administrative Force Structure or existing structures, for example from Theatre, Army Group or Army Assets as illustrated in Figure 13.

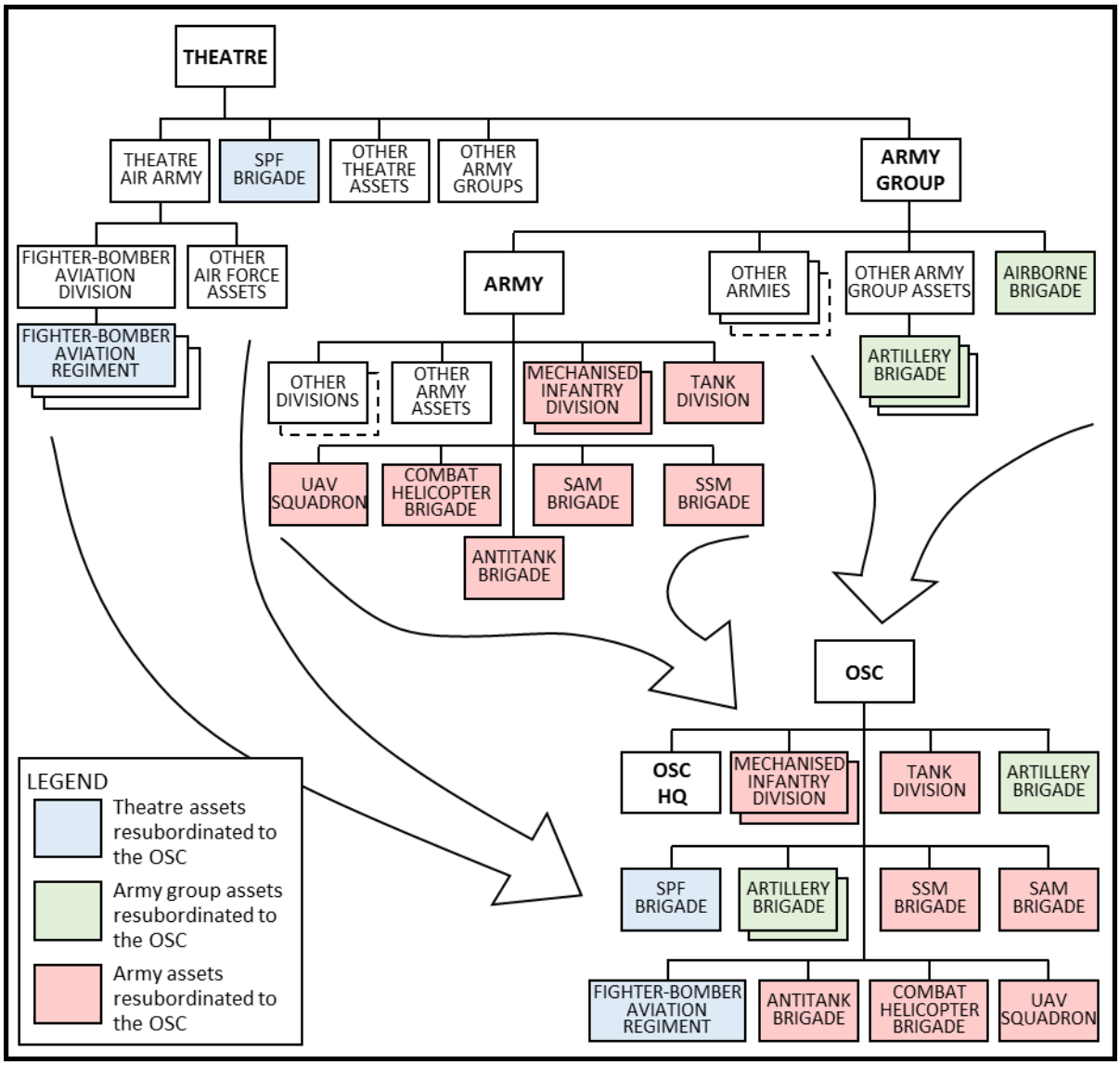


Figure 13 – Example, The flexible allocation of forces and elements from standing structures to an OSC

39. The OPFOR system of operational command and control based on OSC readily allows each HQ to plan for and command different allocations of forces and elements for different SCP. It also facilitates reassignments as the operational situation changes. This approach presents great flexibility and a virtually unlimited number of options for how an OSC is structured.

40. A simplified example of OSC, without all the combat support and combat service support units that would be present, is shown at Figure 14. An Integrated Fires Command (IFC) and Integrated Support Command (ISC), shown on the upper right of the diagram and further described below, would almost invariably be present. Note that on the upper left-hand side of the diagram, a distinction is made between divisions (in dotted lines indicating options) and Division Tactical Groups (DTG) that have been tasked organised. Similarly, there are Brigades and Brigade Task Groups. This reflects the flexibility of the system to use formations as they are structured in peace, or to regroup them.

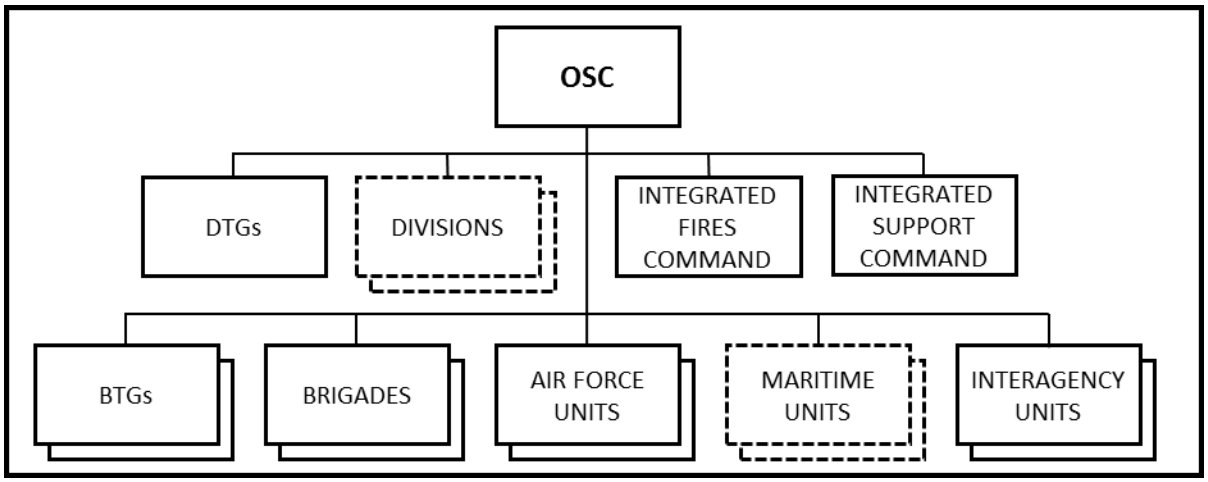


Figure 14 - Example of a Possible Operational Support Command (OSC) Organisation

Tactical level organisations

41. The OPFOR tactical organisations that fight battles and engagements are divisions and brigades, and as previously explained, they may receive additional assets that transform them into a task organised tactical group (TG). The purpose of forming TG is to, on the one hand, to efficiently task organise for the combined arms battle and, on the other, to ensure unity of command for all land forces in each Area of Responsibility (AOR).

42. **Divisions**. The largest standing tactical formation is the division. It can form a Divisional Tactical Group (DTG), fighting as part of an OSC, or as a separate formation in a Field Group (FG), integrating interagency forces of up to brigade size and sustaining independent combat operations over a period of several days. A DTG, like an OSC, is flexible. As shown at Figure 15, it may variously be made up of Brigades and/or BTG as well as individual detachments, battalions, and companies. Note that DTG has both an Integrated Fires Command (IFC) and an Integrated Support Command (ISC).

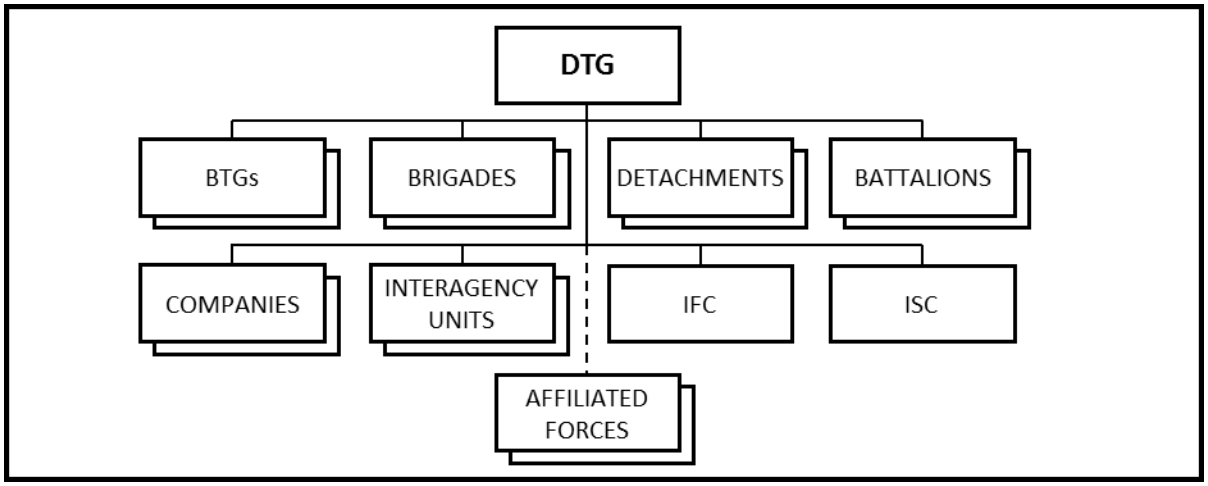


Figure 15 - Example of a Possible Divisional Tactical Group (DTG) Organisation

43. **Integrated Fires Command.** The OPFOR values the destructive combat power of fires and seeks to use them as a form of manoeuvre. To achieve this, it makes special C2 and organisational arrangements by establishing an Integrated Fires Commands (IFC) in all division-level and above formations. The standing IFC HQ is organised to accommodate and exercise C2 over all forces made subordinate to it in wartime under a single senior commander.

44. The IFC HQ is composed of the IFC commander and their command group, a ISTAR and information warfare section, an operations section, and a resources section. The ISTAR and IW section provides the complete spectrum of intelligence and IW support for the IFC. The operations section provides the control, coordination, and communications for the headquarters. Located within the operations section is the Fire Support Coordination Centre (FSCC). To ensure the necessary coordination of fire support and associated ISTAR, the operations section of the IFC headquarters also includes liaison teams from subordinate units. The resources section provides control and coordination of various logistics and administrative support functions. This is shown schematically at Figure 16.

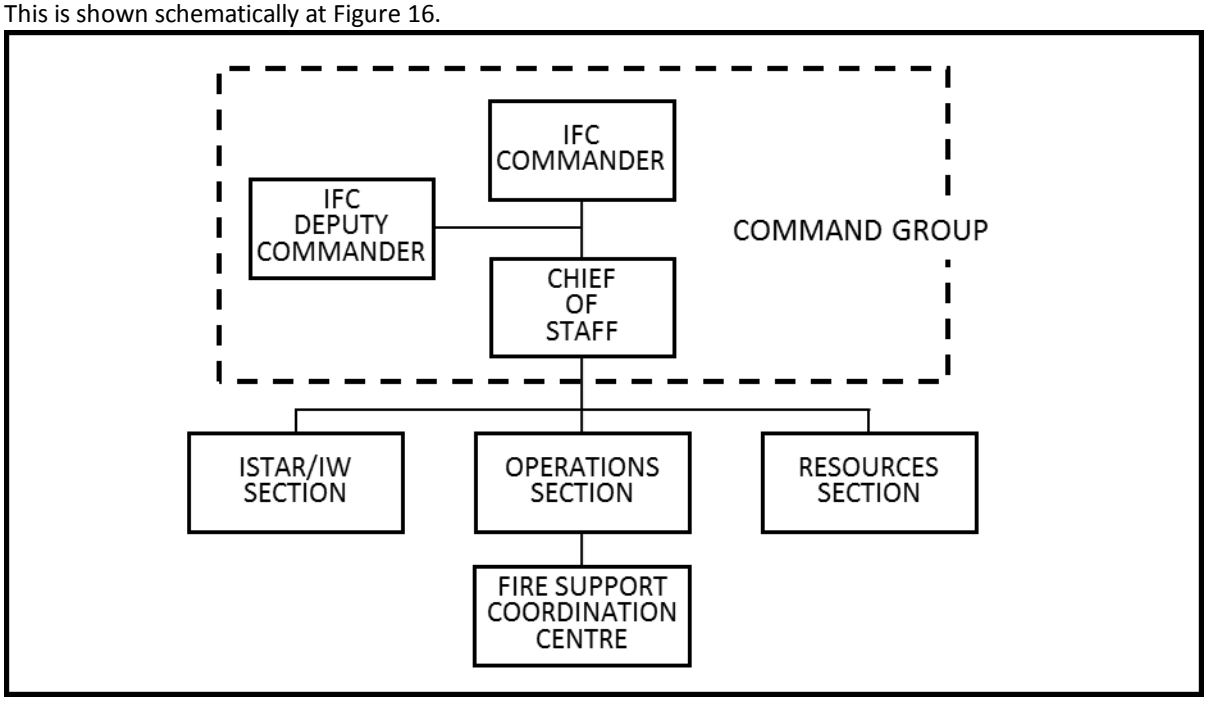


Figure 16 - Integrated Fires Command HQ

45. The IFC exercises C2 of all constituent and dedicated fire support assets retained by its level of command. This will likely include an -

a. artillery component;

b. aviation component;

c. missile component; and

d. special-purpose forces component.

46. There is also an Integrated Support Group (ISG), which is a compilation of units performing logistics tasks that provide support. The IFC also exercises C2 over all reconnaissance, intelligence, surveillance, and target acquisition (ISTAR) assets allocated to it. A possible structure is shown at Figure 17 (next page). Further details of the different components of an IFC are at Annex C,

47. The purpose and function of an IFC is to:

a. Exploit the combat power inherent in integrated ground and air fire support actions.

b. Minimise the amount of time from target acquisition to the attack.

c. Mass the fire support effects without operating elements in concentrated groupings.

d. Optimise the assignment of fire support asset(s) to missions.

e. Ensure the commander’s priorities for fire support are adhered to.

f. Integrate the effects of fires from groupings placed in support of the organization.

g. Act as the higher organization's alternate command structure.

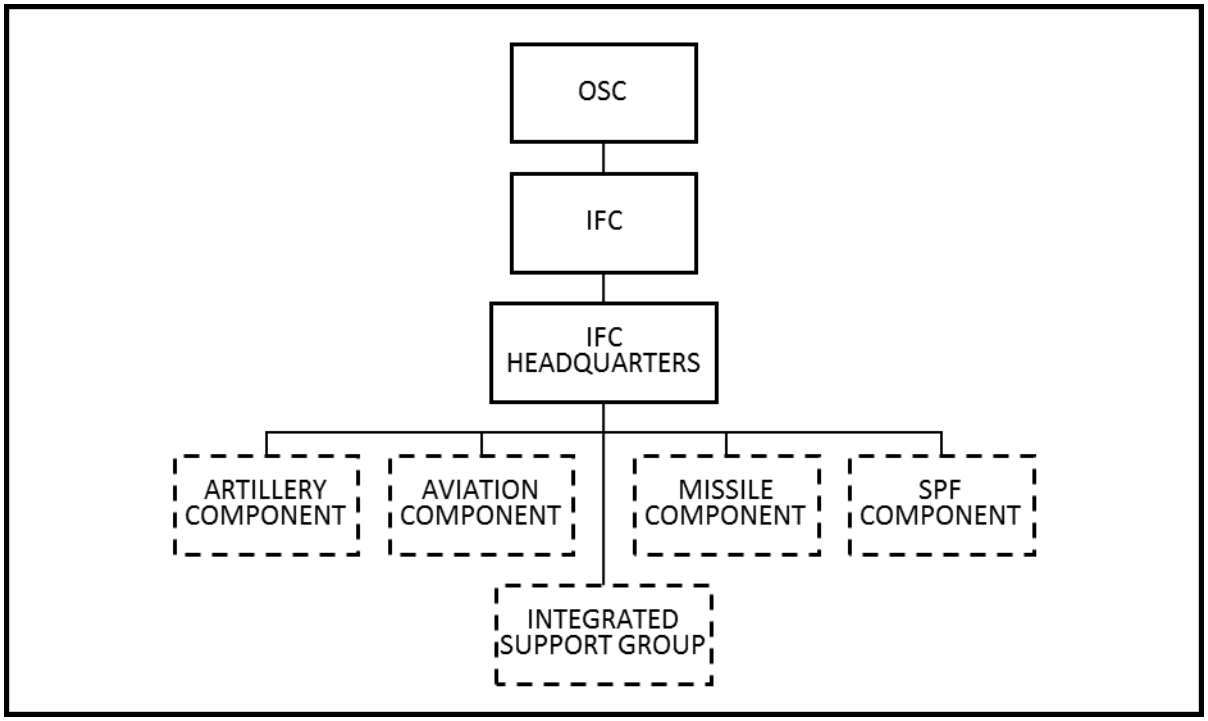


Figure 17 - Possible Structure of an integrated Fires Command

48. The last role, providing an alternative command structure, is particularly important. The Deputy Commander (DC) of the OSC serves as IFC commander which reflects the importance of fires in OPFOR thinking, the required skill set, and status as well as the C2 capabilities of the IFC HQ.

49. **Integrated Support Command.** The OPFOR recognises that without efficient and effective logistics, formations will rapidly lose combat power. They allocate combat service support a somewhat similar centralising priority to fires, by forming an Integrated Support Group (ISG) at each OSC. The ISG is the aggregate of combat service support units (and perhaps some combat support units) allocated from the administrative force structure to an OSC and not otherwise sub allocated in a constituent or dedicated command relationship to a subordinate headquarters within the OSC. The OSC further allocates part of its combat service support units to its tactical-level subordinates and some, as an ISG, as described in the paragraphs above, to support its IFC. The rest remain in the ISC at OSC level to provide overall support of the OSC. For organisational efficiency, other combat service support units may be grouped in this ISC, although they may support only one of the major units of the OSC. Sometimes, an ISC might also include units performing combat support tasks (such as chemical warfare, IW, or law enforcement) that support the OSC.

50. **The manoeuvre brigade.** OPFO's basic combined arms unit is the manoeuvre brigade. In the Administrative Force Structure (AFS), manoeuvre brigades are typically constituent to divisions, in which case the OPFOR refers to them as divisional brigades. However, some are organized as separate brigades, designed to have greater ability to accomplish independent missions without further allocation of forces from higher-level tactical headquarters. Manoeuvre brigades are designed to be able to –

a. Fight as part of a Division or Division Tactical Group (DTG).

b. Fight as a separate force within a higher formation.

c. Sustain independent combat operations over a period of 1 to 3 days.

d. Integrate interagency forces up to battalion size.

e. Serve as the basis for forming a Brigade Tactical Group (BTG).

51. **Brigade Tactical Group.** As described earlier, a BTG is formed from a standard manoeuvre Brigade in the Administrative Force Structure. This is a general-purpose organisation with a balanced structure, and, for instance, if a mechanised formation will include its own tank and fire support units. Depending on its roles and

tasks different specialist capabilities may be added as detachments, battalions, companies or platoons as shown at Figure 18.

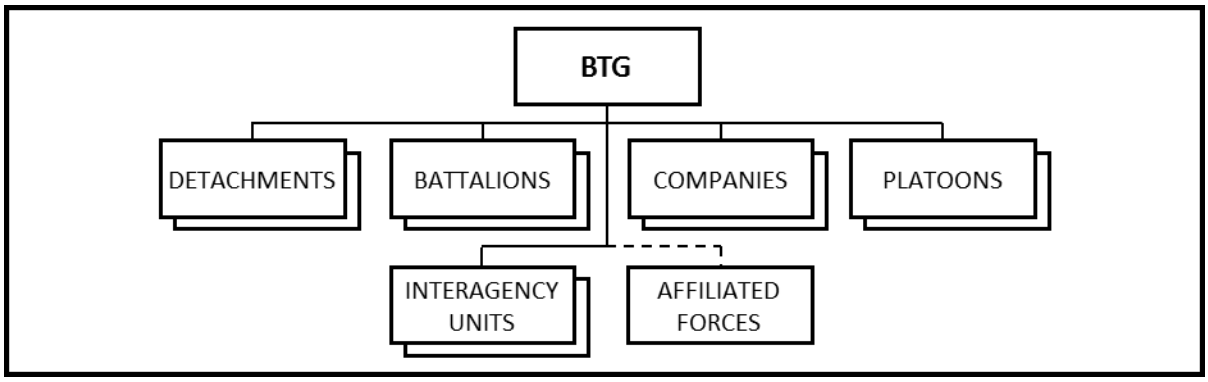


Figure 18 - The addition of force elements to from a Brigade Tactical Group (BTG)

52. **Battalion.** In the OPFO's force structure, the basic unit of action is the battalion, an example shown at Figure 19. Battalions are designed to be able to–

a. Fight as part of a brigade, BTG, division, or DTG.

b. Execute basic combat missions as part of a larger tactical force.

c. Plan for operations expected to occur 6 to 24 hours in the future.

d. Serve as the basis for forming a battalion-size detachment (BDET)

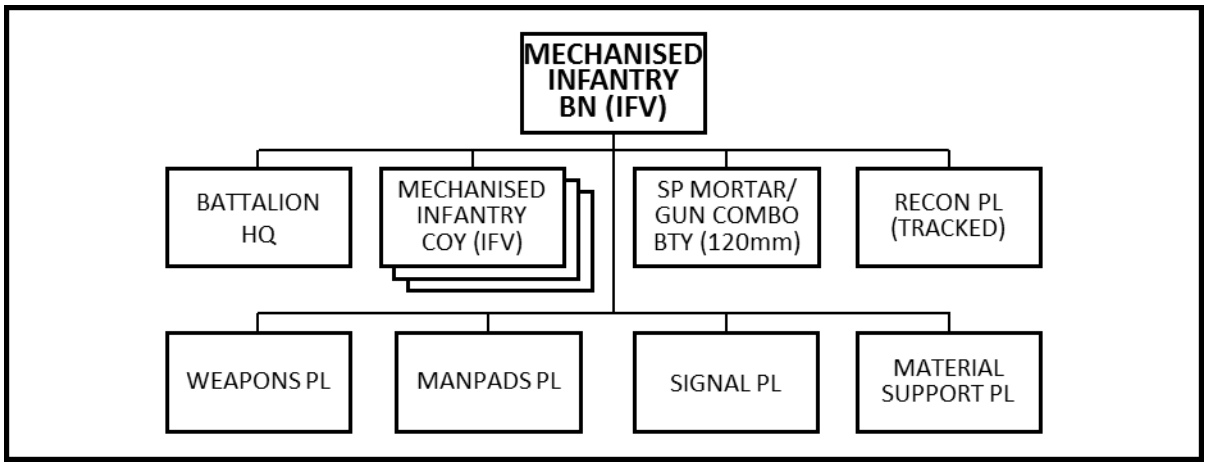


Figure 19 - Example of a Battalion structure

53. **Company.** In the OPFO's force structure, the largest unit without a staff is the company. In fire support units, this level of command is commonly called a battery. See Figure 20. Companies are designed to be able to–

a. Serve as the basis for forming a company-size detachment (CDET)

b. Fight as part of a battalion, or higher formation

c. Execute tactical tasks, (a company will not normally be asked to perform two or more tactical tasks simultaneously).

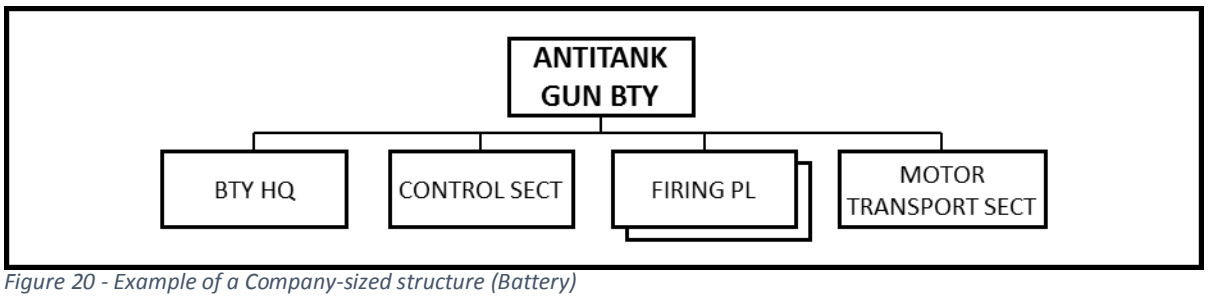


Figure 20 - Example of a Company-sized structure (Battery)

54. **Platoon.** In the OPFOR ’s force structure, the smallest unit typically expected to conduct independent fire and manoeuvre is the platoon. Platoons are designed to be able to–

a. Serve as the basis for forming a functional element or patrol.

b. Fight as part of a company, battalion, or detachment.

c. Execute tactical tasks, (a platoon will not be asked to perform two or more tactical tasks simultaneously).

d. Exert control over a small riot, crowd, or demonstration.

Chapter 2 ANNEX A

OPFOR MILITARY DECISION-MAKING

1. The military decision-making process consists of five phases: assess, orientate, decide, act, and adapt. These phases are not completely independent processes or stages of thought. Each phase overlaps and relies on the others.

Assess

2. The command group and staff develop estimates across the components of the combat system, including combat, combat support, C2, ISTAR, and logistics forces. There are three separate purposes served by the assessment process, including—

a. Develop situational awareness of forces and means at the disposal of the OPFOR and the enemy.

b. Determine possible enemy weaknesses.

c. Develop an understanding of OPFOR requirements.

3. The assessment phase requires the staff elements responsible for the discrete components of the combat system to conduct analysis and synthesis. Typically the analysis includes—

a. **Mission.** The commander must understand the senior commander's concept of the campaign or operation and his own command's role in it.

b. **Time and Space.** The OPFOR considers time a factor it can use to its advantage and prefers to exercise patience if that will achieve the goal. The OPFOR views time as an ally in developing a strategy of exhausting the enemy in pursuit of the state's goals.

c. **Environment.** In the assessment of the environment, the OPFOR includes terrain, population, and other physical dimensions of the battlespace.

d. **Capabilities and Intentions.** This is not limited to the immediate opponent, but includes all relevant regional and global actors.

e. **Opportunities and Risks.** In its decision making, the OPFOR attempts to identify both risks and opportunity posed by the environment, time and space, or capabilities and intentions of other actors.

Orientate

4. The orientation step or phase in the process enables the commander to direct preparatory steps prior to determining his aim or making his final decision. He first examines the mission given his unit and determines what tasks must be performed to accomplish this mission. This phase also includes activating ISTAR assets to develop information requirements identified in the assessment of the situation. Typically, the orientation phase would include preliminary instructions appropriate to the assessment of the situation. If the assessment phase reveals shortfalls or information requirements essential to reaching a final decision, orienting the command group, staff, and units enables the OPFOR to develop "pace" prior to final decision. This phase requires coordination with appropriate civilian authorities at the higher echelons, particularly in support of transition operations or adaptive operations. During the orientation phase, the commander and his staff develop several courses of action and compare them, attempting to refine the information required for decision.

Decide

5. In the "decide" step, the commander determines his aim or decision and communicates his concept for execution. He includes his directions for sustaining the aim. Typically, sustaining the aim involves assigning resources and developing parameters for execution that define the limits of subordinates' discretion. In communicating his thinking, the commander always includes branches and sequels that he can anticipate. In establishing the aim, he remains focused on the mission that he was assigned but does so in the context of the systems warfare approach to combat and how he may best achieve the ends envisioned in his mission. He attempts to reach a choice that enables the OPFOR to operate successfully by defeating an opponent through disaggregating one or more components of the enemy combat system. Consequently, the OPFOR is not very

interested in classic calculations of correlation of military forces, but more in finding a way to produce disproportionate effects.

6. When the commander has selected a base course of action with appropriate branches and sequels, he provides this decision to his staff for further planning and for dissemination of the finalized missions to the troops. The decision includes the concept, missions for major subordinates, the organization of forces, and the organization of the AOR. The components of the decision are the following:

a. **Objective** (Subordinate Unit Missions). The commander determines the objective of the operation and the missions to be assigned to constituent and dedicated forces. This part of the decision defines the priorities for supporting and affiliated forces.

b. **Opportunity.** The commander describes how the unit will achieve the necessary window of opportunity to execute the plan. This includes measures for protecting the force from standoff attack as well as creating or taking advantage of an enemy vulnerability.

c. **Method** (Concept of Operations). The commander describes by what means to accomplish the task or mission. He organizes the battlefield and his forces. He lays out the method by which the entity will support the higher formation, theatre or national campaign.

d. **End State.** The commander describes his vision for how the operation ends on OPFOR terms. He also describes how this operation sets the stage for follow-on operations.

Act

7. On the basis of the available data and the recommendations from the staff, the commander makes a decision. The decision may be one of the recommended courses of action, a combination of two or more recommendations, or a new solution. The commander can also keep the more promising non-selected variants as contingency plans.

8. Commanders avoid using stereotyped patterns that would make enemy templating and targeting easier. To aid in deception, they may create courses of action that appear on the surface as established fighting methods but are actually something else.

Adapt

9. Operational-level decision making is highly flexible. This flexibility comes from mission-type orders from the General Staff (or SHC or theatre headquarters) to the operational-level commands and onwards down. The staff structure provides operational-level commanders the capability for rapid situation assessment and decision making.

10. Since operational planning occurs well in advance, it would be difficult for the enemy to disrupt the initial decision making and planning. However, the operational-level commanders and staffs are continually updating and adapting the operation plan. The OPFOR uses IW measures to help ensure that the OPFOR commander has sufficient time to acquire and process information on the combat situation.

Chapter 2 ANNEX B

THE OPFOR OPERATION PLAN

1. Operation Plan. Operational-level commands prepare operation plans to control execution of their portion of military strategic campaign plan. The operation plan must—

a. Optimally allocate forces and resources to each mission.

a. Provide concrete methods to coordinate the actions of manoeuvre, fire support, and logistics support.

b. Provide for a specific sequence and methods for conducting each sub- task required to assure mission success.

2. From the completed operation plan, the staff creates operational directives or combat orders to inform subordinates of their missions, roles, and time requirements for executing the plan.

3. The operation plan details the commander's thinking and reflects the input of various subordinates and staff elements according to their functional responsibilities. It normally includes the following specific areas:

a. Assessment of the enemy situation and probable intentions.

b. Scope, aim, and concept of operations.

c. Organization of forces.

d. Organization of the battlefield.

e. Results of forces analysis.

f. Plan for commitment of reserves.

g. Missions of subordinate units.

h. Missions of supporting and adjacent units.

i. Plan for logistics support.

j. Locations of CPs.

4. The operation plan includes a varying number of annexes. There are normally annexes for C2, SPF, airborne landings, preparation and occupation of assembly areas, and movement routes, among others.

Chapter 2 ANNEX C

COMMAND POSTS

1. The OPFOR plans to exercise strategic, operational, and tactical control over its wartime forces from an integrated system of CPs. It has designed this system to ensure uninterrupted control of forces.

2. CPs are typically formed in three parts: a control group, a support group, and a communications group. The control group includes members of the command group and staff. The support group consists of the transport and logistics units. Whenever possible, the communications group, is remoted from the control and support groups, because of its large number of signal vans, generators, and other special vehicles that would provide a unique signature.

3. Because the OPFOR expects its C2 to come under heavy attack in wartime, its military planners have created a CP structure that emphasizes survivability through dispersal, stringent security measures, redundancy, and mobility. They have constructed a CP system that can sustain damage with minimum disruption to the actual C2 process. In the event of disruption, they can quickly re-establish control. This extensive system of CPs extends from the hardened command facilities of the NCA to the specially designed command vehicles from which OPFOR tactical commanders control their units. Most operational-level CPs have been designed to be very mobile and smaller than comparable enemy CPs. The number, size, and types of CPs depend on the level of command.

Command Post Types

4. OPFOR ground forces use five basic and three special types of CPs. Not all levels of command use all types at all times. The redundancy provided by multiple CPs helps to ensure that the C2 process remains survivable.

Level of Command	Basic					Special		
	Main CP	IFC CP	Forward CP	Sustainment CP	Airborne CP	Alternate CP	Auxiliary CP	Deception CP
CDET/Company			X	X				(X)
BDET/Battalion	X		X	X		(X)		(X)
BTG/Brigade	X		X	X	(X)	(X)	(X)	(X)
DTG/Division	X	X	X	X	(X)	(X)	(X)	(X)
OSC	X	X	X	X	(X)	(X)	(X)	(X)
Field Group	X	X	(X)	X	X	(X)	(X)	(X)
Theatre	X	X	(X)	X	X	(X)	(X)	(X)

5. FGs and OSCs can use the same basic types of CPs (main, IFC, forward, sustainment, and airborne). FG and OSC airborne CPs may be aboard fixed-wing aircraft. However, helicopters are more likely to serve this purpose at OSC level.

6. A theatre headquarters normally deploys main, IFC, and sustainment CPs. An airborne CP will always be available to the theatre commander. A theatre forward CP may be established. The main CP at this level may initially be in permanent, hardened bunkers; the other CP types may be at less-protected sites. The airborne CP is most likely aboard fixed-wing aircraft.

7. For brevity, OPFOR plans and orders may use acronyms for the various types of CP. Thus, main CP may appear as MCP, integrated fires command CP as IFC CP, forward CP as FCP, sustainment CP as SUSCP, airborne CP as AIRCP, alternate CP as ALTCP, auxiliary CP as AUXCP, and deception CP as DCP.

8. **Main Command Post.** The main CP generally is located in a battle zone or in a key sanctuary area or fortified position. It contains the bulk of the staff. The chief of staff directs its operation. Its primary purpose is to simultaneously coordinate the activities of subordinate units not yet engaged in combat and plan for subsequent missions. The particular emphasis on planning in the main CP is on the details of transitioning between current and future operations. The main CP is the focus of control. It is less mobile and much larger than the forward CP. It makes use of hardened sites when possible.

9. The chief of staff directs the staff in translating the commander's decisions into plans, directives, and orders. He also coordinates the movement and deployment of all subordinate units not yet in combat and

monitors their progress and combat readiness. In addition to the chief of staff, personnel present at the main CP include the liaison teams from subordinate, supporting, allied, and affiliated units, unless their presence is required in another CP.

10. **IFC Command Post.** The DC directs the IFC from the IFC CP. The IFC CP possesses the communications, airspace control, and automated fire control systems required to integrate ISTAR means and execute long-range fires. Each secondary staff subsection and some functional staff subsections have an element dedicated to the IFC CP. The IFC CP includes liaison teams from fire support, army aviation, and Air Force units. The IFC CP is typically separated from the main CP. Also for survivability, the various sections of the IFC headquarters that make up the IFC CP do not necessarily have to be located in one place.

11. **Forward Command Post.** An OSC commander often establishes a forward CP with a small group of selected staff members. Its purpose is to provide the commander with information and communications that facilitate his decisions. The forward CP is deployed at a point from which he can more effectively and personally observe and influence the operation. The need for this is less likely at the FG and theatre levels. This CP is mobile, but at the operational level may consist of a large number of command vehicles.

12. The personnel at the forward CP are not permanent. The assignment of officers to accompany the commander is dependent on the mission, situation, availability of officers, communications, and transport means. Officers who may accompany the commander include the operations officer and the chief of reconnaissance. Other primary and or secondary staff officers may also deploy with the forward CP, depending on the needs of the situation. The secondary staff contains enough personnel to man the forward CP without degrading its ability to man the main or IFC CPs.

13. When formed, and when the commander is present, the forward CP is the main focus of command, though the chief of staff (remaining in the main CP) has the authority to issue directives in the commander's absence.

14. **Sustainment Command Post.** The resources officer establishes and controls the sustainment CP. This CP is deployed in a position to permit the supervision of execution of sustainment procedures and the movement of support troops, typically in the support zone. It contains staff officers for fuel supply, medical support, combat equipment repair, ammunition supply, clothing supply, food supply, prisoner-of-war, and other services. It interacts closely with the subordinate units to ensure sustained combat capabilities. In nonlinear operations, multiple sustainment CPs may be formed.

15. **Airborne Command Post.** To maintain control in very fluid situations, when subordinates are operating over a wide area, or when the other CPs are moving, a commander may use an airborne CP. This is very common in higher-level commands and typically employs fixed-wing aircraft above OSC level.

16. **Alternate Command Post.** The alternate CP provides for the assumption of command should the CP containing the commander be incapacitated. The alternate CP is a designation given to an existing CP and is not a separately established entity. The commander establishes which CP will act as an alternate CP to take command if the main (or forward) CP is destroyed or disabled. For example, the commander might designate the IFC CP as the alternate CP during an operation where long-range fires are critical to mission success. For situations that require reconstituting, he might designate the sustainment CP instead. Alternate CPs are also formed when operating in complex terrain, or if the organization is dispersed over a wider area than usual and lateral communication is difficult.

17. **Auxiliary Command Post.** At OSC and FG levels, the operational commander may create an auxiliary CP to provide C2 over subordinate units operating on isolated or remote axes. He may also use it in the event of disrupted control or when he cannot adequately maintain control from the main CP. An officer appointed at the discretion of the commander mans it. The auxiliary CP may also find uses at the theatre level, when subordinate forces may be far from the main CP.

18. **Deception Command Post.** As part of the overall IW plan, the OPFOR very often employs deception CPs. These are complex, multi-sensor-affecting sites integrated into the overall deception plan to assist in achieving battlefield opportunity by forcing the enemy to expend command and control warfare (C2W) effort against meaningless positions.

Command Post Deployment and Movement

19. Plans for relocating the CPs are prepared by the operations section. The CPs are deployed and prepared in order to ensure that they are reliably covered from enemy ground and aerial reconnaissance, or from attack by enemy raiding forces.

20. Commanders deploy OSC CPs in depth to facilitate control of their AORs. During lengthy moves, CPs may bound forward along parallel routes, preceded by reconnaissance parties that select the new locations. Normally, the main and forward CPs do not move at the same time, with one moving while the other is set up and controlling operations. During an administrative movement, when there is little or no likelihood of contact with the enemy, a CP may move into a site previously occupied by another CP. However, during a tactical movement or when contact is likely, the OPFOR does not occupy a site twice, because to do so would increase the chances of an enemy locating a CP. While on the move, CPs maintain continuous contact with subordinates, higher headquarters, and flanking organizations. During movement halts, the practice is to disperse the post in a concealed area, camouflaging it if necessary and locating radio stations and special vehicles some distance from the control and support groups. Because of dispersion in a mobile environment, CPs are often responsible for their own local ground defences.

21. During the movement of a main CP, the OPFOR maintains continuity of control by handing over control to either the forward or airborne CP or, more rarely, to the alternate CP. Key staff members often move to the new location by helicopter to reduce the time spent away from their posts. Before any move, headquarters' troops carefully reconnoitre and mark the new location. Engineer preparation provides protection and concealment.

22. **Command Post Location.** The OPFOR locates CPs in areas affording good concealment, with good road net access being a secondary consideration. It situates CPs so that no single weapon can eliminate more than one. Remoting communications facilities lessens the chance of the enemy's locating the actual CP by radio direction finding.

23. During some particularly difficult phases of an operation, where close cooperation between units is essential, the forward CP of one unit may be collocated with the forward or main CP of another. Examples are the commitment of an exploitation force, the execution of a strike, or the passing of one organization through another.

24. **Command Post Security.** Security of CPs is important, and the OPFOR takes a number of measures to ensure it. CPs are a high priority for air defence protection. Ideally, main CPs also locate near reserve forces to gain protection from ground attack. Nevertheless, circumstances often dictate that they provide for their own local defence. Engineers normally dig in and camouflage key elements.

25. Good camouflage, the remoting of communications facilities, and the deployment of alternate CPs make most of the C2 structure fairly survivable. Nevertheless, one of the most important elements, the forward CP, often remains vulnerable. It forms a distinctive, if small, grouping, well within enemy artillery range, even at OSC level. The OPFOR therefore typically provides key CPs with sufficient engineer and combat arms support to protect them from enemy artillery or special operations raids.

Chapter 2 ANNEX D

THE INTEGRATED FIRES COMMAND STRUCTURE

IFC Headquarters

1. The OSC IFC headquarters, like the overall OSC headquarters, exists in peacetime in order to be ready to accommodate and exercise C2 over all forces made subordinate to it in wartime. The IFC headquarters is composed of the IFC commander and his command group, a ISTAR and IW section, an operations section, and a resources section. (See Figure 16)

2. The deputy commander (DC) of the OSC serves as IFC commander. The ISTAR and IW section provides the complete spectrum of intelligence and IW support for the IFC. The operations section provides the control, coordination, and communications for the headquarters. Located within the operations section is the fire support coordination centre (FSCC). To ensure the necessary coordination of fire support and associated ISTAR, the operations section of the IFC headquarters also includes liaison teams from subordinate units. The resources section provides control and coordination of various logistics and administrative support functions.

Artillery Component

3. The artillery component is a task organization tailored for the conduct of artillery support during combat operations. In an O C's IFC, it is typically organized around one or more artillery brigades, or parts of these that are not allocated in a constituent or dedicated relationship to tactical-level subordinates. The artillery component includes appropriate target acquisition, C2, and logistics support assets.

4. The number of artillery battalions assigned to an IFC varies according such factors as mission of friendly units, the enemy situation, and terrain. However, the number of artillery units also can vary based on the capabilities of the supporting AFCS. For example, a multiple rocket launcher (MRL) brigade AFCS can have enough command and staff vehicles for the brigade commander and his chief of staff, as well as the subordinate commanders of battalions and up to 18 batteries (6 battalions). An AFCS supporting a cannon, MRL, or mortar battalion may consist of enough command and staff vehicles to support 3 to 4 batteries (each consisting of 4 to 8 systems).

Aviation Component

5. The aviation component is a task organization tailored for the conduct of aviation operations. The aviation component is task organized to provide a flexible and balanced air combat organization capable of providing air support to the OSC commander. It may be organized around an Air Force aviation regiment or an air army, or parts of these, as required by the mission. It may also include rotary-wing assets from army aviation. It includes ground attack aviation capability as well as requisite ground and air service support assets. The IFC commander exercises control through facilities provided by the airspace operations subsection of the OSC staff and/or the aviation unit(s).

Missile Component

6. The missile component is a task organization consisting of long-range missiles or rockets capable of delivering conventional or nuclear, biological, and chemical (NBC) munitions. It is organized around an SSM or rocket battalion or brigade and includes the appropriate logistics support assets. Missile and rocket units may come from the Strategic Forces or from other parts of the administrative force structure (where they may be part of a corps, army, or army group).

7. The State considers the long-range rocket and missile capability, even when delivering conventional munitions, the responsibility of the NCA. For example, the SHC or theatre commander may allocate Strategic Forces assets to an IFC in order to use long-range missiles and rockets to advance State political ends during regional, transition, or adaptive operations. Unable to mount robust air campaigns, the State can use these weapons to mount an equivalent effort.

Special-Purpose Forces Component

8. The SPF component normally consists of assets from an SPF brigade. Personnel of such a brigade are specially trained for insertion in small SPF teams. These assets provide the OPFOR the ability to attack both regional and extra-regional enemies throughout their tactical, operational, and strategic depth. SPF assets are inserted in advance of regional operations and in support of transition and adaptive operations. They are an

essential part of the concept of using all means necessary and are critical to access-control operations. SPF assigned to the Army, Air Force, and Navy are designed for use at the operational level. The national-level SPF Command has its own SPF units.

9. The SPF conduct operations to achieve strategic military, political, economic, and/or psychological objectives or achieve tactical or operational goals in support of strategic objectives. Such operations may have either long-range or immediate impact on the enemy. The OPFOR concept of SPF operations includes reconnaissance, direct action, and diversionary measures. The SPF component of the IFC has a capability to support terrorist and irregular forces operations.

10. If an OSC has received SPF units, it may further allocate some of these units to supplement the long-range reconnaissance assets a division or DTG has in its own IFC. However, the scarce SPF assets normally would remain at OSC level.

Integrated Support Group

11. The integrated support group (ISG) is a compilation of units performing logistics tasks that support the IFC. Other combat support and combat service support units may be grouped in this component for organizational efficiency although they may support only one of the major units of the IFC. The ISG is discussed in detail in Chapter 12. It can perform the same functions as the integrated support command (see below and in Chapter 12), but on a different scale and tailored to the support requirements of the IFC.

Chapter 3 – OFFENSIVE OPERATIONS AND TACTICS

Introduction to this chapter

1. This chapter provides a summary description of OPFOR offensive operations at both the operational and tactical levels. It is a synthesis of the two relevant US field manuals with the structure slightly changed for clarity and to avoid repetition. The chapter begins by explaining the purpose of offensive operations at the operational and tactical levels and then provides a section on terms and typology explaining important labels and highlighting where their meaning differs from Western usage. There is then a section describing how OPFOR planners spatially organise the battlefield, and another how they organise functional groupings, which is key to their system of functional tactics. A brief section lists and introduces the six types of attack at the operational level, and subsequent sections describe them in turn. The final part of the chapter lists the four types of tactical (detachment, Battalion or below) offensive action, and describes each.

The OPFOR understanding of offensive operations

2. The OPFOR traditionally asserted the primacy of the offensive in warfare. In recent years, their thinking has shifted subtly. They now acknowledge how the relative advantage of attackers and defenders has, over history, been shifted by technology, and recognise that a defensive strategy can set the conditions for decisive offensive action. Nevertheless, they believe that offensive engagement and an offensive spirit are essential for imposing their will on an enemy and achieving victory. When offensive operations cannot be conducted at the strategic or operational level, offensive action remains vital, at the tactical level, to retain the initiative and moral advantage. Furthermore, a successful defensive battle depends on seizing opportunities for aggressive counter-penetration, counterattacks, and offensive fires.

3. In the past, OPFOR military culture emphasised aggressive manoeuvre, penetration, envelopment, and destruction of enemy main forces. The adoption of systems warfare is the first part of the subtle shift away from this. The importance of aggression and offensive spirit have not diminished, but the emphasis is on fighting intelligently, by striking weaknesses, not strengths. This is especially true if conducting adaptive warfare while confronting an extra-regional power. Rather than defaulting to direct attacks on the enemy's centre of gravity, the State exhorts commanders to identify and focus on vulnerable nodes in the enemy's combat systems.

The purpose of offensive operations

4. In OPFOR doctrine, all operations must have an explicit purpose. Within the system of functional tactics, described in the previous chapter, the purpose provides a shorthand guide to a subordinate as to what is to be done and how. For offensive operations, at the operational level, there are three options, while there are six possible purposes for tactical level operations which are as follows-

a. Operational level purposes. At the operational level, the OPFOR recognises three general categories of offensive operation, distinguished by their purpose.

i. **Destroy.** An attack to destroy is designed to eliminate a target entity as a useful fighting force. Such attacks are usually focused on key combat formations or capabilities, especially vulnerable components of the enemy's combat system, and are more commonly occurring during regional operations.

ii. **Seize.** An attack to seize is designed to gain control of a key terrain feature or man-made facility and requires soldiers to occupy the location in question.

iii. **Expel.** An attack to expel is used to force the defender to vacate an area and will often have a strong information warfare involvement to reduce enemy resolve. Such attacks are more likely during transition or adaptive operations.

[*This is a summary of the operational purposes of the attack. More details are provided at Annex A to Chapter 3]*

b. **Tactical level purposes.** At the tactical level, the purpose of an attack is to support operational level goals by proactive means. For the OPFOR commander, the initial critical question at the tactical level is not how to conduct an attack, but rather *why?* This is determined by the decision-

making process but will normally be one of six recognised purposes of tactical offensive missions explained below.

i. **Gain freedom of movement.** An attack to gain freedom of movement creates a situation in an important part of the battlefield where other friendly forces can manoeuvre, in a method of their own choosing, with little or no opposition. Examples include breaching an obstacle or securing a movement corridor.

ii. **Restrict freedom of movement.** An attack to restrict freedom of movement prevents the enemy from manoeuvring as they so choose. An example includes destroying enemy engineering capabilities.

iii. **Gain control of key terrain, personnel, or equipment.** An attack to gain control of key terrain, personnel, or equipment is not necessarily terrain focused as a raid with the objective of taking prisoners or key equipment is primarily an attack to gain control.

iv. **Gain information.** An attack to gain information is a subset of the reconnaissance attack. (See Reconnaissance Attack later in this chapter.) In this case, the purpose is not to locate to destroy, fix, or occupy but rather to increase knowledge about the enemy.

v. **Dislocate.** An attack to dislocate employs forces to obtain significant positional advantages, rendering the enemy's dispositions less valuable, perhaps even irrelevant. It aims to make the enemy expose forces by reacting to the dislocating action. Examples of tactical tasks to dislocate include ambush, interdict, and neutralise.

vi. **Disrupt.** An attack to disrupt is used to prevent the enemy from executing an advantageous course of action (COA), to degrade their ability to do so, or to create windows of opportunity to be exploited. Disruption operates against enemy plans and intentions, aiming to cause the enemy confusion and loss of focus, and thus throwing their battle synchronization into turmoil. A spoiling attack is an example.

5. **Note: Destruction.** It is notable that in OPFOR doctrine, destruction is specified as an operational but not a tactical level purpose. However, as will be explained below, the tactical level offensive action strike is a type of attack that seeks to destroy. Similarly, an assault is an attack that destroys the enemy.

Terms and Typology

6. Readers may find OPFOR terms and typology confusing as there are a variety of different types of 'attacks' or 'offensive operations'. The types of offensive action are both tactical methods and guides to the design of a course of action. The system of functional tactics, described in the previous chapter, offers simplicity of execution but can seem ambiguous[4]. Similar words are sometimes used to label different concepts. This section introduces some of the most important terms and how they are used, noting that they are explained in greater detail later in the chapter, as necessary.

7. **Forces and elements.** The terms forces and elements are used formally to distinguish between tactical groupings of lower and higher status. Force refers to formation sized groupings, while element refers to unit sized or smaller groupings. (Caveat: sometimes the word force is used informally to mean 'a body of troops' this means that it is possible for a grouping to be both a force and an element concurrently. A grouping might be referred to as, for example, a disruption force as one of several forces in a higher-level plan, yet if this function is executed by a Battalion or smaller grouping, then it may also be accurately referred to as a disruption element in the lower-level plan.

8. **Planned versus situational.** The OPFOR distinguish between offensive activities depending on the amount of time available to plan, prepare, and execute. (Here we refer to activities because they could just as well be operations, attacks, or actions). For this distinction there are only two categories: planned and situational. These have the same meanings as deliberate and quick/hasty in Western doctrine respectively. However, the OPFOR situational attack is simpler than its Western equivalent and they anticipate that a commander will execute it with a rapid assessment and minimal staff involvement. The ingrained level of battle drills mean that this is feasible without the typical Western army battle procedures. Since the OPFOR

[4] For example, the word disruption may be the purpose of an attack, a tactical task and the name of a grouping executing the task. In the latter two cases it gives a subordinate information about how the task is to be carried out.

decision-making process actively seeks opportunities, their commanders may contemplate situational attacks more frequently than their Western contemporaries.

9. **Types of offensive action.** The OPFOR distinguish between offensive actions carried out at the operational level (tactical groups, divisions, and brigades) and lower tactical levels (detachments, Battalions and subunits). At the operational level there are four forms of offensive operation. The integrated and dispersed attacks are broadly comparable to deliberate and infiltration attacks in Western doctrine, however while their concept of the limited objective attack includes the familiar concepts of spoiling and counterattacks, their inclusion of sophisticated ambush (as an offensive action) and strike is quite different. At the lower tactical level, the idea of assaults, reconnaissance attacks, and raids at unit level are unremarkable, however the ambush appears again as an offensive action. It is important to note that the term assault is understood by OPFOR as a mission or task equivalent to an attack, rather than meaning the later close-battle stages of an attack. The types of offensive actions, which are explained in detail later in this chapter, are listed below -

a. Operational level offensive actions

i. Integrated attack;

ii. Dispersed attack;

iii. Limited objective attack; or a

(1) Sophisticated ambush.

(2) Spoiling attack.

(3) Counterattack.

iv. Strike.

b. Tactical level offensive actions.

i. Assault

ii. Ambush;

iii. Raid; or a

iv. Reconnaissance attack

Approach and key considerations

10. The OPFOR approach to offensive operations is, as introduced earlier, centred on the notion of 'fighting smart' which emphasises striking vulnerabilities, not strengths, and seeking out and striking crucial systems or subsystems to successively degrade enemy capability.

11. The OPFOR considerations for both the preparing for and then the executing offensive operations provide a useful sense of their priorities. Note the primary focus on establishing and maintaining contact and the readiness to modify plans. The individual considerations are explained in full at Annex B, but the headings are listed here -

a. Preparing for offensive operations

i. Establish contact.

ii. Make thorough logistic arrangements.

iii. Modify the plan when necessary.

iv. Rehearse critical actions in priority.

b. Executing offensive operations.

i. Maintain contact.

ii. Modify the plan when necessary.

iii. Seize opportunities.

iv. Dominate the tempo of combat.

Planning: Organising the battlefield

12. The organisation of the battlefield into Areas of Responsibility (AOR), various zones, objectives, and axes at each level of command is the key spatial planning that underpins the functional tactics approach. The combination of this graphic data with the assignment of functional tasks provides the essential information for subordinates to plan from. This may even be sufficient to execute situational operations without further orders. During the advance, zones and their control lines move forwards, corresponding with successful attacks. The various control measures are described below and illustrated at Figure 21 which shows the AOR for an Operational Support Command (OSC).

a. **Areas of responsibility.** OPFOR AOR at any level of command are bounded by Limits of Responsibility (LOR) and subdivided by the battle line and the control line into the disruption zone, the battle zone, and the support zone, all of which will progressively move forwards. They may also contain one or more attack or kill zones, objectives and axes. Commanders in turn assign their subordinates AOR and zones, thereby giving them clear indication as to their freedom of action.

b. **Disruption zone.** The disruption zone is that battlespace in which the OPFOR seeks to use direct and indirect fires and special-purpose forces activity to destroy the integrity of enemy forces and capabilities without decisive engagement. The zone lies between the forward LOR and the battle line and shifts as both advance. It is where the disruption force (further described below) seeks to conduct damaging local attacks while maintaining a covered withdrawal route to avoid decisive engagement. Typical targets are -

   i. C2 systems;

   ii. ISTAR assets;

   iii. Aviation assets;

   iv. Precision fire systems;

   v. Logistics support areas;

   vi. Lines of Communication;

   vii. Mobility and counter mobility assets; and/or

   viii. Casualty evacuation routes and means.

c. **Battle zone.** The battle zone is where the OPFOR seeks to fix and/or destroy enemy forces through simultaneous or sequential application of all components of combat power. The battle zone is separated from the disruption zone by the battle line and from the support zone by the support line.

d. **Support zone.** The support zone is that area of the battlespace designed to be free of significant enemy action and to permit effective logistics and administrative support. Security forces operate in the support zone in a combat role to defeat enemy special operations forces and other threats. To protect the force from standoff ISTAR and precision attacks, camouflage, concealment, cover, and deception (C3D) measures apply throughout the support zone.

e. **Attack zone.** The attack zone is the assigned zone of action for an attacking force or element. In operation plans and directives, the senior commander assigns attack zones to subordinate units, which gives them a defined area of freedom of action.

f. **Kill zone.** A kill zone is a designated area on the battlefield where the OPFOR plans to destroy a key enemy target. Kill zones are tied to enemy targets and the OPFOR weapon systems that will engage them, and not any particular (and potentially shifting?) zone of the Area of Responsibility (AOR). They may be designated by a senior commander to focus combat power.

g. **Objectives and Axes.** An objective is a geographic location or physical object, the seizing and/or holding of which is a main goal of an offensive operation. An axis is a control measure showing

the location, through which a force will move, as it proceeds from its starting location to its objective.

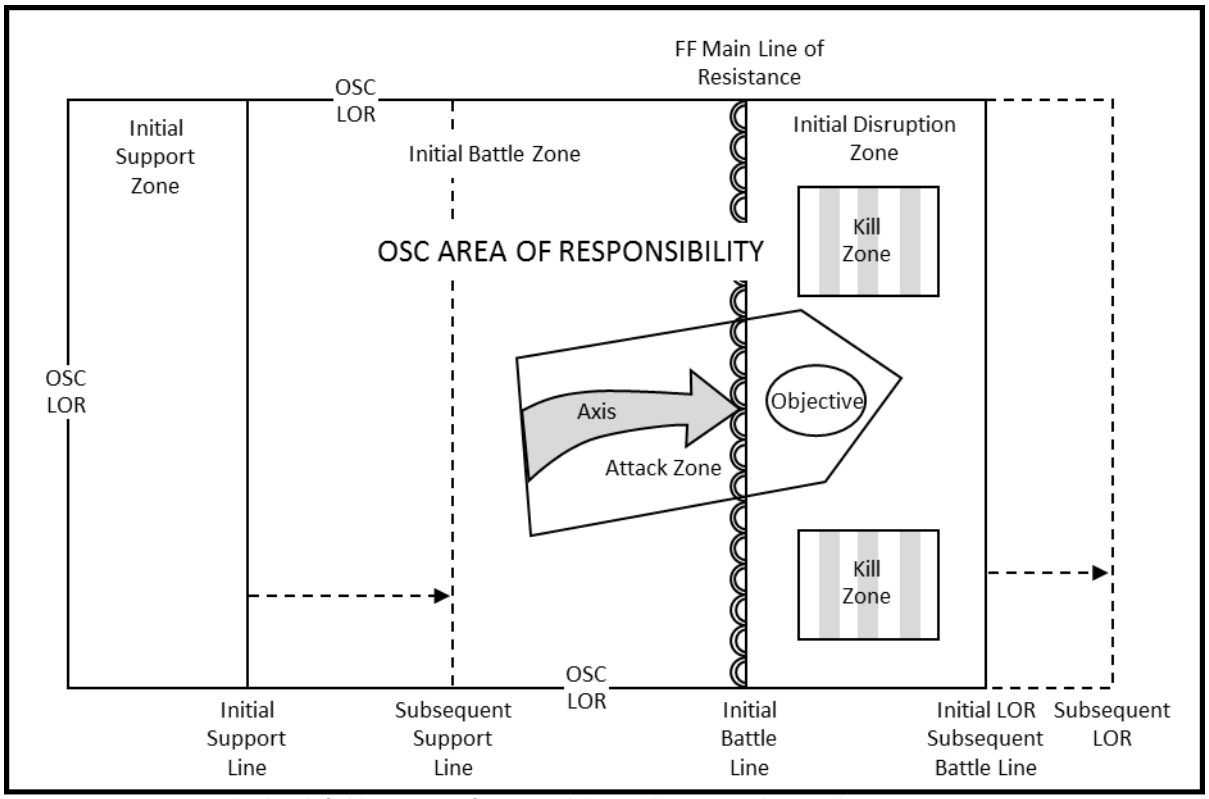


Figure 21 - Organising the battlefield, an Area of Responsibility and associated Control Measures

Planning: organising functional groupings

13. The OPFOR system of functional tactics uses intuitive labels. As previously explained, it gives groupings a functional designation that identifies both; the role a grouping will perform in the plan and its size. The OPFOR consider that the two basic categories of functions for offensive operations are enabling, and action with subcategories of each. Additionally, at the higher operational level, reserves may be formed that are neither part of the action nor enabling grouping, while, at the lower tactical level, they may specify specialist elements which are also neither enabling nor action groupings. The convention is that after the functional prefix, the size suffix force, element or detachment is placed, and in the latter case the size is often indicated, for example battalion attachment (BDET).

14. The system provides OPFOR commanders with a menu of functional labels. While the standard arrangement for an attack is a fixing, assault, and exploitation grouping (as described below), the assignment of groupings with different functional labels offers an OPFOR commander the means of quickly communicating variation and the intent of a plan. The main ones are examined in more detail below -

a. **Enabling forces/elements.** Various types of enabling forces are charged with creating the conditions that allow the action force the freedom to operate. In order to create a window of opportunity for the action force to succeed, the enabling force may be required to operate at a high degree of risk and may sustain substantial casualties. However, an enabling force may not even make contact with the enemy, but could instead conduct a demonstration. At the tactical level, the most common enabling groupings are security elements and support elements. The security element provides local tactical security and prevents the enemy from influencing mission accomplishment. The support element provides combat and combat service support and command and control (C2) for the larger organization. A list of enabling forces/elements is examined more thoroughly below.

i. **Disruption force/element.** A disruption force/element seeks to destroy the integrity of enemy forces and capabilities without decisive engagement. Special-purpose forces may play a significant role. Likely tasks are to-

(1) Disrupt defensive works and preparations;

(2) Delay or fix enemy counterattacks or response forces;

(3) Attack lucrative targets (key systems or vulnerable troops); Or

(4) Deny aerial reconnaissance and attack (with air defence systems).

ii. **Fixing force/element.** Fixing enemy forces so they are not free to manoeuvre is a key concept in OPFOR offensive doctrine thus planners will specify which enemy forces are to be fixed and by what means. Fixing may be achieved materially by denying mobility through obstacles or decisive engagement, but also psychologically by the feeling of being decisively engaged, presenting an unclear battlefield picture, and potentially or hopefully preventing effective communication with higher command.

iii. **Assault force/element.** The OPFOR commander may employ one or more assault forces/elements which may conduct an assault to destroy an enemy force or seize a position. However, the role of an assault force (or element) within the enabling force/element is to create a window of conditions that allow the action/exploitation force to rapidly penetrate enemy defences or otherwise accomplish the formation's overall mission. Importantly, the assault force/element might not be focused on the direct assault and destruction of enemy positions, rather, it might infiltrate to dominating positions to neutralise through direct fire or by applying a variety of fires or obscurants from a distance.

iv. **Security force/element.** The security force/element conducts activities to prevent or mitigate the effects of hostile actions against the grouping and/or its key components. If the commander chooses, he may charge this security force with providing force protection for the entire area of responsibility (AOR). At the operational level, the security force/element may include various types of units including Internal Security Forces (ISF).

v. **Deception force/element.** When the INFOWAR plan requires combat forces to take some action (such as in a demonstration or feint), these forces/elements will be designated as deception forces in close-hold executive summaries of the plan. Wide-distribution copies of the plan will refer to these forces according to the designation given to them in the deception story.

vi. **Support force/element.** A support force provides support by fire; other combat or combat service support; or C2 functions for other parts of the tactical group.

b. **Action forces/elements.** The part of the grouping conducting a particular offensive action that is normally responsible for the primary function or task that accomplishes the overall goal or objective is called the action force/element. Usually, the commander will give a more specific designation that identifies the specific function it is intended to perform.

i. **Exploitation force/element.** Usually, an exploitation force/element is assigned the task of achieving the objective of the mission. (Note that this differs from Western doctrine where an assault force secures the objective, and an exploitation force seizes subsequent opportunities.) The exploitation force/element typically exploits a planned window of opportunity created by an enabling force/element. In some situations, the exploitation force might engage the ultimate objective with fires only.

ii. **Strike force/element.** A strike is an offensive tactic that rapidly destroys a key enemy organization through a synergistic combination of massed precision fires and manoeuvre. (Note that there is no equivalent in Western doctrine.) The primary objective of a strike is the enemy's will and ability to fight. A strike is typically planned and coordinated at the operational level. However, it is often executed by a tactical-level force. The force that actually accomplishes the final destruction of the targeted enemy force is called the strike force/element.

iii. **Mission force/element.** In those non-strike offensive actions where the mission can be accomplished without the creation of a specific window of opportunity, the set of capabilities that accomplish the mission may be collectively known as a mission force.

c. **Reserves.** Separately designated reserves may sometimes be formed separate to the enabling action/element.

d. **Specialist elements.** At the lower tactical level, in certain situations, a unit or detachment may organize one or more specialist elements. Specialist elements are typically formed around or from a unit with a specific capability, such as obstacle-clearing or reconnaissance.

15. **Tactical level elements.** At the lower tactical level groupings are designated as elements (or detachments) but this designation may be more detailed, for example, not just security element but left flank security element. Similarly, the size may be specified as battalion detachment (BDET) or company detachment (CDET). Exactly as described above, at the operational level, the two main functional categories of enabling and action apply, with more specific labels as appropriate. However, at the tactical level specialist elements may also be nominated, with very clear titles. For example, a movement support detachment would typically have both reconnaissance and obstacle clearing element and one or two road and bridge construction and repair elements.

Conduct of operational offensive action

16. As introduced briefly above, at the operational level, the OPFOR have four types of offensive action[5] which are further clarified below. These four types are, as follows, -

a. An integrated attack;

b. A dispersed attack;

c. A limited objective attack; and

d. A strike.

17. The limited objective attack can be further broken down into -

a. A sophisticated ambush (operational level only)

b. A spoiling attack; or

c. A counterattack.

18. **Attack groupings.** For all forms of attack, there will almost invariably be an action force/element and an enabling force/element, with the latter typically divided into a fixing, assault and sometimes support grouping. There is the flexibility to, for instance, not include an assault group or permit the addition of other groupings. Typical groupings are below, with the forces/e– With the forces/elements in bold below deemed the essential groupings, the typical groupings are the –

a. Enabling force/element; often assigned as one or more of the following -

i. Fixing force/element

ii. Assault force/element

iii. Support force/element

b. Action force/element; usually assigned as the exploitation grouping

19. The function of the different groupings will vary slightly with the type of attack being conducted as further discussed below.

20. **Exploitation emphasis.** OPFOR doctrine for offensive operations places an organisational emphasis on the exploitation of a successful attack (rather than the conduct itself). Counterintuitively, the action force in an attack is the exploitation force, not the assault force. The OPFOR do not have a separate design for exploitation as a distinct tactic, as in some Western doctrine, rather it is a central part of all attacks. Similarly, there is not a separate pursuit tactic and pursuit is the responsibility of assault or exploitation forces.

[5] Slightly confusingly, some Olvanan doctrine specifies two subtypes of attack, the integrated attack and the dispersed attack while limited objective attacks are not a subtype of attack rather a separate offensive operation with its own subtypes.

Integrated attack.

21. The integrated attack is broadly distinguished by an OPFOR willingness to concentrate forces for more than brief periods of time. The integrated attack is therefore more likely to be employed during regional operations because it is the preferred tactic of OPFOR when at least two or three of the following conditions exist. These conditions are that

a. The OPFOR possesses a significant overmatch in combat power over enemy forces;

b. It possesses at least air parity over the critical portions of the battlefield; and/or

c. It is sufficiently free of enemy standoff reconnaissance and attack systems to be able to operate without accepting high levels of risk.

22. Doctrinally, the primary objective of an integrated attack is both the enemy's will and ability to fight, however the OPFOR systems warfare approach emphasises striking vulnerabilities. The integrated attack is broadly like a conventional Western attack, but with the following characteristics -

a. A focus on destruction of command and control (C2) and logistics rather than ground combat power;

b. Fixing most of the enemy's force in place with the minimum force necessary;

c. Isolating targeted subcomponent(s) of the enemy's combat system;

d. Using complex terrain to force the enemy to fight at a disadvantage;

e. Using deception and other components of Information Warfare (IW) (to degrade the enemy's situational understanding and ability to target OPFOR formations; and/or

f. Flank attack and envelopment, particularly of enemy forces that have been fixed.

23. The role of the enabling force (or element) in an integrated attack is to create a window of conditions that allow the exploitation force to rapidly penetrate enemy defences. Importantly, both a fixing force and an assault force may engage from a distance, with the assault force not necessarily directly assaulting enemy positions, rather infiltrating to dominating positions to neutralise by direct fire or employ obscurants.

24. The focus on exploitation is clear from the schematic of an integrated attack conducted at the higher operational level illustrated at Figure 22. A fixing force initially operates on the main line of enemy resistance. Within an overall assault force (which it should be recalled that within OPFOR doctrine is a type of enabling force) the key threat from enemy tactical air is neutralised by a rocket artillery force, while a mechanised and helimobile force attack and breach the enemy front. The exploitation force advances through to focus on the enemy support area.

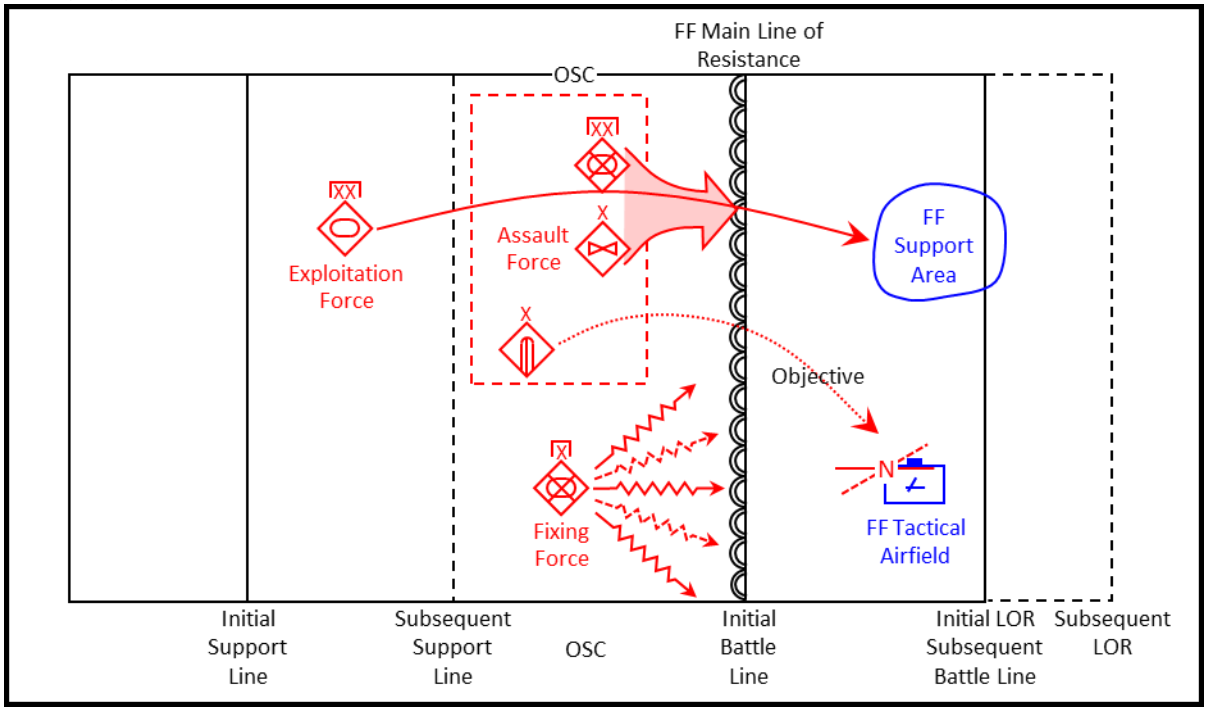
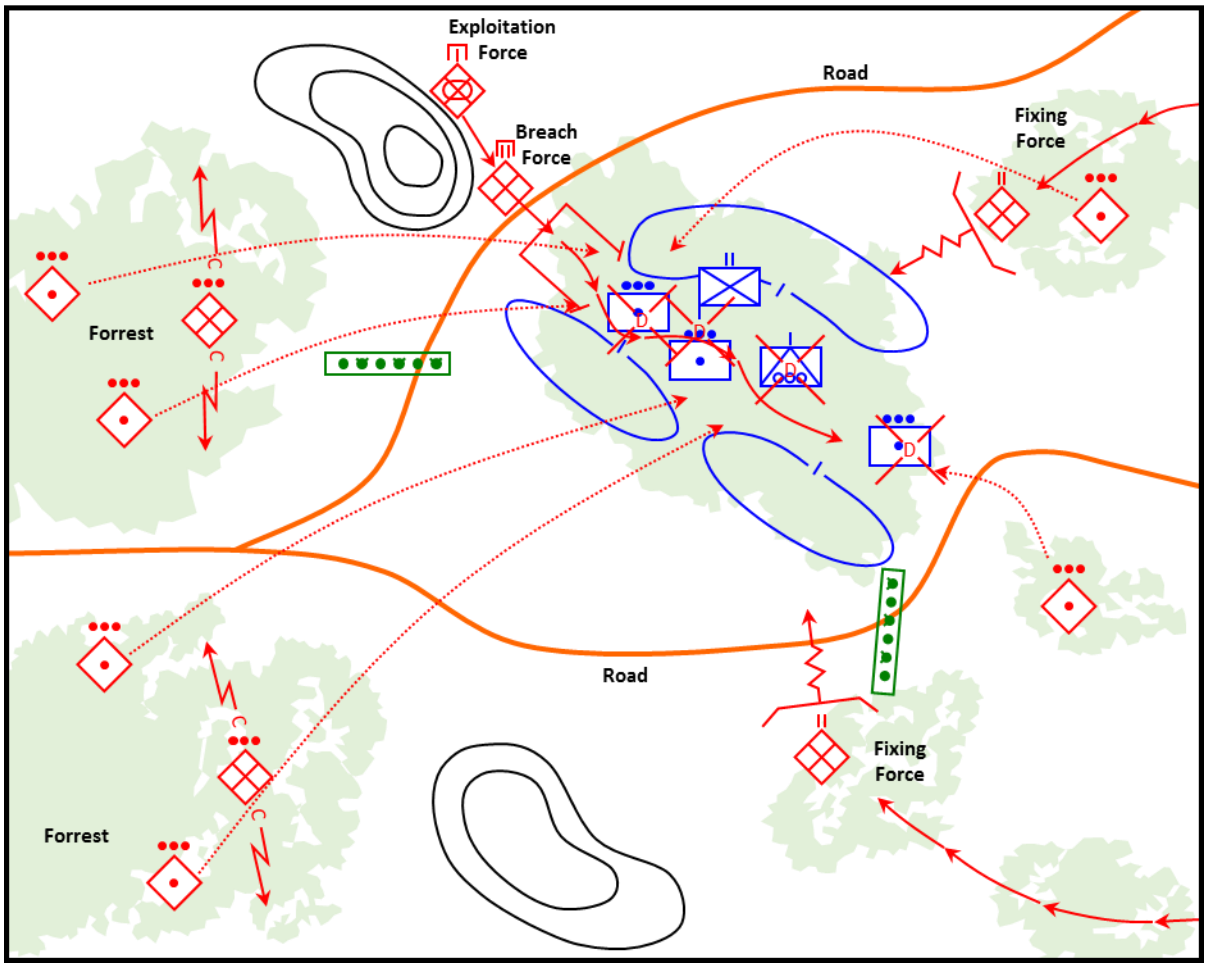


Figure 22 - Schematic showing an integrated attack at the higher operational level



1Figure 23 - Schematic showing an integrated attack at the tactical level

25. An example of an integrated attack at the tactical level is schematically illustrated at Figure 23. This shows the emphasis on enveloping, fixing, and isolating is to set the conditions for breaching and exploitation. OPFOR are attacking an enemy Battalion group in all-round defence in a central forest area. As part of the enabling force the OPFOR deploys fixing forces on two flanks. Concurrently, on several other approaches it deploys reconnaissance and artillery elements to act as a support force, (although not labelled as such on the diagram). This provides both an enveloping and isolating effect. The attack itself takes an approach that exploits a gap or boundary between enemy subunits. The other part of the enabling force is specified as a breach force (rather than as an assault force) which emphasises that its role is to open a gap for exploitation. The action force in this example, as is usual for an integrated attack, is an exploitation force. It uses the gap to penetrate and attack the enemy headquarters and support units, including artillery in the centre of the enemy position. (Note that in this illustration all the groupings are described using the term force, though they could also be labelled elements as they are of unit size or smaller).

Dispersed attack

26. The dispersed attack is, as its name suggests, distinguished by the dispersal of forces as well as by employing multiple approaches and an extensive deception effort. It is the main way the OPFOR conducts offensive action when threatened by a superior enemy and/or when unable to generate mass or provide integrated command and control (C2) to an attack. The dispersed attack relies on both information warfare and dispersion to allow the OPFOR to conduct tactical offensive operations even while overmatched by precision standoff weapons and surveillance sensors. It employs concurrent manoeuvre, seeking to approach from multiple directions and combined with major deception efforts aims to confuse the enemy. The dispersed attack usually strives to land multiple blows concurrently, however the method is intended to allow attack when communications are disabled so the effects of a dispersed attack may also be dispersed in time as well as space.

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28. As with the integrated attack, the primary objective of dispersed attack is creating a window of opportunity to bring enough joint, combined arms forces to bear to destroy the enemy's will and/or their capability to continue fighting. Again, the OPFOR does not necessarily seek to destroy the entire enemy force, but particularly in the case of the dispersed attack, may focus on just a critical point of the enemy system. For example, an enemy force dependent on one geographical point for all their logistics support and reinforcement would be most vulnerable at that point.

29. The dispersed attack does not have a direct equivalent in Western doctrine but its' characteristics are -

a. Not being focused on complete destruction of ground combat power but rather on destroying a key portion of the enemy force (often targeting enemy C2 and logistics)'

b. Fixing and isolating enemy combat power;

c. Using smaller, independent subordinate elements;

d. Conducting rapid moves from dispersed locations;

e. Massing at the last possible moment;

f. Conducting simultaneous attack at multiple, dispersed locations; and

g. Using deception and other components of information warfare to degrade the enemy's situational understanding and ability to target OPFOR formations.

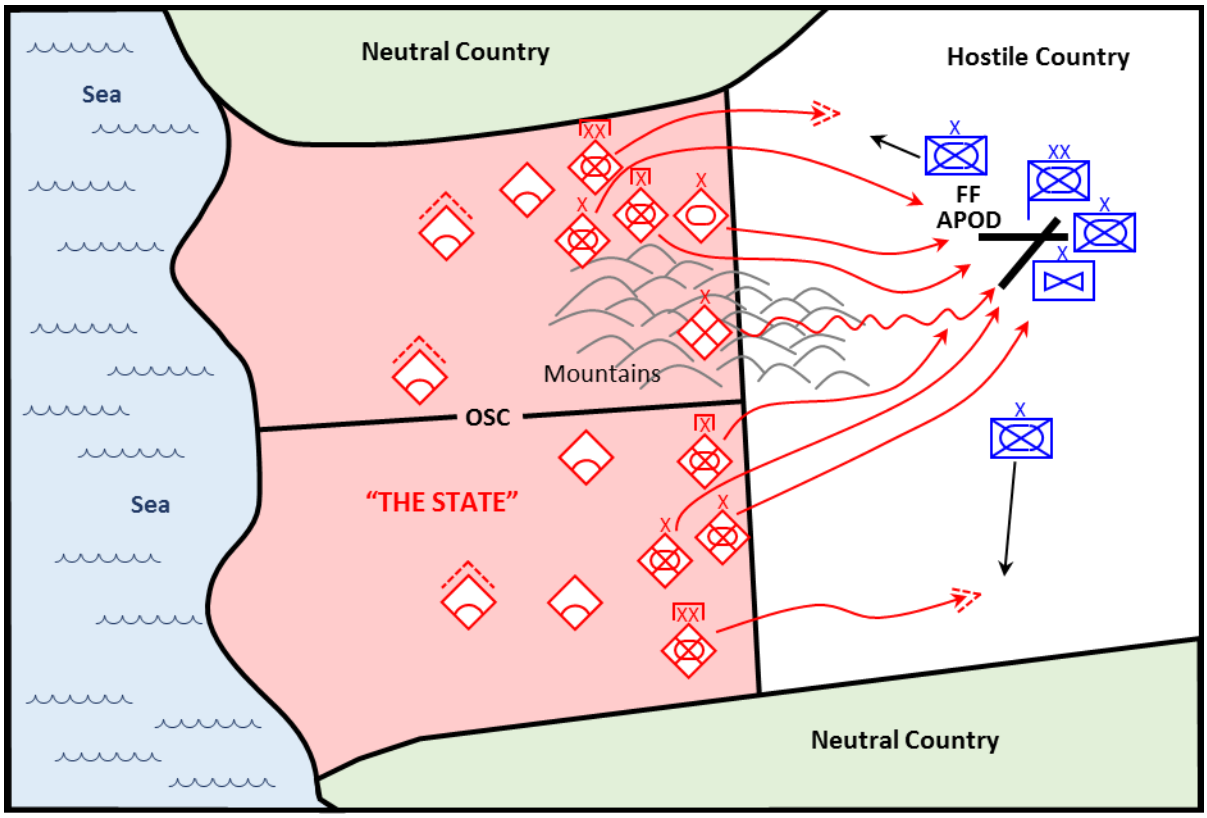

Figure 24 - Schematic showing a dispersed attack at the operational level

30. The dispersed attack will typically follow the standard division of forces/elements between enabling forces/elements (fixing force and assault force) and action forces/elements (exploitation force). Assault forces/elements will not necessarily be formed for the dispersed attack, but both assault and fixing forces/elements are likely to be infiltrated in smaller groups to positions from whence they can create a window of opportunity for the exploitation force/element. They will often be dismounted to avoid detection. The exploitation force/element might consist of armoured elements manoeuvring in small groups to re-concentrate immediately before reaching a vulnerable enemy grouping or C2 node. Equally likely it might be multiple DEFINE Special-Purpose Forces (SPF) teams who infiltrate to attack logistics targets simultaneously. The dispersed attack will often use multiple exploitation forces/elements separated in time and space but focused on the same objective.

31. The concept of the dispersed attack is illustrated at Figure 24, this shows a dispersed attack at the operational level. Although groupings are not labelled, it can be seen on either flank, fixing forces manoeuvre to fix the enemy formations best able to interfere with a frontal approach, then an infantry assault or fixing force infiltrates to create the conditions for armoured and mechanised exploitation forces to manoeuvre on multiple axes and penetrate and overrun the enemy Air Point of Disembarkation (APOD). It should be noted that the dispersed attack is conceptually flexible and some of the mechanised formations could also be part of the fixing force that sets the conditions for the final attack, while the infiltrating infantry could even be the exploitation force who carry out that final attack.

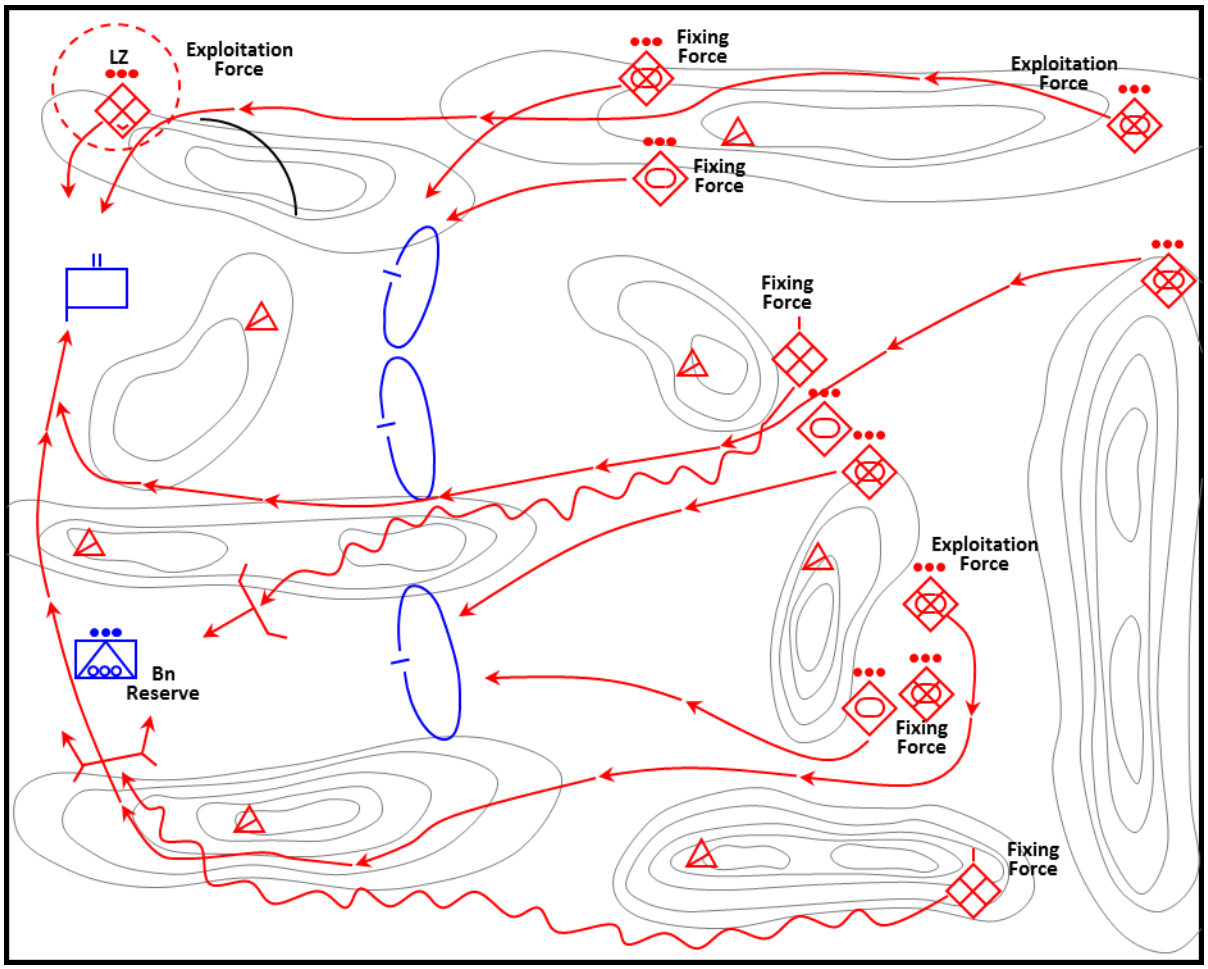

Figure 25 - Schematic showing a dispersed attack at the tactical level

32. A further example of the dispersed attack at the tactical level is illustrated at Figure 25. This highlights that the OPFOR commander focuses effort on striking at the rear of the enemy position and fixing the enemy reserve). The defending enemy Battalion is arrayed in the low ground between features. The OPFOR first infiltrates a series of observation positions to dominate high ground across the area. It then deploys three pairs of mechanised and armoured platoons to fix the northern and southern enemy companies. The OPFOR then infiltrates two dismounted companies as fixing elements on either flank of the enemy reserve into a support by fire position to fix the enemy reserve. The OPFOR then deploy two mechanised platoons as exploitation elements which pass on either flank of the northern pair of enemy companies to envelop the

enemy Battalion headquarters, an attack reinforced by a Heliborne infantry platoon operating as another exploitation element. (Note that on the diagram the term force is used where element would be appropriate)

The limited objective attacks

33. The limited objective attack is a class of three offensive tactics distinguished by a focus on a particular enemy capability. This may be a combat or combat support system or the enemy's freedom of action at a particular time and place. It seeks to destroy or deny these capabilities through primarily military means. A limited objective attack is not expected to be decisive of itself but is critical to the higher plan. This tactic will be common during adaptive operations when OPFOR seeks to preserve its own forces and wear down the enemy. All three forms of limited objective attack have four main characteristics. These are -

a. A maximum emphasis on the systems warfare approach to combat;

b. The aim to deny the enemy the capability most critical to their plans;

c. A focus on destruction of ground combat power; and

d. A significant reliance on a planned or seized window of opportunity.

34. Often a limited objective attack will be a situational response to a battlefield opportunity and therefore may be conducted by reserve or response forces. The three types of limited objective attack are further explained below. They are -

a. The sophisticated ambush. The sophisticated ambush is only mounted at the operational level, is similar to a dispersed attack but is executed by tactical level forces.

b. The spoiling attack. The spoiling attack pre-empts or impairs an enemy attack.

c. The counterattack. The counterattack is an attack by a defending force against an enemy attacking force to deny the enemy's goal.

The sophisticated ambush

35. The sophisticated ambush is an offensive operation distinguished by the linking of sensors, ambushers, windows of opportunity, and a target that affects the enemy centre of gravity. This requires sophisticated ambushes to be planned, coordinated, and resourced at the operational level, even though it is executed by tactical level forces. These may be operating as autonomous detachments. The high level organisation of the sophisticated ambush also reflects the crucial importance of information warfare in facilitating infiltration or positioning of the ambushing forces and exposing the target. The sophisticated ambush is characterised by -

a. An enemy target that, if destroyed, would significantly degrade the enemy's will or ability to fight;

b. OPFOR sensor(s) with capability and a mission to find and track the target, these are often ground reconnaissance but may include unmanned aerial vehicles (UAVs) or satellites;

c. A command and control (C2) method to link the ambushing forces and sensors; and

d. Supporting operation(s)—usually primarily Information Warfare IW)—to create a window of opportunity for the ambushing forces to act.

36. A sophisticated ambush requires conditions broadly similar to during a dispersed attack. However, since less combat power is typically at risk in a sophisticated ambush, the window of opportunity does not need to be as extensive. This window may occur during the course of the battle, but if it must be created OPFOR doctrine specifies key tasks to be accomplished. These are to –

a. Destroy enemy ground reconnaissance in the ambush area;

b. Deceive enemy imagery and signals sensors;

c. Establish effective air defence protection for ambushing forces;

d. Selectively deny situational awareness;

e. Maximize use of complex terrain;

f. Locate and track enemy security and response forces that could interfere; and/or

g. Locate and track the ambush target.

Spoiling attack

37. Spoiling attacks are distinguished by being delivered before the attack reaches the OPFOR main positions, with a focus on specific enemy components and disrupting the timing of enemy offensive operations. To mount a spoiling attack, the OPFOR will seek the following conditions. These are that -

a. ISTAR establishes a picture of enemy attack preparations;

b. Enemy security, reserve, and response forces are located and tracked; and

c. Enemy ground reconnaissance in the attack zone is destroyed or rendered ineffective.

38. The OPFOR treat the spoiling attack as a separate method as it precedes the enemy assault. Its purpose is to pre-empt or seriously impair an enemy attack while the enemy is in the process of planning, forming, assembling, or preparing to attack. OPFOR planners will focus on striking what will most disrupt the enemy's plan. This may be a key component of the enemy's force array or combat system, alternatively it may simply seek to slow the enemy's attempt to set favourable conditions for their attack. The spoiling attack is characterised by –

a. The requirement for a clear picture of enemy preparations and dispositions;

b. Independent subordinate unit actions;

c. Highly focused objectives; and

d. The possibility of opening a window of opportunity for other operations.

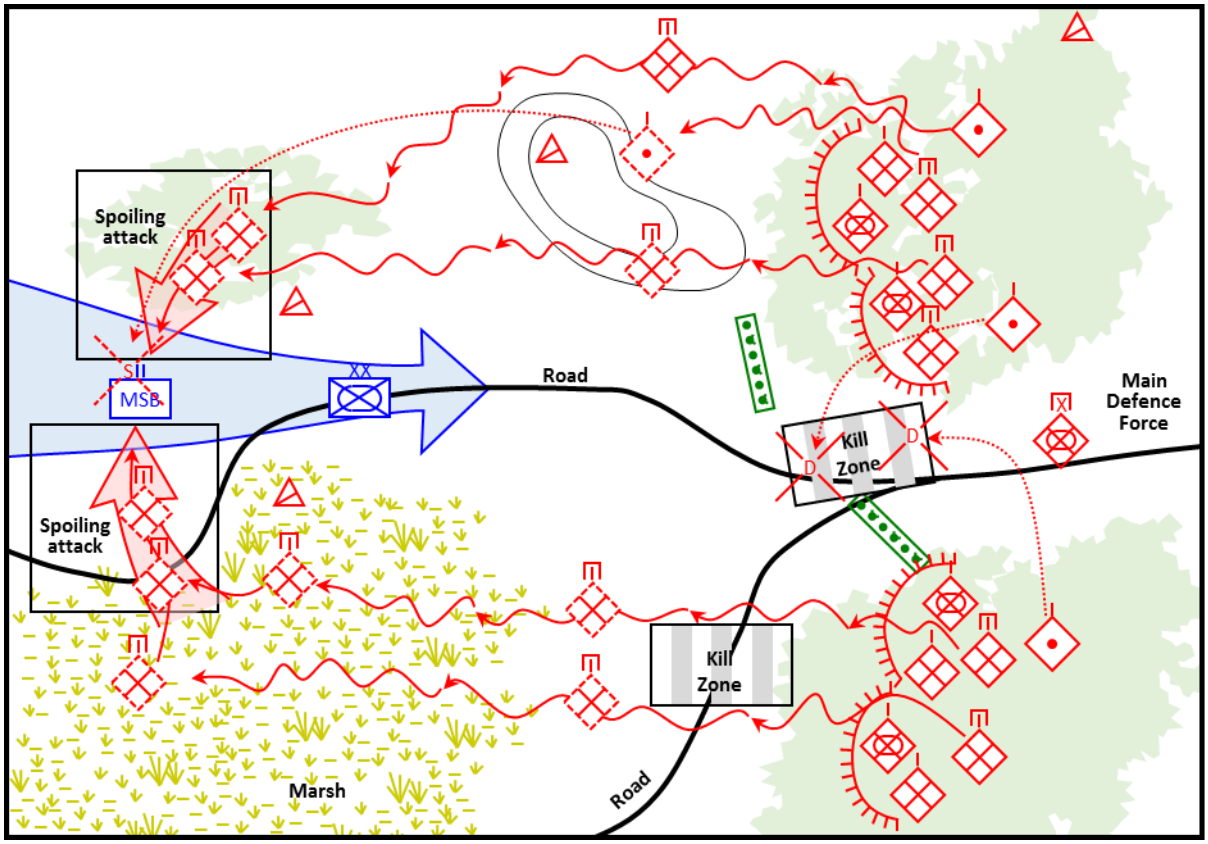

Figure 26 - Schematic showing a spoiling attack

39. Spoiling attacks will normally be executed using the method of an integrated attack, dispersed attack or a sophisticated ambush. Figure 26 shows an example of the conduct of a spoiling attack, in this case using a dispersed attack method. An OPFOR Brigade is defending against an enemy motorised Division that is advancing from the west. The OPFOR have selected the enemy Main Support Battalion (MSB) as the target. Four infantry companies have infiltrated forwards on either flank of the anticipated enemy advance, whilst an artillery company displaces forwards to provide fire support. When the leading elements of the enemy advance are checked on the kill zone, forward observation posts (OP) then engage the MSB with indirect fire whilst a dismounted spoiling attack strikes from both flanks.

Counterattack

40. A counterattack is distinguished by occurring after the enemy attack has begun. It is designed to cause an enemy offensive operation to culminate, return the initiative to the OPFOR, and allow them to return to offensive operations. The OPFOR seeks to set the following conditions to execute a counterattack. These are set -

a. To locate and track enemy reserve forces and cause them to be committed; and

b. To destroy enemy reconnaissance that could observe counterattack preparations.

41. Like any limited objective attack, a counterattack often develops as a situational attack. Counterattacks are characterized by—

a. A shifting in command and support relationships to assume an offensive posture for the counterattacking force;

b. A proper identification that the enemy is at or near culmination;

c. The planned rapid transition of the remainder of the force to offensive operations; and

d. The possibility that a counterattack may open a window of opportunity for other operations.

42. In the counterattack, the fixing force/element is those groupings engaged in defensive battle with the enemy. This force seeks to destroy enemy reconnaissance, defeat penetrations and prevent engaged enemy forces breaking contact and repositioning. If an assault force is used, it is given the mission of forcing the enemy to commit their reserve. The exploitation force/element in a counter-attack manoeuvres through or bypasses engaged enemy forces to attack and destroy the enemies support infrastructure.

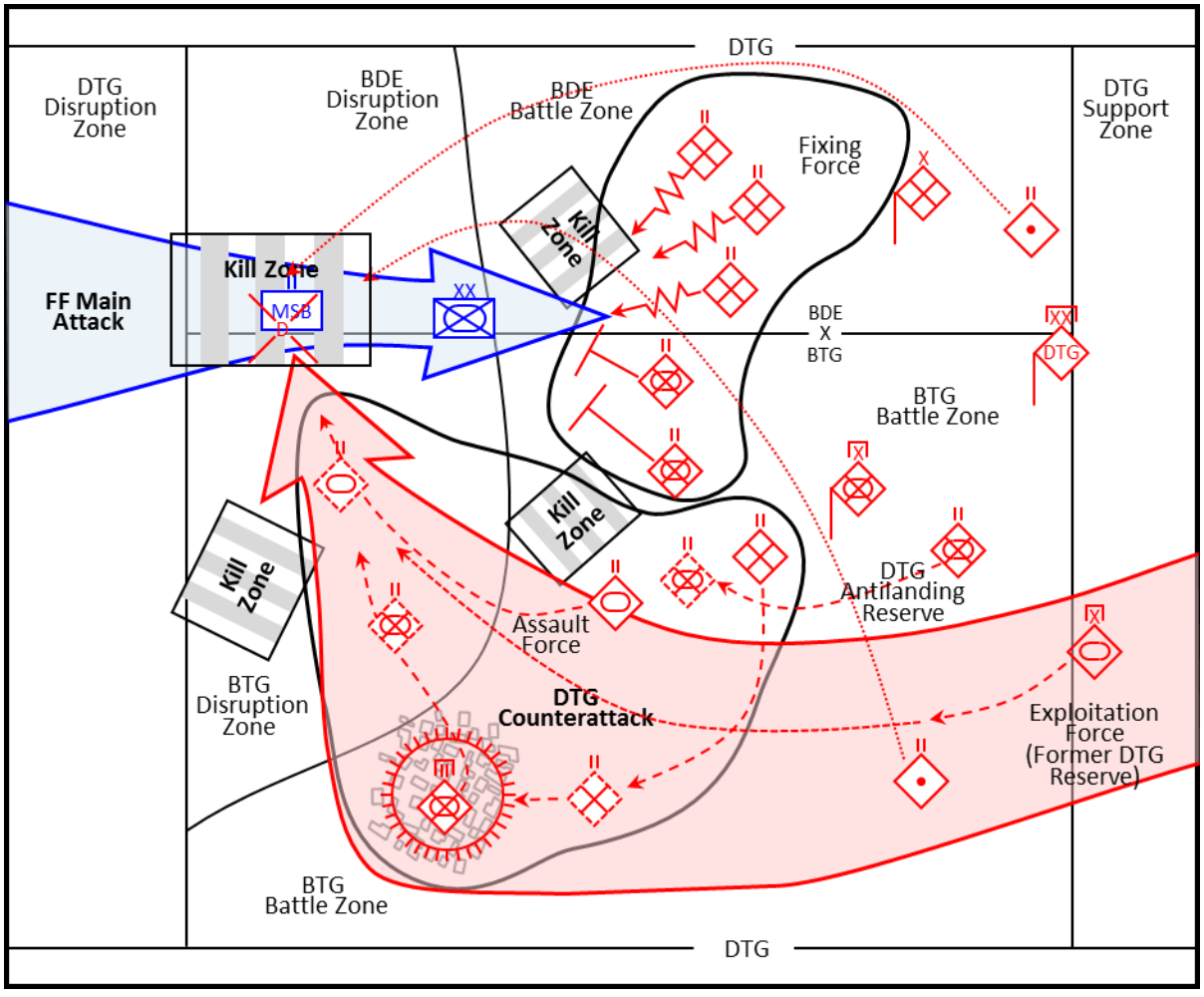

Figure 27 - Schematic showing a counter-attack

43. Figure 27 shows an OPFOR Divisional Task Group (DTG) defending against an enemy main attack from the west led by a mechanised Division. In the northern part of the diagram an OPFOR a reinforced Brigade acts

as a fixing force. When the enemy advance has been checked a counterattack is launched from the left flank. This is led by an assault force consisting of a tank Battalion and a mechanised infantry Battalion that penetrate the flank of the enemy force. The focus of the counterattack is the enemy Main Support Battalion (MSB) which is engaged in a kill zone by two artillery Battalions as the exploitation force consisting of a tank brigade moves through the penetration to strike the MSB and disrupt the enemy attack. Notice also that as the assault force advances, other defending elements displace to maintain a defensive front. An infantry Battalion from the centre deploys to replace the mechanised infantry Battalion, while the mechanised Battalion that forms the anti-landing reserve also moves forward.

Strike

44. A strike is an offensive operation (that may occur within a wider defensive operation) distinguished by the intention to destroy a key enemy organisation, usually of Battalion size or larger. It achieves this by the synergy of massed precision fires and manoeuvres, normally after carefully setting the conditions. The targeted enemy formation is usually a Battalion task force or larger. Defeat for the enemy does not come only through the physical destruction of personnel and systems but also through the psychological paralysis that occurs when physical destruction is concentrated in time. The primary objective of a strike is the enemy's will and capacity to fight, noting that major destruction can both remove the momentum of a combat formation and influence enemy domestic support for operations. Strikes are characterised by—

a. Being focused on the complete destruction of a particular enemy formation;

b. Typically following a period of reconnaissance fire;

c. Requiring effective and integrated command and control (C2) and ISTAR means;

d. The use of complex terrain to force the enemy to fight at a disadvantage; and

e. Significant reliance on deception and other Information Warfare (IW) measures.

45. The window of opportunity for a strike may occur in the flow of battle, but if it must be created the OPFOR will seek to –

a. Destroy enemy ground reconnaissance;

b. Deceive enemy imagery and signals sensors;

c. Create an uncertain air defence environment;

d. Selectively deny situational awareness; and/or

e. Maximize use of complex terrain.

46. In a strike, the fixing force/element focuses on enemy forces that might come to the aid of the target, whereas the assault force creates the conditions for the exploitation force/element to act. The exploitation force/element destroys the target formation and to achieve this it is almost always a combination of powerful ground manoeuvre formations and precision long-range fire systems, though sometimes the exploitation force/element may mostly consist of the latter.

47. Figure 28 shows a strike conducted in the context of an OPFOR offensive. It may usefully be compared to the integrated attack shown and explained earlier at Figure 22 which shows similar enemy dispositions, but where the OPFOR focus is on the enemy support area. In this case, the target for the strike is the northern enemy mechanised Brigade. In common with the earlier example, the fixing force pins the southern and centre enemy mechanised Brigades. Concurrently, the assault force of a mechanised Division and a helimobile Brigade attack the enemy main line of resistance to pin it in place and allow it to be penetrated. The target enemy mechanised Brigade is first struck by a rocket artillery brigade then closely assaulted and destroyed by a tank brigade.

48. Reconnaissance fire. The OPFOR will typically precede a strike with significant reconnaissance fire to remove one or more key capabilities from the enemy force. Reconnaissance fire is the integration of ISTAR, fire control, and weapon systems into a closed loop automated fire support system that detects, identifies, and destroys critical targets in minutes. This degree of integration can only normally exist within an Integrated Fires Command (IFC). It is a distinct class of operation or task that is closely associated with conducting a strike.

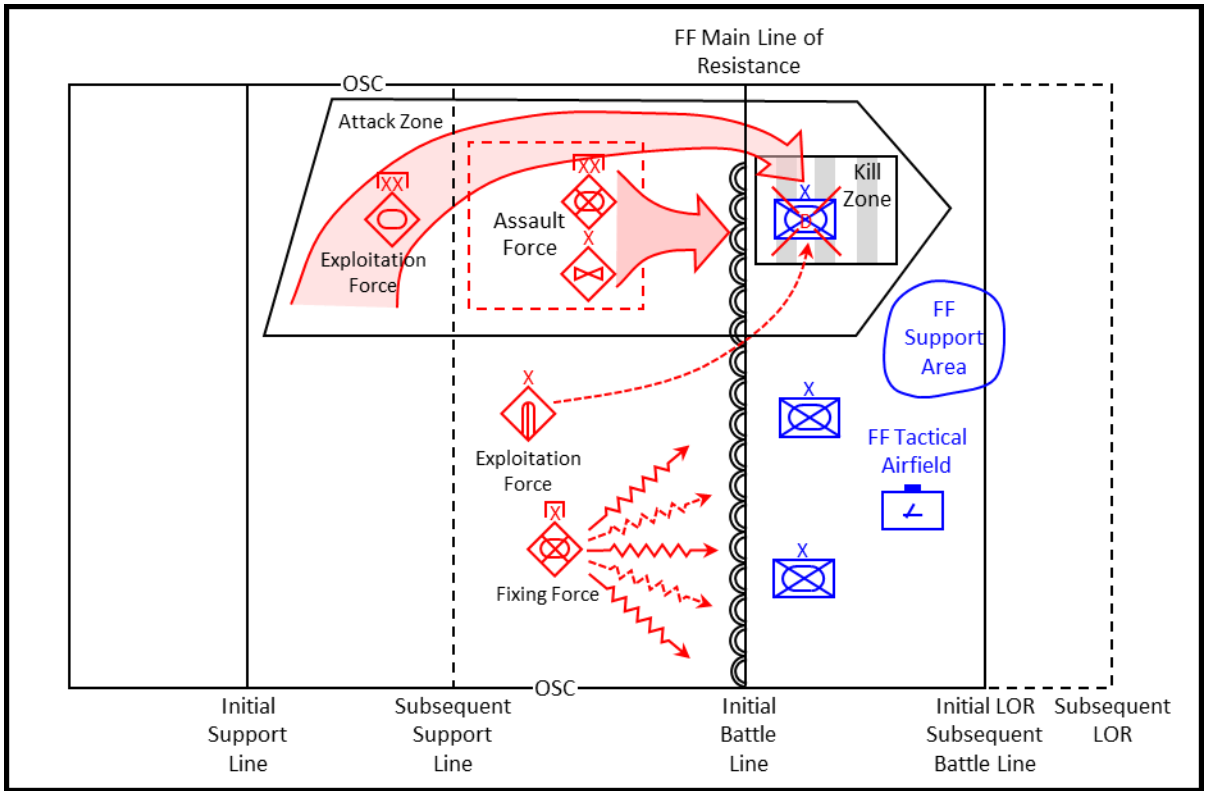

Figure 28 - Schematic showing a strike

Conduct of tactical offensive action

49. At the lower tactical level, that is to say, detachments, Battalions, and below, the OPFOR considers that there are four types of offensive action. These are -

a. An assault;

b. An ambush;

c. A raid; or

d. A reconnaissance attack.

Assault

50. An assault is an attack that destroys an enemy force through firepower and the physical occupation and/or destruction of their position. Importantly, the OPFOR use the term assault to mean the complete attack, rather than the Western meaning of closing with and moving on to the objective. An assault is the basic form of OPFOR tactical offensive combat and often will be conducted as part of other types of offensive action. However, the system of functional tactics uses labels to indicate most clearly what an element will do. For example, an element that conducts an assault in the completion of an ambush might be called the ambush element. The OPFOR does not have a different design for “mounted” and “dismounted” assaults and believes they must always be executed as coordinated combined armed actions, even if the close combat is conducted by dismounted infantry. Assaults require -

a. Isolating the objective so that it cannot be reinforced during the battle;

b. Ensuring tactical security;

c. Suppressing the enemy so that assault elements move without receiving destructive fire; and

d. Fire and manoeuvre against the enemy.

51. Functional organization for an assault. A detachment conducting an assault is typically organized into three elements:

a. Assault element. The assault element is the action element. It manoeuvres to and seizes the enemy position, destroying any forces there. In special circumstances it might conduct an attack by fire rather than closing with the objective.

b. Security element. The security element provides early warning of approaching enemy forces. It is normally the first element to act in an assault as it moves into a position or positions. These are selected so that it can deny the enemy freedom of movement along ground or air avenues of approach that might reinforce the objective or interfere with the mission of the assault element. The security element will, as a minimum, be equipped to detect manoeuvring enemy forces, but may be allocated greater capability to prevent their approach. The priority and resources allocated to security will be reflected in whether the element is labelled as a screen, guard, or cover task, the latter being the strongest force and capable of operating independently.

c. Support element. The support element can have one or more functions in an assault. Typically, the commander exercises command and control (C2) from within a part of the support element. It controls all support and combat service support functions as well as any supporting fires, but would not normally become decisively engaged, although parts of it may employ direct suppressive fire. The support element may provide the assaulting detachment with -

i. C2;

ii. Combat service support (CSS);

iii. Supporting direct fire (such as small arms, grenade launchers, or infantry antitank weapons);

iv. Supporting indirect fire (such as mortars or artillery); and or

v. Mobility support.

52. A simple assault is illustrated at Figure 29. The commander has deployed a small anti-armour team as a security element on the top left ground avenue of approach, and an anti-air section covering the top right air avenue of approach. There are two support elements, with one rifle platoon providing direct support by fire from the lower left and a mortar platoon providing indirect support from the rear.

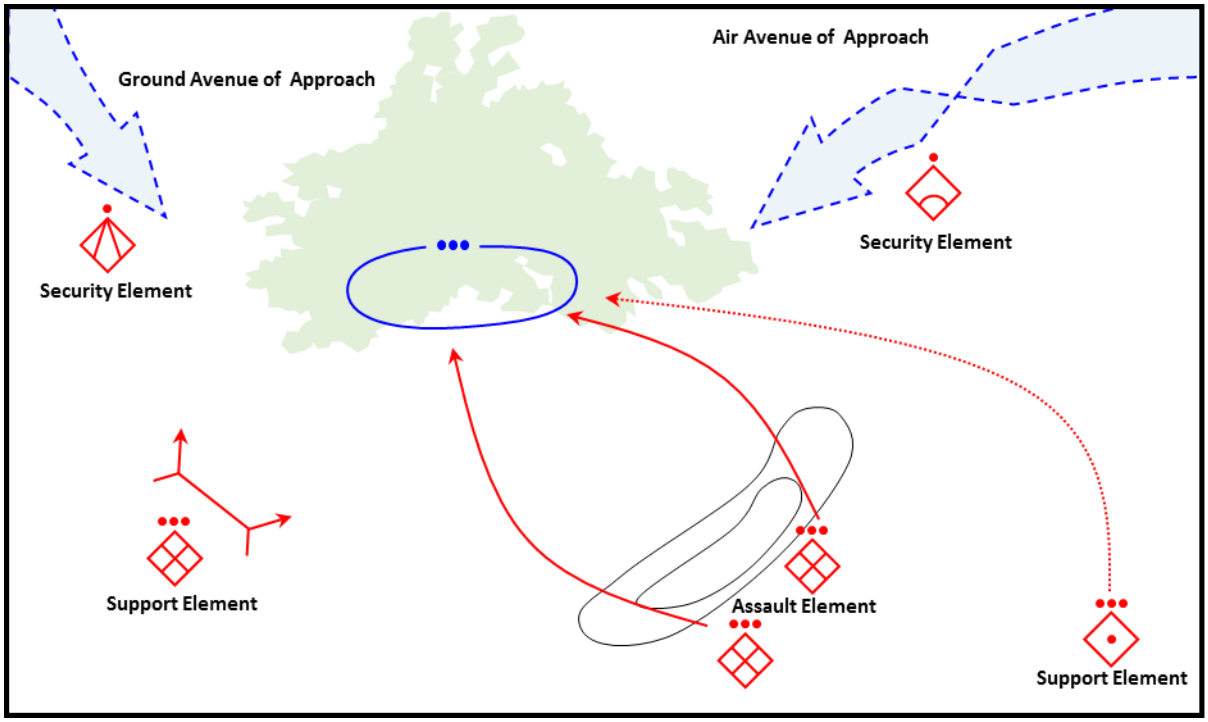

Figure 29 - Schematic of an Assault

Ambush

53. An ambush is a surprise attack from a concealed position used against moving or temporarily halted targets. Reflecting the systems warfare doctrine, the OPFOR usually seeks to avoid ambushing enemy leading manoeuvre units and concentrates on ambushing more vulnerable targets and lines of communication. Similarly, during insurgency or low-level operations, they prefer to ambush patrols returning to bases or secured areas when troops are tired and less alert. The OPFOR consider the ambush an important psychological warfare/information operation shaping tool and will often use multi-tiered ambushes. This is where after an initial ambush is sprung, others are set on avenues of approach for response or relief forces.

54. Functional organisation for an ambush. A detachment conducting an ambush is typically organised into three elements, although there may be more than one of each of these:

a. Ambush element. The ambush element conducts the main attack against the enemy target, which includes halting them in the killing zone. Tasks may include destruction by fire, assaulting the killing zone, capturing personnel, and recovering or destroying supplies and equipment

b. Security element. The mission of the security element is to prevent other enemy forces responding to the ambush before the ambush action is concluded. They are placed on approaches leading to the ambush site with a minimum task of providing warning, but may also engage to allow the ambush element to withdraw, possibly by executing a strike or blocking roads to delay enemy reinforcements.

c. Support element. As in the assault, the support element can have one or more of the following functions. These include

i. Command and control (C2);

ii. Combat service support;

iii. Supporting direct fire;

iv. Supporting indirect fire; and/or

v. Mobility support.

55. **Conduct.** A detachment conducting an ambush or ambushes is typically assigned a battle zone in which to operate and killing zones are nominated. Sites are chosen for their potential to canalise the enemy into an exposed killing zone, the available protection, and concealment as well as withdrawal routes for the ambush element and obstacles that will obstruct enemy responses and counterattacks. Mines, demolitions and wire may be used for this same purpose.

56. The ambush grouping moves over a preselected route or routes to the ambush site. Along the route there will normally be one or more mission support sites (MSS) or rendezvous points (RV) prior to the assembly area. At the latter or an MSS, last minute intelligence is provided by reconnaissance elements and final coordination orders are given. Security elements take up their positions first before the ambush elements occupy.

57. When an approaching enemy force reaches a designated point, the commander decides whether or not to execute the ambush. If they decide to execute the ambush, enemy security elements or advance guards are typically allowed to pass through unhindered and when a selected part of the enemy main body reaches a point in the killing zone the ambush is initiated. Demolitions and directional mines are preferred for this. Often, after a period of engagement, the OPFOR will physically assault the killing area on a prearranged signal.

58. There are three types of OPFOR ambush which are employed according to the required effects and resources available.

59. **Annihilation ambush**. The purpose of an annihilation ambush is to destroy the enemy force. The ambush design seeks to keep the enemy in the kill zone and ensure that the enemy's return fire, if any, is ineffective. Command initiated demolitions and mines play a key role and the ambush element and any support element using direct fire weapons, engage from covered and concealed positions until the enemy is rendered combat ineffective. The ambush element then secures the kill zone and searches bodies or prisoners for usable information or equipment. The security element provides both early warning and prevents enemy escaping the kill zone which it seals as soon as the ambush is initiated. The ambush element withdraws first followed by the support element with the security element last.

60. Figure 30 is a schematic showing a simple annihilation ambush. The kill area is bounded by obstacles, on the OPFOR side of the kill area, to protect the ambush element against counterattack, obstacles, and mines to halt the enemy. The far side mines help to prevent the enemy escaping unscathed. In this case, the support element is providing direct fire from adjacent to the ambush element. Note also that the sections providing the security element have a triangular layout to ensure rear security.

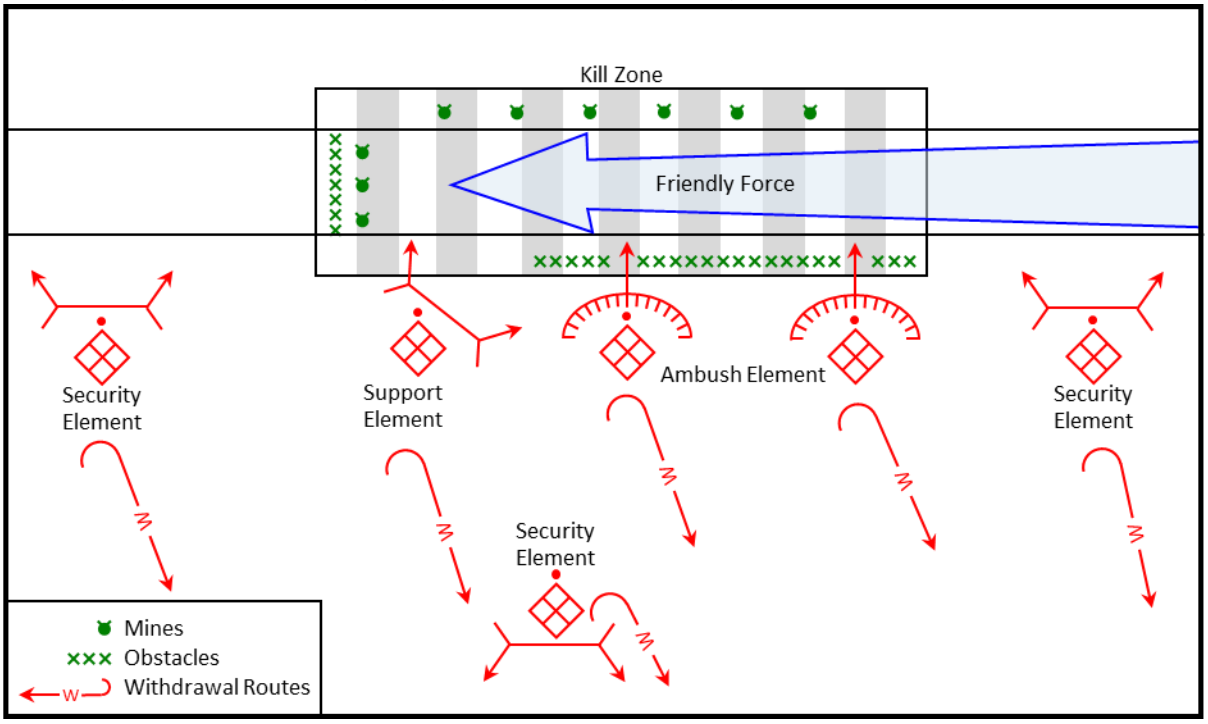

Figure 30 - Schematic showing an annihilation ambush

61. Annihilation ambushes in complex terrain will often be tasked organised into Hunter Killer (HK) teams which are flexible small groupings consisting of an anti-armour weapon, machine gun, a sniper, and one or more rifleman, typically drawn from an infantry company. HK teams prefer to attack exploiting the third dimension, both from upper stories in the top of buildings and also emerging from basements and sewers. The design of an annihilation ambush in an urban area will typically seek to trap vehicle columns by the destruction of the first and last vehicle with multiple HK teams attacking individual armoured vehicles in turn.

62. Figure 31 shows an annihilation ambush in urban terrain. Obstacles have been emplaced on routes other than that leading directly into the killing zone, and the main ones are also covered by the arcs of fire of security elements or Improvised Explosive Devices (IEDs) to prevent response forces interfering with the ambush. On the periphery there are observation posts, several of which may also have control of IEDs. These arrangements provide freedom of action for the ambush elements which, as shown in the legend, are deployed to fire from multiple levels. The schematic shows the moment at which the lead and tailing enemy armoured vehicle had been struck by multiple HK teams. Once the ambush is initiated the support element comprising of a mortar detachment provides indirect fire.

63. **Harassment ambush.** A harassment ambush interferes with routine enemy activities, impedes the enemy's freedom of movement, and has a psychological impact on enemy personnel. They may often be focused on enemy convoys and will typically first target the enemy security element or escort to prevent effective follow-up action. Harassment ambushes may be conducted by small numbers of troops exploiting explosive devices and do not require the use of obstacles to keep the enemy in a kill zone, nor is it necessary to be so close to it as to guarantee the destruction of the enemy force. For simplicity and better control of fires throughout the kill zone, the ambush and support elements may be combined to concentrate direct and indirect fires in the kill zone. The role of the security element to provide early warning remains unchanged.

64. Figure 32 shows a simple harassment ambush. In this example the support element has disabled the bus on a main route. The security element is an observer who gives warning of the approach of the enemy

convoy from the right. When the convoy slows as it approaches the disabled bus, the ambush element of two fighters' initiates a chain of command detonated IEDs.

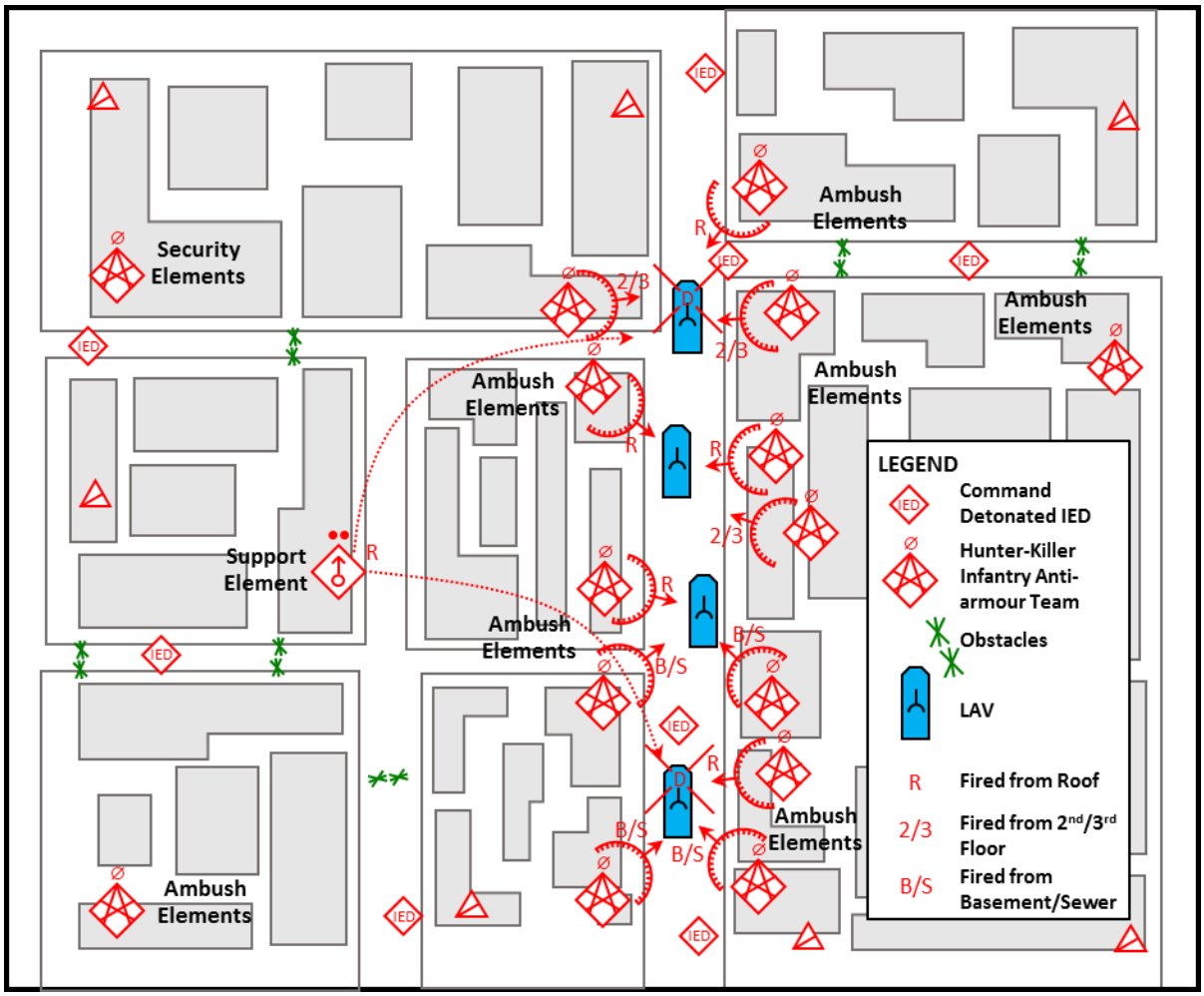

Figure 32 - Schematic of an annihilation ambush in urban terrain

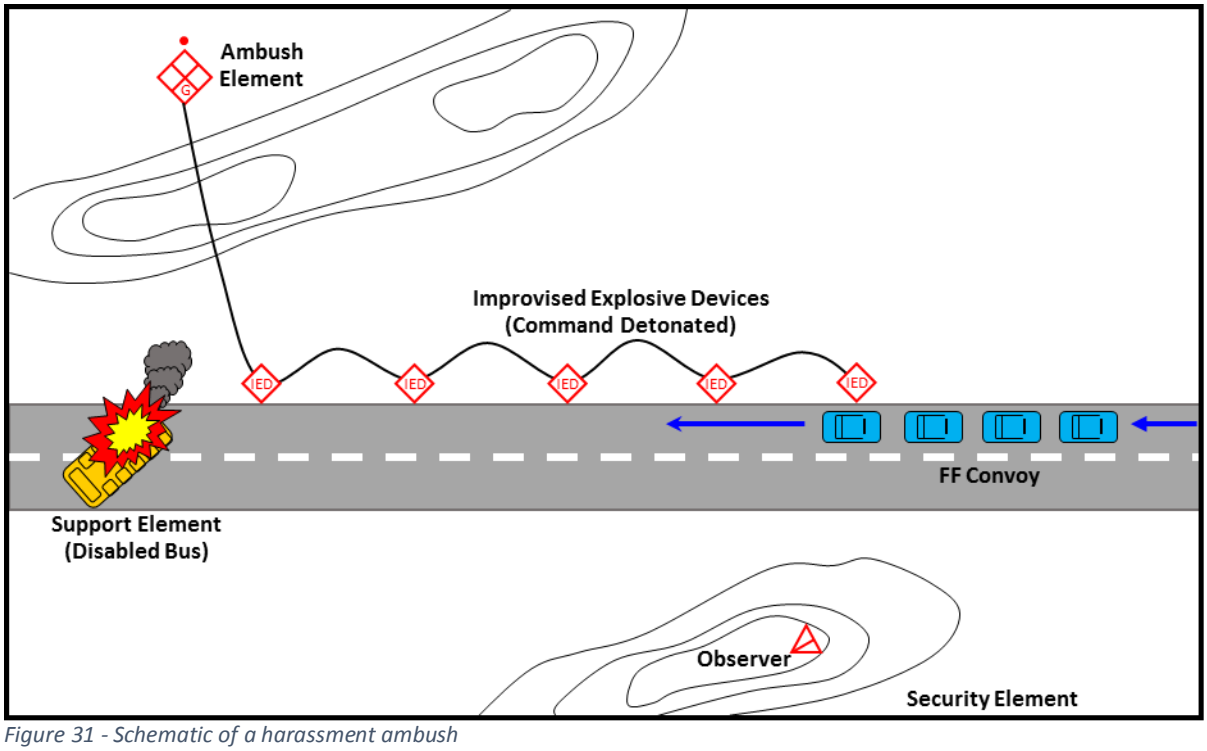

Figure 31 - Schematic of a harassment ambush

65. Containment ambush. A containment ambush is a security measure that is usually part of a larger action. It is employed to prevent the enemy from using an avenue of approach or interdicting another action such as a raid or a larger ambush. The support and security elements perform the same functions as described in the annihilation ambush, but the killing zone will not necessarily be assaulted or cleared. Obstacles are likely to feature in a containment ambush where they are used to both prevent the enemy from using an avenue of approach and to hold enemy in a killing zone.

66. Figure 33 shows an example of a containment ambush. The tactical context is that there is a larger operation that is not shown on the diagram. The OPFOR mission is to prevent the enemy quick reaction force from interfering with that other operation. They will achieve this by drawing it into a containment ambush with a deception attack. The ambush detachment moves into the positions as shown, with the security element deployed first to provide a series of observation posts (OP) monitoring the road network. The ambush element of two platoons then infiltrates into its positions dominating the east-west road. The operation properly commences with a feint attack by an infantry company deception element on the enemy base camp in the lower left of the diagram, which is supported by one of the two mortar detachments from the support element. The enemy quick reaction force approaches from the east and is ambushed at the selected site. Both mortar detachments from the support elements provide indirect fire support. Note that the support element of a mortar platoon has been divided and one of the detachments has not engaged the enemy base camp to avoid the risk of enemy counter battery fire supressing the OPFOR indirect fire capability during the ambush and the subsequent withdrawal.

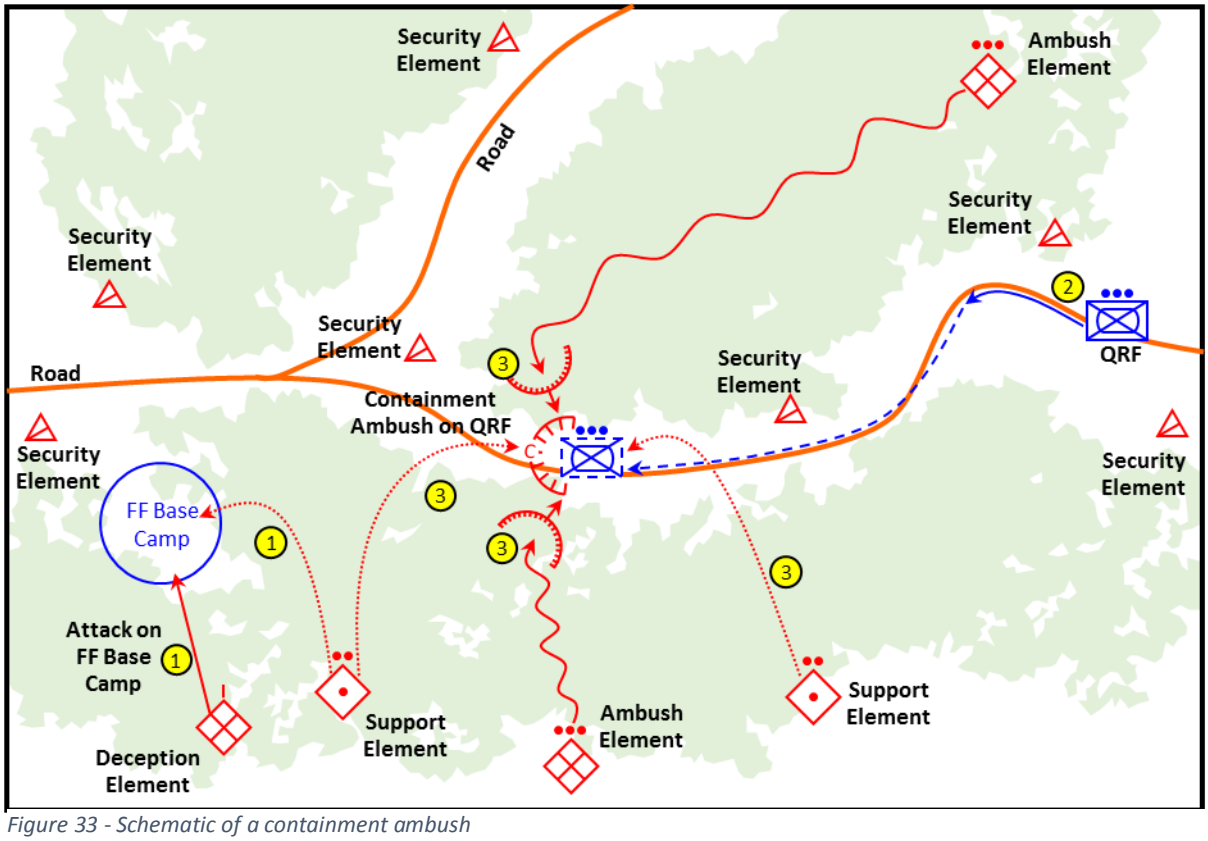

Figure 33 - Schematic of a containment ambush

Raid

67. A raid is an attack against a stationary target for the purposes of its capture or destruction that culminates in the withdrawal of the raiding force to safe territory. The size of the raiding force can vary from a small team to a Battalion detachment. Raids may involve long infiltration or insertion by aircraft or boats, and therefore may be conducted by special-purpose forces. In common with other offensive tactics, the raiding force will usually have three elements (as discussed below); raiding, security, and support. However, there may well be other functional elements with descriptive titles such as blocking element or fixing element.

a. **Raiding element.** The raiding element executes the main task of the raid and conduct the actual destruction or seizure of the target. It will be organised and equipped for this purpose and could vary between a substantial element armed with automatic weapons for rapidly securing a

complex, through to a small team with a precision stand-off weapon to destroy aircraft at an airbase. The other elements of the raid are organised and tasked to give the raiding element access to the target for long enough to accomplish the mission.

b. **Security element.** The greatest threat to a raiding force is being discovered and defeated by enemy forces prior to the execution of the raid. The security element in a raid is focused on fixing enemy security and response forces or preventing the enemy's escape from the objective. The security element also covers the withdrawal of the raiding element and then acts as a rear guard. Security elements may be allocated screen, guard, or cover missions depending on the balance of forces allocated. They will typically be deployed to multiple locations from where they can deny enemy approaches.

c. **Support element.** The support element provides the enabling function and sets the conditions for the success of the raid. It is likely to provide

i. Fire support;

ii. Logistic support;

iii. Reinforcements;

iv. Elimination of guards and OP (define);

v. Fixing, diversionary or holding actions; and/or

vi. Breaching or removing obstacles.

68. Figure 34 illustrates the conduct of a raid on a power plant. Initially, the security element deploys OP to commanding features and a platoon is deployed to prevent an enemy response force approaching from the west. A fixing platoon then engages the objective from the southeast while the two platoons of the raiding element move on to the power plant and carry out destruction tasks. The raid detachment then withdraws to an exfiltration LZ shown.

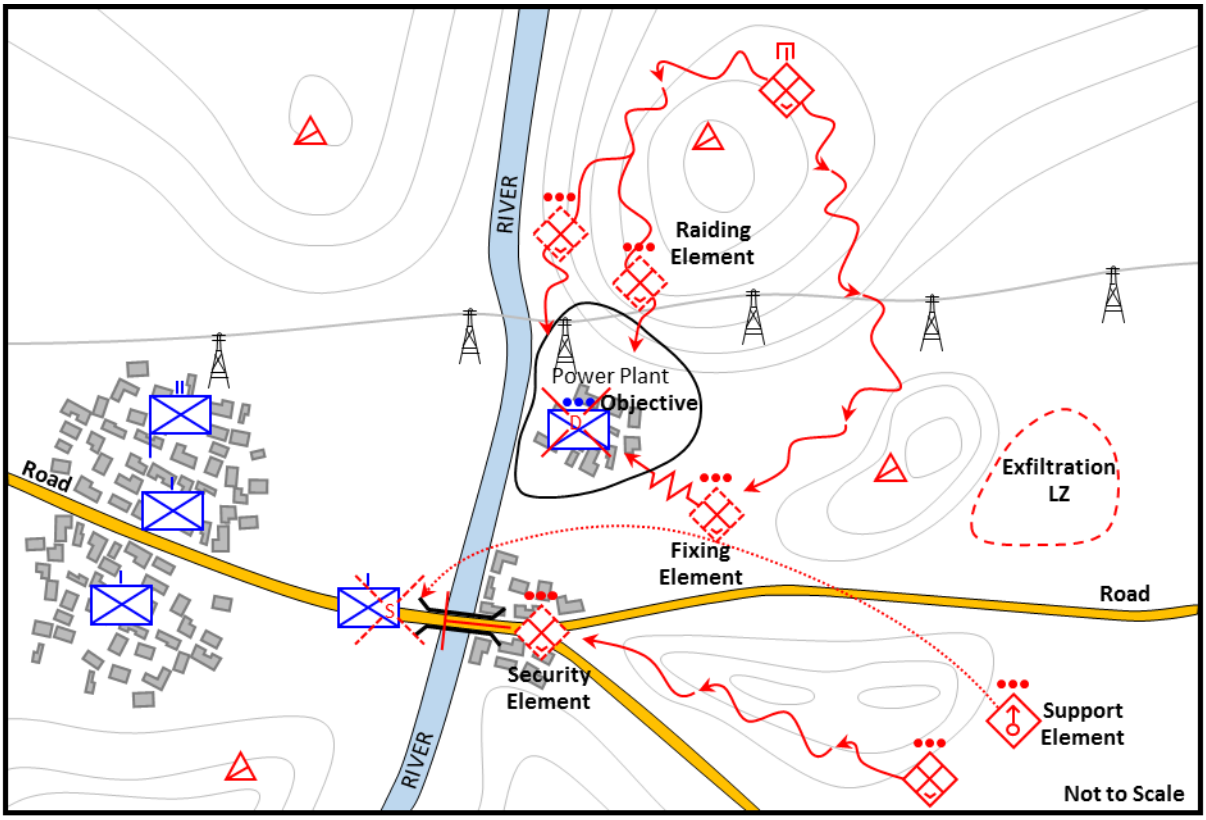

Figure 34 - Schematic of a raid

Reconnaissance attack

69. A reconnaissance attack is a tactical offensive action that locates moving, dispersed, or concealed enemy elements and either fixes or destroys them. It may also be used by the OPFOR commander to gain information about the enemy's location, dispositions, capabilities, or intentions. This tactic recognises that enemies will make it difficult to gather key intelligence and it may be necessary to fight to gain information. Nevertheless, it is the least preferred form of gaining information.

70. To execute a reconnaissance attack, multiple elements normally will infiltrate or manoeuvre independently to find and fix or destroy enemy elements. It is initiated by multiple security and/or reconnaissance elements moving to likely points of contact with enemy elements that need to be destroyed or fixed. The reconnaissance attack will often have more than three sub-elements as discussed below.

a. **Reconnaissance element(s).** The role of reconnaissance elements is to locate enemy elements in the detachments area of responsibility. This may be the mission, but if the requirement is to fix or destroy located enemy elements, the reconnaissance elements support the other elements who do this.

b. **Security element(s).** Security elements may work with reconnaissance elements or conduct a reconnaissance task. A likely key role is to block avenues of withdrawal or reinforcement, or to fix enemy elements. If so, the grouping may be labelled blocking elements or fixing elements accordingly.

c. **Action element(s).** If a reconnaissance attack has the combat power to defeat enemy elements that are located, it may organise action elements to carry out that task. These elements may be given a more descriptive functional designation.

d. **Support element(s).** One or more support elements may be formed. In addition to fire support and other tasks executed during other offensive actions, there may be aviation, defence, engineer, or logistic elements to allow the reconnaissance attack to operate independently. In addition to this, the OPFOR is likely to devote considerable effort to information operations to assist the detachment by masking, deception, or other means intended to fix the enemy or cause them to reveal themselves.

71. Figure 35 illustrates the possible conduct of a reconnaissance attack. The security element furnishes observation posts (OP) which it pushes well forwards, avoiding contact to gather information, as well as three dismounted reconnaissance platoons that infiltrate forwards until they do make contact. They are shadowed by the action elements consisting of dismounted companies and anti-armour platoons. On contact these action elements move to threaten or attack the detected enemy positions. A support element consisting of a mortar company provides a firm base of indirect fire support.

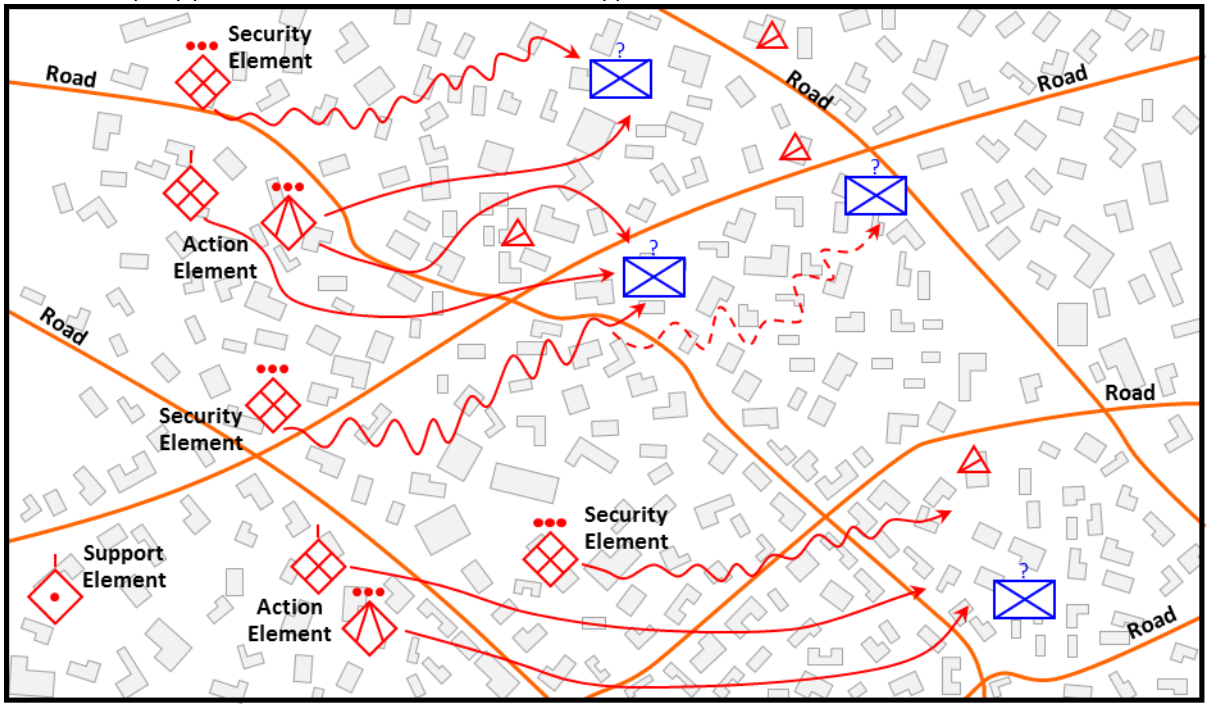

Figure 35 - Schematic of a reconnaissance attack

Chapter 3 ANNEX A

THE PURPOSES OF OFFENSIVE OPERATIONS

This is a direct extraction from the US Publication TC7-100.1, with US spelling unchanged.

Operational Level Purposes

1. All offensive operations are designed to achieve the goals of a strategic campaign through active measures. However, the purpose of any given offensive operation varies with the situation. The primary distinction among types of offensive operations is their purpose. Thus, the OPFOR recognizes three general types of offensive operations according to their purpose: to destroy, seize, or expel.

2. **Attack to Destroy.** An attack to destroy is designed to eliminate a target entity as a useful fighting force. Operational-level attacks to destroy usually focus on key enemy combat formations or capabilities. Not every soldier or system need be destroyed for such an attack to be successful. Attacks to destroy are often focused on a single component of an enemy's combat system. For example, it may be enough to remove the enemy force's ability to sustain itself or exercise effective command and control. Therefore, attacks to destroy are often focused on the logistics and C2 systems of the target entity. Such attacks are most often conducted during regional operations. However, an attack to destroy may also occur during transition or adaptive operations, whenever the OPFOR can recognize and exploit a window of opportunity.

3. **Attack to Seize.** An attack to seize is designed to gain control of a key terrain feature or man-made facility. The OPFOR does not adhere to the idea that seizure may be accomplished simply by placing a feature in weapons range. In the OPFOR lexicon, seize means to have OPFOR soldiers on and/or in the feature in question. Attacks to seize can occur as part of all strategic-level courses of action during OPFOR strategic campaigns. In regional operations, the seizure may facilitate the movement of an exploitation force. In transition or adaptive operations, the seizure may be part of a campaign to control access into the theatre.

4. **Attack to Expel.** An attack to expel is used to force the defender to vacate an area. Attacks to expel often have a strong information warfare (IW) component, so that the enemy removes himself from the area largely through a loss of resolve. Attacks to expel typically focus on a key enemy capability or vulnerability. Attacks to expel are primarily conducted within the context of transition or adaptive operations

Chapter 3 ANNEX B

THE CONSIDERATIONS FOR OFFENSIVE OPERATIONS

This is a direct extraction from the US Publication TC7-100.1&2, with US spelling unchanged.

Preparing for the Offense

1. In the preparation phase, the OPFOR focuses on ways of applying all available resources and the full range of actions to place the enemy in the weakest condition and position possible. Commanders prepare their organizations for all subsequent phases of the offense. They organize the battlefield and their forces and elements with an eye toward capitalizing on conditions created by successful attacks.

2. **Establish Contact.** The number one priority for all offensive actions is to gain and maintain contact with key enemy forces. As part of the decision making process, the commander and staff identify which forces must be kept under watch at all times. The OPFOR will employ whatever technical sensors it has at its disposal to locate and track enemy forces, but the method of choice is ground reconnaissance. It may also receive information on the enemy from the civilian populace, local police, or affiliated irregular forces.

3. **Make Thorough Logistics Arrangements.** The OPFOR understands that there is as much chance of an offense being brought to culmination by a lack of sufficient logistics support as by enemy action. Careful consideration will be given to carried days of supply and advanced caches to obviate the need for easily disrupted lines of communications (LOCs).

4. **Modify the Plan When Necessary.** The OPFOR takes into account that, while it might consider itself to be in the preparation phase for one battle, it is continuously in the execution phase. Plans are never considered final. Plans are checked throughout the course of their development to ensure they are still valid in light of battlefield events.

5. **Rehearse Critical Actions in Priority.** The commander establishes the priority for the critical actions expected to take place during the battle. The force rehearses those actions in as realistic a manner as possible for the remainder of the preparation time.

Executing the Offense

6. The degree of preparation often determines the nature of the offense in the execution phase. Successful execution depends on forces that understand their roles in the battle and can swiftly follow preparatory actions with the maximum possible shock and violence and deny the enemy any opportunity to recover. A successful execution phase often ends with transition to the defence in order to consolidate gains, defeat enemy counterattacks, or avoid culmination. In some cases, the execution phase is followed by continued offensive action to exploit opportunities created by the battle just completed.

7. **Maintain Contact.** The OPFOR will go to great lengths to ensure that its forces maintain contact with key elements of the enemy force throughout the battle. This includes rapid reconstitution of reconnaissance assets and units and the use of whatever combat power is necessary to ensure success.

8. **Implement Battle Drills.** The OPFOR derives great flexibility from battle drills. Contrary to the U.S. view that battle drills, especially at higher levels, reduce flexibility, the OPFOR uses minor, simple, and clear modifications to thoroughly understood and practiced battle drills to adapt to ever- shifting conditions. It does not write standard procedures into its combat orders and does not write new orders when a simple shift from current formations and organization will do. OPFOR offensive battle drills will include, but not be limited to, the following:

   a. React to all seven forms of contact – direct fire, indirect fire, visual, obstacle, CBRN, electronic warfare, and air attack.

   b. Fire and manoeuvre.

   c. Fixing enemy forces.

   d. Situational breaching.

9. **Modify the Plan When Necessary.** The OPFOR is sensitive to the effects of mission dynamics and realizes that the enemy's actions may well make an OPFOR unit's original mission achievable, but completely irrelevant. As an example, a unit of the fixing force in an attack may be keeping its portion of the enemy force tied down while another portion of the enemy force is manoeuvring nearby to stop the exploitation force. In this case, the OPFOR unit in question must be ready to transition to a new mission quickly and break contact to fix the manoeuvring enemy force.

10. **Seize Opportunities.** The OPFOR places maximum emphasis on decentralized execution, initiative, and adaptation. Subordinate units are expected to take advantage of fleeting opportunities so long as their actions are in concert with the goals of the higher command.

11. **Dominate the Tempo of Combat.** Through all actions possible, the OPFOR plans to control the tempo of combat. It will use continuous attack, INFOWAR, and shifting targets, objectives, and axes to ensure that tactical events are taking place at the pace it desires.

Chapter 4 – DEFENSIVE OPERATIONS AND TACTICS

Introduction to this chapter

1. This chapter provides an overview of how the OPFOR conduct defensive operations at both the operational and tactical levels. It begins by explaining the differences that flow from a national strategy that anticipates fighting a superior extraterritorial enemy, as well as sketching how OPFOR attitudes towards defensive operations have shifted. As the formal purposes of defensive operations are a key step in the execution of *functional tactics*, they are explained upfront, preceding a section that introduces conceptual dichotomies[6] between 'types' such as planned versus *situational defence* or *integrated* versus *decentralised* defence. The OPFOR key considerations for preparing and executing defensive operations are simply listed, with the full details provided in an annex. The planning segment first describes control measures such as *zones*, lines, and areas under the heading of 'organising the battlefield', then the functional groupings that are the building blocks of defensive tactics are explained. The 'how' of defensive conduct is analysed under the broad headings of *manoeuvre defence* and *area defence*, and for each of these, one or more operational level examples with an illustration is provided at both, the operational and tactical level. Continuing from the larger scale to the smaller, the concluding sections deal with *battle positions* and techniques, the defence of *simple battle positions*, and *complex battle positions*, finishing with an examination of how reconnaissance elements and *combat security outposts*, down to the section level, fit in with these methods of operating.

The OPFOR understanding of defensive operations

2. As described in the previous chapter, the OPFOR traditionally assert the primacy of the offensive, but also highlight the strength of defence. They now note that technology may be shifting the relative advantage towards the defensive, and that this is particularly significant if they are confronting a superior extra-regional foe. Victory, both morally and in terms of national *strategic goals*, may be achieved by preventing an intruding enemy from achieving its objectives, which might favour a defensive strategy. Furthermore, when some OPFOR formations are on the offensive in a theatre, other formations and some subordinate *forces* and *elements* would almost always be on the defensive to preserve offensive combat power or protect resources, key facilities, or geographic areas. The defensive remains a vital constant. However, the OPFOR do not consider the defence as a passive, static or reactive mission thus units with a defensive task expect to seek the initiative. There are two key ideas of OPFOR defensive doctrine. It is -

a. Understood as still actively and aggressively pursuing objectives but while preserving combat power; and

b. Executed as a 'shield of blows'.

3. The shield of blows concept shares with Western defensive ideas the value aggression and *counterattacking*, but it is a more dynamic vision that emphasises the offensive within defence. This attitude is indicated by how they situate tactics for the defence within offensive doctrine (as seen in the previous chapter). *Ambushing, spoiling attacks* and *strike* are key to that vision of 'defending by attacking' – seeking to attack the enemy as they themselves prepare or manoeuvre to attack. As discussed below, their notion of a *complex battle position* is better understood as a protected environment from which to *strike* out, rather than a position against which an enemy attack is broken. *Systems warfare* is also crucial to this approach, with combat power focused against enemy command and control (C2), combat support, and support systems. The OPFOR do not envisage their defence defeating an attacker in a climactic single battle, rather in a series of engagements where each time they rain blows until eventually enemy combat power is eroded. This understanding particularly applies during adaptive operations against an extra-regional force.

The purpose of defensive operations

4. As explained earlier, the OPFOR system of functional tactics starts by emphasising the purpose of an operation as it guides the execution. For defensive operations, there are three purposes at the operational level and four for the tactical level.

5. **Operational level purposes.** At the operational level defensive operations linked directly to the goals of the strategic campaign, and there are three purposes.

a. **Defence to destroy**. A defence to destroy is designed to eliminate an attacking formation's ability to continue offensive operations while preserving friendly forces and setting the military conditions for a favourable political settlement. Such a defence may be the entirety of an operation or may be

[6] contrast between two things that are represented as being opposed or different

used to defeat a *counterattack* during a larger OPFOR offensive action. An operational defence to destroy often has one or more tactical offensive actions as subcomponents.

b. **Defence to preserve**. A defence to preserve is designed to protect key components of the OPFOR from destruction by the enemy. Such a defence may occur—

i. To preserve combat power for future operations;

ii. Before the outbreak of a war, or in its early stages, to cover the mobilization and deployment of the main forces;

iii. When facing numerically or qualitatively superior enemy forces; and/or

iv. During an offense, to economize force in one area and achieve superiority in another.

c. **Defence to deny.** A defence to deny is intended to deny the enemy access to a geographic area or the use of facilities that could enhance their combat operations or provide them with substantial value for information operations. An example of this would be enemy capture of a religious or cultural centre. This type of defence is most often used as part of an overall campaign of theatre access control. It may also be used to consolidate, retain, and protect critical positions that attacking forces have just captured.

6. Tactical **level purposes.** At the tactical level, defensive battles pursue operational level objectives while preserving combat power. The OPFOR recognizes four common general purposes of tactical defensive missions.

a. Protect **personnel and equipment**. A defence to protect key personnel and equipment creates one or more locations on the battlefield where *forces* critical to the OPFOR effort are protected from enemy reconnaissance, acquisition and destructive action. This, typically, relies heavily on camouflage, concealment, cover, and deception (C3D) and information warfare (INFOWAR) measures, and increasingly relies on the use of complex terrain. However, enemy rules of engagement, limited access areas such as non-belligerent countries or adverse weather conditions may also be exploited.

b. **Restrict freedom of movement**. A defence to restrict freedom of movement prevents the enemy from manoeuvring as they so choose. Such defences can deny key terrain, *ambush* moving *forces*, dominate airspace, or fix an enemy formation. Tactical tasks often associated with restricting freedom of movement are *ambush*, block, canalize, contain, fix, interdict, and isolate.

c. **Control key terrain**. A defence to control key terrain prevents enemy seizure of geographic features or facilities. Terrain to be protected and controlled can include not only key terrain that dominates a battlefield, but also facilities such as economic targets, ports, or airfields.

d. **Gain time**. A defence to gain time prevents the enemy from successfully concluding their scheme of manoeuvre before a certain point in time or even prior to a given event taking place. A defence to gain time is not oriented on either a protected *force* or a geographic location—it is oriented on the enemy's perceived scheme of manoeuvre. Disruption, delays, *ambushes*, and *spoiling attacks* are often parts of a defence to gain time.

Terms and typology

7. OPFOR terms and concepts for defensive operations are closer to Western practice than those for offensive operations explained in the previous chapter. The distinction between *forces* and *elements* and the system of *functional tactics* remains the same. A commander simply stating the purpose of an operation and nominating the functional label (i.e. task) of each subordinate *force* or *element* provides any OPFOR observer key information about what is intended. While in offensive operations there are number of different offensive actions (tactics or manoeuvres) at both the operational and tactical level. In defensive operations this is simpler, with only two types of operational level action and at two methods at the tactical level. This section introduces some of the most important terms and how they are used, noting that they are explained in greater detail later in the chapter as necessary. Conveniently, OPFOR often use an 'either or' typology.

8. **Planned versus situational**. As for offensive operations, the OPFOR distinguish between defensive activities (operations, attacks, or actions) depending on the amount of time available to plan, prepare, and execute. Again, there are two categories: planned defence and *situational defence*. As in offensive operations, these terms have the same meanings as deliberate and quick/hasty defence in Western doctrine. However, in OPFOR doctrine, the *situational defence* can be executed faster and with less battle procedure than in Western practice because of a greater use of battle drills and *functional tactics*. Commanders may make the decision to conduct a *situational defence* with staff input limited to simply turning their basic course of action into an operational directive. Given

that the planned defence involves more planning and preparation time, it is naturally associated with the *integrated* defence rather than *decentralised* defence, and with *complex battle positions* rather than *simple battle positions.* These- concepts that are explained immediately below.

9. **Integrated versus decentralised.** The OPFOR distinguish between *integrated* and *decentralised* defensive operations, depending on whether it retains the ability to achieve full joint and combined arms synchronisation at all levels and throughout the battle space. *Integrated* defensive operations assume a fully functional command and control (C2), support and logistics system. This is expected in a conflict with regional opponents. The *integrated defence* is able to-

a. Operate, at least partially, without the requirement for windows of opportunity;

b. Maximize the effects of destructive fire and manoeuvre.; and

c. Achieve operational decision through primarily military means.

10. In contrast, an OPFOR defensive operation will be *decentralised* if the OPFOR C2 and/or logistics capability has been significantly degraded or for other reasons, such as technological overmatch, it cannot operate freely in the battle space. It recognises that synchronisation will be degraded, relying on the initiative of subordinate commanders and independent targeting of key elements of the enemy's systems. The *decentralised* defence is not expected to be decisive, rather it buys time for the execution of strategic operations. It is expected to -

a. Be conducted primarily in complex terrain;

b. Maximize the effects of counter-mobility and survivability measures;

c. Rely heavily on Information Warfare (IW); and

d. Make extensive use of reconnaissance fires (discussed in chapter 3).

11. **Manoeuvre defence versus area defence**. *Manoeuvre defence* trades terrain for the opportunity to execute successive defensive engagements that target key components of the enemy's combat system, which is degraded until it is no longer capable of meeting its objectives. *Area defence* exploits complex terrain to occupy positions that protect defending *forces* while dominating the surrounding terrain with *reconnaissance fires* that similarly target key components. These fires create opportunities initially for disrupting the approaching enemy and then for mounting *spoiling attacks* and *counterattacks*. These two defence methods are in detail below.

12. **Simple battle position versus complex battle position**. To conduct defensive operations, formations and elements will usually occupy *battle positions* which are selected to take advantage of terrain features. There are two categories. A *simple battle position* is a defensive location oriented on the most likely enemy avenue of approach. *Simple battle positions* are not necessarily tied to complex terrain but often employ as much engineer effort as time allows. Generally, OPFOR *simple battle positions* resemble conventional Western defensive positions, but perhaps with less emphasis on all-round defence. In contrast, *complex battle positions* are defensive locations designed to protect the units within them from detection and attack while denying their seizure and occupation by the enemy. The OPFOR focus for *complex battle positions* is to avoid destruction by precision stand-off attack. To achieve this, they typically employ a combination of complex, especially urban terrain, with extensive all arms engineering effort focused on protection works and camouflage, concealment, cover, deception measures.

13. The two types of defensive position are illustrated at Figure 36. As can be seen, the *simple battle positions* illustrated on the left lie astride the enemy *axis* of advance and may involve engineer effort. The latter is indicated by the fortification symbol in the lower left schematic. In contrast, the *complex battle positions* illustrated on the right are fortified and positioned in complex terrain: in this case urban and mountainous terrain. The upper urban *complex battle position* is not on the expected *axis* of advance, and in the lower example where the axis of advance is towards the *battle position*, an obstacle has been emplaced to restrict a direct approach.

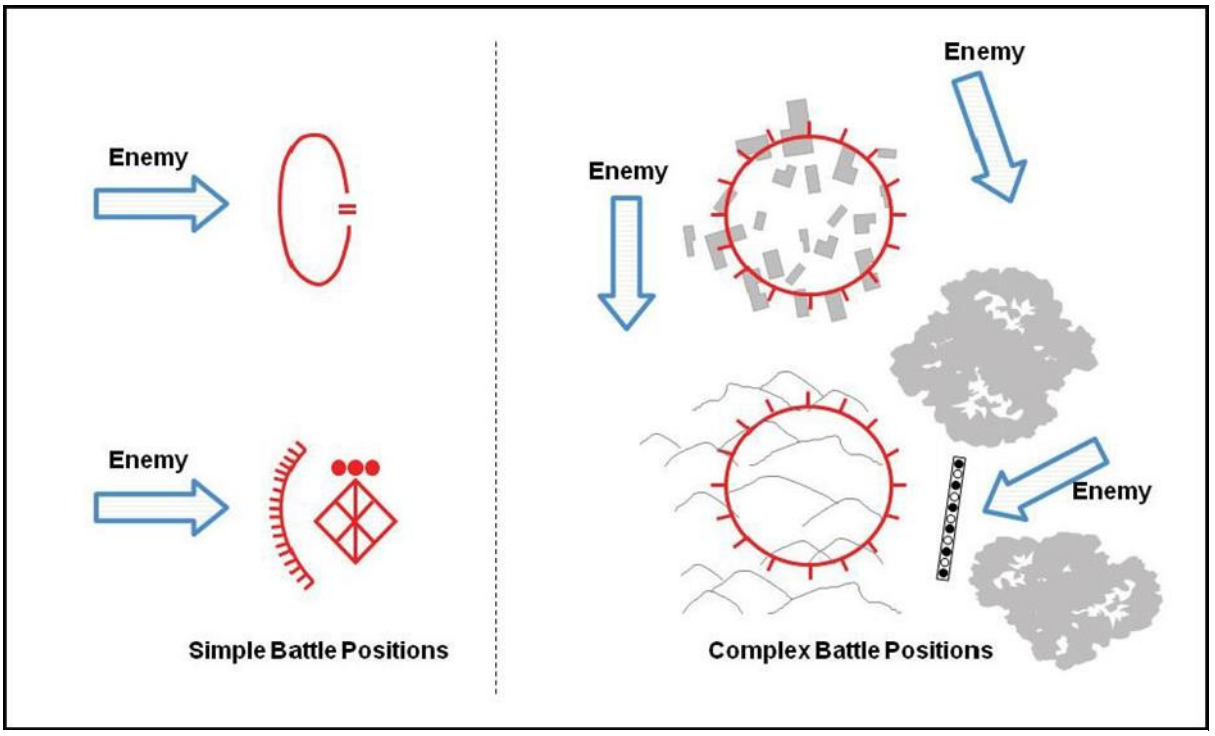

Figure 36 - Schematic of simple and complex battle positions

14. **Types of defensive action.** Noting the binary distinctions above, the OPFOR only have four clear types of defensive action, two at the operational level and two at the tactical level, which are fully described later in the chapter. They are –

a. **Operational level defensive action; and**

i. manoeuvre defence

ii. area defence

b. **Tactical level defensive action.**

i. defence of simple battle positions

ii. defence of complex battle positions

Approach and key considerations

15. In the defence, as during offensive operations, the OPFOR apply their *systems warfare* approach to attack components or subsystems of the enemy's combat system to disaggregate and degrade it. This causes vulnerabilities and provides opportunities for the defenders to exploit, eroding the enemies combat power, and denying them their objectives.

16. The OPFOR prescribe considerations for both preparing for and then executing defensive operations. These individual considerations are explained in full at Annex A, but the headings are -

a. Preparing for defensive operations; and

i. Make thorough counter mobility and survivability plans.

ii. Make use of complex terrain.

iii. Make thorough logistic arrangements.

iv. Modify the plan when necessary.

v. Rehearse everything possible, in priority.

b. Executing defensive operations.

i. Maintain contact.

ii. Implement battle drills.

iii. Modify the plan when necessary.

iv. Seize opportunities.

Planning: organising the battlefield

17. In designing the defensive battlefield, the OPFOR commander organizes *forces* to begin attack of the combat systems of the enemy force in-depth as soon as feasible. By attacking subsystems or components of the enemy's combat system appropriate to the situation, the OPFOR seeks to erode enemy combat power and create windows of opportunity for offensive action. Such offensive action will also often focus against key systems rather than combined arms manoeuvre *forces* and *elements*.

18. The organisation of the defensive battlefield into areas of responsibility and various *zones* at each level of command is, as in offensive operations, the key spatial planning that underpins the OPFOR *functional tactics* approach. The combination of graphic data with the assignment of functional tasks provides the essential information for subordinates to plan from, potentially including executing a *situational defence* with minimal further orders. In an operation plan, the commander specifies the organization of the battlefield from the perspective of their own level of command. Within the *force's* area of responsibility (AOR), as defined by the next-higher commander, the commander designates AORs for subordinates, along with various *zones* and *battle positions* in relation to the overall mission, giving clear indication of their freedom of action. Subordinates then repeat this delineation process downwards. The various control measures are described below, and a linear example is illustrated at Figure 37 which shows the AOR for an operational support command (OSC) sub-divided into Division Tactical Group (DTG) and Brigade Tactical Group (BTG) AOR. A non-linear example is provided further below at Figure 38.

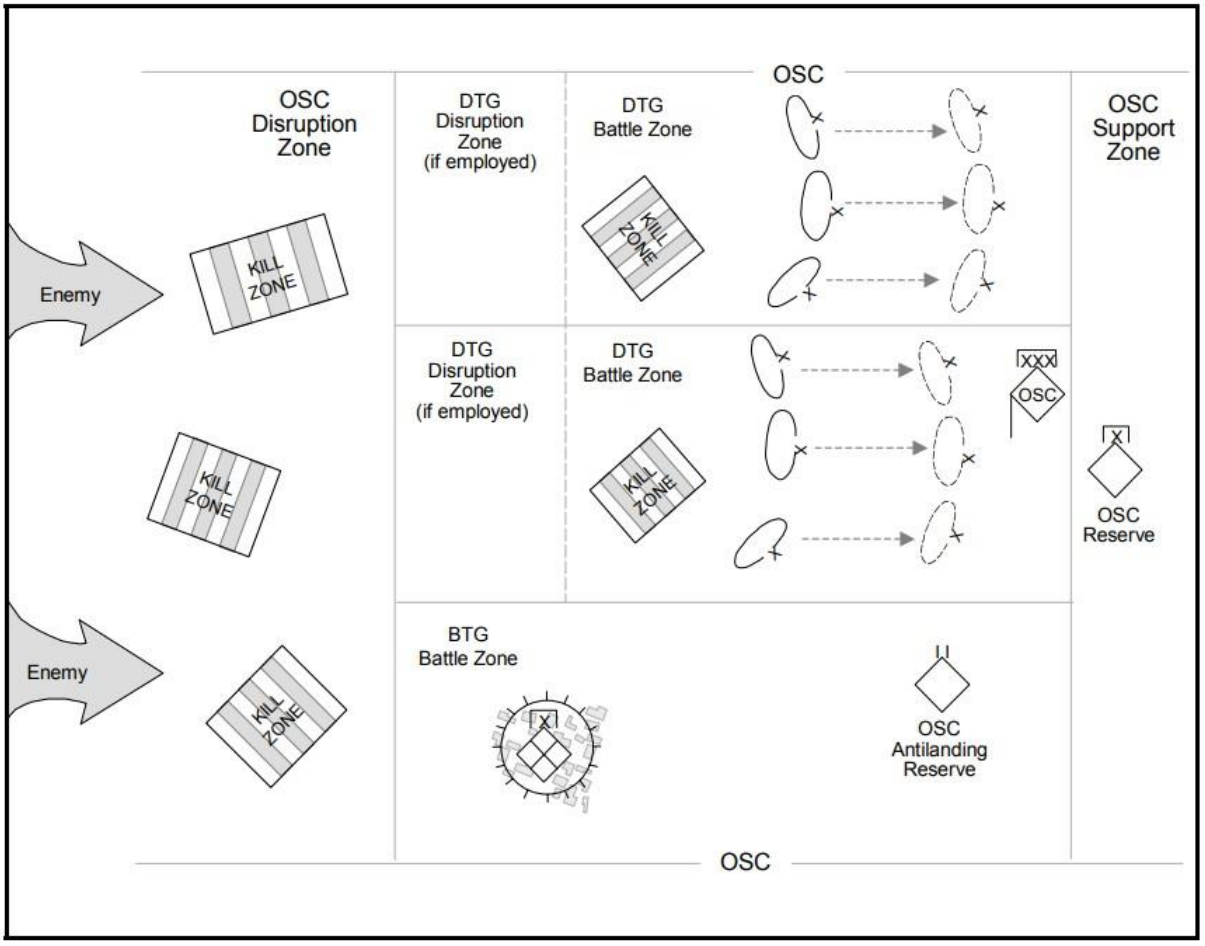

Figure 37 - Organising the defensive battlefield, areas of responsibility and other control measures (linear example)

19. The control measures in defence are very similar to those used in offensive operations.

a. **Areas of responsibility.** OPFOR AOR at any level of command are bounded by Limits of Responsibility (LOR) and from front to rear are subdivided by the *battle line* into the *disruption zone* and the *battle zone.* At the rear of the *battle zone* is the *support line* which marks the forward edge of the *support zone*. Defensive AOR may also contain one or more *kill zones* or *attack zones*, to control offensive operations that are part of the defensive scheme.

b. **Disruption zone.** OPFOR begin their attack on selected components or subsystems of the enemy's combat system in the *disruption zone*. For example, the *disruption force* might be given the mission

of finding and destroying enemy mobility assets while avoiding engagement with *manoeuvre forces*. The *disruption zone* is the primary area for employment of long-range joint fires and *strikes*. *Kill zones* may be identified for the purpose of integrating these fires effects with the actions of *disruption elements*. *Disruption zones* may be aggregated and remain the responsibility of the higher formation, with subordinate formations not forming one. For example, at Figure 37, the Operational Strategic Command (OSC) is responsible for a *disruption zone* across its entire frontage. The northern and central DTG shown each have their own *disruption zone*, but the BTG in the south does not. These arrangements may reflect the likely use of special-purpose *forces* in disruption operations as these are often commanded and controlled at a higher level of command. A subordinate formation made, with higher approval, deploy its own *disruption force/element* in the higher formation's *disruption zone.*

c. **Battle zone**. The *battle zone* is where *main defence force* use fires and manoeuvre to complete the disaggregation of the enemy's combat system by destroying components exposed by the *disruption force* in the *disruption zone*. The concept is to allow the enemy to enter easily but exit only at great cost causing them to culminate. The design integrates existing terrain, and engineer constructed obstacles with the fire plan and defended localities. *Kill zones* may be established to integrate long-range fire, ground attack aviation, and the manoeuvre of *main defence forces.*

d. **Support zone**. The *support zone* is designed to be free of significant enemy action to permit effective logistic and administrative support to the force. There is great emphasis on camouflage concealment cover and deception to protect against stand-off ISTAR and precision attacks, while *security forces* are deployed to counter enemy Special Forces and other deep threats.

e. **Attack zone.** An *attack zone* may be employed to coordinate offensive actions within a larger defensive scheme, with an axis showing the location through which the *attacking force* will move from its assembly area to the *attack zone*. This organisation is as described in chapter 3.

f. **Kill zone**. The OPFOR designate *kill zones* on the battlefield where they intend to destroy a key enemy target, usually by fire. The purpose of *kill zones* is normally to ensure coordination between fires and *manoeuvre forces*.

g. **Battle position**. A *battle position* is a defensive location that maximises the occupying *force* or *element's* ability to accomplish its mission, selected so that the terrain is complimentary to the *force* or *element's* capabilities and task. As discussed above, *battle positions* may be simple or complex.

h. **Defensive lines and arrays.** The basis of *manoeuvre defence* is for *forces* and *elements* to manoeuvre successively from position to position. The control measure is usually referred to as *defensive lines* at the operational level and as *defensive arrays* at the tactical. This is explained and illustrated later in this chapter.

i. **Contact force and shielding force.** During *manoeuvre defence,* as *forces/elements* manoeuvre between positions, the forward part of the *force/element* is known as the *contact force/element*, and the rear part known as the *shielding force/element.* This is explained and illustrated later in the chapter.

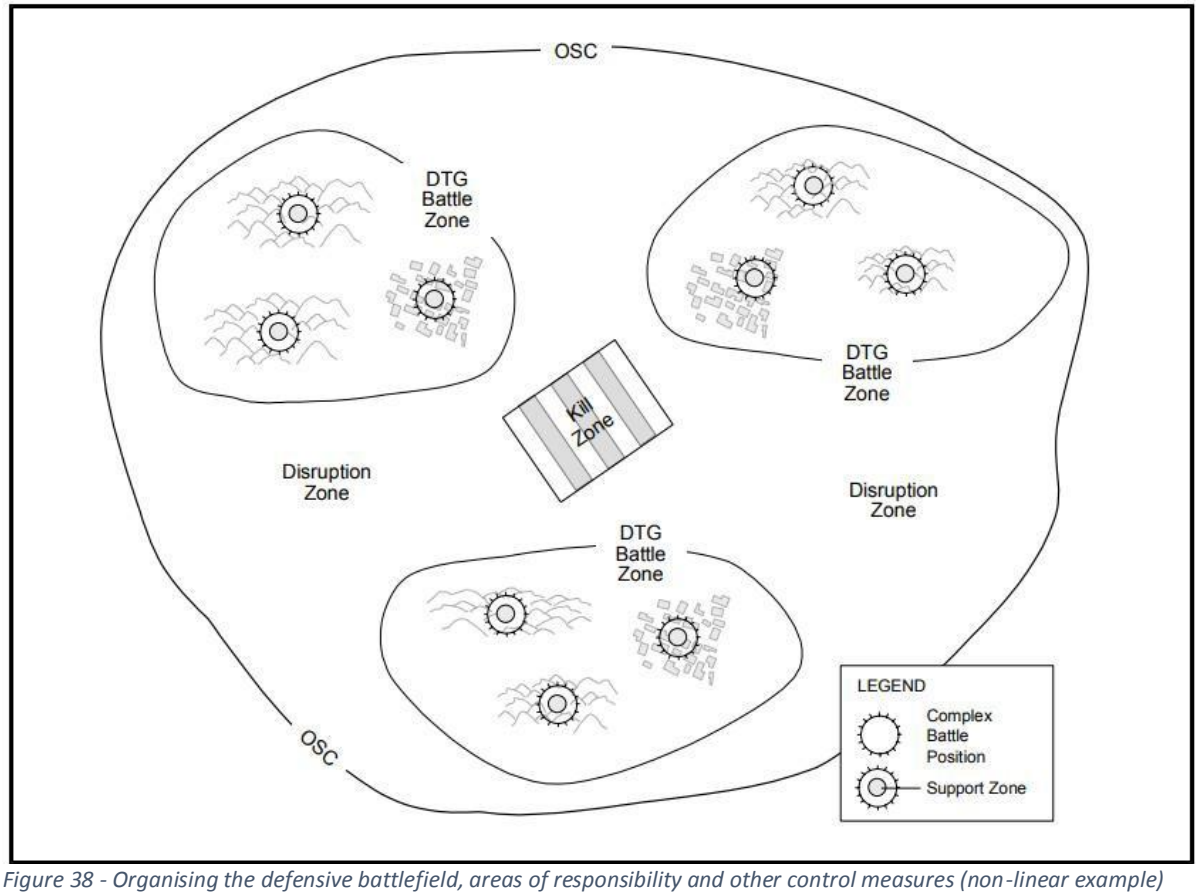

Figure 38 - Organising the defensive battlefield, areas of responsibility and other control measures (non-linear example)

Planning: organising functional groupings

20. The OPFOR system of *functional tactics* uses intuitive labels. As previously described, this gives groupings a functional designation that identifies both the role a grouping will perform in the plan, and its size. For defensive operations, functions from the following list will typically be used. However, the system is flexible and allows a commander to assign some non-standard function for clarity and flexibility in plan. At different stages during the plan, a grouping may change its role and therefore be allocated a new functional label. For example, a unit that is a *disruption element* may in another phase become a *reserve element.* Where a *force* is assembled from similar units, the senior of the unit commanders routinely takes charge, however sometimes the *forward command post* of the higher formation will take responsibility. For a *disruption force,* the *integrated fires command* (responsible for artillery and air fires coordination) *command post* may be pushed forward for this role.

a. **Disruption force/element**. The main function of a *disruption force/element* is to prevent the enemy from conducting an effective attack by attacking designated components or subsystems and beginning the disaggregation of the enemy's combat system. The *disruption force/element* may also have counter- reconnaissance, deception, delaying or canalising tasks. While ideally, *disruption* activities are synchronised and *integrated*, the OPFOR recognise that in adaptive operations they may need to be executed by multiple commanders operating independently. A *disruption force/element* might operate throughout a single large *disruption zone* on a large formation's frontage or in one of many (as described above under control measures). Both size and grouping of a *disruption force/element* are flexible and can vary from a large, combined arms formation operating cohesively under a single commander to a few special-purpose forces teams operating independently and directing *reconnaissance fires.* Stay behind *elements* can be expected in any defence. It may contain –

i. Ambush teams (ground and air defence);

ii. SPF teams;

iii. ISTAR assets and forces;

iv. Counter-reconnaissance forces;

v. Artillery systems;

vi. Target designation teams;

vii. Affiliated forces (such as terrorists, insurgents, criminals, or special police); and/or

viii. Anti-landing reserves.

b. **Main defence force/element**. The main *defence force* is the grouping that is charged with the execution of the primary defensive mission. It operates in the *battle zone* to accomplish the purpose of the operation, at the operational level this is to destroy, preserve or deny. As *explained* below, during *manoeuvre defence* the *main defence force* will be broken down into a *contact force(s)* and a *shielding force(s).*

c. **Protected force/element.** During a defence to preserve, the *protected force*/*element* is the grouping being kept from detection or destruction by the enemy to ensure it is available after the current operation. At the higher operational level, the *protected force/element* is likely to be a grouping critical to future operations and/or the preservation of the regime. It may deploy in the *battle zone* or *support zone*.

d. **Security force/element**. The security force/element prevents or mitigates the effects of enemy action against the overall formation and all its key components. This may include mitigating the *effects* of weapons of mass destruction. A security force/element might operate across the entire area of operations for a formation or more typically in the support zone. If the focus is enemy special operations and long-range reconnaissance elements, the security force/element might be assembled from units including signals reconnaissance, counter reconnaissance, special-purpose forces, and infantry. It might also include internal security units, especially if there is a threat from hostile insurgents or terrorists. Elements such as the anti-landing reserve might also be placed within the security force.

e. **Counterattack forces/elements**. A defensive operation may include a planned *counterattack* scheme, or the OPFOR commander may change the task organisation to create a *counterattack* grouping if an opportunity occurs. It is likely to have the mission of causing the enemy to culminate, thus regaining the initiative. The *counterattack force/element* may consist of *fixing*, *mission* and *exploitation forces/elements* as described in the previous chapter.

f. ***Reserves*.** The OPFOR commander made hold *forces* out of initial action to influence unforeseen events or take advantage of opportunities. Possible reserve types are -

i. **Manoeuvre reserve**. General-purpose reserves are almost always combined arms forces given the strength to influence the outcome of an engagement. They will be given a list, in priority of possible missions for planning and rehearsal which might include –

i. Conducting a counterattack which may include recovering lost positions or capturing positions giving advantage for subsequent combat actions;

ii. Conducting counter-penetration by blocking or destroying enemy penetrations;

iii. Conducting anti-landing operations through eliminating vertical envelopments;

iv. Assisting forces heavily engaged on a defended line to break contact and withdraw; and

v. Act as a deception force.

ii. **Antitank reserve**. In the face of significant armour threats, OPFOR commanders may form an antitank reserve or reserves. It is typically an antitank unit grouped with an *obstacle detachment*.

iii. **Anti-landing reserve**. In the face of enemy airborne or a mobile threats, the OPFOR may designate an anti-land reserve. This is likely to include *manoeuvre forces*, air defence assets and engineer units but might be allocated to any unit capable of *disrupting* or defeating a landing, including using methods such as smoke or electronic warfare. An *anti-landing reserve* is positioned to engage primary drops and landing *zones* but is equipped, plans and reverses to move rapidly to others.

iv. **Special** *reserves*. At the higher operational level, OPFOR may form *special reserves* such as an engineer grouping of earthmoving and obstacle- creating equipment that can be *deployed* to strengthen defences on a particularly threatened axis. Similarly, in the face of an enemy weapons of mass destruction (WMD) threat, a chemical defence reserve might be formed.

v. **Deception forces/elements**. At the tactical level OPFOR commanders may deploy their own deception groupings. However, at the operational level, *deception forces* have a special status if they are non-existent or only partially exist in reality. Only close hold executive versions of the operation plan correctly identify *deception forces*, widely distributed copies of the plan make reference to *deception forces* according to the designation given to them in the deception narrative. Typically, a *deception force* will be given its own command structure to support a convincing deception.

Conduct of operational-tactical defensive operations

21. As introduced above, at the operational-tactical level there are two types of defence, which are both guides to the design of operational courses of action and tactical methods. They may be applied at all levels from large formations down to units, and are –

a. manoeuvre defence; and

b. area defence.

22. The two types are described in detail below. The OPFOR may use various combinations of *manoeuvre* and *area defences* along with some offensive courses of action within an overall defensive framework.

Manoeuvre defence

23. A *manoeuvre defence* trades terrain for the opportunity to successively degrade or destroy key portions of the enemy formation in a series of engagements. These defensive battles are combined with short violent *counterattacks* and fire *strikes*. The design for battle constantly seeks to cause the enemy to expose themselves. As engagements cause the enemy combat system to disaggregate, more components become vulnerable to destruction and are struck. This leads the enemy to progressively become ineffective such that they cannot achieve their objectives. A *manoeuvre defence* is employed by OPFOR when –

a. It can afford to surrender territory;

b. It possesses a mobility advantage over enemy forces; and

c. Conditions are suitable for canalizing the enemy into areas where the OPFOR can destroy them by fire or deliver decisive counterattacks.

24. The *manoeuvre defence* involves a higher degree of risk compared to *area defence* because it does not so fully exploit the inherent advantages of prepared defensive positions. Typically, when OPFOR conducts a *manoeuvre defence,* smaller *forces* are placed forward, and much larger reserves are held than in *area defence.* The *manoeuvre defence* is employed when the OPFOR is not completely overmatched, therefore in regional or transition operations. In the latter case, while an extra-regional enemy builds combat power, but before the OPFOR is completely overmatched, the *manoeuvre defence* can buy time for other *forces* to move into sanctuary areas and prepare for adaptive operations.

25. **Defensive lines and arrays**. The basis of *manoeuvre defence* is for *forces* and *elements* to manoeuvre successively from defensive position to defensive position. The relevant control measure is usually referred to as *defensive lines* at the operational level and as *defensive arrays* at the tactical. Lines or arrays may include natural or man-made obstacles or deception defensive positions, with perhaps large intervals between lines or arrays, but engagement occurs in between to prevent the enemy easily defining layers of resistance. The differences are elaborated on below.

a. **Defensive lines**. The higher-level *defensive line* is not a continuous line of defensive positions, rather a notional control line on which one or more *forces* or *elements* have orders to defend for a certain time, at a certain depth within that group's area of responsibility. In the spaces between *defensive lines* the defenders organise *reconnaissance fire*, raids, and *counterattacks*. *Defensive lines* are not necessarily linear at right angles to the enemy's line of advance nor are they necessarily at regular intervals.

b. **Defensive arrays**. The tactical-level *defensive array* is a group of positions in which one or more subordinate *forces* or *elements* have orders to defend for a certain time within a higher formation's area of responsibility. In the spaces between arrays the defenders typically execute disruption activities.

26. *Defensive lines* or *defensive arrays* are selected based on the availability of natural obstacles and shielding terrain, with special attention given to the scope for withdrawing unobserved. The number of *defensive* lines or *defensive arrays* and the duration of defence on each depends on enemy actions, terrain and capability of

defending forces/elements, and the latter will not necessarily withdraw to a location behind their previous position. Typically, lines or arrays are spaced sufficiently far apart that the enemy indirect fire assets cannot engage both the defenders without having to redeploy. Ideally, the ground between provides scope for defensive manoeuvre, especially *ambushing* or *spoiling attacks*.

Defensive manoeuvre

27. Defensive m*anoeuvre* consists of movement by bounds and the maintenance of continuous fires on enemy forces. The tactic may be employed by both *disruption force/element* and/or a *main defence force/element* (or part of it). In either case, the *force/element* must divide its combat power into two smaller components.

a. **The contact force/element**. This is the component occupying the forward-most *defensive line*, *array,* or position at any point in time.

b. **The shielding force/element**. This is the component occupying the next line, array, or position immediately to the rear of the contact grouping.

28. *A*t each line or array, the *contact force* ideally forces the enemy to deploy their manoeuvre units and perhaps begin artillery preparation for the attack. Then, before the *contact force/element* becomes decisively engaged, it manoeuvres to its next pre-planned *line* or *array*, behind the one occupied by the *shielding force/element*. While the original *contact force* is moving, the *shielding force* can keep the enemy under continuous fire. When the original *contact force* passes to the rear of the original *shielding force*, the latter *force* becomes the new *contact force*. When the original *contact force* occupies its next line or array, it becomes the *shielding force* for the new *contact force*. In this manner, units continue to move by bounds to successive lines, preserving their own forces while delaying and destroying the enemy.

29. The concept of the *manoeuvre defence* is to resist on successive positions without becoming decisively engaged, with systematic destruction of key systems to erode combat power and decision being achieved by fires, *spoiling attacks,* and *counterattacks*. However, the OPFOR may continue to defend a line or array if this creates an opportunity for such manoeuvres, if the enemy advances faltering, or if forces to the rear to require more time to prepare. The OPFOR may also take opportunities to deploy forwards from the *defensive line* or *array*, for example to an *ambush* position. Manoeuvre forward from defensive positions into other temporary positions to the front, rear or flank may be conducted to force the enemy into a non-linear fight. -

a. **Disruption force/element**. The *disruption force/element* role is to disaggregate the enemy attack. Within the disruption *zone* it seeks to force the enemy to fight on ground and at a tempo of the OPFOR choice. It may also set the conditions for a *spoiling attack* or *counterattack*. A withdrawing *disruption force/element* may occupy prepared positions in the battle *zone* or pass into hide positions to reconstitute.

b. **Main defence force/element**. The *main defence force/element* role is to complete the defeat of the enemy by attacking portions of the enemy *force* exposed by *disruption zone* operations. This is executed by contact and shielding groupings manoeuvring between successive bounds. Decision may be achieved by *counterattack* or fires, either of which may be supported or executed by flanking formations if the opportunity presents.

c. **Manoeuvre reserve**. The OPFOR may form various reserves, but the key *manoeuvre reserve* role is the defeat of the enemy's *exploitation force*, for which it must have the necessary capability. This reserve will be positioned in an assembly area with significant effort on camouflage, concealment, counter-surveillance, and deception to protect it from detection and attack. From the assembly area it may deploy, to execute a *situational defence* or conduct a *counterattack*.

30. **Operational level example**. A schematic example of the conduct of the main defensive battle of *manoeuvre defence* at the operational level is illustrated at Figure 39. The enemy force is expected from the East and will be initially engaged in the *disruption zone*. The *contact force* of three infantry divisions, each with an attached artillery brigade, is deployed on a *defensive line* running from a marsh in the North through mountains in the centre to a city in the south. Ahead of each infantry division is a *kill zone* covered by the relevant artillery brigade.

31. The gaps between the three forward infantry divisions contain larger *kill zones* that are each covered from the rear by a mechanised artillery brigade, one in mountains to the south, and one in a city to the north. These are part of the *shielding force* which also includes two mechanised brigades, one behind the exit of each of these two *kill zones*. A rocket artillery brigade in the forest to the west can superimpose its fire on either of these *kill zones*. This forest is also the assembly area for the mechanised brigade that forms the *manoeuvre reserve*.

32. The simple three step concept illustrated assumes that the enemy is initially engaged in the *disruption zone* and begins to be disaggregated, perhaps with the *disruption force* focusing on reconnaissance subsystems. As the

enemy reach the *kill zones,* they are engaged with fires and further degraded. Before they are decisively engaged, the infantry divisions of the *contact force* withdraw to the city, forest, and mountain as indicated, conducting *ambushes* and *strikes* on leading enemy *forces* as they do so.

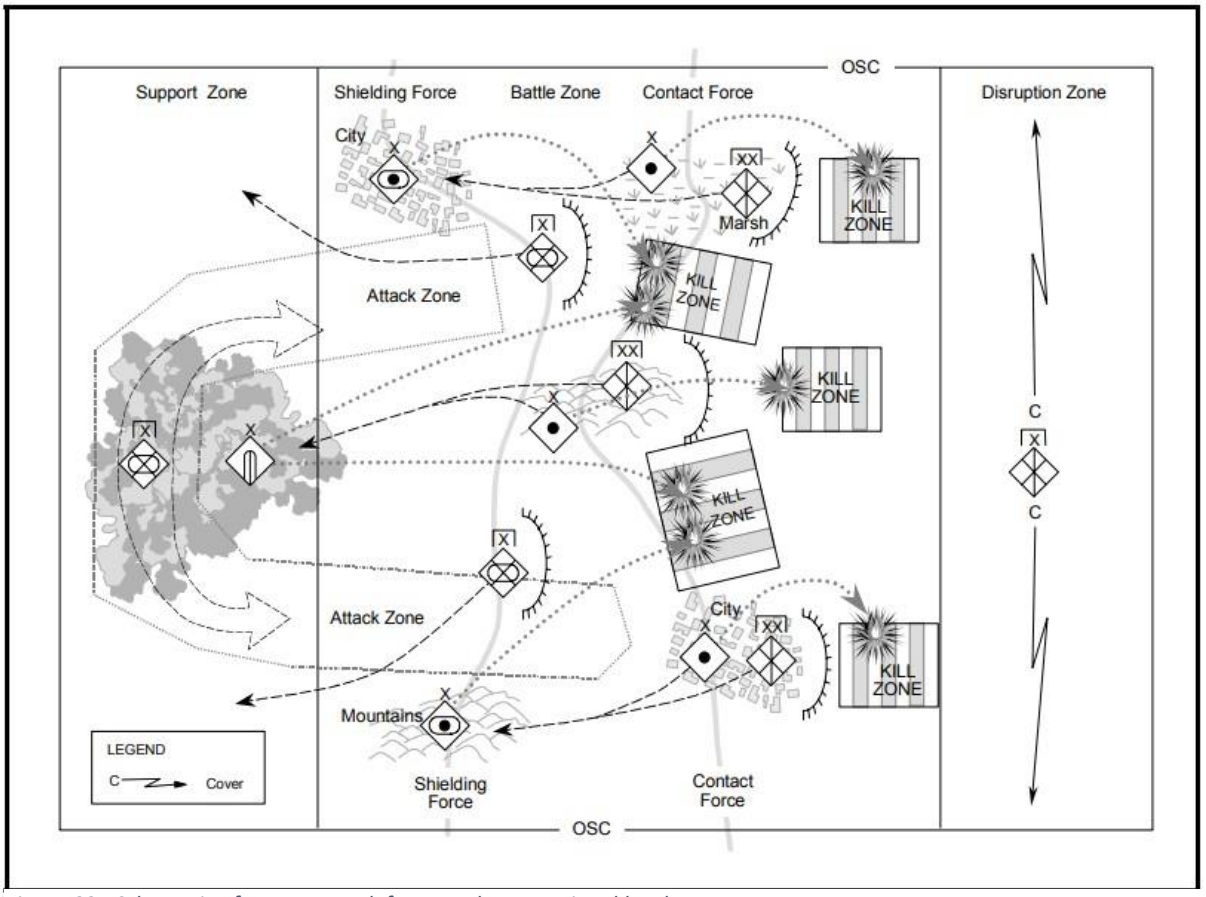

Figure 39 - Schematic of manoeuvre defence at the operational level

33. As the withdrawal occurs, the two mechanised brigades in the defensive positions in the centre of the area of operations take over the role of *contact force*, while the infantry divisions become the *shielding force*. The mechanised brigades continue the attrition of the advancing enemy force by further targeting of key systems and subsystems, perhaps command and control (C2). Before becoming decisively engaged they withdraw north and south into the *support zone*, again becoming the *shielding force*. As they do so, they continue the pattern of *ambushes* and exploit their mobility to conduct local *counter penetration* attacks.

34. If the enemy is advancing on several axes, one of the mechanised brigades remains forward for longer to ensure that the enemy does not reach both *attack zones* simultaneously. When the advancing, but now disorganised, enemy reaches an *attack zone* the reserve mechanised Brigade conducts a *counterattack* intended to cause the enemy to culminate. While it is not indicated, the two mechanised brigades that withdrew to the *support zone* would become the new *reserve* ready to conduct further *counterattacks* or blocking actions.

35. **Tactical level example**. A schematic example of the conduct of a *manoeuvre defence* at the tactical level is illustrated at Figure 40. The enemy, which is assumed to be mechanised or motorised, is shown approaching from the west into an area that features more forested terrain. A *disruption force* (strictly speaking probably a *disruption element*) consisting of two observation posts and four prepared *ambushes* is deployed forward to strike key enemy subsystems.

36. *Kill* zones are sited astride expected enemy routes and supported by minefields on the two (faster and more likely) axes that are on roads. These *kill zones* are all covered by the *contact force* consisting of three battalion defensive positions. Slightly to the rear, the two anti-armour platoons that constitute the *shielding force* are sited where they can cover the possible routes that bypass or lead out of the *kill zones*. In the south-east a single prepared ambush covers a likely bypass route, and in the forest to the rear, three artillery companies are deployed.

37. The simple two-step concept illustrated again assumes that the enemy is engaged by the *disruption force* and key systems are degraded. The enemy then advances into one or more *kill zones* and is engaged by both artillery fire and the adjacent battalion of *the contact force*, further degrading selected key systems. Before becoming decisively engaged, the *contact force* battalions withdraw to positions from where they can continue to deny the enemy advance, covered by the anti-armour platoons of the *shielding force* to enable the infantry to break clean. The northern *contact force* battalion withdraws in two steps using an intermediate hill feature to conduct a delay from before moving into the forest, while the other two battalions withdraw in one bound. These three battalions become the *shielding force* while the anti-armour platoons become the *contact force*.

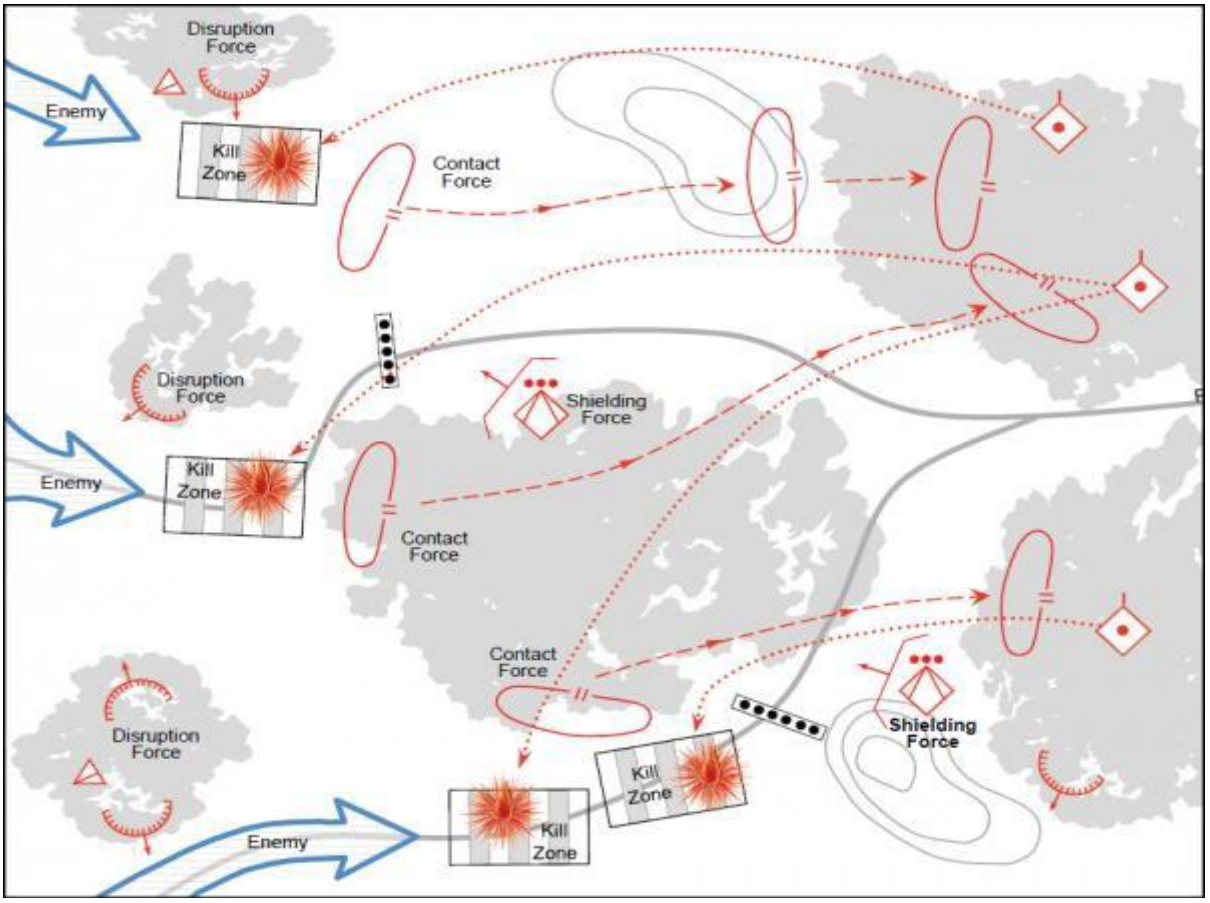

Figure 40 - Schematic of tactical level manoeuvre defence

Area defence

38. An *area defence* trades time for the opportunity to attack enemy forces when and where they are vulnerable - on complex terrain. Where the OPFOR is overmatched or must deny geographic areas or access to them, it may conduct *area defence*, especially when —

a. It is conducting access-control operations;

b. Enemy forces enjoy a significant ISTAR and precision standoff advantage; or

c. Conditions are suitable for canalizing the enemy into areas where the OPFOR can destroy them by fire and/or manoeuvre.

39. *Area defence* inflicts losses on the enemy, retains ground, and protects friendly forces. It exploits the fabric of complex terrain to establish *complex battle positions* that both conceal and protect key OPFOR components and allow them to dominate the surrounding battle space. The nature of complex terrain is to obstruct, canalise, and isolate advancing *forces* while concealing defenders. Domination is achieved by r*econnaissance fires* applied by a network of *Observation Posts* (OP) and an active and aggressive employment of *ambushing* and *raiding elements* throughout the area of responsibility. Deception plays a central role in *area defence*, both imposing caution and enticing the enemy to expend firepower and execute operations against decoys and false positions.

40. The operational design of an *area defence* is to begin disaggregating the enemy's combat system in the *disruption zone* by striking designated components and subsystems as early as possible. The objective is to force the enemy into continuous operations and steadily drain their combat power, resolve, and cause unacceptable casualties. By the time enemy forces enter the *battle zone*, their capability to synchronise combat operations is heavily degraded. The separation of enemy *elements* in time and space by both the terrain and with OPFOR

varying the level of resistance on different approaches, creates windows of opportunity in which to conduct *spoiling attacks* or *counterattack*s and destroy further key enemy systems.

41. *Area defence* is designed to achieve a decision in one of two ways;

a. By forcing the enemy's offensive operations to culminate before he can achieve their objectives; or

b. By denying the enemy their objectives while preserving combat power until decision can be achieved through strategic operations or operational mission accomplishment.

42. The *area defence* relies to a significant degree on the availability of complex terrain and decentralized logistics. Within an overall operational *area defence*, the OPFOR might use *manoeuvre defence* on some portions of the AOR, especially on those where it can afford to lose ground. This occurs most often during transition operations as forces initially occupy the complex terrain positions necessary for the execution of the *area defence*. The component forces or elements function as follows -

a. **Disruption force/element**. The main function of a *disruption force/element* remains to deny the enemy an effective attack by targeting to disaggregate, but in the *area defence* it exploits complex terrain to impose uninterrupted battle on the enemy without decisive engagement. *Disruption elements* may use supply caches or operate out of well-stocked forward *battle positions* in the *disruption zone* to which they return to restock between *ambush* engagements. The *disruption force/element* makes extensive use of mines, obstacles, and command demolitions to shape the enemy and achieve manoeuvre superiority. It may have been tasked to -

i. Detect the enemy's main groupings;

ii. Force the enemy to reveal their intentions;

iii. Deceive the enemy as to the location and configuration of battle positions;

iv. Delay the enemy, giving time for preparation of defences and counterattacks

v. Force the enemy into premature deployment;

vi. Attack lucrative targets (key systems, vulnerable troops); and/or

vii. Canalize the enemy into situations unfavourable to him.

b. **Main defence force/element**. The role of the *main defence forces/elements* in an *area defence* is dictated by the higher purpose of the operation: is the mission to destroy an enemy force, preserve the friendly force or deny terrain or a facility? In every case they will occupy *complex battle positions* which are sited to minimise the effectiveness of enemy precision stand-off weapons and force a slow and costly assault. There is emphasis on camouflage, concealment, cover and deception (C3d?), with engineer construction effort likely focused on survivability. Logistic elements and combat supplies are *decentralised* and distributed within or protected by *complex battle positions*. *Elements* from the *disruption force* may operate from these, bringing casualties to the rear and resupplying with ammunition.

a. **Manoeuvre reserve.** While a number of reserve *forces* may be formed for an *area defence,* the manoeuvre reserve is likely to be strong enough to respond to contingencies and opportunities and defeat the enemy's *exploitation force*. Often, the manoeuvre reserve will initially have the role of winning time for the preparation of positions.

43. **Operational level examples**. Two schematic examples of the conduct of the *area defence* at the operational level are provided at Figure 41 and Figure 42. In the first example, a multi-division *operational support command* (OSC) is conducting an *area defence* with three *divisional tactical groups* (DTG) each defending a *battle zone* with varying complex terrain. All the constituent brigades occupy *complex battle positions* within complex terrain (variously marsh, mountains, urban, and forest). The enemy force may advance from one or more of three open approaches, where initially they will be shaped and degraded by a *disruption force*, but this is not shown. The diagram shows that the main defensive battle in each case occurs in a *kill zone* that is outside of the *divisional tactical group area.* On the northern approach, a force from the infantry brigade in the marsh area sally out to *ambush* the advancing enemy mechanised Brigade. In the southwest, the advancing enemy mechanised brigade is struck by the artillery battalion to its north while a tank brigade sallies out of the mountains to conduct a *counterattack*. In the south-east, the advancing enemy tank brigade is struck by the artillery brigade from the urban area.

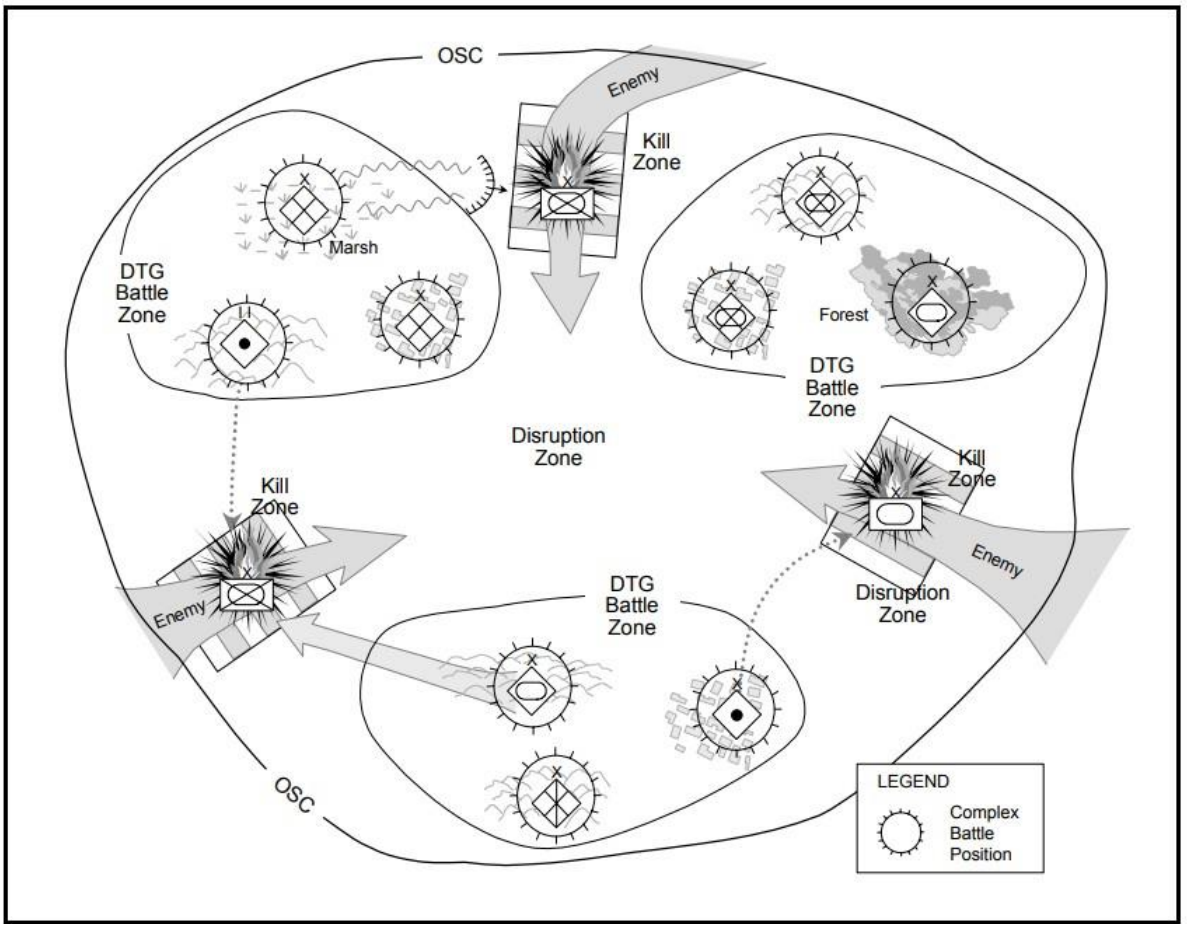

Figure 41 - Schematic showing a multi-battle zone area defence at the operational level

44. A second example at Figure 42 provides more detail in the case of an *Operational Strategic Command (*OSC) conducting *area defence* within a single *battle zone*. Just inside the OSC *area of responsibility,* a series of observation posts both on the *disruption zone perimeter* and further in on the *battle line* ensure that observed fire can be applied continuously on advancing enemy forces. Within the *disruption zone,* five infantry battalions provide a *covering force* to *ambush* and disaggregate the enemy. Importantly, air defence companies are also deployed in the *disruption zone,* and they have established dummy/feint positions, reflecting the priority of preventing the enemy delivering precision *strike* against the defence. In the OSC *battle zone* three infantry divisions are deployed in the complex terrain of the city and mountainous areas. The supporting artillery brigade is centrally located to enable redeployment during the disruption battle and is co-located with an air defence company for its protection. The OSC or *manoeuvre reserve* is also centrally located and is likely to be tasked to conduct counter penetration or *counterattacks*

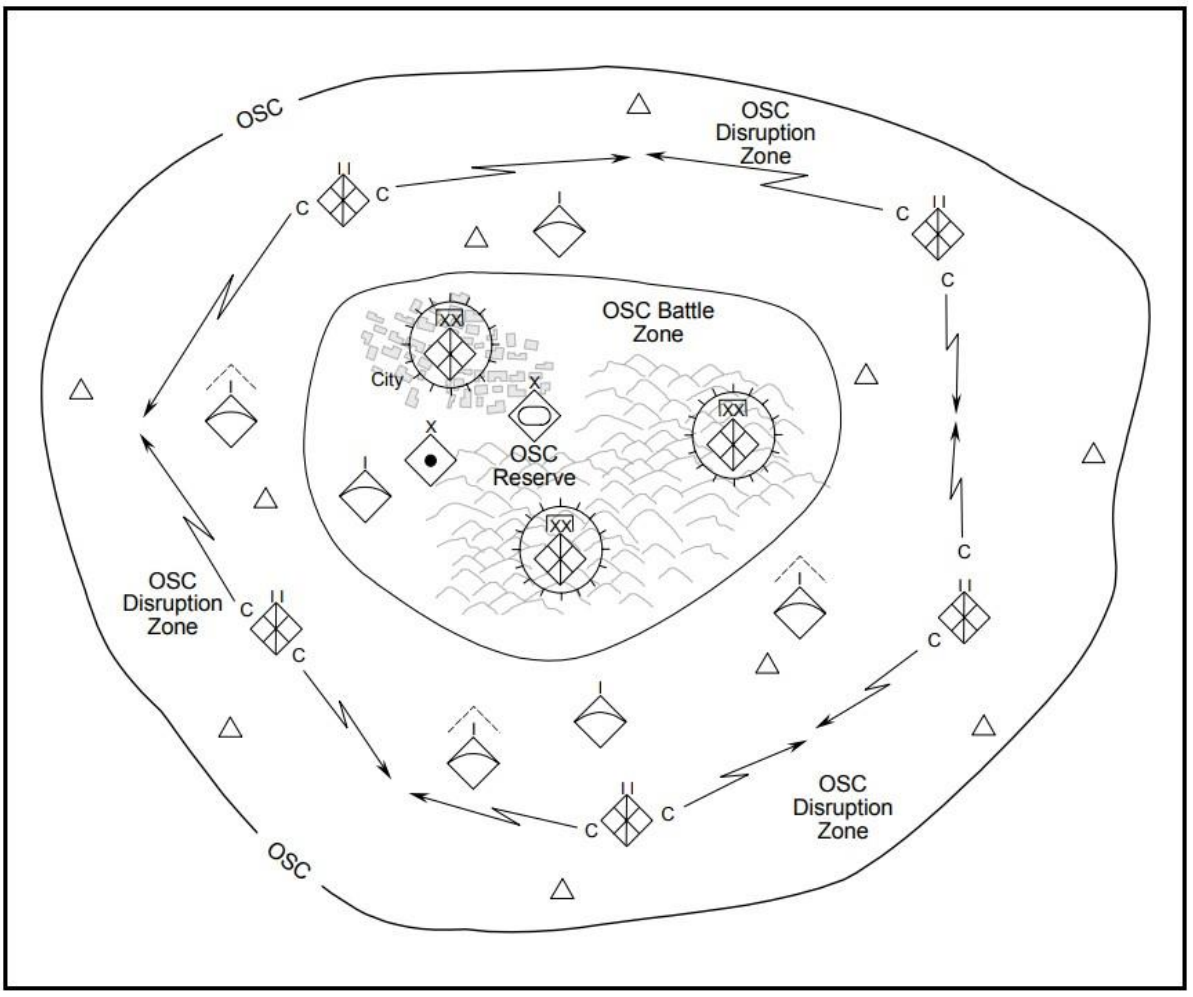

Figure 42 - Schematic showing a single battle zone area defence at the operational level

45. **Tactical level examples**. Three schematic examples of the conduct of an *area defence* at the tactical level are provided below. The first example, below at Figure 8, shows a *brigade tactical group* (BTG) conducting an *area defence* within the complex terrain of a continuous urban area. A single BTG *disruption zone* extends off the map in all directions and within it a series of observation posts (OP) ensure that adjusted fire can be brought continuously on approaching enemy forces. *Reconnaissance fire* is a key tool in the *area defence* design for battle. Although it is not shown these OP would also cue *ambush elements* deploying forwards from the main positions. A single rectangular BTG *battle zone* is defined by the road network and within it are four battalion level *complex battle positions,* each of which is supported by an artillery company in location. Note that the *battle positions* are not astride the road network. This ensures that they are difficult to define, difficult to bring direct fire against, and the terrain will tend to break up assaults. A company size BTG *manoeuvre reserve* is maintained in the centre of the *battle zone* to conduct blocking manoeuvre, counter penetrations or *counterattacks*.

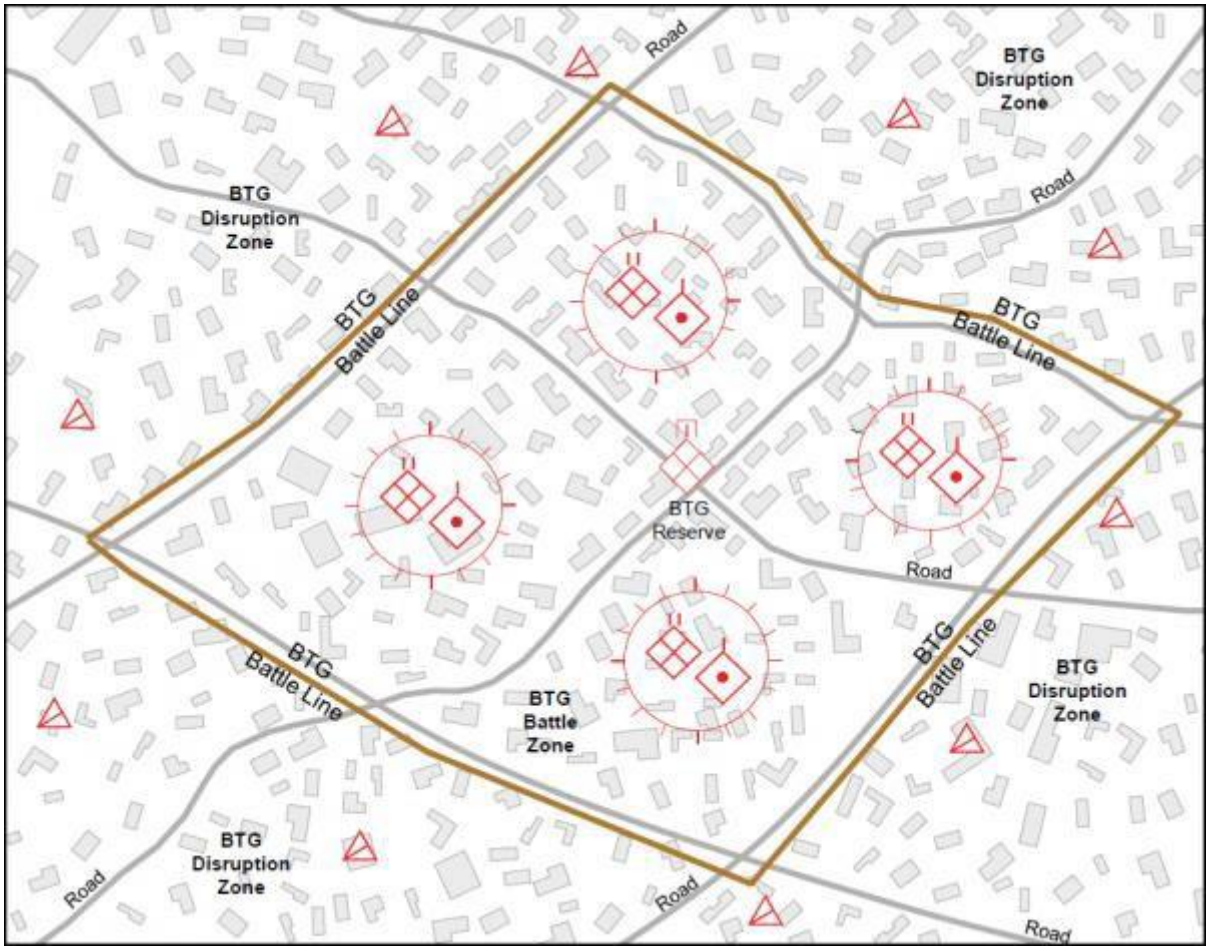

Figure 43 - Schematic of one example of a basic layout of a Brigade tactical group in urban area defence

46. Another example shown at Figure 9 shows a similar sized *brigade tactical group* (BTG) conducting *area defence* on complex forested terrain. The likely enemy approach is along the road networks from the East and the West. Although not labelled as such, a *disruption force/element* consisting of a series of observation posts (OP) provide observation onto the enemy road approaches and also screen the less likely approaches. The bulk of each infantry battalion and its attached artillery company occupy well concealed and protected *complex battle positions* within the depth of the forests making them difficult to locate or assault. This scheme of manoeuvre provides for a series of minefields laid across the likely enemy roots which will check enemy lead elements to position a suitable portion of the enemy force in selected kill zones. A wheeled anti-armour company forms a *manoeuvre reserve* and is concealed in hides in the forest in the centre of the position, with reconnoitred routes to *support by fire* positions that cover the two most likely approaches

47. As the enemy approach, they may be engaged selectively by the *disruption force* (this is not shown). *Reconnaissance fire* applied by the *disruption force* is a key tool for the *area defence*. This might be to *strike* key subsystems further back in the line of advance rather than distracting the enemy from entering the *kill* zone. When the enemy approach direction as been determined, the relevant battalions, two in each case, move rapidly to prepared *ambush* positions overwatching the relevant *kill zone*. The antitank company that forms the manoeuvre reserve might be deployed at this stage to fix the enemy in the *kill zone*, or alternatively it might remain concealed until after the *ambush* is sprung. Similarly, the fire of the two artillery companies covering each *kill zone* might be withheld until the infantry *ambush* is sprung, or alternatively engage enemy in the *kill zone* while the infantry occupy the *ambush* positions. The arrangement of the battalion level *complex battle positions* provides the *Brigade Tactical Group* (BTG) commander with a framework to continue aggressive defensive battle after the initial engagement.

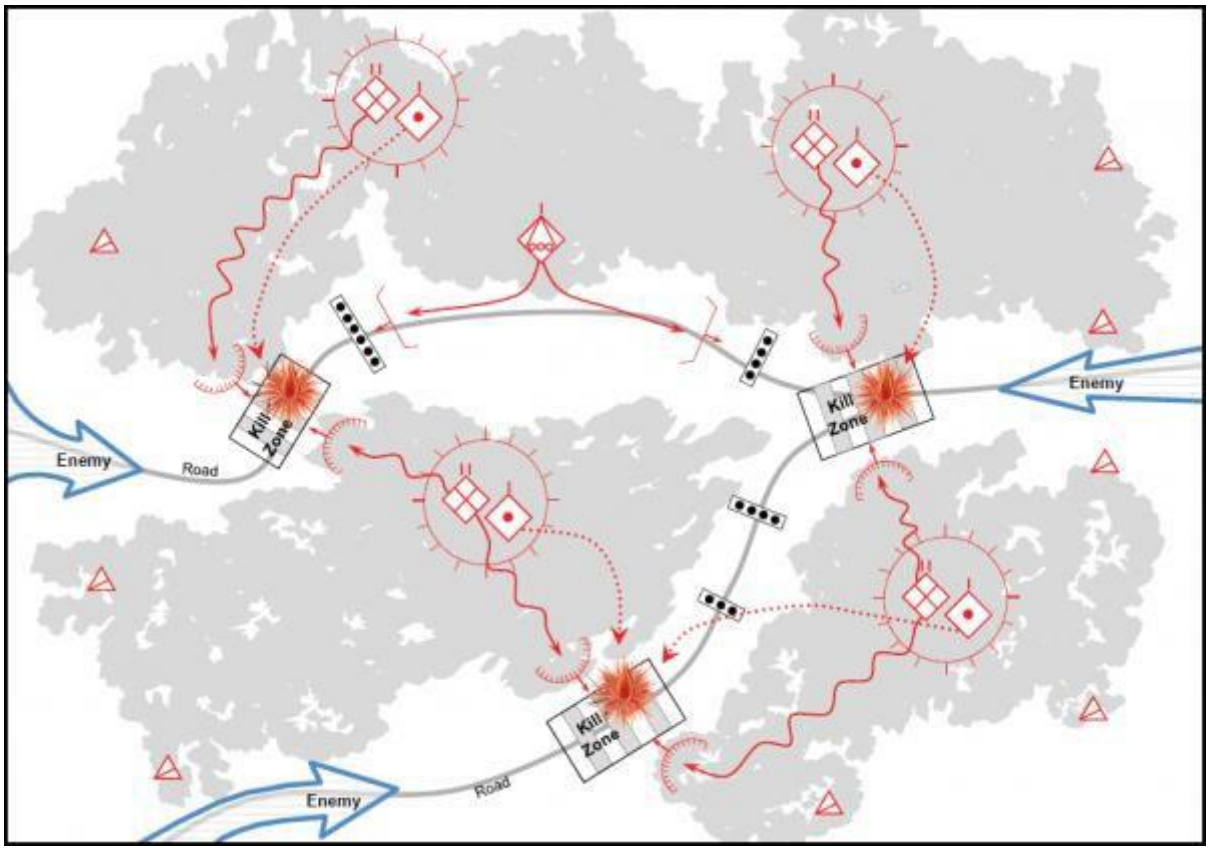

Figure 44 - Schematic of an example of a brigade tactical group conducting area defence in forested terrain

48. A third example of an *area defence* shown at Figure 10 illustrates how the *disruption force* may be a substantial grouping that manoeuvres and operates aggressively to disaggregate advancing enemy. The enemy force is advancing from the west and the purpose of the overall defence is to protect a mechanised infantry division *protected force* that is fortifying itself in complex terrain to the East. In this case, the substantial *disruption force* deployed to the West has an infantry battalion in an urban area and mechanised battalions on features both the north and south. On a line slightly behind these battalions are three brigade-sized deception positions as the disruption force is forwards of the false line of defence, the deception is more likely to be maintained. Further to the rear and in the centre of the diagram is the *main defence force,* deployed in three brigade defensive positions which obstruct the routes around the two forested areas. Within those forests the *manoeuvre reserve* of two tank battalions is concealed in hides.

49. The scheme of manoeuvre is designed to represent a divisional main defence along this north-south line. When the enemy launches a major attack on this position, the *disruption force* will conduct counter penetration attacks to degrade the advancing enemy. The disaggregated enemy force is then expected to continue to advance but will be engaged by the *manoeuvre reserve,* which deploys out of its hides in the forest. The enemy attack is expected to culminate on the brigade defensive positions, if not before. Throughout the battle the elements of the *disruption force* are expected to continue to act aggressively, but against vulnerable elements. So, the infantry battalion in the Western urban area will, for example, seek to *ambush* second echelon *elements* that advance through the urban area, while the two mechanised battalions might seek to *strike* logistic, command or artillery elements that are behind the advancing enemy force.

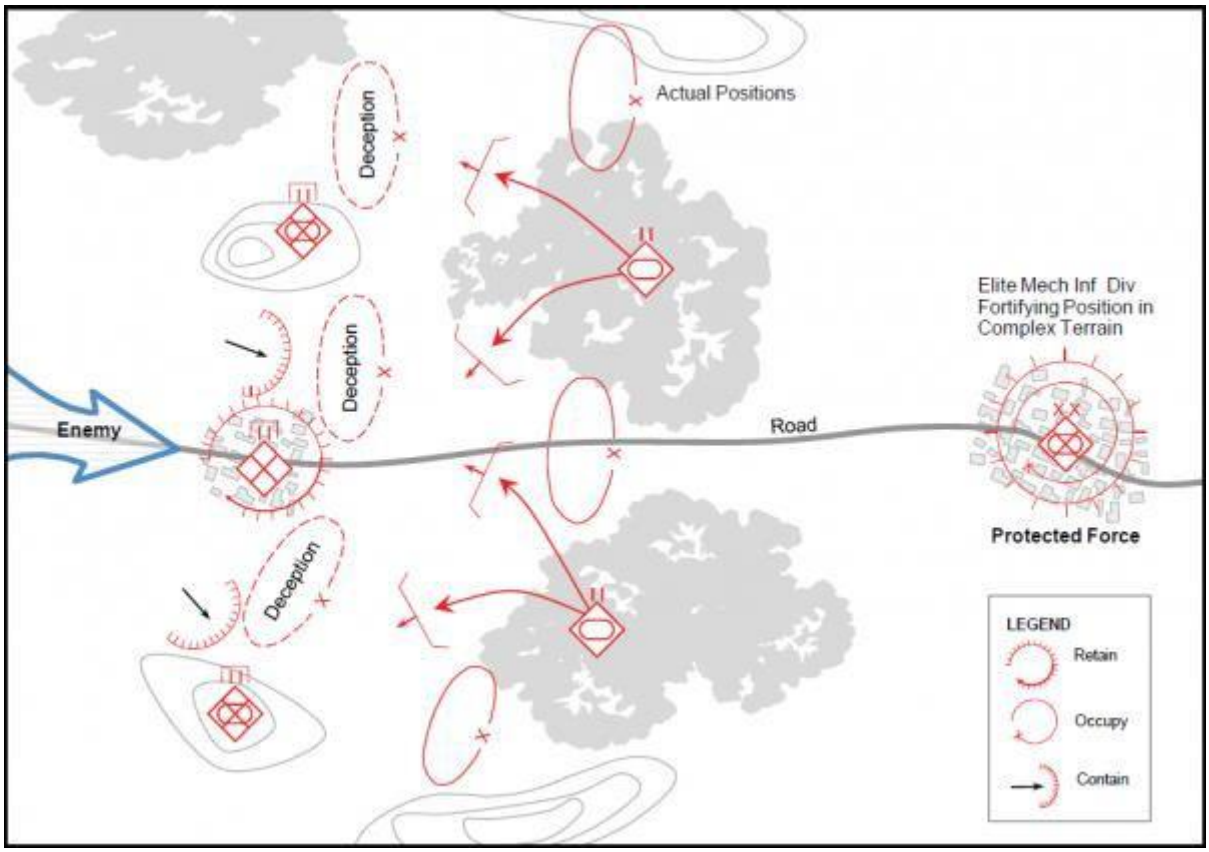

Figure 45 - Schematic showing a divisional tactical group sized formation conducting a defence to protect another division

Battle positions and techniques

50. The OPFOR consider that there are two types of *battle position.*

a. **Simple battle position** A *simple battle position* (SBP) is a defensive location oriented on the most likely enemy avenue of approach. SBPs are not necessarily tied to complex terrain. However, they often employ as much engineered effort and/or camouflage, concealment, cover, and deception (C3D) measures as time allows.

b. **Complex battle position**. A *complex battle position* (CBP) is a defensive location designed to employ a combination of complex terrain, C3D, and engineer effort to protect the unit(s) within them from detection and attack while denying their seizure and occupation by the enemy. CBPs have characteristics that distinguish them from SBPs, these are -

i. Limited avenues of approach as CBPs are not necessarily tied to an avenue of approach;

ii. Any existing avenues of approach are easily observable by the defender;

iii. 360-degree fire coverage and protection from attack perhaps due to the nature of surrounding terrain or engineer activity such as tunnelling;

iv. Engineer effort prioritizing C3D measures limits counter mobility effort that might reveal the CBP location.

v. Large logistics caches; and

vi. Sanctuary from which to launch local attacks.

51. Reverse **slope defence and (flanking)[7] defiladed positions**. OPFOR commanders will seek to exploit terrain features to achieve a *reverse slope defence* and/or *defiladed positions*. A *reverse slope defence* locates a

[7] The term defilade refers to protection from direct observation and fire by an obstacle such as a hill, bridge bank. The US military typically only use the term for vertical defilade, while other English-speaking militaries also mean lateral defilade (UK = A position in which you can only be engaged by enemy direct fire, or observed

defensive position behind a terrain feature(s) that presents an intervisibility line. The crest of the feature masks the OPFOR positions from approaching enemy observation and direct fire until they reach the crest. This creates an *ambush* like effect when moving enemy *elements* cross the crest, to become visible to the waiting OPFOR positions beyond.

52. Similarly, a (flanking) *defiladed position* is sited to a flank of an expected enemy approach and positioned behind a terrain feature or micro feature. The OPFOR *element* occupying the position observes and fires slightly or fully to the flank across the enemy's approach (usually into a *kill zone*) and striking the enemy from the side. As with the *reverse slope defence*, this means that the OPFOR defender remains hidden to the approaching enemy until the light enemy advances into a suitable position for the defender to engage creating this ambush like effect. Because *defiladed positions* cannot see to their front, they must be carefully sited facing across each other with overlapping arcs.

53. OPFOR commanders prefer a *reverse slope defensive position* because it has advantages such as -

a. Attacking enemy forces are silhouetted while crossing the crest of the intervisibility line;

b. It hinders or prevents enemy observation of the defensive position;

c. Engineers can conduct their work out of direct fire and observation from the enemy; and

d. It may canalise attackers into narrow attack frontages that lead into the kill zone.

54. OPFOR commanders seek to also integrate *defilade positions* into a defence because advantages, which also apply to *reverse slope positions*, such as -

a. *Attacking forces* are not able to receive direct fire support from *follow-on forces*; and/or

b. *They* can negate an enemy stand-off fire advantage.

55. In some cases, the adoption of a *reverse slope defence* can prevent the defender's weapon systems from exploiting their maximum range. However, skilful OPFOR commanders will select defensive terrain that allows them to maximize their weapons stand-off range. They do so by emplacing their systems at their maximum effective range behind the crest of the intervisibility line that supports their *kill zone*. This may mean placing a weapon system on the counter slope behind the terrain forming the intervisibility line. Maintaining observation of the enemy while on the forward slope of an intervisibility line can be difficult. To alleviate this disadvantage, OPFOR commanders will employ reconnaissance assets to observe forward of the reverse slope defensive position.

56. **Fire planning**. Fire is the basic means of destroying the enemy in the defence and the OPFOR will seek to employ weaponry in a concentrated manner, often directed into a *kill zone*. They will employ obstacles and fire concentrations to halt and hold the enemy within *kill zones* which will, when possible, be covered by frontal and flanking or cross fires. Terrain and available weaponry will dictate the size of the *kill zone* and the width of the OPFOR defence.

1. The normal design focus of a battalion's or *Battalion Detachment* (BDET)'s system of fire is the antitank (AT) fire of its companies (including armoured vehicles). Once an anti- armour kill area, siting, and engagement plan is decided then positions for machineguns and grenade launchers are chosen to superimpose their fire on the killing areas, with mortar and artillery fire targets picked to cover gaps and reach areas further out. Infantry section weapon positions in *simple battle positions* will usually be sited to mainly cover the primary arcs towards *kill zones*, but also offer all-round defence. In contrast, in *complex battle positions* there will be a greater emphasis on all-round. Subordinate units and weapons are expected to coordinate with each other as well as flanks units' in the coverage of *kill zones*.

57. During the OPFOR fire planning process, the commander and staff delineate key enemy types of targets, taking into account the systems to be degraded as a priority and selected engagement areas. They or their planning staff then assign *reconnaissance elements* to identify these targets and call for fire when they enter engagement areas. The fire planning includes allocation of different artillery and mortar fire units to these primary tasks as well as to pre-planned targets in the disruption zone, on the flanks, and throughout the depth of the battle zone. Finally, they assign concentrated or barrier fire lines for the protection of the defensive positions themselves.

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indirect fire, when they are in your killing area). In this publication, OPFOR use 'reverse slope defence' to refer to vertical defilade and defilade to mean flanking or lateral defilade.

Defence of a simple battle position

58. *Simple battle positions* (SPB) are typically sited to defend the most likely enemy avenues of approach. However, OPFOR do not place SPB astride approaches, rather they cover *kill zones* that are astride them, preferably at defiles or other points where terrain constricts manoeuvre. Whenever possible, obstacles are employed forward of the SPB to shape the advancing enemy by variously disrupting the enemy's approach march and blocking selected avenues of approach.

59. SBP **design**. Where the task of an SBP is to *ambush* or *strike,* key enemy subsystems that are further back in an enemy order of march, the *kill zone* would not typically include visible obstacles, although mines might be laid off the main route. In this case the SPB would likely be sited to engage from a flank, preferably on the far side of an obstacle. However, where the task is to delay or block the whole body of advancing enemy, the OPFOR will seek to place kill zones to be one or more of the following -

a. on the reverse slope of intervisibility horizons;

b. at defiles or other points where terrain constricts manoeuvre;

c. where they can be covered by flanking *defiladed positions; and/or*

d. where obstacles will best turn and/or fix enemy.

60. While SBPs are orientated to maximise fire effect in one direction, they still have all- round defence locally and plans to counter outflanking moves and penetration of their position. They will usually be sited so that restrictive terrain obstructs immediate *counterattacks* or may use mines and other obstacles for that same purpose. When SBP are nearby each other they generally will have their *kill zones* and arcs of fire interlocking and ideally overlapping.

61. Engineer and all arms engineering effort will be balanced between obstacle construction and preparing the defensive position, including preparing fighting and shelter positions, and burying wire for field telephones to allow radio silence to be observed. Armoured fighting vehicles will be dug in to turret level and conceal the OPFOR placement of considerable importance on creating dummy positions including false entrenchments, heat signature generators, and dummy vehicles. The purpose of these is not only to draw fire and attention away from actual locations, but rather deception positions may also be employed as an economy of force measure to portray strength.

62. **Organising the battlefield for SBP**. An SBP will be allocated a *battle zone* and may also be assigned a *disruption zone*, or alternatively may operate within the *disruption zone* of a higher formation. Down to company level, but not usually below, a SBP will have a *support zone* where the command and control (C2), combat service support, and fire support assets and the reserve are likely to be located.

63. **Functional organisation to defend an SBP**. A SPB typically employs four functional elements: disruption, main defence, reserve, and support. The *main defence elements* and the *support elements* operate as described earlier in the chapter; however, the *disruption element* and the *reserve element* have additional functions when conducting an SBP.

a. **Reserve element**. The *reserve element* provides the OPFOR commander with tactical flexibility once the battle develops but during early stages and the counter reconnaissance battle, it may be used to augment forces in the *disruption zone,* only being withdrawn to a covered and concealed position once a significant *attacking force* is detected.

b. **Disruption element.** The *disruption element* tasks may include defeating enemy reconnaissance efforts; determining the location, disposition, and composition of attacking forces; and/or targeting target designated enemy subsystems. To accomplish these tasks, the *disruption element* may form into -

i. *counter reconnaissance elements;*

ii. *combat security outposts (CSOPs); or*

iii. *ambush elements.*

64. **Examples of an SBP**. Two schematic examples of the defence of an SBP are provided below. The first example, below at Figure 46, shows a *Battalion Tactical Group* (BTG) occupying an SBP to block an enemy advance from the West. The *disruption element* shown is focused on counter reconnaissance and consists of two observation posts (OP), two air defence sections, and an infantry section in ambush. The *kill zone* is contained by minefields and dominated by two infantry companies in a semicircle of platoon positions. The *manoeuvre reserve* of another infantry company and the anti-armour platoon are in protected positions close to battalion headquarters in a village to the rear, from where a mortar company provides fire support. The concept for battle is simple. Enemy reconnaissance probes will be defeated by the forward ambush section, causing the enemy to attack in strength. When the enemy motorised battalion enters the kill zone, it is engaged by two rifle companies and the indirect fire of the mortar company. If parts of the enemy force survive to break through the defensive semicircle, the reserve moves to *support by fire* positions and engages

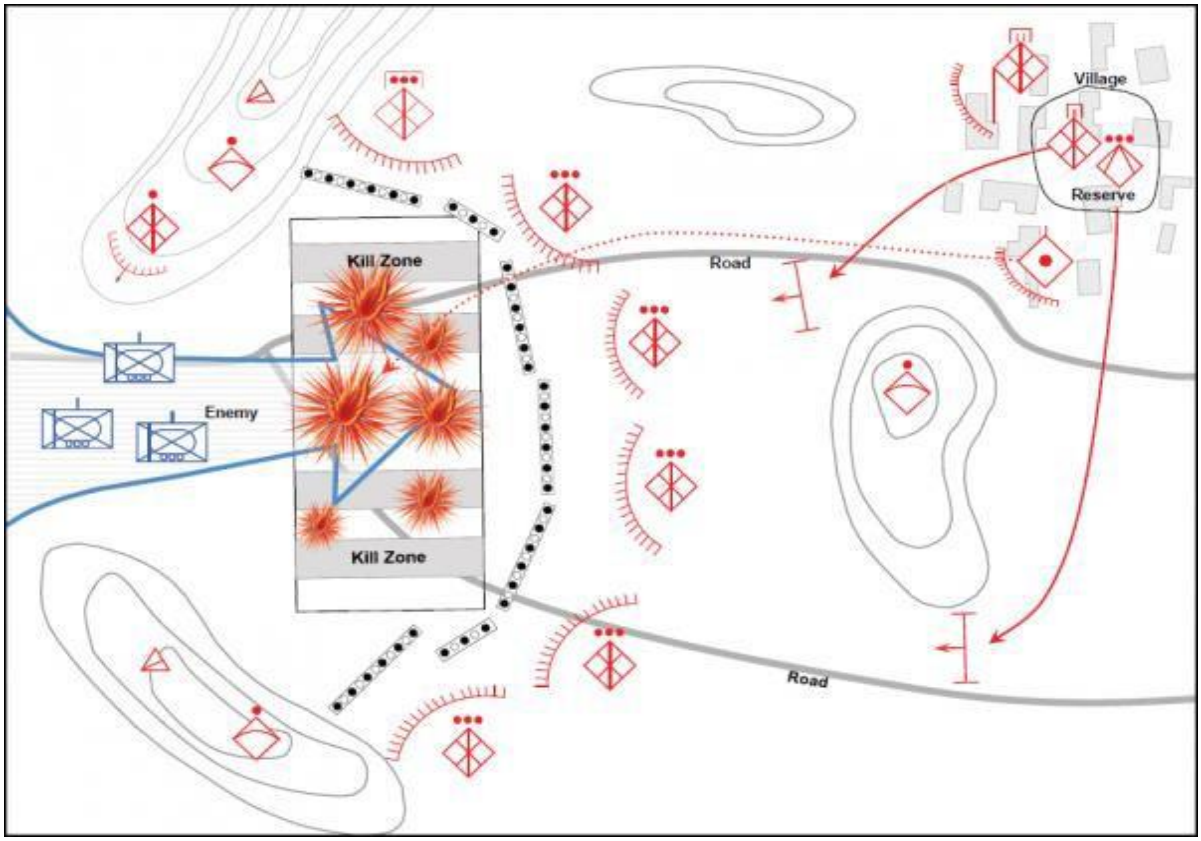

Figure 46 - Schematic showing a battalion tactical group occupying a blocking SBP at a gap in restricted terrain

them.

65. A second example of the defence of an SBP at Figure 47 shows a *company detachment* (CDET) occupying an SBP, again to block an enemy advance from the West, but in this case on a much wider front. The position exploits the restrictive terrain of woods, a small village, and a hill. There are two *kill zones*, the primary along the front of the restricted terrain and the secondary astride the road that is the most likely direction in which the enemy will continue to assault. Minefields are laid on the shoulders of the position with wire obstacles along the frontage of the defensive positions. In this case, the CDET has not formed a *disruption element* but has placed a dummy anti-armour position forward on the feature to the south. The weapons sections with their anti-armour weapons have been sited to enfilade the *kill zone* and around them six infantry sections are deployed in an 'L' formation that encloses the primary *kill zone*. The reserve platoon is dug in covering the secondary *kill zone*. The design for battle is straightforward and the SBP operates as an *ambush*. If enemy elements break through the gap adjacent to the road, they will be ambushed by the reserve platoon.

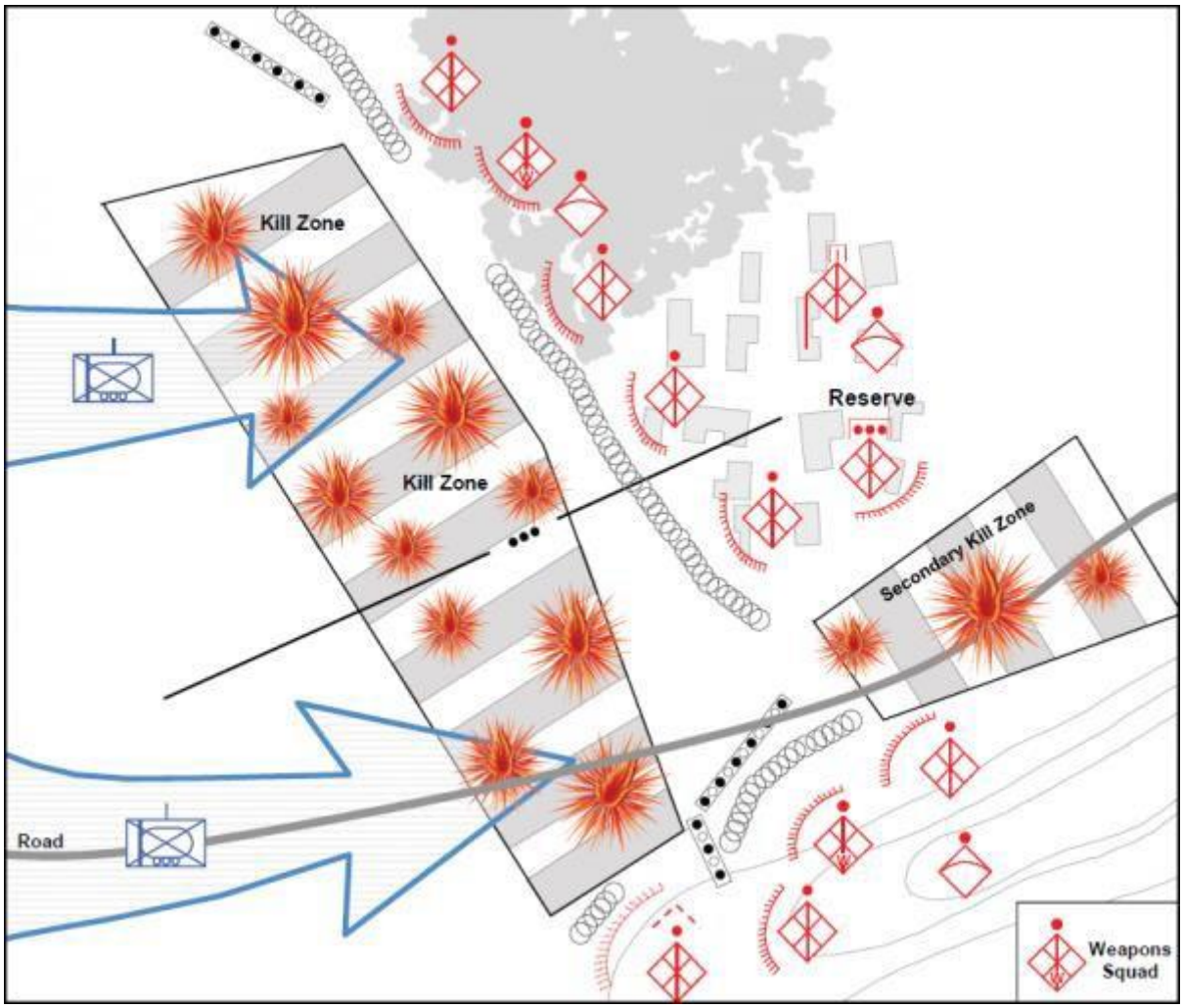

Figure 47 - Schematic of a company detachment occupying an SBP that is blocking on a wide frontage

Defence of a complex battle position

66. *Complex battle positions* (CBP) are sited on complex terrain to protect the units within them from detection and attack while denying seizure and occupation of the terrain by the enemy. The OPFOR occupy CBP to preserve combat power until conditions permit offensive action. They will only engage from a CBP if they perceive an opportunity to defeat enemy attackers, if they are decisively overmatched, they will attempt a withdrawal to preserve combat power.

67. OPFOR reconnaissance assets will observe avenues of approach that are key to providing early warning and allowing the commander to make a "fight or flee" determination. The OPFOR is less likely to engage in counter reconnaissance activities if such actions would reveal CBP location. In order to passively gather information, personnel may embed themselves within local populations.

68. **CBP design**. The location of CBPs exploits restrictive complex terrain that obstructs the enemy's ability to engage, approach, seize or occupy the position. To enhance survivability, elements are dispersed, and sub-surface protection will be constructed whenever possible. Great effort is made on camouflage, concealment counter-surveillance, and deception to avoid detection. Because of their signature, armoured vehicles will generally remain concealed in hides to the rear. Most security and/or counter- reconnaissance will be passive measures unless attack is imminent.

69. While obstacles may be employed to enhance the existing channelling and blocking effect of complex terrain, this is only likely to be at a distance from the CBP to avoid signposting its existence. Within the CBP, engineer activity will generally be of a non- signature, or low signature-producing variety. Engineers will conceal survivability positions (such as entrenchments, fortifications, improved caves, tunnels, or hardened buildings). Counter-mobility efforts, such as antipersonnel and/or AT mines, and booby traps will likewise be hidden from observation.

70. Wire obstacles, AT ditches, and vehicular survivability positions will be less common due to the difficulty in concealing such works. If obstacles are used in the development of *kill zones* for a CBP, they are generally more protective in nature than those in a *Simple Battle Position* (SBP). For example, they may be employed to turn an attacker away from a vulnerable flank, or to protect an exfiltration route by blocking an avenue of approach into it.

71. To avoid detection, OPFOR will typically use a passive air defence approach in CBPs, and active air defence will generally involve systems that do not emit an electromagnetic signature. Antiaircraft guns and shoulder-fired SAMs may be found interspersed throughout the CBP, including anti-landing ambushes.

72. Under some circumstances the OPFOR might pursue protection from enemy weapon systems through cultural stand-off, which is the concept of using cultural differences to prevent or degrade engagement. Examples of cultural standoff are—

a. Using a religious or medical facility as a base of fire;

b. Firing from within a crowd of non-combatants; and

c. Tying prisoners in front of positions and onto combat vehicles.

73. **Organising the battlefield for a CBP**. As with other defensive methods, a CBP will be allocated a *battle* zone which is where the main force is positioned and sheltered, and within this is a *support zone* where the command and control (C2), combat service support, fire support assets, and the reserve are likely to be located. The key difference is that there is usually a quite large, *disruption zone*.

74. **Functional organisation to defend an CBP**. A CPB typically employs four functional elements: disruption, main defence, reserve, and support. The *disruption element* has a key role in the CBP defence, while the other elements operate as described earlier.

75. **Disruption element**. The *disruption element* of CBP has the essential function of providing security to the rest of the *defending force/element*. It may be reinforced to do this, for example being given indirect fire assets such as mortars to provide immediate directly observed harassing fires. If the CBP is attacked, *disruption elements* will remain in position to provide the OPFOR commander with situational awareness. While the *disruption element* priority is detecting attackers and providing early warning to the *defending force*, it is also responsible for attacking approaching enemy forces with indirect fires, coordinating fire *strikes,* and depending on the commander's intentions, shaping the enemy with -

a. *counter reconnaissance elements;*

b. *combat security outposts (CSOPs); and/or*

c. *ambush elements.*

76. **Example of a CBP**. Figure 48 provides a schematic illustration of a *battalion detachment* (BDET) CBP, where the mission is to protect, and the protected force is sheltered within a village area. The likely enemy approaches are from the South-east and Southwest, and the obstacle plan uses minefields to first redirect the enemy away from the southern feature used by the *disruption force* and then to block them in open killing areas. The *disruption force* forms a perimeter consisting of Observation Post (OP) and *combat security outposts* (CSOP). On the major approaches, these are rifle platoon and support weapon sections in *simple battle positions* (SBP) sited to engage the flanks of an advancing enemy. In other areas, sections are tasked as anti-landing elements in SBP's sited to cover likely landing zones. The main defence is provided by two rifle platoon CSOPs and the air defence platoon. The battalion to be protected is dispersed within the village and collocated with the artillery company and the *company detachment* (CDET) reserve, which is in fortified positions. The position has four prepared exfiltration routes.

77. The design for battle is that the *disruption element* detects the approaching enemy, engages them, and begins to degrade key systems while shaping the enemy into a *kill zone*. These *kill zones* are configured both to halt the enemy advance in an exposed position and prevent them easily enveloping the main CBP in the village. An early assessment is made about whether the *attacking enemy force* can be defeated, if not, the likely consequent decision is how soon and in what direction to withdraw promptly to achieve the mission of force preservation. In either case, the main attack on the enemy occurs in the *kill zones* using indirect fire support, which the OPFOR prefer to achieve using *fire strikes* delivered from units not shown on the map. If the defenders remain in the CBP, the reserve CDET will either manoeuvre to conduct an attack by fire or execute a *counterattack* supported by fire from the relevant CSOP.

78. If the *protected element* withdraws then they will do so using one of the infiltration routes with the *reserve element* operating as a rear-guard. While the OPFOR will likely seek to withdraw the protected unit from the battle without engagement, the *disruption elements* will operate aggressively, conducting local *ambushes* and counter penetrations to continue the degradation of the enemy combat system. The OPFOR do not consider withdrawal under these circumstances a defeat, emphasise that a *pursuing force* is very vulnerable to aggressive action and that greater attritional damage may be inflicted by a *withdrawing force* than one attempting to stand firm under inappropriate conditions.

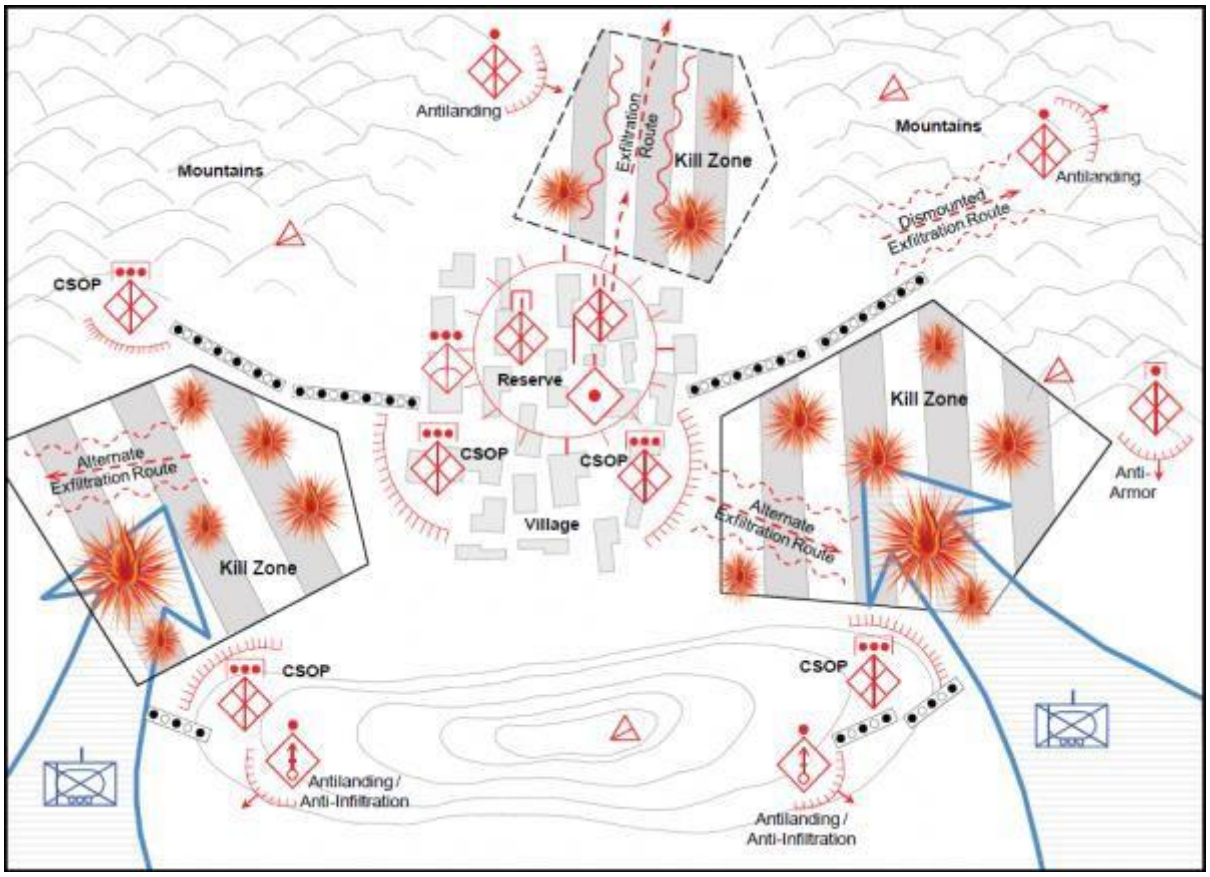

Figure 48 - Schematic of a complex battle position designed to protect a battalion detachment

Ambush elements, reconnaissance elements and combat security outposts

79. Both types of defence will usually include substantially developed *Battalion Detachment* (BDET) or Company Detachment (CDET) positions within the battle area. As explained above, there will also be tasks to be executed by smaller elements, especially in the *disruption zone*. *Disruption element* tasks may include; defeating enemy reconnaissance efforts, determining the location, disposition, and composition of attacking forces; and and/or targeting target designated enemy subsystems. To accomplish these tasks, the OPFOR will form *ambush teams*, *reconnaissance elements* or *combat security outposts* (CSOPs).

80. **Ambush elements**. Under the system of *functional tactics, ambush elements* may be nominated. While they may be deployed in very similar ways to CSOPs, they are distinguished by the intention of *striking* selected targets rather than providing part of the security framework. They have a key function in the concept of *systems warfare* as they typically *strike* the most vulnerable or critical components of an advancing enemy force. They remain concealed, forward in the *disruption zone* or sometimes in the *battle* zone. Thus, allowing enemy forces to bypass their position in order to *strike* those further back. Alternatively, they may wait in a hide before moving to one of a number of *ambush* sites once enemy deployment becomes clear. Crucially, while *ambush elements* may manoeuvre between positions, when operating in small teams, rather than stalk halted enemies, the OPFOR prefer to spring *ambushes* that employ flanking or surprise close-range fire.

81. **Reconnaissance teams**. The OPFOR will employ more teams, from specialist reconnaissance and sometimes from conventional infantry, to conduct both reconnaissance and aggressive counter reconnaissance tasks throughout the defensive battle, mostly in the *disruption zone*. The reconnaissance effort is to give the OPFOR commander best possible understanding of the approaching enemy deployment. The

counter reconnaissance objective is to prevent the enemy reconnaissance elements making or maintaining contact with *main battle positions*. Often, the OPFOR will allocate and deploy significant electronic warfare assets focused on the task of detecting enemy reconnaissance forwards. As is intuitive, much of this effort will occur well forwards, observing likely enemy avenues of approach. A focus on reconnaissance will prioritise remaining concealed and would only engage with indirect fire, whereas a counter reconnaissance focus will seek to engage enemy reconnaissance systems with direct fire weapons or *ambushes* (as described immediately above). Where OPFOR is occupying a *complex battle position* (CBP), especially in an *area defence*, the emphasis is likely to be on counter reconnaissance, whereas in *manoeuvre defence* reconnaissance elements will focus on reporting movement to enable OPFOR counter manoeuvre.

82. Figure 49 illustrates the employment of the reconnaissance platoon of a *battalion detachment* (BDET) where the latter is occupying a CBP. The enemy is expected to use the route across the north-western part of the area but from there may deploy to the east and, if insufficient strength, threaten the battalion that is in a fortified CBP surrounded by mountains in the south-east. Three possible exfiltration routes have been organised and the most vulnerable approach is covered with a minefield and a kill zone, and other key approaches covered by section *combat security outposts* (CSOP). The reconnaissance platoon, broken down into small teams is deployed across the disruption zone, mostly on the likely approaches. From these locations they are able to report enemy movements to enable the BDET to decide whether and in which direction to withdraw, but also to apply indirect fire and, if part of the design for battle, engage enemy reconnaissance elements. If successful, this engagement might prevent those elements from advancing to contact the main force but engaging may simply provide a distraction that buys the main force time.

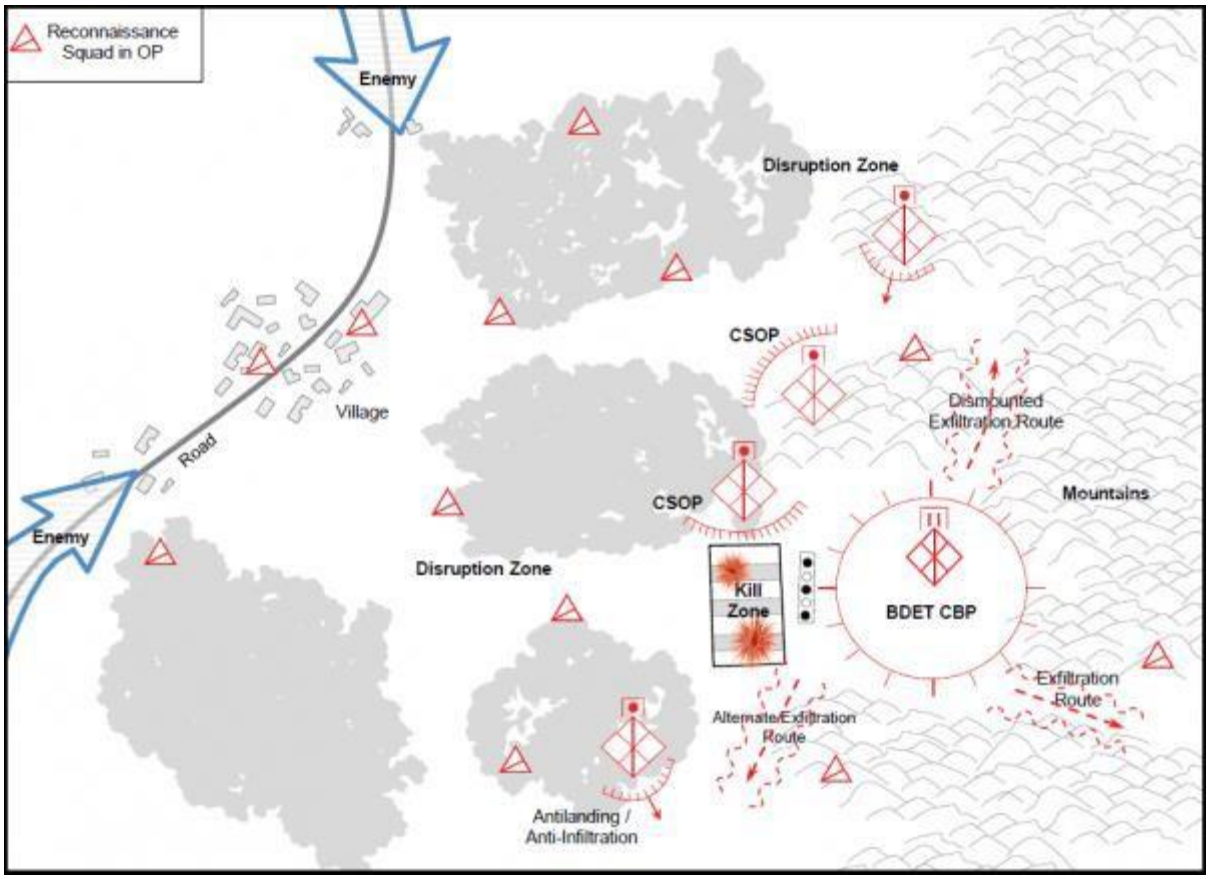

Figure 49 - Schematic showing the key role of OPFOR reconnaissance observation posts in a complex battle position defence

83. **Combat Security Outposts**. *Combat Security Outposts* (CSOPs) play a key role in defensive operations. They are task organised platoon or squad sized *elements* positioned forward of the *battle zone* on dominating key terrain or covering key avenues of approach. Their role is to avoid surprise, prevent enemy reconnaissance or small groups from penetrating friendly positions, and force an attacking enemy to prematurely deploy and lose momentum. Typically, they will not be positioned directly astride avenues of approach, rather will cover these with fire from a flank, and if overmatched, they will withdraw into main positions in the *battle zone*. A unit would be expected to form one or more CSOP, depending on the number of approaches to be covered, and they are often drawn from the *reserve element*. Possible tasks are listed below.

a. **Ambush.** A CSOP with this task generally will avoid contact with superior enemy forces and only engage key enemy targets.

b. **Attack by fire**. A CSOP with this task is normally attempting to shape the battlefield in some fashion, either by turning an attacking enemy *force* into a *kill zone* or by denying the enemy a key piece of terrain. A CSOP with this task may also be required to target a key *element* of the enemy force.

c. **Delay**. A CSOP with this task will attempt to buy time for the OPFOR to accomplish some other task such as defensive preparations, launching a *counterattack*, or completing a withdrawal. Normally, the CSOP will withdraw after engaging for a set amount of time.

d. **Disrupt.** A CSOP with this task will attempt to weaken an enemy attack by using fires to cause premature commitment of the enemy, break apart his formation, and desynchronize his plan.

e. **Fix.** A CSOP with this task will use fires to prevent a key element of the enemy force from moving from a specific place or halt them for a specific amount of time.

84. **Examples of CSOP**. Figure 15 Illustrates the key role that CSOP may play in a *complex battle position* (CBP). A *battalion detachment* (BDET) is entrenched in a village in the centre of subject area, which is also on the crossroads of multiple routes that may be enemy approaches. The OPFOR have positioned a *kill zone* on each approach – three of them within villages, with minefields cited to block the enemy within those *kill zones* and prevent rapid bypass. There are observation posts on all major approaches. Each of the *kill zones* is covered by an entrenched section strength CSOP. The design for battle is similar for any direction of enemy approach. The CSOP will engage the enemy that enter their *kill zone* and so prevent them from conducting a coordinated rapid assault on the central village. In this example, the CSOP may provide the main fighting function of the defence if the CBP withdraws, and if it remains to defend they will continue to harass and disrupt.

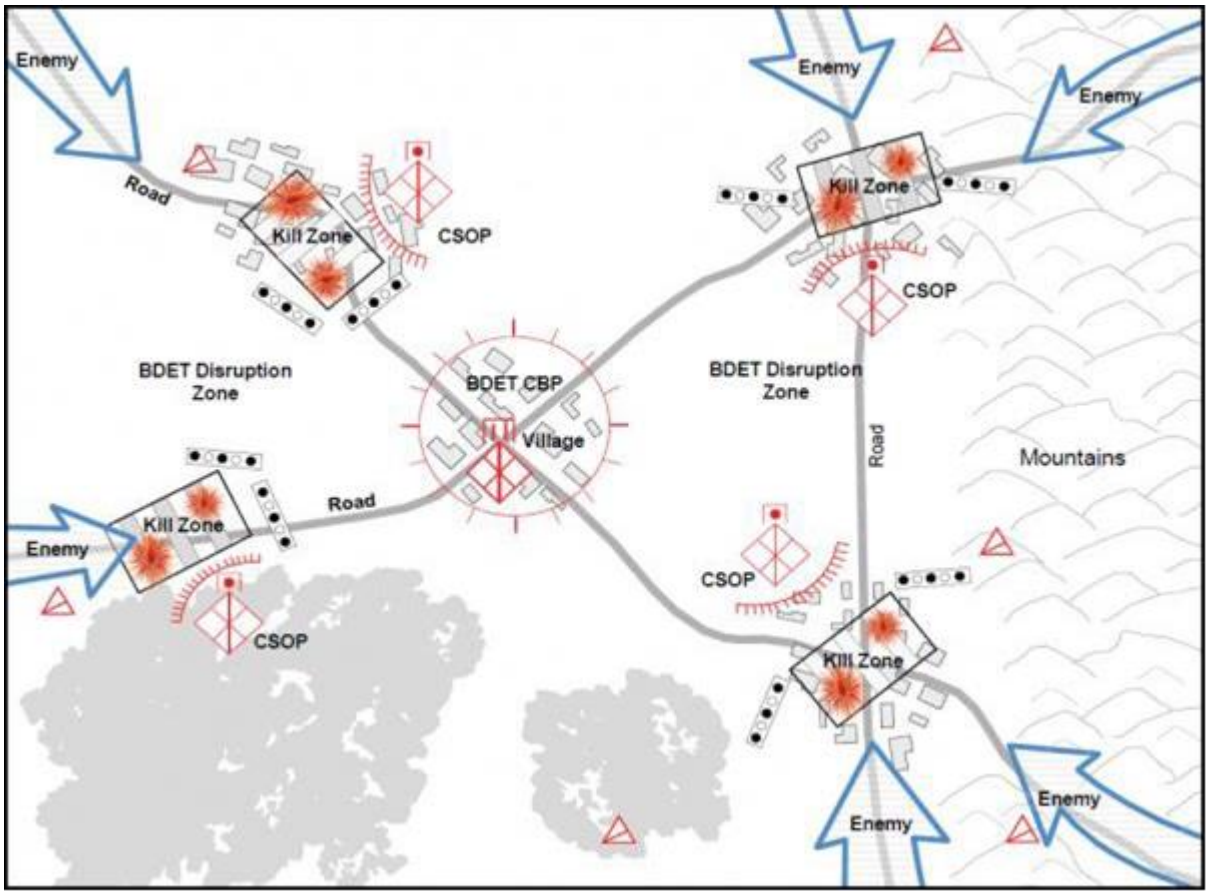

Figure 50 - Schematic showing the key role that combat security outposts may play in a complex battle position defense

85. Figure 51 provides a closer look at the typical role of a CSOP supporting a reinforced *(*CDET*)* in a *simple battle position* (SPB). The enemy are expected to advance from west to east along a southern road. The main effort is an SPB consisting of a *main kill zone* enclosed by a semi-circular minefield and frontally covered by two entrenched rifle companies, *a defiladed section position* that enfilades the *main kill zone*. A platoon CSOP

entrenched on the edge of the wood in the centre north of the area has a key role in the design for battle. It covers two kill zones in its engagement fan, one is further back along the road of the expected main axis. The other, crucially, is centred on a dummy platoon position, with a minefield between the *kill zone* and the CSOP. The enemy may from the start identify and conduct an assault on the dummy position, where it may culminate in the *kill zone*. Alternatively, and perhaps more likely, the enemy will continue their advance until they enter the *main kill zone* where they will be engaged by the SBP, at which time the CSOP engages enemy depth *elements* that were further back down the east-west road. If the depth enemy mount an assault in the CSOP direction assault, they are blocked in the kill zone by the minefield.

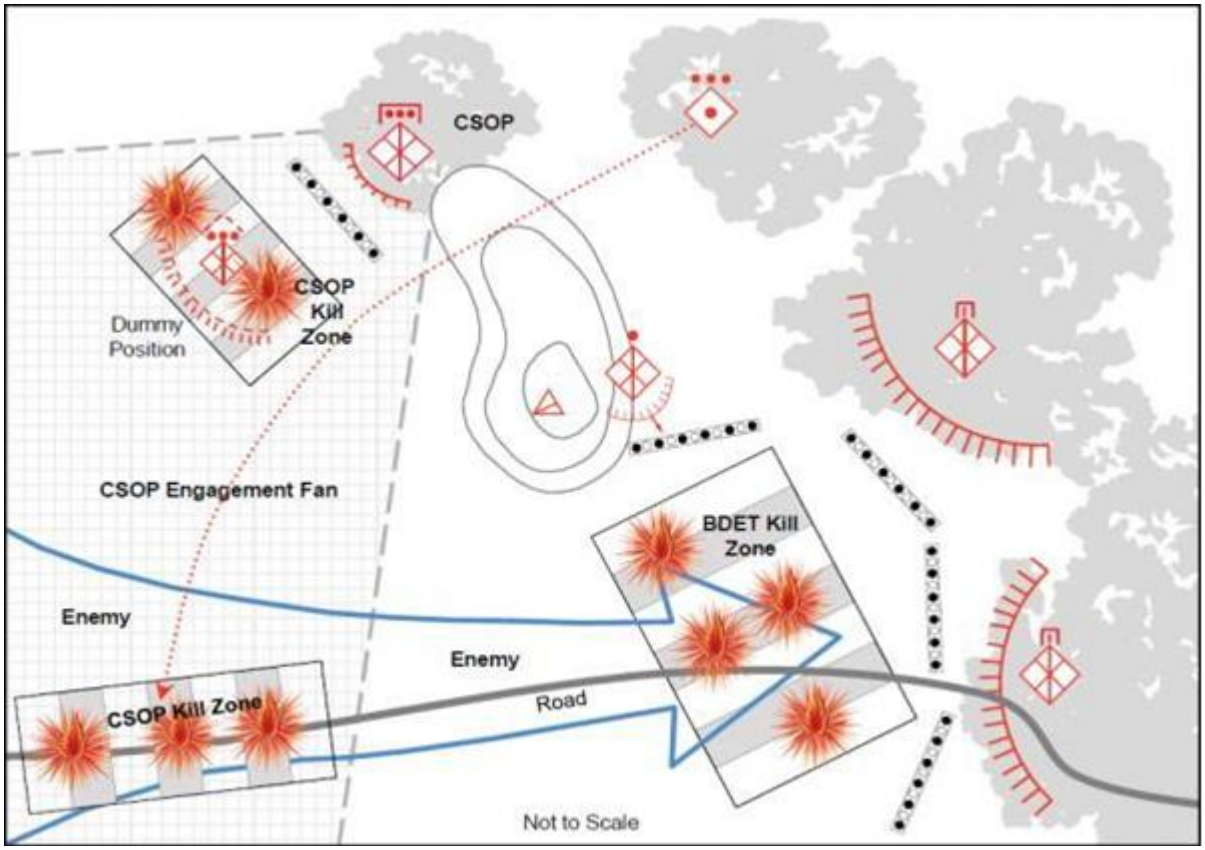

Figure 51 - Schematic emphasising the key role of a combat security outpost may play in a simple battle position

Chapter 4 ANNEX A

CONSIDERATIONS FOR DEFENSIVE OPERATIONS

This is a direct extraction from the US Publication TC7-100.2 Opposing Force Tactics, with US spelling unchanged but references to other chapters modified. The same eight considerations apply at the operational level (TC7-100.1 Opposing Force Operations) with only slightly different wording.

86. **Deny Enemy Information**. Tactical commanders realize that enemy operations hinge on awareness and understanding of the situation. Defensive preparations will focus on destruction and deception of enemy sensors in order to limit the ability of enemy forces to understand the OPFOR defensive plan. A high priority for all defensive preparations is to deny the enemy the ability to maintain reconnaissance contact on the ground. The OPFOR recognizes that, when conducting operations against a stronger enemy, it will often be impossible to destroy the ability of the enemy's standoff RISTA means to observe its defensive preparations. However, the OPFOR also recognizes the reluctance of enemy military commanders to operate without human confirmation of intelligence, as well as the relative ease with which imagery and signals sensors may be deceived. OPFOR tactical commanders consider ground reconnaissance by enemy special operations forces as a significant threat in the enemy RISTA suite and will focus significant effort to ensure its removal. While the OPFOR will execute missions to destroy standoff RISTA means, C3D will be the method of choice for degrading the capability of such systems.

87. **Make Thorough counter-mobility and survivability preparations**. The more time available, the greater the preparation of a battle position, zone, or area of responsibility (AOR). This is a reflection of engineer effort and time to devote to that effort. The OPFOR employs every method to maximize the time available to prepare for the defense.

88. Tactical commanders realize that engineer works are vital to the stability of the defense. They will use engineer assets to improve the advantages of complex terrain in protecting friendly forces and exposing enemy forces to engagement. Engineer efforts can contribute to creating windows of opportunity by degrading the ability of the enemy's combat system to integrate the effects of its subsystems. Of course, such work is not just an engineer responsibility; it is a combined arms task.

89. Engineer units specializing in rapid obstacle construction and minelaying form mission-specific units known as obstacle detachments (ODs). These ODs normally deploy in conjunction with reserves to block enemy penetrations or to protect the flanks of *counterattack forces*. In the initial stages of the defense, engineer assets concentrate on creating obstacles in the *disruption zone*, in gaps in the combat formation, and to the flanks, and preparing lines for counter-penetration and *counterattack* and routes to such lines. The obstacle plan ensures that the effort is coordinated with fires and maneuver to produce the desired effects. In conjunction with other tasks, engineers support the INFORWAR plan through activities such as constructing false defensive positions and preparing false routes. See chapter 12 for more information on counter-mobility and survivability planning.

90. **Make Use of Complex Terrain**. The OPFOR will make maximum use of complex terrain in all defensive actions. Complex terrain provides cover from fires, concealment from standoff RISTA assets, and intelligence and logistics support from the population of urban areas. It plays into the strength of OPFOR resolve to win through any means and through protracted conflict if necessary.

91. **Make Thorough Logistics Arrangements**. The overwhelming ability of a powerful, modern enemy to *strike* exposed logistics *elements* makes it difficult to resupply forces. The OPFOR understands that there is as much chance of a defensive action being brought to culmination by a lack of sufficient logistics support as there is by enemy action. Careful consideration will be given to carried days of supply and advanced caches to obviate the need for easily disrupted lines of communication (LOCs).

92. **Modify the Plan When Necessary**. The OPFOR takes into account that, while it might consider itself to be in the preparation phase for one battle, it is continuously in the execution phase. Plans are never considered final and are continually checked throughout the course of their development to ensure they are still valid in light of battlefield events.

93. **Rehearse Everything Possible, in Priority**. The commander establishes the priority for critical parts of the battle. Then he rehearses those actions with his subordinates in as realistic a manner as possible for the remainder of the preparation time. Typical actions to be rehearsed in preparation for a defense include –

a. Counter reconnaissance plan.

b. Commitment of reserve.

c. Initiation of a counterattack

d. Execution of the fire support plan

e. Integration of the INFOWAR plan.

Chapter 5 CAPABILITIES

Introduction to this chapter

1. This chapter provides essential supplementary information for understanding OPFOR doctrine. It first covers the main battle drills used by OPFOR and then the key combat support capabilities, meaning those that provide supporting fires and effects to its tank, infantry, and Special Forces manoeuvre units. It is organised into the following sections.

    a. **Battle drills.** OPFOR battle drills are combined with *functional tactics* to deliver flexible and well understood tactical options under pressure;

    b. **Reconnaissance.** The OPFOR considers reconnaissance to the crucial underpinning of all successful operations, and crucial to its concept of *systems warfare* since it is essential to identify the subsystems to be targeted in this approach. This section also describes the types of *reconnaissance units*, planning, groupings and methods;

    c. **Fire support**. The OPFOR considers artillery to be a manoeuvre arm in a different way to Western armies as its effects can be manoeuvred on the battlefield. This section describes coordination, target acquisition, methods of fire tactical deployment and movement, and logistics;

    d. **Engineers.** In common with other militaries, the OPFOR considers mobility and counter-mobility to be fundamental in enabling its manoeuvre forces during conventional operations. This section explains key aspects of how this is done, with a particular emphasis on mine warfare. The engineers have an essential role in delivering the cover, camouflage concealment and deception (C3D) that is essential to OPFOR conduct of adaptive warfare;

    e. **Aviation**. The OPFOR Air Force and Aviation represent potent capability, in particular, they have a key role to play in the concept of a *fire strike*. This section provides essential background and also sketches air space management as this will affect OPFOR tactical handling of aircraft on the battlefield; and

    f. **Smoke**. The OPFOR smoke capability sits within their chemical warfare organisation, (the wider capability is not examined here) and is overviewed here because the OPFOR places such reliance on smoke and their approach differs significantly from Western practice, this section provides an overview of this.

BATTLE DRILLS

2. The OPFOR achieves flexibility and simplicity from using battle drills within its system of *functional tactics*. A series of standard drills, thoroughly known and practiced throughout the military, first provide a reflexive swift response with a minimum of orders under the conditions of battlefield stress, confusion, and exhaustion. However, the OPFOR also uses these drills as a basis for executing different tactical options. They use minor, simple, and clear modifications to a standard drill in circumstances where Western practice would be to devise, write, and deliver a more detailed plan from scratch.

3. **Purpose of battle drills**. Battle drills offer the OPFOR the advantage of tempo. They allow leaders to direct tactical actions with rapidly formulated and concise combat orders. Elements can perform basic combat functions without hesitation or need for further coordination, assistance, or delay. The OPFOR regard battle drills as appropriate for *situational* circumstances, where Western armies might refer to a hasty or quick operation. The use of battle drills does not preclude more detailed and complicated plans, rather battle drills are used within these as building blocks.

4. Battle drills represent the baseline of tactical competence throughout the OPFOR and are a common methodology for executing common recurring tasks at the tactical level in both offensive and defensive operations. They nest within the system of *functional tactics*, where the functional label tells the tasked commander not only what is to be achieved but often indicates the tactic that is to be used. For example, a subunit tasked as a *fixing element* understands not only that it must fix a particular enemy element, but that, unless modifying instructions are given, it will use the fixing battle drill.

5. The main drills are as follows –

   a. *Actions on contact*;

   b. Breaking contact;

   c. *Situational breach*;

   d. *Fire and manoeuvre*; and

   e. Fix.

6. These battle drills are explained below in the context of forming standard functional groupings: security, fixing, support and action. As explained, the action grouping may be renamed in response to the situation.

7. **Actions on contact.** When an OPFOR *detachment* makes contact with the enemy, either expected or unexpected, it executes the *actions on contact battle* drill. This battle drill is designed to ensure OPFOR units retain the initiative and fight under circumstances of their choosing.

8. The OPFOR recognizes seven forms of contact, these are –

   a. Direct fire;

   b. Indirect fire;

   c. Obstacle;

   d. Air;

   e. Chemical, biological, radiological, and nuclear (CBRN);

   f. Electronic warfare (EW); and

   g. Sensor.

9. The *actions on contact battle drill* is primarily of use by a force making sensor and/or direct fire contact with an enemy force. When making undesired contact (indirect fire, air, Chemical, Biological, radiological and Nuclear (CBRN) , EW, or ground contact made by a noncombat unit), the *break contact battle drill* is employed instead. When making contact with an isolated obstacle, the *situational breach* battle drill may be selected.

10. **Conditions for action on contact.** The commander will take action, after determining the type of contact made, which may be an —

   a. Expected contact in their course of action;

   b. Unexpected contact regarding time;

   c. Unexpected contact regarding location;

   d. Unexpected contact regarding the enemy; or

e. Unexpected contact regarding the any combination of the above.

11. The OPFOR considers that the unexpected is the normal in battle. Their training emphasises that contacts will not occur at an expected location, at an expected time, and with an expected enemy force. Battle drills deemed *actions on contact* are designed to provide the commander with the flexibility to; either continue with the planned course of action or rapidly adopt a new course of action more suited to the new circumstances. This flexibility is achieved by—

a. Ensuring that contact is made with one or more *security elements* before the remainder of the force becomes engaged;

b. Employing one or more *security elements* to shape the engagement area by either fixing or isolating the enemy to avoid additionally committing the *action element*;

c. Providing the commander with the ability to make their own decisions if communication with higher authority is impractical; and

d. Using cover camouflage, concealment, cover, and deception (C3D) to prevent unwanted engagements.

12. **Execution of actions on contact**. Execution of *actions on contact* varies depending on the situation and the commander's battle plan. The *actions on contact battle drill* is accomplished by performing one or more of a combination of the five subtasks below. Figure 52 shows an example of *actions on contact* involving some of these subtasks.

a. **Fix.** The *security element* making contact fixes the enemy. This *security element* is then known as the *fixing element*. It continues to provide early warning of approaching enemy forces and prevents them from gaining further information on the rest of the OPFOR force. *Fixing elements* often make use of terrain choke points, obstacles, ambushes, and other techniques to fix a larger enemy force. When an element that is not a *security element* makes contact with the enemy, the commander will designate that element as the *fixing element*.

b. **Assess and Report**. Based on reports the *detachment* commander receives from element(s) in contact, they then must make an assessment of the tactical situation. This must determine whether or not making contact in this manner and with this enemy at this point of time constitutes a change in their course of action. This determination is the most vital step in successful execution of *actions on contact* because if it is performed incorrectly, the unit will subsequently be executing a course of action inappropriate to the mission and situation. Concurrent with his assessment, the commander reports to the chain of command what contact has been made with the enemy force, critical details of its composition, and their individual assessment.

c. **Isolate.** The *detachment* that is making contact manoeuvres and deploys *security elements* to ensure additional enemy forces do not join the battle unexpectedly. Indirect fire and close air support can be used, either individually or combined with other means, to achieve the same effect.

d. **Maintain freedom to manoeuvre**. The commander of the contacting unit ensures that they make contact with the minimum part of their force necessary to fix the enemy. They makes use of C3D and the *break contact battle drill* to prevent their force from becoming decisively engaged. *Security elements* determine safe manoeuvre avenues for them to employ. Freedom to manoeuvre is also maintained by—

i. Dominating avenues of approach into the engagement area; and/or

ii. Determining location of enemy flanks or exposed areas of weakness.

e. **Execute course of action**. The contacting unit either continues with its original course of action, if deemed appropriate, or executes a new one that suits the situation. A new course of action could be one given to the unit based on the assessment it provides to its higher command or one chosen by the commander in absence of time or guidance. The unit making contact ensures follow-on units are aware of the contact and deconflict positioning, typically through the use of a standard marking system.

13. Figure 52 illustrates some of the subtasks within the *actions on contact battle drill*, in this case being applied by an advancing infantry company *detachment*. The platoon which forms the *security element* has contacted an enemy section engaging to fix them before reporting to the company commander who has made an assessment, tasked that platoon as the *fixing element,* and reported up the chain of command. The mortars of the platoon providing the *support element* then isolate the enemy, in this case engaging both the left and right enemy sections. The commander then deploys a section on the left flank of the fixing platoon to maintain freedom of action, before executing the decision, by deploying the platoon that forms the *action element,* to conduct a right flanking attack.

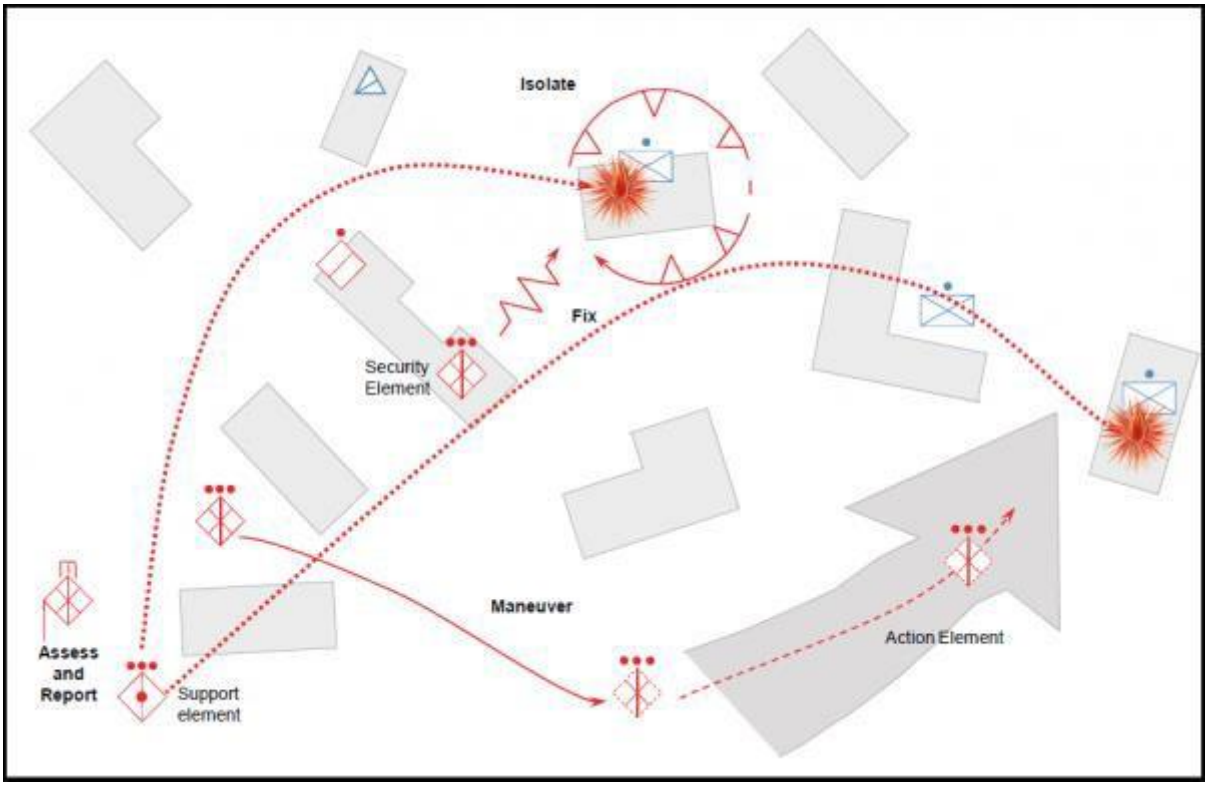

Figure 52 - Schematic showing components of the actions on contact drill

Breaking contact

14. The primary objective in breaking contact is to remove the enemy's ability to place destructive or suppressive fires on the greater portion of the OPFOR force. This is accomplished by fixing the enemy; regaining freedom to manoeuvre; and employing fires, camouflage, cover concealment and deception (C3D), and counter-mobility. The OPFOR will routinely break contact in order to manoeuvre into predesignated defensive positions, or to draw the enemy force into an ambush. In other cases, the OPFOR breaks contact when faced with no other tactical option.

15. **Conditions for breaking contact**. The OPFOR commander will break contact when –

a. **Included in the battle plan**. The OPFOR may include breaking contact with the enemy as part of the scheme of manoeuvre for its battle plan;

b. **Loss of time is especially critical**. If the OPFOR expects to engage the enemy for an overly extended period, it will break contact to exploit an alternative avenue of approach;

c. **Loss of terrain is not critical**. If the location in which the OPFOR engages the enemy is not suited to its posture or force structure, it will break contact to either bypass the enemy or to engage them at a more favourable location;

d. **Enemy is too strong to engage with the force on hand**. If the enemy force is overwhelming and/or the OPFOR has sustained excessive damage to its force, the OPFOR will break contact to recover from the engagement.

16. **Execution**. Execution of the *breaking contact battle drill* varies with the situation and overall plan. It is executed by performing the following subtasks. In most cases, all subtasks are part of the *breaking contact battle drill*. However, the first three subtasks may be executed in a variety of ways.

a. **Protect**. The *detachment* commander takes immediate steps, using a variety of means, to protect their force while it manoeuvres to a position out of contact. The *security element* fixes the enemy. It

prevents the enemy force from manoeuvring. It may employ INFOWAR to appear to be larger than it is. The *detachment* commander employs fires as part of the *break contact battle drill* to suppress the enemy and prevent them from returning fire effectively, and to fix them and restrict their manoeuvre. This may include indirect fires, close air support, electronic warfare (EW), and/or Chemical Biological Radiological And Nuclear (CBRN) means. Camouflage Concealment Cover and Deception (C3D) is employed to limit or remove the enemy's ability to maintain situational awareness of the OPFOR force. This may be as simple as placing obscuring smoke between the enemy and the *detachment,* or as complex as a sophisticated deception plan making use of decoys and mock-ups.

b. **Retain freedom to manoeuvre**. The commander reduces the elements in contact to only the *security element(s).* For any other element(s) that originally made contact, egress routes are identified. The commander selects one or more routes from the current location that enable the *detachment* to remain out of contact while permitting manoeuvre in support of the mission. Once the rest of the force has manoeuvred out of contact, the *security element(s)* that performed a *fixing* function can re-join the rest of the force. Enabling these *fixing elements* to break away from the enemy may require further use of C3D, fires, and counter-mobility measures. This step may be considered 'manoeuvring to retain freedom to manoeuvre'.

c. **Assess and report**. The commander receives reports from the *subordinate element(s)* that first made contact and/or the *fixing element*(s) that remain in contact. Based on those reports, the commander assesses the tactical situation and reports to the chain of command what form of contact has been made with the enemy force, critical details of the enemy force's composition, and a broad assessment of the situation.

d. **Continue or change course of action**. Once freedom to manoeuvre has been retained or regained, the OPFOR force executes a? basic course of action. This course of action is usually the primary action of the unit's original tactical mission. However, the *detachment* commander always actively assesses the tactical situation to determine whether or not making contact in this manner, and with this enemy force dictates a change in the course of action.

17. Figure 53 illustrates some of the subtasks within the *breaking contact battle drill*. It shows that an enemy force in battalion strength has approached from the east and the OPFOR infantry company that has encountered it has decided to break contact. In order to provide protection, a section sized *security element* has engaged to fix

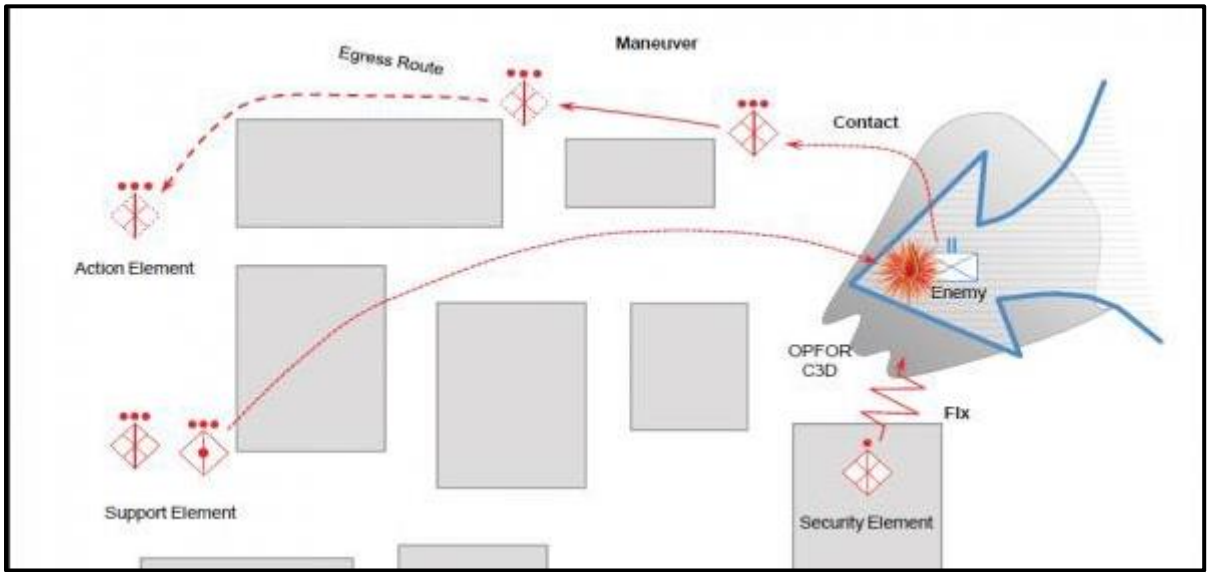

Figure 53 - Schematic showing components of the break contact drill

the enemy, including the launching of smoke munitions to create confusion and uncertainty. Concurrently, the *support element* has engaged with indirect fire from a position hidden to the enemy. This protective effect then enables the rifle platoon that was initially contacted to manoeuvre to manoeuvre further. The commander assesses the situation, reports, and determines the next action.

Situational breach

18. A *situational breach* is the reduction of and passage through an obstacle encountered in the due course of executing another tactical task. The unit conducting a *situational breach* may have expected an obstacle or not, but in either case conducts a *situational breach* with the resources at hand and does not wait for specialized

equipment and other support. This allows the unit to maintain momentum, rather than being stopped or impeded by the obstacle. The decision to attempt the *situational breach* is based on the OPFOR commander's knowledge of the enemy forces in the area and the expected tactical advantage in terms of key terrain and time.

19. **Conditions.** The commander will order a *situational breach* when certain conditions apply.

    a. **Already included in the battle plan.** The OPFOR expects and is prepared to breach enemy obstacles;

    b. **Time is constrained.** The OPFOR commander assesses that breaching an obstacle will take less time than bypassing it;

    c. **Terrain is crucial**. The OPFOR commander decides that key terrain can be seized by breaching the obstacle; and/or

    d. **Exposes enemy weaknesses**. The OPFOR commander decides that by doing so , they can engage the enemy decisively and OPFOR have a clear advantage and opportunity.

20. **Execution**. To execute the *situational breach* effectively, the OPFOR must be prepared to provide the necessary security to allow movement through the obstacle. This is accomplished by isolating the potential enemy avenues of approach while reducing the obstacle for the rest of the unit to pass through. The *situational breach* is accomplished by performing the following tasks.

    a. **Isolate.** The *security element* takes action to ensure enemy elements cannot reinforce those defending the obstacle. It might accomplish this through Define (C3D) measures, counter-mobility tasks, direct or indirect fire engagements, or a variety of other means.

    b. **Secure.** A *support element* establishes a support-by-fire position and takes action to ensure enemy elements defending the obstacle are neutralized. It also supports movement through the obstacle.

    c. **Penetrate.** The *breaching element* reduces the obstacle such that it can complete its mission (as the *action element*) and/or enable a follow-on force to do so. All OPFOR organizations carry sufficient equipment, whether field-expedient or constituent, to penetrate basic enemy obstacle systems, urban construction and debris.

    d. **Execute course of action**. Once the obstacle has been penetrated and the lanes isolated and secured, the *action element* and/or a follow-on force then continues the mission.

21. Figure 54 illustrates some of the subtasks within the *situational breach* battle drill. There is an obstacle to be breached in the centre of the illustration. The OPFOR deploys a weapons squad as a *security element* on both flanks and they use smoke launchers to isolate the breach. The *support element* deploys to a support by fire

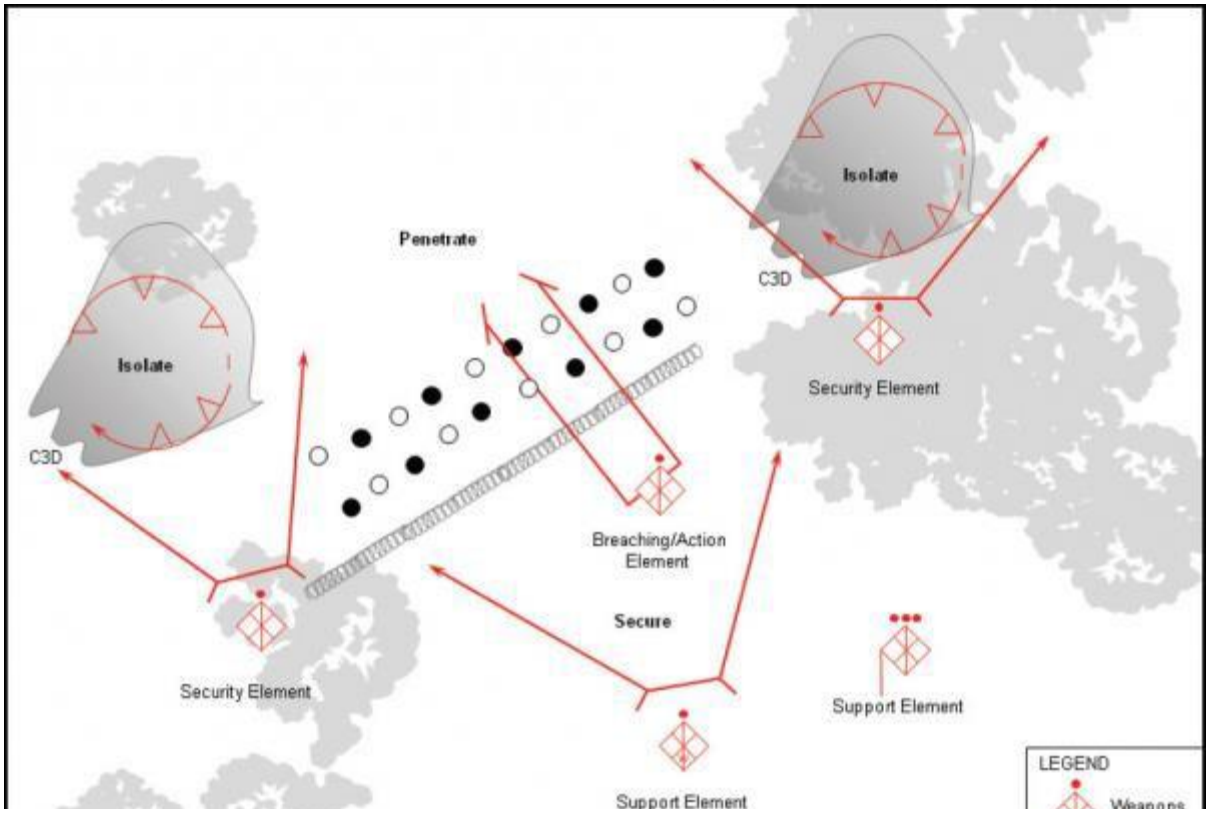

Figure 54 - Schematic showing components of the situational breach drill

position to neutralise enemy defending the obstacle, and the *breaching element* proceeds to penetrate the obstacle.

Fire and manoeuvre

22. *Fire and manoeuvre* is the way in which OPFOR units move while in contact with the enemy. When required to move under such conditions, the OPFOR commander selects part of his/her force to be the *firing element* and part to be the *moving element*. The *firing element* fires from a position of concealment or cover to support the *moving element*. This is the most basic of all OPFOR battle drills.

23. **Conditions**. The commander will employ *fire and manoeuvre* under the following conditions.

a. **Included in the battle plan**. The OPFOR plans for a movement to contact and expects to *fire and manoeuvre* on its way to the objective

b. **Time constraints**. Time is not a critical factor since the *fire and manoeuvre* battle drill will slow progress along the OPFOR avenues of approach.

c. **Exposes enemy weaknesses**. If the OPFOR realizes a clear advantage by maintaining contact with the enemy, it may use *fire and manoeuvre* to lure them into an ambush or attrit their forces to the point where they has to withdrawal from the engagement.

24. **Execution**. The OPFOR believe that critical aspect of executing *fire and manoeuvre* is the commander's selection of the right amount of combat power and resources to assign to each of the elements of their force. If the *firing element* does not have the ability to significantly reduce the effectiveness of the enemy, the *moving element* will be destroyed. If the *moving element* does not have the combat power to take the objective or assume its new role as *firing element*, the mission will fail.

25. The part of the force initially designated as the *firing element* directs suppressing fire against any enemy that has the ability to influence the movement of the *moving element*. The *moving element* then moves to the next firing line. Once the *moving element* reaches that new position, it becomes the new *firing element*, and the former *firing element* becomes the new *moving element*. This continues until a *moving element* reaches the objective. See Figure 55 for an example of fire and manoeuvre. The steps are -

a. **Make contact**. Normally, a *security element* makes first contact with the enemy. It observes the enemy force and reports on its activity. *Security element(s)* continue to provide early warning of approaching enemy forces and prevent them from gaining further information on the rest of the OPFOR unit. If the enemy force attempts to move in a direction that could influence the movement of the OPFOR unit, the *security element* becomes a *fixing element*.

b. **Fix.** The *security element* making contact fixes the enemy. Once the *firing element* moves into a suitable position, it can also fix the enemy, often by delivering suppressing fires against an enemy force that has the ability to influence the movement of the *moving element*. (While performing this function, the *firing element* could be called a *fixing element*.)

c. **Isolate.** *Security elements* ensure additional enemy forces do not join the battle unexpectedly. Indirect fire and close air support can be used either individually or combined with other means to achieve the same effect.

d. **Manoeuvre**. The *moving element* manoeuvres to a new position of advantage with respect to the enemy. On order, the *moving element* assumes the role of the new *firing element*. If further manoeuvre is required, the *moving* and *firing element*s continue alternation of fixing the enemy and manoeuvring against the enemy.

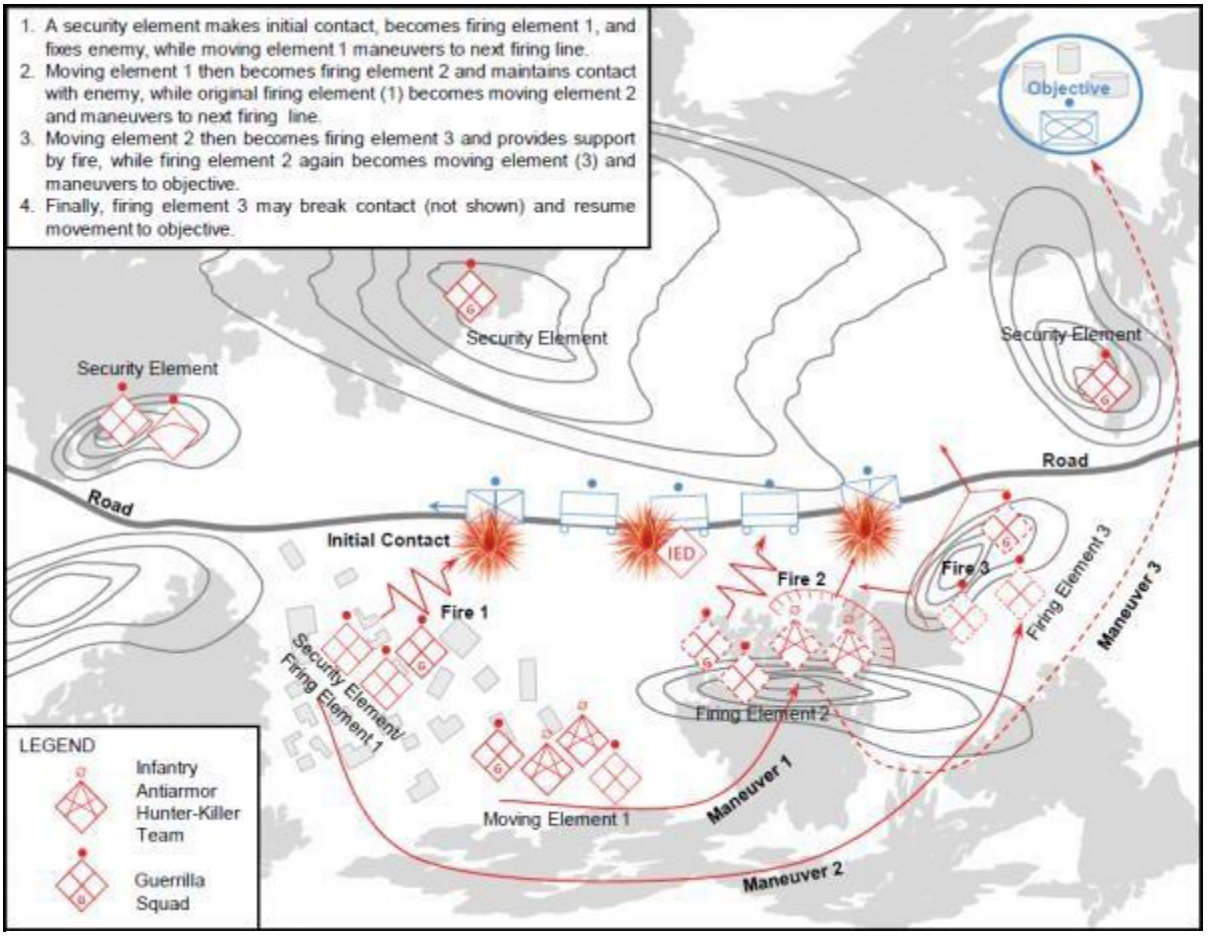

Figure 55 - Schematic showing components of fire and manoeuvre

26. Figure 55 illustrates the subtasks within the firing and manoeuvre drill but integrated into a more complicated situation where an initial ambush situation in the centre of the diagram develops into foreign manoeuvre towards an objective in the north-east. It shows a mixed force of about company size consisting of four infantry sections, two infantry anti-armour hunter killer teams, an anti-air section, and four guerrilla sections. *Security elements* have already been deployed to the north of the road on high ground. Two elements are moving on the south side of the road led by a *security element* of two infantry sections and guerrilla section. An enemy convoy moves down the road from east to west and is engaged by the *security element* which becomes *firing element* 1 and fixes the enemy. A second slightly larger group with infantry anti-armour weapons becomes *moving element* 1 and manoeuvres to high ground to continue to engage and fix the enemy convoy. Once it begins to do so, it becomes *firing element* 2 and *firing element* 1 manoeuvres to become *firing element* 3. This then enables *firing element* 2 to conduct a further manoeuvre across the road towards an objective to the North. The essential point in this diagram is that whilst the situation shown is potentially confusing, the simple principle of alternating between fire and moving tasks can be applied readily.

Fixing

27. Fixing is a tactical task intended to prevent the enemy from moving any part of his force from a specific location for a period of time. The OPFOR consider it a critical battle drill and it is often a subtask in other battle drills. Fixing the enemy at key points in time and space is fundamental to the OPFOR maintaining the initiative and the freedom to manoeuvre and retain the initiative. The OPFOR approach fixing from a psychological perspective, believing an enemy becomes fixed in one of three basic ways-

a. They cannot physically move;

b. They do not want to move; and/or

c. They do not think he can move.

28. An enemy that cannot physically move is constrained in some real and material way. Fixing an enemy by physically preventing them from moving is the most difficult and resource-intensive method. In contrast, an enemy does not want to move when they feel that in doing so they take great risk to life and material. Suppressive fires are the primary method by which an enemy is fixed in this way. Suppressive fires are simple to employ and are the least difficult and resource intensive means. However, the OPFOR acknowledges that using fires to fix an enemy also places the soldiers and systems providing suppressive fires at risk as they are vulnerable to detection and return fire. This is true for all systems, but the OPFOR will always take a broader view of alternative means of fixing, for instance an OPFOR commander might favour the use of snipers to deter movement or useful scatterable mines. Most important, because of its distance from Western practice, the OPFOR will always consider whether Information Warfare (INFOWAR) actions such as deception can achieve the effects of fixing the enemy.

29. **Conditions**. The OPFOR will employ fixing under the following conditions -

a. **Included in the battle plan**. The OPFOR expects to have the enemy fixed at a designated time and location as a pre-thought-out part of its battle plan.

b. **Time is required for follow-on forces**. Fixing can allow an *action element* or other follow-on force to manoeuvre into place or allow *reconnaissance elements* to help assess the situation.

c. **Enemy is located on a preplanned target**. The OPFOR fixes the enemy in a predesignated *kill zone* in order to use mass fires.

d. **INFOWAR assets achieve desired effects**. The OPFOR fixes the enemy by using INFOWAR techniques. The OPFOR believes that because of their enemy force's lack of training countering INFOWAR effects, there are opportunities to effectively remove the enemy from the fight without committing other OPFOR manoeuvre forces.

30. **Execution**. The OPFOR will fix the enemy using the method most likely to achieve the results with the minimum risk to its forces. The following are the primary methods.

a. **Fires.** Fires fix the enemy by killing enemy soldiers or wounding them enough to prevent relocation (destructive fires) or by making it too dangerous for them to reposition (suppressive fires). Indirect fires and/or close air support are also employed to fix the enemy in situations where distance and terrain make it difficult to achieve the effect through direct fire alone. Fires are the main method for decisively engaging the enemy.

b. **INFOWAR.** INFOWAR is applied by the OPFOR at low level and fixes the enemy by convincing the enemy that they do not want to move or by making them think they cannot move. Some examples of INFOWAR used to fix the enemy are—

i. Propaganda claiming the enemy will be destroyed if they move in the open, also effectively employing snipers in the area will reinforce this claim and cause trepidation among the enemy troops;

ii. (Deception that simulates the enemy higher commander ordering the enemy unit to remain in place; and

iii. An information attack on enemy sensors to register that the *fixing element* is stronger than it is, or at least capable of destroying the enemy force if it relocates.

c. **Counter-mobility.** Counter-mobility actions fix the enemy, primarily, by physically restraining their movement. Since all obstacles can ultimately be overcome with tools and effort, fixing by counter-mobility actions is a time sensitive approach.

RECONNAISSANCE

31. The OPFOR consider that the single most important component of military action is reconnaissance[8]. They teach that it precedes and enables all effective military operations and while aggressive sustained reconnaissance allows success with minimum losses, poor reconnaissance leads to failure. OPFOR understand reconnaissance as all activity associated with collecting, collating, and studying information on the enemy and environment and that it is an offensive action because the enemy will always seek to defend against collection of information.

32. OPFOR reconnaissance is a functional combined arms mission that involves the integrated efforts of troops from different branches and may be given to any soldiers from any kind of unit hence they will be called a *reconnaissance element.* A *reconnaissance unit* refers to specialised reconnaissance troops who nevertheless will often work in combined teams with other types of troops. This section focuses on the actions of such troops and combat troops from manoeuvre units operating at the divisional level or below.

Types of reconnaissance units

33. The OPFOR have, in addition to dedicated *reconnaissance units, reconnaissance subunits* within manoeuvre and combat support units. The key types of reconnaissance are dissected below.

a. **Ground reconnaissance**. Elements employed on reconnaissance from both *reconnaissance units* and the *reconnaissance subunits* belonging to manoeuvre formations and units are referred to as *ground reconnaissance.* These may deploy *independent reconnaissance patrols* (IRP) usually based on an augmented *reconnaissance platoon* or a *combat arms platoon. Long-range reconnaissance units* (LRR) are normally managed at the formation level. They also form IRP, and while these may supplement patrols formed by other types of units (for example artillery or engineer), they are specially trained for insertion in small teams at distances up to a hundred kilometres beyond the battle line. Thus, they are unlikely to have a large component of conventional tubes attached. Similarly, a brigade or divisional task group may be allocated a special-purpose forces (SPF) unit, which also operates forward in small teams, but these have training and equipment allowing them to operate even further out and for longer.

b. **Signals reconnaissance**. *Signals reconnaissance units* employ radio and radar intercept and location systems with diverse equipment enabling them to exploit signals from cellular, digital, satellite, fibre-optic, and computer network systems.

c. **Engineer reconnaissance**. Engineer units deploy *engineer reconnaissance patrols* consisting of a squad or platoon of specialists who collect engineer intelligence on the enemy and the terrain, operating as part of a *combined arms reconnaissance element* if contact is expected.

d. **Chemical reconnaissance**. Chemical Defence Units Deploy Chemical, Biological, Radiological and Nuclear (CBRN) patrols and *observation posts* as well as attaching individual chemical and radiological specialists to other types of units. Their role is to –

   i. Identify and mark areas of CBRN contamination

   ii. Determine the extent and nature of any contamination;

   iii. Find routes around contaminated areas;

   iv. Find the shortest route through an area with low levels of contamination and select certain areas for decontamination; and

   v. Monitor the effects of chemical or nuclear weapons and provide warning of downwind hazards.

e. **Artillery reconnaissance**. The requirement to identify and locate targets means that artillery units have a variety of reconnaissance assets. They may include -

[8] Reconnaissance is part of the OPFOR military function called reconnaissance, intelligence, surveillance, and target acquisition (RISTA). RISTA is the combination of capabilities, operations, and activities using all available means to obtain information concerning foreign nations; areas of actual or potential operations; and/or the strength, capabilities, location, status, nature of operations, and intentions of hostile or potentially hostile forces or elements. It includes production of intelligence resulting from the collection, evaluation, analysis, and interpretation of such information. It also includes detection, identification, and location of a target in sufficient detail to permit the effective employment of weapons.

i. Artillery command and reconnaissance vehicles;

ii. Mobile reconnaissance posts;

iii. Battlefield surveillance radars;

iv. Target acquisition radars;

v. Counterfire (counter-battery) radars; and

vi. Sound-and flash-ranging equipment.

34. **Effective ranges of reconnaissance assets**. The table below at Figure 56 indicates the order of ranges of different reconnaissance assets

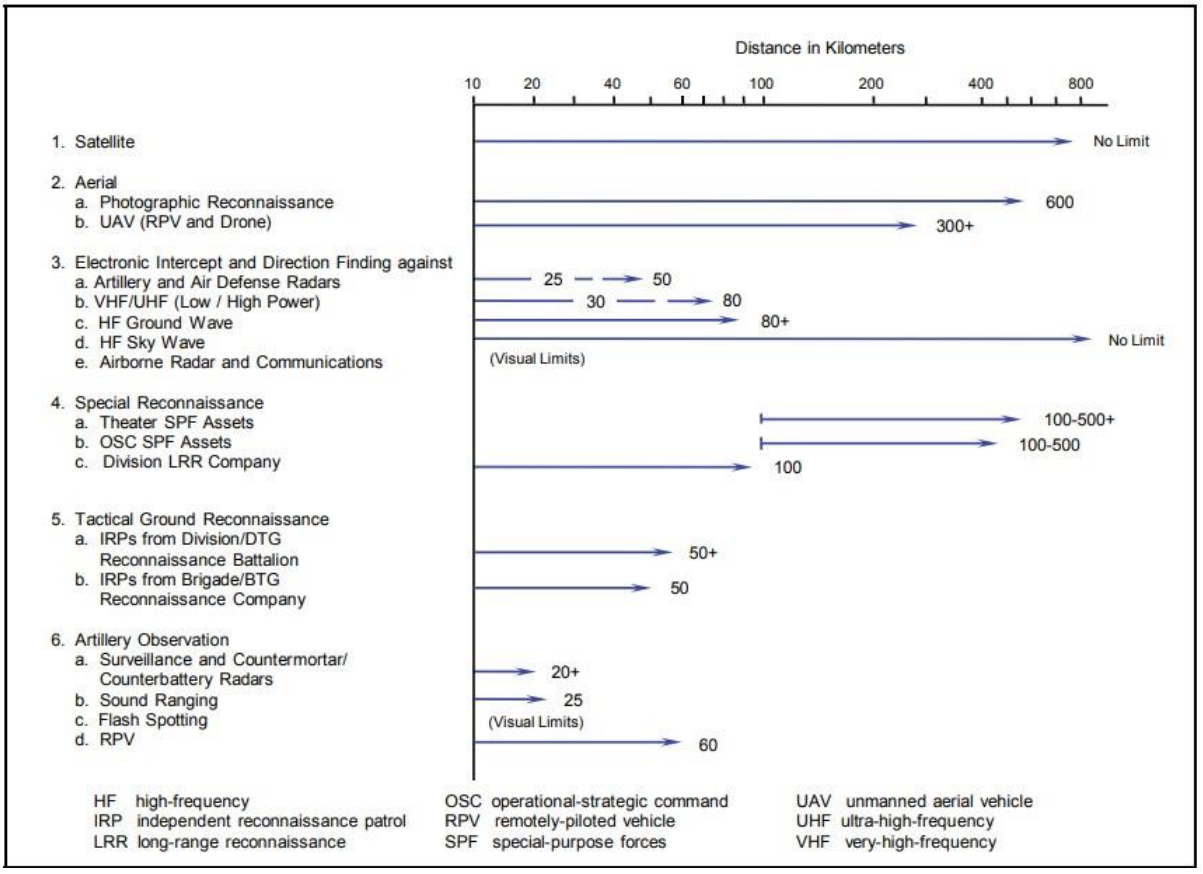

Figure 56 - Effective ranges of reconnaissance assets

Reconnaissance planning

35. The central feature of OPFOR reconnaissance planning is the allocation to each tactical level unit, down to battalion or *detachment* of one (or sometimes more) *zone of reconnaissance responsibility* (ZORR). This is a combination of the unit's *area of responsibility* (AOR) and the area outside of the AOR that can be observed by the unit's sensors. This is illustrated at Figure 57. These approaches are intended to prevent surprise or the enemy's exploitation of seams between AOR. Another key feature is the appointment of a *chief of reconnaissance* at every level, down to battalion where it is the platoon leader of the *reconnaissance platoon*.

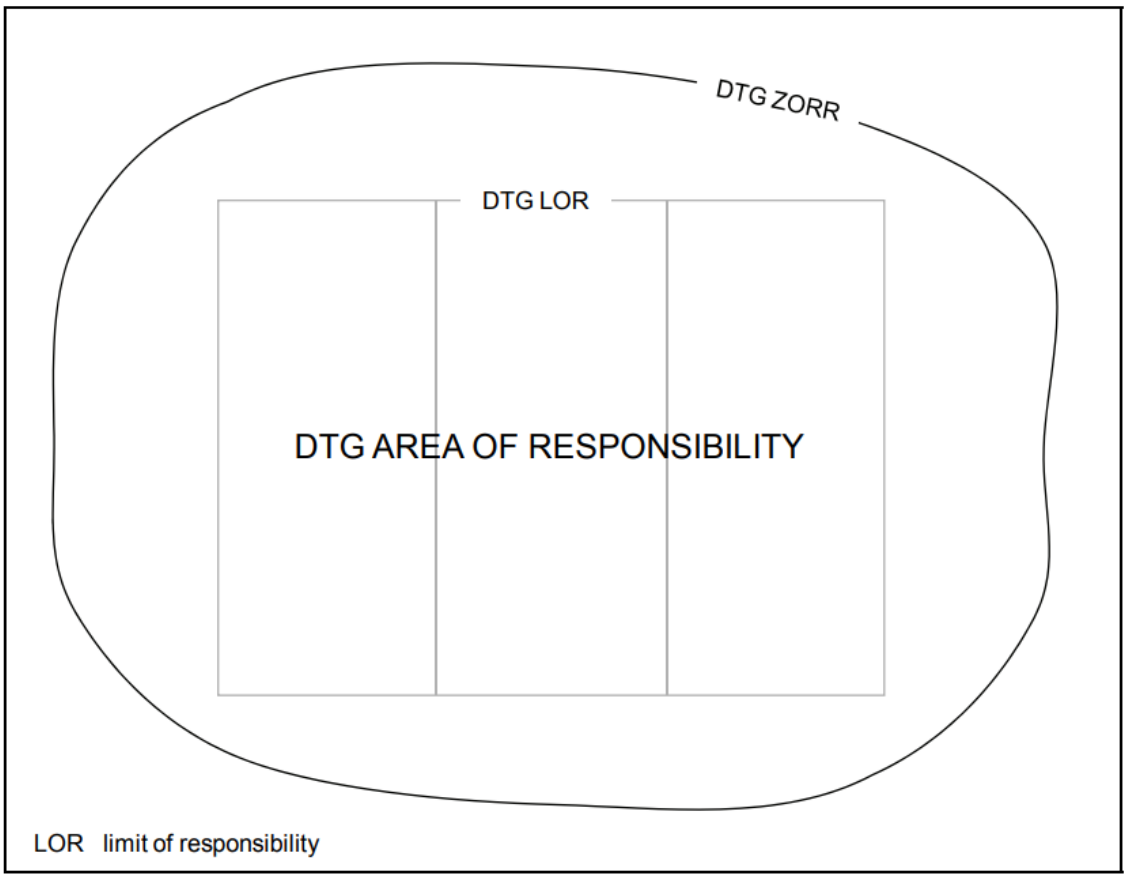

Figure 57 - Schematic showing the extent of a zone of reconnaissance responsibility

Reconnaissance planning process. The reconnaissance planning process at any level begins with the commander giving the goal and priorities of the reconnaissance, including specific focus and which assets may or may not be used before combat commences. The chief of staff then translates the commander's intent into specific information requirements and reconnaissance tasking across the command. As the OPFOR consider reconnaissance an all-arms task, the *chief of staff* is likely to nominate different reconnaissance function task groupings that combine specialist reconnaissance troops with *manoeuvre elements*. The detailed reconnaissance plan that nominates ORBATs, missions, zones, and deconflicts (especially with strikes or *information operations* actions) is developed by the *intelligence officer* and issued to the *chief of reconnaissance*. The latter issues detailed orders for all reconnaissance operations at the relevant level of command and monitors communications with and between manoeuvre units.

36. **Information flow.** The OPFOR emphasise electronic security and minimising transmissions, especially in the early phases of the battle. Forward *manoeuvre elements* may not be permitted to transmit unless and until a particular category of threat or opportunity occurs. Most communication then occurs on reconnaissance networks that are technically less vulnerable to location and where the transmitting stations are frequently moving. Reporting may, therefore, mostly be conducted on the reconnaissance and fires networks which are monitored by manoeuvre units.

Types of reconnaissance grouping

37. The OPFOR employ a variety of types of grouping of its *reconnaissance elements*. Some, such as the *officer reconnaissance patrol*, reflect their different operating concepts. It may be difficult to distinguish between some different types of patrol by observation.

a. **Commanders' reconnaissance group**. Whenever possible, OPFOR commanders conduct a personal commander's visual study of the enemy and terrain as part of the planning process. The commander is accompanied by subordinate commanders and staff officers to refine and verify the general plan already made on a map. During the *commanders' reconnaissance group* action, the commander issues an oral combat order and coordination instructions. The OPFOR makes great effort to disguise this reconnaissance, for instance equipping it and giving it the rank insignia of a conventional section.

b. **Observer.** Within any size of subunit an individual may be tasked as an *observer*. This individual may be required to variously observe ground, airspace, enemy or terrain and, importantly, also observe the actions and positions of friendly units.

c. **Observation post**. An *observation post* is a position, within which, the team is assigned the mission of conducting surveillance of enemy in a given zone and location. They are typically kept small but can have any size or be drawn from any type of unit.

d. **Patrol squad.** A *patrol squad* is a single infantry squad on foot or a single vehicle dispatched with a reconnaissance mission. Manoeuvre companies or battalions will often dispatch a *patrol squad* when on the move or occupying an assembly area. Usually it will operate off-road, moving from observation point to observation point, especially locations where enemy units could be concealed. In an unexpected engagement a *patrol squad* may open fire to give warning and break contact.

e. **Reconnaissance team**. A *reconnaissance team* is an element, usually at squad strength, from specially trained reconnaissance personnel. It conducts independent actions in the enemy-held territory to locate priority targets.

f. **Reconnaissance patrol.** A *reconnaissance patrol* (RP) is generally a platoon-sized tactical *reconnaissance element* tasked to acquire information about the enemy and terrain. It may dispatch a *squad patrol* ahead as it moves. RP will try to avoid contact with enemy *reconnaissance* or *security elements* and continue onwards to locate the main force. In any event, if it is engaged, it will try and break contact to reach a position from where it can report.

g. **Independent reconnaissance patrol**. A battalion level or higher command may send out an *independent reconnaissance patrol* (IRP) with specific reconnaissance tasks at greater distances than when an RP is used. It is usually formed from a *reconnaissance* or *combined arms platoon* but is often augmented with engineers or Chemical Biological Radiological and Nuclear (CBRN) specialists. An IRP will often move on multiple axes and may dispatch a *patrol squad* forward.

h. h. **Officer reconnaissance patrol**. A manoeuvre unit may send out *an officer reconnaissance patrol* (ORP) where there have been abrupt and unexpected changes to the situation. The purpose of this is to update enemy and terrain information, determine the position of friendly troops, and especially resolve contradictory situation data. It will consist of one to 3 officers and 2 to 5 soldiers assigned for security. The ORP is a key tool for the commander to oversee and maintain tight control over subordinate forces.

i. i. **Fighting patrol.** A *fighting patrol* (FP) is a platoon-sized element, dispatched during unit tactical movement and when not in contact with the enemy. The main missions are timely detection of advancing enemy, locating enemy direct fire weapons and locating minefields. An FP will normally move in such a way that its parent unit can provide indirect fire. Due to its security function, it may engage and is often called upon to fix enemy forces encountered.

j. j. **Reconnaissance detachment**. The largest element the OPFOR employs at a tactical level to supplement specialised reconnaissance is the *reconnaissance detachment* (RD). This is typically a task-organised company or battalion with additional reinforcing capabilities, and it typically deploys platoon-sized RP to reconnoitre specific objectives along a route in the advance or to establish contact with their advancing enemy force during the defence.

Reconnaissance methods

38. The OPFOR collect information by various methods, including raids, ambushes, and the reconnaissance attack as described above. As in other armies, the main technique is observation which is considered one of the most reliable methods and therefore most suitable for commanders to base their decision on. The OPFOR also employ -

a. Listening (eavesdropping);

b. Imaging;

c. Interception of transmissions and direction finding of electronic resources.;

d. Questioning of local inhabitants;

e. Interrogation of prisoners of war and defectors and

f. Study of documents and equipment captured from the enemy.

FIRE SUPPORT

39. The OPFOR consider that modern battle is above all a firefight in which indirect fire plays a decisive role. They emphasise that very close and uninterrupted cooperation with the manoeuvre of supported combined arms units and elements is key to the battlefield success of artillery units. The goal is to synchronise all available fire support systems, including air and surface to surface missiles, into an integrated attack of targets for maximum effect. This is applied within the *systems warfare* approach to combat, where the emphasis is on striking vulnerability rather than strength and focused on engaging one or more key subsystems or components of an enemy combat system. The concept is to destroy one component in order to create the conditions to destroy another, thus degrading and disaggregating the total enemy capability. The OPFOR fire support concept is to apply this in a phased cycle by -

a. a. Finding a critical component of the enemy's combat system and determining its location with RISTA assets;

b. b. Engaging with precision fires, manoeuvre, or other means; and?

c. c. Recovering to support the fight against another part of the enemy force.

40. **Target damage criteria**. OPFOR artillery planners emphasise the desired battlefield effect on the enemy and refer to the required number of munitions to achieve it with different types of targets.

a. **Annihilation**. *Annihilation* fires render targets completely ineffective and incapable of reconstruction or token resistance. For a point target, this requires sufficient munitions to ensure a 70 to 90% probability of its destruction and for an area target such as a strong point, 50 to 60% destruction of the personnel within.

b. **Demolition**. *Demolition* refers to the destruction of buildings and structures such as bridges or roads and requires sufficient munitions to make them unfit for further use.

c. **Neutralisation**. *Neutralisation* is an artillery specific term that implies severe damage but the possibility of resistance after fire ceases. It requires sufficient munitions to destroy 30% of a group of unobserved targets which will inflicts enough losses on target to -

i. Cause it to temporarily lose its combat effectiveness;

ii. Restrict or prohibit its manoeuvre; or

iii. Disrupt its command and control (C2) capability.

d. d. **Harassment.** *Harassment* fires seek to apply psychological pressure by inhibiting manoeuvre, lowering morale and interrupting rest.

41. **Artillery systems**. The OPFOR artillery systems include the following.

a. **Mortars.** All OPFOR infantry, motorized infantry, and mechanized infantry battalions contain constituent 120-mm mortars. Smaller mortars are also available. Guerrilla and other organizations may have them as well.

b. **Cannon systems**. Cannon artillery includes field guns, howitzers, and hybrid systems.

c. **Multiple rocket launchers**. The OPFOR categorizes MRLs as medium-calibre (100- up to 220- mm) and as large-calibre (220-mm and larger).

d. **Surface-to-surface missiles**. SSMs include tactical through strategic-level ballistic missiles and land-attack cruise missiles using warheads ranging from conventional to nuclear.

42. **Command and control**. OPFOR tactical fire support is designed to be controlled at the lowest possible level and commanders allocate fire support resources to subordinates in accordance with their needs within the scheme of manoeuvre. The OPFOR tries to avoid retaining far support assets at higher level in order to preserve flexibility at that level.

Fire support coordination measures

43. To minimise the potential hazard to friendly manoeuvre forces and aircraft, fire support plans are distributed across the force by artillery staff. Maps with graphics clarify how lines are used for this purpose, as follows -

a. **Coordinated fire line**. A line beyond which indirect fire systems can fire at any time within the *area of responsibility* (AOR) of the establishing headquarters without additional coordination.

b. **Final coordination line**. A line established by the appropriate manoeuvre commander to ensure coordination of fire by converging friendly forces. It can be used to prohibit fires or the effects of fires across the line without coordination with the affected force.

c. **Joint fire line.** A line established by the appropriate operational strategic command (OSC)-level and above commander to ensure coordination of fire not under their control but which may affect their operations. The joint fire line is used to coordinate fires of air, ground, or sea weapons systems using various types of ammunition against surface targets.

d. **Safety line**. A line that denotes the fragmentation footprint of indirect fire munitions, or of bombs or rockets released from aircraft. This indicates the minimum distance between the impact area and the nearest friendly troops.

Target acquisition and reconnaissance

44. The OPFOR allocate substantial resources to the target acquisition process of detecting, identifying, and locating elements of the enemy to be engaged, with an emphasis on locating enemy mortar, cannon, and rocket units with sufficient accuracy, reliability, and responsiveness for counterfire and counterbattery fire to be directed against the enemy unit. The assets employed for this function (among others) include the following. –

a. **Weapon-locating radars**. These detect targets by tracking the ballistic path of the munitions it launches.

b. **Sound ranging**. Determines the precise location of hostile artillery by using data from the sound of its guns, mortars, or rockets firing. A series of microphones capture the sound. A computer factors the intersection of the bearings and provides the location of the firing unit.

c. **Battlefield surveillance radars**. These detect enemy activity or observe point targets to detect movements. They can detect and recognize moving targets including personnel, vehicles, watercraft, and low-flying aircraft and determine accurate locations (azimuth and range) of such targets. These radars can confirm targets sensed by other types of sensors or can be used to cue other sensors and weapons. They can also determine the effectiveness of the attack on a target.

d. **Unmanned aerial vehicles (UAVs).** Provide increased range and offer increased accuracy and responsiveness depending on the sensor suite chosen. The OPFOR has UAVs from strategic to company and specialized team level.

e. **Visual observation.** Human intelligence (HUMINT) may consist of *observation posts* (Ops), artillery *reconnaissance patrols*, *special-purpose forces* (SPF), or include verbal or written information from sympathetic civilians or guerrillas.

f. **Personal device and social media feeds**. The OPFOR have systems that allow them to receive messages and data from smartphones and similar devices, some based on intuitive navigation programs, which allow sharing of target data and fire adjustment by untrained personnel.

45. **Observation posts.** The OPFOR rely on an extensive system of mobile *observation posts* (OP) to accompany and provide fire support to rapidly moving manoeuvre forces.

a. **Command and observation post**. In fire support battalions and batteries, the *command and observation post* (COP) serves as both an OP and a command post (CP). It contains fire direction, communications, and reconnaissance equipment and personnel. The battalion is the basic firing unit, and its COP is where the *battalion commander, chief of reconnaissance* and (usually) the *chief of communications* plan and issue orders. A battery COP normally includes the *battery commander* and the *control platoon leader*. COP are normally co-located, or near the CP of a manoeuvre commander to which the artillery unit is constituent or dedicated. From there, both commanders should be able to observe a zone of responsibility or sector of fire.

b. **Forward observation post**. Artillery commanders may establish one or more *forward observation posts* (FOP) to reconnoitre the enemy, observe the terrain directly in front of forward manoeuvre units locate and adjust fires against targets the COP cannot observe, and assure continuous fire support when the COP is moving. An FOP may be deployed with the supported unit commander of one of the leading *manoeuvre elements.*

c. **Lateral observation post**. Artillery commanders may establish *lateral observation posts* (LOP) to cover areas not observable from the COP or FOPs, usually in the flank of the supported unit with a view of the artillery units' arc of responsibility.

d. **Mobile reconnaissance post**. A *mobile reconnaissance post* (MRP) is an armoured tracked vehicle with a battlefield surveillance radar and other observation rangefinding equipment that operates near or across the battle line. It is equipped with data transmission systems for passing target information directly to associated COP or fire control posts and can conduct fire missions on the move or at short halts. An MRP may function as an FOP or LOP, and in the advance is likely to move behind or with lead *manoeuvre elements*, possibly as part of an artillery *reconnaissance patrol*.

e. **Aerial observation post**. Artillery commanders may use aerial *observation posts*, especially to cover rapidly moving forces over large areas.

46. The possible deployment of different types of *observation posts* in relation to an artillery unit is illustrated at Figure 58 below. The enemy threat is to the north and there is a pair of *forward observation posts* (FOP) on the high ground in that direction. The three battery *command and observation posts* (COP) are positioned on the high ground slightly to the rear of the FOP, and a *lateral observation post* (LOP) is positioned to the north-east. The battalion COP is positioned centrally behind the battery COP, and also slightly behind the battalion headquarters position where commander will have established a CP. The fire units are organised with a *primary battalion firing position area* in the south-east, an alternate *battalion firing position area* in the south-west and a *battery temporary firing position* forwards of these both. These

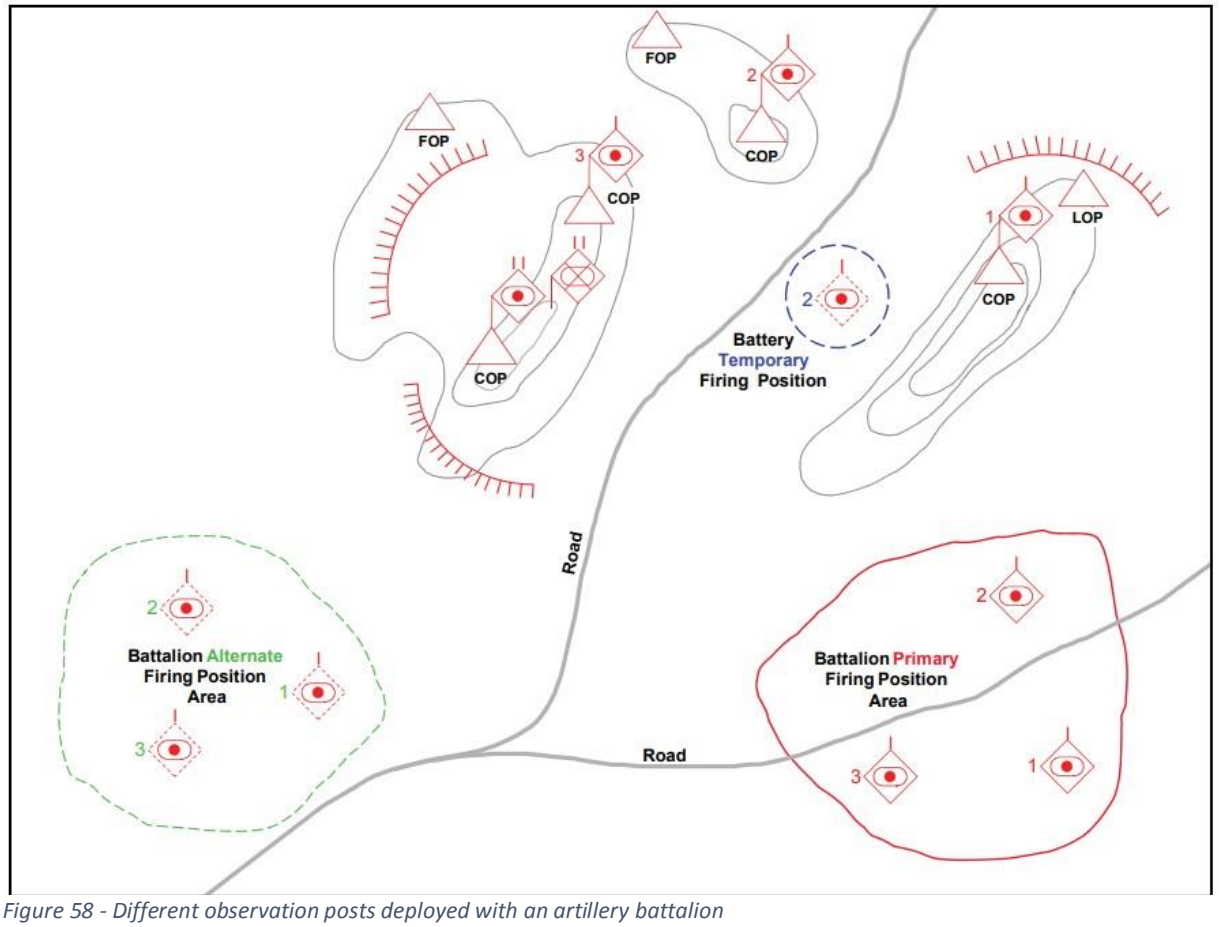

Figure 58 - Different observation posts deployed with an artillery battalion

Methods of fire

47. The OPFOR approach to fires reflects *systems warfare* and the targeting of subsystems and components. It uses the following methods.

a. **Reconnaissance fire**. *Reconnaissance fire* is the integration of RISTA, fire control, and weapon systems into a closed- loop, automated fire support system that detects, identifies, and destroys critical targets in minutes during both offensive and defensive operations. It centralises and integrates planning, analysis, evaluation of reconnaissance data and execution of the fire missions. This integration capability normally exists only in an *integrated fires command* (IFC) and is primarily designed to attack and destroy key enemy capabilities and/or set the conditions for a strike.

b. **Close support fire**. Close support fire is fire used to support manoeuvre forces and attack targets of immediate concern to units such as battalions and brigades.

c. **Interdiction fire**. Interdiction fire is fire placed on an area or point to prevent the enemy from using the subsequent area or point. It is designed to attack targets in depth (such as logistics sites or assembly areas) and to prevent enemy follow- on or reserve forces from reinforcing or influencing a battle or situation.

d. d. **Counter fire**. Counterfire is fire intended to destroy or neutralize enemy weapons. It includes counterbattery and countermortar fire but also targets the relevant enemy Command and Control (C2) centres and artillery support structure.

e. e. **Final protective fire.** Final protective fire is an immediately available pre-planned barrier of fire, designed to impede enemy movement across defensive lines or areas.

f. f. **Reconnaissance by fire.** *Reconnaissance by fire* is a type of reconnaissance in which fire is placed on a suspected enemy position to cause the enemy to disclose a presence by movement or return fire. This is not to be confused with reconnaissance fire.

Tactical deployment

48. The deployment of indirect fire support units is governed by continuity and dispersion. The OPFOR seeks to deploy elements to maintain continuous fire support for manoeuvre units, including when artillery units are moving to be in a position to support the manoeuvring units or are redeploying between their own engagements. Equally, *artillery elements* must be dispersed so that their vulnerability is reduced. As described below, deployment is managed by -

a. Battalion firing position areas, and within these;

b. Battery firing positions; and within these

c. Battery deployment TTP.

49. Both battalion firing position areas and battery firing positions may be deemed *primary, alternate, temporary, or deception*. All but the latter are, in priority order, surveyed and marked out to allow the artillery systems to come rapidly into action after redeploying. The relationship of these types of position is shown at Figure 59 and explained below.

a. **Primary and alternate**. Primary locations and alternate locations allow for *artillery elements* to make pre-planned or forced (under counterfire) redeployments. Typically, elements will plan to engage the same target set from primary and alternate locations. Battalions have a *primary firing position* area (shown by a red circle) and typically one or two alternate firing position areas up to several kilometres away from the primary (shown by green circles). Similarly, batteries have a *primary firing position* and one or two *alternate firing positions* which they can redeploy between (shown by how the symbols showing the numbered artillery batteries at several locations with dotted lines between).

b. **Temporary.** Temporary locations are used for conducting individual fire missions to avoid compromising the main and alternate locations, and to move closer to a target area where necessary. Battalion *temporary firing position* areas are likely to be positioned closer to the enemy (shown by a large purple circle) as are temporary battery firing positions (shown by a small purple circle with a battery symbol).

c. **Deception.** Battalions and batteries may prepare deception firing locations and *command observation posts* on their own initiative or as part of a wider plan. The purpose is to mislead the enemy as to the actual deployment of artillery units and cause the enemy to waste fire. Their preparation and camouflage must be alike to actual positions and sites.

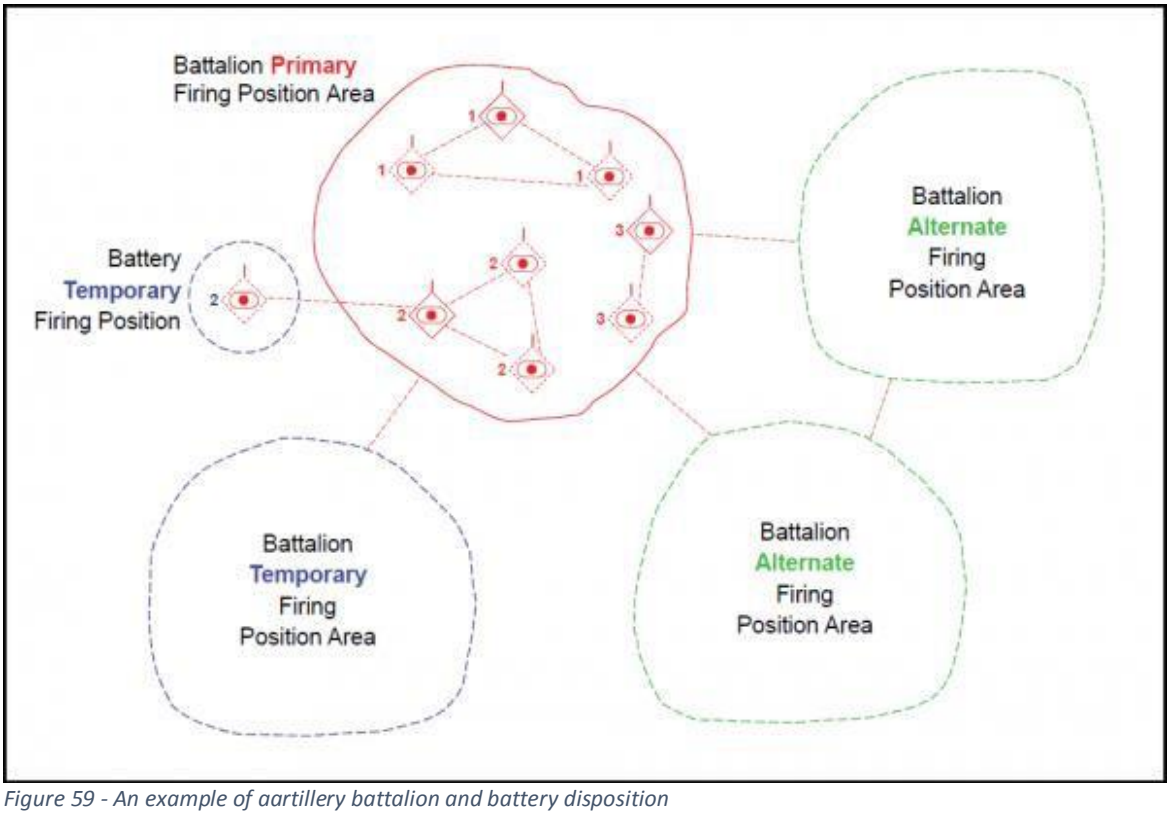

Figure 59 - An example of aartillery battalion and battery disposition

51. As with *battalion firing position areas*, *battery firing positions* may be primary, alternate, or temporary. In the offense, an artillery battery can use any or all of those, and possibly create *deception firing positions*. The defence can require primary, alternate, temporary, and deception positions. The functions of *primary firing positions* and *alternate firing positions* are much the same as for *battalion firing position areas*.

50. **Battery deployment tactics techniques and procedures**. All types of OPFOR units employ a common set of tactics, techniques, and procedures to increase survivability and effectiveness, including providing the ability to conduct multiple fire missions simultaneously by organising into more than one firing unit.

a. **Fire from varied formations**. Exploiting GPS/GLOSSNASS and computers to provide the firing solutions, OPFOR artillery units may use formations that increase or vary the interval between weapons and a firing position and disperse the weapons in depth.

b. **Fire from dispersed locations**. The OPFOR may disperse indirect fire support weapons using several techniques. These are intended to disperse elements out of the seeker's footprint of enemy precision munitions, to force the enemy to employ more munitions over a larger target area or to increase the number of targets to be serviced.

i. **Split battery**. Split battery is a tactic designed to increase the survivability of OPFOR artillery against enemy counterfire and counterbattery fire. The battery is split into several fire units (usually two platoons), which may deploy dispersed over an extended area. If the battery command and observation post (COP) cannot control the fires of both platoons, the battery fire control post may be used for one

ii. (**Dispersed platoon**. Dispersed platoons further increase the survivability of a battery by breaking it down into individual fire units or pairs. This also suits multiple small areas of cover. The method requires well-trained personnel to coordinate the application and adjustment of multiple unique firing solutions and in practice may increase adjustment and response times.

c. **Fire-from-fixed-locations**. The *fire-from-fixed-locations* technique is generally employed where there is limited movement in the area such as mountains, jungles, or urban areas. The firing battery occupies dispersed pre-surveyed positions and may use hide sites as measures of both survivability and force preservation for the conduct of future battles and operations.

d. **Fire and decoy**. The OPFOR employs *fire-and-decoy* techniques to increase survivability as well as to deceive the enemy of the actual firing unit location. The techniques include *roving gun*, *roving units*, *deception battery*, and *false battery*.

e. **Roving gun**. *Roving gun* is a technique designed as a countermeasure against an enemy that has a sophisticated target acquisition capability. The single firing unit moves quickly between firing positions to engage. The goal is for the enemy to detect and engage this target, thinking that it is an entire unit, expending munitions that would otherwise have been used on an actual target.

f. **Roving unit**. *Roving unit* is another technique designed as a countermeasure against an enemy possessing a sophisticated target acquisition capability. It is like the *roving gun* technique but involves multiple weapon systems.

g. **Deception battery**. The *deception battery* is a technique where the OPFOR creates the illusion of the signature of an additional battery in an attempt to deceive the enemy of the actual battalion location. This technique is also referred to as the "fourth battery" technique. The effect delivered is to provide fire control directions to five redeployed units. The preferred method is to split a battery into two platoons and temporarily deploy fire units from the other two batteries of the battalion to give each split battery the firing signature of an entire battery.

h. **False battery**. The *false battery* (or decoy battery) is a technique that involves the use of active and decoy weapon firing positions to give the appearance of a battery firing position. One or two fire units engage from a fire position that has camouflaged decoys or non-operational equipment to create the impression of an entire battery. The remainder of the battery move to a hide site a distance away from the decoy position.

i. **Shoot and move**. *Shoot and move* is a technique that involves the rapid displacement of a firing unit from a firing position immediately after completion of a fire mission. It is an effective countermeasure in protecting indirect fire support assets from enemy counterfire and counterbattery fire.

j. **Autonomous weapon attack**. *Autonomous weapon attack* is a somewhat misleading OPFOR term that describes a refinement of the above TTP that enables the coordinated and integrated delivery of fires from individually well dispersed fire units. The autonomy in the title is the ability of individual fire units to provide their own firing solution. It relies on the equipment and training for each fire unit to be able to combine automated position location and computer- based calculations to provide individual firing solutions. These capabilities are particularly suited for delivering a fire strike which seeks the maximum number of fire units engaging concurrently at a specified time. The method is important during *adaptive operations* when dispersal, *cover, concealment, camouflage and deception* (C3D) are imperative and communications may be degraded. It may also be supported by establishing ammunition caches near pre-surveyed weapon firing sites.

Tactical movement & logistics

51. The careful control of *fire support element* movement is of particular importance during offensive action as that is when they must constantly displace to keep pace with the advance of manoeuvre units while ensuring that fire units are always available to provide support. This movement is conducted in one of three ways.

a. **Movement by battalion**. The entire battalion will only move in one body before it has not been committed to battle, or if there are other units available to perform fire missions while the battalion is moving.

b. **Movement by battery**. The most common movement technique for a battalion is for its batteries to move individually by bounds, during which they may temporarily halt to real and refuel. Once a battery is in its new position and ready to fire, the next begins to displace. The battalion fire control post typically displaces with the centre battery.

c. **Movement by bounds**. An indirect fire support unit normally displaces by bounds, following rules of thirds. It attempts to maintain two thirds of its weapons in position within range and available to fire, to provide continuous support for the manoeuvring force. The rule of thirds also guides the estimate of the time to move forwards. When only 1/3 of the maximum range of a unit's weapons remains in front of the advancing OPFOR troops, the unit move a third of their guns' forwards.

52. **Logistics.** The OPFOR use a push forward concept of logistics. Units do not request ammunition, rather, they are allocated ammunition in the fire support plan which is delivered as the highest priority within the supply system.

a. **Ammunition handling**. The OPFOR uses standard cargo trucks as resupply vehicles for cannon and mortar systems, although there are dedicated resupply vehicles for some multiple rocket launcher systems. Ammunition packaging is designed so that two soldiers can easily carry a single item. This avoids the requirement for material handling equipment at ammunition transfer points and in the firing position, but it is slow and labour-intensive. As far as possible, ammunition remains loaded on resupply vehicles, but the general practice is to establish ammunition transfer points at brigade level and battalion and send their resupply vehicles back to pick up ammunition.

b. **Ammunition to positions**. Under some circumstances the OPFOR may accept the risk of conducting a resupply in an occupied firing position, but this option is avoided when possible. A marginally less risky option is to preposition ammunition required for a firing task on the ground at the intended firing position, but this also has risks of compromise.

c. **Ammunition resupply points**. The preferred method of ammunition supply is for resupply points to be set up on the line of advance, or withdrawal, or on the routes between primary, alternate, and temporary firing positions. The size of resupply points is dictated by suitable locations, with the ideal being to resupply and refuel many systems simultaneously while dispersed. Resupply action occurs in the order of movement with an elements units remaining dispersed in the area of the resupply point until all systems are resupplied. However, an advance party will normally proceed forwards to prepare the next firing location during this.

53. **Reconstitution.** The OPFOR have a realistic understanding that their artillery systems will be a priority target and that they may be facing an enemy with superiority in precision weapons. They therefore emphasise that reconstituting in order to restore the combat effectiveness of units and subunits is an important duty of their commanders. They emphasise that these duties include –

a. Determining the degree of combat effectiveness of subordinates;

b. Detailing missions to subordinates that are still combat-effective;

c. Withdrawing units from areas of destruction or contamination;

d. Providing units with replacement personnel, weapons, ammunition, fuel, and other supplies; and/or

e. Restoring disrupted Command and Control (C2).

54. **T**he OPFOR strives to keep some units at full strength, rather than all units at an equally reduced level. Usually, the unit with the fewest losses is the first to receive replacement personnel and equipment. However, once the casualties or equipment losses are sufficient to threaten the total loss of combat effectiveness, the commander may apply the concept of composite unit replacement. The composite unit concept involves a unit formed from other units reduced by combat action.

ENGINEERS

55. The OPFOR considers, like most armies, that engineer support is vital to effectively employ or preserve combat power. However, their perception of how best to employ them favours manoeuvre more than in many Western armies. They not only expect engineers to dynamically create unexpected routes and opportunities for infantry and armoured forces to manoeuvre and to strike enemy vulnerability, but they also use obstacles, particularly scatterable minefields[9], aggressively and offensively.

56. Engineers are considered to have particularly important tasks during *adaptive operations*. They enable the OPFOR reliance on Camouflage, Concealment, Cover and Deception (C3D) as well as supporting information warfare (IW) efforts to change the nature of the conflict into something that the enemy are not prepared for.

57. The OPFOR recognises engineers as a limited resource that must often be focused on engineer-specific or the commander's priority tasks. Consequently, engineering activities are a shared responsibility throughout the land force with combat troops as well as engineers performing mine warfare, survivability, and water crossing tasks. In the same vein, the OPFOR plans for full integration of civilian and military engineer resources, using civilian earthmoving, roadbuilding and construction equipment, and personnel in support zones so that uniformed engineers can accompany manoeuvre forces.

58. The primary engineer missions or functions performed in combat are reconnaissance, mobility, countermobility, and survivability (see sections below on each of these missions). Some examples of specific engineer tasks required to support those missions are to -

a. Conduct *engineer reconnaissance* of the enemy and the terrain;

b. Prepare and maintain routes of movement and supply;

c. Clear passages through obstacles and areas of destruction;

d. Perform *demolition* work;

e. Establish and maintain water obstacle crossings;

f. Establish and improve engineer obstacles;

g. Prepare fortifications;

h. Protect personnel and equipment from the effects of conventional direct and indirect fires, precision munitions, and chemical, biological, radiological, and nuclear (CBRN) strikes;

i. Carry out engineer measures to eliminate the aftereffects of Chemical, Biological, radiological and Nuclear (CBRN) weapons.

j. Support information warfare (INFOWAR) and carry out engineer camouflage, concealment, cover, and deception (C3D) measures; and/or

k. Extract and purify water and establish water supply points.

59. **Command and control**. Engineer units may be retained centrally under formation command but more typically will be sub-allocated to reflect priorities. At each level, the commander gives his intent and scheme for manoeuvre and thus engineer staff officers determine the required engineer missions and the priority of engineer effort. Engineer units are only normally constituent down to brigade level, however the OPFOR prefers to task organise into *multirole engineer support elements* at much lower levels down to multirole platoons with engineer squads. Typical roles (discussed later) are-

a. Obstacle detachment;

b. Movement support detachment; or

c. Engineer reconnaissance patrol.

Engineer reconnaissance.

60. Engineers conduct reconnaissance combined with elements from reconnaissance or chemical warfare units or independently. The latter is more likely where the commander needs specialised information for engineering tasks, such as water obstacle crossing tasks.

[9] Artillery delivered mines are also considered in this section for consistency.

a. **Reconnaissance patrols**. As described above, the OPFOR consider reconnaissance and all arms tasks and routinely may allocate engineer specialists to accompany a tactical *reconnaissance patrol* or *security element* at any level.

b. **Engineer reconnaissance patrols**. When an engineer mission is expected to be more complicated or critical, the OPFOR will form *engineer reconnaissance patrols* (ERP), between squad and platoon sizes. ERPs are usually formed in pairs in order to conduct reconnaissance by the leapfrog method, however, larger ERPs may be broken down into smaller teams in order to concurrently reconnoitre multiple features. If contact is not expected, an ERP may operate well ahead of the main body, conversely once contact has occurred *engineer reconnaissance* may be limited to what can be observed by engineers with the forward *reconnaissance elements*. In either case, ERP assess the validity of plans made from the map and report on -

i. The general nature of the terrain;

ii. Obstacles and the effort required to overcome them;

iii. Conditions of crossing sites on water obstacles; and

iv. The state, structure, load capacity and obstacles present on any bridges.

61. **Enabling mobility**. During *regional operations,* OPFOR manoeuvre units and engineers will operate conventionally. However, during *adaptive operations,* the OPFOR consider that it is essential to maintain the ability to move unimpeded and undetected. Engineers, therefore, have key tasks in enabling the infiltration of small forces into unexpected locations to inflict damage or support information warfare (IW). In *regional, transitional,* and *adaptive operations,* engineers remain responsible for ensuring the unimpeded movement of forces along the nominated movement routes, including supporting the crossing of water obstacles and preparations at assembly areas. If substantial obstacles are not anticipated, engineers may be grouped in *general-purpose engineer detachment*s or attached to *manoeuvre detachment*s. When the requirement to overcome a major or many minor obstacles is foreshadowed, *movement support detachment*s will be formed.

62. **Movement support detachment**. The *movement support detachment* (MSD) is a task orientated yet temporary grouping of engineer assets to support route clearance and tactical movement. An MSD will typically travel ahead of the main body following the *security detachment* and typically task organises into smaller elements to allow concurrent actions along the movement route, for example forming *a reconnaissance and obstacle clearing element* plus one or two road and bridge construction and repair elements.

a. **Reconnaissance and obstacle clearing element**. A *reconnaissance and obstacle clearing element* is based on an engineer subunit which is equipped with route or obstacle clearing vehicles, mine clearing vehicles, mine detection equipment and explosives. It may be augmented by more specialised equipment such as bulldozers from divisional resources. Tasks include -

i. Marking the movement route;

ii. Making immediate assessments of the terrain and obstacles;

iii. Identifying bypasses;

iv. Creating and marking passages through obstacles;

v. Determining the character of destruction along the route; and

vi. Locating building materials.

b. b. **Road and bridge construction and repair element.** A road and bridge construction and repair element is based on an engineer subunit which is typically equipped with tanks or trucked launched bridges, route clearing vehicles, cranes, and road graders. Tasks include -

i. Mine clearing and obstacle clearing along the route;

ii. Reinforcement of bridges and repairs to roads;

iii. Construction of bypasses;

iv. Building and reinforcing bridges;

v. Establishing fords and bypasses;

vi. Strengthening the route in swampy sections;

vii. Removing rubble; and/or

viii. Repairing damage.

Obstacle breaching

63. During offensive operations, the OPFOR plan and structure to overcome obstacles at multiple parallel points and with minimum delay. Creating obstacle breaches in contact is a combined arms task.

64. **Explosive obstacle breaching**. The OPFOR consider minefields and explosive *demolition* arrays the most significant obstacle it is likely to encounter, accepting that these must be breached under fire. It seeks to breach a minefield from tactical movement, minimise delay, and press the attack without altering to consolidate on the far side of the obstacle. The preferable method is to breach using the standard task organisation of *action*, *support* and *security elements* without reinforcement or variation, using the breaching battle drill and breaching equipment already held within manoeuvre organisations. The *action element* temporarily becomes a *breaching element* before it reverts to the far side of the obstacle. If anticipated obstacles require a significant allocation of specialist assets, the *detachment* commander may form a *clearing element* which is based on an engineering capability to penetrate the obstacle, thus permitting the *action element* to continue with the mission uninterrupted. If extensive or difficult obstacles will be encountered a *movement support detachment* may be formed, typically to support the movement of multiple *detachment*s through a given zone of obstacles or across a major water obstacle.

65. **Breaching methods**. The OPFOR will make use of the following three breaching methods to rapidly create lanes through obstacles with minimal delay. All mechanised and tank units are trained, equipped, and expected to greet explosive obstacles seeking external assistance.

a. **Explosive breaching**. Line charges, Bangalore torpedoes and volumetric explosives are projected or pushed ahead of the *breaching element* and initiated to detonate or disrupt mines on explosive effect. Explosive breaching is always the preferred option because it reduces the risk to armoured vehicles.

b. **Mechanical breaching**. Mechanical mine clearing ploughs or ploughs and roller combinations mounted on combat vehicles (usually tanks) provide the main countermine capability in manoeuvre units. These systems detonate mines ahead of the vehicle by disturbing them or applying a load on the ground. They may also physically push mines out of a defined path. Mechanical breaching methods will normally be used to follow through the parts cleared by explosive methods.

c. **Manual breaching**. Manual breaching of minefields requires personnel to physically displace or defuse mines and other explosive devices. The OPFOR will seek to use irregular and dismounted forces to breach obstacles in advance of a mechanised force whenever possible.

66. Figure 60 shows an example of a mechanised breach being conducted by a *tank detachment*. Only the six leading tanks that are fitted with mine ploughs, or mine ploughs and rollers are shown, but the balance of the *detachment* will divide up and follow through the breaches they create in single file. The illustration shows breaches that are created by Bangalore torpedoes. These may be hand placed by dismounted infantry or engineers, but more likely will use an OPFOR system that allows a tank to push a long triple Bangalore torpedo, the tip of which is mounted on a sledge to enable it to be pushed across a surface. While tank mine rollers and mine ploughs can be fitted some distance short of the minefield, the tank-pushed Bangalores must be set up close to the minefield with inherent risks.

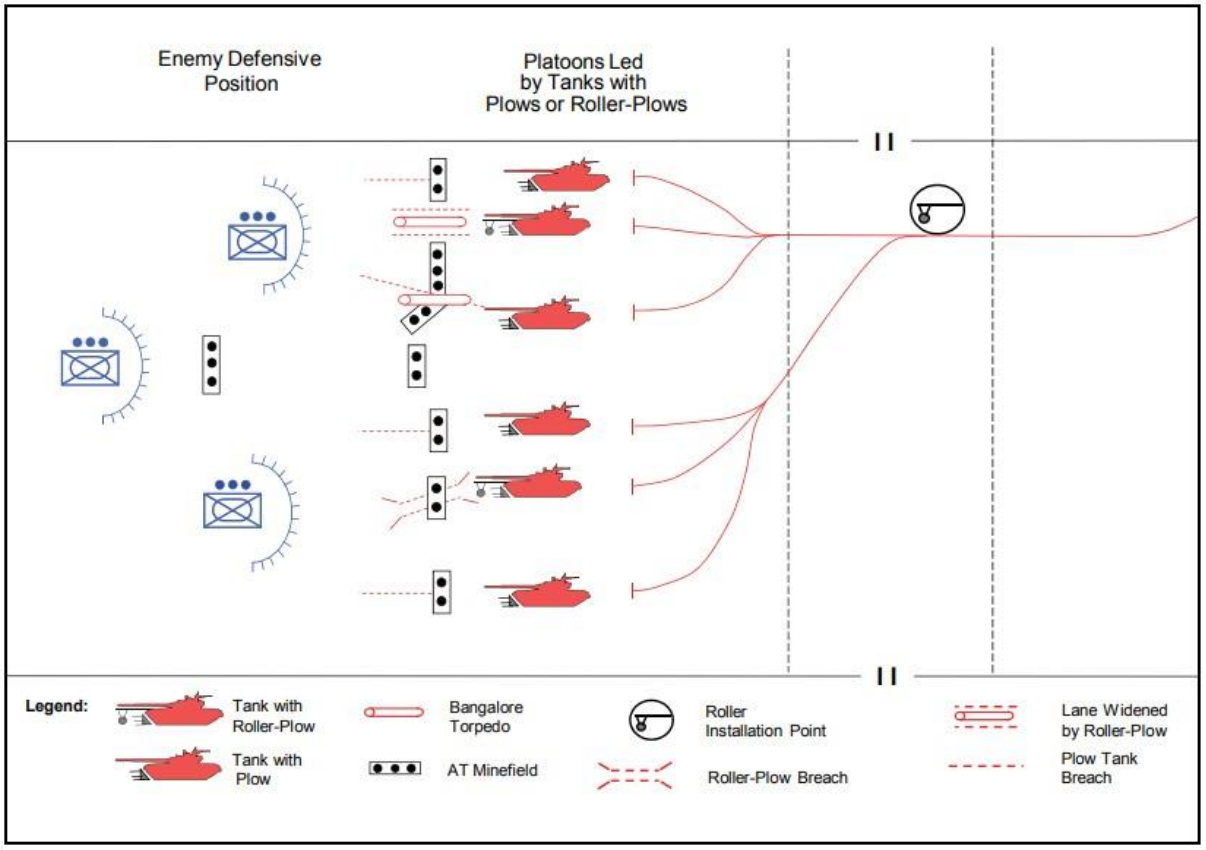

Figure 60 - A mechanised breach

67. The OPFOR recognises that in *adaptive operations* the overt breaching methods described above may be too vulnerable therefore it trains to conduct innovative, deceptive, and stealthy breaching. An example is shown in Figure 61 where a mechanised company dismounts two of its platoons, with one infiltrating on an enveloping approach to the enemy position covering a minefield while a second platoon infiltrates forward close to the minefield. The first platoon then mounts a feint against the enemy position while a lane in the minefield is manually cleared.

68. **Non-explosive breaching**. Non-explosive obstacles such as large anti-tank ditches, berms, craters at defiles, or large masses of rubble usually needed to be cleared by hand or mechanical means and only mechanical means are likely to be able to do this rapidly. For such tasks, a *mobile support detachment* (MSD) may also be augmented with obstacle clearing vehicles or truck-launched bridges to cross ditches, berms, and craters.

69. **Water obstacle crossing**. The OPFOR anticipate extensive use of rivers and other water obstacles for defensive purposes and expects to have to cross these, both opposed and unopposed using bridges, ferries fords, or amphibious combat equipment. During *adaptive operations,* the OPFOR plan to conduct clandestine crossings, at night and/or during inclement weather and by infiltrating elements a few vehicles at a time across the river. They train to construct bridges below the surface of the water, improvise rafts, and log bridges. A functional force is task organised for a water crossing as follows -

a. **Crossing force/element**. The *crossing force/element* is the *exploitation grouping* whose movement the operation is designed to facilitate.

b. **Crossing site force**. The *crossing site force* is the enabling force for the crossing mission whose task is to enable the crossing force to move rapidly through or over the obstacle and continue its mission.

c. **Security force.** The *security force* has the same function as in other offensive operations but for obstacle crossings will typically be aired defence heavy.

d. **Crossing zone**. The *crossing zone* is a specialised form of *area of responsibility* (AOR) assigned to the crossing site commander. Crossing force units are placed in a supporting relationship to the crossing site commander while in the crossing zone. There are usually separate sites for each type of crossing means: swimming, fording, snorkelling, tracked amphibians, ferries, and pontoon bridge. To conduct a crossing, the commander organises engineers well forwards with mechanised infantry units leading (because they are amphibious) while direct fire support systems including tanks are also ready to provide support by fire on the line of the obstacle.

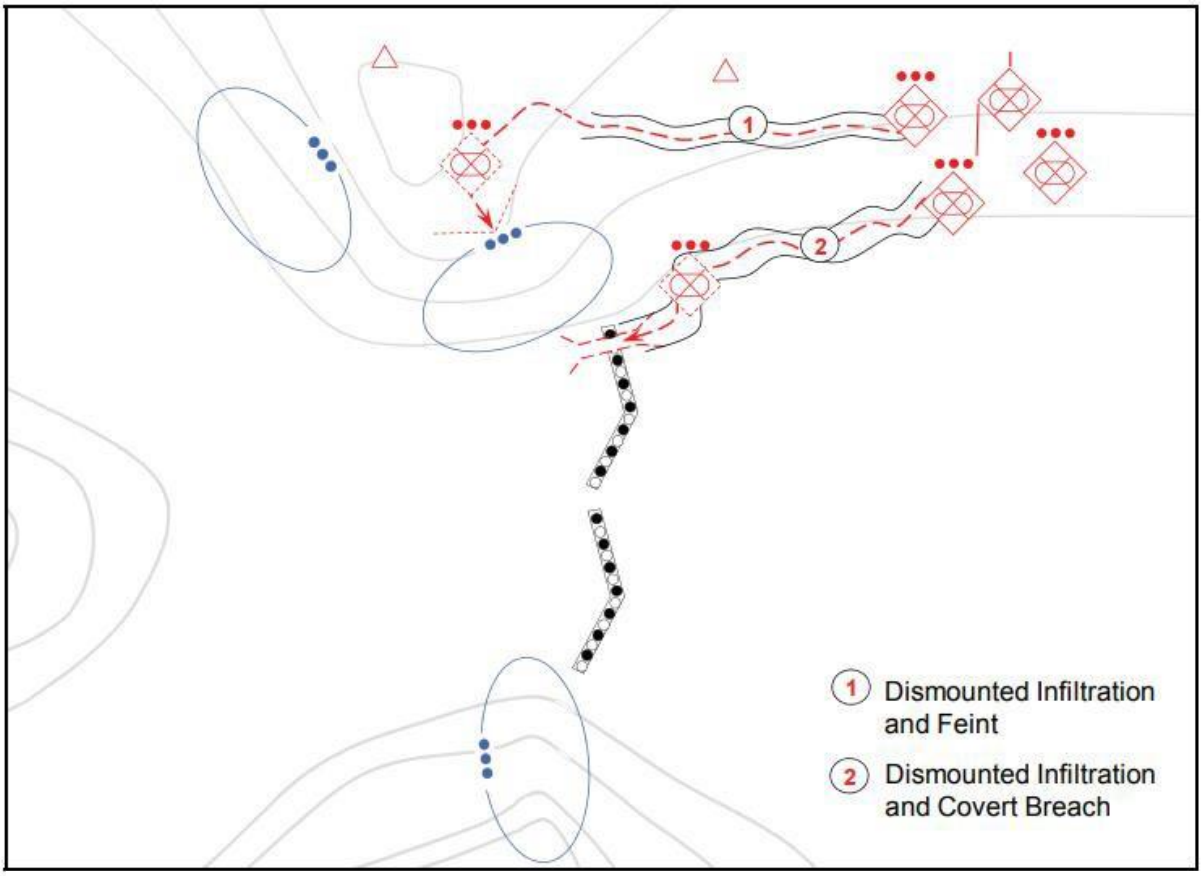

Figure 61 - A clandestine breach being executed by infiltration, supported by an infiltration feint

70. **Reconnaissance and conduct**. The reconnaissance for a water crossing may be conducted by an *engineer reconnaissance patrol* (ERP) or the *reconnaissance element* of a *movement support detachment* (MSD). Division level engineer battalions have qualified divers with scuba gear, specialised vehicles, and equipment to conduct technical assessments and preparation. Preparation and marking of assembly areas, approaches, and riverbanks (as well as reconnaissance for snorkelling) are fundamental to enable all types of water crossing.

71. Many OPFOR armoured vehicles are amphibious, and almost all types within mechanised or tank units can either swim or snorkel across water obstacles. This enables an advance to continue without excessive delays or concentration of force that invites destruction. Some narrow obstacles can be crossed by fording, swimming, or using a tank or truck-mounted or low-water bridges. Wider obstacles require tracked amphibians, ferries, or pontoon bridges (sometimes configured as rafts). Tracked amphibians had a key role in moving towed artillery pieces, trucks, small vehicles, and troops.

72. A division-sized force will typically cross a major water obstacle with *crossing forces* consisting of brigade-sized forces operating in separate *crossing zones* each up to 10 km wide with two or three *detachment*s crossing first. OPFOR anticipate that a brigade-size force will cross a significant water obstacle within 3 hours, meaning that the whole formation will take about twice as long. There are different types of crossings explained in greater depth below.

a. **Opposed crossing**. In a mechanised opposed crossing, a lead wave of amphibious armoured vehicles makes a rapid crossing to seize a bridgehead on the far bank, usually covered by the maximum available direct and indirect fires, including tanks and fixed-wing air support. The crossing will be conducted at night or covered by a smokescreen. In non-mechanised opposed crossing, feints and demonstrations will play a major role in deceiving the enemy with low visibility and adverse weather conditions preferred.

b. **Bridge crossing**. After an opposed crossing has secured the far side, the OPFOR will move pontoon *bridge detachment*s forwards to move tanks and other heavy platforms across the water so that the advance can continue. As soon as the enemy no longer has the ability to subject the crossing to direct or observe fire, engineers begin bridge construction.

c. **Bridge seizure**. OPFOR commanders will also place a high priority on seizing a bridgehead over undefended pulley defended *water crossing points or bridges*. To do this, they will dispatch an *independent mission detachment* (IMD) ahead of the *security detachment*s of the lead formations, which attempt to bypass any resistance forward of the water obstacle and infiltrate to the far side. In *adaptive operations*, the OPFOR may only use bridges during periods of limited visibility and may dismantle bridges at other times.

d. **Ferries**. Ferries are used to transport the heavy equipment across medium to wide water obstacles and are usually deployed with 3 to 4 ferries per site. They can also be joined into a pontoon bridge. They are not usually employed in the initial wave of the crossing but rather to bring subsequent waves of tanks and other equipment is forwards and can typically begin operation 15 to 20 minutes after the initial crossing.

e. e. **Tank snorkelling**. Tank snorkelling is attempted when fording, bridge or ferry crossing sites are not available or where the opportunity for surprise exists. The method is only employed when water obstacles have the following –

i. Depths of 5.5 m or less;

ii. Prepared entry and exit points;

iii. Entry slope of 47 percent (25°) or less;

iv. Exit slope of 27 percent (15°) or less;

v. Stream velocities of 3 m/s or less; and

vi. Hard, level bottoms with no boulders, craters, or soft spots.

f. f. **Fording**. The OPFOR will establish fords at suitable shallow water crossing sites that are no more than approximately 2.3 m deep. These are easier to execute than other water crossings but may require partial waterproof sealing of the tanks up to the turret ring.

73. **Assembly and preparation areas**. Engineers have a key role in establishing assembly and preparation areas near crossing sites. As vehicles depart this, they bypass an *engineer checkpoint* to ensure that the rate of vehicle crossing flow does not exceed the capacity of the crossing means. There the drivers receive final instructions, and they subsequently move between a series of *traffic control points* to and through the crossing. These measures avoid the risk of vehicles bunching and presenting a concentrated target.

74. Figure 11 shows an example of a mechanised infantry battalion crossing supported by tracked amphibians, ferries, and a pontoon bridge. In this example, two companies cross by amphibious means, while the third company and *support elements* can cross over a pontoon bridge in tactical movement formation. Normally, bridges are erected only after the far bank is secured to a depth precluding enemy direct fire on the crossing site. However, if the enemy defence has been neutralised by fire or the opposite bank has been seized by airborne or heliborne forces, bridge construction may begin along with the opposed crossing.

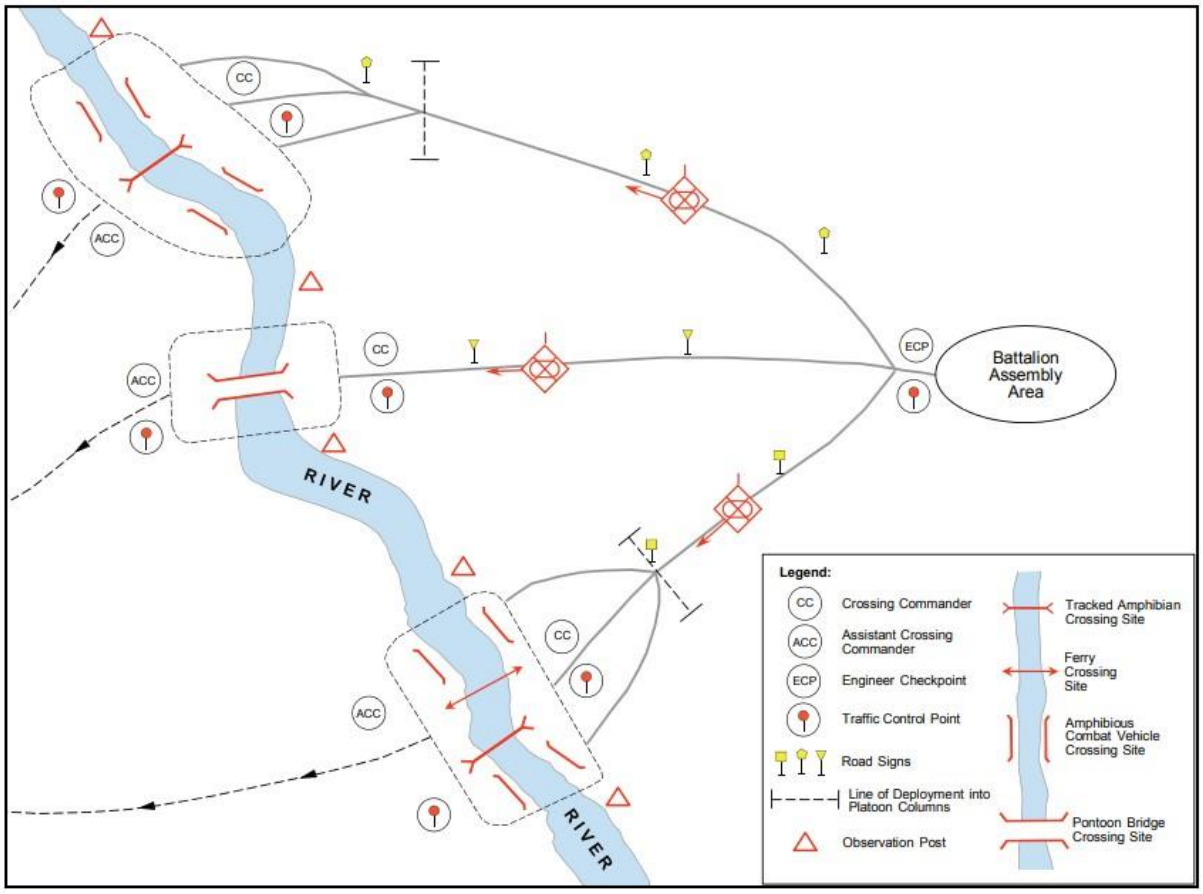

Figure 62 - Engineer support of a mechanised infantry battalion river crossing

Counter-mobility

75. OPFOR counter-mobility operations seek to limit enemy access and control tempo by delaying, disaggregating and canalising enemy forces. OPFOR engineers have an innovative approach, especially during *adaptive operations*, which is indicated by the following methods.

a. Lay mines intermittently along road or trails. This approach involves the enemy in prolonged potentially dangerous, and time-consuming detection and clearance operations. These tasks require a great deal of enemy manpower.

b. Mine and re-mine enemy lines of communications (LOCs). This requires the enemy forces to constantly sweep for mines. Once a road is swept and left unsecured, the OPFOR re-mines it.

c. Limit access by denying the enemy key facilities. For example, an approach could destroy the airfield runways in an aerial port of debarkation (APOD) or docks in a seaport of debarkation (SPOD).

d. Deny LOCs from APOD and SPODs to enemy manoeuvre units, staging areas, or base camps. This can contain (or trap) enemy forces in specific areas such as an APOD or SPOD and built-up areas.

e. Maximise the use of controlled minefields. This lets the OPFOR pass through the minefield and activate it prior to the arrival of enemy units. It can also be used to trap enemy units. This is used in conjunction with artillery as a kill zone.

f. Use off-road and chemical mines whenever possible and employ antihandling devices to slow clearing efforts.

g. Target vehicle mine ploughs and rollers as high-priority targets.

h. Use plastic mines to defeat mine detection sweeps.

i. Plant underwater mines at port or ford sites.

76. **Obstacle detachments**. The *minefields obstacle detachments* (OD) are the basic building block of OPFOR countermobility efforts. They are temporary task organised groupings composed mostly of engineer assets intended to create minefields and obstacles, especially mechanical minelayers and trucks carrying mines explosives and other equipment. They may be augmented with mechanised

infantry troops for close protection and labour. They will, usually, be based on the minelaying squad of an engineer mine warfare platoon or minelayer platoon.

77. In the defensive battle, the OPFOR commander may hold the OD and other forces in reserve to quickly deploy them to obstruct vulnerable gaps. Often, OD may be combined with antitank units to provide a *quick reaction blocking force*. Engineers may also be used to lay mines and construct obstacles in the *disruption zone* on likely enemy armoured avenues of approach. Alternatively, they may be tasked to lay obstacles protecting friendly units in the *battle zone* and at other defensive positions. An OD may be similarly grouped for offensive operations, working with an *antitank detachment* on the flank or well forwards to deploy rapidly to respond to an armoured threat.

78. **Obstacle plan**. The obstacle plan is tailored and integrated into the overall operation plan, often with great emphasis on creating kill areas. The OPFOR divides engineer obstacles into three categories which are –

a. **Explosive obstacles** such as minefields, groups of mines, and objects prepared for *demolition*;

b. **Nonexplosive obstacles** such as antitank ditches, escarpments, abatis, wire barriers, and water obstacles; and

c. **Combination obstacles** which are a combination of explosive and nonexplosive obstacles.

79. **Nonexplosive obstacles**. Nonexplosive obstacles generally require more time and resources to install or subsequently eliminate. Consequently, the OPFOR normally places mines and other explosive obstacles first and then supplements them with nonexplosive obstacles. Anti-armour examples include ditches, dragon's teeth, and berms, antipersonnel obstacles include concertina and barbed wire, with the latter used in combination with ditches, poles, and cables as anti-landing obstacles. Diversion of water to flood areas is another method favoured by the OPFOR.

80. **Explosive obstacles**. Explosive obstacles are the most commonly used due to the fact that they are relatively quick and easy to emplace. The OPFOR site *demolitions* at defiles on roads as a significant way to deny their use as high-speed avenues of attack. They also plan to make extensive use of minefields and increasingly exploit the self-destruct and self- neutralisation capabilities of scatter-able mines as well as those that have remote control devices to allow them to activate or deactivate a minefield at will.

81. **Minefields**. The OPFOR makes extensive use of conventional minefields during all phases of combat. There are five basic types: antitank, antipersonnel, mixed, decoy and anti- landing. All concepts for defence envisage minefields slowing and canalising enemy forces into *kill zones* where fires can be applied for long enough be effective. Conventional OPFOR minefields generally conform to the specifications explained below.

82. **Minelaying**. The OPFOR emplaces mines manually, mechanically or by remote means, with all arms trained to lay manually, particularly denser minefields for the protection of their own positions. However, manual minelaying is labour-intensive and slow so OPFOR engineers employ toad and track conventional mechanical minelaying vehicles that can quickly emplace both buried and surface laid minefields. They also use vehicle mounted scatter-able minelaying systems. It uses the following means:

a. **Manual laying**. The OPFOR manually emplaces minefields when–

i. There is no contact with the enemy;

ii. Mechanical minelayers are unavailable; and/or

iii. Use of mechanical minelayers is inadvisable because of terrain restrictions.

b. A mine warfare platoon can manually lay 200 to 300 Anti-armour/Antitank (AT) mines in 1 to 2 hours. It can recover about 200 AT mines an hour if the mines are not equipped with self-destruct or antihandling devices.

c. **Mechanical laying**. OPFOR engineers rely extensively on mechanical minelayers. These can bury or surface-lay AT mines. The layout of mechanically emplaced minefields is the same as those emplaced by hand.

d. The usual sequence for mechanically laying mines is to emplace the most forward minefield first and thus to work progressively back to friendly defensive positions. The method is illustrated at Figure 63. The mechanical minelayers are aligned parallel to the battle line and start at intervals to stagger the minelayers in an echelon formation as they advance. This ensures that the mines in one row are not directly behind those in another when approached

by the enemy perpendicular to the field. This increases the probability of any enemy vehicle encountering a mine. Mines can also be laid from helicopters or vehicles with the use of chutes (slides) as described below.

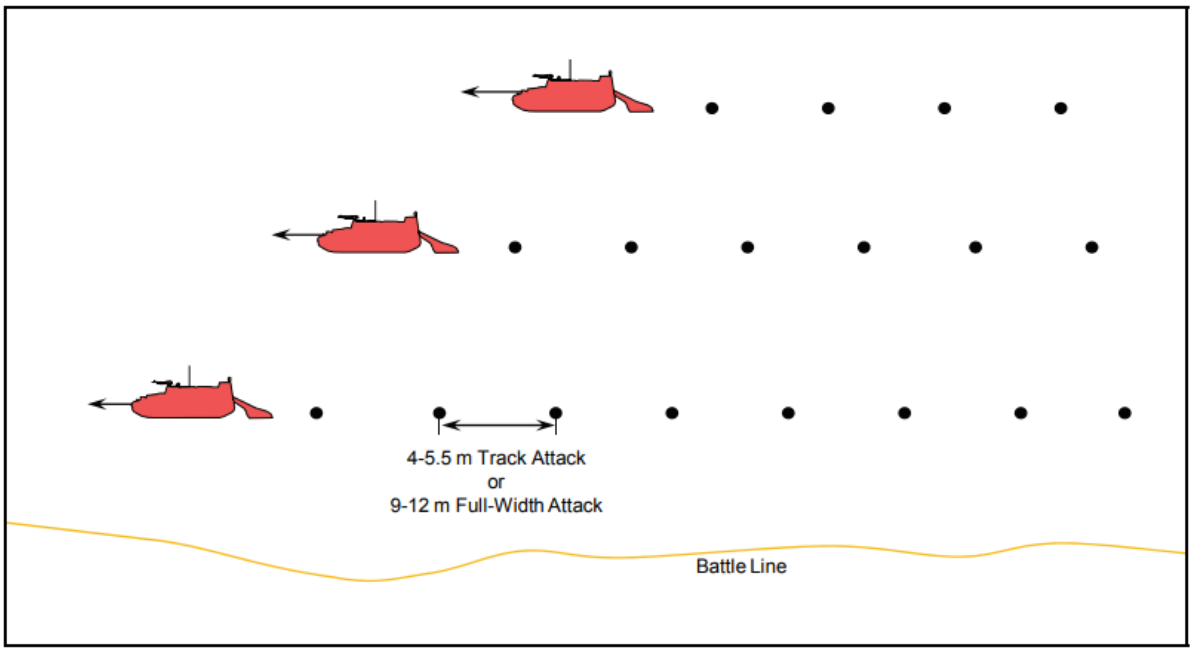

Figure 63 - Mechanical anti-tank minelaying

e. **Remote/scatterable minelaying.** The OPFOR regards remote minelaying as a key and potentially decisive tool for use in both offensive and defensive operations. It offers the means to rapidly project degrading, delaying, and disruptive effects anywhere in an *area of responsibility* (AOR) and so instantly change a tactical situation. Delivery systems include fixed wing aircraft, helicopters multiple rocket launchers, ground vehicles or infantry hand launchers. Effects are achieved with limited manpower requirements or exposure of own forces.

83. Scatterable mines. The OPFOR consider scatterable mines a key weapons. Many OPFOR scatter-able mines incorporate self-destruct or self-neutralisation features that operate once a predetermined time has expired allowing friendly forces to use the terrain again. Others have sophisticated electronic filament, seismic or acoustic fuses that cannot be safely approached or manually disarmed, and some scatter-able mines include remote control features allowing them to be temporarily disarmed while friendly forces across a minefield. The OPFOR prefers to retain the element of surprise and deliver remote mines immediately before combat or during the battle. There are two types, deemed the -

a. **Covering minefield**. A *covering minefield* blocks the route of an advancing or withdrawing enemy with delaying and disruption effects; and

b. **Containing minefield**. A *containing minefield* is laid over the top of or around-to- enclose an enemy force with fixing, disruption and delaying effects.

84. **Delivery of remote and scatterable mines**. Remote, laid, and scatter-able mines are delivered by variety of means.

a. **Artillery delivery**. Multi-rocket launchers are the primary OPFOR means of remote minelaying, able to deliver large minefields in a brief engagement. For example, a single volley from a 220-mm MRL battery can deliver over 2,300 AT scatterable mines to a range of 10 to 35 km. This creates a minefield approximately 3 km wide or a *containing minefield* about 1,200 m wide and 1,200 m deep.

b. **Ground vehicles**. The OPFOR have a family of engineering vehicles equipped with multiple dispenser pods that can scatter both antipersonnel and anti-armour mines up to several hundred metres from the launch vehicle. There are new systems which are effectively specialised multibarrelled rocket launchers able to deliver POM-3 mines up to 15 km away. Such systems are key for rapidly emplacing *covering minefields* in response to threatened enemy manoeuvre or to contain an enemy force and are consequently often assigned to *reserve detachments*.

c. **Aircraft**. OPFOR fixed wing strike aircraft can deliver mines using parachute retarded canisters that scatter antipersonnel and anti-armour mines. This capability is normally only used in the

enemy's depth areas that are beyond the range of artillery systems. Helicopters provide the main OPFOR aerial minefield delivery systems, with some attack and medium-lift helicopters can be equipped to deliver canister scattered mines like those used on fast jet aircraft. However, two helicopter specialised methods predominate.

i. **Chute minelaying**. The OPFOR conducts chute minelaying from helicopters where mines are contained on racks or cassettes within the cargo hold of the helicopter and fed by conveyor belt down a chute at the rear where they are armed before being dispensed. Old medium-lift helicopter versions require the tail of the chute to be in contact with the ground, limiting the helicopter to fly at 3 m, and at no more than 50 kph. This positions mines positioned at intervals between 5 and 10 m, allowing 50 to 60 anti-armour mines to be laid in a single sortie row up to 600 m long. Later versions of the chute system allow more scattered dispensing, from up to 200 m altitude and 160 kph and are able to dispense up to 200 mines in mine strips of up to 800 m long. In both versions, the OPFOR typically uses multiple helicopters flying in the echelon to deliver parallel rows.

ii. **Dispenser minelaying**. OPFOR dispenser minelaying is executed with mine- filled aerodynamic containers that are attached to weapon pylons. Each container is filled with cassettes that use pyrotechnic charges to sequentially eject mines at a height between 20 m and 100 m. The number of mines depends on the aircraft and mine type. A single medium lift aircraft can dispense nearly 8000 pressure antipersonnel mines, 450 bounding antipersonnel mines and/or 116 anti-armour mines while travelling at up to 230 kph. An antipersonnel strip minefield 20 m wide could be up to 2 km long.

d. **Infantry delivery**. The OPFOR employs soldier-portable backpacks and handcart mine dispensers to launch and scatter mines. These mainly deliver small antipersonnel mines out to about a hundred metres, but the OPFOR also have systems that will project anti-armour mines to much greater distances. While these systems are principally used for rapidly installing small defensive minefields and closing gaps in other obstacles, the OPFOR will use them aggressively. This will not only occur during defensive operations when, for example, ambush-like effects from *disruption patrols* occurred but also during offensive operations to locally fix or disrupt enemy in-depth positions or on the flanks of an advance. *Special-purpose forces* may make use of them during raiding operations.

85. **Types of minefields.** The OPFOR lay various types of minefields: anti-armour, antipersonnel, mixed, and controlled.

a. a. **Anti-armour minefields**. Anti-armour (abbreviated AT for antitank) minefields are the primary type of OPFOR engineer obstacle and serve to destroy or disable armoured vehicles. They are laid in belts consisting of multiple rows and will be tied into terrain obstacles where possible. The OPFOR usually emplaces AT minefields on a frontage of 200 to 300 m or more and to a depth of 60 to 120 m. The mines are laid in belts of three or four rows with approximately 20 to 40 m separating each row. The normal spacing between AT mines in the rows is 4 to 5.5 m for pressure-activated mines as illustrated at Figure 13 below. In contrast, the spacing is 9 to 12 m for full-width-attack mines as illustrated at Figure 14. The normal mine outlay for 1 km of frontage in AT minefields is usually 300 to 400 full-width-attack mines, or 550 to 750 pressure-activated mines. The OPFOR may increase this to 1000 or more AT mines per km of frontage which it then refers to as a "*minefield of increased effectiveness*."

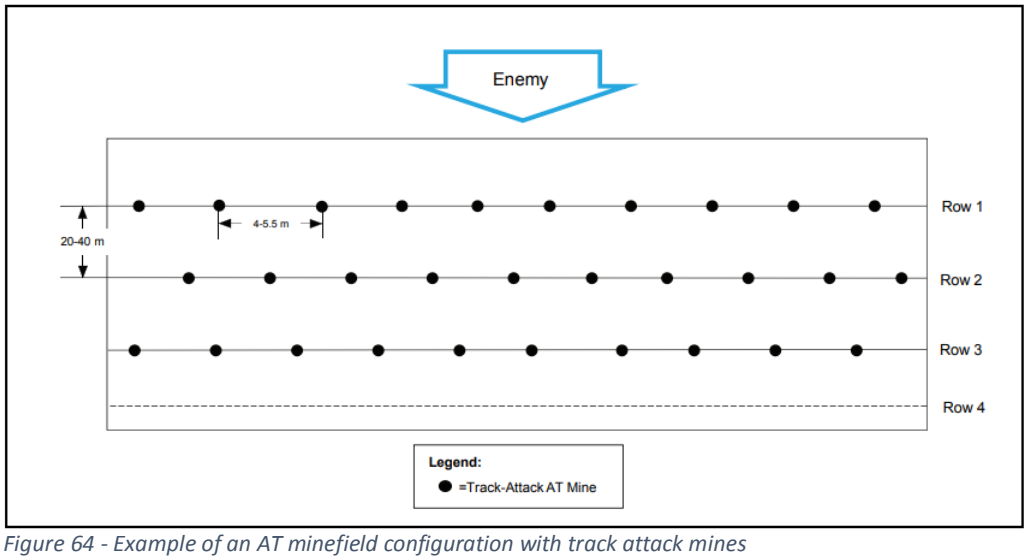

Figure 64 - Example of an AT minefield configuration with track attack mines

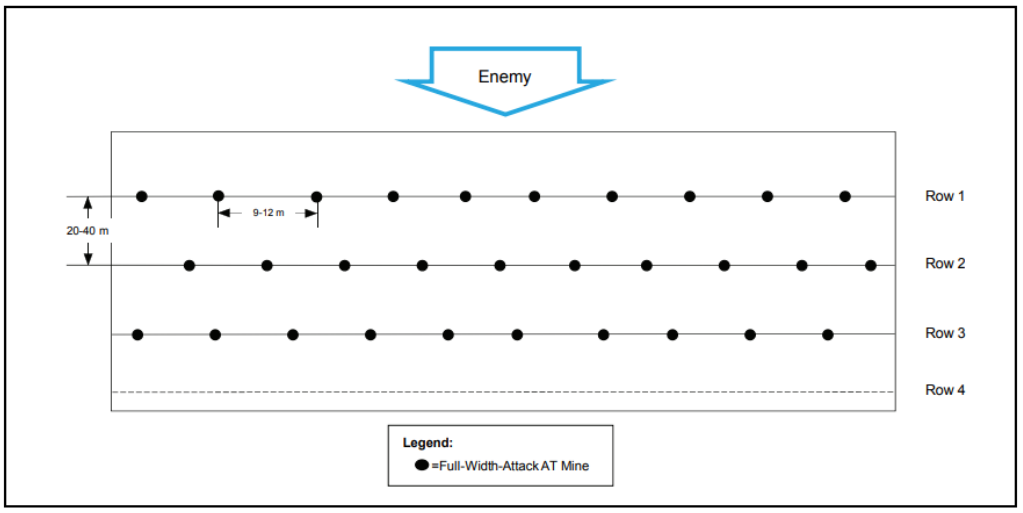

Figure 65 - Example of an AT minefield configuration with full width attack mines

b. **Antipersonnel minefields**. OPFOR antipersonnel (AP) minefields consist of contact blast mines, fragmentation mines or even a mixture of the two. They are placed on a frontage greater than 30 m, with a typical depth, with 2 to 4 rows and a distance of 5 m between rows, making belt width between 30 and 50 m. Intervals between mines in rows are at least 1 m for contact blast mines and up to twice the destructive radius of the particular type of mine for fragmentation mines. As shown at Figure 15 below, configurations vary with mine type and effective radius of destruction. The top left arrangement is the simple configuration for blast mines which are no closer than 1 m to each other in order that the detonation of one does not disturb another. In the other three examples, the effective fragmentation radius varies between 6 m and more than 25 m and the configuration varies accordingly.

c. The OPFOR typically will lay 2 to 3000 blast or 1 to 300 fragmentation mines per kilometre of front but may increase this by a factor of up to 3 for increased effectiveness. In urban environments, the OPFOR may lay 2 to 3 fragmentation mines for every 50 to 100 m of street. It prefers to use blast mines and fragmentation mines within buildings.

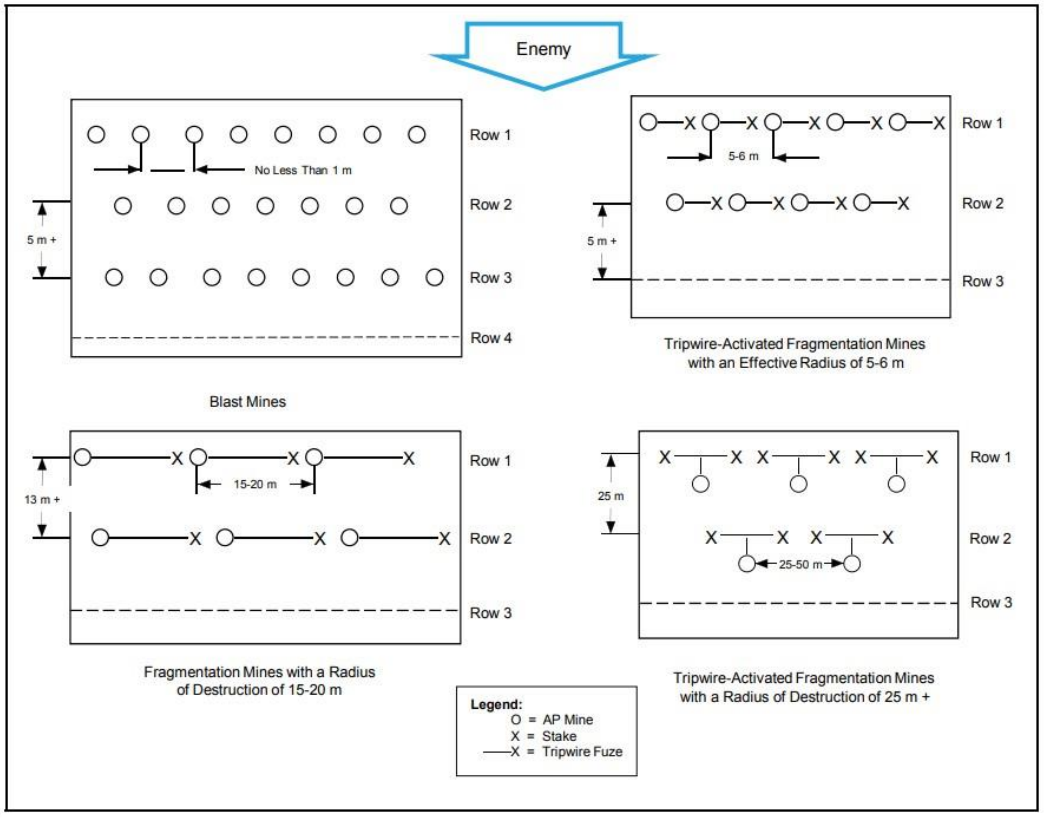

Figure 66 - Example of four different configurations of antipersonnel mine field

d. **Mixed minefields.** Mixed minefields contain both Anti-armour/antitank (AT) and Antipersonnel (AP) mines which are generally laid as homogenous rows of either AP or AT mines because mechanical minelayers cannot lay both types in the same row. An example of a mixed minefield with alternate rows of blast AP and track attack AT mines is shown at Figure 67. An alternative example, with rows of blast AP mines at the front of the minefield and behind that, and full width AT mines is shown at Figure 68. However, mixed minefields may still have AT and AP mines intermingled if they are laid manually or scattered. AT mine requirements are used to determine a mixed minefield's parameters, outlay, and density.

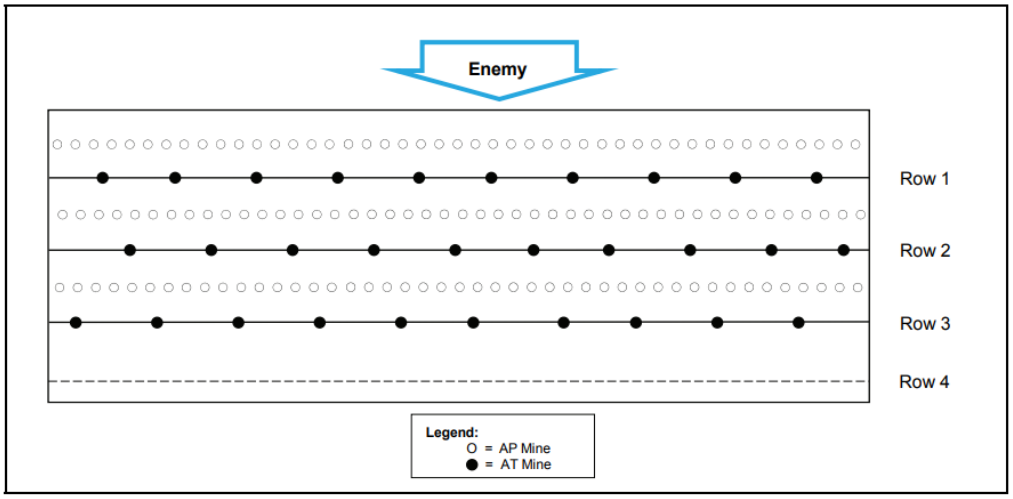

Figure 68 - Example of a mixed minefield with blast AP mine rows leading to full width attack AT mine rows

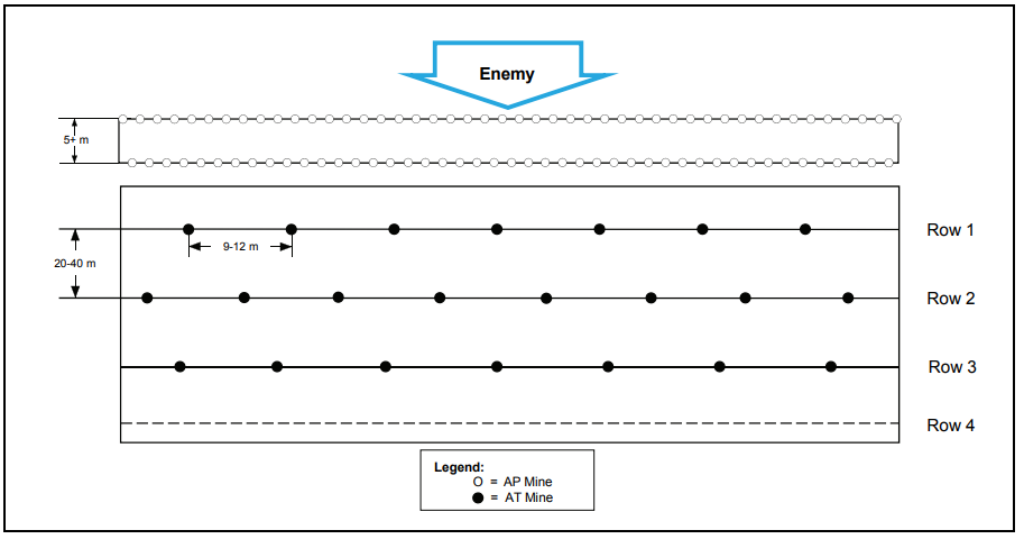

Figure 67 - Example of a mixed minefield with blast AP mine rows between track attack AT mine rows

e. **Decoy minefields.** The OPFOR make extensive use of decoy or false minefields as part of their deception plan. This is typically achieved by disturbing the soil, leaving minelaying debris, and directing fences and markers.

f. **Anti-landing/anti-air minefields**. The OPFOR seeks to deter, disrupt, or prevent landings by amphibious, airborne or heliborne assault forces by using anti- landing mines and *demolitions* integrated with other obstacles as possible *landing zones and drop zones* as well as potential engagement positions for enemy attack helicopters. These may be specialised waterproof mines that are used on shorelines, jetties, riverbanks and especially at potential river crossing positions, or they may be sophisticated specialised anti-helicopter mines that have acoustic and thermal sensors. Often, however, anti-land minefields may use conventional anti-armour mines with modified fuses. For example, anti-armour tilt rod fuses may be fitted with paddles so that helicopter downdraught will cause them to initiate.

g. **Controlled minefields**. The OPFOR will increasingly lay controlled minefields with mechanisms that allow an operator to switch mines between the armed and unarmed condition. The control mechanism most commonly uses coded radio signals but may also be applied by command wire. This method may allow control of an entire minefield or more commonly, a section. The OPFOR may

use controlled minefields to assist *withdrawing elements* in breaking clean or to separate enemy elements to achieve favourable force ratios. *Special purpose forces* may lay them in depth areas, especially during offensive operations, to disrupt withdrawing enemy but not cause friendly casualties.

Survivability

86. The OPFOR consider that artillery and other fires are potentially a decisive effect on the contemporary battlefield, and that Western employment of long-range precision fires represents a highly significant threat. Their focus on survivability as a prerequisite to other operations must be understood in this light. Engineers have a central role in *adaptive operations* which reveals much about their approach to all operations. Requirements include –

a. Taking full advantage of screening, protective, and Camouflage, Concealment and Cover and Deception (C3D) techniques, along with careful selection of terrain to passively deny the enemy the ability to acquire OPFOR positions for targeting;

b. Making extensive use of local building materials, equipment, and work force;

c. Protecting Command Posts (CPs) and logistics sites;

d. Burying communications lines;

e. Constructing false positions, equipment, movement routes, and LOCs;

f. Assimilate minefields and obstacles to the terrain; and

g. Preparing caves, tunnels, and tunnel complexes in which troops can live and from which they can fight.

87. The construction of battle and fighting positions is vital but labour-intensive, especially within OPFOR concepts of operations that envisage *primary, temporary alternative* and *deception positions* may be used in a defensive scheme. Engineer resources are limited, especially below brigade level, and must be focused on tasks that they alone can do or have a high priority role in. The OPFOR consider survivability a shared responsibility where all other troops work to protect themselves and engineers will assist with higher payoff tasks. Great emphasis is placed on other units managing engineer effort efficiently – for instance, marking out where trenches are to be excavated. Typically, fortification responsibilities might be divided into the following. - -

a. **Soldiers**. They dig individual fighting positions and trenches;

b. **Combat vehicles.** Crews dig in using equipment and hand tools**.** Several hundred vehicles in a mechanised infantry division may have self- entrenching capability

c. **Engineers**: Their role is to use plant and machinery to dig in

i. Critical equipment, Define (C2) sites, medical posts, and ammunition dumps;

ii. Bunkers and deep shelters;

iii. Communications and fighting trenches;

iv. Tank and IFV or APC emplacements; and/or

v. Supervise and assist other arms troops in excavating, re-vetting and roofing bunkers.

Camouflage, concealment, cover and deception

88. The OPFOR places great emphasis on various camouflage, concealment, cover and deception (C3D) measures to mislead the enemy about the size and location of forces and weapon systems and about the nature of defensive engineer preparations, especially during *adaptive operations*. Engineers emphasise the –

a. Use of screening properties of terrain, darkness, and other conditions of limited visibility during engineer preparation of defensive positions and positioning of forces;

b. Camouflage painting of material;

c. Use of local materials and standard-issue camouflage screens;

d. Strict camouflage, noise, and light discipline;

e. Construction of false battle positions, decoy positions, and decoy equipment;

f. False actions to draw attention; and

g. Assimilation of minefields and obstacles to the terrain.

89. OPFOR applications of C3D are, however, not limited to offensive operations and are key to their concept of offensive actions. They place particular importance on the use of obscurants, including smokescreens, but also other scattered materials and the following.

a. **Camouflage screens**. The OPFOR train extensively on creating camouflage screens using natural materials, including such techniques as transplanting living foliage. They also expect to use artificial camouflage as a supplement or alternative when natural screens will not suffice and multispectral camouflage nets, covers, and individual colours are widely used.

b. **Decoys**. All OPFOR units receive special training and regularly practice constructing decoys from locally available materials as well as using obsolete or derelict equipment or even civilian sourced items. Much attention is given to the cognitive principles underlying this deception to achieve maximum effect and ensure credibility is reinforced by the pattern in which the enemy discovers a decoy as well as the quality of the signature it provides. The OPFOR favour engineer simulation measures that can be easily transported and rapidly constructed as well as false excavations that may be only a fraction of the depth of the actuals and use visual techniques such as placing darker materials inside them, to deceive.

AVIATION

90. The OPFOR takes advantage of the flexibility and potential for massing effects of air support to both integrate air firepower and other fires to attack the greatest ground threats and redeploy resources to seize opportunities. This section considers both the OPFOR Air Force and Army Aviation.

Aviation missions

91. The Air Force and army Aviation have the following missions -

a. **Counter-air**. Counter-air missions are mainly conducted at the theatre or operational level and integrate offensive and defensive air operations to achieve the required degree of air dominance (parity, local superiority, superiority, supremacy). This is an Air Force mission, but some attack helicopters can be configured to launch air to air missiles. This would likely only be employed against other helicopters.

b. **Interdiction.** Theatre level Air Forces conduct fixed wing interdiction on the enemy's combat power before it can be used to inflict damage on friendly forces. These are flown to attack targets, beyond the range of friendly service weapons, and require little integration between friendly air and ground forces.

c. **Air reconnaissance and targeting.** Air reconnaissance by fixed wing aircraft is a principal means of gathering deep target intelligence and is planned at the Operational-Strategic Command OSC) level and executed by specially equipped Aviation assets (e.g., a reconnaissance Aviation regiment). Target information may immediately be transmitted to ground Command Posts (CPs) to support tactical combat actions.

d. **Helicopter reconnaissance and security**. Attack helicopters may be employed for forward armed reconnaissance over insecure terrain when visibility is limited, target information is incomplete, or enemy flanks are unprotected. They operate in flights of two conducting high-speed low altitude penetrations. This is however considered high risk and it is more likely that they are employed in the counter reconnaissance battle against *forward enemy elements*, mainly operating from areas observed by friendly forces. Attack helicopters are often used to protect the flanks of *manoeuvring forces* or as convoy escorts.

e. **Attack**. The OPFOR consider fixed wing airstrikes and helicopter attacks within the enemy's tactical depth against assembly areas, supply routes, artillery positions, forward air bases or reserves, to be attack missions. Attack helicopter missions against depth enemy armour still in column may occur, but otherwise deeper missions are unusual except in support of heliborne or airborne landings where they provide security, armed escort, and preparation of landing zones by fire. Planning and coordination are exercised by the *airspace operations subsections* (AOS), described below.

f. **Direct air support – fixed wing.** The purpose of *direct air support* (DAS) is to disrupt and destroy enemy forces that are in proximity to friendly forces. While it is the least efficient application of fixed wing air power against *ground forces*, it can be the most critical to ensure their success and survival. It is applied against priority targets that other systems cannot engage or where mass concentration of fire is required. Care is taken to minimise fratricide and ensure friendly aircraft only operate when covered by the fire of friendly weapon systems and under the air defence coverage of friendly systems. All aspects of DAS missions are controlled by a forward air controller (FAC) who keeps visual contact with the target while the aircraft are on station and specifies -

i. An initial point (IP) from where the aircraft come under control;

ii. Aircraft attack positions;

iii. Friendly troop locations;

iv. Target locations;

v. Exact time to execute the attack; and

vi. The ground situation.

g. **Direct air support – rotary wing**. Army Aviation providing DAS is a primary asset for the OPFOR commander offering fire support throughout *disruption* and *battle zones* with an emphasis on destroying armoured targets. They will often operate from behind ground forces and fire over them thus obtaining protection from air defence assets and the covering fire ground systems. Commanders will use ground platforms fire, including smoke missions, to create opportunities for helicopters to manoeuvre into firing positions. They will work in groups of up to 8 aircraft and

operate in pairs with one aircraft concentrating on the target and the other providing local protection.

h. **Insertion – rotary wing**. Helicopters are regularly used for inserting ground forces or reconnaissance assets, typically in the *disruption zone* and using multirole combat support helicopters which are capable of being armed. Insertion is usually done under cover of darkness and 2 to 6 hours before the intended ground action. Landing zones are selected beyond the range of enemy direct fire weapons and are likely to be prepared with artillery or attack aircraft fire. Another key insertion function is the redeployment of anti-tank teams in response to an enemy armoured threat.

i. **Obstacle laying and electronic warfare.** Combat support helicopters may also be used to deploy mines. These may be scattered antipersonnel types, surface row laying of anti-armour mines, or the more recently introduced smart top-attack anti-armour mines. Helicopters may often also be equipped with jammers and similar systems to carry out Electronic Warfare (EW) missions. This is discussed elsewhere later in this chapter.

j. **Transport, resupply, and logistic tasks**. Transport missions for airlift, airborne insertion, airdrop, and aerial resupply are all conducted by Air Force fixed wing transport. These will typically require large, *restricted operations zones*. Helicopter transport missions may be conducted by both combat support (multipurpose) and combat service support helicopters, but generally the former will operate in the battle area and the latter will be employed in the *support zone* to take advantage of their greater capacity.

92. **Uncrewed air vehicles.** Uncrewed air vehicles (UAV) play a large and increasing role in supporting OPFOR operations, as they are able to operate wide as well as deep, day and night and (depending on platform) in all weathers in near real-time without the risks of employing crewed aircraft. UAVs are capable of locating, recognising, and in some cases engaging enemy forces, moving vehicles, weapons systems, fixed structures, and other targets. Some examples of OPFOR missions using in-service UAVs include—

a. Near real time reconnaissance and surveillance;

b. Target acquisition;

c. Direct attack (used as a mini-cruise missile or other weapons delivery system);

d. Laser designator(Some UAVs can be fitted with laser designators to mark targets, and others may be armed);

e. EW tasks (such as deception, GPS jamming, spoofing, meaconing [rebroadcast real GPS signals], or intercept);

f. Communications relay;

g. Security;

h. Vectoring; and

i. Cargo transport.

93. Increasingly, the OPFOR is employing a variety of smaller commercial and military off- the-shelf UAVs, especially multirotor platforms. These are being used *by stationary elements* to provide security, while Special Forces and reconnaissance troops are using them to probe ahead of their movements and seek targets. The OPFOR have a variety of approved kits, allowing such systems to deliver modified in-service munitions.

Aviation employment and command and control (C2)

94. The way that the OPFOR employ Aviation assets is heavily influenced by the capability of the opponent. If fighting a superior military, they will centralise control of fixed wing aircraft at theatre level and rotary wing at *operational strategic command* (OSC) level, this allows them to better preserve their assets and employ them effectively during limited windows of opportunity. In contrast, against a weaker opponent, where superiority has been established, fixed wing aircraft are task organised down to OSC, and rotary wing aircraft down to brigade tactical groups. They understand that this will give them maximum flexibility.

95. **Rotary wing aviation – organisation**. Helicopters have a key role in supporting the ground commander in the combined arms fight and will normally be organised and commanded in one of three ways.

a. **Integrated fires command**. The *integrated fires command* (IFC) headquarters structure exists to task organise and maximise the synchronisation and integration of fire support. If the focus of rotary wing effort is to support fires, the IFC may be assigned an attack helicopter unit to conduct attack, direct air support or reconnaissance or CSS helicopters for troop movement, resupply and C2.

b. **Division tactical group**. Where Army Aviation formations or units are not focused on fire support but have other key tactical functions in their own right, they may be assigned to and commanded by a *divisional tactical group* (DTG). An example is where attack helicopters are used in reconnaissance and security roles. Alternatively, this assignment might occur where they are being employed as *manoeuvre elements* within the ground commanders' scheme of manoeuvre executing such functions as *disruption*, fixing, assault, exploitation, reserve, or deception.

c. **Brigade tactical group**. Where Army Aviation elements are primarily providing support to other functions, they are likely to be assigned at BTG level. An example is when the motorised infantry BTG is conducting Heli born assaults, it might be allocated a medium lift helicopter Battalion to insert infantry units and attack helicopter battalion to provide security, an armed escort, and prepare the landing zone with fire.

Airspace management

96. OPFOR doctrine stresses the need to provide maximum Aviation support to ground force commanders. Concurrent use of attack helicopters, fixed-wing ground-attack aircraft, UAVs, artillery, and air defence systems in the same part of the *area of responsibility* (AOR) depends on deconfliction, coordination measures, and controls. The primary responsibility for this rests with the *chief of airspace operations* (CAO), under the operations officer at *operational strategic command* (OSC) level. An OSC is the lowest level of joint command of both Army and Air Force units. The deconfliction of airspace use and advice to commanders and staff on using air assets is provided by *airspace operations subsections* (AOS). These provide a vertical and horizontal channel to coordinate, disseminate, and synchronise all air aspects with the battle plan. This includes transmission of air support requests to higher levels, coordination of all air support, and maintaining communication with and flight deconflicting all aircraft in the *area of responsibility* (AOR). The AOS at the theatre level promulgates the *aviation support plan* (ASP) which is the commander's overall plan for their operations.

97. **Airspace control measures**. Airspace control is accomplished either by positive or procedural means. An understanding of procedural control assists in anticipating OPFOR tactical employment of air assets.

a. **Positive control**. Positive control is a method of human airspace control that relies on electronic means such as positive identification, tracking, and aircraft vectoring, done by radar control or electronic monitoring. Positive control is established by air traffic control services around airbases and in the *support zone*. As aircraft depart these areas, they are handed off to subordinate airspace coordination facilities and then finally to the tactical controllers they approach their AOR.

b. **Procedural control**. Procedural control relies on previously coordinated disseminated orders and procedures to control the flow of air traffic. It relies heavily on separation of airspace horizontally and/or vertically, including the use of buffer zones. Every level of command down to *brigade tactical group* (BTG) has its own unique airspace structure.

i. **Coordinating altitudes**. Coordinating altitudes ensure separation. Artillery coordinating altitudes are typically at 6000 m define(AGL) or higher and aircraft penetrating below that notify the relevant AOS. Helicopters typically are limited below 175 m AGL and fixed wing aircraft are no lower than 275 m AGL.

ii. **Airspace control zone**. An airspace control zone is defined by geographic features and extending vertically to a given altitude. It is employed to control high density of usage.

iii. **Restricted operations zone.** A *restricted operations zone* (ROZ) is a volume of airspace restricted horizontally, vertically, and by time of usage for a particular purpose such as a drop zone or UAV flight pattern.

iv. **Air routes.** Air routes control own aircraft through friendly airspace and prevent fratricide. They consist of a series of *air control points (*ACP) over the ground at specified altitudes which are linked by air corridors. They run from supporting airfields, following corridors through the air routes to the mission area for support tasks or the initial contact point where control is assumed by the forward air controller.

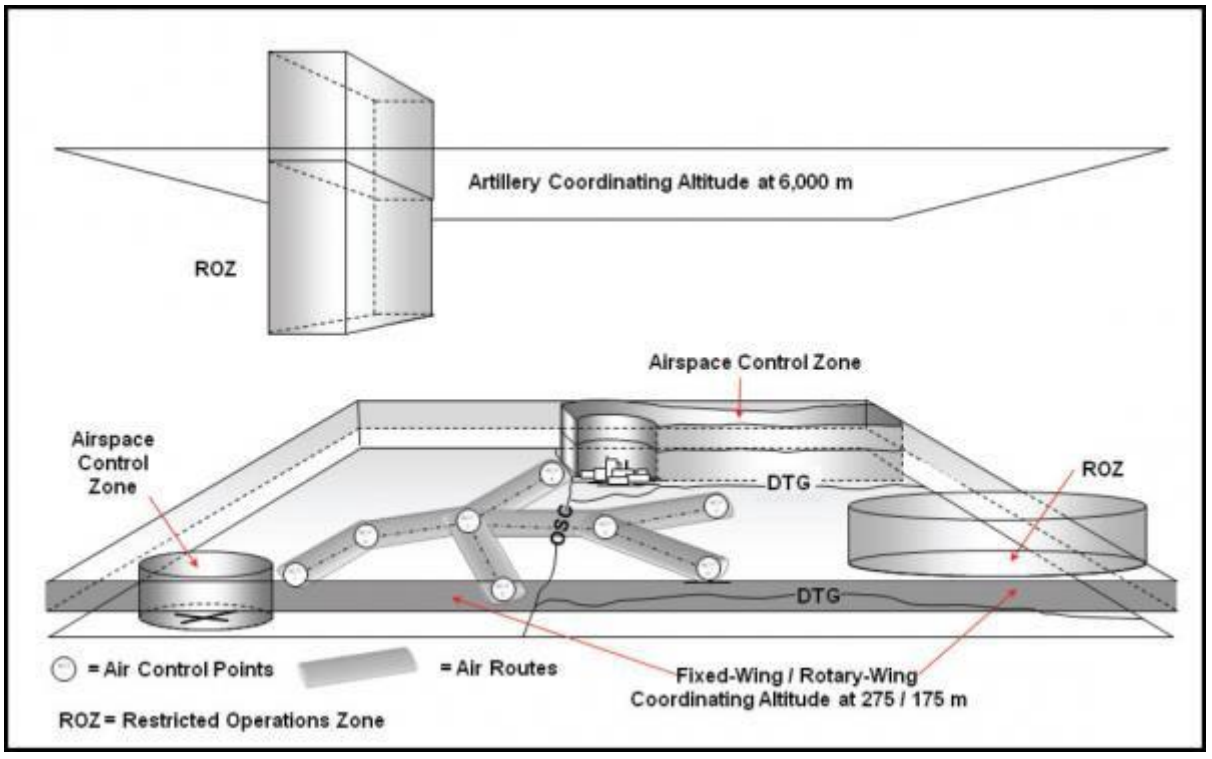

Figure 69 - Airspace procedural control measures (example)

98. **Air defence control measures**. The main OPFOR Aviation means of avoiding fratricide is the identification friend or foe (IFF) system. To further protect friendly aircraft, strict procedural controls are disseminated daily through AOS channels. For pre-planned missions' air defence coverage may be briefly switched off, but for other missions' aircraft may only be able to transit using safe corridors. The OPFOR consider the risk of fratricide more acceptable than allowing gaps in its air defence that the enemy might exploit.

99. **Fire support coordination measures**. Fire support coordination measures are required to manage the significant risk to aircraft of indirect fire. Artillery planning and engagement data is provided to the AOS at the relevant level of command to manage this.

SMOKE

100. The OPFOR places much higher importance on the use of smoke than most Western militaries, and unlike the West, it continued to maintain capability for and train with smoke after World War II and it intends to employ smoke extensively on the battlefield whenever the situation permits. Use of smoke can make it difficult for the enemy to conduct observation, determine the true disposition of OPFOR troops, and conduct fires (including precision weapon fires) or air attacks. The presence of toxic smokes may cause the enemy to use chemical protection systems, thus lowering their effectiveness, even if the OPFOR is using only neutral smoke. The OPFOR believe that, if anything, the utility of smoke is enhanced with the increase in the number of overhead sensors, uncrewed systems and precision munitions.

101. **Organization**. In the administrative force structure, army groups, armies, and corps typically have smoke companies in their chemical defence battalions and/or smoke battalions. Usually, the smoke companies each consist of smoke-generator trucks and smoke-generator trailers. The generators carried on the trailers can be towed by combat vehicles or may be mounted on other vehicles. The smoke companies also have assorted smoke pots, drums, barrels, and grenades. The decontamination company subordinate to a chemical defence battalion has some systems that can also generate large-scale protective smokescreens as a secondary mission and may augment a smoke battalion or company when required. These smoke-generating assets are often allocated to operational *strategic commands* (OSCs), which can then sub allocate them to tactical- level subordinates.

102. **Agents.** The OPFOR employs a mix of smoke agents and their delivery systems, as well as improvised obscurants to generate obscuration effects. Smoke agents may be either neutral or toxic. Neutral smoke agents are liquid agents, pyrotechnic mixtures, or phosphorus agents with no toxic characteristics. Toxic smokes (commonly referred to as combination smoke) may include tear gas or other agents. They degrade electro-optical (EO) devices in the visual and near-infrared (IR) wavebands. They can also debilitate an unmasked soldier by inducing watering of the eyes, vomiting, or itching.

103. Some of these smokes and other obscurants contain toxic compounds and known or suspected carcinogens. A prolonged exposure to obscurants in heavy concentrations can have toxic effects. The toxic effect of exposure to fog oil particles is uncertain and as is true of all smokes, depends heavily upon dose, time, and frequency of exposure. The more common obscurants used by the OPFOR include–

a. Petroleum smokes (fog oil and diesel fuel);

b. Hexachloroethane (HC) or hexachlorobenzene (HCB) smoke;

c. Aluminium-magnesium alloy smoke (Type III IR for bispectral effects–visual/IR bands);

d. Phosphorus: white phosphorus (WP), red phosphorus (RP), WP/butyl mix (PWP);

e. Metallic (including graphite or brass) smokes for millimetre wave (MMW) band and multispectral effects; and

f. Improvised obscurants including coloured signal smokes, dust, and burning tires and oil wells.

104. The OPFOR recognizes the need to counter target acquisition and guidance systems operating in the IR and microwave regions of the electromagnetic spectrum. It has fielded obscurants, including chaff, capable of attenuating such wavelengths. Figure 70 shows example EO systems, operating frequency, and which obscurants they are defeated by.

Spectral Region	*Optical/Electro-Optical System*	*Type of Obscurant*
Ultraviolet 1 nm-0.4 µm	Developmental Sensors and Weapon Systems	Developmental Obscurants
Visible 0.4 µm-0.8 µm	Viewers: - Naked Eye - Day Sights, Optics - Camera Lens - EO Systems, Including Charged-Coupled Device (CCD) cameras - Battlefield TV and CCD TV ATGMs with Daylight Beacons	All NOTE: Obscurants can counter or degrade nighttime use of visual band illumination—including spotlights, flares, flashlights, and vehicle lights.
Near-IR 0.8 µm-1.3 µm	Viewers: - SACLOS ATGM Trackers - Night Vision (Image Intensifiers, IR) - CCD, aka Low-Light-level (LLL) TV Sensors: - Laser Designators, ND-Yag Laser - Laser Rangefinders, ND-Yag Laser	All NOTE: Obscurants can counter or degrade nighttime use of IR band illumination—including spotlights, flares, and night vision systems.
Short-Wave IR 1.3 µm-2.5 µm	Sensors: - Laser Rangefinders, Other Lasers - Laser Designators, Other Lasers	WP, PWP, RP, Dust, Type III IR Obscurant
Mid-IR 2.50 µm-7 µm	Viewers and Sensors (3-5µm): - Thermal Imagers - Terminal Homing Missiles	WP, PWP, RP, Dust, Type III IR Obscurant
Far-IR 7 µm-15 µm	Viewers and Sensors (8-12µm): - Thermal Imagers - Terminal Homing Missiles	WP and PWP (Instantaneous Interruption Only), Dust, Type III IR Obscurant
Millimeter Wave-Lower Frequency 300 GHz-30 GHz	Radars Communication Systems	MMW Band and Multispectral Obscurants

ATGM antitank guided missile GHz gigahertz ND neodymium nm nanometer
SACLOS semiautomatic command-to-line-of-sight guidance TV television µm micrometer

Figure 70 - Frequency of electro-optical and other systems and defeat obscurants

105. **As** shown in figure 70 smokes may operate in more than one band of the spectrum. The OPFOR is capable of employing obscurants that are effective in the visible through far-IR wavebands as well as portions of the MMW band. These obscurants are commonly referred to as multispectral smoke. The OPFOR uses several different smoke agents together for multispectral effects. For instance, an obscurant such as fog oil blocks portions of the electromagnetic spectrum more fully when seeded with chaff. The extensive use of White Phosphorous munitions by the OPFOR means that random mixtures of this agent with other obscurants (both manmade and natural) could occur, by chance or design.

106. **Delivery systems**. The OPFOR has an ample variety of equipment for smoke dissemination. Its munitions and equipment include—

a. Smoke grenades;

b. *Vehicle engine exhaust smoke systems* (VEESS);

c. Smoke barrels, drums, and pots;

d. Mortar, artillery, and rocket smoke rounds;

e. Spray tanks (ground and air);

f. Smoke bombs;

g. Large-area smoke generators (ground and air); and

h. Improvised means (such as setting fires in forests, urban areas, fields, or oil soaked ground).

107. Although not designed for this purpose, some decontamination vehicles with chemical defence units can also generate smoke.

108. Smoke grenades include hand grenades, munitions for various grenade launchers, and smoke grenade-dispensing systems on armoured vehicles. These grenades can provide quick smoke on the battlefield or fill gaps in smokescreens established by other means. Some armoured fighting vehicles have forward-firing smoke grenade dispensers that can produce a bi-spectral screen up to 300 m ahead of vehicles.

109. Some OPFOR armoured fighting vehicles can generate smoke through their exhaust systems. With these *vehicle engine exhaust smoke systems* (VEESS) equipped vehicles, a platoon can produce a screen that covers a battalion frontage for 4 to 6 minutes.

110. Smoke-filled artillery projectiles, smoke bombs, spray tanks, and generator systems are also common. Artillery can fire define (WP) rounds (which have a moderate degrading effect on thermal imagers and a major one on lasers). The OPFOR makes considerable use of smoke pots emplaced by chemical troops, infantrymen, or other troops. The OPFOR can still use smoke bombs or pots dropped by fixed-wing or rotary-wing aircraft.

Types of Smokescreens.

111. The OPFOR recognizes three types of smokescreens: blinding, camouflage, and decoy. Classification of each type as frontal, oblique, or flank depends on the screen's placement. Smokescreens are either stationary or mobile depending on prevailing winds and the dispensing means used. Each basic type can serve a different purpose. However, simultaneous use of all types is possible.

112. **Blinding**. *Blinding smokescreens* can mask friendly forces from enemy gunners, Observation Posts (OP) and target-acquisition systems. They can restrict the enemy's ability to engage the OPFOR effectively. Delivery of WP and plasticized white phosphorus (PWP) is possible using MRLs, artillery, mortars, fixed-wing aircraft, or helicopters. The OPFOR lays *blinding smoke* directly in front of enemy positions, particularly those of antitank weapons and OPs as part of the artillery preparation before an attack and the fires in support of the attack. Likely targets are enemy defensive positions, rear assembly areas, counterattacking forces, and fire support positions. The screening properties of a *blinding smokescreen* can couple with dust, HE combustion effects, and the incendiary effects of phosphorus. This can create an environment in which fear and confusion add to the material effectiveness of the smoke.

113. **Camouflage.** The OPFOR uses *camouflage smokescreens* to support all kinds of Camouflage, Cover Concealment and Deception (C3D) measures. Such screens can—

a. Cover manoeuvre;

b. Conceal the location of units;

c. Hide the nature and direction of attacks; and

d. Mislead the enemy regarding any of these.

114. The *camouflage smokescreen* is useful on, or ahead of friendly troops. These screens are normally effective up to the point where forces deploy for combat. The number, size, and location of *camouflage smokescreens* vary depending on terrain, weather, and type of combat action. Camouflage also forces enemy attack helicopters to fly above or around a screen, thus exposing themselves to attack. Camouflage smoke can also cover assembly areas, approaches of exploitation forces, or withdrawals. Smokescreens can also cover a wide surface area around fixed installations or mobile units that do not move for extended periods.

115. Establishing *camouflage smokescreens* normally requires use of a combination of smoke grenades, smoke barrels, smoke pots, vehicles (and trailers) mounting smoke generating devices, and aircraft. Some decontamination vehicles also have the capability to generate smoke. Two smoke-generator vehicles can lay a smokescreen of sufficient size to cover a battalion advancing to the attack. For larger smokescreens, the OPFOR divides the smokescreen line into segments and assigns two vehicles to each segment. Doctrinally, *camouflage smokescreens* should cover an area at least five times the width of the attacking unit's frontage.

116. The threat of enemy helicopter-mounted antitank systems concerns the OPFOR. Consequently, its doctrine calls for advancing forces to move as close behind the smokescreen as possible. The higher the smokescreen, the higher an enemy helicopter must go to observe troop movement behind the smokescreen, and the more vulnerable it is to ground-based air defence weapons. Depending on weather and terrain, some large-area smoke generators can produce screens up to several hundred meters high. There is considerable observation-free manoeuvre space behind a screen of this height. Conversely, smoke pots

provide a screen 5 to 10 m high. This screen masks against ground observation but leaves the force vulnerable to helicopters “hugging the deck” and popping up to shoot.

117. The protection produced by camouflage smoke also interacts as a protective smoke. Just as smokescreens can degrade enemy night-vision sights, the protective smoke can shield friendly Electro-optic (EO) devices from potentially harmful laser radiation. This protective effect is greater with a darker smoke cloud because of the better absorption capability of that cloud. *Protective smokescreens* are also a good means of reducing the effects of thermal radiation from nuclear explosions. A *protective smokescreen* is useful in front of, around, or on top of friendly positions.

118. **Decoy**. A *decoy smokescreen* can deceive an enemy about the location of friendly forces and the probable direction of attack. If the enemy fires into the *decoy smoke*, the OPFOR can pinpoint the enemy firing systems and adjust its fire plan for the true attack. The site and location of decoy screens depend on the type of combat action, time available, terrain, and weather conditions. One use of *decoy smoke* is to screen simultaneously several possible crossing sites at a water obstacle. This makes it difficult for the enemy to determine which site(s) the OPFOR is actually using.

119. **Area smokescreens**. *Area smokescreens* can cover wide surface areas occupied by fixed or semifixed facilities, or by mobile facilities or units that must remain in one location for extended periods. Screens set down on a broad frontage can also cover manoeuvre forces. The OPFOR uses *area smokescreens* to counter enemy precision weapons and deep attacks.

120. The means of generating *area smokescreens* can be either subordinate or supporting chemical units or the use of smoke pots, barrels, grenades, and *vehicle engine exhaust smoke systems* (VEESS). As the situation dictates, the objects screened by *area smokescreens can include –*

a. Troop concentrations and assembly areas;

b. Command Posts (CPs);

c. Radar sites; and

d. Bridges and water obstacle-crossing sites.

121. The OPFOR can also screen air avenues of approach to such locations. It tries to eliminate reference points that could aid enemy aviation in targeting a screened location. To create an effective smokescreen against air attacks, the OPFOR must establish an effective air defence and Chemical, Biological, radiological and Nuclear (CBRN) warning communications network so that a smokescreen can be generated in time to degrade reconnaissance and targeting devices on incoming aircraft. Units using smoke must maintain reliable communications and continuous coordination with air defence early warning units and air defence firing positions.

122. The OPFOR follows the following basic principles for generating *area smokescreens*, these are that -

a. Screening should include not only the protected object but also surrounding terrain or manmade features to deny the enemy reference points;

b. The protected installation should not be in the centre of the screen;

c. The smoke release points must not disclose the outer contours of the screened object;

d. Screening must be initiated early enough to allow the area to be blanketed by the time of the enemy attack;

e. If possible, *decoy smokescreens* should be used;

f. For larger objects (such as airfields and troop concentrations), the screen should be at least twice as large as the object; and

g. For smaller objects (such as depots, small crossing points, and radar sites), the screen should be at least 15 times as large as the object.

123. Depending on terrain, smoke release points are set up within a checkerboard pattern, in a ring (circle), or in a mix of the two patterns that covers the area to be screened.

a. **Checkerboard area smokescreen**. A *checkerboard area smokescreen* uses a pattern that is a rectangle that is divided into 2km squares with smoke release points distributed evenly within each square. This pattern is useful if the terrain is contoured or covered with buildings, trees, or other obstructions that prevent the precise distribution of smoke points. Figure 71 illustrates the method. Note that there is a *smokescreen* Command Post (CP) for each sector, with a munitions reserve, to ensure that breaks in the screen can be filled.

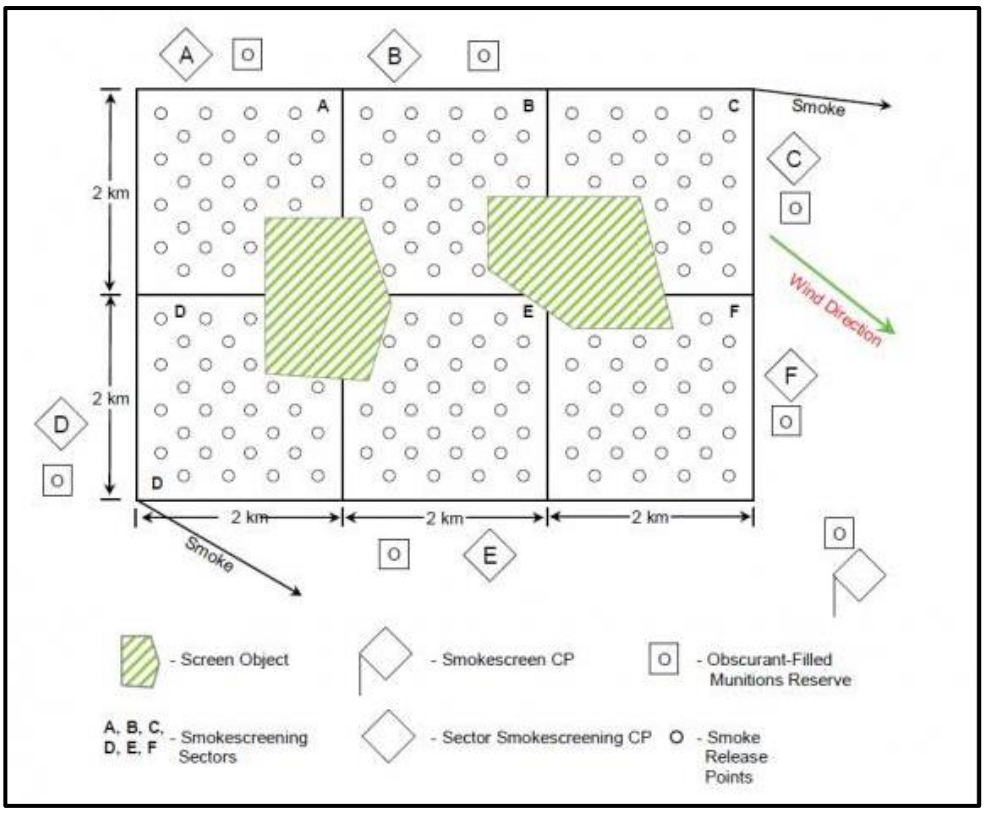

Figure 72 - Example of chequerboard area smokescreen operation

b. **Ring area smokescreen**. A *ring area smokescreen* uses a circle or set of concentric rings of smoke release points. This works well on relatively flat, featureless terrain. Figure 72 illustrates the method. Generally, the distance between the centre and the first obscurant-generation ring is 100 to 250 m. The distance between smoke release points within each ring varies between 20 and 100 m, depending on the obscurant device being used and the meteorological conditions.

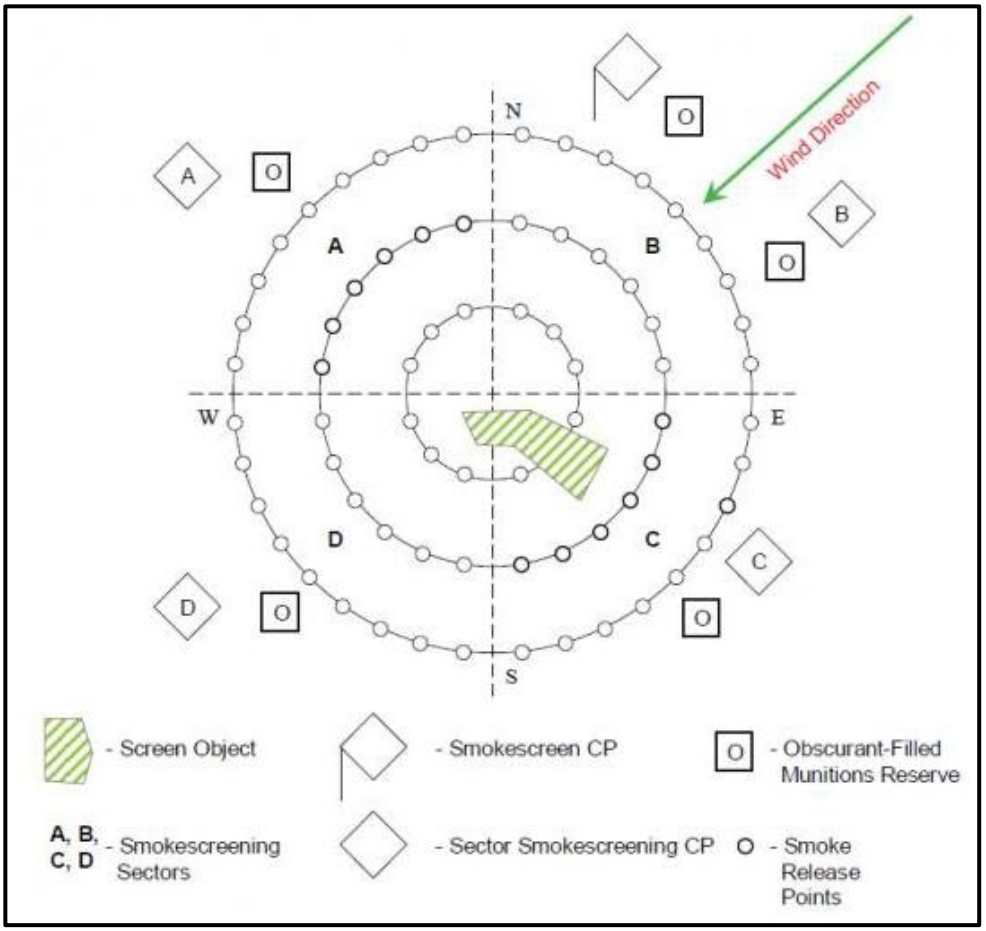

Figure 71 - Example if a ring are smokescreen operation

c. c. **Mixed area smokescreen**. The OPFOR uses *checkerboard area smokescreens and ring area smokescreens* together when objects 3 to 4 km apart must be screened simultaneously. This method is shown at Figure 20. The rings of smoke- generation lines are placed around each object to be screened, and these rings are placed within the squares of a checkerboard. Tactical smokescreen employment

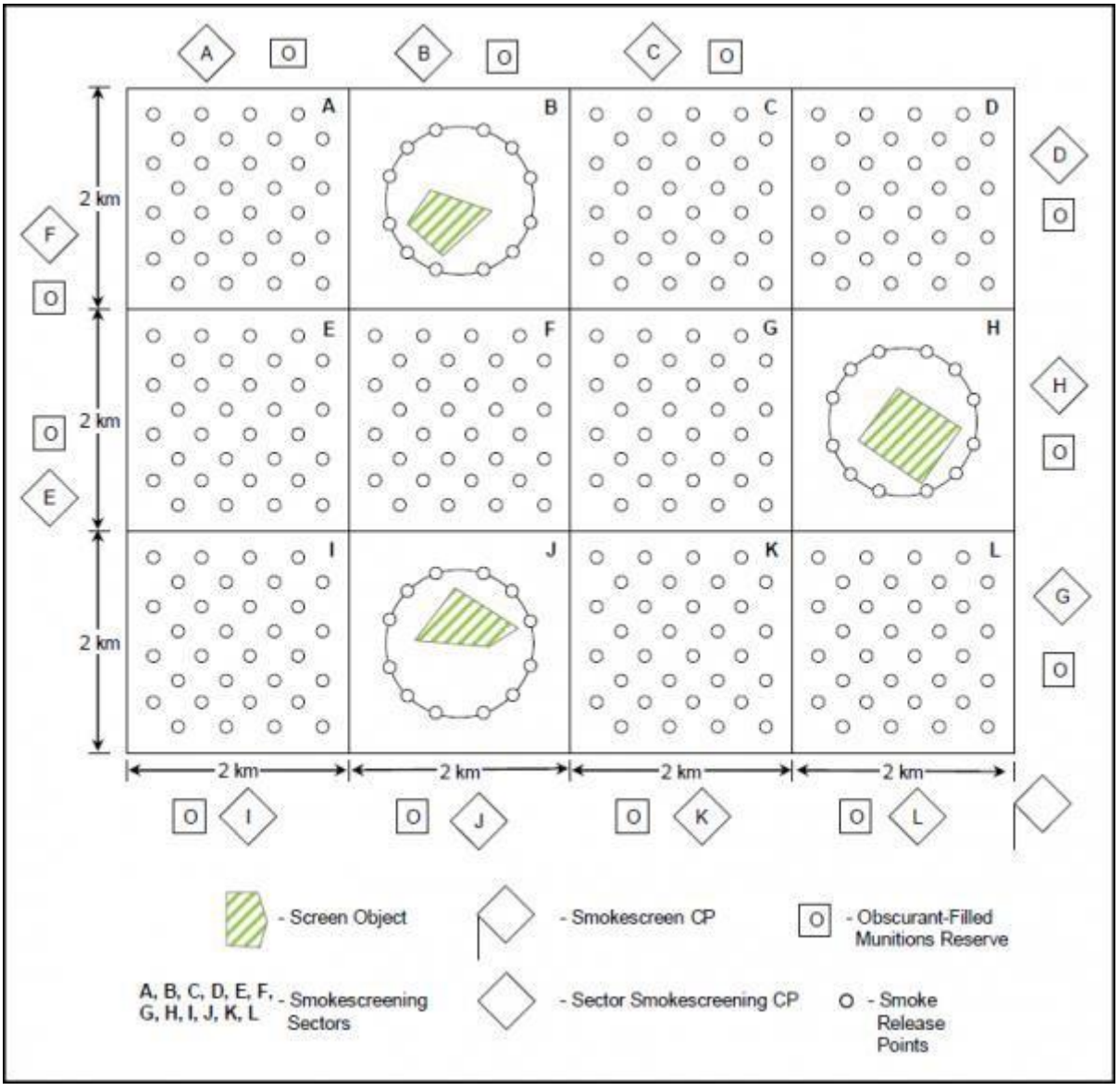

Figure 73 - Example of a mixed area smokescreen operation

124. The use of smoke is an important part of OPFOR tactical camouflage concealment, cover and deception (C3D) efforts. They will use smokescreens to blind or deceive enemy forces and to conceal friendly forces from observation and targeting. Smoke can screen units near the battle lines, as well as those in *support zones*, from direct fire, reconnaissance, air attack and particularly observation and attack from uncrewed air systems (UAS). It has applications in offense and defence, including tactical movement, and is particularly relevant for operations where there are periods of extreme vulnerability such as water obstacle crossings or in complex terrain to isolate enemy from support and disorientate them. Smoke also has specific applications at night which are explained below. Table 2 - The tactical employment, placement, and effects of obscurants. Figure 74 shows tactical purposes and placements for employing smoke and other obscurants.

Source	Placement			Uses			
	On Friendly	Between	On Enemy	Blinding	Camouflage	Decoy	Signaling
Smoke Grenade	X	X		X	X	X	X
Smoke Generator	X	X			X	X	
Smoke Pot	X	X			X	X	X
VEESS	X				X	X	
Vehicle Dust	X				X	X	
Helicopter	X	X	X		X	X	
Mortar/Artillery Smoke		X	X	X	X	X	X
Rocket		X	X	X			
Aerial Bomb		X	X	X			
Aircraft Spray	X	X	X	X	X	X	
Mortar/Artillery HE Dust		X	X	X			

Figure 74 - The tactical employment, placement, and effects of obscurants

125. **Offensive operations**. The OPFOR emphasizes the use of smoke during offensive operations to help reduce friendly battle losses. However, it understands that smoke may hinder its own Command and Control (C2), battlefield observation, and target engagement capabilities. In addition, the enemy may take advantage of OPFOR smokescreens to shield their own manoeuvres or to carry out a surprise attack or counterattack. Thus, a smokescreen is successful when the OPFOR attackers can maintain their assigned axis and retain sight of the objective. To prevent the smoke from interfering with friendly manoeuvre, OPFOR commanders coordinate the planned location and duration of the smoke-generation lines or points with the scheme of manoeuvre.

126. Smoke pots, artillery, mortars, and aircraft are the primary means of smoke dissemination during offensive operations. Artillery and aircraft are used to spread screening smoke throughout the tactical depth of the enemy's defence. They are also useful in screening the flanks of attacking units.

127. The OPFOR uses *camouflage, blinding, and decoy smokescreens* to conceal the direction and time of attack. The OPFOR can place smoke on enemy firing positions and OPs before and during an attack. Smoke has uses during various types of offensive action, which may be conducted against an enemy occupying defensive positions or an enemy on the move.

a. **Enemy in defensive positions**. During offensive operations, a *camouflage smokescreen* is typically used to conceal combat formations that are advancing and manoeuvring toward the enemy's defensive positions. With a tail wind, the *action and enabling forces/elements* can generate enough smoke to adequately screen their front. They can then advance behind the screen as it blows toward the enemy.

b. The example at Figure 75 shows an *independent mission detachment* (IMD) with two mechanized infantry companies and two tank companies. This IMD is advancing from a wooded area in platoon formations with a flanking wind. In such conditions, the IMD may use its *vehicle engine exhaust smoke systems* (VEESS) equipped tanks and Infantry Fighting Vehicles (IFVs) and smoke grenades. After turning on their VEESS, the tanks and IFVs advance toward the enemy's defensive positions while firing on visible targets. Dismounted infantrymen equipped with smoke grenades follow on foot behind the extended line of tanks and IFVs. As gaps develop in the smokescreen, the infantrymen approach and throw smoke grenades. Infantrymen can also fire smoke munitions from variants of the shoulder-fired flame launcher out to a range of up to 1 km. In this example, artillery also delivers *blinding smoke* where the wind will carry it through the enemy defensive positions.

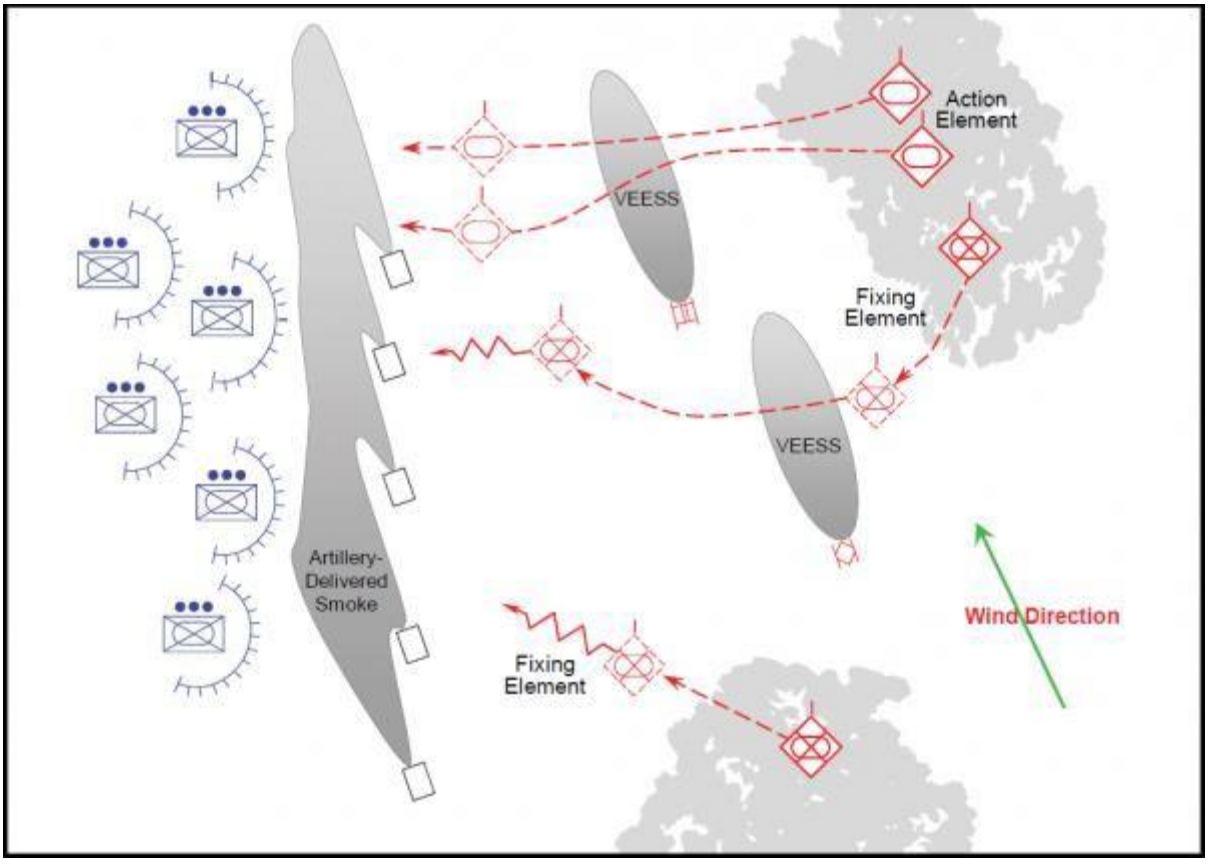

Figure 75 - Simple example of OPFOR employing smoke during an attack on enemy in defensive positions

c. Figure 76 shows another example of smoke employment during an attack against an enemy in defensive positions. In this example, the commander has more opportunity to plan and prepare for a coordinated smokescreen than in the previous example. Again, a *camouflage smokescreen* is used to prevent observation of advancing *fixing*, and *action elements*. As the advancing *action element* nears the rear of units of the *fixing element* already in contact with the enemy, the unit in contact may set up a *camouflage smokescreen* using smoke pots and *vehicle engine exhaust smoke systems* (VEESS) of forward-deployed armoured vehicles. In addition, artillery can deliver *blinding smoke* on enemy defensive positions while units of the *action element* negotiate minefields in front of them.

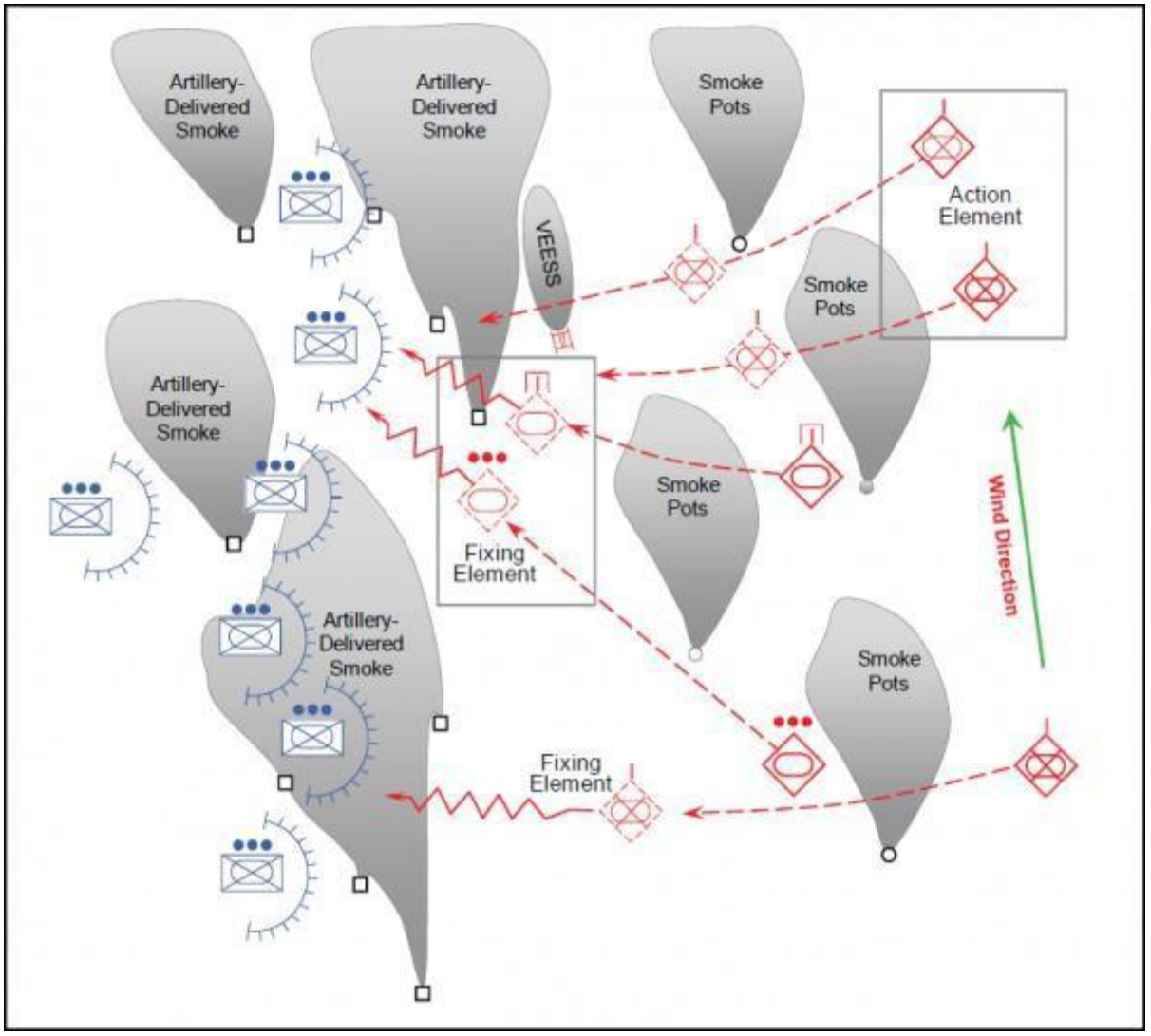

Figure 76 - More complicated example of OPFOR employing smoke during an attack on an enemy in defensive positions

d. **Enemy on the move**. The OPFOR will also use smoke when the enemy is on the move. Figure 77 shows an example of this with an *independent movement detachment* (IMD) using two *camouflage smokescreens* and one *decoy smokescreen*. An IMD based on a mechanized infantry battalion with an additional tank company is attacking toward the enemy's left flank (as viewed by the OPFOR). It is camouflaging that attack with a smokescreen laid by *vehicle engine exhaust smoke system* (VEESS) of tanks from the tank company. The tanks move at 100-m intervals to create a continuous smoke cloud. The distance was calculated based on meteorological conditions and the fact that a smokescreen can extend 300 to 400 m from a VEESS and still remain impenetrable to vision. Meanwhile, a mechanized infantry company facing the enemy's right flank lays a *decoy smokescreen* to divert the enemy's attention from the actual attack. One of the companies on the left flank lays smoke pots along a 1,500-m line at intervals of 20 to 25 m for a total burning time of 6 minutes. The company divides the work among its three mechanized infantry platoons, with each responsible for laying pots along 500 m of the line.

e. Another example of smoke employment in an offensive action against an enemy on the move could be the simultaneous use of frontal *camouflage and blinding smokescreens* during an enemy counterattack. Following an artillery attack against the enemy advancing for a counterattack, artillery would deliver *blinding smoke* directly in front of the advancing enemy and camouflage smoke in front of the advancing battalion-size mechanized infantry *detachment*. As soon as the *blinding smokescreen* on the enemy dissipates, the *detachment*'s antitank guided missiles (ATGMs) and augmenting tanks would open fire on the enemy. This is not illustrated.

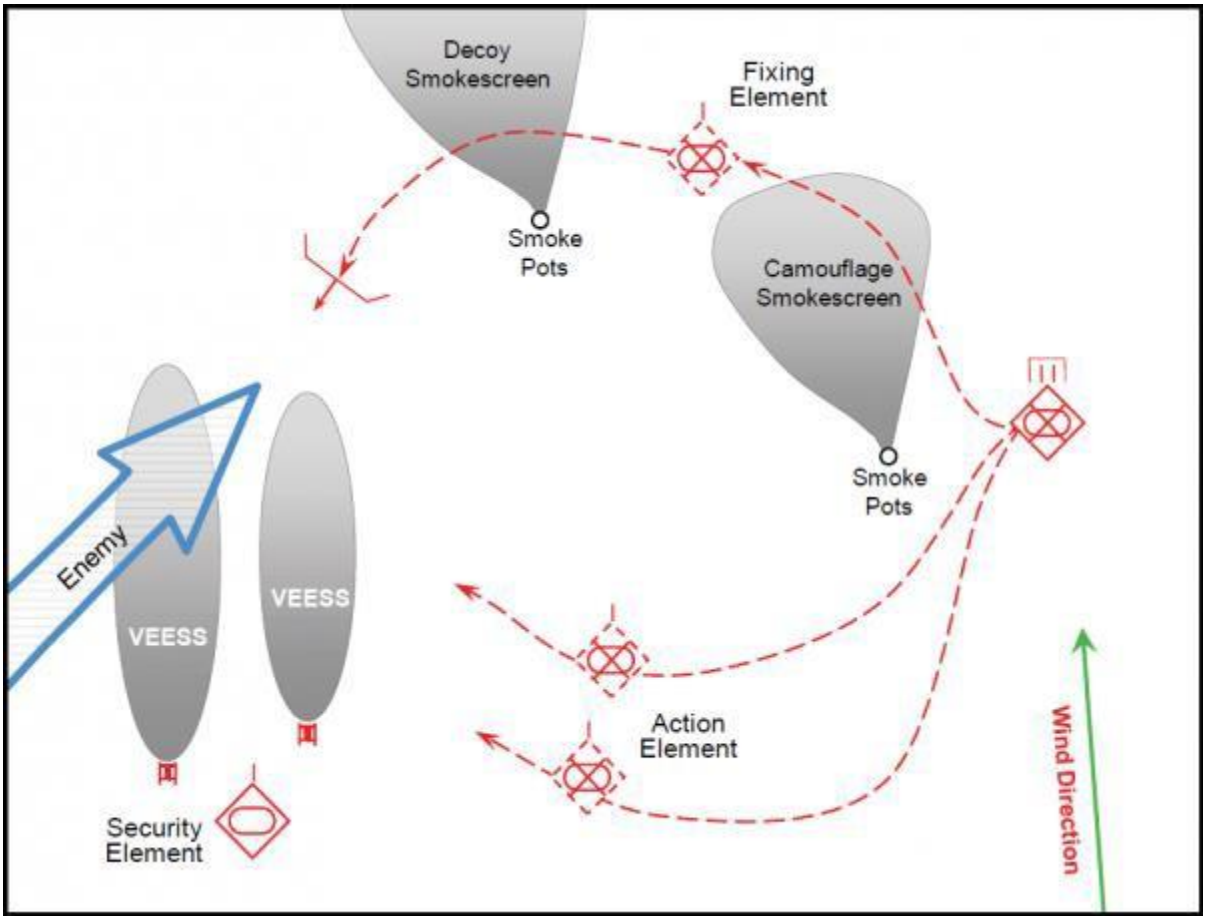

Figure 77 - Example of OPFOR use of smoke against a moving enemy

128. **Defensive operations**. In the defence, the OPFOR may make use of smokescreens for–

a. Camouflaging the manoeuvre of friendly units;

b. Concealing engineer activities from enemy observation;

c. Screening replacements of units under conditions of good visibility;

d. Camouflaging the approach of friendly units for a counterattack;

e. Screening the movements of defending units between battle positions;

f. Providing flank and manoeuvre security; and/or

g. Misleading the enemy on the disposition of reserves and planned counterattack axes.

129. Because a completely obscured environment tends to aid the attacker more than the defender, an OPFOR defence uses smoke to minimize the enemy's vision while allowing the defenders a fairly clear view of the enemy's location. Smoke from artillery and mortar shells is the most effective means of blinding an advancing enemy while keeping friendly forces out of the obscured area. The OPFOR would use *vehicle engine exhaust smoke systems* (VEESS), smoke pots, and smoke grenades only to assume the defence while in contact with the enemy, to change positions, or to begin a withdrawal from contact.

a. **Enemy on the move**. Figure 78 shows an example of an independent manoeuvre *detachment* (IMD) using smoke devices in the defence to disrupt and subsequently defeat the attacking enemy. In this example, one of the IMD's mechanized infantry companies disperses its platoons and sends one of those platoons out to lay smoke along three successive smoke-generation lines. As the enemy force approaches, it first encounters smoke from two lines using smoke pots emplaced by the infantrymen and then a final line created by the platoon's IFVs using *vehicle engine exhaust smoke systems* (VEESS). The smoke from those lines disrupts the enemy advance and creates a favourable situation for the defending IMD to launch a counterattack with its tank company from the flank.

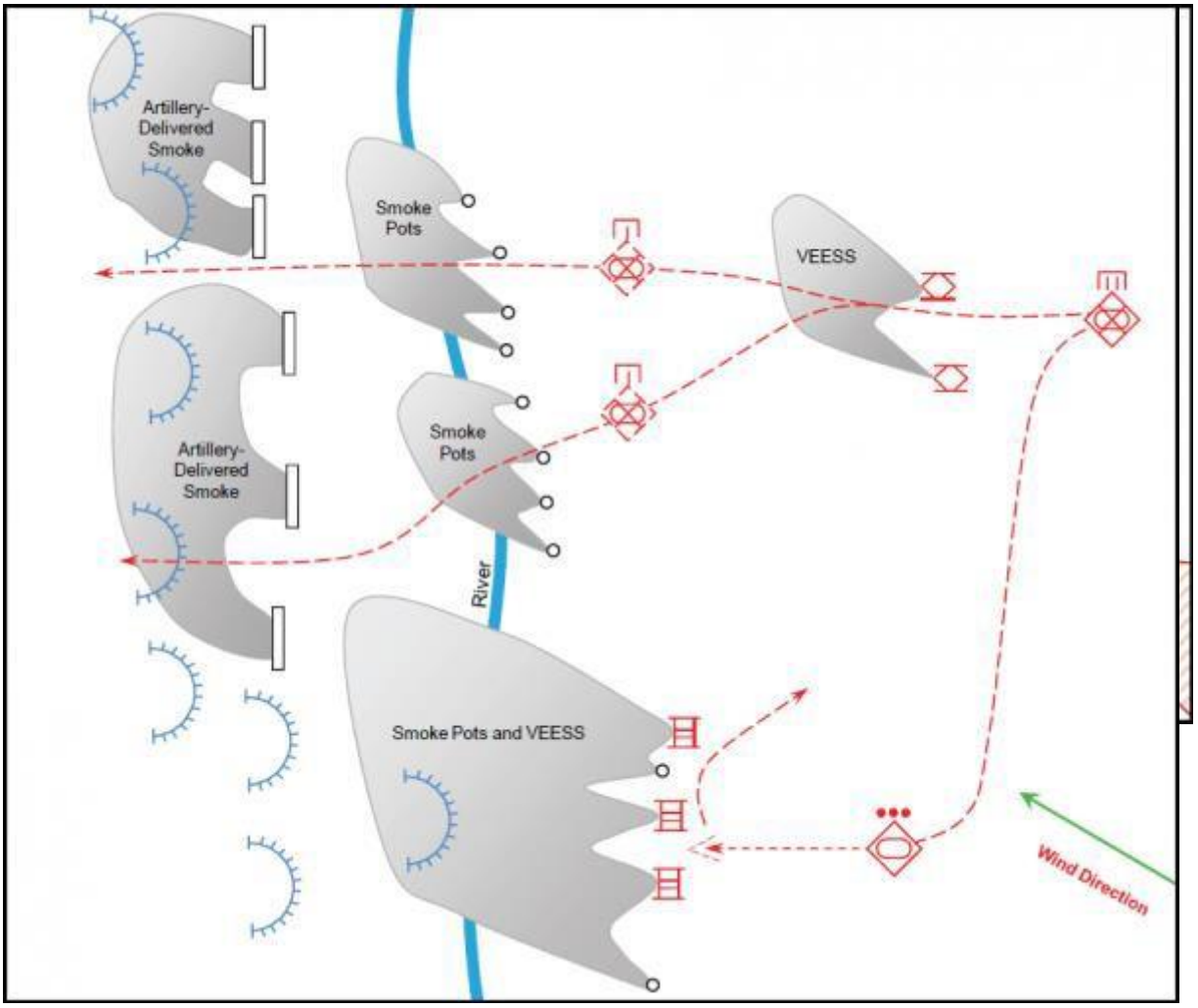

Figure 78 - Example of OPFOR use of smoke in an opposed river crossing

130. **Water obstacle crossing**. Due to their vulnerability to air attack and direct fires, successful water obstacle crossings require smokescreens for concealment. The OPFOR can place 2 to 3 hours' worth of screening smoke along a wide frontage to cover units conducting water obstacle crossings. It may also place floating smoke pots and barrels in the water. It distinguishes between opposed and unopposed crossings.

131. **Opposed crossings**. For opposed crossings, OPFOR doctrine emphasizes using all three types of smokescreens (blinding, camouflage, and decoy). An opposed crossing requires greater planning and preparation than an unopposed crossing because it anticipates contact with the enemy. First, unfavourable meteorological conditions are more difficult to overcome. Friendly forces must have a tail wind or at least a flanking wind for smoke generators and smoke pots on the near bank to screen the crossing sites. If the OPFOR faces a head wind, only artillery or aircraft can deliver a *blinding smokescreen* against enemy positions on the opposite bank. Whenever possible, the OPFOR prefers to lay smoke on both sides of the river. The use of *decoy smoke* at one or more other likely crossing sites can deceive the enemy as to the actual crossing location. Figure 79 shows an example of an *independent manoeuvre detachment* (IMD) based on a mechanized infantry battalion with augmenting tanks conducting an opposed river crossing using smoke. This example uses smoke delivered by several means to both cover friendly forces and deceive and blind enemy forces.

132. **Unopposed water crossing**. Unopposed water obstacle crossings far from the battle line may be crucial for supporting tactical and operational missions. Therefore, they also require the use of smokescreens for concealment whenever feasible. As with smoke use near the battle line, it is important to establish at least one or two *decoy smokescreens* for every actual crossing site. This is because a smoke cloud in the rear attracts the attention of enemy reconnaissance. *Area smokescreens* are best for covering crossing sites and surrounding terrain.

133. 1**Combat at night**. At night, the OPFOR can conceal its forces from enemy (active and passive) night-vision and thermal imaging devices by using smoke and other obscurants that are effective in the visible through far- (define) IR portions of the electromagnetic spectrum. The OPFOR uses smoke in three ways to counter various types of enemy Electro-optic (EO) sensors, these are -

a. For active night-vision devices, blind with smoke;

b. For passive night-vision devices, blind with illumination or combined use of illuminating and smoke projectiles; and

c. For thermal imaging devices, camouflage friendly troops with smoke and illuminate enemy targets (to benefit friendly night-vision devices) at the same time.

134. At night, the OPFOR uses smoke when it cannot quickly destroy or neutralize the enemy EO devices, or when the enemy has created high levels of illumination within their defence. However, OPFOR can also use smoke in conjunction with its own illumination.

135. In night combat, the OPFOR can use smoke to help illuminate enemy vehicles and other targets. The most effective method is to use smoke in conjunction with illuminating rounds to silhouette enemy vehicles and other targets. A mechanized infantry battalion can use this method by firing mortar smoke rounds to burst 50 to 100 m beyond the targets, interspersed with illuminating rounds aimed just beyond the screen. This creates a broad, bright background.

136. A more elaborate version of this latter method involves the use of artillery-delivered smoke and illuminating rounds. The OPFOR can use smoke and other obscurants to blind the enemy's night-vision equipment. Image intensifiers can be blinded by obscurants and forced to shut down by flares or the flash of artillery shells. In the defence, therefore, OPFOR artillery could use close support fire on advancing enemy forces, alternating *blinding smoke* with illuminating rounds to blind enemy forces while simultaneously illuminating them for targeting. An example of this technique is illustrated below at Figure 26.

137. **Signalling smoke**. Aside from smokescreens, the OPFOR also uses coloured smoke for signal purposes. Smoke can mark enemy positions or, occasionally, friendly positions or movement routes for the information of supporting aircraft or artillery. By prearrangement, coloured smoke may—

a. Identify friendly units;

b. Identify targets;

c. Control the commencing and lifting of fire; and

d. Coordinate *fire and manoeuvre* of combat units.

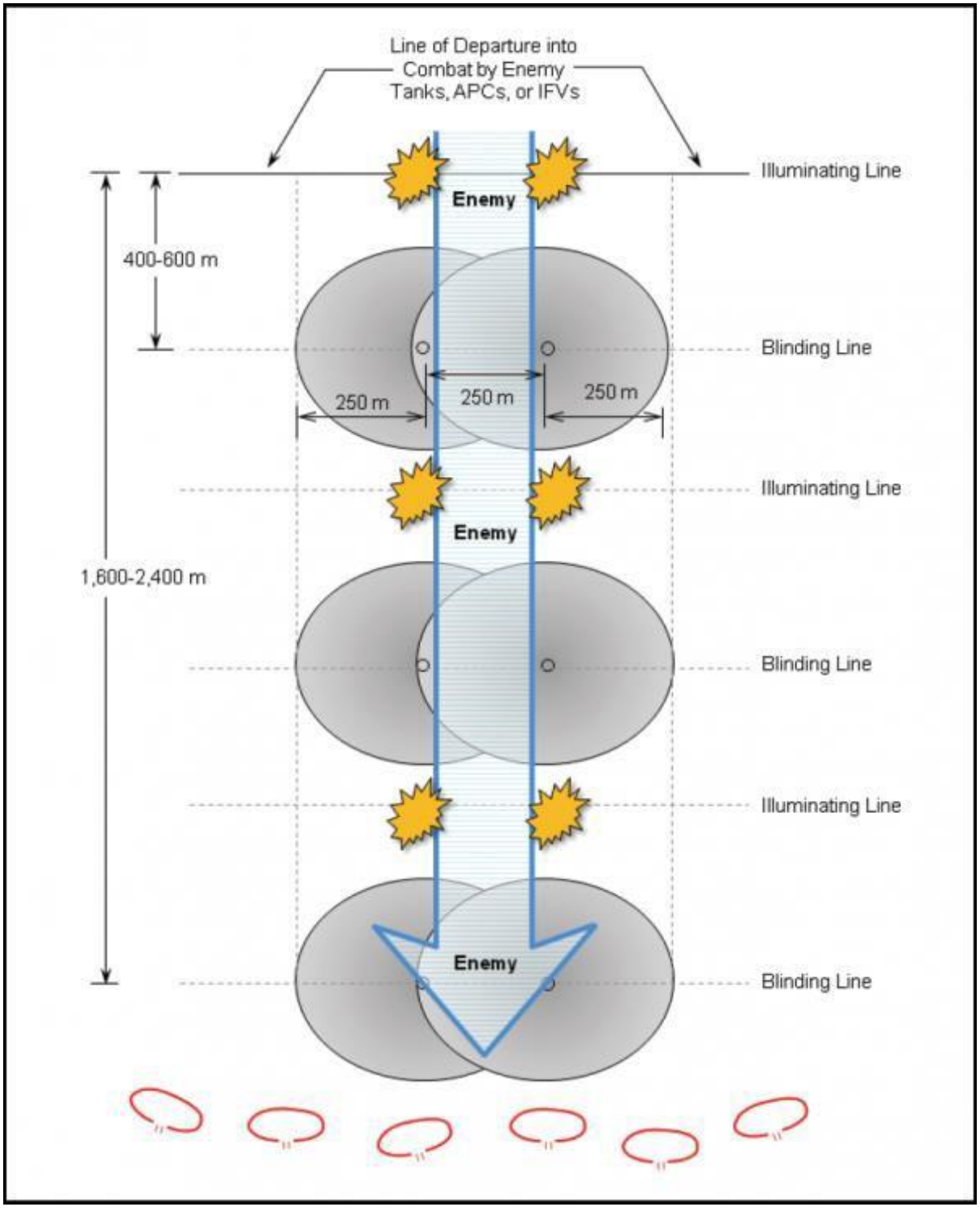

Figure 80 - An example of OPFOR use of alternating blinding smoke and illumination lines at night

Chapter 6 IRREGULAR ACTIVITY AND HYBRID WARFARE

Introduction

1. Irregular forces enhance a conventional OPFOR with depth, mass, local knowledge, niche capabilities, a long-term presence, and surprise. When regular and irregular forces work together, they combine state-based, conventional military forces—sophisticated weapons, command and control, and combined arms tactics—with attributes historically associated with insurgent and criminal groups. This is not a new phenomenon in conflict. Nor are these hybrid threats confined to a specific phase of war. OPFOR will use proxies, irregular groups, and other non-state actors in conventional and unconventional ways to achieve an advantage over their adversary at each level and stage of conflict. Hybrid threats – the combination of regular and irregular forces – can operate conventionally and unconventionally, employing adaptive and asymmetric combinations of traditional, irregular, and criminal tactics, as well as use traditional military capabilities in old and new ways.

2. Command and control distinguish the two types of force. Where regular elements are governed by international law, military tradition, and custom, irregular forces are self-regulated and as a result act with only self-imposed restrictions on violence and choice targets. Irregular groups choose to follow customs and laws through a combination of internal rules and on the ground command. In a hybrid threat environment, the OPFOR will seek to assert a degree of command and control on any threat groups operating in the area if the desired end goals are beneficial to the OPFOR. In some instances, state agencies become subordinates within the military chain of command, such as police and internal security forces. Irregular and criminal groups are unlikely to have a direct command and control relationship with the regular force, relying instead on influence and common objectives. Provision of training, finance, equipment, and/or communications, are common OPFOR tools to enhance their influence.

3. Irregular groups will have their own motivations and objectives, and often act independently of regular forces. Irregular forces are armed individuals or groups who are not members of the regular armed forces, police, or other internal security organisations. They can also be affiliated with mercenaries, corrupt government officials, compromised commercial and public entities, active or covert supporters, and willing or coerced members of a populace. To an increasing degree, these groups can use advanced weapons, off-the-shelf technology, combined arms tactics, and intensive training to prepare their forces to engage BLUFOR.

The aims of hybrid and irregular forces

4. OPFOR seek to saturate the entire area of operations with effects that support their course of action and force BLUFOR to react along multiple lines of operation. A conventional attack may not present enough complexity to stretch resources, degrade decision making capacity, and restrict freedom of manoeuvre. Instead, synchronised hybrid threat actions can take place in the information, social, political, infrastructure, economic, and military domains. Hybrid threats can simultaneously create economic instability, foster lack of trust in existing governance, attack information networks, provide a captivating message consistent with their goals, restrict or control resources to cause humanitarian crises, and physically endanger other stakeholders.

5. For irregular actors specifically, they are likely to be motivated by social, religious, or political issues, or some combination of the above. The political aim of the irregular group could have a genuine intent to provide a voice in politics to an under-represented population group or be self-serving in order to obtain control of political institutions for its own commercial profit. It may start as the former and transition into the latter. In most cases, criminals will have other motivations around freedom from prosecution, ego, and financial gain.

6. Swift tactical success is not essential to victory. Time favours those fighting coalition forces. Irregular forces need not win any engagement or battles, they simply must not lose the war. Wearing down the popular support for coalition operations through a political and military stalemate can be all that is required to claim victory or to change coalition behaviour or policy.

Types of proxy groups

7. **Paramilitary Forces.**

   a. **Outline.** Paramilitary forces are akin to a country's regular armed forces in organisation, equipment, training, or mission, and while they can be non-governmental, they typically refer to official entities like internal security, police, and border control. OPFOR notably incorporates

these government organisations into its military operations as strategic assets during warfare, carrying out rear area security and population control roles. This command relationship distinguishes them from other non-state actors.

b. **Command and Control.** If the OPFOR are using local security forces as part of their hybrid threat, they will embed Special Purpose Forces (SPF) into these elements to act as Liaison Officers (LO) and trainers, and provide limited operational support.

c. **Communication.** OPFOR will provide military style digital encrypted HF, VHF and UHF radio communication equipment to paramilitary forces in order to allow them to communicate with the OPFOR and each other. These communication devices will be similar to those used by conventional OPFOR elements.

d. **Logistics.** The OPFOR will look to establish logistic links to the paramilitary force. This may include providing weapons, equipment, and consumables similar to those used by OPFOR in order to aid with ease of supply. Weapons provided to a paramilitary maybe originate from a third country to give the OPFOR deniability. Training will be provided to the paramilitary logistics element to enhance its capabilities and effectiveness.

e. **Training.** The OPFOR training team attached to the paramilitary forces will look to enhance the general level of training of the force.

8. **Irregular Forces.**

a. **Outline.** Irregular forces are non-official armed individuals or groups, like insurgents, who engage in irregular warfare—a contest for legitimacy and influence over populations, not bound by conventional military methods. Irregular forces overarching goals are always defined in political terms, seeking to influence or overthrow the incumbents or even the entire system. They employ indirect and asymmetric tactics, ranging from violence to non-violence, and may use both conventional military tactics and unconventional methods like terrorism and sabotage to weaken their adversaries and advance their objectives.

b. **Command and Control.** If the OPFOR are supporting a local irregular force they will look to embed a small (2-6 person) SPF detachment to support its operations. This detachment will look to conduct ISR for the irregular forces and guide their attacks. This is to ensure that the attacks are in line with the OPFOR's operational and strategic objectives.

c. **Communication.** The OPFOR will look to provide a limited number of low-end communication devices to an irregular force. This will likely take the form of commercial encrypted HF, VHF and UHF radios and a small number of satellite communications to be used by high level commanders.

d. **Logistics.** The OPFOR can provide weapons and munitions to irregular forces who share a similar aim. OPFOR logistic support to irregular forces is either through the SPF logistic chain using the SPF detachment or via criminal elements. The use of criminal elements to provide logistic support is the OPFOR's preferred method as it avoids directly tying them to an irregular force, which could have negative political implications.

e. **Training.** OPFOR SPF detachments attached to irregular forces will conduct intensive weapon handling training, small unit tactics, and potentially specialist skills such as IED construction and use of air defence weapons. The aim of this training is to enable the irregular forces to conduct independent operations.

9. **Criminal Elements.**

a. **Outline.** Criminal elements, motivated primarily by financial gain, range from individual criminals and street gangs to transnational organised criminal groups. These entities typically operate independently of the government but may exert political influence or collaborate with regular or irregular forces for mutual benefit. Their activities, particularly trafficking in drugs, humans, and weapons, often finance irregular forces and exploit regional instabilities caused by conflict to expand their operations, occasionally aligning their interests with OPFOR objectives if there is a chance for personal gain.

b. **Command and Control.** The OPFOR will not seek to impose command and control on criminal elements operating in the battlespace. They will look to establish links with dominant criminal organisations who share a common view of the conflict and can be manipulated through personal

gain, such as financial or status. The OPFOR will establish links to these elements via SPF detachments or their intelligence services.

c. **Communication.** The OPFOR will only provide satellite communications to key personnel within the criminal organisation, preferring to conduct communication face to face.

d. **Logistics.** The OPFOR will use criminal elements as a proxy to supply irregular forces or other threat elements that are seen as politically risky if a direct connection is made. OPFOR will supply these criminal elements with weapons, munitions, vehicles, and finance to be passed onto a proxy group.

e. **Training.** The OPFOR will not look to conduct training for criminal elements.