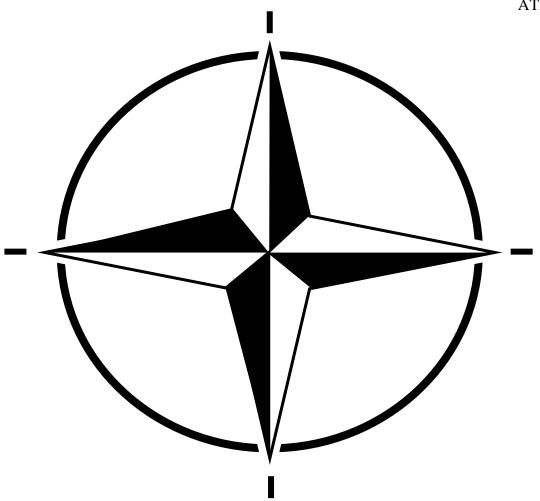


ALLIED LAND TACTICS ATP-3.2.1

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ALLIED LAND TACTICS ATP-3.2.1

NOVEMBER 2009

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NORTH ATLANTIC TREATY ORGANIZATION

NATO STANDARDIZATION AGENCY (NSA)

NATO LETTER OF PROMULGATION

9 November 2009

- 1. ATP-3.2.1 ALLIED LAND TACTICS is a NATO/PfP UNCLASSIFIED publication. The agreement of nations to use this publication is recorded in STANAG 2605.
- 2. ATP-3.2.I is effective on receipt.

Juan A MORENO

Vice Admiral, ESP(N)

Director, NATO Standardization Agency

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RESERVED FOR NATIONAL LETTER OF PROMULGATION

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RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATION BY NATIONS
General	DEU

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RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]		
DEU	The explanations to Information Operations aren't accepted/applied by DEU, due to the fact that these explanations refer in no way to current NATO policy and doctrine.		
	In a change 1 or a review the ATP-3.2.1 has imperatively to be adapted to hte understanding of NATO Military Policy on Information Operations MC 422/3, dated 08 July 2008 and AJP-3.10 RD Allied joint Doctrine for Information Operations. According to MC 422/3 and AJP-3.10 RD Info Ops is a military function to provide advice to and co-ordination of military information activities and not a military capability disposing of forces and means.		

RECORD OF CHANGES

Change Date	Date Entered	Effective Date	By Whom Entered

PREFACE

- 1. Recent campaigns have brought many changes and challenges to the Alliance and its member nations and armies. Over the past two decades, NATO's role and involvement around the world has expanded to see its forces working in a coalition context at even the lowest tactical levels, in a wide variety of environments and against a variety of threats and adversaries. Campaigns have come to involve not only the defeat of a conventional military force, but in many cases focus its operational and strategic objectives on the long term stabilisation and rehabilitation of an entire region or nation, along with its public institutions. Whilst the Alliance's military forces must always maintain the ability to defeat conventional enemy forces, there is a requirement for military forces to conduct a much wider range of activities, in either a supported or supporting role, in order to realise enduring objectives and end-states.
- 2. The **purpose** of ATP-3.2.1 *Allied Land Tactics* is to describe a common understanding and approach to land tactical operations, conducted across the spectrum of conflict, in order to ensure a suitable level of interoperability during planning, training and execution. It is the primary source of Allied land force tactical level doctrine. This publication must be read in conjunction with AJP 3.2 Allied Land Operations and when appropriate, in conjunction with other NATO publications that speak directly to specific types of operations and undertakings.
- 3. Whilst much of the extant doctrine for the conduct of tactical operations remains valid, there is a clear requirement to articulate the application of coalition fighting power within complex environments that involve more than only defeating another conventional force. This tactical level doctrine is placed within a strategic and operational context characterised in a variety of ways.
- 4. Environments will be complex and possibly include conventional and unconventional enemies and adversaries. They will also include a wide range of other groups whose support of the campaign may be vital for long term success. Tactical level activities will be conducted within the context of specific campaign themes (major combat; counter-insurgency; peace support; and, peacetime military engagement) and limited (military) interventions. The campaign theme, the principles by which it is conducted and the overall effects the commander wishes to create through his activities, will dictate the balance the commander must strike across the range of tactical activities. This range of tactical activities will be conducted simultaneously from across the spectrum of conflict to include: offensive; defensive; stability; and, enabling activities.
- 5. The comprehensive approach described in AJP 3.2 is applied pervasively across all levels of command so that tactical level commanders work in a complementary manner with the other elements of power and agencies required to address the root causes of a crisis and to achieve enduring end-states across the various elements of the environment.
- 6. Commanders must understand the operational objectives and effects that their assigned activities are to achieve. In support of these objectives they will utilise a manoeuvrist approach to conduct activities that create complementary physical effects on capability and cognitive effects on the understanding, will and cohesion of targets. During planning, commanders must also consider the possible unintended and undesired effects of their activities that, in turn, will undermine the objectives, and take precautions to avoid them. Commanders must continually assess not only the performance of their activities, but also the effects that their activities create in order to ensure that the correct activities are being conducted to reach the desired effects and objectives.
- 7. This publication describes the frameworks within which the application of fighting power tactical activities will be conceived, planned and conducted. It must be remembered that little is absolutely new in this publication in terms of how military forces apply and undertake tactical activities. This publication does however, offer a better articulation as to how fighting power is applied within an overarching campaign framework in order to contribute to the achievement of enduring objectives and outcomes.

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CHAPTER 1 - THE EMPLOYMENT OF LAND FORCES

Section I – Introduction

Purpose

- 0101. The purpose of ATP 3.2.1 *Allied Land Tactics* (ATP 3.2.1) is to describe a common understanding and approach to land tactical operations, conducted across the spectrum of conflict through a manoeuvrist approach, in order to ensure a suitable level of interoperability during planning, training and execution. It is a primary source of Allied land force tactical level doctrine. This publication must be read in conjunction with AJP 3.2 Allied Land Operations (AJP 3.2) and when appropriate, in conjunction with other NATO publications that refer directly to specific types of operations and processes.
- 0102. This publication discusses the practical application of tactical capabilities and activities across the spectrum of conflict, in order to create desired effects in support of operational objectives, and in line with the philosophical guidance and principles for the conduct of land operations. Tactical activities are conducted from across the spectrum of conflict guided by the principles of the campaign theme, the campaign objectives and the intuition of the commander.

Employment of Forces at the Tactical Level

- 0103. Land forces, as discussed within this publication, are employed at the tactical level to conduct activities and their assigned tasks in order to create effects, or results, that support the operational level objectives and end-state. Commanders must understand clearly the link that exists between the operational objectives and the tactical activities. At all times, tactical activities must be conducted to support, through their effects, the operational objectives that lead to the desired and enduring end-state.
- 0104. Commanders, supported by intelligence will have to assess and understand the various individuals, groups and elements, in addition to military adversaries, within their environment and area of operations in particular, and comprehend to the greatest extent possible, the role each of these elements or groups play in influencing the environment and in affecting the successful outcome of the campaign. Military plans must take into account all of these elements and systems in the environment and the roles they play.
- 0105. Commanders must address more than simply the defeat of an enemy or adversary's capability, and will have to address the will and behaviour of all of the elements and actors in the environment, in order to address root causes of the crisis and help create enduring end-states. This will require a comprehensive approach with the military working in concert with other elements of power and agencies (domestic, local, and international) in order to create, in all areas of the environment, objectives that lead to the

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desired end-state. Tactical level commanders must appreciate their role in conjunction with other elements of power in the pervasive application of a comprehensive approach.¹

- 0106. Within assigned missions, a commander will conduct a range of military tactical activities (offensive, defensive, stability and enabling, as defined in AJP 3.2) from the spectrum of conflict, in support of objectives. Tactical level activities will be conducted within the context of specific campaign themes (major combat; counter-insurgency; peace support; and, peacetime military engagement) or specific limited interventions. The campaign theme, the principles by which it is conducted and the overall effects the commander must create through his activities, will dictate the balance the commander must strike across the range of military activities.
- 0107. In order to affect the behaviour of the various elements and actors, it is necessary to influence their understanding, will and capability. Military activity achieves effects in the physical domain in order to undermine will and shatter cohesion rather than to simply destroy capabilities through attrition. Military activities in the psychological domain will seek to shape the understanding, perceptions and ultimately will and behaviour of adversaries and other actors. This is simplistically represented in Figure 1.1.

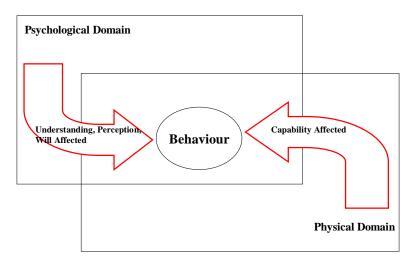


Figure 1-1: Activities that Affect Behaviour

- 0108. Military tactical activities will focus on the psychological and physical domains as highlighted in Figure 1.2.
- 0109. Psychological domain. Activities in the psychological domain may be applied against an adversary to directly undermine his will and cohesion, or they may be applied against other elements in the environment in order to engender support for the campaign and its objectives and decrease or undermine their support for groups opposing the campaign.

¹ For a more complete discussion of the Comprehensive Approach, see AJP 3.2 Allied Joint Doctrine for Land Operations.

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0110. Physical domain. The physical domain deals with primarily physical effects. By affecting a target's capability, they ultimately affect the behaviour. Even if the adversary's will to act is not affected, the destruction or alteration of his capabilities will prevent him from acting or behaving in the manner he desires.

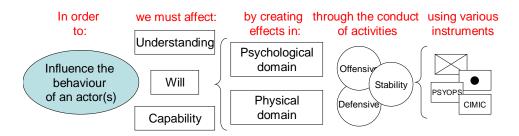


Figure 1-2 – Influencing the behaviour of an actor.

- 0111. Military forces use their range of capabilities (such as manoeuvre forces, fires, CIMIC, PSYOPS) to conduct activities to create effects in the physical and psychological domains that will ultimately affect behaviour in a desired manner. Activities and their effects in the physical and psychological domains must be considered and conducted simultaneously, and in a complementary fashion in pursuit of objectives. This will be done at all stages of the planning, targeting and execution of operations and activities.
- 0112. Commanders will apply a manoeuvrist approach in the combination of activities in the physical and psychological domains. Activities in both domains will often be done together in a complementary fashion. For example, a plan to attack an enemy defensive position may include a range of tasks, both physical and psychological: EW jamming and artillery attacks against the enemy headquarters (physical); and, PSYOPS leaflets may be dropped to conscript elements of the enemy in order to convince them to flee the battlefield (psychological).
- 0113. In order to support operational objectives, tactical commanders must consider and plan to avoid undesired effects that will undermine the overall objectives. At times, short-term tactical success may have to be sacrificed in order to maintain support for longer-term bjectives.² Commanders need to continually assess the performance and effectiveness of their activities in terms of creating effects that support the desired outcomes.
- 0114. In short, commanders at the tactical level must appreciate the operational context of their tactical level activities. They must conceive and plan their full range of activities in order to create effect in the psychological and physical domains that affect the behaviour of a wide range of targets or audiences, which support, in harmony with other agencies, the

² For example, the pursuit of a fleeing enemy may have to be declined if there is an immediate demand to secure and assist a local populace in deed of emergency care. This will lend increased legitimacy to the campaign and help ensure the support of a local populace.

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operational objectives. They must seek to avoid undesired effects that will undermine the operational objectives. Finally, they must appreciate that the environment will likely include a variety of groups and individuals whose support for the campaign will be central to its success and that it will likely be necessary to influence these groups and individuals through military activities.

Section II - The Approach to the Conduct of Land Operations

Tactical Application of The Principles For Joint and Multinational Operations

- 0115. Operations are planned and conducted based on the consideration and balanced application of guiding principles. Each nation in a coalition will be guided by national principles, across which there will much in common. In general, these principles may be applied to the planning and conduct of joint and coalition operations. They have been detailed in AJP 01 Allied Joint Doctrine but remain applicable to the tactical level.
- 0116. These principles are applicable throughout the spectrum of conflict. Commanders at all levels, including the tactical level, must consider each principle and strike a balance between the competing demands of the various principles; definition of objectives, unity of effort, sustainment, concentration of force, economy of effort, flexibility, initiative, maintenance of morale, surprise, security, simplicity and multi-nationality. The context and details of these principles are outlined in AJP 3.2.
- 0117. Maintaining The Legitimacy of a Campaign
- 0118. The real and perceived legitimacy of a campaign is vital to its overall success and the support that it will receive at all levels. The legitimacy of a campaign will be viewed from local, regional, domestic and international arenas. Commanders and their subordinates must fully understand that activities and the manner, in which they are conducted, even at the lowest levels, will directly impact upon the legitimacy of a campaign, particularly as it is viewed from the local populace. Measures must be taken to actively avoid incidents and unintended effects that will undermine legitimacy.

Campaign Themes And The Range Of Tactical Activities

0119. **General**. As described in AJP 3.2, there exists a set of distinct military campaign themes; major combat, counter-insurgency (COIN), peace support, and peace military engagement (PME) that may be generally plotted at appropriate locations on the spectrum of conflict. Within these campaign themes, it is important that land forces be able to conduct a wide range of military activities simultaneously and sequentially and transition quickly from one type of operation to another in rapidly evolving conflicts. The balance across this range of activities will directly reflect the type of campaign that is being conducted and its inherent principles.

Predominant Campaign Themes

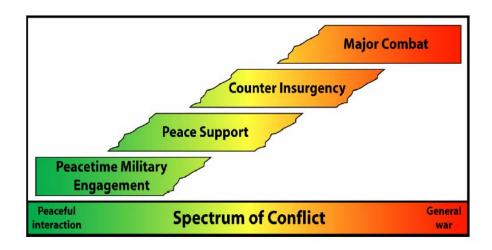


Figure 1-3: Predominant Campaign Themes Plotted on the Spectrum of Conflict

O120. Campaign Themes and Tactical Activities. Campaign themes, as a rule, are too general to use in assigning missions. Rather, they describe the broad general conditions that exist in an area of operations and provide principles to guide planning and action as a campaign progresses. Campaigns and their operational objectives are realised through the assignment and execution of tactical activities. These are the specific application of doctrine to solve specific tactical problems and are often used to assign missions to subordinates. The effects or results that they create should be planned in order to support the operational objectives of the campaign. Commanders and planning staff will identify the effects (e.g. results) needed to realise each of the operational objectives and then allocate tactical activities to create those desired effects. In this manner, the campaign theme, end-state and objectives are directly linked to the allocation of appropriate tactical activities.

The Range Of Military Tactical Activities

- 0121. Land forces will undertake a wide range of tactical level activities. The tactical activities are divided into the following³:
- 0122. Offensive activities: activities in which forces seek out the enemy in order to attack him;

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³ Taken from AJP 3.2 Allied Joint Doctrine for Land Operations Lexicon.

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- 0123. Defensive activities: activities that resist enemy offensive activities;
- 0124. Stability activities: activities that seek to stabilise the situation and reduce the level of violence. They impose security and control over an area while employing military capabilities to restore services and support civilian agencies; and
- 0125. Enabling activities: tactical activities that link, support, or create the conditions for offensive, defensive and stability activities.
- 0126. This range of tactical activities describes all military activity undertaken within a campaign at the tactical level. Generally, all these activities may be conducted simultaneously in the same operation, regardless of the campaign theme. For example, in peace support, which consists mainly of stability activities, there may be a requirement to attack a recalcitrant adversary force (offensive) or to defend a security base (defensive). The balance between types of activities gives a campaign its predominant character. Major combat may consist primarily of offensive or defensive operations, while COIN may have a complex mix of all three types. Enabling activities are never conducted in isolation for their purpose is to enable the other activities.
- 0127. This combination of simultaneous offensive, defensive and stability activities that gives a campaign its predominant theme at any one time and place. As a campaign develops and changes its theme, say from a major combat to a peace support campaign, the balance between the tactical activities will change. During a campaign, efforts and resources will ebb and flow between the types of tactical activities. As a campaign moves to the lower end of the spectrum of conflict, more effort and resources will be dedicated to stability activities, and less to offensive and defensive activities.
- 0128. Offensive, defensive and stability activities include a wide range of constituent activities under each category, such as attack, defend, exploitation and pursuit. Land tactical activities are listed in the table below. Each type of tactical activity has particular characteristics and principles. Principles for the offence differ from those of the defence, and they both differ from the principles of stability activities. Tactical activities are tangible undertakings that can be assigned to units and sub-units, usually through specific tactical tasks.

Reconnaissance Security Advance to Contact Ses Meeting Engagement Link-up Withdrawal Retirement Relief of Troops in Combat and Encircled Forces March Obstacle Breaching & Crossing
ri n

Notes:

- 1. Security and control refers to the establishment of a safe and secure environment, in which other non-military agencies may operate and assist in the operational and strategic objectives.
- 2. Initial restoration of services and governance tasks will see military forces, at least initially, conducting tasks that (re)build civilian infrastructure and conduct or assist with certain aspects of governance such as provision of health care, rule of law enforcement and humanitarian aid.
- 3. Enabling activities link or lead to other tactical activities and their effects. For example, an advance to contact leads to an attack (and an eventual effects such as "seize") and a withdrawal leads from one defence to another defence.
- 5. Each of the tactical activities are realised through tactical tasks and effects that normally comprise of a mission statement (see text on following pages). Enabling activities will be issued in mission statements in terms of "conduct...". In order to prosecute them, enabling activities will be broken down into supporting or constituent tasks for subordinates. For example, security will be assigned as a covering force or guard force and supporting tasks assigned. See STANAG 2287 for mission tasks for further details.

Figure 1-4: Land Tactical Activities

0129. Stability activities involve both coercive and cooperative tasks that include establishing a secure environment to building essential services in conjunction with indigenous groups or NGOs. They may occur before, during and after offensive and defensive activities and may be the main effort of a campaign. Stability activities contribute to creating an environment in which the other instruments of power, that is, the diplomatic, political and economic instruments, can predominate, in cooperation with a lawful government.

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- 0130. Offensive and defensive activities are physical activities that create effects in the physical and subsequently the psychological domains. They may lead to effects on an adversary in terms of his will and cohesion. Stability activities will often help address the root causes of a conflict, set the conditions for other agencies to achieve their objectives, and engender general support for the campaign. They will include such activities as infrastructure rebuilding and humanitarian aid. Thus, through a physical demonstration of commitment by campaigning forces and through their results, some stability activities may be considered influence activities that will shape the understanding, perceptions and will of those around them, namely the local populace, and even potential adversaries.
- 0131. Just as offensive and defensive tactical activities are accomplished through tactical tasks, such as "destroy", "seize" or "block", stability activities will be accomplished through a series of tactical tasks, such as vehicle check points, observation posts, framework⁴ patrolling, cordon and searches, humanitarian aid, and reconstruction to name only a few.
- 0132. Each of the four types of tactical activities is accomplished through the assignment of tactical tasks. These are normally the tactical tasks assigned to units and below. An example of the types of tactical tasks (often equating to mission task verbs) that support their respective tactical activities is given in the table below:

	Offensive	Defensive	Stability	Enabling
Activities are realised through the assignment of tasks & effects.	Attack Raid Ambush Exploitation Pursuit Break-Out Feint Demonstration Reconnaissance in Force	Defence Delay	Security and Control Support to Security Sector Reform (SSR) Initial Restoration of Services Initial Governance Tasks	Reconnaissance Security Advance to Contact Meeting Engagement Link-up Withdrawal Retirement Relief of Troops in Combat and Encircled Forces March Obstacle Breaching & Crossing
Tactical Tasks and Effects	Destroy	Block	Cordon and Search Observe/Monitor	Screen

⁴ Framework patrolling helps to secure an indigenous area and its population through the presence of a military force. They are normally conducted in an overt fashion.

(Not an	Seize	Occupy	Vehicle Check Pt	Guard
Exhaustive List)	Secure	Guard	Framework Patrols	Block
	Support by Fire	Fix	Humanitarian Aid Delivery	Secure
		Retain	Train Indigenous Security Forces	
			Crowd Control	

Notes:

- 1. Mission statements will be written with both the activity and the task or immediate effect, further described by the purpose, or secondary effect. The activity is not always stated in the mission statement, such as (Attack to) seize (object), in order to.....
- 2. Mission statements relating to stability activities and tasks will use the transient verb "conduct" to assign the activity, such as "...will conduct security and control in order to....". This would then be allocated as tactical tasks and effects to subordinates, such as VCPs, framework patrols, etc. At the lower tactical levels, the tactical tasks only may appear in the mission statement, but again continue to use the verb "conduct", such as, "...will conduct framework patrols in order to...", or "... will conduct humanitarian aid delivery in order to...". In this manner, they are similar to mission statements for enabling operations. See STANAG 2287.

Figure 1-4: Tactical Activities and Tactical Tasks (Not all inclusive)

0133. Commanders must consider and plan for each type of tactical activity simultaneously regardless of the nature or theme of the campaign they are undertaking. Even during major combat, there will be a requirement to undertake some stability activities. As campaigns move to the lower ends of the spectrum of conflict, the opportunity and requirement for stability activities will increase. Indeed, apart from significantly decisive offensive actions, stability activities are the main means of moving a campaign to those lower ends of the spectrum of conflict for they create the conditions for enduring stability and address the root causes of many conflicts. The higher levels of tactical command (battle group and above) must be able to plan for and conduct simultaneous activities along the spectrum. Tactical unit commanders and their subordinates must be mentally and physically prepared to transition rapidly between offensive, defensive and stability tasks.

Manoeuvrist Approach To Operations

General

- 0134. The concept of the *manoeuvrist approach* is covered in detail within AJP 3.2 Allied Joint Doctrine for Land Operations.
- 0135. An approach to operations in which shattering the enemy's overall cohesion and will to fight is paramount. It calls for an attitude of mind in which doing the unexpected, using initiative and seeking originality, is combined with a resolute determination to succeed. (AJP 3.2 Lexicon)

Application Of The Manoeuvrist Approach

General

- 0136. In applying a manoeuvrist approach, the commander should consider the following:
- 0137. Operations should be dynamic and multidimensional;
- 0138. Where possible, existing weak points are exploited;
- 0139. Enemy strength is avoided and fighting power targeted through his weakness to strike at his critical assets (lines of communications, headquarters, rear areas, reserve forces etc.) directly; and
- 0140. Tactical battles are not an end in themselves, but only a building block within the framework of a larger operation that uses surprise, deception, manoeuvre and firepower to break the enemy's will to fight, primarily through attacking moral and physical cohesion;
- 0141. There are four ways that the manoeuvrist approach can be implemented in practice and that are applicable to the full range of tactical activities. These are, in order of preference: seizing the initiative; pre-emption; dislocation; and, disruption.

Seizing, Retaining and Regaining the Initiative

0142. When a commander holds the initiative in a competitive situation, he has the ability to dictate the course of tactical events. It is usually gained through a pre-emptive action. The side without the initiative is normally forced to react to protect itself and thus lacks freedom of action. Gaining the initiative is one of the keys to success.

Pre-emption

- 0143. To pre-empt the enemy is to seize an opportunity, often fleeting, before he does, to deny him an advantageous course of action. The purpose of pre-emptive action is to prevent the enemy from gaining his objective or establishing his influence.
- 0144. Dislocation
- 0145. To dislocate the enemy is to deny him the ability to bring his strength to bear. Its purpose is much wider than disruption and goes beyond the frustration of the enemy's plans. Its purpose is to render the strength of elements of the force irrelevant. It seeks to avoid fighting the enemy on his terms.
- 0146. Disruption
- 0147. To disrupt is to attack the enemy selectively in order to break apart and throw into confusion the assets that are critical to the employment and coherence of his combat power. It is a deliberate act that requires sound intelligence. Its purpose is to rupture the

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integrity of the enemy's combat power and to reduce it to less than the total of its constituent parts.

Means of Implementation⁵

- 0148. The principal means for physically attacking an enemy's understanding, will and cohesion are through the use of force and threat of force. Force is applied through firepower and manoeuvre with the effects enhanced and multiplied through a high tempo and simultaneity. The influence activities of information operations will also play an important role by directly engaging the understanding and will of an enemy. Indeed, for those unconventional adversaries who rely heavily on the moral and physical support of a populace, influence activities against the adversary and against his support base may, in the long run, be more effective in pre-empting and dislocating this type of enemy.
- 0149. The primary means of implementing a comprehensive manoeuvrist approach are as follows:
- 0150. **Manoeuvre**. Manoeuvre is the combination of movement supported by fire, potential fire or other capabilities in order to gain a position of advantage over the adversary from which he can be engaged;
- 0151. **Firepower**. Firepower destroys, neutralises, and suppresses, demoralises and influences. Through its physical effects, it will shape understanding (through its effects against command and control systems), undermine will and shatter cohesion;
- 0152. **Information Operations** (**Info Ops**). Actions to create effects in the information environment (information activities) include lethal actions to attack the enemy's command and control and IT based weapons systems and also non-lethal actions to shape perception and situational understanding, thus affecting will and cohesion and ultimately behaviour. Information activities may be directed at approved audiences (individuals, groups, and populace) and targets (information infrastructure, technical components of information systems and information-based processes) to ultimately create synergetic effects in support of the commander's mission. Although primarily performed at the operational level of command, Info Ops will have to be applied at all levels in order to enhance the overall consistency of the force. The Info Ops function advises planning, execution and assessment of military operations from a comprehensive and systemic understanding of the information environment, considering all or any capability or activity able to create effects; the extent is only limited by imagination, availability, policy and doctrine and international law;
- 0153. **Tempo**. Tempo is the rhythm or rate of activity of operations relative to the enemy. The side that consistently decides and acts faster holds an advantage. Shock and surprise

⁵ For more detail, see AJP 3.2 Allied Joint Doctrine for Land Operations

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- during engagements allows tempo to be held at a high level and leads to quick success; and
- 0154. **Simultaneity**. Simultaneity presents the enemy commander with so many threats or potential threats at the same time that he is overloaded and he is precluded from concentrating on a single threat. This should be done horizontally across the enemy capabilities and vertically throughout his levels of command. The combination of physical and influence activities that respectively threaten capability and thus undermine cohesion and directly attack understanding and cohesion will have cumulative effects.
- 0155. Fundamentals of the Manoeuvrist Approach
- 0156. The manoeuvrist approach is a mindset for applying fighting power to defeat enemies. There is no prescribed formula, however certain fundamentals can provide guidance:
- 0157. **Concentrate on the Enemy's Vulnerabilities**. With the objective being to attack the enemy's will to fight and cohesion, activities and their effects should be planned along these lines. Plans should focus on exploiting the enemy's vulnerabilities and not on seizing and holding the ground. The purist application of manoeuvre warfare is to disarm or neutralize an enemy before the fight;
- 0158. **Mission-Type Orders**. Mission-type orders involve de-centralising decision-making and letting decisions be taken at the lowest possible level. It is essential that commanders know and fully understand their commander's intent two levels up. Subordinates must understand what is on their commander's mind, his vision of the battlefield and what end state is desired. Mission orders allow commanders, at all levels, to react to situations and to capitalize as they arise. The commander directs and controls his operation through clear intent and tasks rather than detailed supervision and control measures or restriction;
- 0159. **Agility**. Agility enables a commander to seize the initiative and dictate the course of operations that is *acting quicker than the enemy can react*. Eventually, the enemy is overcome by events and his cohesion and ability to influence the situation are destroyed. Agility is the liability of the commander to change faster than the enemy can anticipate. Quickness and intellectual acuity are the keys to effective agility. Commanders must be quick to make good decisions and to exploit developments with both physical activities and Info Ops. Just as a unit will move to exploit a sudden gap on the battlefield before the enemy can re-position to close it, a commander must be quick to exploit through Info Ops a public relations error by an insurgent force. Getting inside the enemy's decision cycle is the essence of tempo. Well rehearsed battle drills, standard operating procedure enhance the agility of a formation;

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- 0160. **Focus on Main Effort**⁶. Main Effort focuses fighting power and resources on the vital element of the plan and allows subordinates to make decisions that will support the commander's intent without constantly seeking advice. This way, the commander is successful in achieving his goal and each subordinate ensures his actions support the main effort. It is the focus of all, generally expressed in terms of a particular friendly unit. While each unit is granted the freedom to operate independently, everyone serves the ultimate goal, which unifies their efforts. In certain campaigns, the main effort may be focused on effects in the psychological domain while activities that create effects in the physical domain are supporting and may seek only to maintain a secure environment for other elements and forces;
- 0161. **Exploit Tactical Opportunities**. Commanders continually assess the situation (mission analysis) and then have the necessary freedom of action to be able to react to changes more quickly than the enemy. Rigid control measures that are interchangeable and unlikely to survive first contact are avoided. Reserves are created, correctly positioned and grouped to exploit situations that have been created by shaping the battle to conform to friendly concepts of operations; and
- 0162. **Act Boldly and Decisively**. Commanders at all levels are able to deal with uncertainty and act with audacity, initiative and inventiveness in order to seize fleeting opportunities within their higher commanders' intent. They not only accept confusion and disorder, they generate it for the enemy. Failure to make a decision surrenders the initiative to the enemy. Risk is calculated, understood and accepted. In doing so, commanders must keep in the foremost of their minds, the overall objective. Notwithstanding this need, at times, tactical success may have to be sacrificed in order to meet the overarching operational objective.

Mission Command

Definition and Tenets

- 0163. Mission command is the philosophy of command that promotes unity of effort, the duty and authority to act, and initiative to subordinate commanders. Further amplification and detail can be found in AJP 3.2 Allied Joint Doctrine for Land Operations and ATP 3.2.2 Command and Control of Allied Land Forces.
- 0164. Operational Complexity
- 0165. Today's operational environment requires Army forces to modify their tactics to ensure that they are appropriate. Recent experience demonstrates the difficulty and cost of fighting terrorists and insurgent while supporting reconstruction efforts. These

⁶ Main effort is defined as: a concentration of forces or means, in a particular area, where a commander seeks to bring about a decision (Recommended to LOWG Terminology Panel for inclusion in AAP 6). It works to achieve a unity of effort across all subordinate and supporting forces and maximises combat power.

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- experiences and a study of other conflicts have revealed the following insights, which are guiding the Army's effort to prepare for future operations:
- 0166. All major operations combine offensive, defensive, and stability elements executed simultaneously at multiple echelons;
- 0167. The operational environment evolves over time and changes due to military operations;
- 0168. Operations conducted during one phase of a campaign or major operation directly affect subsequent phases. Commanders should conduct current operations in a manner that sets the conditions necessary for future operations and ultimately for establishing a stable peace;
- 0169. Major operations are conducted not only to defeat the enemy but also to establish a stable peace. The military plays a large role in this effort, even after major combat operations have ended. Establishing a stable peace after a violent conflict may take longer and be more difficult than defeating enemy forces; and
- 0170. In any campaign or major operation, changing conditions require Army forces to adapt their tactics, techniques, and procedures to the operational environment. To be successful, leaders must develop learning organizations that collect and share best practices and lessons learned.

CHAPTER 2 – OPERATIONAL AREAS, FUNCTIONS AND OPERATIONAL FRAMEWORKS

Section I - Introduction

- 0201. The fighting power¹ of a military force is applied through the conduct of tactical activities. Tactical activities, through which a campaign is conducted, may be grouped as: offensive; defensive; stability and enabling activities. In planning campaigns and operations, commanders and staff identify the desired end-state, select operational objectives that support the end-state and then allocated missions and tactical activities that will create the effects to realise the objectives.
- 0202. In order to give the application of fighting power structure and definition in the achievement of objectives, a number of frameworks have been devised that allow different tactical activities to be conducted in a complementary and synchronised fashion. The conduct of the tactical activities, the forces used to execute them and the effects may be conceptualised through three frameworks:
- 0203. **Operational Areas**: the arrangement of resources, activities and command and control (C2) architecture within the spatial aspects of the environment.
- 0204. **Functions**: the arrangement of activities by functions within the operational areas.
- 0205. **Operational Framework**: the arrangement of activities by purpose and effects within the battlespace.

¹ Fighting power is defined as: the ability to fight, consisting of a perceptual component (encompassing the thought process involved in producing military effectiveness), a moral component (the ability to get people to fight) and a physical component (the means to fight), measured by assessment of operational capability. (AJP 3.2 Lexicon). For a full discussion of fighting power, see AJP 01 Allied Joint Doctrine.



Figure 2-1: The Conceptual Frameworks for the Conduct of Tactical Activities

0206. These frameworks are used to plan, organise and synchronise the application of combat power in order to reach operational objectives. They provide commanders with a conceptual visualisation for the application of scarce resources in order to best achieve the desired effects within the battlespace. It must be stressed that operations involve much more than opposing military forces and the application of physical fighting power. Although there will remain a requirement for combat operations that only military forces are capable of conducting, objectives will be met within a campaign through a wide array of activities – offensive, defensive, stability and enabling, involving inter-agency interaction, that is, the coordination of both military and non-military elements. It will often fall to the military commander to help formulate these complementary military and non-military activities within the conceptual frameworks.

Section II – Operational Areas

- 0207. A commander's battlespace consists of his area of operations (AOO), the area of influence, and the area of interest (AOI). Of the three components of the battlespace, only the area of operations is assigned to the commander by his superior. His assessment will lead him to identify the other components.
- 0208. The commander must gain and maintain an understanding of his battlespace in order to effectively conduct the operations and create effects the support his assigned objectives and ultimately achieve the desired end-state. Apart from physical ORIGINAL

characteristics, a battlespace will be influenced and affected by the elements and systems, that is, all the groups of people and individuals within the surrounding environment. All these must be considered in the commander's planning. Additionally, the commander will have to share his battlespace with other instruments of power. Ideally, some form of relationship will be established so that the military may work in harmony and in a complementary manner with these other instruments of power that will be seeking to achieve various objectives.

- 0209. A military force will project its fighting power throughout its AOO and has potential to do so throughout its AI. It may do on both the physical and moral planes. In doing so however, it may create desired and/or undesired effects in the area of interest.
- 0210. Activities and their effects are not limited to the physical dimensions of the geographical area of influence. Activities that occur within an AOO can have effects far removed from the geographic AOO, area of influence or AI. Tactical incidents may even have wide ranging operational and strategic effects. For example, the accidental death of civilians from a particular ethnic group may well cause public outcry, undermine support for the force and its mission, affect the deployment of coalition forces from other nations and engender negative reactions in other countries, particularly those with sympathetic ethnic groups. These removed areas must be viewed as potentially extended areas of interest.

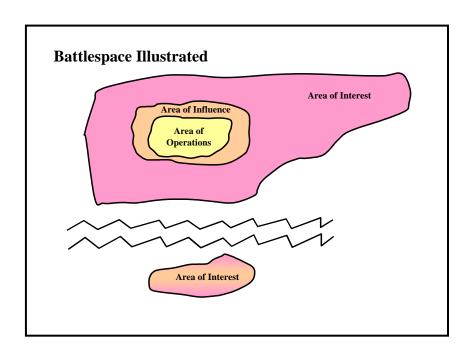


Figure 2-2: An Illustration of a Commander's Battlespace with a Remove Area of Interest

Area Of Interest

- 0211. The area of interest (AI) is defined as: the area of concern to a commander relative to the objectives of current or planned operations, including his areas of influence, operations and/or responsibility, and areas adjacent thereto. (AAP 6) This area also includes areas occupied by the adversary and interested neutrals, all of which could jeopardize the accomplishment of the mission.
- 0212. The understanding of an AI must be expanded beyond immediate geographic and temporal concerns. Areas of interest may include areas and regions that are affected by actions in a commander's AOO or conversely, areas and regions in which activities may come to affect events in the commander's AOO.
- 0213. Limited resources, time and personnel will place limitations on the commander's ability to collect and process information from the entire AI and its scattered influences. The commander must set priorities for monitoring the AI. Too narrow a view of the AI could render the force reactive rather than proactive and too wide a view could hinder the force with a glut of irrelevant information

Area Of Influence

- 0214. An area of influence is a geographical area wherein a commander is directly capable of influencing operations by manoeuvre, information operations or fire support systems normally under his command or control. (Adapted from AAP 6). Within the area of influence, the commander can create physical effects through fires and manoeuvre, and he can create psychological effects through the influence of information operations. The ability to influence the environment, that is, create effects within the area of influence, exists on both the physical and moral planes.
- 0215. At the tactical level the area of influence includes the physical space that a commander can influence with the means at his disposal. Operations within tactical areas of influence are synchronised through the higher commander's intent and operational plan.
- 0216. At the operational level, the area of influence includes the Joint Operations Area that can be influenced by the military operations within the entire assigned area. Military operations and activities within operational areas of influence are synchronised along lines of operation and within a Joint Interagency and Multinational (JIM) framework (particularly across multiple agencies) in order to create supporting effects and achieve operational objectives and end-state.

Area of Operations

- 0217. An area of operations (AOO) is defined as: an operational area defined by a joint commander for land or maritime forces to conduct military activities. (AAP 6)
- 0218. A higher, component commander assigns areas of responsibility (AOR) to his subordinates. An area of responsibility is defined as: *geographical area of ground*, ORIGINAL

sea or air under the command of a commander who has the necessary authority and power to exercise it. This responsibility is normally extended to intelligence collection, conduct of operations, control of movements and possibly the maintenance and protection of facilities, but it can also be limited to a specific domain. (Not in AAP 6. Term proposal submitted to LOWG terminology panel for inclusion in AAP 6). Although an AOR is assigned to a commander by his component commander based on the latter's assigned AOO, the AOR of subordinate commanders are commonly referred to as AOOs as well.

- 0219. An AOO is a permissive control measure that provides freedom of action within defined boundaries and increases flexibility in unit operations. Commanders can, in turn, partition their assigned AOO and assign portions of it to subordinate formations, units and sub-units. The design of an AOO will evolve over time as a result of the continuous assessment process and changing circumstances.
- 0220. Within an assigned AOO, unless directed otherwise, the commander is responsible for the following:
 - a. The conduct of operations;
 - b. Co-ordination of fires;
 - c. Control of movement:
 - d. Development and maintenance of installations;
 - e. Terrain management, to include installations;
 - f. Force protection security;
 - g. Maintenance of situational awareness across all forces; and
 - h. Area of intelligence responsibility² (AIR).
- 0221. When assigning an AOO to a subordinate the higher commander must ensure that the subordinate unit or formation has the means to influence the situation in that area, in order to achieve the desired effects and objectives. Higher commanders will often specify constraints, restraints and limitations when assigning an AOO to a subordinate. These are usually depicted as graphic control measures³ or tasks.

² Area of intelligence responsibility is defined as: an area allocated to a commander, in which he is responsible for the provision of intelligence, within the means at his disposal. (AAP 6)

³ Graphic control measures are used at all echelons and by all Services. A *graphic control measure* is a symbol used on maps and overlays to regulate forces and operational functions.

- 0222. Commanders use graphic control measures to regulate manoeuvre, movement, airspace, fire support, and other aspects of operations within the AOO. Depending upon the situation, graphic control measures may be related to easily identifiable terrain features. It should also be noted that control measures will shift over time and should be continually monitored to ensure they reflect tactical requirements.
- 0223. Many campaigns and operations will present significant geographic challenges. Many AOOs and enemy situations will not allow for a linear and/or contiguous deployment. Co-ordination, cooperation and mutual support between elements will be more difficult. Mission command and the use of well-practised reserves at all levels become increasingly important under such circumstances.
- 0224. The four recognised types of AOOs are:
 - a. Contiguous, Linear;
 - b. Contiguous, Non-Linear;
 - c. Non-Contiguous, Linear; and
 - d. Non-Contiguous, Non-Linear.
- 0225. The label of an AOO as linear, is decided in relation to a located and identifiable adversary.

Contiguous – Linear Battlespace

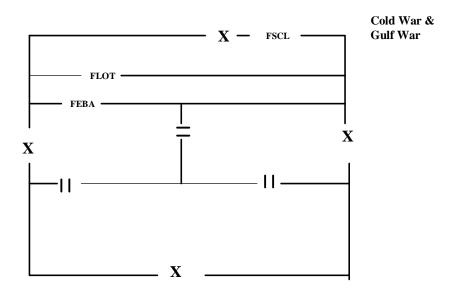


Figure 2-3: Contiguous-Linear Battlespace

Contiguous - Non-Linear Battlespace

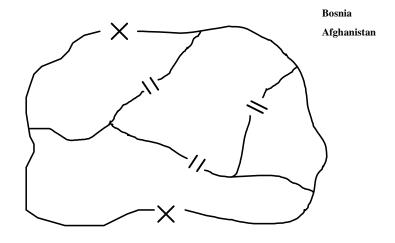


Figure 2-4: Contiguous-Non-Linear Battlespace

Non-Contiguous, Linear Battlespace

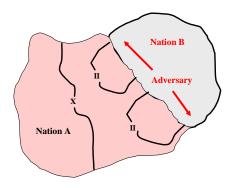
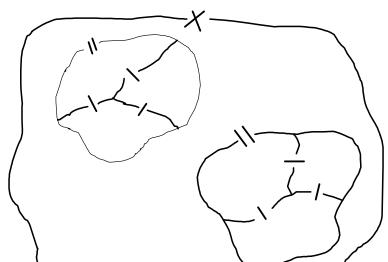


Figure 2-5: Non-Contiguous, Linear Battlespace



Non-Contiguous – Non-Linear Battlespace

Figure 2-6: Non-Contiguous, Non-Linear Battlespace

- 0226. A commander will be assigned an AOO within his higher formation's AOO. His estimate process will lead him to decide the configuration of his own AOO, which may differ from the configuration of the higher commander's AOO. For example, a BG commander may assign his manoeuvre sub-units AOOs such that he has a contiguous AOO. Following an estimate, one of the sub-unit commanders may assign each of his platoons separate AOOs centred on specific villages with unassigned areas in between. He has thus created a non-contiguous AOO but he remains responsible for operations in the areas not assigned to his sub-sub-units.
- 0227. Factor affecting the assignment of AOOs will vary by mission. Apart from geography, there are a wide range of factors that must be considered in the assignment of AOOs:
 - a. Mission;
 - b. Assigned and implied tasks;
 - c. Targets and desired effects on those targets;
 - d. Terrain;
 - e. Enemy/adversaries;
 - f. Time and space (particularly in terms of size of AOO, threat and movement capabilities);

- g. Cultural boundaries;
- h. Linguistic boundaries;
- i. Political and/or judicial boundaries;
- j. Tribal, historic, ethnic and/or religious boundaries;
- k. Need for an economy of force;
- Capabilities of own troops to influence the assigned AOO, to fulfill assigned
 missions and tasks and to create desired effects and conduct required activities;
 and
- m. Presence of other agencies in the region, with their own objectives.
- 0228. In non-contiguous AOOs there will be areas that are not assigned to subordinate commanders. An area unassigned is the space not assigned to subordinate units within a higher headquarters' area of operation. The commander remains responsible for these areas and for operations within them. He determines what resources he will assign to monitor and influence these areas when required.

Deep, Close And Rear – Activities In Space And Time

- 0229. Within the battlefield framework the concept of deep, close and rear areas⁴ and operations exist. They describe the placement of forces and the conduct of operations and activities in terms of space and time. They describe the conduct of the full range of military activities in terms of where and when they occur in the battlespace. These are described as follows:
 - a. **Deep Operations.** Deep operations are: operations conducted against forces or resources not engaged in close operations. They expand the battle area in time and space, help to shape the close battle, make it difficult for the enemy to concentrate combat power without loss, and diminish the coherence and tempo of his operations (Not in AAP 6. Term proposal submitted to LOWG terminology panel for inclusion in AAP 6). Deep operations are those operations conducted at long range and over a protracted timescale, against adversary forces or resources not currently engaged in close operations. They may be decisive operations, but in general they will be shaping. For example, a deep target engagement may reduce the combat effectiveness of the adversary's reserve force prior to the main attack. At each level of command, the extent of the deep operations and related area is dependent upon the commander's means of acquiring information and engaging targets. Deep

⁴ Previously, deep, close and rear operations were considered part of the operational framework. However, they are linked to time and space and thus have been placed under the battlespace framework.

operations include three principal activities: information operations; surveillance and target acquisition; and interdiction. They may be conducted on the physical and psychological planes, the latter seeking to create long term influences in a target audience. This may include, for example, delivering PSYOPS leaflets to conscripts in enemy reserve units or building civil infrastructure so that subsequent generations of a region are better educated and more stable;

- b. **Close Operations.** Close operations are: operations conducted at short range, in close contact and in the immediate timescale. (Not in AAP 6. Term proposal submitted to LOWG terminology panel for inclusion in AAP 6). Close operations are those that involve friendly forces in direct contact with the adversary or operations in which commanders anticipate direct contact The means used in close combat could range from physical destruction with lethal weapons to detention. They may be shaping, decisive and even sustaining operations of forces in contact. Combined arms coordination is the hallmark of close operations. Close operations will normally consist of physical activities but may consist of influence activities. For example, a firepower demonstration may convince a belligerent commander not to manoeuvre his forces from a cantonment site, and a medical treatment facility for the local populace will immediately engender good will and local support. Close operations consisting of complementary physical and influence activities may occur, such as the use of a demonstration and false radio traffic iust prior to an attack, or the use of flyers to convince a populace to flee an area before an attack; and
- c. Rear Operations. Rear operations are the largely administrative and logistic activities that occur out of contact with adversary forces, that is, behind the area in which close operations are occurring. Rear operations require security, particularly in campaigns involving an asymmetric, unconventional adversary. In non-contiguous and/or non-linear battlespaces (that is, in areas with no identifiable rear area), there is a need to secure the lines of communications and critical centres. Considerations for rear area security will focus on these lines of communications and other areas that are not manned by combat forces. Rear operations including the security aspect are normally sustaining operations.
- 0230. Deep and close operations may also be identified in terms of time, for both execution and planning purposes. Normally, close operations will occur against adversary forces that will be encountered within 48 hrs. Operations against adversaries that will be encountered by the forward line of troops not before 48 to 72 hrs will normally be considered deep operations, depending upon the level of engagement. When operating to create effects on the psychological plane to create enduring end-states, the scope of understanding and employment of the spatial, temporal and purpose descriptors must be expanded. Deep operations may be conducted for months to years before they result in a close operation, if ever at all. For example, operations seeking to improve a local education system may create

immediate support for a campaign, but they will not provide a result in terms of a cultural shift and social improvement for a number of years.⁵

Section III - The Functional Framework: Combat Functions (Joint Functions) And Core Functions

General

- 0231. If the battlespace framework gave a spatial and temporal description and organisation to the resources, C2 and activities within the environment, then the functional framework describes the organisation of activities in terms of the function, in relation to one another. This framework used the functions in combat and the core functions to describe activities by their function.
- 0232. Combat functions (Joint Functions) consist of: **command; information and intelligence; firepower; manoeuvre and fire; protection; and, combat service support.** Further organisation and description of activities may be described using the core functions. The core functions describe activity functions in relation to one another. Core functions are: **find; fix**; and, **strike**, with **exploit** an implied function. Together, these two functional groupings comprise the functional framework. The functional framework is means of conceptualising and articulating the plan for an operation. It is a **framework for manoeuvre** and may be applied to both physical activities and influence activities. See AJP 3.2 for detail and context.

The Combat Functions

- 0233. The combat functions are defined as: an analytical tool for commanders and staff that provides a complete description of everything that military organisations do prior to, during and after operations, as a list of functions. (AJP 3.2 Lexicon)
- 0234. The combat functions describe tactical activities conducted by forces on the battlefield to meet their objectives and are an analytic tool that assists in the description of battlefield functions. They provide a broad and complete description of battlefield activity, which is not constrained by consideration of arm or service. By considering these functions, commanders may ensure that they are addressing all aspects of combat in their planning for, and conduct of, operations. They are part of a common military vocabulary for land operations.
- 0235. The combat functions facilitate the manoeuvrist approach. The ability to implement a manoeuvrist approach to operations depends upon: the exercise of an appropriate

⁵ Operations under SFOR in Bosnia included the distribution of a NATO forces newspaper for the local population. One edition contained a children's essay competition that asked the contestants to describe how they would welcome a child from a different culture or region moving into their neighbourhood. This was a deep operation, seeking to shape the culture of a future generation.

philosophy of *command*; exploitation of *information and intelligence*; the application of *firepower* and *manoeuvre*; the *protection* of friendly forces; and the provision of *combat service support*. While the relative importance of the combat functions may vary according to the purpose of an operation, together they form a coherent whole – the basis of a balanced force's combined capabilities.

- 0236. Combat functions constitute the functions or the ways through which a military force applies its fighting power in the conduct the finding, fixing, striking and exploitation of the enemy (the core functions). Land forces pre-empt, dislocate and disrupt by fixing and striking the enemy through application of the combat functions. They may be applied to both physical and influence activities.
- 0237. Combat functions comprise the following:
 - a. **Command**. The authority vested in an individual of the armed forces for the direction, coordination and control of military forces. (AAP 6);
 - b. **Information and Intelligence**. Information Unprocessed data of every description that may be used in the production of intelligence. Intelligence The produce resulting from the processing of information concerning foreign nations, hostile or potentially hostile forces or elements, or areas of actual or potential operations. The term is also applied to the activity that results in the product and to the organisations engaged in such activity. (AAP 6);
 - c. **Firepower**. The amount of fire that may be delivered by a position, unit, or weapon system. (AAP 6);
 - d. **Manoeuvre and Fire**. Employment of forces on the battlefield through movement in combination with fire, or fire potential, to achieve a position of advantage in respect to the enemy in order to accomplish the mission. (AAP 6);
 - e. **Protection**. The means of preserving the fighting potential of a force so that it can be applied at a decisive time and place. (AJP 3.2 Lexicon); and
 - f. **Combat Service Support**. The support provided to combat forces, primarily in the fields of administration and logistics. (AAP 6)

Command

General

0238. Command is the combat function that integrates all the combat functions into a single comprehensive tactical level concept to create desired effects in support of objectives. It provides vertical and horizontal integration through the planning, direction, co-ordination and control of military forces and other elements as allocated. It provides the means to unify and integrate the activities of the other functions in the finding, fixing, striking and exploiting of enemy forces or other elements.

0239. The central component of the command function is a philosophy emphasizing the importance of formulating and communicating the commander's intent. A thorough understanding of the intent guides decision making at all levels, encourages both initiative and speed of action. It provides for a unity of purpose and effort on the vertical and horizontal planes and even between the military and other agencies.

Command Support

- 0240. Command is the process by which the commander impresses his will and intentions on his subordinates. It supports and enables the art of command. It encompasses the authority and responsibility for deploying forces to fulfil his mission. Control is the process through which the commander, assisted by his staff, organizes, directs and coordinates the activities of the forces allocated to him. To achieve this, he and his staff use standardized procedures in conjunction with the equipment communications and information systems available. Together, these two processes form a command and control (C2) system that the commander, his staff and his subordinates use to plan, direct, coordinate and control operations.
- 0241. Command support processes are reliant upon robust communications, good intelligence and an effective battle procedure process. Commanders will need the skills to operate in a fast-paced and highly technical environment while still ensuring personal dominance of the operations and decision-making process. Notwithstanding technically efficient command support systems, the commander must still exercise command through the strength of his personality.
- 0242. In order to exercise command and control effectively, a commander must be aware of the States of Command and Command Relationships, which exist between him and the formations and units allocated to him for his mission. These terms and definitions are concerned primarily with the ability of the commander to assign an independent mission, to reorganise the formation to suit his purpose or to direct specific tasks within an agreed mission statement. The relevant terms are listed and defined in AAP 6 and AJP 3.2.2 Command and Control of Allied Land Operations.

Command Authority and Responsibility

- 0243. **Authority and Responsibility**. Command is the authority vested in an individual for the direction, coordination and control of military forces. A commander exercises that authority over his subordinates by virtue of his appointment. That authority, which derives from law and military regulations, is accompanied by the acceptance of his responsibilities that cannot be delegated.
- 0244. **Exercising Command**. The exercise of command is primarily concerned with the planning and decision process. The process must be both dynamic and multidimensional and will have to permit decisions about current operations to occur simultaneously with decisions and planning about future operations. Time and information available are the major factors in this process and there is always a need to reach a timely decision in relation to an opponent's own decision-action process if

the initiative is to be gained or retained. Commanders and their staffs must therefore aim to operate within the enemy's decision cycle. The exercise of command will, however, be undermined in the absence of any one of three essential components: information, control and communications. In simple terms a commander requires information to make decisions, control to coordinate and monitor the activities of forces and assets, and communications to carry and promulgate information, thus enabling a commander to continue to make and implement decisions towards a common purpose.

- 0245. **Direction**. A commander issues directives, orders and instructions both before and during operations. Where possible, these orders should be given personally, and often they will be confirmed in writing. Once operations commence, it will be normal for the commander to make any necessary adjustments to his plan by short, clear orders, often by radio or trunk communications including electronic data processing.
- 0246. **Functions of the Commander**. The role of the commander is expressed in terms of a number of functions to be performed, the specific function involved varying with the level of command and the forces available:
 - a. Knowing the higher commander's intent and desired end-state;
 - b. Assessing the situation and providing as much detail in planning guidance to his staff:
 - c. Making decisions in order for the detailed planning to occur, in line with the intent and that of the higher commander;
 - d. Assigning missions to subordinates to create the required effects to achieve the desired objectives;
 - e. Allocating resources in line with allocated tasks and the main effort;
 - f. Directing forces and adapting plans as the situation develops and more information becomes available;
 - g. Sustaining forces in line with the scheme of manoeuvre and main effort;
 - h. Motivating forces; and
 - i. Providing leadership.

Staff Support to the Commander

0247. The staff exists to provide advice and assistance to the commander and provide support to subordinate commanders. The staff has no authority within itself; it derives authority from the commander and exercises it in his name.

0248. The role of the staff is essentially that of control and its two main functions of coordinating and monitoring. It must make certain that the employed control measures do not impede on the freedom of action of the subordinate commanders. Under the first function of coordinating, the staff supports the commander by gathering, processing and presenting information in a manner that helps the commander to select a particular course of action. Following this, the staff is responsible for the detailed preparation and dissemination of control measures normally promulgated in the form of orders. In the second and overlapping function of monitoring, the staff provides a dynamic feedback essential for making timely decisions.

Staff Branches

- 0249. A headquarters will be divided into a number of staff branches or cells, each having a clear function and responsibilities. They cannot, however, act independently of each other and their efforts must be coordinated to ensure that the commander receives the information and input that he needs in order to make decisions. In general, the specific responsibilities of staff branches are as follows:
 - a. G1 Personnel and Administration, to include:
 - (1) Personnel management;
 - (2) Manpower management, including casualty replacement and reserves;
 - (3) Provost and discipline;
 - (4) Prisoner of war and detainee administration; and
 - (5) Casualty procedures.
 - b. G2 Intelligence provides:
 - (1) All-source analytical support to operational staffs;
 - (2) The intelligence estimate;
 - (3) IPB;
 - (4) Intelligence reports for commanders; and
 - (5) The battlespace assessment to include assessment and analysis of the systems, individuals and groups within the environment that influence the outcome of the operation.
 - c. G3 Operations are responsible for:
 - (1) Current operations, including supervision of information operations;

- (2) Near-term planning (eg, for fragmentary orders);
- (3) Operations support for issues such as ROE and meteorology;
- (4) Reports and returns;
- (5) Close support engineering; and
- (6) Force protection.
- d. G4 Logistics and Health Service Support provide:
 - (1) Logistics and combat service support (CSS);
 - (2) Health service support;
 - (3) Coordination with host nation for support as necessary; and
 - (4) General support engineering.
- e. G5 Plans and Policy, deal with:
 - (1) Operational planning process (OPP) and the estimate process;
 - (2) Forward planning and coordination;
 - (3) Contingency planning; and
 - (4) Operational analysis.
- f. G6 Command Information Systems (CIS), include:
 - (1) Communications and information systems;
 - (2) Frequency management; and
 - (3) Cryptography.
- g. G7 Doctrine and training, include:
 - (1) Development and writing of doctrine; and
 - (2) Development and implementation of training support.
- h. G8 Resources and Finance, are responsible for:
 - (1) Civil secretariat;
 - (2) Contract authority; and

- (3) Finance and budget planning.
- i. G9 Civil Military Cooperation (CIMIC), provides for the civil-military interface:
 - (1) Negotiation of coordination and support arrangements, such as the provision of civilian lift to support operations;
 - (2) Coordination of civil-military support; and
 - (3) Coordination of civil emergency planning.

Arms and Services

- 0250. Most arms and services will provide input through their relevant staff branch, such as transport through the G4. A number of specific, specialist arms and services will directly advise the commander. Examples include:
 - a. Artillery;
 - b. Engineer;
 - c. Aviation;
 - d. Air Defence:
 - e. Military Police;
 - f. Legal; and
 - g. Public Affairs.
- 0251. In additional to military specialised advisors, a headquarters staff may also include civilian experts who may advise the commander regarding the local region, its politics, its economics and its culture and religion.
- 0252. It should be noted that the G3 staff branch supervises the conduct of all operations including information operations whilst all other staff branches support the G3 branch and the execution of operations. Therefore, the G3 staff branch is responsible for the conduct of all operations, those that conduct physical activities and those that conduct influence activities, that is, information operations. Staff officers responsible for supervising and advising on information operations such as PSYOPS, deception, and the related public affairs, should be placed under the G3 (G5 for planning). Commanders of information operations capabilities, such as a PSYOPS detachment commander, are considered line commanders and will command their elements in the conduct of missions and they will provide advice directly to the commander as necessary.

Information And Intelligence

0253. **General.** Commanders at all levels must regard intelligence as inseparable from operations since it provides vital parts of the basis for making decisions, planning operations, and fighting the battle. The staff, particularly the G2 staff, must be capable of assessing the information available and providing the intelligence and advice that is relevant to the commander's requirements. However, it remains a command responsibility to provide proper direction to the intelligence staff. This section will be developed in two parts; Part 1 to deal with general aspects of intelligence in land operations and Part 2 to deal with more specific aspects of intelligence, surveillance, target acquisition and reconnaissance (ISTAR).

Part 1 - Intelligence

- 0254. Information and intelligence is the combat function that provides the commander with knowledge about the adversary and the environment, which includes the weather, physical terrain and human terrain (populations). This combat function is inherently modular, capable of integrating additional systems and capabilities at every level: tactical, operational or strategic.
- 0255. In considering and assessing the environment, the information and intelligence function must not only examine the physical characteristics of weather and terrain, but also the broad range of other systems, entities and power structures that exist and operate in the environment. The inter-related elements of an environment that must be assessed in the knowledge base, are the political, military, economic, social (including cultural aspects), infrastructure, and informational. The scope of the information and intelligence function must be broad in order to firstly, provide the commander with a broad and deep knowledge base of the operational environment and its constituent elements, and secondly, to assess the effects of military activities across all elements within the environment.
- 0256. The information and intelligence function is operationalised through the Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) system, which integrates those assets and capabilities that collect information and then provides the analysis to produce intelligence and understanding, which is then disseminated. By design it leverages all sources of information. Traditionally, sensor management, synchronisation and fusion have been centralised to gain full advantage of disparate systems found in the modern battlespace. The demands of current complex and dispersed COIN operations, whilst they do not negate the requirement for higher centralised control of intelligence, have been the requirement to place similar capability suites at more junior levels of command to support situation awareness.

Intelligence Cycle

0257. The commander's intelligence requirements must be clearly understood by all members of his staff in order that unforeseen opportunities to task and exploit sources, which may support his requirements, can be seized. To be effective,

- intelligence must have the specific aim of providing the commander with what he needs. In order to provide an effective service the intelligence staff must be properly directed and its objectives defined.
- 0258. The start point for the entire intelligence process is for the commander to set out his requirements for the intelligence he needs to make his plan and execute it. He will need to augment and amend these requirements as his plan develops. This is continuous, cyclical process, which must receive the commander's personal attention. His intelligence staff converts this requirement into collection requirements, which are distributed to obtain either processed intelligence or raw information, which the staff can fuse into assessed intelligence for the commander. The cycle can therefore, be divided into four principle elements; direction, collection, processing and dissemination.
- 0259. Once the collection and processing has been sufficiently carried out to meet the commander's requirements and a clear picture of the adversary's situation and capabilities has been obtained, the intelligence estimate can be completed. The intelligence estimate is an assessment of an adversary, potential adversary or foreign force capability and intention and probable courses of action. The Intelligence Preparation of the Battlespace (IPB) process can assist the commander in identifying critical battlespace decision points and to refine his intelligence requirements.
- 0260. The dissemination of intelligence to users applies not only to the finished product, but also to the passage of information and partially processed intelligence between sources, agencies, and staffs.

Resources and Requirements

- 0261. All available sources and agencies, including national sources, must be used to the greatest extent possible, for collecting information. The flexibility and responsiveness of modern intelligence collection methods and systems enable commanders at all levels to see the battlespace in depth, and in near real time. Boundaries or national restrictions between allied units and formations should not inhibit the collection and dissemination of information and intelligence.
- 0262. As the battlespace is viewed by commanders at each level of command with a slightly different perspective, so do their intelligence requirements and the information requirements of their staff vary:
 - At low levels, commanders need accurate and timely intelligence to engage the adversary and his fire support elements, particularly with friendly direct fire weapons;
 - b. At formation level, the commander's intelligence requirements will be dictated by his need to plan further in advance and by the greater variety of ranges of weapons available to him;

- c. At higher levels, the commanders will place greater emphasis on determining the adversary's capabilities and/or intentions in order to plan future operations and deploy reserves; and
- d. Commanders at the lower tactical levels will require information about more than merely the adversary forces in his AOO. They will need to understand the power structures, cultural influences and attitudes of the local populations within his AOO and thus environment. The success of campaigns will rely upon the requirement to understand, work with, and influence these entities in order to ensure their support of the campaign and to separate the adversary from them. Thus, intelligence staff and collectors must understand this requirement and work to fulfill it. In doing so, tactical level commanders will likely be assigned assets, normally held at higher echelons, to collect and assess, such as counter-intelligence assets, HUMINT collectors, political and cultural advisors.

Information Handling

0263. The information flow off the battlespace will demand a corresponding speed of processing; an automatic data processing capability will greatly accelerate processing and retrieval. The significance of a piece of information may very as it passes up the chain of command, because the intelligence background against which it is interpreted will become wider. However, there is always a danger that intelligence staffs at the higher levels will be unable to deal adequately with the information flow. There must be as system of filtering at the lower levels to ensure that material going up the chain of command is strictly relevant. The commander's intelligence requirements should be well known at all levels, so ensuring that valuable material is not deleted.

Assessment During Planning

- 0264. Assessment is central to the planning process, in terms of continuous evaluation of the environment and influencing factors. Any changes to the factors or new information must be assessed in order to ascertain its affect on the mission and developing plans.
- 0265. Whilst planning is occurring, ISTAR capabilities must continue to monitor and report on the factors in order for the planning and decisions to remain relative and will therefore lead to a successful mission.

Echeloning and Synchronisation of the ISTAR Planning Process

0266. The execution of ISTAR activities will commence while planning and preparations for the decisive operations continue. Thus, those units assigned such activities will be in the execution stage of the planning process while their superior echelons are continuing with planning and preparation stages. Those subordinate units executing their respective operations must be allocated time and resources to permit their own

planning and preparation. The early execution of ISTAR activities will support the continuous assessment function.

Battle Damage Assessment (or Post Engagement Assessment)

- 0267. The information and intelligence function must also be able to devise, collect and assess measures of effectiveness in order to determine if the activities being undertaken by the military and other instruments of power are creating the desired effects that progress towards campaign success.
- Part 2 Intelligence, Surveillance, Target Acquisition, and Reconnaissance (ISTAR)
- 0268. **General.** ISTAR is a system which integrates those assets and capabilities that collect information and then provides the analysis to produce intelligence and understanding, which is then disseminated. When effectively integrated, individual ISTAR activities will create an intelligence synergy and thus, provide a dynamic and continuing process of collection, processing and dissemination. National requirements, doctrine, political constraints and agreement between allies determine the level, intensity, and means, by which these activities take place within a coalition.
- 0269. **Concept**. The ability to obtain quickly information on the composition, deployment activities and capabilities of an adversary force, on the terrain, and meteorological data, and regarding other entities, influences and aspects (political, civil, cultural, economic, etc) within the environment is essential to the successful execution of tactical activities in support of operational objectives. The appropriate processing of this information will yield valuable intelligence and target information which the commander can allocate forces and resources, determine target priorities and establish the right conditions before commencing operations. The component parts of ISTAR are closely linked and often overlap. Together they involve:
 - a. **Area, Point and Target Surveillance**. Continual area surveillance of a specific area, point or individual target provides for the collection of general information on an adversary or potential adversary or situation in general. It may be used for the collection of information for assessment, or may be used as a trigger for the commitment of forces. It may be use to:
 - (1) Provide basic information on deployment, activity levels, capabilities, and overall intentions;
 - (2) Provide pattern of life information regarding a particular individual or group which plays in influential role in the environment;
 - (3) Cue reconnaissance and target acquisition resources on any requirement to investigate specific items or to obtain more detailed data/information on a particular observation;

- (4) Provide limited security to friendly forces through early warning of adversary activity within gaps, on exposed flanks or in rear areas. It may be used in support of friendly forces, in either an overt or covert manner;
- (5) Assist in initial recognition and identification; and
- (6) Counter targeting by adversaries, particularly those that conceal themselves amongst a local populace.
- b. **Reconnaissance in Depth**. Reconnaissance in depth aims to provide detailed information in areas beyond the range of direct fire weapons. It can be initiated as the result of area surveillance or by intelligence deductions. It may involve:
 - (1) The identification of known or suspected adversary forces including composition and activities;
 - (2) The acquisition of targets for air, aviation, and indirect weapons systems;
 - (3) The location and tracking of specifically targeted adversary units, elements, or activities; and
 - (4) The confirmation of terrain features and ground conditions.
- Combat Reconnaissance. Combat reconnaissance satisfies the requirements for both combat information and target acquisition essential for troops in or near contact with the adversary;
- d. Target Acquisition. Target acquisition is defined as: the detection, identification, and location of a target in sufficient detail to permit the effective employment of weapons. (AAP 6). The targeting cycle must be closely supported by the ISTAR collection process and means. Targeting input to the intelligence collection plan provides a focus for the management of detection systems. The input will identify priority targets, how they might be detected and whether target tracking is required. Target acquisition must include the targeting of other entities and systems within an environment, in addition to an adversary force. Such target acquisition will seek out targets for the application of information operations in order to influence understanding, perceptions, and will in order to highlight legitimacy and engender support for the coalition and its campaign. These targets may be broad audiences, specific individuals, certain power structures, or specific groups. Target acquisition will include:
 - (1) **Target Acquisition For Direct Fires Weapons**. This is normally associated with a specific weapon. Such a target acquisition system provides essential combat information on an adversary that has already been detected, located, and may now be engaged;

- (2) **Target Acquisition For Indirect Fire Weapons**. This is normally a data or information collection means operating either beyond the line of sight of the weapon system. It provides information to one or more indirect weapon systems;
- (3) Target Acquisition For Information Operations. In order to prosecute information operations and to influence target audiences in desired manners, key individuals, nodes, social entities and systems and power structures will have to be identified in order to facilitate the legitimacy and acceptance of any messages that seek to inform, influence, or persuade. These targets should be included in the same targeting process as other targets so that engagements by physical activities and influence activities are planned and conducted in a complementary fashion with information operations.

Principles of the Employment of ISTAR Capabilities

- 0270. The provision of information by ISTAR systems available to a commander should be controlled and coordinated at the highest level practicable in order to ensure economy of effort in covering critical areas. Some overlap will, however, be built into a surveillance plan to provide confirmation, avoid deception and defeat adversary OPSEC measures. Despite centralised control and tasking, ISTAR assets must be responsive to the requirement of lower level commanders, particularly during campaigns short of major combat in which information regarding entities in the local environment will affect tactical level commanders. The following are important principles:
 - a. ISTAR systems employed should complement each other in terms of:
 - (1) Space to ensure all areas of interest are adequately covered, enabling the detection of adversary signatures by the use of complementary systems;
 - (2) Time to ensure constant coverage;
 - (3) Interoperability wherever possible; and
 - (4) Variety different disciplines, such as HUMINT, IMINT, SIGINT, and ACINT, to ensure full coverage despite adversary OPSEC measures.
 - b. Real-time and near real-time ISTAR systems must be closely linked to responsive weapon systems to; ensure timely, effective engagement, provide post-strike analysis, avoid duplication, and allow speedy re-tasking of ISTAR systems to find new targets;
 - c. ISTAR systems must be intimately linked with the intelligence system/cycle to ensure that maximum benefit is derived from information provided;

- d. Processing and dissemination systems associated with ISTAR assets must provide the best possible product in a timely manner and in a readily usable format;
- e. ISTAR systems must be tasked in such a manner as to emphasize particular strengths (such as the ability to provide real-time or near real-time information) while minimizing potential weaknesses (such as vulnerability to some adversary countermeasures);
- f. ISTAR systems must be provided an appropriate degree of security and protection in order to ensure their survivability and efficient means; and
- g. A reserve should be maintained in ISTAR capabilities. Whenever possible, a tasking authority should ensure that one or more ISTAR systems retain a short response time capability to provide for unforeseen tasking or to confirm or refine information provided by other systems or means.
- 0271. **Planning and Execution**. ISTAR systems must be tasked to answer the commander's priority intelligence requirements (PIRs), which form part of his critical information requirements, are fulfilled and to ensure that Named Areas of Interest (NAIs) may be quickly prosecuted as targets. The basis for the effective employment of any formation's ISTAR assets is a comprehensive collection plan. Prior to issuing any tasking of an ISTAR capability, the following steps must be completed:
 - a. Analyze and validate the requirement to conduct the ISTAR activity under consideration;
 - b. Determine the priority of the requirement;
 - c. Review all ISTAR assets available and select the most appropriate; and
 - d. Coordinate the ISTAR plan and at the same time request the information and intelligence required, with the appropriate degree of priority, from superior and neighboring formations for areas beyond the Area of Intelligence Responsibility (AIR).
- 0272. **ISTAR Assets**. ISTAR assets and capabilities may be integral to a unit or formation and it must be remembered that ISTAR assets will include troops in contact with adversary forces or local populations. There will be many instances when a commander does not have the necessary resources under his command or control to meet his information requirements. In such circumstances, information requests will have to be made to flanking and superior HQs. Specific resources, capabilities and units that may be tasked with ISTAR related responsibilities include:
 - a. **Ground Systems**. This will include units, particularly reconnaissance and surveillance elements. Special Forces will also provide information to the

- ISTAR system. Ground surveillance systems, including radar and passive monitors, must be incorporated and exploited;
- b. **Air Systems**. This will include air and aviation systems allocated to support ISTAR requirements. It will also include the use of Unmanned Aerial Vehicles (UAV). These may be employed at all levels, with even mini-UAVs and micro UAVs being used at the lower tactical levels; and
- c. Satellite and Space Systems. The products of space-based systems may be requested to support tactical level operations. This will be particularly useful prior to the arrival of tactical level forces in a theatre or area of operations. Such support will be important in limited military interventions such as non-combatant evacuations.

Manoeuvre

- 0273. **General.** Manoeuvre is defined as: the employment of forces on the battlefield through movement in combination with fire, or fire potential, to achieve a position of advantage in respect to the enemy in order to accomplish the mission. (AAP 6) This firepower may be direct fire, indirect fire support or a combination of the two. It is the means of concentrating land forces at the decisive point to pre-empt, dislocate or disrupt enemy cohesion through surprise, psychological momentum and dominance. While mainly physical, manoeuvre can also have moral effects such as the creation of uncertainty, confusion and paralysis. It involves trade off: speed against security; breadth against depth; and concentration against dispersion. In this regard, a degree of risk taking and audacity is implicit.
- 0274. Manoeuvre is utilised throughout the battlespace in the conduct of deep, close and rear operations, in order to create shaping, decisive or sustaining effects. This is done through a scheme of manoeuvre issued as part of the operational plan.
- 0275. Manoeuvre will be planned with fire support as an integral component at all tactical levels, be it section to formation. Surveillance, target acquisition and reconnaissance (STAR) sensors should be arrayed and tasked so as to allow maximum manoeuvre out of contact until the last possible moment or until contact is desired by the manoeuvre force commander.
- 0276. Manoeuvre must not only be considered in terms of physical activities with combat forces, but also in terms of influence activities, that is, through information operations. This applies to all campaigns. For example, deception will help shape an enemy for a decisive blow that will in turn undermine his confidence and moral. PSYOPS activities to encourage desertion will shape follow-on offensive activities in that it will reduce the enemy's fighting power, physically and morally.
- 0277. Manoeuvre may be conducted solely through influence activities. The need to undermine the support of an insurgent element amongst an indigenous population or the need to isolate an uncooperative military commander in a peace support

campaign will see the use of activities throughout the realm of information operations. Thus, public affairs, PSYOPS, posturing by Alliance forces and other activities will all be planned and conducted, through a targeting process, to tailor and deliver messages to specific audiences in order to influence understanding, perceptions, will and behaviour, in support of operational objectives.

Joint Manoeuvre Forces

- 0278. Joint manoeuvre involves the assets of more than one component and may even involve strategic assets, temporarily made available for the operation. Joint Manoeuvre forces include the following:
 - a. Ground manoeuvre forces to include armoured, light armoured and light forces;
 - b. Air-land manoeuvre forces to include airborne, airmobile and air assault forces;
 - c. Armed and attack aviation;
 - d. Reconnaissance forces. If employed as combat forces, they conduct manoeuvre. If employed as combat support forces, they enable manoeuvre;
 - e. Utility and transport helicopters will support manoeuvre through the transport of forces, support to C2 aspects, fire support, reconnaissance, CSS support and casualty evacuation;
 - f. Fixed wing air transport, for airborne operations, CSS support, fire support and casualty evacuation; and
 - g. Naval support in the context of joint manoeuvre forces.

Fire Support as a Combat Function

- 0279. Fire support is defined as: the application of fire, coordinated with the manoeuvre of forces, to destroy, neutralize or suppress the enemy. (AAP 6) Notwithstanding this definition, fire support may be applied as a means to create additional effects other than destruction or neutralisation. Fire support may be used as an influence activity such as the non-lethal demonstration of capability in order to persuade or dissuade a target audience from taking a particular course of action. Fire support and NATO artillery doctrine are covered in AARTYP-05 NATO Field Artillery Tactical Doctrine.
- 0280. **Fire Support Coordination Measures (FSCM).** Fire support coordination measures are defined as: a *measure employed by land or amphibious commanders* to facilitate the rapid engagement of targets and simultaneously provide safeguards for friendly forces. (AARTYP-05) All FSCM are established on the authority of the manoeuvre commander and their fire support advisors. FSCMs are designed to

provide safeguards for friendly forces and at the same time facilitate the rapid engagement of targets. FSCMs apply to both the fires and their effects. All FSCMs are established by the land or amphibious commander.

Synchronisation of Fire Support, Manoeuvre and Information Operations

- 0281. Commanders must plan to integrate manoeuvre, firepower and information operations and activities to achieve the desired effects. The synchronization of manoeuvre, firepower and the influence activities of information operations is at the heart of manoeuvre warfare and allows the decisive concentration of effects against adversary forces and their centres of gravity. Fracturing these centres of gravity and driving towards operational objectives will dislocate the adversary, breaking cohesion and the will to resist. These functions seek not only physical effect, but more importantly, effects on the understanding, perception and will of the adversary.
- 0282. **Non-lethal Weapons** (**NLW**). NLW are weapons designed and employed to incapacitate personnel or materiel while minimizing fatalities, permanent injury to personnel and damage to property and the environment.
- 0283. **Non-lethal Effects (NLE)**. Non-lethal effects can be delivered by a variety of attack resources such as gun and rocket artillery, aircraft and electronic warfare (EW) capabilities.

Protection

- O284. General. The combat function of protection is undertaken to preserve fighting power of a military force. All elements of a military force have an integral ability and responsibility for their own protection, such as individual CBRN capabilities and local security measures and defence. During battle procedure a commander's priority concern must be the protection of his forces throughout all stages of an operation from preparation, to deployment, through engagement to redeployment. Protection is achieved in an overall sense through the coordination of the six combat functions to identify the enemy's intention and destroy or neutralise him before a decisive engagement occurs. However, specific measures may be taken with the primary aim of protecting fighting power. The measures a commander can use to ensure the protection of his force include: situational awareness; counter-mobility; survivability measures; CBRN defence; air defence; and, tactical security. Individual protection measures will not eliminate vulnerabilities on the battlefield, but taken together can limit personnel and equipment losses by reducing the exposure to detection, acquisition, targeting and engagement.
- 0285. Active and passive measures are ordered by a commander to enhance protection such that his force remains viable and functional. Taken together protection efforts ensure that maximum combat power remains available thereby maintaining freedom of action, achieving the ultimate aim mission success. The main protection functions and their applicable document reference are:

- a. Rear Area and Lines of Communications Security
- b. CBRN Defence (ATP 3.8.1 Allied Joint Tactical Doctrine for CBRN Defence);
- c. Force Protection (AJP 3.14 Allied Joint Doctrine For Force Protection);
- d. Combat Identification (STANAG 2129)
- e. Health Protection (AJP 4.10(A) Allied Joint Medical Support Doctrine);
- f. Consequence Management (AJP 3.14)⁶
- g. OPSEC, information protection (AEDP-02(1) VOL I-IV NATO Intelligence, Surveillance and Reconnaissance (ISR) Interoperability Architecture).

Rear Area And Lines Of Communication Security

- 0286. **General.** Security in direct relation to force protection measures are fully detailed in AJP 3.14. Threats to general security may be greatest for supporting forces and locations. Rear areas and lines of communication are those areas in which combat service support functions are conducted and therefore require specific consideration for security and protection measures:
 - a. Within a non-contiguous battlespace or in campaigns in which tactical level units have been assigned large areas of operations, the concept of a rear area has changed to reflect in general terms, lines of communication or areas in which no forces are currently concentrated. There may be no linear rear area, particularly when faced with a pervasive, unconventional enemy. Instead there will be large areas and main lines of communication between concentrations of manoeuvre forces that are unguarded. These areas and lines of communication become vulnerable to enemy activity, particularly attack against CSS elements and other agencies as they operate in the areas;
 - b. Security for these areas and lines of communication may be shared with the host nation government. At times however, the host nation government may be unable or unwilling to provide such assistance. Added to this situation, is the expectation that Alliance forces will secure civilian populations from adversaries that seek to intimidate indigenous populations as a means to undermining the legitimacy and capability of the Alliance. Thus the onus and difficulties in security for lines of communication and rear areas may be substantial;

⁶ Previously described by Area Damage Control (AAP6). Consequence Management is ref in AJP 3.14.

- c. Seldom will enough troops and resources be available for a standing security contingent to secure lines of communications and other such areas. ISTAR resources, both remote technical surveillance means and HUMINT sources, will be needed to act as triggers to initiate the deployment of reserve forces when a particular threat to the lines of communications is reported; and
- d. Plans for rear area and lines of communication security cannot be made in isolation. The commander must liaise closely with national military and civilian authorities and respect negotiated agreements that, in some cases, may restrict Alliance operations within a host nation. Most formations and headquarters will be established with special G9 or Civil-Military Cooperation (CIMIC) staffs and most formations will normally exchange liaison officers with the appropriate host nation authorities. In some cases, Alliance forces may be training the indigenous forces and rear area and lines of communication security may be part of that training process.
- O287. **Purpose**. The purpose of rear area and lines of communication security is to safeguard important facilities, installations, lines of communication and areas from disruption by an enemy and to maintain control of rear areas and lines of communication in order to preserve the tactical commander's freedom of action. There may also be a requirement to secure local populations and their infrastructure from attack by unconventional forces. The type and extent of security required or imposed will depend upon the nature and importance of such facilities and areas, the potential adversary and its intent, and the availability of friendly forces for employment in such security; and
 - a. Threat. The potential for disruption in a rear area and against lines of communication is considerable. The threat ranges from single enemy agents or saboteurs, to large enemy combat formations, enemy Information Operations and insurgent threats against civilian targets and populations. The enemy may attempt to interrupt support activities, interdict lines of communication and cause diversion of combat forces from the main battle area. Likely targets in the rear area are storage sites, reserves, command and control installations, rear electronic warfare/air defence artillery sites, airfields, logistic bases, port facilities and major river crossings. Political and military leaders may also be threatened. The goal of enemy activity will not only be to destroy Alliance capabilities, but will be to undermine the legitimacy and authority of Alliance forces amongst a civilian population and amongst Alliance domestic populations, seeking to force the withdrawal of Alliance forces from the campaign.

0288. **Principles**.

a. **NATO/National Coordination**. All rear area and lines of communication security plans and operations must be developed, prepared, coordinated and executed in close cooperation with appropriate national authorities and adjacent formations should they exist and be capable of such coordination;

- b. **Allocation of Forces**. Forces must be allocated and positioned to secure rear areas and lines of communication in cooperation with other forces and local security forces if appropriate. The unassigned areas in a non-contiguous battlespace must be secured as well through economy of force measures (e.g. using unassigned reconnaissance forces) or through the conditional allocation of reserve forces. Good intelligence will support this principle by indicating when threats are most likely to occur and thus the requirement for additional resources.
- c. Command and Control. Within a formation authority for the planning and implementation of all rear area and lines of communication security operations should be vested with a single commander. Host nation forces may support him in this task or assume specific responsibilities in accordance with negotiated agreements and their capabilities;
- d. **Reserves and Allocated Forces.** The commander should nominate a dedicated mobile reserve capable of rapid deployment to counter threats in the rear area or against lines of communication. Other forces may be responsible to provide security to specific areas only at certain times, such as during the transition of CSS convoys;
- e. **Self Protection.** Every unit and sub-unit in the rear area or transiting lines of communication is responsible for self-protection and the security and protection of any military and/or civilian installations that they use. Units are also expected to protect themselves against sabotage and small scale attacks;
- f. Considered Response. Enemy attacks must be countered rapidly and with sufficient strength to (at least) contain the enemy in preparation for his subsequent destruction if possible, in order to ensure the continued freedom of action of the friendly force. The commander must always keep in mind the unintended effects on the local population and the need to avoid them. In many cases, enemy forces attacking against lines of communication will be fleeting and will avoid decisive engagement. Thus the main effort should be prevention of such attacks vice an over-reaction to them that may lead to unnecessary collateral damages and the subsequent damage to public support for the Alliance; and
- g. **Transiting Units.** Units moving through or temporarily located in the rear area should be included in the commander's rear area/lines of communication security plan.
- 0289. **Planning for Rear Area and Lines of Communication Security.** Key factors to be considered during the planning process include:
 - a. Command and control relationships including the defining of areas of responsibility;

- b. Coordination, cooperation, and liaison with forces under national command, together with other services, civil authorities and adjacent forces;
- c. Availability of adequate communications links;
- d. Reliability of warning and reporting systems;
- e. Responsibilities for surveillance and patrolling;
- f. Countermeasures and contingency plans for the range of threats posed by the enemy, from single saboteurs to major incursions;
- g. Availability of forces from higher or other formations should reinforcements be required;
- h. Countermeasures against air reconnaissance/air attack, including UAVs;
- i. Measures required to find and neutralise enemy forces. This will require specific efforts for intelligence collection and assessment; and
- j. Countermeasures against CBRN attacks including coordination and control of CBRN warning and reporting systems.
- 0290. **Conclusion.** The ability of the Alliance to secure rear areas and lines of communication, particularly in areas inhabited by civilian populations, will require careful planning and the potential allocation of dedicated forces. This requirement will increase with unconventional and pervasive threats that may not refrain from attacking civilian populations our Alliance forces co-located with civilian populations. Indeed, such requirements may become a key element of the campaign. The credibility of the Alliance and its campaign may be put at risk should measures fail to secure these areas.

Combat Service Support

- 0291. **General.** The purpose of Combat Service Support (CSS) is to sustain a force with the necessary material resources for the duration required to achieve its objectives. It is the provision of supplies including their storage, handling and transportation, the maintenance and repair of materiel, medical support of casualties, personnel replacement, equipment replacement and the provision of necessary welfare services. Those responsible for CSS are tasked to ensure that combat forces are supplied in a timely manner with what they need to accomplish the mission. It is important that the supplies and facilities needed are provided in the right quantity, at the right time, at the right place and in a serviceable condition. In the following chapters the term CSS or CSS units does not specify concrete forces rather than the capabilities, which have to be provided.
- 0292. Each nation bears ultimate responsibility for ensuring the provision of logistic support to their own forces. Nations and NATO authorities have a collective

responsibility for CSS of NATO's multinational operations. It is facilitated by standardized or interoperable materiel, such as interchangeable components, weapons, equipment, fuels and general items of supply, in association with the adoption of common procedures. However, the accomplishment of common tasks, specific agreements and emergency situations in combat may make it necessary for allied forces to support each other or to redistribute logistic resources. Personnel management is a national responsibility for both national and multinational operations. The features of specific CSS for particular operations are dealt with in the appropriate chapters of this ATP and can also be found in ALP-4.2. The principles of CSS planning and execution are stated in MC 319/2, NATO Principles and Policies for Logistics. They are: coordination of tactics and CSS, foresight, simplicity, economy, continuity, firm control, and flexibility.

Implementation of CSS Plans

- O293. **Positioning.** The CSS units provide constant support for units employed in combat. They aim to accomplish their tasks as close to the supported forces as possible, however, if they are employed too far forward, there is an increased risk of losses through enemy action, or of their work being hampered. It should be kept in mind that frequent changes of position will also reduce the efficiency of supporting CSS units.
- 0294. **Pre-positioning.** Civilian infrastructure and suppliers may be used to establish local support. Prior to the commencement of manoeuvre, stocks may be pre-positioned and use made of maintenance resources and medical facilities in fixed installations. It is from these resources that troops may be supplied and supported in the first days of combat.
- 0295. **Standard Procedures.** The rapid and continuous provision of CSS requires simple and effective procedures. Standardized procedures and forms should be used whenever possible in order to ensure interoperability.
- 0296. **Ammunition Re-supply.** The high quantity of ammunition required for effective operations makes considerable demands on handling and transportation capabilities. Bulk ammunition should be delivered as far forward as practicable.
- 0297. **Fuel.** Fuel is transported as close to forward areas as possible, by means of pipelines, rail transport, tankers, inland waterway vessels or air (fuel tanker flights and under slung loads).
- 0298. **Repair, Recovery and Evacuation.** Preventive maintenance during operations assumes particular importance for prolonging the life of materiel and keeping repair requirements low. Repair should be conducted as far forward as possible. Use must be made of available transportation to recover or evacuate equipment when repair cannot be achieved. Policies for robbing and cannibalization of vehicles and equipment, along with levels of authority for approval, will have to be established prior to the commencement of operations.

- 0299. **Movement.** Transport operations must be carefully planned, directed and supervised. Protection of convoys may be necessary as well as traffic control. Air transportation resources may be used to support logistic re-supply and medical evacuation.
- 02100. **Medical.** Unit medical personnel and supporting medical units provide initial treatment, carry out preventive medical measures and provide medical resupply. Those casualties requiring continuing care or immediate surgery are evacuated. Although nations bear the ultimate responsibility for the provision of medical support for their forces, medical units and hospitals must be prepared to treat and stabilize all casualties until evacuation is arranged.
- 02101. **Personnel Replacement.** To compensate for losses it is essential that replacements are brought forward promptly. If personnel replacements are inadequate, the commander may need to establish priorities.
- 02102. **Reconstitution.** Detailed planning and dedicated resources will be required for the reconstitution of formations.

The Core Functions⁷

Introduction

- 02103. Fighting power of a land force is applied in a manoeuvrist approach through the conduct of core functions. The two primary core functions are **fixing** and **striking** the adversary. The requirement to **find** the adversary and to **exploit** any strike whenever possible and desirable is implied in the core functions.
- 02104. The four core functions **finding, fixing, striking and exploiting** are part of the **functional framework** and are the ways in which fighting power is applied in order to achieve desired effects. Finding the adversary or target is an enabling function, conducted through enabling activities such as reconnaissance. Fixing the enemy is a shaping function, in that it sets the conditions for a successful decisive operation. Striking and exploiting are intended to be decisive functions. Any of these may occur in deep, close and rear operations, and most likely in some sort of combination.

Finding

02105. Finding the adversary or a potential target is a basic function that endures throughout an operation and is the subject of continual effort. It includes locating, identifying, tracking and assessing the adversary or target. Forces may be directed specifically to fight the battle, or at least make contact, for information, particularly in the opening stages of an operation. This will normally be a sound investment when the situation is confused and seemingly chaotic. Whatever its source, information is never wholly

⁷ For a broader discussion of the core functions, see AJP 3.2.

- reliable. It may need checking or corroborating with other sources. Too much information is a form of friction that can impede decision-making.
- 02106. Finding is the main focus and task of ISTAR systems. It supports and enables manoeuvre and operations. It is planned under the G2 staff branch and includes assessment and analysis of targets as well as application of measures of effectiveness to determine if progress is being made in achieving objectives.
- 02107. A commander cannot know everything. ISTAR systems can produce so much information that they can overload a commander or analyst who tries to assimilate too much. These problems can be overcome by setting clear and succinct priorities for intelligence gathering, and directing ISTAR elements accordingly. This will be key in the Direction step of the intelligence cycle.
- 02108. Finding demands far more physical and intellectual effort than simply locating the adversary. A commander is far more likely to succeed if he knows the organisation and strength of an adversary force, what its intentions are, how it fights, and how it may react to friendly actions, rather than if he is merely aware of the adversary's position. It is equally important to establish where the adversary is not located, and to determine what he is unlikely to do within a given time, as this may provide opportunities for surprise and exploitation.
- 02109. Finding also involves the assessment of the physical, ethnic, social and political elements within the environment. ISTAR capabilities must examine and assess the various systems that exist in the environment and ascertain their role in influencing the outcome of the campaign. This enables the commander to understand the context and rationale of the adversary's actions and the effects that activities will have on not just the adversary, but on all those other elements that influence the operational environment. Receiving information from a wide variety of sources contributes to the quality and breadth of the intelligence picture that helps a commander formulate his plan in terms of reaching operational objectives. In short, a holistic and comprehensive approach must be taken to the "finding" function.
- 02110. A wide range of intelligence collection systems should be used to provide information about the adversary's strength, composition, disposition and location, and information about the various other elements in the environment such as political leaders and clan groupings. Despite the pervasiveness of technical STAR systems, human intelligence sources (HUMINT) will be key to ascertaining information regarding the elements within the environment, including the adversary that will affect the outcome of the campaign. Additionally, human analysis and experience is still required to assess likely intentions of targets.
- 02111. It must be remembered that all soldiers and others in contact with the adversary and local populace are sources of information. Thus, key information requirements should be widely disseminated throughout the force, down to the lowest levels as appropriate.

Fixing

- 02112. To fix an adversary or target is to deprive him freedom of action. This can be done by denying the adversary his goals, by distracting the adversary from his goals and by denying the adversary required information. The fixing of an adversary will involve the application of forces through manoeuvre and firepower. In some campaigns, it may involve the fixing of the adversary or adversary's supporters in terms of their influence over the environment and local populaces. This will be done through influence activities that seek to separate the adversary from gaining physical and moral support from elements within the environment.
- 02113. Fixing in physical terms may involve the use of combat elements to hold ground against adversary attack, to block the enemy's movement, to hold or fix an adversary in one location by firepower and/or manoeuvre, or to hold vital points and population centres by protecting against adversary intervention. Deception may be used to distract the adversary from his actual goals. The object is to restrict adversary freedom of movement, deny him his goals, place the enemy in a reactive frame of mind, and thus increase the Alliance's freedom of action and ability to manoeuvre. The fixing of the adversary's manoeuvre forces may be done through a combination of shaping attacks, force positioning and deception. The use of patrols, searches and vehicle check points will help fix an adversary such as an urban insurgent force, by denying him freedom of manoeuvre in areas key to his operation and expansion.
- 02114. Apart from using physically superior forces to block the adversary's actions, fixing may be done by deceiving, luring, and surprising the adversary and the resulting effect will be to distract him. When an adversary is deceived, he is certain how to act but his decision is wrong. When he is lured, he is invited to take a course of action that will make him vulnerable. When he is surprised, he becomes uncertain as to how to react to ambiguous information until it is too late. With this uncertainty the adversary can be forced to cover all options, thereby dissipating his force and being distracted from his purpose.
- 02115. In fixing the adversary, forces may attempt to deny him information, suppress his ability to pass orders and inhibit their execution. This may be achieved through domination of all or portions of the electromagnetic spectrum. An unsophisticated adversary or one who decentralizes command will be less vulnerable.
- 02116. Fixing an adversary may require the use of more direct and confrontational means by battle and engagement. Such actions can consume the Alliance's own forces quickly. Thus a balance must be struck to ensure that the resources allocated to fixing do not unnecessarily reduce those required for striking and reserve requirements.
- 02117. Fixing the influence of an adversary within an environment may be done, for short-term effect, by the physical destruction of his propaganda and information means, domination of the electromagnetic spectrum and the dislocation of his presence amongst a population. Long term fixing and eventual dislocation will occur through information operations. Timely public affairs and PSYOPS will block the

adversary's propaganda and undermine his legitimacy, and efforts to address any reasons for the populace's support of the adversary will fix the adversary's influence.

Striking

- 02118. Striking the adversary is achieved by attack, other offensive activities and information operations (ie, influence activities) either alone or in combination.
- 02119. Striking may involve an attack on adversary forces to: seize or capture key ground; destroy equipment, vital points, and installations; kill adversary personnel; or, to gain a position of advantage. The object is either to manoeuvre forces or to concentrate and deliver firepower to gain leverage over an opponent.
- 02120. In accordance with the manoeuvrist approach, striking should ideally be aimed at the adversary's cohesion; that is, it should aim to attack his morale, his sense of purpose or his decision making ability and ultimately his will to fight. The object is to seize the initiative by debilitating him mentally, and eroding his will to fight.
- 02121. Striking at adversary cohesion entails selective *psychological attack* upon his morale, his sense of purpose, and upon his capability to decide, plan and act with any degree of certainty. Electronic warfare, deception, Special Forces and PSYOPS assets are integrated, when possible, with applied physical attack. By these means the adversary's decision-action cycle can be disrupted and his command and control abilities destroyed or neutralized. Feint attacks, selective jamming, demonstrations of force, the surgical removal of key elements in his force will create a sense of isolation within an adversary.
- 02122. Striking may also be accomplished through non-lethal actions, advised and coordinated by Info Ops, in order to affect the understanding, will and capabilities, and ultimately the behaviour of an adversary. At the tactical level, these non-lethal information activities primarily refer to the employment of own capabilities using information in message format and assets for media communication, such as Psychological Operations (PSYOPS). They will need to be closely coordinated with information activities conducted by other means and/or at other levels, in order to ensure the overall consistency and credibility of messages released by the force in support of mission objectives.

Exploitation

02123. Exploitation is the seizure of opportunity in order to achieve a higher commander's objective, or fulfil some part of his intent, directly. Opportunistic exploitation requires action beyond the given mission. It may therefore replace the task stated in orders. For example, a subordinate commander ordered to neutralize an enemy force covering the approaches to his commander's objective may find that he is able to quickly destroy the enemy then open the approach; therefore, he may exploit the

- situation and move directly to the objective. Opportunities for exploitation can occur at any time while finding, fixing or striking.
- 02124. Striking the adversary is intended to achieve the purpose of the mission. To turn this success into a greater one needs audacity and determination to seize fleeting opportunities to exploit the initial effect on the adversary. Exploitation relies on offensive action, surprise and flexibility, along with a commander's initiative and understanding of his superior's intent. Exploitation must always occur in support of the superior commander's intent.
- 02125. Reconnaissance is a key enabler for exploitation. Reconnaissance should be extensive, expansive and continuous in order to find the opportunities for exploitation. Where reconnaissance forces are not strong enough to strike or exploit, they fix the adversary, limiting his freedom of manoeuvre and permitting him to be struck by other elements.
- 02126. In seeking to tactically exploit a situation, commander's must keep in mind that tactical exploitation may have to be delayed or lost in order to support the overall operational objective. For example, advancing forces may have to permit a fleeing enemy to escape in order to secure an area or a populace affected by the recent engagement, thus supporting the operational objective of safeguarding the populace, preventing lawlessness or securing vital sites.

Combining The Core Functions

- 02127. Conflict includes the constant interaction of the core functions of fixing and striking. In many campaigns this will involve both physical and influence activities. Fixing and striking are not effective in isolation and must be coordinated by commanders in a holistic and complementary fashion. Although the capabilities employed may vary, these functions apply equally at all levels.
- 02128. In some campaigns, the conduct of the core functions may be executed through other agencies in conjunction with military forces. Other security forces, the judiciary and even agencies for reconstruction can fix and strike an adversary and its supporting elements in a populace. For example, while an insurgent force is being fixed physically by security forces, his influence over the grievances of a population may be defeated through political, economic and social improvements.

Section IV - The Operational Framework: Decisive, Shaping And Sustaining Operations

General

- 02129. The operational framework⁸ is decisive, shaping and sustaining operations. It is used to describe and link tactical activities through the commander's scheme of manoeuvre. See AJP 3.2 for discussion. The framework is used for the formulation and description of courses of action and concepts of operations. The framework refers to the conduct of operations and activities, and is used to conceptualise the **purpose and effects** of activities and operations. It is the tool by which a commander synchronizes the activities of his forces, in the AOO, *by purpose and effect over time and space*.
- 02130. Since the operational framework aids the commander in his description of operations to his subordinates, the particular framework used by one commander is not necessarily identical to that of his subordinate or superior. For example, an operation that is decisive for a particular commander's mission might be a shaping task within his superior commander's concept of operations. It is vital that each commander can visualise and clearly describe the activities he requires on the battlefield, in terms of time, space and desired effect in relation to one another.
- 02131. Every tactical operation has one of three purposes: decisive; shaping; or sustaining. The commander will define and express his intent in terms of decisive, shaping and sustaining operations. The commander selects one task that he considers will be decisive, and then describes the other tasks required to support it as either shaping or sustaining.
- 02132. This framework allows formations and units to understand the relationship of their missions and tasks to those of other formations and units through the synchronization of all operations contributing to the higher mission.

Integration

- 02133. Shaping, decisive and sustaining operations should be conducted concurrently where possible in a harmonised and complementary fashion. Not only will each influence the other, but the enemy is best defeated by fighting him simultaneously at many points, some of them in depth. The operations will occur simultaneously and in concert whether they are physical activities, influence activities or a combination. Thus, information operations must be planned and targeted together with all other activities within this operational framework.
- 02134. The operations require continuous and careful coordination and where necessary, integration between levels of command. This is best done by ensuring that the purposes of those operations are explicit, interact, complementary and combine in support of the mission and operational objectives.

⁸ For more discussion on the operational framework, see AJP 3.2 Allied Joint Doctrine for Land Operations.

Section V - Synchronisation of Operational Areas, Functions and Operational Frameworks

General

- 02135. Synchronisation is defined as: the arrangement of military actions in time, space, and purpose to produce maximum relative combat power⁹ at a decisive place and time (Not in AAP 6. Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).
- 02136. Synchronisation is the ability to focus resources and activities to produce maximum relative combat power at the decisive time and place. It ensures activities are not planned or executed in isolation but are done in a complementary fashion, in support of a common mission and objective. Synchronization includes, but is not limited to, the massed effects of forces and fires at the decisive point. Synchronization seeks to gain overwhelming combat power through the coordinated use of all available resources.
- 02137. Synchronisation applies to simultaneous and/or sequential physical and influence activities. For example, the assault against an enemy position may have to be synchronised with PSYOPS that attempt to convince conscripts to flee and that inform civilians how to react and surrender.
- 02138. Synchronisation applies to the full range of tactical activities, to ensure that activities from across the spectrum of conflict are conducted in a complementary fashion across time and space.
- 02139. Such synchronisation must be an integral part of the targeting cycle, in which the desired outcomes and supporting effects are identified and planned in a complementary, reinforcing fashion through activities issued as tactical tasks to be completed in relation to time and one another. Targeting staff must then be able to synchronise the execution of activities so that the effects caused are complementary and support the desired objectives.
- 02140. This will not only involve the synchronisation of military forces, but other instruments of power and agencies acting in a complementary fashion. Thus, military operations may be synchronised with those of other instruments of power so that their activities are harmonised towards common objectives. Such inter-agency coordination may have to occur outside of formal command relationships. However, the role of the commander will be key to engendering such synchronisation and

⁹ Combat power is defined as: The total means of destructive and/or disruptive force which a military unit/formation can apply against the opponent at a given time.

cooperation, and should be pursued through not only CIMIC liaison but through the direct involvement of the commander.

Principles of Synchronisation

- 02141. In attempting to synchronise activities in terms of time and space, function and purpose and effect, commanders should adhere to the following guiding principles:
 - a. **Coordination.** Synchronisation usually requires explicit coordination among the various units and activities participating in any operation. By itself, however, such coordination is no guarantee of synchronisation unless commanders first visualize the consequences, that is, effects, to be produced and how they sequence activities to produce them. Synchronisation first takes place within the mind of the commander who must clearly identify his vision for the conduct of the operation to his subordinate commanders and staffs. It is then continued at all levels at which activities and operations are assigned. In short, activities are synchronised by the coordination of their effects across the various levels of command and between levels of command;
 - b. **Integration.** In order to achieve synchronisation in the pursuit of shared objectives, activities must be properly integrated to create complementary effects. They must be integrated and thus synchronised by: purpose (shaping, decisive and sustaining); time and place (deep, close rear); and, through the integration of other agencies. Commanders must synchronise and fight actions defined in place and purpose, simultaneously in a manner that appears to the enemy as one continuous operation against him. Effects in the physical and psychological domains must be integrated. Thus, for example, an attack must be synchronised with PSYOPS and public affairs. Integration must occur across the range of tactical activities. Stability activities must be planned and conducted so that their effects are integrated with those of offensive and defensive activities;
 - c. Understanding and Implementing Commander's Intent. A clear articulation of the commander's intent, that incorporates a unifying theme, will guide his own staff and subordinates and the leaders of other agencies, so that all the instruments of power may be synchronised by activity, location, time and purpose/effect towards a common goal. The staff, guided by the mission statement and the commander's intent, will use the decision making process, planning factors and tools such as intelligence preparation of the battlefield and the targeting cycle, combat service support capabilities, and combat support assets to coordinate a scheme of manoeuvre and develop a synchronised operational plan to fulfill that intent. In doing so, commanders and staff will wish to utilise the following tools and concepts:
 - (1) Identification of objectives to be reached (these may be issued by higher commanders) through the thematic lines of operation. These may include an enemy's centre of gravity if it can be identified;

- (2) Determination of decisive points to be reached or supporting effects to be created on the path to the various objectives. Here, the identification and integration of the requirement for other instruments of power and agencies will occur;
- (3) Ensure a broad dissemination of the commander's intent and desired endstate. This will support mission command and manoeuvre warfare concepts. This intent should support the synchronisation of effects from military and non-military agencies;
- (4) Development of procedures for controlling tempo as a way to maintain initiative;
- (5) Understanding the interaction of nation's capabilities as they contribute to synchronization;
- (6) Focus on effects before considering the required activities or forces; and
- (7) Comprehensive planning and targeting that simultaneously incorporates physical activities and information operations.
- d. Sound Battle Procedure and Comprehensive Targeting. Synchronisation relies upon:
 - (1) Ongoing planning of operations before and during the action by applicable staff branches led by the commander;
 - (2) Efficient battle procedure, particularly the issuing of orders in a timely manner;
 - (3) Targeting that simultaneously considers physical activities and the influence activities of information operations;
 - (4) Strict adherence and enforcement of control measures and battle plans;
 - (5) Command and control of the activities; and
 - (6) Continuous assessment that leads to adjustment of the activities to ensure desired effects and outcomes and that allows for further synchronisation.
- 02142. It therefore follows that in order for Alliance synchronisation to be more effective than that of the enemy, Alliance forces need to establish and maintain a command and control capability that is superior to that of the enemy.

Simultaneous and Sequential Operations

02143. Synchronisation will allow activities to be planned to occur simultaneously, sequentially, or in a combination of the two. The operational commander must have

a clear understanding of the relationship between events in terms of time, space, resources and purpose. Without this he cannot establish which events can be done simultaneously, which have to be done sequentially, and in what order. Although there may be a desire to conduct simultaneous activities, resources may be lacking; furthermore, certain activities will have to create planned effects and set certain conditions before other activities may be executed.

- 02144. Simultaneous operations employ capabilities against the entire enemy system and its supporting systems by concurrently engaging as many decisive points as possible. Simultaneity exploits depth and agility to overwhelm enemy forces. It threatens opponents with immediate consequences throughout the AOO. The presence of multiple threats overloads an adversary's C2 systems and erodes the enemy's moral and physical cohesion.
- 02145. Simultaneous decisive and supporting operations should be planned so as to complement one another. They may involve a combination of physical and influence activities. For example, measures seeking to increase public security in a COIN campaign or to dissuade former belligerents from breaking peace agreements should be explained to the local populace as a supporting public information activity. This affects understanding and perceptions, and in turn helps maintain the legitimacy of the military presence and activities.
- 02146. Simultaneous operations place a premium on information superiority and the ability to employ overwhelming force. In practical terms, the force size and force projection constraints may limit the ability of Land forces to achieve simultaneity. Effective campaign designs employ complementary and reinforcing joint and service capabilities to achieve maximum simultaneity.
- 02147. Sequencing is the arrangement of events within a campaign in the order most likely to achieve the elimination of the enemy's centre of gravity or to achieve operational objectives. It can also be thought of as the staging of decisive points along lines of operation leading to the adversary's centre of gravity or to key operational objectives. Sequencing occurs not only due to limited resources, but also to the need to create supporting effects that build to the achievement of an operational objective.
- 02148. Land force commanders synchronize subordinate unit activities in time, space, and effects to link the tactical activities to the operational objectives. Without this linkage, operations deteriorate into haphazard battles and engagements that waste resources without achieving decisive results and operational objectives.
- 02149. Sequential operations achieve the operational objective by phases. Commanders concentrate capabilities and activities at successive points over time, achieving the mission in a controlled series of steps. Often the scale and scope of the campaign or major operation, together with the resiliency of the adversary, compel commanders to destroy and disrupt the adversary in stages, exposing the centre of gravity step by step or achieve decisive points key to the operational objectives. In many campaigns, an effect may take time to create and thus must be done in stages. Such would be

the case with a COIN campaign, in which winning the support of a local populace for the campaign may take an extended period of time.

Main Effort

02150. The main effort is a concentration of forces or means, in a particular area and time, where a commander seeks to bring about a decision (Not in AAP 6. Term proposal submitted to LOWG terminology panel for inclusion in AAP 6). It is the activity that commanders determine is vital during an operation or during a particular phase of an operation. Commanders will weight the main effort to ensure its success. The most common means of weighting the main effort are to allocate additional assets to the main effort, (surveillance, fires, manoeuvre support, reconnaissance, sustainment, etc.). Identification of the main effort is a key component of the operational order and is an aspect of the concept of operations within the operational order. Within the framework of shaping, sustaining and decisive operations, commanders designate and shift the main effort as required.

CHAPTER 3 - TYPES OF TACTICAL FORCES

Section I - Introduction

- 0301. The role of land forces is to conduct tactical operations and their inherent tactical activities in the land environment. Within the Alliance, these tactical operations can be in the form of rapid intervention or expeditionary operations normally at great distances from the home garrisons for extended periods. These may involve: rapid deployment in response to, or in pre-emption of, a crisis; deterrence or coercion of potential belligerents from further escalation or confrontation; the conduct of intensive offensive and / or defensive activities in a major combat scenario, in order to disrupt or defeat a determined enemy. These tactical operations will be planned and executed typically in conjunction with allies and all instruments of national power. They will use the complete range of military activities in order to achieve the operational objectives of the campaign.
- 0302. Although land forces are structured, equipped and trained to conduct operations against enemy forces in coordination with air and maritime services, land forces are well suited to assume other responsibilities. Within an operating environment, a land force will be required to conduct a wide range of activities, simultaneously, from the spectrum of conflict, often in concert with other agencies and elements of power. Having said this however, land forces must retain the ultimate capability to defeat other conventional and non-conventional land forces in combat.

Section II - Force Elements And Types Of Forces

Force Elements

- 0303. A land force consists of combat, combat support, combat service support and command support elements. The proportion of each within a land component will vary between campaigns and operations.
- 0304. **Combat Elements.** Combat elements consist of those elements that engage the adversary directly. They fight and typically employ direct fire weapons. They include armoured, infantry, combat engineers (which are organised and trained to fight as combat elements) and aviation units equipped with attack or armed helicopters;
- 0305. **Combat Support Elements.** Combat Support elements are those that provide fire support and **operational** assistance to combat elements through operational command and control and fire support relationships. Combat Support elements include: fire support; air defence; intelligence, surveillance, target acquisition, reconnaissance (ISTAR) elements; some engineer elements; military police elements; chemical, biological, radiological and nuclear (CBRN) elements; electronic warfare (EW) elements; and some aviation assets;
- 0306. **Combat Service Support Elements**. The purpose of Combat Service Support (CSS) is to sustain a force with the necessary material resources for the duration required to

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achieve its objectives. It is the provision of supplies including their storage, handling and transportation, the maintenance and repair of materiel, medical support of casualties, personnel replacement, equipment replacement and the provision of necessary welfare services. Those responsible for CSS are tasked to ensure that combat forces are supplied in a timely manner with what they need to accomplish the mission. It is important that the supplies and facilities needed are provided in the right quantity, at the right time, at the right place and in a serviceable condition.

0307. **Command Support Elements**. Command Support elements assist commanders in the exercise of command. They include: staff **of** all types; communications, intelligence and information systems; and support elements to protect, sustain and move the commander and his staff.

Task Organisation (Combined Arms Forces)

- 0308. Task organisation refers to the re-grouping, usually temporarily, of forces for specific operations and phases within operations. They normally form combined arms groupings. Command and control terminology is used to describe the command relationships between the different elements.
- 0309. A combined arms force is the grouping and application of several arms such as infantry, armour, engineer, artillery and aviation, supported by an appropriate combat service support element. They provide and balanced mix of complementary capabilities and help offset the limitations of their constituent parts. They may be fixed groups or ad hoc that come together for specific tasks and operations and then redeploy to their parent organisations upon task completion.

Types Of Forces

- 0310. **General.** Land forces are the means through which fighting power and the combat functions are applied to achieve desired effects. There are generally three types of land forces:
- 0311. **Heavy Forces**¹. Heavy forces utilise automotive power to deploy substantial firepower, protection and battlefield mobility. They can apply concentrated firepower to achieve shock action and manoeuvre rapidly under fire cross-country. They are a key element to operations in open terrain and provide the best protection when working in urban areas. However, they are vulnerable to short range attack and thus require intimate protection in close terrain. Their operational mobility and strategic deployment are limited due to their size and weight. They require significant logistical support;
- 0312. **Medium Forces**². Medium forces are land tactical forces that are mounted in mechanised (tracked) or wheeled vehicles with some mobility and protection. They deploy with

¹ Heavy forces in the past have been termed armoured forces.

² Medium forces in the past have been termed light armoured forces.

protected mobility to deliver battlefield and operational agility. Often they have integral direct fire support as part of their vehicles. The form a critical intermediate step between armoured and light forces. They have less protection and integral firepower than heavy forces but more protection and greater tactical and operational mobility than light forces in all but close terrain. However, they have less strategic mobility than light forces; and

0313. **Light Forces**. Light forces have significant strategic mobility for they can be transported anywhere by aircraft. They are often optimised and trained for operations in specific environments (mountain, arctic or jungle for example) and close terrain. They may be employed as airmobile forces if allocated sufficient resources, support and training. They however lack integral firepower and protection. Some vulnerability may be reduced through dispersion, concealment and fortification. The lack of firepower may be offset somewhat through priority calls for indirect fire, aviation and close air support.

Specialist Capabilities

- 0314. Specialist Capable forces consist of Airmobile, Air Assault and Airborne Forces, Amphibious Forces and Reconnaissance Forces:
 - a. Airmobile, Air Assault and Airborne Forces. Airmobile, air assault and airborne forces exploit the mobility of aircraft to provide reach and agility. They include attack, support and reconnaissance helicopters, air manoeuvre forces, and related combat support and combat service support elements. Like light forces, they lack integral firepower and protection. Their operations should be closely integrated with close air support, fire support and other force enablers that will help reduce their vulnerabilities;
 - b. **Amphibious Forces.** Amphibious forces undertake littoral or riverine operations, deployed and supported (at least initially) from ships. The land force component of an amphibious force will normally consist of light or a mix of light and medium forces. Full details concerning amphibious forces are contained in ATP 8; and
 - c. **Reconnaissance Forces.** Reconnaissance forces function as either combat or combat support elements. They will be an integral part of each of the four types of forces list above. Their primary purpose is to gain information, usually on the enemy and the terrain. They support the information and intelligence combat function. Reconnaissance elements do not generally fight for information, but some may be given fighting roles, typically as guard forces or flank protection forces. A reconnaissance element that is primarily tasked with provision of battlefield information has a combat support role. One with a more aggressive task, such as guarding another force's flank, has a combat role. It should have appropriate fire, air and aviation support.

Section III - Ground Manoeuvre Forces

0315. **General**. Ground manoeuvre forces include heavy, medium and light forces. During operations, they may be grouped together in combined arms groupings however, their

integration and the nature of their individual characteristics must be carefully considered so that their characteristics complement one another and the force as a whole, vice detract from it.

Heavy Forces

0316. **Introduction**. Heavy forces normally relate to armour and armoured infantry forces, based on tanks and infantry fighting vehicles. They normally include indirect fire support and other combat support and service support elements with compatible levels of protection, range and mobility. They rely on automotive power and large calibre integral weapon systems in the execution of combat functions.

Characteristics of Heavy Forces

- 0317. As a result of their equipping and training, heavy or heavy forces have the following characteristics:
 - a. **Firepower.** Heavy forces have integral heavy weapons to provide their forces with close support that is integrated into their tactics, techniques and procedures (TTPs). Infantry vehicles will have cannon and medium/heavy machine guns to provide close support and is complementary to the firepower of supporting armour. Heavy force firepower is key in destroying or neutralising enemy hardened positions particularly in urban areas. They can assist in the breaching of building walls. Whilst armour destroys hard targets and enemy armour, the infantry vehicle mounted weapons destroy light vehicles and dismounted infantry and neutralise or suppress area targets. Armour also neutralises well defended fortifications in urban areas and assists in breaching structures. The infantry normally consider their vehicle mounted weapons as an integral part of their section and platoon fighting power;
 - b. **Mobility.** Heavy forces have a high degree of battlefield, tactical mobility due to their speed and cross-country mobility. They are normally mechanised-track based and can rapidly cross all but the most difficult terrain. They can cross minor obstacles and their mobility assists in the break-in of enemy defences. This tactical mobility makes these forces ideal for rapid manoeuvre to an objective, flanking and for exploitation. Combat support, particularly engineers, and service support elements require compatible mobility in order to keep pace with these forces;
 - c. **Protection.** The significant and often scalable protection afforded heavy forces increases their survivability in closing with the enemy forces, particularly when the enemy is occupying prepared defensive positions. It defeats small arms and light anti-armour weapons and mitigates the effects of other weapons. It allows infantry to dismount on the objective and to seek shelter near the vehicles when operating in close contact with the enemy. The protection allows increased exposure to enemy forces in order to exploit the other characteristics such as mobility, firepower and shock effect;

- d. **Flexibility.** Heavy forces can concentrate with their combat support elements at critical times and places, making them ideal for both assault forces and reserves. They can be used to prevent local defeat in one area or to exploit success in another; and
- e. **Psychological Effects: Shock Action and Deterrence.** The firepower combined with mobility will create a significant psychological effect on any enemy force. Furthermore, during certain campaigns, the presence of heavy forces can have an effect of deterrence against would-be adversaries.

Limitations of Heavy Forces

- 0318. Despite their attributes, heavy forces have certain limitations:
 - a. **Operational and Strategic Mobility.** Due to their weight and requirement for significant echelon support, heavy forces cannot be rapidly deployed strategically or operationally. Tracked vehicles require flatbed lift over long distances and when deployed globally, required sealift vice just airlift;
 - b. **Close Terrain.** Heavy forces are constrained in close terrain, although they retain great utility in urban areas in the provision of close support to dismounted infantry. They in turn require close support and security by dismounted infantry for they are vulnerable to short-range weapons;
 - c. **Maintenance and Re-supply.** Heavy forces consume significant amounts of petrol products and require constant maintenance. CSS in support of heavy forces must be well planned in detail in order to prevent a loss of mobility; and
 - d. **Limited Dismounted Infantry.** Heavy forces normally have smaller rifle sections amongst their infantry units and thus fewer soldiers to dismount.

Employment Considerations of Heavy Forces

- 0319. The proper employment of heavy forces is key to rapid success, through mitigation of their limitations and exploitation of their strengths. Several factors must be considered in the planning and employment of heavy forces, such as:
 - a. **Training.** Units that are designated to be part of or to support heavy forces must train together on a regular basis and have established standard operating procedures (SOPs) for the integration of their close support;
 - b. **Link-Up Drills.** When grouping and regrouping occurs on operations, time must be allocated for grouped units to conduct their link-up drills and coordination. This will include the sharing of SOPs, C2 procedures, target indication procedures and the rehearsal of drills for close support;
 - c. **Grouping.** Heavy forces should be grouped with forces of similar and complementary characteristics in order allow full exploitation of their strengths across the combined arms grouping. For example, heavy forces will require

armoured engineer support for crossing obstacles and CSS echelon vehicles will require similar mobility in order to maintain the speed and mobility of heavy forces; and

- d. Close Terrain. When working in close terrain with the enemy at short ranges, particularly urban areas, heavy forces, particularly tanks, may be employed in smaller groupings to allow movement, avoid concentration and to provide close support to dismounted infantry. Additionally, they will need to have close support and protection provided to them by dismounted forces in order to avoid piecemeal destruction and separation from the infantry. Drills for such support need be well practised and applied even in short defiles when operating in generally open terrain.
- 0320. **Tactical Tasks.** Due to their characteristics, heavy forces are ideally suited to the following tactical tasks, particularly in open terrain:
 - a. Lead force in the assault and break-in of an enemy defensive position. This includes the lead force in such urban tactics as a penetration or thrusts;
 - b. Breaching force for obstacles if grouped with armoured engineers. Breaching of walls with main armament in order to assist in the break-in of a building by dismounted infantry.
 - (1) Pursuit and exploitation force;
 - (2) Reconnaissance in force;
 - (3) Counter-moves force when defending;
 - (4) Reserve tasks;
 - (5) Fixing and blocking tasks;
 - (6) Stability activities related tasks particularly those requiring mobility in a high threat area; and
 - (7) Tasks in support of enabling activities.

Command and Control Considerations of Heavy Forces

- 0321. The speed and mobility of heavy forces and their integral command and control systems allow for rapid regrouping and re-tasking. Heavy forces, particularly tanks, may be grouped with mechanised or light forces in order to mitigate the lack of firepower and protection inherent to those forces.
- 0322. The characteristics of heavy forces and their mounted, integral C2 systems, allow them to operate at range, so long as measures are taken to ensure re-supply.

Combat Support Considerations of Heavy Forces

0323. CS elements will need the same mobility and protection in order to be able to support the armoured units in an effective manner. CS elements must be capable of quick re-grouping and re- establishing command relationships between or even during phases of an operation.

Combat Service Support Considerations of Heavy Forces

0324. CSS elements integral to heavy forces should have compatible mobility and some protection in order to allow immediate re-supply of the forces whilst in battle. The high consumption rates of petrol products and the weight and bulk of ammunition must be considered and integrated into the tactical level plans. CSS elements must be configured and grouped to ensure rapid re-supply of these commodities.

Medium Forces

0325. **Introduction**. Medium forces have some of the same attributes as heavy forces, but to a lesser degree. They are flexible forces that may be employed for a wide range of tactical tasks. It must be remembered that this category includes a wide array of vehicle types and capabilities, and will include forces mounted in lightly armoured patrol vehicles to those mounted in eight-wheeled, armoured personal carriers, mounting rapid fire cannons for close support.

Characteristics of Medium Forces

- 0326. Medium forces embody the following characteristics:
 - a. **Operational Mobility.** The light aspect of these forces, particularly if their integral fighting and support vehicles are wheeled, allow for significant operational mobility. Within hours, these forces may traverse significant areas in order to counter unexpected threats or exploit unexpected opportunities. Additionally, they are appropriate for employment as part of amphibious forces. To a certain extent light armour and mechanised forces have the ability to be transported by tactical and strategic airlift. Hence, they make appropriate entry forces for the initial foothold into a new theatre of operations;
 - b. **Tactical Mobility and Agility.** Medium forces, due to their rapid road movement and some cross-country mobility, provide a commander with a robust force with significant tactical mobility. Their reduced impact and weight, particularly if wheeled, enhance their employment in urban areas during COIN and peace support campaigns and prevent damages to roads and infrastructure. However, in combat, their ability to cross minor obstacles is less than that of heavy forces;
 - c. **Firepower.** Medium forces will normally include integral vehicle mounted support weapons for close support to dismounted troops. Additionally, the use of vehicles will allow the transport of a range of support weapons to counter various

threats and to enable tactics, such as support weapons to breach walls and buildings;

- d. **Protection.** Medium forces have a certain degree of protection that varies with the type of vehicle and system used. Often the level of protection is scalable, with the addition of extra armour; however, weight-to-power ratios of the vehicles limit the amount of armour that can be added. The limited protection that they normally have against light hand-held anti-armour weapons, which can defeat them, could be increased by adding reactive armour; and
- e. **Flexibility.** The combination of firepower and protection, in a mainly infantry force, provides for a wide range of employment options. They can be grouped with heavy forces, given their mobility, or used to enhance light forces with additional firepower and protection. Their mobility allows rapid deployment and re-deployment to counter unexpected threats or to demonstrate will. They can even be employed in a dispersed manner, given their vehicle mounted communications and ability to rapidly concentrate when required. Finally, mechanised forces tend to have a slightly larger proportion of dismountable soldiers, thus allowing more troops on the ground than heavy forces.

Limitations of Medium Forces

- 0327. Notwithstanding the flexibility and inherent characteristics of light armoured or mechanised forces, they do have certain limitations, including:
 - a. Protection Against Light Anti-Armour Weapons. Although medium forces are protected against shrapnel and most small arms fire, they are susceptible to light, hand-held anti-armour weapons. These can have a devastating effect on such forces whether they be employed in an ambush, "hit and run" fashion, or from hardened defensive positions, particularly in built-up areas. In offensive operations, this may cause commanders to order attacking forces to dismount short of the objective, outside the range of light anti-armour weapons;
 - b. **CSS Requirements.** Although they are lighter than heavy forces, mechanised or medium forces still require the regular re-supply of bulky and heavy petrol products and larger calibre ammunition; and
 - c. **Obstacle Crossing.** Despite their mobility, mechanised forces cannot cross obstacles unassisted to the same degree as heavy forces. Likewise, their cross-country mobility is limited. Even simple obstacles in an urban area will halt a vehicle and separate it from its integral infantry. In order to cross obstacles, they require engineer support akin to that of heavy forces.

Employment Considerations of Medium Forces

0328. Due to their inherent capabilities and overall flexibility, light armoured or mechanised forces may be employed in a large variety of roles at any point on the spectrum of conflict. However, their proper employment requires careful consideration, to include:

- a. **Enemy Threat.** The threat posed to the relatively light armour of mechanised and light armour forces must be considered in planning and execution. An enemy force well armed with light anti-armour weapons will have a significant effect upon the force and attrite them substantially when at close range. This is particularly so in build-up areas. Adjustments to TTPs have to be made to account for this such as decisions to dismount outside of the range of such anti-armour weapons or to use significant quantities of smoke to cover approaches;
- Route Selection. Medium forces that are wheeled must be cautious in their selection of cross-country routes. They are susceptible to becoming stuck in wet or soft ground;
- c. **Grouping.** Medium forces may be grouped with heavy forces to augment their flexibility or with light forces to increase their firepower. Time must be allocated for the practise of C2 and SOPs for combined operations, particularly the provision of close support. The speed of medium forces allows them to keep up with heavy forces in supporting and reinforcing roles, depending upon the terrain and the level of tactical mobility of the medium forces; and
- d. **Tactical Tasks.** Given the characteristics and limitations for mechanised and light armour forces, the following may be considered for suitable tactical tasks:
 - (1) Seize and secure tasks against lightly defended positions;
 - (2) Follow-and-assume tasks, particularly as an echelon or depth to heavy or heavy forces. The speed of mechanised forces allows them to keep pace with the heavy forces;
 - (3) Security and protection tasks such as flank protection and covering forces;
 - (4) Clearing tasks particularly in areas where the enemy is not well defended;
 - (5) Exploitation and pursuit of fleeing demoralised enemy;
 - (6) Convoy escort. The wheeled mobility of medium forces allows them to keep pace with wheeled CSS or NGO vehicles that require protection in threatened areas:
 - (7) Route security. The speed and minimal route damage caused by wheeled mechanised vehicles makes them a good choice for security of MSRs;
- (8) Reserve tasks. The mobility and firepower combined with the relative number of dismounted troops make them suitable for reserve tasks, particularly during campaigns that occur in large AOOs;
- (9) Tactical tasks related to stability; and
- (10) Tactical tasks in support of enabling activities.

Command and Control Considerations of Medium Forces

- 0329. Despite their integral mobility and firepower, medium forces normally lack integral tank support and therefore, when faced with a determined, well equipped enemy, they will likely be grouped with armour or used in supporting roles.
- 0330. Their flexibility, due to a combination of firepower, some protection and dismounting troops, make them suitable for use in those campaigns and operations that require a focus on dismounted yet robust tactics. Their ability to present a significant presence yet dismount amongst a local populace is important in peace support and COIN campaigns and enables information collection.
- 0331. The ability of medium forces to carry integral CSS for a min of approximately 48 hrs and their robust communications suites make them suitable for dispersed operations and flexible command structures that allow rapid regrouping.

Combat Support Considerations of Medium Forces

0332. CS elements should be grouped to provide the necessary combat power and protection to the medium forces. CS elements may be allocated in order to counter some of their limitations.

Combat Service Support Considerations of Medium Forces

0333. Due to their demand for petroleum products and ammunition consumption, CSS for medium forces has to be carefully considered and planned, based on sound staff calculations. A flexible and robust echelon system with integral minute-to-minute resupply and an effective push system for daily re-supply is essential for sustained operations.

Light Forces

0334. **Introduction**. Light forces are forces optimized for dismounted operations and operations in close terrain such as mountain and jungle. They are rapidly deployable through a variety of means and are often allocated roles such as airmobile. They have significant strategic mobility, as they can be transported by aircraft to any theatre. However, their firepower is limited compared to heavy or medium forces and they are vulnerable without the protection of dispersion, concealment or fortification.

Characteristics of Light Forces

- 0335. Light forces embody the following characteristics:
 - a. **Mobility.** Light forces can be kept at high states of readiness and deployed rapidly strategically, operationally and tactically by a wide variety of methods. This makes them ideal for Limited Military Interventions such as non-combatant evacuation operations;

- b. Close Terrain. Light forces are often optimised in terms of equipment and training to work in regions characterised by close terrain, such as jungle and mountain. They are often trained and equipped to be re-supplied by light ground transport or by air;
- c. **Focus on Dismounted Operations.** Light forces work normally dismounted, regardless of the means by which they arrive in their operational area. This makes them ideal for not only close terrain, but for those campaigns in which contact with local inhabitants and populations is necessary for broad information gathering and local security; and
- d. **Robustness and Self-Reliance.** Light forces should be trained to, and expected to, operate in arduous climates and terrain, dismounted and as self-sufficient as possible. They are expected to be highly adaptable to their environment. They often have an *esprit de corps* that reflects this attribute. CSS requirements are much less than that of other forces.

Limitations of Light Forces

- 0336. Light forces are restricted in their capabilities and subsequently, their employment, due to limitations, including the following:
 - a. **Protection.** Light forces lack armour protection and are therefore vulnerable to all fires. They therefore must seek protection through tactics such as dispersion, concealment and fortification:
 - b. **Firepower.** Light forces carry their personal and support weapons and therefore have limited fire support. They lack medium and heavy anti-armour weapons. Some support weapons such as heavy machineguns or automatic grenade launchers are portable, but not normally for extended distances;
 - c. Flexibility. Once light forces are committed, their lack of integral transport precludes rapid re-grouping or re-deployment. They can be allocated armoured or medium forces for close support, but they have difficulty keeping pace with them due to their dismounted structure. Light forces can be made more flexible with increased mobility if they are issued with some form of integral light wheeled transport; and
 - d. **CSS Support.** Although their re-supply requirements are less than that of other types of forces, light forces must generally carry all their CSS. Thus they require constant re-supply of all combat supplies and cannot be expected to carry additional supplies. Specific plans must be made for casualty extraction from the point of wounding as often the lack of integral transport precludes the extraction of the casualty to a rearward location by the light forces themselves.

Employment Considerations of Light Forces

- 0337. Within the limitations of light forces, the following are key employment considerations for light forces:
 - a. **Enemy Threat.** Light forces, with their lack of protection and intimate fire support, cannot be employed against enemy heavy forces or even mechanised/medium forces unless defending in close terrain;
 - b. **Insertion, Re-supply and Extraction Plans.** Plans for the insertion of light forces must be detailed and carefully considered in order to avoid enemy strengths. Such operations must include plans for casualty evacuation, re-supply and extraction;
 - c. **Dispersed Operations.** The characteristics of light forces make them suitable for dispersed operations and swarm tactics in urban areas. Without integral transport, their ability to disperse and aggregate rapidly in urban train is very limited;
 - d. **Dismounted Operations.** The large proportion of infantry in light forces, their robustness and suitability for dismounted operations make them suitable for operations in campaigns that require a dismounted presence amongst a populace. However, they remain susceptible to ambush and attack;
 - e. **Groupings and Link-Ups.** If light forces are reinforced with light armoured or heavy forces, time will have to be allocated for training in C2 and SOPs; and
 - f. **Tactical Tasks.** When considering tactical employment of light forces, it should be kept in mind that light forces need not be dismounted. They may be mounted in light wheeled vehicles particularly when AOOs are expansive. Given the characteristics and limitations light forces, the following may be considered for suitable tactical tasks:
 - (1) Tasks assigned with airmobile insertion even though the force in question may not be designed airmobile units. Additional training will be required;
 - (2) Security and protection tasks, such as flank security and protection, the latter possible only if facing a similarly light forces threat;
 - (3) Reserve forces, particularly if operating in close terrain or during campaigns in which the potential adversaries are not heavy forces;
 - (4) Follow-on echelon forces to support heavy or mechanised forces when clearing close terrain;
 - (5) Reconnaissance and surveillance tasks;
 - (6) Any tactical task in which the terrain is close and the enemy comparable to the light forces;
 - (7) Tactical tasks inherent to stability activities, particular those in close terrain such as dense urban areas; and

(8) Tactical tasks inherent to enabling activities.

Command and Control of Light Forces

0338. Light forces are best commanded by headquarters with similar training, *esprit de corps* and capabilities for dismounted operations. The C2 systems for light forces must reflect their potential roles and employment locations. They must be easily dismountable and as robust as possible, able to be carried long ranges.

Combat Support of Light Forces

0339. CS units allocated to light forces must have the same levels of mobility and specific training in order to effectively support light forces in specific environments. In certain situations, CS elements with additional firepower and protection may be allocated in order to alleviate the limitations inherent in light forces.

Combat Service Support of Light Forces

- 0340. Although light forces require significantly less combat supplies than heavy forces, the resupply of light forces must be carefully considered. They cannot carry extensive combat supplies (unless mounted in light wheeled vehicles) and therefore will rely on regular resupply.
- 0341. Light forces will often lack integral casualty evacuation means and therefore plans must be made and resources allocated to go forward to the point of wounding and evacuate casualties rearward.

Section IV – Specialist Capabilities: Airmobile, Air Assault and Airborne Forces

Introduction

- O342. Air manoeuvre describes the integrated use of rotary wing assets with all arms forces and their combat elements, as a manoeuvre element for joint or multinational operations (AAP 49). The balance between the ration of transport aviation and attack or armed aviation will affect the overall combat power of the air manoeuvre forces.
- 0343. Airmobile and air assault forces are those specially designed forces that are inserted, resupplied and possibly extracted using aviation resources as their normal and practised means of operation. Aviation resources are either a permanent part of their structure or are routinely assigned to them through standing affiliations and C2 relationships. Airmobile forces are defined as: *ground combat, supporting and air vehicle units required to conduct an airmobile operation*³.

³ Airmobile operations are defined as: An operation in which combat forces and their equipment manoeuvre about the battlefield by aircraft to engage in ground combat. (AAP 6)

- 0344. An air assault operation⁴ is an operation in which air assault forces (combat, combat support, and combat service support), using the firepower, mobility, and total integration of helicopter assets, manoeuvre on the battlefield under the control of the commander to engage and destroy enemy forces or to seize and hold key terrain. (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6.)
- 0345. Air assault forces are differentiated from airmobile forces in that the former contains enough firepower and support to assault and seize objectives immediately upon insertion or as part of the insertion. They are often supported intimately with armoured attack helicopters. Airmobile forces are not as robust and normally move to their objective areas after insertion is made, out of contact. Airmobile and air assault forces are generally considered light forces.
- 0346. It should be noted that other ground forces such as light or medium forces (once dismounted from their vehicles) may be used as airmobile forces. However, they will require some additional training in the tactics, techniques and procedures for the use of helicopters. Full details on airmobile forces may be found in ATP 49.
- 0347. Airborne forces are defined as: a force composed primarily of ground and air units organized, equipped and trained for airborne operations (AAP 6). Airborne forces are considered light forces. Although they are trained in parachute insertions, they may be delivered to their operational areas by aviation resources or tactical airlift resources. The characteristics and limitations of airborne forces are similar to those of airmobile and air assault forces. It should be remembered that airborne forces have operational mobility but lack tactical mobility. Airmobile and air assault forces may have both operational and tactical mobility.
- 0348. Airborne forces give a commander flexibility by virtue of their reach and responsiveness and they permit him to operate throughout his area of operations. They may be initiated either independently, or in conjunction with the forces operating on the ground. The nature of their role is such that they are lightly equipped with only limited means of fire support and mobility once on the ground. Their capability to sustain operations after the initial assault is therefore governed by the ability either to re-supply, probably by air, or to link up with them on the ground. If this is not possible, they will need to be extracted.

Characteristics of Specialist Capable Forces

- 0349. Airmobile, air assault and airborne forces are extensively trained in aviation insertion and support, and embody the following characteristics:
 - a. **Flexibility and Surprise.** The ability of airmobile, air assault and airborne forces to attack from any direction, to strike objectives in depth or in otherwise inaccessible areas, the over-flying of barriers, and the bypassing of enemy positions, will achieve surprise and reflect a unique flexibility. Despite their

⁴ This definition is from US FM 1-02. Term proposal submitted to LOWG terminology panel for inclusion in AAP 6.

specialised training for air insertion, these forces may be employed as light infantry, particularly in environments characterised by close terrain;

- b. **Operational Mobility.** Airmobile, air assault and airborne forces are capable of rapid deployment over considerable distances, crossing obstacles and difficult terrain in the process. This capacity allows them not only tactical mobility but also strategic and operational relevance. They can be a tool of deep operations, potentially capable of striking at an enemy's centre of gravity. *Once inserted, airborne forces*⁵ *have little or no organic mobility*;
- c. **Speed.** Airmobile, air assault and airborne forces can rapidly deploy and redeploy, thus permitting quick concentration of combat power at key locations. Similarly, they are capable of rapid dispersal to reduce vulnerability;
- d. **Shock Action and Surprise.** Given the nature of these forces and operations, shock and surprise can be immediate effects of the sudden insertion of troops from the air. Their insertion cannot be easily predicted by the enemy given the high altitude of the air movement and the speed of delivery. This shock and surprise will undermine moral and confidence. It will disrupt the enemy mentally and physically;
- e. **Range.** Airmobile, air assault and airborne forces give the commander the ability to reinforce or relieve his forces quickly and over long distances;
- f. **Theatre Entry Assault.** Like amphibious forces, airmobile, air assault and airborne forces may be used as the initial entry force to a campaign, with the force having been launched out of theatre from the home base or from an interim forward mounting base. Such insertions would support a Limited Intervention operation;
- g. **Economy of Force.** The ability to rapidly deploy airmobile forces enables the commander, under certain circumstances, to commit a larger part of his force while relying on a small airmobile reserve;
- h. **Independence.** Airmobile, air assault and airborne forces are able to conduct operations independent of a ground line of communication; and
- i. **Esprit de Corps.** Airmobile, air assault and airborne forces have a unique esprit de corps that manifests itself in robustness, fortitude and adaptability.

Limitations of Specialist Capable Forces

0350. Airmobile, air assault and airborne forces and their operations are vulnerable to a number of threats and conditions and thus may be limited in their application by any of the following factors:

⁵ Air assault and, in some cases, airmobile forces have organic mobility.

- a. **Weather Conditions.** Airmobile, air assault and airborne forces are subject to variances in weather. Adverse weather conditions may delay or preclude insertion, re-supply, fire support, casualty evacuation and extraction;
- b. **Vulnerability.** Airmobile, air assault and airborne forces are vulnerable to enemy fire and particularly between assembly and take-off and during approach and landing. Once committed, they lack the firepower and protection of heavy forces and cannot be reinforced by heavy or mechanised forces. These forces are also vulnerable to attack from enemy air defence and aircraft and are unlikely to have air superiority in the landing area;
- c. Combat Support Requirements. Given their vulnerabilities to enemy forces including aircraft and air defence, the insertion of airmobile, air assault and airborne forces requires extensive planning and support, often joint support such as the suppression of enemy air defences (SEAD), EW support, long range fire support and possibly air support in the insertion area. During the operation, local and time-limited air superiority is required;
- d. **Protection and Firepower.** Once committed, airmobile, air assault and airborne forces lack integral vehicles, heavy support weapons and must seek protection through dispersion, surprise and concealment. Furthermore, they cannot be reinforced easily or with mechanised or heavy forces. Once committed they are vulnerable to enemy armoured or medium forces. Airmobile and airborne forces cannot deliver heavy support weapons⁶ but are limited to portable support weapons. They should have good C2 systems and established C2 relationships in order to draw upon long range supporting fires, attack helicopters and close air support;
- e. **Mobility.** Once inserted, airborne, air assault and airmobile forces have no or little organic mobility; and
- f. **Re-Supply.** Airmobile, air assault and airborne forces are limited in the amount of combat supplies that they carry on their initial insertion. They must be resupplied by air and casualties must be extracted by air. This may be difficult and can be easily disrupted. Unless the forces are extracted, there will be an urgent need for link-up by ground forces.

Employment Considerations of Specialist Capable Forces

- 0351. The unique capabilities and limitations of airmobile, air assault and airborne forces demand special considerations for employment. These should include the following:
 - a. **Detailed Planning.** Given their complexities, airmobile, air assault and airborne operations require detailed planning and sound intelligence support. They are planned in the reverse order of its execution. Planning includes a ground tactical

⁶ Air assault and, in some cases, airmobile forces can deliver heavy support weapons.

- plan, a landing plan, an air movement plan and a loading plan. Re-supply and extraction/relief must be carefully considered and planned as well;
- b. **Early Insertion.** Airborne, and possibly airmobile and air assault forces may be the first tactical forces committed to a theatre or campaign and can be used to seize operational objectives. They may be the only land forces employed in Limited Military Intervention campaigns;
- c. Exploitation of Surprise and Psychological Effects. The sudden arrival of airmobile, air assault and airborne forces in an enemy's rear area and along key lines of communication, and the threat they pose will have significant psychological effects on the confidence and will of the enemy. If identified and deemed to be poorly defended, airmobile and air assault forces can be used to attack a centre of gravity;
- d. Dispersed Operations. The insertion to the enemy's vulnerable areas, of forces that are capable of independent and dispersed operations, can have significant effects on enemy capabilities and operations by causing them to disperse their forces and efforts:
- e. **Coordination.** Operations of airmobile, air assault and airborne forces must be coordinated in detail with air and ground forces. The time and planning cycle required for airspace coordination measures has to be taken into account;
- f. **Risk Assessment.** The commitment of airmobile, air assault and airborne forces entails significant risk. A careful assessment must be made with respect to the potential gains that may be made in light of the possible cost in casualties and equipment losses and possible mission failure; and
- g. **Tactical Tasks.** Given their capabilities and limitations, airmobile, air assault and airborne forces may be assigned a variety of tactical tasks, including the following:
 - (1) Raids, particularly against enemy C2 and CSS sites, or centres of gravity, followed by extraction. Extraction may include ex-filtration;
 - (2) Seize key objectives for subsequent link-up with other forces, likely ground manoeuvre forces;
 - (3) Deception through feints and demonstrations;
 - (4) Reserve tasks, including the establishment of blocks to counter unexpected threats;
 - (5) Rear and flank area operations to continually disrupt enemy activities, particularly CSS and C2, and to undermine moral and confidence. This will include the conduct of an attack on the rear of enemy positions or cut

- off of his reserves in combination with offensive action by other ground forces;
- (6) Reinforcement of encircled forces;
- (7) The capture of airfields and beaches to form airheads and bridgeheads;
- (8) Reconnaissance and surveillance tasks. This should include the ability to direct long-range fires and air interdiction;
- (9) Tactical tasks inherent in stability activities, particularly those that require a flexible response or rapid deployment; and
- (10) Tactical tasks inherent in the support of enabling activities.

Command and Control of Specialist Capable Forces

- 0352. Suitable command elements of airmobile, air assault and airborne forces must be integral to the forces and have the same training and capabilities. They must have robust yet manportable communications capable of linking the airmobile or air assault forces to their controlling HQ.
- 0353. Given the nature of airmobile, air assault and airborne forces and their lack of integral ground mobility, it is difficult to group these forces with ground manoeuvre forces. Employment of these forces will routinely involve link-ups with ground forces. They must have well practised procedures for this enabling activity and these must be known to the linking ground manoeuvre forces. The provision of C2 detachments and liaison teams to ensure a communications and information link will be an important consideration.

Combat Support of Specialist Capable Forces

0354. Integral CS elements in air manoeuvre forces are limited in terms of numbers and capability. Thus air manoeuvre forces will be reliant upon close air support, armed helicopter support and long range artillery.

Combat Service Support of Specialist Capable Forces

- 0355. Careful consideration must be given to the CSS requirements of airmobile, air assault and airborne forces. They are very limited in terms of the amount of combat supplies with which they can initially deploy. Even if a link-up and relief is anticipated prior to resupply, contingency plans must be in place should the relief not occur as anticipated or if the forces consume there combat supplies more quickly than anticipated.
- 0356. Re-supply may be conducted through aviation support or via parachute airdrop. Given the nature of such operations, combat supplies cannot be delivered to the forces in large, bulk order. These bulk packages must be broken down to individual and section sized commodities for ease of distribution and carriage.

- 0357. Operations by airmobile, air assault and airborne forces will be enhanced with the use of ultra-light all-terrain vehicles. These may be used for combat supply delivery and distribution and for the transport of support weapons.
- 0358. If employed in a more conventional role as light forces, airmobile, air assault and airborne forces will likely require augmentation to the vehicle holdings of their support echelons.

Section V - Amphibious Forces

- 0359. Amphibious operations are an important part of maritime power projection, which seek to use the littoral as an operational manoeuvre space from which sea-based Joint Amphibious forces can threaten, or apply and sustain force ashore. An amphibious operation is an operation launched from sea by naval and landing force (LF) embarked in ships or craft, with the principal purpose of projecting the LF ashore tactically into an environment ranging from permissive to hostile. There are four types of amphibious operations: Amphibious Assault; Amphibious Raid; Amphibious Withdrawal; and, Amphibious Demonstrations. These operations may be employed in support of the Land Component and will require close coordination and control. In certain circumstances there may be a requirement to establish an Amphibious Component Commander though normally amphibious operations will be commanded by the Maritime Component Commander.
- 0360. Further details regarding the characteristics, limitations and employment considerations for amphibious forces and tasks are contained in ATP 8.

Section VI – Reconnaissance Forces

0361. Reconnaissance forces function as either combat or combat support elements. They are an integral part of each of the four types of forces. Their primary purposes are to gain information, usually on the enemy and the terrain. They support the information and intelligence combat function. Reconnaissance elements do not generally fight for information, however, some may be given fighting roles, typically as guard forces or flank protection forces. A reconnaissance element is primarily tasked with provision of battlefield information as a combat support role. However, as a more aggressive task, for example, a reconnaissance element may be tasked to guard another force's flank in a combat role. When tasking a reconnaissance element, it should have appropriate fire, air and aviation support.

Section VII – Task Organisation (Combined Arms Grouping)

0362. The concept of combined arms integrates the application of several arms such as infantry, armour, aviation, artillery and engineers. Tasked organised forces should be used for: air manoeuvre, armoured, light armoured or light force wherever possible. They balance the inherent strengths and limitations of each force.

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- 0363. Properly employed, task organisations provide a complementary range of capabilities and flexibilities that allow the overmatch of a less well-balanced force. They present few functional weaknesses for the enemy to exploit
- 0364. Task Organisation normally occurs at the sub-unit level⁷ and above. Depending upon the situation, combined arms groupings may involve a combination of ground manoeuvre and air manoeuvre elements.
- 0365. Task Organisation may be formed for a specific campaign, operation or even a specific activity. They must remain flexible and adaptive in order to meet changing situations. To be successful, they rely upon common doctrine, sound and well practised standard operating procedures and drills. They are issued as task organisations within an operational order.

⁷ AJP 3.2 Allied Joint Doctrine for Land Operations

CHAPTER 4 - TACTICAL PLANNING CONSIDERATIONS

Section I - Introduction

- 0401. Land operations and tactical activities are planned and conducted in accordance with doctrinal principles, in order to create the effects that will support and build to operational objectives and end-states within a campaign. Planning is conducted to ensure that there is a direct supporting link between tactical activities and operational objectives.
- 0402. Tactical planning supports, and is directly linked to, operational objectives in that it conceives, compares, plans and allocates groupings of tactical activities, in a complementary and harmonised fashion, to realise the objectives. The commander's intent, manoeuvre and battlespace management harmonise the activities and ensure their effects are complementary. This is articulated in a concept of operations. Planning ultimately results in orders that: describe the concept of operations; allocate in detail the activities and tasks to subordinates; and, coordinate the activities. The continuous assessment of the environment, the force's activities and the effects will be a key part to the planning and execution of operations. Common doctrine, concepts, principles and terminology are necessary for the effective application and execution of plans and orders.

Section II - The Decision-Action Cycle¹

General

- 0403. The decision-action cycle is the process by which decisions are made and executed. Based on direction received, a plan and decision are made, orders are issues and preparations at all levels are conducted, and the plan is executed. It may also be termed the operations process. Assessment occurs throughout. Although at higher tactical levels, staff branches conduct the process, the process is lead by the commander and continuously influenced by his assessment and experience.
- 0404. The overarching planning-execution model is a simple three-step process: plan; prepare; and, execute. Throughout the procedure, continuous assessment is conducted of the situation, the inter-related influences of all the elements existing within the environment, and the effects of previous or ongoing operations. At the centre of the process is the commander, whose lucid direction guides every element.

¹ For more details on the decision-action cycle and its constituent parts, see AJP 3.2.2 Command and Control of Allied Land Forces and AJP 3.2 Allied Joint Doctrine for Land Operations.

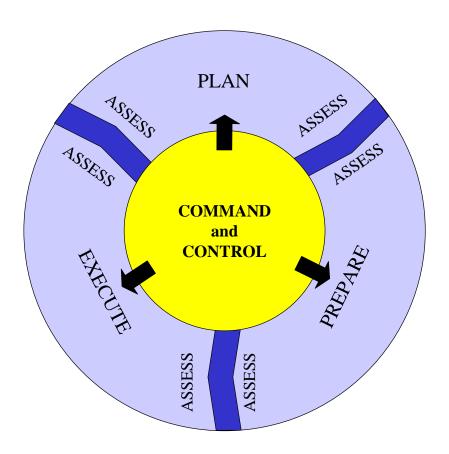


Figure 4-2: The Decision-Action Cycle²

Section III - Information Operations³

General

0405. Information operations (Info Ops) are defined as: Co-ordinated actions to create desired effects on the will, understanding and capability of adversaries, potential adversaries and other approved parties in support of Alliance overall objectives by affecting their information, information-based processes and systems while exploiting and protecting one's own (AJP 3.10 Allied Joint Doctrine for Information Operations).

Planning And Conduct Of Information Operations

² See AJP 3.2.2 Command and Control of Allied Land Forces for discussion.

³ Information Operations are described in AJP 3.10 NATO Military Information Operations Doctrine

- 0406. Information operations create effects in both the physical and psychological domains. They must be planned, targeted and executed in a harmonised and reinforcing manner with all other activities.
- 0407. Successful Info Ops depend upon comprehensive intelligence that examines all the elements of the environment that will affect the desired end-state. Info Ops targets must be selected and coordinated in a manner that is complementary to, and harmonized with, all other planning, targeting and assessment. Info Ops activities can support other activities or can engage targets on their own.
- 0408. Assessment will be key in determining progress towards successful end-states. The commander must be intimately involved in the planning and application of Info Ops.
- 0409. Info Ops should be planned, integrated and coordinated under a G3 function/branch with constituent activities allocated to appropriate staff for planning.
- 0410. Further details regarding Info Ops are in AJP 3.10 Allied Joint Doctrine for Information Operations.

Section IV - The Targeting Process

Introduction

- 0411. Targeting is a vital component of the conduct of operations and of the decision making process in particular. The purpose of targeting is to provide a logical progression, as an aid to decision-making, in the development of solutions to meet operational objectives.
- 0412. Within the operating environment it is vital that the concept of what constitutes a target and the ensuing targeting process be broad enough to include and consider targeting through physical and influence activities in order to create effects that support operational objectives and enduring end-states to the campaign.
- 0413. This section outlines the basic methods and procedures and considerations for the targeting process. Full details are contained in AJP 3.9.2 Land Targeting.

Section V - Considerations For Prisoners Of War, Internees And Detainees

General

0414. Considerations for Prisoners of War, Internees and Detainees are detailed in AJP 2.5(A).

Section VI - Inter-Agency Considerations

General

- 0415. Many operations in the operating environment will involve coordinated operations with other, non-military agencies, even at the lowest tactical levels. Special considerations must be made in such circumstances, whether or not a formal command or coordination relationship exists. This will be necessary, for the Alliance military forces should be working towards the same operational and strategic objectives and end-states as these other agencies.
- 0416. The other agencies that may be involved in a campaign and with which military commanders will have to deal will be wide ranging, but will likely include some of the following:
 - a. Indigenous security forces, both constabularies and military forces;
 - b. Indigenous judiciary and penal authorities;
 - c. Indigenous other government departments and agencies, particularly those responsible for humanitarian affairs;
 - d. Other government departments and agencies from other member nations. Often these will include police forces, judiciary services and election authorities;
 - e. Non-government organisations (NGOs), particularly those seeking to provide humanitarian aid;
 - f. International organisations (IOs) such as UN bodies and representatives, mandated to achieve political solutions and developmental/economic improvements;
 - g. Public organisations such as private sector business working to establish economic security or hired by alliance forces to conduct contract work. These may include resource exploitation companies and private security firms; and
 - h. Media outlets.

Command, Control And Coordination

- 0417. In certain campaigns, a formal command structure may be established that sees a single commander responsible for the application of both military and non-military agencies. The commander may be a military or non-military official. This structure will be useful and appropriate for campaigns such as COIN, in which the long term solution must be political and therefore, both military and non-military affairs, at all levels, require close cooperation, coordination and synchronisation in order to reach common goals.
- 0418. In most cases, a formal relationship will not exist. Even in campaigns in which there is a single chain of command for military and non-military elements, there will be a large number of agencies in the theatre to which such a structure will not apply. Thus much of the coordination with non-military agencies is conducted through the Civil-Military Cooperation (CIMIC) staff and units. Note that media outlets are normally conducted by specific public affairs staffs.

- 0419. CIMIC staff and units will be key to ensuring a good understanding of aims and methods between the military and non-military agencies. They will be able coordinate activities and resolve any conflicts. They will be able to identify where and when the military and non-military agencies may assist one another, for example, in coordinated reconstruction projects. They will also be a valuable source of information, particularly in terms of assessing measures of effectiveness.
- 0420. Overall, CIMIC will be key in ensuring that the activities of the military and civil agencies compliment each other to the greatest extent possible in the achievement of common objectives.
- 0421. The selection of CIMIC staff will be a key issue in the planning for the campaign. Consideration should be given to not only formal training, but to experience in military operations, experience in civic matters and individual personality, given their key role in dealing with, and at times having to influence, non-military personalities.
- 0422. Apart from this coordination function, CIMIC staff will assist in the identification and prioritisation of reconstruction and governance issues that require the support of the military forces.

CHAPTER 5 - TACTICAL OFFENSIVE ACTIVITIES

Section I - Purpose And Principles

General

- 0501. Land tactical level activities may be classified as either: offensive; defensive; stability; or enabling activities. Every campaign and its operations are conducted through a balanced combination of these tactical activities. The resources and emphasis placed on each type of activity will depend upon a number of situational factors and will reflect the nature of the campaign.
- 0502. Offensive activities are defined as: *activities in which forces seek out the enemy in order to attack him.* (AJP 3.2 Lexicon). Offensive activities will be key to defeating an enemy. Even in the defence, a commander must take every opportunity to seize the initiative and carry the battle to the enemy through both offensive activities and an offensive spirit. It should be remembered as well that the influence activities of information operations may be conducted in an offensive manner as well. (See Chapter 9 and AJP 3.10)

Purpose Of Offensive Activities

- 0503. The purpose of offensive activities is to defeat the enemy either by breaking his cohesion, by physical destruction or both. The real damage to the enemy's will is caused by destroying the coherence of his operations and fragmenting and isolating his forces. Offensive activities should attack both physical and moral cohesion. By so doing, the enemy's capability to resist is destroyed.
- 0504. Other subsidiary purposes of offensive activities are:
 - a. The gaining of information through reconnaissance in force activities;
 - b. Depriving the enemy of resources;
 - c. Pre-empting the enemy in order to gain the initiative;
 - d. Disrupting enemy defensive, offensive action and other activities such as C2 systems (through offensive information operations);
 - e. Dislocating enemy forces through decisive engagement or deception;
 - f. Seizure of ground;
 - g. Fixing the enemy as an economy of force activity; and
 - h. Influencing or changing perceptions of commanders and other, possibly neutral or hostile, target audiences. This may be done through physical or intellectual activities.

Principles In Offensive Activities

- 0505. **General.** In offensive activities the key to success is seizing and retaining the initiative. In doing so, a commander maintains momentum, keeps the enemy off-balance, and prevents him from blocking penetrations, mounting counter-attacks, and reforming his reserves. The initiative is seized by selecting the location, target, time and direction of offensive activities all at a faster decision cycle than that of the enemy. When planning and conducting offensive activities, the following principles must be considered:
 - a. **Seizing and Maintaining the Initiative.** Offensive activities aim to defeat the enemy's will to resist. This implies manoeuvre, speed and aggressiveness. By wresting the initiative from the enemy, one acquires freedom of action and a distinct psychological advantage. Exploiting success and taking advantage of enemy weakness must be foremost in the minds of all commanders. This requirement may be applied to information operations influence activities, for commanders must seize the initiative in PSYOPS and public affairs in order to influence the understanding and perceptions of key audiences and elements of the populace;
 - b. **Concentration of Force**. A commander must strive to concentrate forces and capabilities superior to that of the enemy at a decisive time and place. Concentration not only implies massing of forces but also massing of firepower. The ability to concentrate is dependent upon movement, flexibility and communications;
 - c. **Surprise**. Surprise can create success out of all proportion to the size of the force used. Its elements are secrecy, concealment, deception, originality, audacity and speed. Surprise must be exploited. Deception will be a key element in distracting the enemy's attention and in creating surprise;
 - d. **Security**. Security is a condition that gives a commander sufficient freedom of action to fulfil his aim. Security is manifested in the offence by having a firm base for the assembly, preparation and launching of operations. It includes securing the line of departure, the flanks of an attacking force and the lines of communication. During certain campaigns such as a counter-insurgency and certain peace support, forces will require a secure base from which to operate. Once the desired effects have been created around these base areas, operations can be extended, like oil spreading in water, to less secure areas;
 - e. **Flexibility.** Offensive activities demand a high degree of flexibility in order to enable plans to be altered to meet changing situations, unexpected developments and to exploit fleeting opportunities, particularly against unconventional enemies. Its elements are flexibility of mind and rapidity of decision-making on the part of a commander and his subordinates, to ensure that time and opportunities are never lost. It is achieved through simplicity of plans, unity of effort and maintenance of balance. Implicit in this requirement is freedom of action for the commander and a mission command environment;
 - f. **Information Gathering.** Offensive activities must be supported by a broad knowledge base at all levels of command that assesses the inter-related systems within an environment and anticipates the effects that will be created from offensive activities, to ensure that operational objectives are met. A great deal of intelligence and information gathering at all

levels is required to support this knowledge based. At the tactical level, commanders at all levels need detailed intelligence on the terrain over which their troops will fight. Additionally, commanders must understand the elements of the environment that play a role in their particular battlespace and in the campaign environment as a whole. Intelligence and information gathering at this level will support the knowledge base, although the fundamental element of gathering at this level has a more specific aim. Intelligence on enemy dispositions, strengths and intentions is vital to success in the offence;

- g. **Simplicity.** Plans must be kept simple. Complex manoeuvres and intricate arrangements lead to confusion and misunderstanding. A clear concept of operations supported by a simple plan gives subordinate commanders an opportunity to apply their own judgement and initiative in response to changes in the local situation. Simplicity enhances agility and allows better control of tempo. For information operations, messages to the target audience should be kept simple and straightforward with obvious links in logic and links to operational objectives. Simplicity of plans and linkages to desired objectives will also make assessment through measures of effectiveness easier;
- h. Audacity and Shock Action. Commanders must be prepared to be bold and to exploit a favourable situation aggressively. Shock action is achieved by the bold handling of combat forces, be they armour, mechanized infantry or rapidly moving light forces, in order to break into the enemy defences and drive deep into his area. Fire support is essential and is used during all stages of the operation to reinforce the shock action. Shock action will help lead to a rapid collapse of the physical and moral cohesion of the enemy;
- i. **Depth.** Depth is required both in the organisation of offensive forces and in the selection of objectives. Organising in depth contributes to shock action and allows continual operations to occur. It permits a commander to maintain constant pressure on the enemy and to exploit penetration. The securing of objectives in depth breaks the framework of the enemy defence;
- j. **Balance.** A balanced force is one that is grouped in such a way that a commander can concentrate forces and capabilities to take advantage of a sudden opportunity or to react to enemy action at the decisive moment. In reaching operational objectives, a balance may have to be created between physical activities and influence activities in order to create complementary effects. The initial grouping of forces and allocation of activities must ensure that:
 - (1) The covering force can cover the frontage of the area of influence if the battlespace is organised in this manner, or may cover key NAIs;
 - (2) Leading tactical elements have a suitable force mix to deal with likely opposition;
 - (3) Fire controllers and air controllers are well forward to provide continuous fire support;

- (4) Requirements for engineer support are anticipated and resources are readily available, with engineer reconnaissance parties well forward;
- (5) Reserves are constituted, maintained and normally deployed beyond the range of most enemy artillery, so that they can be committed rapidly to battle. In campaigns and operations short of major combat, reserves are still required and are adjusted to the threat and possible, unanticipated requirements. They are often termed as a Quick Reaction Force (QRF);
- (6) Elements responsible for information operations are planned and deployed in conjunction with manoeuvre forces; and
- (7) There will unlikely be enough forces for the commander to fulfil all the demands given above; thus, he must set priorities in the tasks for his subordinates.
- k. **Reserves.** Reserves are required to meet the unexpected. They may be committed to influence the battle, to exploit success or to respond to countermoves. Reserves provide a commander with flexibility and balance. Once he has committed his reserves, the commander must reconstitute it as soon as possible. Operations that lack a detailed intelligence picture or that may meet unanticipated situations should hold significant forces in reserve if possible; and
- 1. **Coordination of Combat Functions.** The plan for the offensive activity must ensure careful coordination of all combat functions in order to successful fulfil the aim of the assigned mission.
- 0506. **Deception.** In addition considering the above principles, the commander must keep in mind the important role that deception may play in supporting offensive activities. Deception will be used to provide security for the deploying force and will be used to lure and distract the enemy and thus allow more freedom of action for the commander.
- 0507. **Terrain Considerations.** Terrain must be carefully considered when planning offensive activities. The best use of terrain must be made in order to:
 - a. Improve observation;
 - b. Obtain cover and concealment;
 - c. Obtain better fields of fire;
 - d. Enhance manoeuvre;
 - e. Secure approaches;
 - f. Improve security of forces;
 - g. Hamper enemy movement; and
 - h. Allow for a base from which to launch further operations.

0508. Chapter 9 of this publication provides details for considerations to be made when operating in specific environments.

Section II - Types Of Offensive Activities

General

- 0509. There are a number of different types of offensive activities with specific purposes. They are closely related and often lead from one to another type and are often linked by enabling activities. The types of offensive activities are as follows:
 - a. Attack;
 - b. Raid;
 - c. Reconnaissance in Force;
 - d. Exploitation;
 - e. Pursuit;
 - f. Ambush:
 - g. Breakout of encircles forces; and
 - h. Feint and Demonstration.

Attack

- 0510. To attack is to take offensive action against a specified objective. The primary purpose of an attack is to destroy the enemy's capability to resist and subsequently to destroy his will and cohesion. An attack may be a separate activity or may be carried out in conjunction with other types of activities. A commander undertaking an attack possesses the initiative, in that he decides the location, time, direction and weight of force to be concentrated. Once the attack is launched, flexibility and speed in the employment of forces are paramount. The attack must be executed vigorously, exploiting any favourable developments and reallocating resources to areas where there appears to be an opportunity for success. Momentum must be maintained in order to keep the enemy off balance and the attack should not be delayed in order to align units or adhere rigidly to a plan. Indeed, few attacks will develop as planned and commanders must actively seek to turn unexpected successes to their advantage and to cope rapidly to reverses. To be able to do this they must understand their superior's intent and desired end-state.
- 0511. The requirement for flexibility demands: simple plans; adjustable fire support; engineers well positioned for anticipated tasks; reserves uncommitted and close at hand; and, sustainment options flexible enough to support the offensive activity. Each discrete attack should not be viewed as its own entity but as part of the continuous process to break the enemy's cohesion. Commanders should plan to exploit success well before they achieve it.

- 0512. An attack is often preceded by an advance to contact and seeks to seize and maintain the initiative. Additionally, a hasty attack may occur as a result of a meeting engagement. Counterattacks are also employed by a defending force to exploit opportunities to strike the enemy at a decisive time and place in order to defeat him. Assuming that the attack has been successful, the force will consolidate and, if possible, exploit success through continued offensive activity.
 - a. Hasty Attack. A hasty attack is an attack in which preparation time is traded for speed in order to seize the initiative and exploit an opportunity. It seeks to take advantage of the enemy's lack of preparedness, and involves boldness, surprise and speed in order to achieve success before the enemy has had time to improve his defence posture. In order to maintain momentum or retain the initiative, minimum time is devoted to preparation, and the forces used for the attack are those that are readily available. There will be little time for reconnaissance and none for rehearsal. The element of surprise created by a speedy action will act as a force multiplier. Such attacks must, wherever possible, be mounted from an unexpected direction and supported by the concentrated fire of every available weapon. Commanders should issue brief orders and then position themselves well forward to react rapidly to the development of the attack. There will be a significant reliance on standard operating procedures and well-practised drills. If momentum is lost a deliberate attack may be necessary. A properly performed Intelligence Preparation of the Battlefield may identify areas for a hasty attack from the advance, thereby allowing some more detailed planning to occur before the advance:
 - b. **Deliberate Attack.** A deliberate attack is a type of offensive activity characterised by planned and coordinated employment of firepower and manoeuvre to close with and destroy or capture the enemy. When a well-prepared enemy defence must be defeated, a deliberate attack may be required. The emphasis is on preparation at the expense of speed and time, therefore methods other than speed will be required in order to achieve surprise;

c. Counter-Attack and Spoiling Attack.

- (1) **Counter-Attack.** A counter-attack is defined as: an attack by a part or all of a defending force against an enemy attacking force, for such specific purposes as regaining ground lost or cutting off or destroying enemy advance units, and with the general objective of denying to the enemy the attainment of his purpose in attacking. In sustained defensive operations, it is undertaken to restore the battle position and is directed at limited objectives. (AAP 6) The purpose of a counter-attack is to defeat an enemy that becomes vulnerable by his own offensive action, by revealing his main effort or creating an assailable flank. It is likely to be conducted as part of a defensive operation by a reserve or lightly committed forward elements and it affords the defender the opportunity to create favourable conditions for the commitment of forces and a switch to an offensive operation; and
- (2) **Spoiling Attack.** A spoiling attack is defined as: a tactical manoeuvre employed to impair seriously a hostile attack while the enemy is in the process of forming up or assembling for an attack. (AAP 6) The spoiling attack is similarly directed at enemy offensive activities but with the limited aim of disruption. It attempts to strike the enemy while he is most vulnerable or while he is on the move prior to

crossing his line of departure. A spoiling attack is pre-emptive in nature, as it attacks the enemy's plans, and hence, his cohesion. When the situation permits however, commanders can exploit a spoiling attack like any other attack.

Raid

0513. A raid is defined as: an activity, usually small scale, involving a swift penetration of hostile territory to secure information, confuse the enemy, or destroy his installations. It ends with a planned withdrawal upon completion of the assigned mission. (AAP 6) The wider purpose of a raid is to disrupt the enemy usually through destruction or capture of a vital asset or capability. It is based on detailed intelligence, generally involves swift movement into hostile territory and ends with a planned withdrawal. Because raids will often be carried out over a short distance and time period, only a limited amount of supplies need be carried and maintenance will be confined to minor crew repairs. Fire support systems are required to support the raiding force so as to reduce the enemy's ability to react. Armoured reconnaissance, airmobile, airborne and amphibious forces, dismounted infantry, particularly if supported by aviation fire support, are well suited to this type of attack. Nodal attacks in urban areas by heavy armoured forces may be considered a raid if withdrawal follows the activity.

Reconnaissance in Force

- 0514. Reconnaissance in force is defined as: an offensive activity designed to discover and/or test the enemy's strength or to obtain other information. (AAP 6) The purpose of a reconnaissance in force is to compel the enemy to disclose the location, size, strength, disposition or intention of his force by making him respond to offensive action. The enemy's reaction may reveal weaknesses in his defensive system that can be attacked or strengths that should be avoided. Commanders may conduct reconnaissance in force as a means of keeping pressure on the defender by seizing key terrain and uncovering enemy weaknesses. They must also be prepared to seize any opportunity to exploit tactical success.
- 0515. A formation or unit may conduct its own reconnaissance in force or do so at the direction of a higher headquarters. It must be conducted in enough strength to force the enemy to react, though it may be necessary to place restrictions on commanders to avoid actions that might precipitate a decisive engagement. If the force is still engaged once the actual reconnaissance is completed, it may be tasked to fix the enemy, attack or withdraw.

Exploitation

0516. Exploitation is defined as: an offensive operation that usually follows a successful attack and is designed to disorganise the enemy in depth. (AAP 6) As a tactical offensive activity, exploitation is characterized by a rapid advance against lessening resistance. The purpose is both physical and moral. The aim is to retain the initiative by preventing the enemy from reorganizing his defence or conducting an orderly withdrawal. Additionally, exploitation will create confusion and apprehension throughout the enemy command, reducing his capability to react and lowering his morale. This may be decisive in itself.

Pursuit

0517. A pursuit is defined as: an offensive operation designed to catch or cut off a hostile force attempting to escape, with the aim of destroying it. (AAP 6) It may commence when the enemy force is demoralized and its units are beginning to disintegrate under pressure. Alternatively, it may originate in an operation in which the enemy loses his ability to operate effectively and attempts to disengage. It will often follow an attack that causes the enemy to withdrawal rapidly.

Ambush

0518. An ambush is defined as: a surprise attack by fire from concealed positions on a moving or temporarily halted enemy (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6.) The purpose of an ambush is to inflict damage on the enemy while denying him an opportunity to counter-attack, principally through surprise. It is often conducted in the same manner as a raid and often within territory controlled by the enemy. Normally the ambushing force lies in wait for the enemy force.

Breakout of Encircled Forces

0519. In a breakout operation, an encircled force takes offensive action to link up with a main force. The breakout should attempt to surprise the enemy and is more likely to be successful if it is conducted at the earliest opportunity once the encirclement has been realised. The breakout operation may be supported by other forces attempting to fix the encircling enemy.

Feint and Demonstration

- 0520. A feint and demonstration are forms of deception and thus elements of information operations¹ in that they affect the understanding and perception of the enemy commander in order to cause him to act inappropriately to the real threat. Both may seek to fix a enemy force and may be supported by other deceptive activities such as false radio traffic:
 - a. **Feint.** A feint is defined as follows: in military deception, an offensive action involving contact with the adversary conducted for the purpose of deceiving the adversary as to the location and/or **time** of the actual main offensive action (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6.) A feint seeks to distract the attention and action of a enemy force by seeking combat with it. Its intent is often to support the development of the main effort elsewhere on the battlefield, normally by fixing an element of the enemy and distracting the commander. Feints must be of sufficient strength and composition to cause the desired enemy reaction. It is most effective when it supports the enemy's expectations, when it appears as a definite threat to the enemy, or when there are several feasible courses of action open to the attacker; and

¹ See Chapter 9 ATP 3.2.1 Allied Land Tactics and AJP 3.10 NATO Military Information Operations Doctrine

b. **Demonstration.** A demonstration is defined as: an attack or show of force on a front where a decision is not sought, made with the aim of deceiving the enemy. (AAP 6) A demonstration seeks to distract the enemy's attention without seeking combat. It may be part of a broader deception plan. Demonstration forces use firepower, manoeuvre and electronic warfare to affect the understanding and perceptions of the enemy commander. It should also be aimed at a vital sector of the enemy's defences if he is to be successfully misled.

Section III - Forms Of Manoeuvre

General

- 0521. Offensive activities may be directed against the front, flank or rear of the enemy and may be conducted from the land, air or sea. Any combination of these is possible. Normally the point of main effort is placed where the enemy is weakest or where the terrain offers possibilities of braking deep into his defensive area. This is done through the manoeuvre of forces. Manoeuvre is defined as: *employment of forces on the battlefield through movement in* combination *with fire, or fire potential, to achieve a position of advantage in respect to the enemy in order to accomplish the mission* (AAP 6).
- 0522. The forms of manoeuvre are frontal, penetration, envelopment (which includes flank attacks and attacks against the enemy's rear) and turning movement. To manoeuvre is to gain a position of advantage relative to the enemy. Manoeuvre against, or to threaten, an enemy's flanks and rear may have an impact on his morale and thereby his will and cohesion. Manoeuvre may assist in the achievement of surprise and shock if conducted at high tempo, that is, before the enemy can react effectively.
- 0523. Some forms of manoeuvre, such as single and double envelopment, penetration or turning movements may disrupt and dislocate the defence. Envelopment may have a more direct aim: to gain a position of advantage that is the desired objective and thus pre-empt the enemy. At brigade level and below, the most common forms of manoeuvre are the frontal attack and the flank attack.

Frontal Attack

0524. A frontal attack is defined as: an offensive manoeuvre in which the main action is directed against the front of the enemy forces. (AAP 6) It can be effective against a weak, disorganized enemy and it may be used to overrun and destroy him or to fix him. A frontal form of manoeuvre is often required to support a penetration or envelopment. Unless supported by a heavy weight of fire, it may not be successful, and even if successful it may result in an unnecessarily high number of casualties. A commander therefore must consider these factors carefully before executing a frontal attack.

Penetration

0525. A penetration is defined as: a form of offensive which seeks to break through the enemy's defence and disrupt the defensive system. (AAP 6) Penetration seeks to reach the depths of a enemy position on one or a number of narrow sectors and to seize objectives in the enemy's

- depth. This will destroy the continuity of a defensive position. The main effort is made on a relatively narrow front or number of narrow fronts.
- 0526. Successful penetration requires the concentration of superior combat power at the point selected for breaking into the enemy's defences. Such points include gaps in his defences and boundary locations. The concentration must be such that the force can break through quickly, widen and secure the breach, and maintain momentum while seizing the deep objectives. It is a suitable manoeuvre when strong combat forces are available and the enemy is over-extended or if his flanks are firmly secured.
- 0527. It has two principal variants: **deep** and **multiple** penetrations. Both may be employed in the same operation. The fundamental tactic is to seek the depth of a enemy's position as rapidly as possible, preferably without fighting. This requires enemy forces to be bypassed by design. That creates a risk that the penetrating force may itself be attacked in its developing flanks. The fear that this might happen may cause forces to move cautiously when boldness is required. Personal example and determination will be required of commanders. The protection of the flanks of the penetrating element is critical to success, although at times protection can be afforded by the sheer speed of the penetrating force:
 - a. **Deep Penetration.** Deep penetration aims either to seize features or to destroy specific objectives deep in the enemy's rear. In doing so it perforates the enemy's positions, introduces a force behind the enemy, and thereby causes fear and uncertainty. It may of itself persuade a enemy commander that he has lost, particularly if the objective is critical to him. Such objectives may include river crossings behind his position;
 - b. **Multiple Penetrations.** Multiple penetration aims to disrupt and dislocate the cohesion of a defensive position. In doing so it achieves simultaneity, presenting the defender with a number of threats. It creates multiple opportunities for surprise and shock. However, it risks dispersion of forces for little overall effect if it is not generally successful and reinforced quickly; and
 - c. Combination of Multiple and Deep Penetration. Multiple and deep penetrations may be combined to produce dramatic effects against the enemy on both the physical and moral planes.
- 0528. Each penetrating force will normally require at least two elements. The leading element is tasked to penetrate to the objective or limit of exploitation as rapidly as possible, bypassing opposition. The second element is tasked to follow the first in order protect its flanks and rear. If required, subsequent elements could be reserve or echelon forces tasked to destroy bypassed enemy, take over the lead of the advance, or exploit beyond the immediate objective. Penetration is unlikely to succeed against an enemy who is more agile, that is, more mobile and flexible. Conversely, it has often succeeded against a more numerous but less agile enemy.

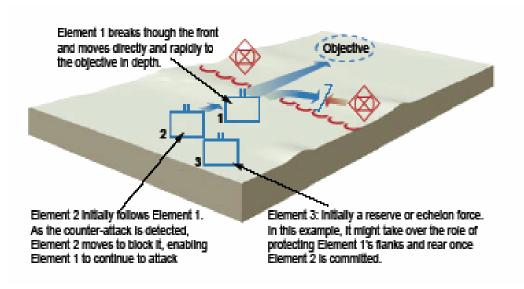


Figure 5-1: Elements of a Penetration Manoeuvre.

Envelopment

- 0529. An envelopment is defined as: an offensive manoeuvre in which the main attacking force passes around or over the enemy's principal defensive positions to secure objectives to the enemy's rear. (AAP 6) Envelopment is a basic form of manoeuvre designed to apply force against enemy weakness, and will normally require diversionary attacks against the enemy's main defensive front. The main effort in envelopment is made against the enemy's rear or flank. Its aim is to seize objectives in the enemy's rear, making his main defensive position untenable.
- 0530. An envelopment is conducted by passing forces around one side of the enemy (flanking), around both sides of the enemy (double envelopment) or over the enemy (vertical envelopment).
- 0531. The main attack is conducted by avoiding the enemy's strength en route to the objective and striking him from an unexpected direction. The forces conducting an envelopment must have good mobility, be deployed in depth and have secure flanks. Considerable speed of movement, surprise and the identification and exploitation of weak points are required if the enveloping force is to be able to reach its objectives in depth.
- 0532. The envelopment may cause the enemy to redeploy or to withdraw. It may cause disruption to his command and control or logistic systems, or open the way to objectives that he was trying to defend. It may be undertaken in order to outflank or trap enemy forces, possibly against a geographical feature. Airmobile or airborne forces may be employed, as part of an enveloping force in order to conduct a vertical envelopment.
- 0533. An envelopment manoeuvre will take one of the following forms:
 - a. **Flank Attack.** This type of envelopment occurs when the main effort is directed at the enemy's flank. The attack seeks to strike at a more vulnerable point of the enemy's position

where his concentrated firepower can be avoided. Flanking attacks aim at surprising the enemy and should be the preferred attack at brigade level and below;

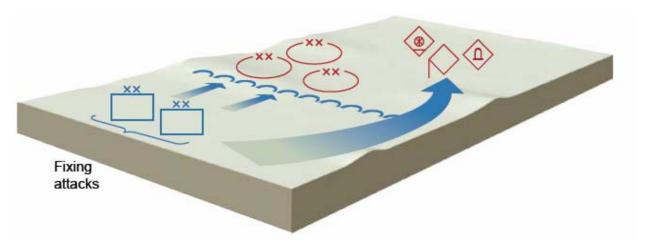


Figure 5-2: Envelopment

- b. **Rear Attack.** When the main effort is directed at the enemy's rear, forces are passed around one side, **both** sides (double envelopment) or over (vertical envelopment) the enemy's main defensive position with the aim of securing key terrain **within direct fire range of his rear**. This action leads to his destruction or makes his position untenable;
- c. **Double Envelopment.** Double envelopment is an envelopment operation mounted on two axes that is designed to outflank an enemy from both sides with a view to forcing him to abandon of his intentions or withdraw, or as a prelude to encirclement and destruction of the trapped forces; and

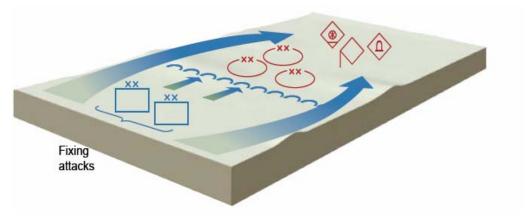


Figure 5-3: Double Envelopment

d. **Encirclement.** If the arms of a double envelopment are strong enough to meet, then encirclement will occur. If the trapped force can be prevented from breaking out, large enemy forces may be neutralized or destroyed with all their equipment. Large encirclements may be costly operations in terms both of troops and the time taken to reduce the trapped forces. Encircled forces will likely be capable of re-supply only by air. Unless an early decision to relieve them by breakout or break-in is made, then resources will

become inadequate to allow the force to breakout and fight their way back to rejoin the main body.

Turning Movement

- 0534. A turning movement is defined as: a variation of the envelopment in which the attacking force passes around or over the enemy's principal defensive positions to secure objectives deep in the enemy's rear, force the enemy to abandon his position or divert major forces to meet the threat. (AAP 6)
- 0535. In this form of manoeuvre, a force passes around or over the enemy's main defensive positions to secure objectives deep in his rear **beyond the range of his direct fire weapons**. The aim of this manoeuvre is to compel him to abandon his position or divert major forces to meet the threat. A turning movement should make those enemy forces more vulnerable to attack, and may allow the use of an approach dominated by the abandoned positions. The force attempts to avoid contact with the enemy en route to its objective.
- 0536. The attacking force is organized into a turning force, a main body and a reserve. The turning force's manoeuvre causes the enemy to leave his positions. The main body may initially distract the enemy from the turning manoeuvre. It should subsequently exploit the success of the turning force. The turning force is normally smaller than the main body and should be able to operate independently, beyond the supporting range of the main body. Either the turning force or the main body may conduct the decisive operation.

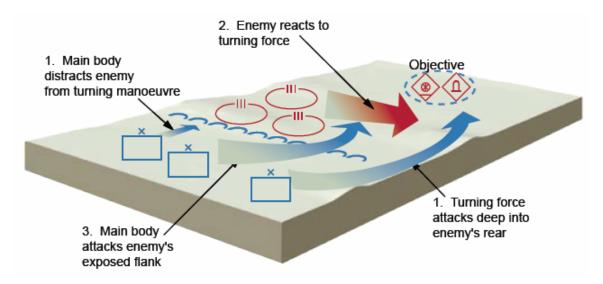


Figure 5-4: Turning Movement

Infiltration

0537. Infiltration is defined as: a technique and process in which a force moves as individuals or small groups over, through or around enemy positions without detection. (AAP 6)

- 0538. Infiltration is penetration based on stealth. It may be used to occupy an objective in depth, or as a precursor to an attack mounted on an objective in depth. It may be single or multiple.
- 0539. Commanders may use infiltration to attack lightly defended positions or stronger positions from the flank or rear, to secure key terrain in support of the main effort, to gather intelligence or to disrupt enemy rear areas or lines of communication. Infiltration is normally used in conjunction with other forms of manoeuvre.

Integrating Forms of Manoeuvre

0540. Although individual operations or forms of manoeuvre may lead directly to the achievement of the mission, it may be necessary to integrate them into a larger scheme of manoeuvre. Similarly, forms of manoeuvre will often need to be divided into separate tactical tasks. For example, an encirclement will typically require at least two penetrations, exploitation into the enemy's depth, and a link-up operation. That may be followed by defence of the outer flanks of the encirclement, and either attack or defence on the internal flanks. Operations against flanks, the rear, bypassing or penetration allow the creation of shock and surprise at several levels, and hence the possibility of command paralysis and collapse. Any penetration is an opportunity for aggressive exploitation. Manoeuvre is not limited to offensive operations. Skilful counterattacks may in effect be turning movements. Such movements will compel an attacker to desist from his attack and will create a threat to the rear of the enemy forces.

Section IV - Stages And Conduct Of The Attack

General

- 0541. An attack can be divided into a number of distinct, but closely related stages, which will tend to merge into each other. Indeed, to the participants, the stages are unlikely to be clear-cut, especially if they are involved in other actions in support of the offence.
- 0542. The stages of the attack are:
 - a. **Approach/Mounting**. During the approach/mounting stage, which includes all activities prior to H-hour, preparations for the attack are completed. Activities may include: intelligence gathering; rehearsing; ammunition dumping; route improving; preparing for the crossing and breaching of obstacles; moving to assembly areas; re-grouping; replenishing; firing preparatory fire; deploying; and, possibly, conducting a forward passage of lines. The approach ends with the arrival of the attacking forces in the attack position, just short of the line of departure. Concurrently, commanders complete their battle procedure. The force may also carry out infiltration;
 - b. **Assault**. The assault begins at H-hour. In this stage the assaulting element crosses the line of departure (at H-hour), at the forward edge of the attack position, breaks into the enemy defensive position, and fights through the objective to destroy the enemy or cause his surrender; and
 - c. **Consolidation**. Following an assault, a force must consolidate quickly, so that it is prepared to meet enemy counter-attacks or undertake a new task. Consolidation is normally

done forward or to the flanks of the former enemy position. It may be followed by **exploitation**.

- 0543. Once the attack is launched, flexibility and speed in the employment of capabilities are paramount. The attack is usually conducted as a series of rapid advances and assaults by fire and movement until the final objective is secured. The attack must be executed vigorously, exploiting any favourable developments and reallocating resources to areas where there appears to be an opportunity for success.
- 0544. The commander may have to take action to redeploy or to reinforce, in order to maintain the momentum of the attack, to defeat enemy counter-attacks or to provide security. The momentum must be maintained and the attack must not be delayed in order to align units or to adhere rigidly to a plan. The various components of the conduct of the attack will tend to merge into each other and not all of them will be used in every instance.

Approach And Mounting

- 0545. Attack forces should be held well back, as long as possible, to complete the battle procedure and to assist in maintaining security. Some preliminary grouping may take place.
- 0546. During mounting, a number of activities will take place, to possibly include:
 - a. **Information Collection**. Information is collected in accordance with the intelligence collection plan and the commander's information requirements. This activity is initiated early and continues throughout the operation, primarily by reconnaissance forces. Active counter-reconnaissance will also take place in order to secure friendly movement, preparations and activities, and to achieve surprise. This collection should consider not only enemy forces, but also the other elements or systems that will be affected by this tactical offensive activity. This should lead to risk assessment and the assessment for the possible creation of undesired effects through such things as collateral damage;
 - b. **Route Security and Maintenance.** There may be a requirement to secure and protect key routes for the mounting and movement to assembly areas and deployment to the attack position. Security may be required to allow work forward of the assembly areas early in the mounting stage. If work during the early stages is not possible, engineers must be among the first troops to move forward;
 - c. **Selection of Assembly Areas**. Assembly areas are selected with regard for concealment, grouping and tasks, and the location of the line of departure. Assembly areas, attack positions and lines of departure should be secured by protective elements prior to their occupation by assault forces;
 - d. **Move to Assembly Areas**. The move to assembly areas, if used before moving to the attack position, is planned as a tactical movement. Preferably, it should be conducted under radio silence during periods of reduced visibility. This move should be planned to take place as late as possible in the mounting stage to assist in maintaining security;

- e. **Deployment in the Assembly Areas.** The first forces in the assembly area secure it for the **main** body. A tactical posture is adopted in the assembly area. Activities here may include final replenishment and confirmatory orders;
- f. **Forward Passage of Lines.** There are occasions when a formation or unit attacks through **elements** already in contact with the enemy. The troops in contact remain in position, supporting the passage of lines until their fire has been masked, or they are no longer required, at which time they may undertake another task. Detailed liaison and coordination will be required. The forward passage of lines may be the start of the assault stage;
- g. **Obstacle Crossing and Breaching.** Preparations for crossing or breaching are completed. Some obstacles may have to be breached before the force arrives at its attack position. This will require detailed planning in itself, particularly if the obstacle is covered by observation and fire;
- h. **Preparatory Fire**. Preparatory fire may involve heavy ammunition expenditure. Insufficient fire may jeopardize surprise, while neutralizing the enemy for only a short time. It may be better to concentrate resources on covering fire or carry out brief, but intense, preparatory fire on selected targets. If a large expenditure of ammunition is planned, a dumping programme may be required;
- i. **Infiltration**. A commander must plan to move his infiltration force by stealth from its assembly area to their attack positions in the enemy area. Infiltration forces may be required to assault and hold their positions until a link-up can be affected or, they may be directed to assault and subsequently disperse;
- j. **Rehearsals**. If security and time permit, commanders at all levels should reconnoitre the ground over which they will attack and conduct rehearsals with all the elements of the force. Night operations will require night rehearsals;
- k. **Deployment.** Planning for deployment ensures that assault forces move from assembly areas, deploy into formation whilst on the move through the attack position, and cross the line of departure at H-hour. If a deployment on the move is not possible, assault troops should pause only briefly in the attack position to shakeout into their attack or assault formation. The formation adopted when crossing the line of departure depends on the ground, distance to the enemy, expected enemy resistance and effectiveness of the suppression of the enemy. A short approach to the objective over open terrain with considerable fire support, including smoke, against a relatively weak enemy favours adopting assault formation when crossing the line of departure. Otherwise, it may be adopted, on the move, in an assault position just prior to closing with the enemy; and
- 1. **Security**. During the approach to the line of departure, flank security/protection and a covering force/guard will likely have to be established. The line of departure should be secured prior to the arrival of the main assault force. This can be a task for reconnaissance forces.

Assault

- 0547. The assault is conducted as follows:
 - a. **H-Hour.** All timings are based on the time troops cross the line of departure, termed H-hour. It will normally be crossed in a deployed attack formation. In cases where a passage of lines is involved the line of departure may be the forward line of own troops;
 - b. **Attack Position and Formation.** Attacking elements form into their attack formation in the attack position as they arrive. The pause here should be short and just enough time to adopt the formation and orientate onto the objective. The attack position should be the last ground covered from enemy observation and direct fire en route to the objective. At times, a pause may be made while commanders go forward for a final reconnaissance of the enemy and confirmation of the location and orientation of the enemy position;
 - c. **Armour and Infantry Cooperation.** Lead elements cross the lines of departure at H-hour. Tanks and infantry move together or on different axes. The lead may change during the approach and final assault, depending on the ground. The infantry dismount short of, on, or beyond the objective, depending on the ground, the disposition and strength of the enemy, the number of anti-armour weapons, the extent and nature of obstacles, and the degree of surprise achieved. The aim is to retain momentum and protection until the infantry are required to fight through the position on foot;
 - d. **Fire Support.** At the same time, fire support resources suppress the enemy on the objective and in depth, mask his observation, and neutralise or destroy threats from counter-move forces. As assaulting troops close with the enemy, the major fire support effort is directed at the points of breaking-in. Fire support coordination is vital throughout the assault:
 - e. **Assault Formation**. At times, an assault formation may be adopted in an assault position just short of the enemy. This will occur when, due to the ground or need for additional control, the assault formation could not be adopted in the attack position;
 - f. **Break-In.** In order to break-in, assaulting troops should concentrate only when they come into close contact with the enemy. Preferably supported by tanks, infantry and engineers breach the last of the enemy forward obstacles and break into his defensive system. At this point, close fire support shifts to the depth of the objective and then to targets on the flanks and in depth. Throughout the break-in, momentum must be maintained so the enemy is not allowed time to react;
 - g. **Fighting Through and Clearing the Objective.** Once the break-in is made, it is vital to maintain the pressure of the attack, not only when assaulting the enemy position to seize initial objectives, but also when fighting through to take the objectives in depth. Sometimes, determined action by troops in the initial assault can clear a position, thus avoiding the use of a much larger force later on when the enemy has had a chance to recover. Attacking forces must move as rapidly as possible between areas of enemy resistance, particularly in a CBRN environment. When enemy resistance is encountered, the leading elements, supported by fire, attempt to overrun and destroy the enemy as quickly as

possible. Leading troops should lose no opportunity to reinforce and exploit success and thus keep the enemy off balance. When fighting through objectives, support weapons and command posts are priority targets. Demolition teams destroy enemy bunkers. Tanks that are not accompanying the assault forces in close support manoeuvre to cut-off positions to prevent the enemy from withdrawing or being reinforced. Frequently, smoke is employed to the rear of an objective to hamper supporting fire adjusted by enemy reserve or depth forces;

- h. Commander's Influence During the Assault. Throughout the assault, a commander seeks to reinforce success, exploit favourable situations and achieve maximum penetration into the enemy defences. He does this primarily by committing his reserves and shifting supporting fire. His decision to commit his reserves must be made quickly but judiciously, as once they are committed it is difficult, if not impossible, to disengage them or direct them to a new task. Once the reserve is irrevocably committed, a commander must reconstitute or obtain a new reserve as quickly as possible, otherwise he loses his major capability to influence the battle;
- i. **By-passed Enemy.** Where leading elements bypass resistance in order to maintain momentum and attempt to secure objectives in depth, follow-up forces will take on enemy positions that have been bypassed, if necessary keeping them contained and under surveillance, pending subsequent elimination;
- j. **Security and Protection.** If the momentum of the attack is to be maintained, other elements must be allocated to security and protection tasks, which will include flank protection and the covering of gaps between units. These elements may also be required to provide fire support, to deal with bypassed enemy forces, or to provide protection from ground attack for support units when areas to the rear of attacking echelons have not been cleared;
- k. **Depth Forces.** In order to maintain the momentum of an attack, depth forces should be allocated. These differ from reserves in that depth forces are actually committed to battle and are only one tactical bound behind the lead element; and
- 1. Constitution and Commitment of Reserves. Reserves are essential to deal with the unexpected and to maintain the momentum of the attack. A commander may need to increase the size of an assaulting force to allow it to constitute a reserve. In addition, at all times the commander himself must have an effective and uncommitted reserve if he is to maintain a properly balanced force and be able to exploit success when the opportunity is presented. Once the original reserve has been committed, another must be constituted, even if this means a change in task organization. Reserves will normally follow the advancing forces engaged in the battle, without becoming engaged prematurely, and must be located so that they can be deployed swiftly in any direction. An airmobile reserve may also be maintained to provide flexibility in the exploitation and pursuit as well as for flank protection.

Consolidation

- 0548. Consolidation begins immediately after the enemy has been defeated and/or the objective has been taken. This includes: deploying protective elements and possibly laying protective minefields; digging in, normally forward and to the flanks of the former enemy position; bringing forward additional support weapons; altering or completing the defensive fire plan; replenishing combat supplies, particularly ammunition; and evacuating casualties and prisoners.
- 0549. The commander must ensure that the force is prepared rapidly for counter-attack from the ground and air. If the aim is to exploit the situation, minimum forces are used to consolidate so that the momentum of the attack is not lost. The layout of the consolidation will follow the principles of the defence with key terrain and dominating ground occupied. A new fire support plan should be developed as part of the consolidation and if necessary, a new reserve formed.

Exploitation And Pursuit

- 0550. Exploitation and pursuit may follow from an attack but are not part of it. They may involve another attack, likely a hasty attack or ambush against enemy troops as they withdraw.
- 0551. Exploitation is characterised by a rapid advance against lessening resistance. The aim is to retain the initiative by preventing the enemy from reorganizing his defence or from conducting an orderly withdrawal. The key to success is speed, as any delay will afford the enemy the opportunity to regroup and mount counter-attacks or to establish delaying positions in depth. The psychological effect of exploitation creates confusion and apprehension throughout the enemy command, reducing his capability to react and lowering his morale. This may in itself be decisive.
- 0552. An attack frequently results short-term opportunities to maintain pressure on the enemy. Exploitation may prevent him from mounting counter-attacks, reorganizing his defence, or conducting an orderly withdrawal. A commander should plan for exploitation and be prepared to adjust his plan as the situation develops. If exploitation is possible, it must be carried out quickly so as not to give respite to the enemy. It may even begin simultaneously with consolidation to ensure that momentum is maintained and the enemy is kept under pressure. A commander must decide whether to commit depth or reserve forces earmarked previously for exploitation or direct main attack forces to exploit. He bases this decision primarily on the condition of the main attack forces, strength of the enemy and the difficulty of moving depth or reserve forces forward.
- 0553. A pursuit is an offensive activity designed to catch or cut off a hostile force attempting to escape, with the aim of destroying it (AAP 6). A pursuit may develop from a successful exploitation, when the enemy force is demoralized and its units are beginning to disintegrate under relentless pressure, or in an operation in which the enemy has lost his ability to operate effectively and attempts to disengage. The primary objective of a pursuit is the destruction of the enemy force, although a terrain objective may also be given. In the conduct of a pursuit, relentless pressure is directed against the retreating enemy while enveloping forces sever his avenues of escape. Successful pursuits will multiple the psychological effects of a successful attack.

- 0554. Opportunities may exist to conduct an encirclement of withdrawing or fleeing enemy. The aim of encirclement is to cut off an enemy force in a particular area, with a view to destroying it there or forcing its surrender. It often results from exploitation or pursuit when the pursuing force overtakes the enemy and blocks his escape. Aviation assets may be used to fly the blocking force ahead of the withdrawing enemy.
- 0555. The need to exploit and even pursue a fleeing enemy must be weighed against the mission and the superior commander's overall intent and operational objectives. If immediate security of the objective is more important in terms of long term and superior objectives than the tactical destruction of a fleeing force, then the commander must place the main effort on consolidation of the objective.

Section V - Control Measures

- 0556. **General**. The organisation for combat should provide for coverage of the area of the attack from well behind the line of departure to the objective and beyond and should include the designation of any measures necessary to control the attack. These will depend on how the attack is to be mounted, and on how the commander wishes to control his forces, and may include the use of the following control measures. Control measures should include appropriate link-up drills and combat identification measures.
- 0557. Battlespace Management. Battlespace is defined as: all aspects of air, surface, subsurface, land, space and the electromagnetic spectrum that encompass the area of operations. (AJP 3.2 Lexicon) Battlespace management is the use of means and measures that enable the dynamic synchronization, prioritization and de-confliction of activity across all dimensions of an assigned area of operations within the battlespace. It enables fire support coordination. Proper battlespace management will ensure the appropriate allocation of three-dimensional space and electromagnetic spectrum to the various competing users in order to avoid conflict, confusion and fratricide. Allocations will be made on a priority basis but it must harmonise the requirements in a complementary and mutually supporting fashion. Exploitation of the airspace over the area of operations must take account of all potential users: air support; aviation; air defence; unmanned aerial vehicles; and artillery. Requirements for flight routes and areas of restricted/specialized air operations must be coordinated, usually through the Combined Air Operations Centre.
- 0558. **Assault Line**. A control measure used to coordinate the movement of a unit or sub-unit out of the assault position, in assault formation, and into the final stage of an attack. It is only required if the assault formation could not be adopted in the attack position.
- 0559. **Assembly areas/approach routes**. If time permits, forces which are to be brought together or moved up for an attack use an assembly area where they should remain only for as long as required for their administrative preparation or regrouping. These areas should be out of range of most of the enemy artillery and located so that the approach march from them to the line of departure can be affected smoothly, quickly and using concealed routes.
- 0560. **Attack position**. The attack position is the last position held by the assaulting force before crossing the line of departure. It is an area to which troops deploy immediately before an attack

and in which they may adopt their assault formations. It is occupied for as short a time as possible although final orders or briefings may be given or orientation carried out. It must be reconnoitred and secured before the assaulting force moves in. The area chosen should be easily recognizable, not under direct fire or observation and not a known or likely enemy artillery target.

- 0561. **Axes and routes**. Axes and routes are used to indicate the course of the movement to be followed and the degree of freedom of manoeuvre permitted en route to the objective(s).
 - a. Axes establish only the general direction of movement. The subordinate commander is permitted to manoeuvre freely between assigned unit boundaries; and
 - b. Designation of a 'route' establishes the specific direction or course which movement will follow;
- 0562. **Boundaries**. A boundary between adjacent units will always be given in order to facilitate coordination between the units and to establish responsibility for movement, fire, reconnaissance and security. Normally units and elements will not cross or fire over a boundary without specific permission.
- 0563. **Consolidation**. In offensive operations, consolidation is the process of regrouping and adjustment which takes place on the capture of an objective, in preparation for further offensive operations, or to repel a possible counter-attack. A consolidation area is a zone in which consolidation takes place.
- 0564. **Firebase**. In an attack, a firebase is a support element that, from an assigned position, engages the target by direct fire in support of the assault group's advance and assault. It should be sited on a dominating feature, at an angle to the direction of the assault so as to allow supporting fire to be brought onto the objective to the greatest possible extent of the assault, without endangering friendly troops. The firebase should be allotted in orders fire **control measures** to ensure close coordination with, and effective support to, the assault force.
- 0565. **Fire Support Coordination.** Fire support coordination is defined as: the planning and executing of fire so that targets are adequately covered by a suitable weapon or group of weapons. (AAP 6)
- 0566. **Fire Support Coordination Measures**. A fire support coordination measure is defined as: *a measure employed by land or amphibious commanders to facilitate the rapid engagement of targets and simultaneously provide safeguards for friendly forces* (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).
- 0567. **Intermediate Objectives**. Intermediate objectives are defined as: an area or feature between the line of departure and an objective which must be seized and/or held. (AAP 6) The intermediate objective of a unit or formation is often the objective of a subordinate element. In the attack, intermediate objectives are closely related to the importance of terrain and enemy locations and are also used to coordinate the movement of attacking forces with regard to time and space. Their capture must not cause the attack to lose momentum. Intermediate objectives for a formation are often the main objectives for subordinate forces.

- 0568. **Killing Zone/Engagement Area**. A killing zone or an engagement area maybe defined as: *an area where the commander intends to contain and* destroy *an enemy force with the massed fires of all available weapons* (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6). In such planned areas, the enemy is forced to concentrate by use of natural and/or artificial obstacles and adequate concentration of resources, so as to create the most suitable conditions for his destruction. Attacks should be planned so as to avoid the enemy's killing zones.
- 0569. **Limit of Exploitation**. A limit of exploitation is defined as: a line beyond which subordinate commanders may not exploit the success of earlier stages of an attack (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6). In offensive operations, it is a reference line beyond which subordinate commanders may not exploit the success of earlier stages of an attack.
- 0570. **Line of departure**. A line of departure is defined as: *a line designated to coordinate the departure of attack elements*. (AAP 6) It serves to co-ordinate the movement of the attacking forces at the start of the attack. It is at the forward edge of the attack position. It is crossed at H-hour and all timings for support are based on H-hour.
- 0571. **Objectives**. In terms of an attack, objectives are the physical object of the action taken, for example a definite tactical feature, the seizure and for holding of which is essential to the commander's plan.
- 0572. **Objective Area**. An objective area is defined as: a defined geographical area within which is located an objective to be captured or reached by the military forces. This area is defined by competent authority for purposes of command and control. (AAP 6)

Section VII - Forces And Tasks

General

0573. In order to conduct offensive activities a commander will assign various roles, responsibilities and tactical tasks to subordinate elements. The offensive activity is conducted by a series of mutually supporting tactical tasks, such as "support by fire", "block" and "seize" all linked together with a purpose or desired effect. See STANAG 2287 for a complete listing of tactical tasks.

Assault Force

0574. The strength and type of combat forces that are available to strike the enemy will be a decisive factor in determining the task, the objectives and the task organization to be adopted for the operation. An assault force should include depth in order to reinforce local success or maintain the overall momentum. It should include the appropriate balance between infantry and direct fire support, be it armoured forces, integral fighting vehicles and other direct fire support systems. The composition of the assault force will be determined in part by the enemy make-up and the terrain involved.

- a. Armoured Forces. Armoured forces are particularly suitable for wide-ranging attacks or quick, powerful counter-attacks. They are capable of thrusting deep into enemy positions particularly in rolling, lightly covered terrain. Tanks or armoured/mechanised infantry may lead an attack, depending upon the strength and position of the enemy and the terrain. Infantry and armour will likely be grouped together and operate in close support of one another, particularly in terrain with limited fields of vision or during periods of poor visibility. In close terrain, such as urban areas, infantry may dismount and provide local security to armoured vehicles giving close support. If possible, light armour or light forces should be reinforced with armoured elements to give them covering fire and to neutralize enemy armour. It may be necessary to adjust the organization of the attacking force as the attack progresses;
- b. **Light Armour and Light Forces**. Light-armoured forces are used most effectively where the terrain is heavily broken or covered although, when faced by a similar, light-armoured enemy, they are capable of operating successfully in more open terrain. Their value is also dependent on the type of operation in which they are employed. If the opportunity arises they could be used to infiltrate through gaps in the enemy lines to engage him in the flank or rear. They may also be employed to create conditions suitable for an attack by armoured troops;
- c. **Armed Helicopters**. Armed and attack helicopters (AH) in a manoeuvre role (air manoeuvre) can conduct close, deep and rear operations in support of the commander's scheme of manoeuvre by attacking the enemy and immediately exploiting any gains. Helicopters can create favourable conditions for the advance of ground manoeuvre forces by controlling the ground ahead through domination by direct and indirect fire. Helicopters can be allocated their own area of operations. They can be given manoeuvre missions in their own right or in concert with ground forces. Helicopters can attack static or mobile enemy forces and are particularly effective in exploiting gains during a pursuit operation. Helicopters can also be given missions such as flank protection, guard force or route and area clearance;
- d. **Airmobile Forces**. Airmobile forces can be employed to get past obstacles, to take an important objective by surprise or they may constitute a reserve that can be deployed at great speed. Air mobility provides an additional dimension for ground force manoeuvre (air manoeuvre) and may also be conducted as part of an amphibious operation;
- e. **Airborne Forces**. Airborne forces are specifically organised, equipped and trained for delivery by airdrop or air-landing into an area to seize objectives or conduct special operations. They may, for example, be delivered ahead of an attacking force to seize and hold an important objective, such as a piece of key terrain, until either reinforced or relieved by other forces. In offensive activities they can also be used to conduct an attack on the rear of the enemy positions to cut off his reserves in combination with offensive action by other ground forces, cover a flank or create a sense of insecurity in the enemy's rear areas; and
- f. **Amphibious Forces**. Amphibious forces are employed in operations launched from the sea by naval and landing forces against a hostile or potentially hostile shore. They may be combined with an air manoeuvre, airmobile or airborne operation.

Flank Security And Protection

- 0575. Forces must be allocated to security and protection tasks that may include flank protection and the covering of gaps between units. These elements may also be required to provide firepower, to deal with bypassed enemy forces, or to provide protection from enemy ground attack against support and sustainment units, particularly when areas to the rear of attacking echelons have not been cleared.
- 0576. Forces allocated security tasks are usually light or light armoured forces; hence, they can alert the main body of an enemy threat but will be unlikely to destroy it. In order to be allocated a protection task, forces must have enough protection and firepower to destroy, neutralise or at least suppress a threat until the protection force can be reinforced.

Echeloned Force Or Reserve

0577. Forces must be held in reserve to deal with the unexpected and to maintain the momentum of the attack by exploiting success when the opportunity is presented. A commander may also need to increase the size of an assaulting force to allow it to constitute a reserve. Once the original reserve has been committed, another one must be constituted, even if this means a change in the task organisation. Reserves should be located so that they can be deployed swiftly in any direction but are able to avoid becoming engaged prematurely. They are held out of contact from the enemy until committed. An airmobile reserve may also be maintained to provide flexibility in the exploitation and pursuit as well as for flank protection. Care, however, must be taken to distinguish between these forces and forces specifically designated for any subsequent phase or phases. These echelon forces can be used to prevent the enemy from penetrating the attacking force, to secure terrain gained by the assault forces, to protect lines of communication, to destroy by-passed resistance and to block enemy reinforcements into the area of the assaulting force. Their most common use is for exploitation and pursuit. Where there are insufficient forces to permit the commander to retain an uncommitted reserve then some form of double earmarking may be required.

Employment Of Combat Support Forces

- 0578. **Fire Support**. The success of the attack depends upon the close coordination of the fire support from all the weapons available to the attacking forces, and the overall commander must ensure constant coordination of fire support across the whole attack front. The weight of fire is switched, as necessary, and concentrated in accordance with the commander's plan. The following considerations should be borne in mind:
 - a. If the attack is to use surprise, fire support may be withheld until enemy resistance is encountered, unless it forms part of the deception plan;
 - b. Some enemy positions may be neutralized or masked by smoke in accordance with the attack plan;
 - c. If the enemy position is particularly strong, preparatory fire may be necessary. The purpose of this will be to destroy as much of the enemy force as possible before the start of the attack; and

- d. Interdiction fire may be used to prevent movement from or into the immediate battlespace.
- 0579. **Artillery**. The correct use of artillery and the other elements of fire support is key to the success of the attack. Artillery may be deployed forward during preparations for the break-in battle and once the attack commences will follow the combat troops in such a way that there is no break in the supporting fire. It is vital that the whole ISTAR system is coordinated and directed towards the acquisition of critical targets and linked to the fire support systems able to strike them as soon as they are located. Only by destroying key battlefield functions in the enemy deployment will friendly forces be able to launch an attack with a reasonable chance of success. During the attack the artillery may be required to carry out a number of specific tasks including:
 - a. **Preparatory Fire**. Preparatory fire may be used to:
 - (1) Neutralise or destroy enemy artillery;
 - (2) Mask enemy observation;
 - (3) Suppress enemy air defence; and
 - (4) Illumination of the battlefield.
 - b. **Covering Fire**. Covering fire may be used to:
 - (1) Isolate the close battle;
 - (2) Neutralize the enemy at the point of breaking-in;
 - (3) Give fire support to combat troops as they fight through the enemy in depth;
 - (4) Destruction of enemy armour; and
 - (5) Be on call during consolidation.
 - c. **Defensive Fire**. Defensive fire will seek the following effects:
 - (1) Neutralize threats from the flanks;
 - (2) Engage enemy counter attack forces; and
 - (3) Block through the use of scatterable mines.
- 0580. **Naval Gunfire Tasks**. If available, naval gunfire can contribute extensively to the joint fire support of the operation, performing the same tasks as land based artillery.
- 0581. **Air.** Air support is a vital component in the conduct of offensive operations. It is capable of providing a favourable air situation for deployment and movement and can identify, disrupt and destroy enemy forces at long range. It achieves this through the following activities:

- a. Air Intelligence Surveillance and Reconnaissance Operations (Air ISR). Before the attack takes place, air reconnaissance should provide intelligence on the enemy and during the attack it should allow the early detection of enemy countermeasures;
- b. **Counter Air Operations**. For large scale offensive operations local air superiority is essential. Integration and coordination of all counter air assets is desired to achieve this requirement. This includes the integration of army organic air defence into the overall Air Defence, lead by the Air Defence Authority;
- c. **Air Interdiction** (**AI**). AI will support land forces offensive operation by preventing the adversary from reinforcing and strengthening his defence. AI is defined as: *air operations conducted to divert, disrupt, delay or destroy an enemy's military potential before it can be brought to bear effectively against friendly forces and at such distance from the latter that detailed integration of each air mission with the fire and manoeuvre of friendly forces is not required.* (This term and definition is being staffed within the context of ATP 3.3.2.1 for ratification and will be proposed as a modification to the existing term in AAP 6); and
- d. **Close Air Support** (**CAS**). CAS is an important fire support for ground forces. CAS is defined as: *air action against hostile targets which are in close proximity to friendly forces and which require* detailed *integration of each air mission with the fire and movement of those forces* (AAP 6).
- 0582. **Aviation**. Helicopters may support offensive activities with airmobile to exploit opportunities by seizing key terrain ahead of attacking forces. They may also be used for:
 - a. Command and control missions;
 - b. Reconnaissance and surveillance of flanks and gaps;
 - c. Logistic support including casualty evacuation;
 - d. Insertion and extraction of patrols and observation detachments; and
 - e. Fire support from armed and attack aviation (Close Combat Attack).
- 0583. **Air Defence**. During the preparation stage of an attack, air defence cover will be given to assembly areas, the approach march routes and assets critical to deep operations. During the attack the priority shifts to protecting the attacking force; however, as the attack progresses the protection of reserves and lines of communication may take on increasing importance.
- 0584. **Engineers**. In offensive activities, engineer support will be required to maintain the momentum of our attacks. Mobility support is therefore paramount. Counter mobility tasks, particularly the protection of flanks and rapid protection against counter-attacks, are also important.
 - a. Engineers will be required to support attacking forces by any or all of the following actions:
 - (1) Breaching or opening own minefields;
 - (2) Marking and breaching enemy minefields;

- (3) Providing means of crossing dry and wet gaps (e.g. rivers) and other obstacles;
- (4) Securing the flanks by means of minefields, demolitions and other obstacles. These also help to shape and structure the battlefield and may allow commanders to use economy of force measures for force protection;
- (5) Preparing and maintaining routes for follow-up echelons; and
- (6) Supporting the consolidation on the objective by construction of field fortifications, laying minefields and creating obstacles.
- b. The achievement of these functions depends on adequate reconnaissance, timely provision of the necessary equipment and stores, and on the proper grouping and control of engineer elements, particularly minefield-breaching and gap-crossing armoured vehicles.
- 0585. **Electronic Warfare (EW)**. In offensive activities, EW provides the commander with a means to acquire information to prepare his estimates and plans, and a weapon to delay the enemy's response to the attack. EW operations may be used for:
 - a. The detection, location and disruption of enemy surveillance and target acquisition systems, in particular air defence, counter-battery and counter-mortar radars;
 - b. The detection and location of the reserve and counter-attack elements:
 - c. Electronic isolation of selected enemy units or formations by disruption of communications with their flank units, higher formations and reserves;
 - d. Detection and location of enemy electronic countermeasures elements so they may be eliminated by physical attack; and
 - e. Deception, either alone or in conjunction with feints and demonstrations.

Section VIII - Planning And Preparation

Planning

- 0586. **Planning Process.** Once a commander has received his mission and analysed it, he will make a full estimate, considering the following factors in particular, and taking account of time/space. At the unit level, the commander assisted by his operations staff will conduct the estimate. At command levels with staff, an extensive operational planning process will likely occur, based on the commander's initial direction. In periods of severely limited time, the commander will give more detailed direction in terms of course of action development and the process will be shortened.
- 0587. **Consideration of Factors.** Apart from the assigned and implied tasks, the estimate process will consider the following factors that influence the situation:
 - a. **Enemy**. The layout of his defence and his capabilities and likely intentions;

b. Environmental Factors.

- (1) In planning for offensive operations terrain has to be analysed by considering cover and concealment, observation, fire positions, obstacles, dominating ground and avenues of approach;
- The place to attack is the location that offers the greatest likelihood of success. Terrain chosen for the Main Effort should allow for rapid movement into the enemy rear although, occasionally, an attack on less suitable terrain may be necessary to achieve surprise. The effect of terrain on the forward movement of combat support and combat service support elements must also be considered; and
- (3) Weather must be considered in terms of its influence on mobility, visibility, air support, troops and equipment and the effects of CBRN weapons.
- c. Friendly Forces. The commander must consider the strength, type and condition of available troops, the tasks required to be fulfilled by his available troops and any additional forces required. Implicit in this is a need to examine the force ratios including combat effectiveness to ensure that they are favourable. An examination of friendly forces also includes consideration of the CSS requirements for the operation and the restraints that might be imposed by a lack of such resources;
- d. **Security**. The commander must consider how he might best make use of deception and operational security (OPSEC) in order to achieve surprise and to protect both his plans and troops. In offensive activities and operations it is particularly important to conceal his intentions so that the main force can manoeuvre into a position from which to strike the enemy; and
- e. **Time**. Offensive activities become harder when the defender has more time to organize and reinforce his defence. The attacker must, however, take sufficient time to concentrate his force in order to generate all available combat power for the attack. Once an attack is under way time remains critical, as it is only likely to succeed if it achieves its objective before the enemy recovers his balance and reacts against it.
- 0588. **Development of Courses of Action.** Consideration of the factors will have identified tasks that must be fulfilled in order to conduct a successful offensive activity. These will include assault, fire support, blocking, flank protection, security, depth, reserves, etc. These may be put together in varying forms and combinations to produce a number of possible schemes of manoeuvre or plans, known as courses of action.
- 0589. **Consideration of Courses of Action**. The courses of action are compared to another and the most favourable course is chosen or formulated as the decision. From this decision the concept of operations and detailed plan are developed.
- 0590. **Plan**. The plan may contain or provide for:
 - a. **Task Organisation**. The organisation of forces for the conduct of the offensive operations;

- b. **A Concept of Operations**. The concept of operations will outline the plan and include the commander's intent, a scheme of manoeuvre, a desired end-state and the designation of the main effort;
- c. **Tasks**. The allocation of missions and constituent tasks to subordinate commanders;
- d. **Phasing and Control**. This details the sequence the attack will follow with particular attention to coordination;
- e. **Timings**. Timings will assist the commander to control the phasing and coordination with flanking formations;
- f. **Manoeuvre Plan**. Details of the movement and manoeuvre plan may be required for coordination and will include bypassing policy;
- g. **Fire Support**. This will include indirect fire support, aviation fire support and close air support;
- h. **Electronic Warfare Support**. This includes all tasks for electronic jamming and other support;
- i. **Reserves**. The possible tasks for reserves will be designated in order of priority;
- j. **Reconnaissance**. It is important that the reconnaissance effort should be continued throughout the operation so that enemy reaction and movement can be identified and evaluated;
- k. Tactical Security and Protection.
 - (1) Specific measures for camouflage and concealment, deception and electronic counter-countermeasures must be laid down;
 - (2) The line of departure (LD) must be secure;
 - (3) Flank protection should be provided forward of the line of departure.
- 1. **Consolidation**. Plans must detail the action once the objective has been seized. The area must be secured against enemy counter-attack and the force reorganised for the next operation or phase;
- m. **Exploitation**. The commander's intentions for exploitation must be stated;
- n. Combat Service Support. Details for CSS priorities and activities should include:
 - (1) Action to be taken before the attack;
 - (2) Provision for continuous support of the operation; and
 - (3) Provision for collecting, consolidating and controlling PWs and refugees.

o. **CBRN Defence**. The commander must specify which CBRN dress category is to be worn for an attack, balancing the degradation in performance that will be caused by wearing CBRN protection against the disruption that will occur if troops in operations have to take protective action in the course of the assault. If terrain is contaminated it may slow down or even stop an attack. CBRN reconnaissance teams should, therefore, be deployed forward to give warning of any contamination. The reorganization plan must take account of the possible use of NBC weapons against the objective once it has gained, and, when this is possible, must include early deployment of detectors and alarms.

Preparation

- 0591. Preparation will occur during the mounting stage of any attack or other offensive activity. The extent of preparations will depend on the time available and the requirements calculated during the estimate. The time required for the essential preparations is often a factor to be considered in deciding the time of an attack. Subordinate commanders should be told as soon as possible, normally by a warning order, how much time they have to make their own preparations. Preparations include:
 - a. **Preliminary Movement**. Preliminary movement is a controlled move that positions the forces either in or near the assembly areas depending on the timings;
 - b. **Preliminary Deployment**. Preliminary deployment involves the elements of the various combat and combat support forces coming together in the task organisation for battle. At this stage they also receive logistic replenishment so they are fully combat ready. Any combat service support elements that are to move with the attacking force join up with their designated formation or unit at this stage;
 - c. **Infiltration**. Infiltration can be used, under favourable conditions, for reconnaissance, attacks in depth, the capture of specific terrain features or the disruption of communications. Infiltration, however, requires accurate intelligence and is time consuming; and
 - d. **Preparatory Fire**. If the commander has decided to use fire support prior to H-hour then a plan for preparatory fire will be implemented.

Section IX - Command And Control Of Offensive Activities

0592. **General.** The commander must be kept informed of the progress of the attack, enemy reactions, and the situation confronting subordinate units. During the attack, he may increasingly decentralize control to subordinate commanders to permit them to react more rapidly to changes in the situation. At critical times he may place himself at the point of the main effort. Through knowledge of his commander's concept and the changing situation, the subordinate commander implements the plan and modifies it as necessary.

0593. **Orders**.

a. Warning orders should be issued to ensure maximum use of the time available for preparation mainly through concurrent activity. Written operation orders may cover in

detail only the initial phase of a deliberate attack. For subsequent stages, a commander may be able to provide only broad instructions. Orders are written within the philosophy of mission command. Subordinates should be told what effects and end-state they are to achieve, all synchronized in a concept of operations and its scheme of manoeuvre. The commander will make his concept of operations clear but leave the execution to subordinate commanders. Key will be a clear intent for the operation to achieve; and

- b. As the situation develops, he will supplement and amend his original order with fragmentary orders. The success of the operation will depend increasingly on the initiative of subordinate commanders, especially in the exploitation and pursuit.
- 0594. **Location of Commander**. A commander will decide for himself where he is best located at any time. Often the range and reliability of communications enable him to see the whole picture at his principle headquarters where he has the support of his full staff and his specialist arms and services advisers. At some crucial moments, however, he will be required forward at the critical point in order to assess the full, immediate situation and in order to spot the opportunity that will allow him to exploit the situation faster than the enemy commander. In short, it will allow him to impose his will at the critical time and to personally influence the immediate battle.
- 0595. **Positioning of Headquarters**. The moves of headquarters must be arranged to meet the requirements of the commander and planned in advance so that early reconnaissance can be made and communications sites selected as far as practical. Normally, a formation headquarters will establish itself forward immediately before the attack. This makes communications easier when the attack starts and ensures that the commander and his staff are near the assembly area at the critical period. As the attack progresses, the command elements also move forward to enable the commander to exercise control.
- 0596. **Communications**. Communications security is of the greatest importance prior to the attack. The implications of any restrictions on the use should be considered in advance. Radio communications will be essential for effective command and control during the attack. Provision for alternative communications should be made in case communications should not be available or lost for any reason.

Section X - Combat Service Support

- 0597. **General**. Continuity of sustaining operations is vital to the success of offensive activities and operations. Indeed, success in pursuit and exploitation may hinge upon the ability of CSS elements to react quickly and in a flexible manner. The commander and his staff must, therefore, give careful consideration to the availability of supplies, and the capability of the CSS support elements to deliver the supplies and to provide other necessary support to units.
- 0598. **Specific Considerations**. While all aspects of CSS must be considered in planning an operation, the availability of ammunition, fuel and maintenance support must be given the most emphasis:
 - a. **Forward Positioning**. To offset the strain on the transportation system, the commander must consider pre-positioning supplies and support facilities well forward. Where possible, these should be kept mobile so that they can be deployed forward as the attack progresses;

- b. **Ammunition/Fuel Supply**. Adequate planning is necessary to ensure an uninterrupted flow of ammunition/fuel to the front, because of the large volume that must be moved and the often-limited transportation resources available;
- c. Maintenance. To maintain effectively the force, repairs must be carried out as far forward as tactically feasible. This reduces the demands on the evacuation facilities and returns combat equipment to the battle in the shortest possible time. The forward positioning of major assemblies will greatly assist in the battlefield repair of combat vehicles. In the main, vehicle maintenance will consist of the replacement of complete assemblies rather than repair. There will need to be a well practiced system in place capable of restocking the system with assemblies;
- d. **Medical Support**. When planning the medical support for an offensive operation, the following important factors must be considered:
 - (1) Medical and surgical timelines are the primary driver for the layout of medical support; and
 - (2) Plans must be flexible, since medical units are normally not held in reserve.
- e. **Traffic Control**. Control on routes will be important to ensure the approach march, replenishment of committed forces, evacuation of casualties and deployment of reserves is not impeded. This will be particularly important at the crossing points for breached obstacles.
- 0599. **Requirement to Support Stability Activities.** Should operations occur in areas still inhabited by civilians, there may be an additional expectation and requirement that military forces will assist in immediately securing the civilian population and in providing humanitarian aid to them. Therefore, there may be an additional demand on CSS elements to facilitate these activities. This requirement will ideally be foreseen by the commander and staff and appropriate arrangements made to support it.

Chapter 6 - TACTICAL DEFENSIVE ACTIVITIES

Section I - Purpose And Principles Of The Defence

General

- 0601. Every campaign and its operations are conducted through a balanced combination of offensive, defensive and stability tactical activities. The resources and emphasis placed on each type of activity will depend upon a number of situational factors and will reflect the nature of the campaign.
- 0602. Defensive activities are defined as: *activities that resist enemy offensive activities*.¹ Usually, defensive activities are undertaken when the enemy has the initiative, to prevent him from seizing terrain, attacking friendly capabilities or breaking through into a defended area. They aim to break the enemy attack, destroy his forces and stop him from accomplishing his aim. In so doing they create the circumstances for offensive action. This is fundamental to the defensive battle that must not drift into a situation in which the defending force merely reacts to enemy actions. Every opportunity should be taken to grasp the initiative and force the attacker to react to the defensive plan. Defensive activities include the **delay**, however the delay is considered separately in this chapter.

Purpose And Concept Of The Defence

- 0603. The purpose of defensive activities is to resist and ideally defeat enemy offensive activities. Within that, the objectives of defensive activities may be:
 - a. To wear down the adversary's offensive capability and to cause his attack to fail;
 - b. To retain a previously determined area and prevent the adversary from breaking through;
 - c. To gain time for other activities and operations;
 - d. To allow the concentration of friendly forces elsewhere;
 - e. To force the enemy to concentrate so that he is more vulnerable to friendly fire; and
 - f. To protect friendly capabilities or indigenous facilities or systems.
- 0604. Offensive action is fundamental to the defence. The defence should be creative, with every opportunity being taken to grasp the initiative and so disrupt the enemy's cohesion. For example, by holding terrain, or undermining the enemy's efforts and resources in one area, a commander may be able to establish the conditions for decisive action in another. The object will be to force the enemy into action that narrows his options, reduces his fighting power and

¹ AJP 3.2 Allied Joint Doctrine for Land Operations Lexicon.

exposes him to a decisive offensive action. An effective defence is therefore rarely passive, and it is desirable to incorporate aggressive offensive action to pre-empt, dislocate or disrupt the enemy whenever possible. This may be done by fixing the adversary by deception and encouraging him to make inappropriate plans, luring him into situations where one can exploit surprise, denying him information, and striking at his cohesion. Deep operations may be conducted to fix the adversary by denying him freedom of action, and striking in order to dislocate his potential for offensive manoeuvre, and disrupt his ability to pass orders.

- 0605. Defensive operations should not be merely reactive. They aim to create the right conditions for achievement desired effects and objectives. A key aim will generally be to limit the enemy's freedom of action and to develop the conditions for future offensive operations.
- 0606. A defensive activity may be required to:
 - a. Destroy the adversary's offensive capability and cause his attack to fail;
 - b. Fix the adversary in order to allow friendly forces to strike elsewhere;
 - c. Gain time in order to complete the preparation for other operations including a counter-offensive; and
 - d. Retain terrain and prevent the adversary from breaking through.
- 0607. An attacker normally determines the time and location of his attack and can mass his forces whenever he wishes. He will normally seek out centres of gravity, attempting to disrupt the tempo of current operations and the planning and preparation of future ones.
- 0608. Defensive operations will play a major role in many campaigns that do not involve a great deal of major combat. Initial footholds and firm bases during a COIN or peace support operation, all have to be secured and, depending upon the adversary, vital points such as key civilian infrastructure may have to be secured. The principles of the defence will still apply.

Principles For The Conduct Of Defensive Activities

- 0610. A commander must consider many principles and fundamentals when planning and conducting a defence. They are frequently in conflict with one another and, consequently, the commander must determine the degree to which each will be stressed.
- 0611. The following principles require emphasis during the planning and conduct of defensive operations:
 - a. Concentration of Force. The commander must be able to concentrate his force, that is, his combat power, at the adversary point of main effort. Concentration not only implies massing of forces but also massing of firepower. It includes such elements as movement, flexibility, and communications. At the lowest levels, concentration includes siting weapons and creating fire plans to mass fire effects on the attacker. Concentration cannot be achieved by being strong everywhere. Trading ground for time, or economy of force elsewhere, may be necessary to obtain an advantage at a decisive point. The defender uses deception, concealment, counter-battery fire, screening forces and air defence in order to

minimize the risks of vulnerability through concentration of force. The commander must have the freedom of action and the flexibility to concentrate his combat power at the appropriate time and place;

- b. **Offensive Action.** Commanders must maintain the offensive spirit in the defence. He must not remain passive and wait to react. Commanders at every level must seize or create opportunities to surprise the enemy, thus forcing him to depart from his plans. Enemy forces should be attacked and destroyed or disorganized and delayed not only at the point of immediate contact but wherever they can be engaged throughout the depth of the area of operations. This implies aggression, imagination, manoeuvre and speed. The commander must wrest the initiative from the attacker whenever possible. Patrolling and counterattacking are also elements of offensive action;
- c. **Security.** Security is the ability to meet an attack from any direction. It is achieved by the employment of covering forces, coordination and mutual support at all levels, maintenance of surveillance and the ability to concentrate forces;
- d. **Flexibility**. The defender will strive to avoid or counter the enemy's attacks, while preparing to seize the initiative and so turn defensive operations to his advantage. This requires an ability to develop new plans rapidly, a willingness to shift the main effort, and a readiness to move swiftly to the offensive without loss of tempo;
- e. **Information Gathering and Intelligence.** Information about the adversary is vital to the conduct of defensive operations. The plan for the defence will be based on the best intelligence available, using all the commander's sources and agencies, and intelligence from higher and flanking formations. This will include assessments on enemy capabilities and his intentions with the main tasks of determining the enemy's probable main effort, the likely enemy approaches, and the movement of forces in depth to the limit of the commander's area of interest. However it is unlikely that a complete knowledge of the enemy's intentions can ever be deduced before his attack begins. It is, therefore, essential that the commander maintains his efforts through surveillance (including EW) and to continue to acquire information and intelligence as the battle develops, so that he can control the defence and concentrate and employ his resources at the right place and time. Information is gathered from four sources in defensive operations:
 - (1) Covering Forces;
 - (2) ISTAR elements, including target acquisition systems;
 - (3) Patrols; and
 - (4) Troops in contact.
- f. **Use of Terrain.** The strength of a defence depends to a large extent on the selection and use of terrain. A commander's ability to analyse the terrain, determine the approaches, select vital ground and key terrain, and deploy his forces quickly determines the outcome of an operation. The selected terrain should allow the approaches to be covered by fire. It should also offer the defender concealment, protection and movement, while restricting the

enemy's observation and deployment capability. Preferably, a defence area contains natural and/or man-made barriers that can be incorporated into the plan and reinforced by man-made obstacles. Terrain is classified as:

- (1) **Open Terrain.** Open terrain is relatively flat and unencumbered by forests, built-up areas, waterways, and other natural barriers. It is covered easily by surveillance and can be dominated by fire. Such terrain requires the construction of barriers to restrict the movement of adversary forces. These areas are defended best by armoured forces and elements equipped with long range direct fire support weapons;
- (2) Close Terrain. Close terrain may have considerable relief and may be broken by extensive forests. It will include jungle and built-up areas. This terrain restricts an attacker's movement and provides good concealment and protection for the defender. Natural obstacles can be improved to further delay the attacker and canalize his movement. These areas are defended best by forces strong in infantry; and
- (3) Key Terrain and Vital Ground. Vital ground is defined as: "Ground of such importance that it must be retained or controlled for the success of the mission." Key terrain is defined as: "Any locality, or area, the seizure or retention of which affords a marked advantage to either combatant." A commander must designate his vital ground, that is, that ground which, if lost, makes the defence untenable. He then identifies the main approaches to his vital ground and the key terrain that dominates or blocks those approaches. Key terrain is ground that offers the holder a marked advantage. From this assessment, he identifies the key terrain that is to be held. He then groups and tasks his force accordingly. This process is repeated at each lower level of formation and leads to coordinated dispositions that fit the overall plan. Normally vital ground is relative to the level of command but once identified, it remains constant for all subordinate levels of command. For example, a brigade commander's vital ground may only be key terrain from the perspective of the division commander; however, in situations where the corps' vital ground is in a brigade area, the same ground is vital ground both to the brigade and to the division. Regardless, if the defence within a specified sector is to continue, the vital ground must be held or, if lost, recaptured. A commander selects his vital ground, key terrain, and killing zones by:
 - (a) Identifying obstacles in various locations, including the forward edge of battle area and likely avenues of approach;
 - (b) Determining approaches, assessing them and ranking them in terms of likelihood of use:

² AAP 6 NATO Glossary of Terms and Definitions (English and French).

- (c) Anticipating enemy objectives; and
- (d) Identifying obstacles in the main defensive area.
- g. **Disruption.** The enemy's offensive operations should be disrupted throughout its conduct, so that the enemy is frustrated in his attempts to manoeuvre and concentrate his combat power. This should be done throughout the depth of his force. Disruption can be achieved by: defeating or blinding his reconnaissance; attacking his cohesion and slowing his tempo through fixed defences and aggressive counter-attacks; and destroying critical assets through deep attack;
- h. Coordination and Cohesion. All aspects of the defence require coordination, including passage of lines by covering and counterattack forces, boundaries, liaison, barrier plan, fire support, air defence, airspace control, and combat service support, in order to ensure sound cohesion. The enemy aim is generally to achieve a swift breakthrough of the defended area. Often he will seek to attack along the defender's lateral boundaries; cohesion of defence along such boundaries, particularly where they are shared by different nations, is therefore essential. Tasking of reserves should include missions to maintain or restore cohesion along boundaries. Reserve forces must conduct extensive coordination, including rehearsals, once allocated the task. This must consider likely reinforcement options and focus on ways to avoid fratricide. Coordination takes place during planning and throughout the conduct of an operation. It is a never-ending task to which a commander and his staff must devote considerable effort. Coordination is particularly important during multi-national operations. Often, the adversary seeks to attack along boundaries that may be shared by different nations. A commander achieves and maintains co-ordination by:
 - (1) Understanding the superior commander's concept of operations;
 - (2) Understanding the tactics, methods and procedures of coalition partners;
 - (3) Selecting boundaries and lines of operation so that they do not increase the coordination problem;
 - (4) Selecting coordinating points along the boundary or line of operation;
 - (5) Exchanging planning information and liaison detachments;
 - (6) Planning for mutual support;
 - (7) Rehearsals, particularly for reserve forces; and
 - (8) Any other means that the commander deems appropriate and prudent for the situation.
- i. **Mutual Support.** Mutual support in the defence is achieved when the gaps between defended positions are covered by fire, preferably direct fire, so that the attacker cannot assault one position without being subjected to fire from at least one other. The degree of mutual support achieved depends upon the terrain, visibility and range of weapons. Ideally, the frontages that units must defend are related to their ability to provide mutual support. A

commander must balance the need for mutual support with the requirements of depth, dispersion and mobility. Mutual support increases the strength of the defence and therefore influences the selection of boundaries and the location of battle positions. It also gives another advantage to the defender, since an attacker must disperse his covering fire to neutralize the supporting positions;

- j. **Depth.** Defence in depth causes an attacker to execute successive stages of his operation without detailed reconnaissance. It also helps to surprise an attacker and draw him into committing his next echelon or reserve. It absorbs the attacker's momentum and thus prevents a breakthrough. It also localizes penetration and facilitates blocking. Finally, it allows a defender time to determine the attacker's main thrust and to counter it. The depth of the defence area should be proportional to the strength, mobility and firepower of the attacker and the frontage to be defended. Depth is obtained by:
 - (1) Employing protective elements well forward to cover approaches and likely adversary areas;
 - (2) Employing long range resources, including electronic warfare elements and tactical air support, to engage, deep in the area of influence, targets which are important to the continuity, momentum and command and control of the attacker;
 - (3) Siting battle positions and obstacles in depth throughout the area; and
 - (4) Positioning and moving reserves, fire support elements and combat service support elements.
- k. **Manoeuvre.** Manoeuvre may be a decisive element of a defence. By combining movement with fire, the defender can make the best use of terrain to inflict losses on the attacker. Manoeuvre enables a commander to concentrate sufficient combat power to achieve superiority over the enemy;
- Firepower. The effectiveness of the defence is based primarily on the planned and mutually supporting fire of all weapons. The fire of manoeuvre units, indirect fire support, aviation, and tactical air and naval elements must be complementary, coordinated, and applied at the right time and place. Firepower also assists or enables a commander to concentrate sufficient combat power to achieve superiority over the enemy;
- m. Use of Reserves. Reserves are uncommitted forces that a commander requires to maintain freedom of action to deal with anticipated and unexpected developments. They provide flexibility and balance. Their main functions are to reinforce, block, counter-attack, replace other units and protect flanks and rear areas. Once the reserve has been committed, a new one must be constituted or obtained. It may be necessary to reconstitute a reserve from troops in areas least threatened or from depth forces that are not in contact with the enemy. Although this entails risk, it must be weighed against the requirement to retain the ability to concentrate decisive combat power;

- n. **Deception.** Deception seeks to manipulate the enemy's perception of the situation. It is mainly used in defence to give a false impression of:
 - (1) The exact location of the main defensive positions and friendly forces, thereby inducing the enemy to waste his main effort and resources in the wrong place; and
 - (2) The direction and timing of friendly force counter-attacks, thereby inducing the enemy to deploy his reserves away from positions where they could influence the battle.

Section II - Types Of Defensive Action And Forms Of Defence

Types Of Defensive Activities

- 0612. There are two principle types of defensive operation:
 - a. **Defence.** The purpose of defence may be to defeat an adversary force or to hold ground. Generally, both will require a fixed element that denies the enemy freedom of manoeuvre, and a moving element to counter-attack the enemy. The balance between these two forces depends upon the mission and the relative capabilities of the attacker and defender; and
 - b. **Delay.** Delaying operations are those in which a force being pressed by an adversary trades time for space, reducing its opponent's momentum and inflicting damage without itself becoming decisively committed. Delay may be conducted to slow an enemy's advance, reduce his fighting power, gather information about enemy intentions, or protect friendly deployments. Delaying operations also allow the commander to shape the battlefield, and to create the conditions for a counter-attack. A delay activity is usually close associated with a corresponding defensive position that is being prepared while the delay is being fought. The delay is best fought with well-protected, mobile forces that can engage the enemy at range from mutually supporting battle positions and then withdraw quickly before becoming decisively engaged.

Section III - Forms Of Defence

General

0613. Whilst defensive operations may take a wide variety of forms, they can essentially be divided into two broad categories: mobile defence; and, area defence.

Mobile Defence

0614. In mobile defence a fixing force denies the enemy his freedom of action while a striking force manoeuvres in order to defeat him. Commanders conducting a mobile defence use terrain, obstacles, depth and deception, together with fire and manoeuvre, to encourage an adversary to focus on the wrong objective. This renders the enemy vulnerable to attack. Therefore **depth**, **time and the ability to manoeuvre** are particularly important factors in the conduct of mobile ORIGINAL

- defence. Successful mobile defence requires rapid switching between activities, and a readiness to concede ground where appropriate. The focus is on the destruction of the enemy.
- 0615. Mobile defence focuses on the destruction of the attacking force by permitting it to advance to a position that exposes it to counter-attack and envelopment. The emphasis is on defeating the enemy rather than retaining or retaking ground.
- 0616. Mobile defences employ a combination of offensive, defensive and delaying action necessitating the forward deployment of relatively small forces and the use of manoeuvre supported by fire and obstacles to wrest the initiative from the attacker after he has entered the defended area. Consequently the defending force must have mobility equal to or greater than that of the enemy's, and the ability to form a large reserve that will conduct the decisive counter-attack.

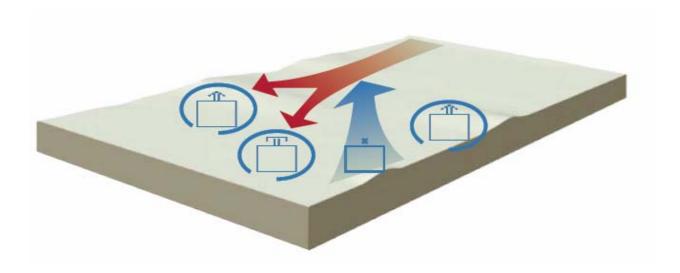


Figure 6-1: Mobile Defence

Area Defence

- 0617. The purpose of area defence is to hold ground or deny it to the enemy. It focuses on the retention of terrain by absorbing the adversary into an interlocked series of positions from which he can largely be destroyed by fire.
- 0618. In an area defence, the bulk of the defending forces are deployed to retain ground, using a combination of defensive positions and small mobile reserves. Commanders organize the defence around the static framework provided by the defensive positions, seeking to destroy enemy forces by interlocking fire or by local counter-attack of enemy units penetrating between defensive positions.

- 0619. Unlike mobile defence, a force committed to area defence does not necessarily seek the destruction of the attacking force. Instead, it sets the conditions for other actions and relies on a separate but coordinated attack by other forces to deliver tactical success. In area defence, commanders employ their forces in a framework of static and mutually supporting positions, supported by counter-attacks at all available levels.
- 0620. In an area defence, the bulk of the defending forces are deployed to retain ground, using a combination of defensive positions and small mobile reserves. Commanders organize the defence around the static framework provided by the defensive positions, seeking to destroy enemy forces by interlocking fire or by local counter-attack of enemy units penetrating between defensive positions. The defence sets the conditions for other offensive actions.
- 0621. The balance between static and counter-attack elements is largely dictated by terrain. The closer the terrain, the greater the proportion of counter-attacking forces and the lower the level at which they should be employed. Area defence may be conducted in varying depth depending upon the mission, the forces available and the nature of the terrain.
- 0622. Unlike mobile defence, for which considerable depth is essential, area defence may be conducted in varying depth depending on the mission, forces available and the nature of the terrain.

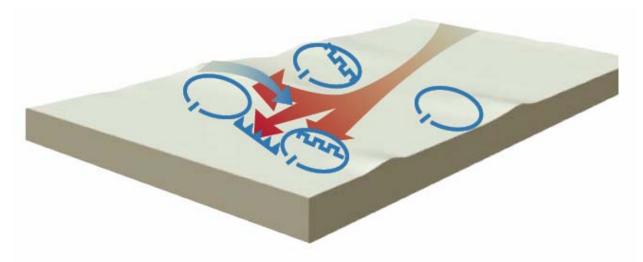


Figure 6-2: Area Defence

Area And Mobile Defence

0623. Although these descriptions convey the general pattern of each type of defence, both forms employ static and dynamic elements. Defending commanders may well wish to combine both patterns, using static elements to delay, canalize, cause attrition to, and ultimately halt the attacker, and dynamic elements, such as spoiling or counter-attacks, to strike and destroy his committed forces. The balance among these elements will depend on the unit's mission, composition, mobility, and relative combat power, and on the character of the battlefield.

- 0624. The fundamental difference between mobile and area defence is:
 - a. Mobile defence seeks to defeat the enemy's attack by destruction; and
 - b. Area defence seeks to defeat the enemy's attack by denial.

Defence by an Encircled Force

0625. An encircled force may break out, ex-filtrate towards friendly forces, attack deeper into the enemy, or defend itself. The purpose of defending an encircled force may be to retain ground or draw enemy forces as part of a larger manoeuvre, or to preserve the combat power of forces unexpectedly encircled and unable to break out or ex-filtrate. An encircled force may conduct either an area defence or a mobile defence if it has sufficient fuel and space. The key consideration in organizing the defence of an encircled force is to anticipate how the enemy will attempt to split the force and reduce it piecemeal.

Section IV - The Planning And Conduct Of The Defence

General

- 0626. The planning and preparation for defensive operations will take considerable time. Commanders ideally site positions two echelons below them. Hence, a battlegroup commander will site platoon positions. However, time may not exist for such detailed planning and preparation. Commanders should then focus on describing the effects those defensive positions must create at subordinate levels in order to achieve the tactical objective of the defensive operation. Subordinates will then use the available time to site their positions so that the desired effects are created. Concurrent activity across and between all levels of command will be key to the best use of limited time.
- 0627. During the early stages of a defensive operation, the defender will usually have the advantage of fighting from positions of his own choosing. Preparation includes positioning forces in depth, using and improving ground, conducting reconnaissance and security operations, developing plans for counter-attacks, and initiating deception measures. These should conceal dispositions and intentions and misdirect the enemy's efforts.
- 0628. Detailed coordination will be of utmost importance during the planning of the defensive activity and will consume considerable time. It should include back-briefs by subordinates to their commanders to ensure that the sited positions will create the desired effects.
- 0629. The defence is a single battle, fought in **two stages** leading to offensive activities. These stages are:
 - a. **Covering Force Battle**. The covering force works forward of the main defensive position, provides security for the main body and gains information and possibly time for the main body; and

- b. **Main Defensive Battle**. The main defensive battle is fought by the main body to mean the objective of the defensive activities. It includes countermoves (reinforcing, blocking and counter-attacking).
- 0630. During both of these stages of the battle, enemy forces in depth will be attacked to prevent or delay their deployment.

Planning, Preparations And Considerations For The Defence

General

0631. The need for careful and comprehensive preparation of the defence requires the most efficient use of the time available. Concurrent planning and action at every level of command is essential. Warning orders and planning guidance are essential and should contain as much detail as possible to allow concurrent activity and the best use of available time by subordinates.

Planning Guidance

- 0632. Commanders should provide intelligence requirements to his subordinates in order to best inform planning at the earliest stages. Commanders and their subordinate commanders must unsure the following points are used to inform their plans, warning orders and orders:
 - a. Critical information on both enemy and friendly forces including the intentions (including CBRN) of the former and limitations of the latter;
 - b. Task organisation;
 - c. The assigned or anticipated mission, the superior's and one's own concept of operations and tasks stemming from it;
 - d. Boundaries, including the division of the area of operations into the covering force, main defence and, if applicable, rear areas, and the delineation of the FEBA;
 - e. Additional tasks such as the provision of troops for the covering force, work parties, security of vital points and rear area security;
 - f. Barrier and survivability plan, in outline;
 - g. Critical timings;
 - h. Other measures needed to coordinate the defence plan, including areas allocated for reserves, combat support forces and CSS troops; and
 - i. Blocking positions in depth.

The Assigned Mission

0633. The mission will be given by the next higher commander. Limitations imposed on the mission may dictate the defence plan to be adopted. This may be the case if action by adjacent units could lead to the risk of unacceptable gaps with a consequent loss of cohesion in the overall defence. Mission analysis will ensure both assigned and implied tasks and constraints are identified.

Planning Factors and Considerations

- 0634. In planning the defence, the following factors require special consideration in the commanders estimate of the situation:
 - a. **The Threat.** Examination of the threat will include consideration of the enemy's tactical doctrine and details of his capabilities, including nuclear and chemical delivery means and munitions, in order to determine his possible courses of action;
 - b. **Dispositions.** The positions assigned to combat troops, combat support troops and reserves are primarily determined by their mission. This may require some elements to be located in an area that has been assigned to another unit. This disposition in no way changes responsibility for the conduct of operations in that area. Fire support units and CSS units should be sited away from the most probable main axes of the enemy advance;
 - c. Terrain and Weather.
 - (1) **Terrain.** Terrain must be carefully selected in order to maximise and exploit the potential and characteristics of one's own forces, weapons, mobility and capabilities and the negate those of the enemy. The defence concept of operations must focus upon identified vital ground, key terrain and planned objectives; and
 - (2) **Weather.** The concept of operations must make allowance for any changes of weather conditions that may affect the conduct of the defence.
 - d. **Assigned Frontages.** If troops are assigned wide frontages they must not allow their combat power to be **dissipated** in covering the whole width and should place greater reliance on mobile reserves, depth, firepower and surveillance;
 - e. **Resources.** During his planning a commander should identify and request any additional resources needed to accomplish his mission. Requirements and timely availability of resources will be point of critical information requirements for the commander;
 - f. **Time.** The time required for deployment to, and preparation of, the defensive positions must be carefully considered and plans and tasks issued within the limitations imposed in relation to time available. Concurrent activity is required at all levels. If time is short, commanders should issue intents or effects that subordinate defensive plans and positions are to meet or create, vice personally siting in detail each position at two levels of command below him. Commanders must ensure that their time appreciations and actual preparations allow enough time for subordinates to complete their preparations;
 - g. **Denial Measures.** In accordance with the denial plan, denial measures have to be prepared for execution, if required, in close cooperation with the appropriate host nation authorities. The requirements for infrastructure for the next phase or following the cessation of combat must be carefully considered;

- h. **Coordination.** Coordination of the various plans must be carried out not only within the area of responsibility, but also with flanking formations. Higher headquarters must be kept fully informed;
- i. **Local Population.** Even in major combat, the local population will be a significant consideration in planning. In the extreme, their protection and defence may have to be incorporated into the concept. At the very least, the commander must consider how to avoid collateral damages, particularly to vital points, key infrastructure or culturally sensitive areas. In terms of security, the commander must be aware of the potential threat of enemy informers or enemy themselves hiding amongst the population;
- j. **CBRN Defence.** Depending upon his estimate of the actual threat, the commander has to consider the need to implement NBC protective measures. If the enemy unexpectedly stops his attack or withdraws troops deployed forward, it may be indicative of his imminent use of nuclear weapons. Troops, including flank units threatened by the strike, should be warned and the commander will have to decide whether his force should continue to hold, disperse, or seek to interlock with the enemy. The Commander of a defensive position subjected to chemical attack has two basic options: to move or remain in place. Before deciding to move he must consider:
 - (1) Time the hazard is likely to persist on the present position;
 - (2) The effect of any move on operational plans;
 - (3) The need to decontaminate before occupying a new position;
 - (4) The spread of contamination caused by moving; and
 - (5) Any loss of protection.

Preparations

- 0635. In defensive activities, the time available for preparation is of extreme importance. Priorities must, therefore, be set out clearly and work must be started as early as possible. If it is essential, the time available for the preparation of the defence may have to be increased by adjusting the mission of the covering force. An essential and most time-consuming activity is engineering work. It is important, therefore, that the maximum effort and priority is given to countermobility and survivability tasks. The execution of specific denial measures will begin during the preparation phase of the battle, continue through the covering force action and be completed during the main defensive battle.
- 0636. Preparations for the defence should take place concurrently at all levels and include such important activities as:
 - a. Reconnaissance and counter-reconnaissance within the formation's area of operations;
 - b. Planning and shaping the battlefield through the integration of natural and artificial obstacles:
 - c. Planning the coordination of direct and indirect fire support;

- d. Deciding the employment of air defence;
- e. Establishing liaison between flanking and subordinate formations;
- f. Continuous refinement of the plan by wargaming, if time permits;
- g. Rehearsals of all activities such as battle handover and counter-moves, if time permits; and
- h. Production of intelligence in order to determine the time that the enemy will attack, his main effort and locations of his command and control systems.

Counter-Reconnaissance

- 0637. Common to all defensive operations is the requirement to destroy or neutralize (e.g., by deception and the use of electronic warfare) enemy reconnaissance. Plans must be made for its early destruction in all sectors of the battlefield but these plans must not result in the premature disclosure of key elements of the defence. Success against enemy reconnaissance will help maintain the security of reserves, achieve surprise in offensive action, and retain the integrity of fire support systems and command and logistic infrastructures. Measures that can be taken against enemy reconnaissance include:
 - a. Use of the covering force to destroy or neutralize it as early as possible so that the dispositions in the main defensive area are not disclosed. This requires the coordination of surveillance and target acquisition systems with direct and indirect weapon systems;
 - b. Protection of friendly dispositions through camouflage, concealment and defensive command and control warfare in order to deny information to the enemy. This is particularly important once enemy reconnaissance has penetrated the covering force. Enemy reconnaissance should be engaged within a framework of patrols and ambushes, forward of and between battle positions;
 - c. The use of aviation might be considered if sufficient assets are available although targets are likely to be dispersed and exposed only for short periods;
 - d. Indirect fire can be effective in terms of neutralization and destruction but it is more likely to be committed to larger and higher priority targets. Assets are likely to be limited and 'unmasking' will jeopardize security. Special care needs to be taken to protect the security of reserves and high value targets. Camouflage and deception measures should be employed but critical reserves may require forces assigned to them specifically for protection against enemy reconnaissance;
 - e. In the rear areas, there is a requirement to be diligent in seeking out and destroying reconnaissance elements. Reconnaissance and reserves may be used if they are not committed to other tasks; and
 - f. When enemy reconnaissance forces adopt unconventional tactics and blend with local populations, measures must be taken to counter this enemy. Troops conducting static defence or framework patrols must watch for suspicious activities, monitoring by those with cellular telephones and the shadowing of patrols. Suspected individuals should be

stopped and investigated, keeping in mind the need to avoid alienation of the local populace.

Deep Operations and Shaping Operations

- 0638. Throughout the battle, enemy forces in depth will be attacked to prevent or delay their deployment. Indeed, deep, close and rear operations will be fought simultaneously and there is a requirement therefore for the commander to assign priorities, particularly for combat support and combat service support. Likewise, shaping, decisive and sustaining operations may be conducted simultaneously.
- 0639. The commander must prevent the enemy from concentrating an unacceptable level of combat power at any given point by pre-emptive, systematic and sustained attacks on enemy echeloned forces. Enemy forces not yet in contact will be monitored throughout the commander's area of interest and engaged throughout the depth of his area of influence. In so doing, the commander intends not only to destroy and delay the enemy force, but to disrupt the enemy commander's plan and seize the initiative. This attack on the enemy's forces in depth is complementary to both the covering force and main defence battles. Integration of the available combat support assets to conduct this disruption requires extensive and continuous coordination between air and ground commanders but this will yield a significant capability to see and strike deep targets and is vital to the successful conduct of deep operations.

Siting Of Battle Positions And Strongpoints

- 0640. Battle positions should, whenever possible be mutually supporting. They should be sited such that they are hidden from direct enemy observation and fire. The defender should avoid positions which are easily identifiable and easy to engage such as forward edges of woods, isolated villages and other obvious features Battle positions should dominate the local area by direct fire. Such positions provide a framework for mobile forces operating between them.
- 0641. A strongpoint is a fortified battle position. It is essentially a concentration of direct fire, particularly anti-armour, weapons that cannot be easily overrun or by-passed. It can be defeated by the enemy only with the expenditure of much time and overwhelming forces. It will be located on a terrain feature critical to the defence, or one that must be denied to the enemy and can be used to shape or contain the attacker. Extensive engineer support may be required in the preparation of strongpoints.

Obstacles

- 0642. Whatever the form of defence, the skilful use of natural and artificial obstacles will be essential to success. Their purpose is to enhance the tactical commander's own plans by denying the enemy the freedom of manoeuvre he requires in order to gain and maintain the initiative. The integration of obstacles with firepower will be used to support the commander's manoeuvre plan and to shape and restrict the enemy's manoeuvre options. Artificial obstacles will be used to shape the battlefield. The principles to be observed are:
 - a. Barrier control measures must be coordinated at all levels, but detailed siting will be confirmed by subordinate commanders;

- b. Obstacles must complement and not dictate the design for battle. As such, the commander's intent for obstacles, that is, to fix, disrupt, turn or block, must be clearly enunciated; and
- c. Wherever possible obstacles must be covered by direct fire. When this is not achievable they must at least be covered by observers able to call for indirect fire.
- 0643. Artificial obstacles must not hinder the ability of forces to operate. Counter-attacks and the rearward passage of covering forces must be granted particular attention.

Killing Zones

0644. Killing zones or engagement areas are designated by commanders at all levels based upon their mission and the analysis of the terrain and enemy. They are areas where the terrain, reinforced with artificial obstacles, allows the defender to fix and destroy enemy forces that have been forced to concentrate. As such, they are an integral part of close, deep and rear battles and their purpose and location must reflect the commander's plan and the ability of the terrain to support the shaping of the battlefield, the fixing of the enemy and the concentration of the required combat power.

Direct Fire³ Planning

- 0645. When planning the layout of a defensive position, direct fire support weapons, particularly those that will defeat an enemy armour force, are the first to be considered and sited. The remainder of the defensive position is then built around them. It must be coordinated by the commander himself. The following points should be applied when siting direct fire assets:
 - a. **Depth.** The various ranges in the family of direct fire weapons provide an opportunity to have depth in the killing zone with over-lapping arcs of fire. In addition, the anti-armour and support weapon plan should have depth deployment positions on all likely enemy approaches so the mobile systems may have multiple engagements against an attacking force which is not destroyed in the initial engagements;
 - b. **Mutual Support.** The anti-armour plan should ensure that a force attacking any position can be engaged with support weapons direct fire from adjacent and mutually supporting positions. Thus the availability of positions for this mutual support should be a consideration in the selection of battle positions. Coordination of all weapon systems in battle positions is a constant requirement. Direct fire weapons are employed in pairs or groups to allow for mutual support in providing local protection, observation and covering fire as well as to allow disengagement and movement. Note that the systems themselves do not have to be co-located, but the effects they achieve (eg, beaten zone) should be paired;
 - c. **Security.** In battalion and battle group areas of operations, armour and other mobile direct fire support weapons normally operate outside of the company battle positions. They must therefore provide their own local protection and have the ability to react to enemy threats.

³ Direct fire weapons describe armour and direct fire support weapons including anti-armour weapons. Within the battlespace, direct fire weapons will engage a wide array of targets.

Although weapon systems have small crews, they do have good surveillance capabilities and a good mobility. Hence, they not only enhance their own protection but also contribute to the security of the area of operations and the forces within it. Direct fire weapon sections can be used to patrol or picket areas instead of reconnaissance troops. Their sighting systems, fire power and mobility will allow them to be used as screen, guard or cover forces. Furthermore, when not manning their battle positions, mobile direct fire systems should be held back in hides, on suitable notice-to-move footings;

- d. Integration of Direct Fire Support Weapons. Armour and direct fire support weapons must be carefully integrated with all the other means of achieving and support the destructive effects against enemy forces. In this way, the integrated use of all weapon systems enhances the effectiveness of each to produce a greater net effect. For example, the combination of anti-armour weapons firing into kill zones, with minefields to canalize and inhibit movement, supported with artillery and mortars to keep the armour closed down and thus their observation restricted, coupled with smoke to further reduce their visibility, and with aviation to engage from unexpected approaches, enhanced by dismounted troops in defensive positions, produces a significantly better overall effectiveness than the employment of each system alone. It also degrades the enemy's ability to defeat our systems that would be vulnerable if employed alone. Short- range direct fire weapons should be integrated with other weapon systems in battle positions. Furthermore, direct fire weapons should be integrated into the surveillance and target acquisition plan both to contribute to observation capability and to receive information about the location, type and number of targets. Since direct fire weapons rely greatly on their redeployment capability, the anti-armour plan should be coordinated with the barrier and movement plans to ensure they are compatible; and
- e. Concentration. The anti-armour plan should allow for the concentration of sufficient killing power at the locations and times that provide the greatest advantages. This must be accomplished without the enemy being able to detect and counter the concentration. A coordinated plan, secure communications, covered approaches, speed of movement, good drills and rapid dispersion are some of the requirements for effective concentration of direct fire systems. The uses of tank hunting patrols and of helicopter insertion of dismounted direct fire weapons are means of achieving concentrations at unexpected places or times. By concentrating selectively on one of the enemy's critical assets, such as his armoured personnel carriers, his engineer vehicles or his command and control vehicles, it is most likely that his cohesion will be degraded.

Covering Force Battle

0646. **General**. A covering force fights a battle of movement and there will seldom be time to prepare battle positions. Maximum destruction is inflicted on the enemy so that he arrives at the main defensive area disrupted and disorganised. Although the task of the covering force is very demanding, casualties and delay can be imposed on the enemy out of all proportion to the size of the covering force if it is handled skilfully and makes use of favourable ground. In so doing, the covering force can deceive the enemy as to the location of the main defensive area and even lead him to give away his intentions.

Planning Considerations

0647. A formation, even down to brigade level, may have to provide its own covering force. It may alternatively be part of a higher formation's defence plan acting as the covering force itself or as part of the main defence force with another formation or unit acting in this role. Similarly, a brigade can act as the covering force for a division or a corps. In any case, there will be only one designated covering force beyond the handover line as this negates the need for multiple handovers between successive levels. This however still provides a commander the option of employing his own 'covering force' in the main defensive area up to the handover line with his superior formation. When a formation is responsible for the covering force battle, it must understand how it is related to the main defence battle and the impact that the conduct may have on the higher commander's intent and concept of operations in the main defence area. Planning must incorporate contingencies to account for unexpected results or difficulties of the covering force battle.

Tasks

- 0648. The commander will normally establish a covering force to form the first echelon of a defence in depth. A commander avoids assigning conflicting tasks to a covering force. The primary tasks may be:
 - a. Gaining information on the location, direction and weight of the enemy attack (his main effort);
 - b. Gaining time;
 - c. Attrition inflicting casualties on the enemy;
 - d. Providing security; and
 - e. Disruption causing damage to the enemy's cohesion.

Size and Composition

0649. The size and composition of the covering force will depend on the mission, enemy, terrain and available forces. Wherever possible, the forces used as a covering force should not be required immediately in the main defensive area. The covering force should be an all-arms grouping that is self-contained in all respects. These factors take on added significance and complexity depending on the course of action chosen by the enemy, the depth and width of the area available for the covering force battle and the time required to prepare the positions in the main defensive area. It must have enough mobility and firepower that it can avoid decisive engagement and break contact from the enemy using its integral resources. The conduct of the covering force battle will depend upon the assigned tasks. If it must gain time to support the completion of the main defensive area, then it may be conducted as a delay battle.

Battle Handover

0650. Forces in the main defensive area assume responsibility for the battle at the handover line. In planning and conducting the handover of a battle, a number of issues must be considered.

- a. As the covering force approaches the handover line, it may become necessary to increase the intensity of the fire support from the defence area to allow the covering force to disengage. Both direct and indirect fire assets from the main defence force will provide support to cover the redeployment of the covering force and to cover lanes in the obstacle barriers. This rearward passage of lines through the forward positions in the main defence area must be carefully planned and coordinated, particularly if the covering force is to break clean and if friendly fire incidents are to be avoided;
- b. The covering force passes through the main defensive area forces as quickly as possible to minimize their vulnerability to enemy fire. Combat support and combat service support resources of the covering force should move to the rear as early as possible to avoid hampering the movement of the combat forces; and
- c. In non-contiguous areas of operations, commanders must consider the partial redeployment of the covering force. Ground should only be yielded under pressure and the requirement for information may dictate that elements of the covering force remain forward of the main defensive area.

Main Defensive Battle

General

0651. The main defensive battle is fought in the main defensive area. Here the effects of deep operations and covering forces, coupled with the efforts of rear operations combine with those of the main defence force to defeat the enemy. The aim of the main defence battle is to stop the enemy advance by a combination of firmly held battle positions within the main defensive area together with the use of obstacles and reserves. Tactics in the main defensive area will vary and there can be no set course of action. Much of what occurs will depend on a flexible plan incorporating the principles of mobile and/or area defence.

Battle Handover

0652. Gaps or lanes in barriers that have been left for the redeployment of the covering force must be guarded and arrangements must be made to close them. Once the covering force has completed its handover of the battle to the main defence force, the commander must consider the subsequent employment of the covering force. He may decide to employ it immediately as his reserve, which will allow him to release his initial reserve for other tasks. It may be some time however, before the covering force is ready for commitment. A more likely option therefore is to designate it as the formation reserve once it has been reconstituted. Much will depend on how the main defence battle is progressing.

Initial Actions

0653. In addition to the covering force, patrols or small protective elements will generally be placed forward to provide security for the forces in the defensive area. This must be carefully coordinated across boundaries and will require a coordinated withdrawal plan for these elements.

- 0654. The defensive battle begins as the enemy approaches the FEBA. As a general rule, units fight in such a way as to block the enemy attack as far forward as possible. Nevertheless, the action will be extended in-depth in order to counter enemy penetrations that cannot be stopped further forward. Gaps in barriers that have been left for the withdrawal of the covering force must be guarded and arrangements made for closing them.
- 0655. Once the enemy has reached the main defensive area, he will try to find weak points and attempt to force a passage, possibly by a series of small-scale attacks. If one of these is successful, the defender must block the penetration immediately and destroy this enemy force as soon as possible.
- 0656. The enemy is likely to launch his main attack as soon as he has adequate intelligence. He will concentrate his strength on selected areas and support these attacks with heavy artillery fire and intensive air attacks. The attacks may be supported by other subsidiary assaults, such as airborne or airmobile actions between, or to the rear of, forces conducting the defensive battle.
- 0657. As the enemy attack begins to develop, the forward units will engage them. As the battle progresses, the enemy advance may be slowed and he may become concentrated by the barriers and the battle positions, thus presenting good targets for defensive fire and offensive air support. The maximum weight of fire must be brought to bear at this stage of the battle.

Conduct of the Battle

0658. **General**. The battle will be fought by the formation's subordinate units using direct fire, indirect fire and manoeuvre against the assaulting enemy forces. The commitment of reserves must be controlled. The conduct of deep operations against echeloned enemy forces must be coordinated. The employment of engineers and of sustainment resources must be clearly defined.

Defence Against Armour

- 0659. As the main enemy threat is normally from armour, planning for anti-armour defence will be the first consideration when laying out a defensive posture. This is so important that a commander will coordinate it himself. The early destruction of enemy tanks is the key to success in defence. All anti-armour weapons must be coordinated to destroy enemy armour by day and night. The following points should be applied when siting anti-armour defences:
 - a. Anti-armour defences must be concentrated on likely approaches, although no area should be disregarded;
 - b. Early detection of enemy units is essential. This allows for the timely employment of antitank weapons to destroy enemy armour;
 - c. Effective siting of barriers assists in the destruction of enemy armour by hindering movement and canalizing it into the coordinated fire of anti-tank weapons, mines, tanks, artillery, armed helicopters and air support resources;

- d. One of the primary considerations in the selection of positions and for the deployment of a combined arms team is the capability to separate the accompanying enemy infantry from the tanks as early as possible;
- e. Armoured forces will be given the primary task of blocking or counter-attacking enemy penetrations;
- f. If the enemy armour succeeds in penetrating the forward defence, anti-tank weapons located in-depth will attempt to stop further advances. Forces in forward areas may remain in position to continue to destroy the following enemy armour; and
- g. Armed or attack helicopters are often the most quickly deployed means of countering tank attacks. Conditions of bad visibility may, however, hamper their employment.

Penetration

0660. Undefended areas may be unavoidable between battle positions, but they must not be left where the probable main enemy effort is expected. They must be kept under surveillance, covered by fire or, where possible, blocked by barriers. These responsibilities must be clearly defined. If the enemy succeeds in penetrating the main defence area, the defender must block the penetration immediately and destroy this enemy force as soon as possible, hence the need for reserves with battlefield mobility. Action may be extended in depth in order to counter enemy penetrations that cannot be stopped further forward. In a mobile defence the commander may allow penetration in a selected area in order to launch his striking force at the appropriate time and place. Any decision to redeploy must take into account the situation prevailing in adjacent defence areas.

Counter-Moves: Reinforcement, Blocking and Counter-Attack

- 0661. Penetration by the enemy of the main defensive position may be countered with counter-moves: a block; reinforcement; a counter-attack; or, a combination of these. They will often be conducted by forces designated as reserve forces. The decision on how and when a reserve is to be committed is one of the most important a commander must make. Though it may be possible to have reserves at a lower level, commanders at brigade level and above must designate forces for reinforcement, blocking and counter-attack. There will seldom be reserves for all tasks and so any troops not actually in combat must be considered as a possible source of reserves.
 - a. **Reinforcement.** Forces that are engaged in combat are provided with additional combat power from the designated reserve unit or formation or from any uncommitted forces;
 - b. **Blocking.** Blocking is the deployment of forces to stop the attacking force that has broken through the forward positions. The timing of the deployment of a blocking force will depend on the way the enemy action develops, with particular regard to his strength, speed and direction of advance. This must be analysed and related to the location and size of the blocking force available, its reaction time and the time available to prepare blocking positions. Often, it is only by blocking that the enemy can be halted, in preparation for a counter-attack. Airmobile forces are often particularly suited to this role allowing an armoured reserve to be retained for the counter-attack; and

c. Counter-Attack. The counter-attack exploits opportunities to strike the enemy at a decisive time and place in order to prevent further penetration or to locally defeat him. The opportunity to launch a counter-attack will be fleeting and therefore a commander and his forces must be mentally and physically prepared for the task. Its planning is a basic and essential part of the defence and it must be updated as the situation develops. Possible options in a counter-attack could include the cutting off or destruction of enemy units, recovery of lost ground, or any other action that seeks to restore a situation. Once the commander has decided that a counter-attack can be mounted, he will launch it with the full force of all available resources necessary to ensure success.

Spoiling Attack

- 0662. Ideally, the commander will prevent the enemy from obtaining an unacceptable level of combat power at the FEBA by a systematic and sustained attack on enemy follow-on forces. Enemy echelons not yet in contact and uncommitted reserves will be monitored throughout the commander's area of interest and engaged throughout the depth of his area of influence. In doing so, the commander aims not only to destroy and delay the enemy force, but to disrupt the enemy commander's plan and seize the initiative. This attack, can either be an interdiction or a spoiling attack, on the enemy's forces in depth is complementary to both the covering force actions and the battle in the defence area. A force, including a reserve, may be employed in carrying out a spoiling attack with the intention of preventing or delaying enemy attacks. CAS and other fires should support it. Spoiling attacks are normally launched against enemy forces that are forming or assembling for an attack. Spoiling attacks are usually conducted against opportunity targets with the objective of destroying enemy personnel and equipment, not to secure terrain. The following basic considerations affect the use of the spoiling attack:
 - a. The commander should designate the size of the force to be employed and the acceptable risks;
 - b. Spoiling attacks should not be conducted if the loss or destruction of the force jeopardises the ability of the reserve to accomplish its primary mission;
 - c. Mobility of the force available for the spoiling attack should be equal to or exceed that of the enemy force; and
 - d. Deep operations may be necessary to ensure the success of the spoiling attack.

Maintenance of Cohesion

- 0663. The importance of maintaining a cohesive, integrated defence, whilst under pressure of enemy offensive activities cannot be overstated. If the defence is to remain viable, the commander must be prepared to adjust the layout to meet changes in the threat in order to maintain cohesion. The following points should be noted:
 - a. Gaps may be accepted between positions, but they must not be left where the probable main enemy thrust is expected. They must be kept under surveillance, covered by fire or, where possible, blocked by barriers. The responsibility for this must be clearly defined. Forces should be identified to deal with any enemy penetration of gaps;

- b. If it becomes apparent in the course of the battle that the cohesion of the defence cannot be maintained, the next higher commander may assign additional reinforcing, blocking or counter-attack forces from his own resources; and
- c. Any decision to withdraw forces must take into account the situation prevailing in adjacent defence areas. A new FEBA may only be determined by the Commander who has ordered the defence.

Re-organisation

0664. Whenever necessary, even during short intervals in combat, formation and units must be reorganized, re-supplied, and brought up to strength. Work must be carried out to repair any damage to defence positions, barriers and movement/supply routes. Once the enemy attack has been defeated, every opportunity should be taken to restore the situation in conjunction with flanking formations.

Layout Of The Defensive Area

- 0665. The covering force area and the defence area are separated by the forward edge of the battle area (FEBA). However, the responsibility for the conduct of operations will often change forward of the FEBA, at the handover line.
- 0666. The covering force area is the area extending forward from the FEBA as far as forces are deployed to observe, engage, intercept, delay, disorganise and deceive the enemy during his advance to the FEBA. It is within this area that the covering force must conduct its tasks and responsibilities. In doing so, it may use delay tactics. The main defensive force must be able to engage forward of the FEBA in order to help the covering force break clean from any enemy forces pursuing the covering force's rearward passage of lines.
- 0667. The defence area extends rearwards from the FEBA; it is that area in which it is planned to fight the decisive defensive battle.
- 0668. The rear areas extend from the rear boundaries of formation/unit areas to their subordinate formation's/unit's rear boundaries. It is here that the reserve forces of the formation/unit are normally located. In addition, some long-range fire support units, organic and attached combat support and combat service support units will often be found in this area. In the allocation of deployment areas, consideration must be given to the areas needed for the overall concept of defence as well as areas required for combat service support troops and installations. (See the figure below.)

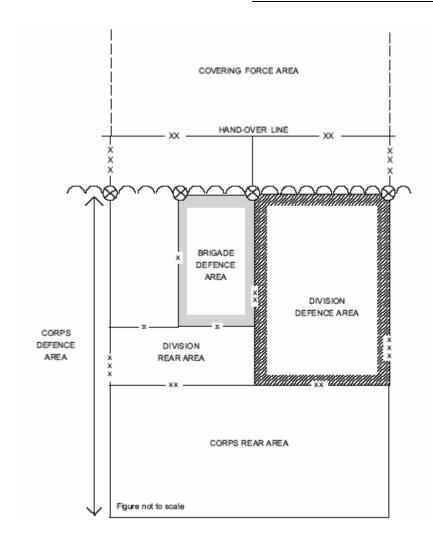


Figure 7-3: Corps Defence Area of Operations (with the Covering Force under Corps Control)

Note: This diagram illustrates a Corps Defence Area of Operations in very basic outline. It should be remembered that on the non-linear battlefield the lines will not always be straight and there may be large gaps between one Corps or division area and another.

Employment Of Reserves

0669. **General**. Commanders must earmark mobile forces as reserves for offensive tasks, which are an integral part of the defence concept. Once a reserve force is committed, it must be reconstituted from other forces not in contact. The movement of reserves will be a priority target for the enemy and thus protection will be vital. Where the enemy from the air is particularly high, there will be a requirement for air defence assets to be assigned to the security of reserves.

Purpose

- 0670. The primary purpose of a reserve is to preserve the commander's freedom of action. The reserve is an uncommitted force, at least initially. It may have a series of contingencies, although a commander will not commit his reserve until he has a reasonable understanding of the enemy intentions. If the commander must commit his reserve in order to counter an unexpected enemy action, then he must advise his superior commander who must than re-consider the employment of his reserve and the impact this will have on his superior commander's intent. Reserves are commonly used for:
 - a. Reinforcement;
 - b. Blocking;
 - c. Counter-Attack; and
 - d. Spoiling Attacks.

Reserves in the Mobile Defence

0671. If the commander decides to conduct a mobile defence he will still need to designate a reserve. It may be called upon to carry out any of the above tasks in order to help the fixing forces shape the battlefield. Attack helicopters may be ideal for this role. The striking force is then committed to strike a decisive blow.

Commitment of the Reserve

0672. The decision on how and when a reserve is to be committed is one of the most important a commander must make. Reserves should be located where they are best able to react when they are required. Routes may need to be planned and prepared to cover likely deployment options. The commander will designate his decision criteria to assure the timely commitment of his reserves. These will need to be updated as the battle progresses and the enemy's intentions become more apparent. When it is committed, the reserve action may well become the formation main effort. The success of the reserve action is likely to depend on its timely commitment, mass, surprise, speed and boldness.

Forces And Tasks

0673. **General.** The concept of the defence to be adopted will be influenced to a great extent by the type of combat forces, armoured or non-armoured, available. The number and type of forces to

be used may in themselves be further dictated by the enemy, the terrain and the weather. Time may also be a major factor as non-armoured forces usually require more time than armoured forces to prepare defensive positions and, unless they are airmobile, more time to move between them.

Armoured Forces

- 0674. Where the majority of the forces available are armoured, the defence can be conducted with greater flexibility and full use can be made of mobility. Operations will include defence from selected positions, delaying actions and counter-attacks, all of which can be conducted in defensive sectors of greater depth and width than in a defence with non-armoured forces. Armoured combat troops have a high degree of protection from enemy fire, and consequently are capable of going into action rapidly and effectively even in a CBRN environment. This makes them highly suitable for use as reserves.
- 0675. Armoured forces use defilade positions to strike the enemy in the flank, forcing him to canalize so that he may be destroyed by the full weight of the firepower of the defence. In addition, armoured troops can manoeuvre to delay the advance of strong enemy forces and then immediately change over from a mobile to a more static form of action or to conduct offensive action. Due to their importance in defence, armoured combat forces will always be a primary target for enemy air attacks. Skilful use of cover, concealment, dispersion and local air support can considerably reduce the effect of this threat and, wherever possible, air defence forces should be assigned to cover operations by armoured units.

Non-armoured Forces

0676. Non-armoured forces are capable of staging an effective defence only from prepared positions, and will, therefore, be employed primarily in a more static role. Their defence positions should make the best use of barriers and be located where the terrain offers scope to employ the fire power and the full range of their anti-armour weapons. They are, therefore, particularly suitable for use in close country. The positions selected should be covered from observed fire for as long as possible, thus enabling them to retain their effectiveness. In most cases, they must be well supported by armoured and combat support resources.

Armed Aviation

- 0677. Air manoeuvre in defensive operations is very similar in character to air manoeuvre in offensive operations. Helicopters have, however, an important role in defensive operations by causing early attrition of the enemy in the deep battle and by disrupting, delaying and shaping the enemy for the close battle. Helicopters can be effectively employed where a commander does not wish to irrevocably commit ground forces; forward of a reserved demolition or obstacle for example.
- 0678. Armed aviation can be effective in closing gaps in a defence plan possibly in conjunction with pre-planned joint fires prior to relief by ground forces. Helicopters are also able to counter enemy activity in the rear area and, in particular, airborne or airmobile forces. Some helicopters may be equipped for air to air combat. Provided weather and visibility conditions allow, their mobility, firepower and independence from the ground will make them a useful means for:

- a. Operations against enemy penetration;
- b. Containment of enemy attacks;
- c. Support of counter attacks; and
- d. Support of airmobile operations.

Artillery

- 0679. The artillery commander prepares and executes the fire plan in accordance with the mission and with his commander's concept of operations, coordinating artillery fire with the operations of combat troops, helicopters, air support and with the barrier plan.
- 0680. In view of its long ranges and the high flexibility of its fire, artillery is a powerful weapon to assist in neutralizing an enemy attack. In order to be fully effective, however, it must have the link to sensors that will acquire targets in-depth.
- 0681. In defence, the tasks of artillery are:
 - a. During all phases of the defence give fire support to troops in contact;
 - b. Attack enemy forces in depth before they can be committed to the main battle;
 - c. To coordinate fire support to maximise combat power. Fire support will also be coordinated with influence activities;
 - d. More specific tasks include:
 - (1) Support of the covering force;
 - (2) Disruption of enemy preparations for attack;
 - (3) Separation of attacking enemy tanks from dismounted infantry;
 - (4) Attacking enemy artillery and forward air defence elements;
 - (5) Covering barriers, gaps and open areas;
 - (6) Neutralizing or isolating enemy forces that have penetrated the defensive area and impeding the movement of enemy reserves;
 - (7) Supporting counter-attacking forces;
 - (8) Assisting in battlefield surveillance and target acquisition;
 - (9) As a last resort, defending own gun positions by direct fire; and
 - (10) The use of scatterable mines to block enemy approach routes.

Air Support

Air ISTAR Operations

0682. Air reconnaissance is extremely important in all phases of the defence, particularly during the early stages, to help determine the strength and direction of the enemy advance.

Counter Air Operations

0683. The purpose of counter-air operations is to achieve a desired or necessary level of control of the air, through the destruction, degradation or disruption of enemy aircraft and missiles, in order to allow all friendly forces greater freedom of action, whilst minimizing their vulnerability to detection and attack. Counter-air operations include all actions, taken by any component, to gain and maintain control of the air. Ground forces may aid these operations by army organic air defence or by suppressing enemy forward air defences.

Close Air Support

0684. Close air support (CAS) will be vital to a defending force, for both immediate threats and for those in depth. It is more economical and effective to locate and attack enemy forces whilst they are concentrated in depth preparing for an attack or advancing along lines of communication, than when they are deployed in the battle area. CAS, if properly planned however, allows the commander to concentrate fire rapidly on targets in depth and in proximity. As much pre-planning as possible should occur in order that commanders may determine and request the exact number of sorties required.

Support Helicopters

- 0685. In defence recce, utility and transport helicopters can support ground force operations through their employment in:
 - a. Airmobile operations;
 - b. Command and control tasks;
 - c. Reconnaissance and target acquisition missions; and
 - d. Logistic support including casualty evacuation.

Air Defence

- 0686. Priorities for the allocation of air defence artillery resources will be based on the commander's estimate of the situation. In addition to airspace management, air defence artillery will be required to protect important areas and points. It is normally used to cover the following:
 - a. Troops in forward areas;
 - b. C2 facilities;

- c. Supply facilities;
- d. Critical assets and vital points;
- e. Airfields;
- Reserve forces; and
- g. Demolitions.

Engineers

- 0687. There will seldom, if ever, be sufficient engineer resources to meet all the requirements of a defence plan. The commander must therefore establish priorities, in accordance with the determination of his main effort and apply his limited resources as necessary. Engineers will be assigned a wide range of tasks:
 - a. **Counter-mobility Tasks.** Counter-mobility tasks serve to disrupt, turn, fix or block enemy forces. They will be carried out in conjunction with combat forces and coordinated with direct and indirect fire weapons, to deny the enemy the mobility he requires, and to cause casualties to his attacking forces. Counter-mobility measures must be covered by fire and closely coordinated with fire support assets. Counter-mobility tasks include:
 - (1) **Barriers.** The maximum effect is obtained from barriers when as many minefields and other obstacles as possible are employed in combination, and when they are kept under surveillance and covered by fire. Barriers are likely to include the use of natural and man-made obstacles; they must be coordinated with host nation advisors when appropriate and comply with Host Nation Agreements. The barrier plan is part of the overall defence plan that will require continuous adjustment as barriers are improved and supplemented as time permits and the battle proceeds. Barrier restricted areas may be declared in order to retain the required freedom of movement. The restriction may involve time, location or type of obstacle; and
 - (2) **Demolitions.** The system for the control of demolitions must be conducted in accordance with agreed standards and procedures. The number of reserved demolitions must be kept to a minimum, as they tie down large numbers of combat troops as demolition guards and engineers in firing parties.
 - d. **Survivability Tasks.** The avoidance of detection and destruction will require frequent movement and rapid terrain preparation (includes digging and use of cover, concealment and camouflage to enhance survivability). Survivability can be enhanced by the use of concealment, deception, dispersion and fortification. Engineer protection or survivability tasks will include assistance to other arms in:
 - (1) **Field Fortifications.** Engineer work in this area includes the use of equipment to assist in the preparation and construction of such fortifications as trenches, command post shelters, artillery fire positions and anti-tank weapon and

armoured combat vehicle positions. Additionally, fields of fire can be cleared for all weapon systems. Strongpoints are heavily fortified positions which cannot be overrun quickly or bypassed easily by enemy forces;

- Protection of Combat Supplies. Combat supplies should be protected in particular against blast, shrapnel, incendiaries and CBRN contamination. By giving advice to the logistic management on the selection of the most suitable storage sites, the requirements for engineer support can be considerably reduced; and
- (3) Camouflage, Concealment and Deception. Major positions, facilities and operational sites may require special camouflage stores and measures that could be undertaken by engineers. Deception measures often include the use of camouflage and special engineer deception measures can include construction of dummy positions and decoys that must be carefully planned and coordinated within the framework of the tactical plan and real positions.
- e. **Mobility Tasks**. During preparations for defensive activities, engineers will reconnoitre, improve and open routes for use during battle, in preparation for withdrawal of covering forces, main body withdrawal and for the use of reserve forces and counter-attacks. During the main defensive battle itself, mobility tasks include:
 - (1) **Routes.** The maintenance and improvement of routes will be a major engineer task as the defensive position is subjected to fire from enemy artillery and air. This may necessitate the deployment of assault bridging, track-way and engineer heavy equipment well forward;
 - (2) **Minefield Gaps and Lanes.** Careful coordination will be necessary to ensure that the required lanes or gaps are left in minefields for the redeployment of troops;
 - (3) **Support to Countermoves.** Close support engineers will be required in support of offensive operations to overcome obstacles produced by the enemy; and
 - (4) **Counter Attacks.** Gaps must have been left in major obstacles for the passage of counter-attack forces.

Electronic Warfare

0688. Electronic Warfare (EW) has the following functions in support of defensive activities:

- a. Its primary function will be to continue gathering information on the enemy and to update information data bases. EW resources will thus concentrate on the provision of vital information on the enemy's:
 - (1) Intentions;

- Grouping, location and axes of advance of: lead elements; main body; supporting artillery and engineer units; and, forces in depth;
- (3) CBRN delivery means; and
- (4) Air defence systems.
- b. As the enemy closes to the main defence position, jamming resources will be concentrated on the neutralization of enemy fire control, target acquisition and intelligence gathering systems, while information gathering resources continue to provide intelligence and steerage for own jamming systems; and
- c. EW resources will also attempt to locate enemy jamming assets so they may be eliminated by physical destruction.

Command And Control Measures In The Defence

- 0688. In planning the defensive operations, commanders should reconnoitre the area of responsibility or review the terrain analysis before he determines his concept of operations and plans the layout. Furthermore, he should maintain personal contact with his subordinates. In times of stress, a visit or a person-to-person conversation will do much to instil confidence and to impress the commander's personality upon his command.
- 0689. Close liaison and good communications are prerequisites to a successful defence. The following should be noted:
 - a. Coordination points will be designated and liaison established at key levels;
 - b. In coalition operations, it is particularly important that commanders of temporarily assigned units make personal contact with their superior commander as soon as the situation permits. Higher echelons must be prepared to provide communications detachments to subordinate HQs from other nations in order to provide a secure communications link;
 - c. Before contact is made with the enemy, electronic emissions must be kept to a minimum. Forces not in contact with the enemy should be on radio silence. Nevertheless, alternate communications must be maintained at all levels; and
 - d. In situations in which there is an enemy electronic warfare capability, cable and radio relay communications are a vital means of communication. After enemy contact and the relaxation of radio silence, radio communication will become significant, but traffic should still be kept to a minimum.
- 0690. The following control measures may be employed in defensive operations:
 - a. Boundaries and control lines such as the handover line and phase lines;
 - b. Fire support coordination measures;
 - c. Airspace control measures;

- d. Coordination points and check points;
- e. Barrier restricted areas;
- f. Battle positions, blocking positions and assembly areas;
- g. Phase lines;
- h. Assembly areas of reserves;
- i. Killing zones; and
- i. Controlled routes and reserved demolitions.
- 0691. The defence plan must be carefully conceived to ensure that the enemy attack can be halted and that an opportunity be found to seize the initiative and undertake offensive operations. The importance of cohesion to the overall effectiveness of the defence is particularly significant if the defence is to remain viable. The commander must be prepared to adjust the layout the manoeuvre plan.

Combat Service Support In The Defence

General

- 0692. The Combat Service Support (CSS) plan must be flexible. Particular points of note are:
 - a. In the defence, it should be possible to preposition stocks and maintenance resources and to establish medical facilities beforehand, and it is from these resources that troops may be supported in the first days of combat. In this way, provision is made for supplies to be available in the event of a surprise enemy attack. A well established re-supply chain is part of the preparation for the defence. The constant flow of supplies on probable long Lines of Communications must be ensured by sufficient transportation capabilities and safeguarded against any threat in the rear;
 - b. CSS facilities are usually further to the rear than in offensive operations, both to avoid interfering with tactical operations and to obtain a degree of protection, although delivery should be as far forward as possible;
 - c. Consideration must be given to the location and security of service support areas and traffic control within these areas; and
 - d. Planning must take into account the requirements of a transition to the offence. Mobility and flexibility in CSS operations must be maintained to support subsequent counterattack and other offensive operations.

Specific Considerations

0693. Specific consideration should be given to the following points:

- a. Rear area security and protection;
- b. The high consumption of ammunition, particularly artillery rounds, may necessitate special delivery programmes. Bulk ammunition should be delivered as far forward as possible;
- c. Fuel should be transported, as far as practicable, by pipeline, rail, road tanker or by inland waterways;
- d. Repair should be conducted within defensive positions if possible, in order to minimise movement;
- e. Medical and surgical timelines are the primary driver for the layout of medical support. Medical facilities should not, however, be located near likely targets e.g. other logistics installations, in order to avoid collateral damage;
- f. Coordination of CSS in multinational operations;
- g. The location of supplies should emphasise dispersion, good access to supply routes, stock levels and should be conducive to re-supply defensive operations; and
- h. Priority of supplies assists in allocating scarce transportation assets.

Section V - The Planning And Conduct Of The Delay

Purpose And Description Of The Delay

- 0694. A delaying activity is: an operation in which a force under pressure trades space for time by slowing down the enemy's momentum and inflicting maximum damage without, in principle, becoming decisively engaged (Adapted from AAP 6, Delaying Operation). It is usually conducted in advance of a defensive position, in order to give the forces the needed time to prepare the position, mass forces and to attrite the advancing enemy forces.
- 0695. The delaying force commander is normally given a mission of imposing a stated amount of delay upon the enemy and/or a specific amount of attrition upon the enemy. He may also be ordered to preserve a specific portion of his own combat power. The delay will often end with a breaking of contact, a battle hand-over to an in-place, defending force and a rearward passage of lines.
- 0696. The delay is likely to be carried out in less than ideal conditions. The air situation may well be unfavourable and the initiative will tend to be with the enemy. Nevertheless, in order to enhance the chances of success, every opportunity should be taken to initiate aggressive action, to seize the initiative from the enemy and to force him to adopt a defensive posture. This type of activity is arguably the most difficult to conduct and needs to be thoroughly understood by all involved.
- 0697. Delaying operations can be conducted independently or within other operations, principally as a prelude to a defensive battle. It can be conducted by a covering force. It is also possible that enabling activities will be involved, the most likely being a withdrawal and a rearward passage

of lines. It is also conceivable that other enabling activities, such as a meeting engagement, could occur.

- 0698. A delaying activity is likely to be conducted in one of the following circumstances:
 - a. As a covering force for defending or withdrawing main bodies;
 - b. The advance guard or covering forces when encountering superior forces;
 - c. An economy of force operation conducted to hold an enemy attack on a less critical avenue of approach;
 - d. A deception measure to set up a counter-attack; and
 - e. As part of a mobile defence.

Principles For The Conduct Of The Delay

- 0699. The conduct of the delay is akin to that of the defence and therefore, they share many of the same principles. In a delay, a commander attempts to inflict heavy losses on the enemy, trading space for time, while preserving the combat power of his own forces. No decision is sought, as the commander is attempting to gain time. In doing so, he must always determine whether the time to be gained justifies the reduction of his combat power. In planning and conducting the defence, the following principles deserve special consideration:
 - a. **Intelligence.** A permanent flow of accurate intelligence will be vital to delaying operations. Timely and sound information from intelligence means at all levels of command will be needed throughout the delaying activity on enemy intentions, capabilities and weaknesses;
 - b. **Offensive Action.** In order to force the enemy to deploy, to delay him and to attrite him, offensive action must be taken. The delaying force must take every opportunity to initiate aggressive action. Attacks should be undertaken whenever losses or damage can be inflicted on the enemy by the delaying force. It will be required not only to force the enemy to deploy, but likely will be required to disengage with the enemy and to cover the withdrawal to subsequent battle positions. The delaying force should create and seize opportunities for offensive action. Enemy forces that overreach themselves or expose a flank are particularly vulnerable. Limited attacks are undertaken when losses or damage can be inflicted on the enemy with low risk;
 - c. **Security and Protection.** Security and protection are vital to preserve the force to allow it to meet its task. The force must avoid being surprised and becoming decisively engaged. This involves not only the maximum use of concealment and camouflage, deception, communications security, electronic warfare and all counter-intelligence measures but also the protection of critical points required for movements at natural defiles and bridges. The acceptance of gaps is inherent in delaying operations; as a rule formations must provide flank security for themselves. The commander must preserve his force throughout the delay, in order to firstly, be capable of causing the required attrition and delay, and

secondly retain sufficient combat power to fulfil subsequent tasks falling force's hand-over and withdrawal. Thus security of his force will be a constant concern and measures and precautions must be constantly taken to ensure that the force can break-contact and avoid envelopment by the advancing enemy;

- d. **Manoeuvre.** Movement in combination with long-range fire ensures that the enemy can be worn down without close contact. A delaying force uses manoeuvre so that maximum fire can be applied at long range to surprise and confuse the enemy and to make him pause and deploy. Such fire imposes caution and causes casualties without revealing the disposition of the delaying forces. A delaying force also uses manoeuvre to disengage and move to new positions when the enemy concentrates superior combat power;
- e. **Balance and Maintaining Freedom of Action.** The force must be organized so that it can deal with unexpected situations. This requires a judicious balance among those troops maintaining surveillance, conducting reconnaissance, engaging and delaying the enemy, withdrawing to new delay positions and acting as reserves;
- f. **Maintenance of Contact.** A delaying force must maintain contact with the enemy to avoid surprise, estimate his rate of advance and determine his main point of effort. This can be done be reconnaissance forces or by target acquisition means giving current information feed, such as unmanned aerial vehicles;
- g. **Use of Terrain.** A delaying force must use the terrain to enhance their engagement, add to their security and cause the enemy to conduct time-consuming and costly operations in order to advance. The terrain selected should have natural or easily improved obstacles that can be used to canalize the enemy or slow him down. It should also offer good observation and fields of fire and allow easy disengagement;
- h. **Time and Space.** A commander should know either the minimum length of time that he must delay, based on the requirement of friendly forces to prepare positions, the percentage of enemy forces that must be destroyed, or the percentage of his force that he must preserve, based on his subsequent tasks. The area allocated must have sufficient depth to allow for the conduct of delaying operations, otherwise the duration of the delay must be shortened, or there must be a compensating increase in the strength of the force or an acceptance of high losses. A lack of sufficient manoeuvre space may cause the delaying force to become decisively engaged;
- i. **Deception.** Deception is necessary to reduce the inherent vulnerability of a unit during movement to the rear. Deception should be used to help maintain secrecy during the movement and to aid in achieving surprise; and
- j. **Electronic Warfare.** The delaying force should employ EW resources to disrupt and confuse the advancing enemy; using jamming and deception against reconnaissance elements, command nets and fire control nets. They may greatly assist in disengagement, counter-attacks and relief of forces. EW resources will continue to provide information on the enemy.

Concept Of Operations For The Delay

- 06100. The delay does not fit neatly into a series of stages. Rather it comprises a series of coordinated offensive and defensive actions, each being broken off when the enemy presses too hard and close to the point where the delaying forces are at risk of being decisively engaged. The action is fought by forces manoeuvring to engage the enemy from previously selected positions in depth and then disengaging and moving to the next position before the enemy can concentrate sufficient combat power to overrun or bypass friendly forces. High tempo is particularly significant in delaying actions. The delaying action ends with the final disengagement and breaking of contact by the delaying force at the handover line. An in-place force may have to assist in achieving disengagement.
- 06101. In a delaying operation, a commander faces several conflicting requirements. He attempts to inflict heavy losses on the enemy, but seeks to preserve the combat power of his own forces. He attempts to gain time, but seeks to avoid decisive engagement. He must constantly determine whether the time to be gained justifies the reduction of his combat power. To make these decisions, he must be told either the minimum length of time that he must delay the enemy or the percentage of his force that he must preserve based on his subsequent tasks. The area he is allocated must have sufficient depth to allow delaying operations to be conducted; otherwise, the duration of the delaying activity must be shortened, the strength of the force increased, or risk decisive engagement with the high potential for losses.
- 06102. A delay is conducted by a combination of defensive and offensive action. Initially, a commander establishes contact with the enemy across the front using reconnaissance elements. At the same time, he prepares a series of delay positions in depth to the extent that time permits. Depending on the mission, forces occupying the delaying positions should be sufficiently strong in combat power to mislead the enemy into believing that he has encountered the battle positions of a main defence area and must be sufficiently strong to cause the desired delay. In the selection of delaying positions and the organization of the delaying force, the commander will consider creating opportunities for offensive action.
- 06103. The delay is conducted through a series of successive battle positions, sited to be mutually supporting. As the enemy pushes the reconnaissance elements back, he is engaged with maximum fire at long range from elements of the delaying force that manoeuvre in the first line of delay positions. This fire is applied to surprise and confuse the enemy, to make him pause and deploy, to impose caution and cause casualties, and to compel him to make time-consuming and costly preparations for an attack. While the enemy is engaged at long range, other elements of the delaying force may conduct countermoves, especially against forces that have overreached themselves or exposed a flank. Limited attacks are undertaken when losses can be inflicted on the enemy at low risk.
- 06104. When a decisive engagement is imminent, the commander manoeuvres to disengage or to fight his way back to the next line of delay positions. Contact is reassumed by the reconnaissance elements, which in the meantime have been repositioned for the task, or is maintained by the forces fighting their way back. Contact must be maintained in order to avoid surprise, to estimate the enemy's rate of advance and to determine his main effort. Crossing sites, particularly bridges, and other critical points along routes or axis required for rearward movement should be protected.

06105. The same general sequence of activity is repeated until the mission is accomplished. At the handover line, the delaying force attempts to break contact and the force in place assumes responsibility for dealing with the enemy. The in-place force must site itself and task forces to assist with the delaying force's breaking of contact.

Organisation Of Terrain

- 06106. In the delay, the delineation of the battlespace is similar to that of the defence. The difference is the fact that the rear boundary is defined by a handover line where responsibility for the enemy is passed to another force. Unit and formation frontages will tend to be larger than in the defence. The commander of the delaying force has to decide which parts of the assigned Area of Operations he will use, which parts he may abandon earlier than others, and which ones need only be monitored.
- 06107. Flank boundaries between elements of the delaying force must be clearly delineated, but elements of the force must be prepared to give mutual support across boundaries. The delay and the terrain over which it will occur will be broken into a number of battle positions from which the engagements will occur. The battle positions will be manned on order and will act as the key control measure for the conduct. They must be mutually supporting. Ideally, commanders will have time to reconnoitre the battle positions prior and to plan each engagement and disengagement in detail.
- 06108. A delaying force will not only make use of the depth of the area assigned but it will also attack the enemy in his depth. If there is no opportunity to attack the enemy's flank or rear, it may be sufficient to position combat troops so that they can engage the enemy along his most likely approaches. Gaps must be kept under surveillance and provision must be made for quick reaction, should the enemy decide to utilize them for his advance.

Delay Tactics

- 06109. The commander must take into account that he may not always have a clear picture of the enemy and that the situation may change frequently and rapidly. He must therefore ensure that he has a continuous flow of sound and timely intelligence, a well-organised reconnaissance, uninterrupted communications and a strong reserve. By these means, the commander can ensure that he maintains his freedom of action. He must utilize the forces and means available to him in such a way that the enemy is repeatedly faced with unexpected situations. This requires flexibility and agility as well as strong reliance on the subordinate commanders' capabilities to determine on the spot the most suitable action to be taken. Combat troops will normally conduct the delay by a combination of techniques, both offensive and defensive.
- 06110. The commander will employ a range tactics to impose delay upon the enemy and preserve his own forces, including the following:
 - a. To slow down the enemy's advance by inflicting casualties which reduce his offensive capability in order to gain time for subsequent operations;
 - b. To manoeuvre the enemy into areas where he is vulnerable to attacks/counter-attacks, thereby gaining the initiative;

- c. To avoid combat under undesirable conditions; and
- d. To determine the enemy's main effort.
- 06111. The tactical plan must focus on control measures and the effects to be imposed upon the enemy, be it delay, attrition or both. The plan must include a clearly articulated intent, a detailed concept of operations, measures to be taken to cover gaps and flanks, and detailed control and co-ordination measures. While a main effort is designated it may change during the delay depending upon the enemy's intentions.

Planning And Preparation For The Delay

- 06112. **Planning.** Before a commander can make his estimate of the situation for a delay he must be very clear of the intention of his superior commander and what he wishes to achieve by deploying the delaying force. Once this is understood he will make his estimate of the situation, develop his concept of operations and prepare his plan to cover the entire action from initial deployment to its termination. The concept of operations and the plan will pay particular attention to:
 - a. **Tasks.** The allocation of tasks to the forces available. In the delay, tasks must reflect the integral firepower and mobility of the forces considered;
 - b. **Phasing.** The separation of the activity into phases, all parts of which must be completed before another phase can start, where this is necessary. Indiscriminate use of phasing can slow operations unnecessarily;
 - c. **Terrain**. The selection of battle positions from which to delay the enemy will be key to success. The terrain must be selected in order to maximise the long range fires and mobility of the delaying elements and to restrict the mobility of the enemy (natural choke points, defiles, etc). Selected terrain should also facilitate an easy break and withdrawal for the delaying forces;
 - d. **Barriers**. Planning should exploit natural barriers and select best positions for artificial barriers that will achieve maximum benefit with the least amount of required work;
 - e. **Fire Support**. The use of long-range fire to inflict early casualties on the enemy and avoid decisive engagement;
 - f. **Covering of Gaps**. Gaps are a feature of operations. However, commanders must be aware of their existence and plan to ensure that they do not pose an unnecessary threat;
 - g. **Flank Security and Protection**. Flank security and protection will be a constant concern for delaying forces. The commander must try to select positions that offer natural flank protection or establish as a minimum flank security that will allow early enough notification to allow withdrawal. Flank protection may be essential in order to maintain the battle positions that will impose the required amount of delay upon the enemy;

- h. **Deployment in-Depth**. The force must also be deployed in-depth to counter penetration between the forward units and to guard against airborne or helicopter borne assaults on defiles and reserved routes:
- i. **Control of Fire and Movement**. Report and phase lines are used to control the movement of forces. Orders can be given to fill any gaps or to adjust the lines should there be a danger of a breakthrough;
- j. **Coordination**. Careful coordination between adjacent units, including measures to avoid fratricide:
- k. **Demolition Control**. The need to carry out demolitions early can hamper the deployment of friendly forces. It is, therefore, essential that the planning, particularly for preliminary demolitions, minefield gaps and reserved demolitions, is closely coordinated with movement and manoeuvre;
- 1. **Denial Measures**. The denial plan will be closely coordinated with host nation authorities;
- m. **Surveillance**. The maintenance of surveillance coverage of the entire area of intelligence responsibility is normally a considerable undertaking that encompasses imagery, electronic warfare and all human collection resources. It requires careful planning and coordination; and
- n. **Combat Service Support**. The support of highly mobile operations conducted over considerable distances requires foresight and flexibility.
- 06113. The amount of delay to be ordered will depend upon the commander's estimate of the situation and the requirements for the main defensive position and overall objectives and aims. The duration of the delay to be obtained is then laid down in the mission.
- 06114. Additionally, or in place of a delay time, the mission may entail a certain percentage of destruction that must be imposed upon the enemy as part of the delay operation.

Forces And Tasks

- 06115. **General**. Given the nature of the delay, the forces best suited to delay operations, will be those that possess integral firepower, protection and mobility. In selecting and grouping the delay force, the balance between these characteristics will depend upon the type of enemy to be delayed and the terrain. It will likely require some sort of all-arms grouping with integral long range fire support and CSS assets.
- 06116. All commanders to the lowest level possible will benefit greatly from detailed reconnaissance of the route to be used and the assigned battle positions from which the delay will be imposed. Rehearsals will be essential as will close coordination, particularly for all arms groups not accustomed to working together.

Employment of Manoeuvre Forces

- 06117. **Armoured Forces.** Forces composed of tanks, armoured infantry and armoured reconnaissance elements are highly suitable for delaying operations in most types of terrain. Their firepower permits them to engage the enemy effectively at long ranges, their mobility permits them to move quickly between successive positions or to a flank, while the protection afforded by their vehicles facilitates disengagement. Similarly, their mobility, firepower and superior communications give them the capability of launching counter-attacks when an opportunity to do so has previously been created.
- 06118. **Light Armoured or Mechanised Forces.** Mechanised or light armoured forces will be suitable for delay operations, depending upon the enemy faced and the terrain. Their employment characteristics and concept of operations will be similar to the employment of armoured forces in the delay, however, their will likely hold their vehicles, depending upon the type of vehicle, to the rear of their battle positions in order that they do not loose them to enemy direct fire. They may be forced to engage for shorter periods of time in order to ensure a successful withdrawal from battle positions. They will likely require extensive barrier plans and close support from armed aviation.
- 06119. **Non-Armoured Forces.** Non-armoured combat forces only have a limited capability to carry out delaying operations except in broken, close or built-up terrain with extensive use of barriers. They will fight from a succession of suitably prepared defensive positions, in each case forcing the enemy to deploy for a coordinated attack before they withdraw to their next position. Their lack of protection will demand greater attention to the operations of disengagement and movement between positions, which should be carried out under cover of fire support, using routes that are concealed from the enemy. Similarly, non-armoured troops are not particularly suitable for conducting a fighting withdrawal. However, such an activity is feasible against a dismounted enemy in close terrain, which offers cover for movement and is favourable for ambushes and raids. Non-armoured forces can also participate in stay-behind operations.
- 06120. **Airmobile Forces.** Airmobile forces can be employed in delaying operations although they face the same restrictions and problems as other non-armoured forces. They are capable, however, of rapid deployment and redeployment, permitting quick concentration of combat power at key locations. Similarly, they are capable of rapid dispersal to reduce vulnerability. They can also be used as a reserve force to permit the commander to commit a larger part of his other forces to the operation, as well as acting as flank protection. The selection and reconnaissance of landing and pick-up sites will be essential to their employment.
- 06121. **Airborne Forces.** Airborne forces have a more limited capability than airmobile forces in delaying operations because of their lack of mobility and firepower once on the ground and the need for assistance in extrication. They can, however, be employed in area interdiction operations with the aim of preventing or hindering enemy operations in a specific area. Terrain which is heavily wooded, hilly or dominated by a river or other obstacles, and which hinders the enemy's off-road mobility, is best suited to this type of operation.
- 06122. **Armed/Attack Aviation.** Air manoeuvre in delaying operations is very similar in character to air manoeuvre in offensive operations. Helicopters play an important role by disrupting the enemy's progress through the use of rolling ambushes that produce a fluid and mobile defence throughout the enemy's depth that will delay and shape the enemy for the close battle. Armoured attack helicopters can effectively support delaying ground forces by engaging enemy

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armour - preferably from the flanks or long range. They may be used to achieve rapid deployment of the anti-armour defence including deep attacks to cover the disengagement of combat forces and to achieve surprise. Helicopters can also be effectively employed where a commander does not wish irrevocably to commit ground forces to the delay, such as forward of a reserve demolition or obstacle.

Employment of Combat Support Forces

06123. Artillery.

- a. Artillery can make a major contribution to delaying operations by striking the enemy with concentrated fire at maximum range. Its capability to defeat a wide variety of targets in a short time and to deliver scatterable minefields should not only be used to inflict casualties and weaken the enemy's offensive capabilities but also to create situations which permit aggressive manoeuvre of combat forces. Interdiction fire against follow-on forces can restrict the immediate battle to the enemy's committed forces;
- b. Artillery will be key to allowing delaying forces to break contact with the advancing enemy and to break clean at the hand-over line:
- c. By providing immediate and accurate support, the artillery can halt the leading elements of an enemy attack and by delivering suppressive fire during the disengagement of friendly forces it can prevent the enemy from closing with the delaying force; and
- d. The artillery must be organized and positioned so that it can provide uninterrupted fire support throughout the delaying operation.
- 06124. **Air.** Air operations contribute to overcoming the enemy's initial advantage in freedom of action in the following ways:
 - a. **ISTAR.** ISTAR operations contribute to identifying the enemy's strength and disposition at an early stage, allowing the commander to concentrate his forces in favourable positions;
 - b. **Counter-Air Operations.** It may be necessary to gain local air superiority to enable delaying forces to move;
 - c. **Air Interdiction and Close Air Support.** Air Interdiction and CAS, particularly at defiles and crossings, can divert, disrupt, delay, or destroy enemy follow-on forces on their approach routes and thereby assist in gaining time to defeat the enemy's leading elements. Often it is only through the employment of aircraft that enemy penetration through an area or gaps can be delayed until ground forces can be moved to engage them. CAS in certain situations will make it possible to create an additional concentration of fire. In this, as with all forms of tactical air support, a close cooperation with all airspace users must be assured. CAS will also assist in the breaking of contact as forces prepare to abandon a battle position;
 - d. **Aviation.** Armed or attack aviation can provide close support to ground manoeuvre forces and be key to the destruction of lead enemy armour and other forces. Reconnaissance, utility and transport helicopters can play an important part in delaying operations by:
 - (1) Providing command, control and communications facilities;
 - (2) Providing reconnaissance, surveillance and target acquisition;

- (3) Moving demolition guards, firing parties and barrier munitions;
- (4) Lifting non-mechanized infantry, particularly before the delaying activity and during their disengagement;
- (5) Laying scatterable mines;
- (6) Evacuating casualties; and
- (7) Moving supplies, spare parts and maintenance working parties.
- 06125. Air Defence. Delaying activities are likely to be conducted in conditions of air threat. Good coordination and close liaison between manoeuvre and AD forces is the key for successful protection against attacks during delaying operations. Movement through choke points and the reception of the delaying force are critical. Detailed planning and coordination with the Air Defence Authority (ADA) is required to ensure the timely provision of air defence for these actions. There are unlikely to be sufficient air defence resources available to provide adequate cover throughout the area of operation. Priorities of tasks must, therefore, be established and redeployment planned to ensure effective air defence at critical times and points.

06126. Engineers.

- a. Engineers support delaying operations primarily by preparing barriers including minefields and demolitions. Situational minefields with a predetermined effective time in combination with anti-tank weapons contribute decisively to reducing the enemy's offensive potential. Difficult terrain may make it necessary to give some priority to improving and maintaining routes for the manoeuvre of the delaying force;
- b. Engineers are employed on request of the combat forces. They should be given the maximum time to plan and accomplish their tasks;
- c. The responsibility for barriers must be carefully laid down in orders in order to include the detailed arrangements for their security and closure. All delaying forces must know which gaps through barriers and crossing sites will be kept open for their use, and the commander responsible for the closure must be clearly designated;
- d. Engineers will also be required to give advice and help in the preparation of defensive positions and in the clearance of fields of fire, particularly in built-up areas; and
- e. Armoured engineers should move with the troops closest to the enemy to undertake route denial, fire demolitions, and lay or scatter mines.
- 06127. **Electronic Warfare.** The delaying force should employ electronic warfare (EW) resources to disrupt and confuse the advancing enemy; using jamming and deception against reconnaissance elements, command nets and fire control nets. These actions should be carried out in all phases of a delay and they may greatly assist in supporting disengagement, counter-attacks and relief of forces. EW resources will continue to provide information on the enemy.

Conduct Of The Delay

- 06128. **General**. A delaying force will not only make use of the depth of the area assigned but it will also attack the enemy in his depth. If there is no opportunity to attack the enemy's flank or rear, it may be sufficient to position available combat troops so that they can engage the enemy along his most likely approaches. Gaps must be kept under surveillance and provisions made for quick reaction should the enemy decide to utilize them for his advance.
- 06129. The commander must take into account that he may not always have a clear picture of the enemy and that the situation may change frequently and rapidly. He must therefore ensure that he has a continuous flow of sound and timely intelligence, has well organized reconnaissance, uninterrupted communications and a strong reserve. By these means, the commander can ensure that he maintains his freedom of action. He must utilize the forces and means available to him in such a way that the enemy is repeatedly faced with unexpected situations. This requires flexibility and agility as well as strong reliance on the subordinate commander's capabilities to determine on the spot the most suitable action to be taken.
- 06130. Combat troops will normally conduct the delay by a combination of techniques, offensive and defensive, such as temporary defence, vigorous counter thrusts and deliberate counterattacks.

Reconnaissance

06131. The delaying force requires timely and continuous information about the enemy. This necessitates the employment of reconnaissance elements that immediately establishes and maintains contact. These elements should be of sufficient strength that they cannot easily be brushed aside by the enemy and that it can provide security through the conduct of counter-reconnaissance. At the start of hostilities, these forces may be the only elements on the ground that can provide accurate information to identify enemy activities. As the battle develops, a part of the reconnaissance element may be used to provide security and protection of flanks and the gaps between the main elements of the delaying force.

Concept of Operations

- 06132. The delay should be executed along the following lines:
 - a. At the earliest opportunity, the delaying force will engage the enemy, inflicting casualties by providing maximum fire in combination with mobile actions, including quick and limited counter-attacks against enemy troops who have overextended themselves or have exposed an open flank. Opportunities are most likely to occur when the enemy has just crossed an obstacle or is temporarily separated from his follow-up troops;
 - b. Every advantage offered by the terrain should be exploited. The rapid advance of the enemy, particularly along roads, should be impeded, causing him to bunch and offer himself as target. Every opportunity must be taken to surprise him and to ambush him, avoiding becoming decisively engaged, by timely manoeuvre;
 - c. Even if elements of the delaying force are in danger of being overrun, or seriously outflanked, they will not disengage unless ordered or unless it is in accordance with the commander's intent. However, it is an important responsibility of the commander by timely disengagement, to prevent parts of his force being cut off and destroyed; and

- d. The fluid situation prevailing during delaying operations will necessitate constant and close coordination between adjacent units to ensure that:
 - (1) Positions and manoeuvre of own troops are known;
 - (2) Mutual support of fire is possible;
 - (3) Beginning and end of specific operations are known; and
 - (4) Awareness of the situation and probable intention of the enemy are known.

Disengagement

06133. Troops withdrawing from a position must attempt to break contact with the enemy. This can be achieved by withdrawing through a position occupied by another unit, or suddenly breaking off the engagement when the enemy is unable to follow up immediately. The important decision is to judge the correct moment when to withdraw from each position. Withdrawal must not be done too early as it would result in failure to achieve maximum delay; and not too late so that there would be a risk of unnecessary casualties or of being overrun. Counter-attacks may be necessary to achieve disengagement.

Employment of Reserves

- 06134. Reserves are important for the maintenance of the cohesion and continuity of delaying operations particularly where the enemy has been able to outflank or to penetrate through gaps between delaying force elements. In order to maintain flexibility over varying terrain, it will often be necessary to establish local reserves rather than relying on one concentrated reserve force. At a lower level, reserves will be minimal or simply consist of the employment of an element of the force that is not actively engaged. At higher echelons, forces may be specifically designated as reserves. Tasks for reserves may include:
 - a. **Blocking**. Containing the enemy in the area where insufficient forces have previously been deployed;
 - b. **Counter-attacks**. Normally, these will have limited objectives. It may be necessary to use reserves to counter-attack into gaps or in order to achieve disengagement of heavily committed forces; and
 - c. **Covering Actions**. Reserves may also be used in prepared positions to cover withdrawing forces in order to enable them to continue the engagement in more favourable terrain.

Breaking Contact

06135. The final disengagement from the enemy will be a complete breaking of contact and will occur with the moving of the delaying force into an area where another force takes over responsibility. This is a critical operation, especially if the delaying force experiences difficulty in breaking clean from the enemy. The overall commander will specify a hand-over line between the delaying force and the in-place force assuming the battle. If the delay is being followed by a

- defence, elements from the defending force may have to be deployed to assist the delay force in breaking contact.
- 06136. The enemy should be given as little indication as possible of the intention to break contact. The move back into the main defensive area must be planned and coordinated in detail as a rearward passage of lines.
- 06137. The withdrawing delay force must provide timely information on its planned withdrawal and on the battle situation to the force in the main defensive area. Liaison elements will be detached to the in-place, defensive force to identify withdrawing units as they approach and pass through.

Command And Control Measures

General

- 06138. In spite of the adverse characteristics of a delaying operation, the frequent and fast manoeuvre of troops, the frequently changing types of combat, the air situation and at least initial freedom of action of the enemy the commander must focus on the superior commander's intent and planned end-state. To this end, the following must be noted:
 - a. The commander must command his forces so as to maintain a coherent, cohesive operation. This will require continuous direction to restore critical situations and to try to gain the initiative. Good communications will be essential;
 - b. There is a requirement for centralized, coordinated planning but decentralized control of the execution; and
 - c. Arrangements must be made by the formations in the rear for the control of the movement back from the handover line by the delaying elements.

Control Measures

- 06139. The following control measures may be employed in delay operations:
 - a. Boundaries and control lines such as handover lines and phase lines;
 - b. Fire support coordination measures;
 - c. Forward Line of Own Troops (FLOT);
 - d. Timings for critical phases or times by which to be clear of specific areas of lines;
 - e. Air space coordination measures;
 - f. Movement control measures such as routes and check points;
 - g. Barrier coordination measures;
 - h. Battle positions, blocking positions and assembly areas for reserves;

- i. Objectives;
- i. Liaison measures;
- k. Denial measures and their arrangements for execution;
- 1. Passwords and recognition signals;
- m. Checkpoints and traffic control;
- n. Coordinating points; and
- o. Arrangements for closing minefield gaps and executing demolitions.

Combat Service Support In The Delay

- 06140. Combat Service Support (CSS) considerations for delaying operations are similar to those for the defence and include the following:
 - a. Support elements and stocks echeloned rearward on successive positions; whenever possible, for the delay, stocks should be kept mobile in the assigned area of operations. Significant amounts of supplies should be dumped only to the rear boundary of the delay operation. If it is necessary to preposition dumps due to distances or re-supply cycles, these stocks should be consumed during the delay in order to avoid large scale evacuation;
 - b. The evacuation of supplies and equipment that have been pre-positioned should be planned as early as possible; those which cannot be moved should be destroyed. Medical support must provide for the rapid evacuation of casualties to rear area medical facilities. Medical supplies and equipment, in accordance with the Geneva Conventions, must be marked as such and left in place if they cannot be evacuated;
 - c. Maintenance should be concentrated on the equipment required to conduct delaying operations and withdrawal. Unserviceable equipment which cannot be repaired immediately should be evacuated to rear areas. Recovery vehicles should be positioned at critical locations to keep routes open;
 - d. Transportation priority should be given to the movement of combat troops and their supplies, the movement of material used to impede the enemy, and the evacuation of casualties and repairable equipment; and
 - e. A major consideration is to sequence and coordinate the movement of CSS to ensure that the delaying force has continuity of support. After crossing the handover line the delaying force will often need to be refurbished.

CHAPTER 7 - TACTICAL STABILITY ACTIVITIES

Section I – Introduction and Description

- 0701. The fundamental premise underpinning the range of military activities is that military forces are likely to be engaged in tactical activities from across the spectrum of conflict, simultaneously: offensive; defensive; stability; and, enabling. Together, they constitute the range of military tactical activities that will be conducted by military forces within a campaign. The balance between those activities will reflect the type of campaign theme. The overall principles of joint and combined operations (outlined in AJP 01 *Allied Joint Doctrine*) are applicable to any operation within any campaign theme; however some of these principles may need special attention across the spectrum of conflict. Military forces must be prepared to switch rapidly between the tactical activities as the situation demands. However, in order to achieve long-term solutions to campaigns and conflicts, stability activities will be a necessary undertaking.
- 0702. **Military stability activities can be described as**: tactical military activities that seek to stabilise the situation by setting the conditions that allow for reconstruction and development. These activities will normally be carried out in close cooperation with other actors, because they are not exclusively military activities. They impose security and control over an area while employing military capabilities with the purpose to maintain, restore or create a situation in which the responsible administrative bodies can function correctly. Stability activities should establish and maintain the conditions for normal civic activity and responsible government. It provides the security and control over areas in order to allow this development and the freedom of manoeuvre for other elements of the inter-agency framework to bring lasting security, particularly for local governments and populations. The security and control provide freedom of manoeuvre for a local populace so that normal civil activities such as local markets may take place.
- 0703. Many of the described tactical stability tasks, especially those belonging to the categories *support to initial restoration of services and support to initial governance* are tasks of another origin. Many of these tasks have a pure civilian or legal basis or deal with financial and infrastructural issues. Military units will, however, be often the first (and the only) to meet challenges with respect to these "non military" issues. This means that the process of solving problems in those areas has to be started by military commanders, their staffs and their units. This initiative will also contribute to the improvement of the security situation in the area and will enhance the feeling and the attitude of the local populace towards the NATO force.

Purpose

0704. The **purpose** of stability activities is to create and sustain security and control, restore services (or support civilian agencies in doing so), and support civilian agencies to develop more effective and accountable organisations and mechanisms of government. Stability activities involve both coercive and cooperative actions. They may occur before, during, and after offensive and defensive activities, or as the primary focus of an operation. Stability activities provide an environment in which the other instruments of Alliance strategy and non-NATO actors can operate, in cooperation with an indigenous lawful authority or government.

Principles for tactical stability activities

- 0705. Separate principles for tactical military stability activities do not exist (reference pt 0701). The set of principles that has been developed for joint and multinational operations has been described in AJP 3.2 Allied Joint Doctrine for Land Operations and ATP 3.2.1 Allied Land Tactics are applicable throughout the spectrum of conflict, have a generic character and are applicable for every operation and therefore for the complete range (thus including the stability activities as well) of military activities and tasks. Commanders at all levels, including the tactical level, have to consider all principles and to strike a balance between the competing demands of these principles. It has to be clear that the operational circumstances dictate the value of each of these principles and that these principles influence each other.
- 0706. Stability activities have a specific position and a specific purpose in any operation. Since this group of activities is probably the most influenced by external factors, some of the generic principles for joint and combined operations are of specific interest for stability activities. A detailed explanation of this specific interest can be found in the ATP 3.2.1.1 Stability Activities.¹
- 0707. In addition to these generic principles and their specific interest for stability activities some stability activities related imperatives and attributes have been developed and described in detail in ATP 3.2.1.1 Stability Activities². These are:
 - a. Imperatives
 - (1) Effective synchronization with other tactical activities
 - (2) Effective coordination and synchronization of indigenous security infrastructure
 - b. Attributes
 - (1) Rules of engagement
 - (2) Impartiality
 - (3) Host nation responsibilities
 - (4) Knowledge, understanding and respect for local culture

Section II - Types of Stability Activities

0708. Stability activities consist of the following tactical activities:

¹ Chapter 2 ATP 3.2.1.1 Stability Activities

² Chapter 2 ATP 3.2.1.1 Stability Activities

- 0709. **Security and Control**. The provision of general security and control allows the civilian populace and other elements of the inter-agency framework the freedom and safety to conduct normal civic activities and to build institutions that support a lasting stability. Security and control should be the first consideration following the completion of major offensive engagements, particularly in the populated areas;
- 0710. **Support to Security Sector Reform (SSR).** A key aspect to the long term stability and development of a nation may be the reformation of the various elements of a nation's security sector. The military will have a key role in reforming/developing the nation's military capabilities. SSR may be preceded by a demobilisation, disarmament and reintegration process. This involves the standing down of select former combat forces and their reintegration to civil society or a newly structured military force. All of SSR will require an inter-agency approach with other government and international agencies dealing with judiciary and police forces. Military forces will have a key role in supporting and securing the process.
- 0711. **Support to Initial Restoration of Services.** Ideally the reconstruction of essential services will fall to agencies other than the military. In the early stages of a campaign, the military may have to fill the void until the security situation improves and other agencies become capable of such operations. Additionally though, the military may wish to pursue some of these tasks, particularly on the tactical levels, in order to engender ongoing support from local populaces, that is, create effects on the moral plane.
- 0712. **Support to Initial Governance Tasks.** The provision of governance to a nation in which an Alliance campaign is being conducted will ideally be done by agencies that specialise in such duties. In the early stages of a campaign, the military may have to fill the void until the security situation improves. This may see the military reconstructing schools and helping to establish local markets, for example. Such activities will not only assist an indigenous population to return to a normal state of affairs, but it will help to engender support from local populaces, that is, create effects on the moral plane in pursuit of the operational objectives.
- 0713. Stability activities and specific tasks are discussed in detail in ATP 3.2.1.1 Stability Activities.

CHAPTER 8 - TACTICAL ENABLING ACTIVITIES

Section I - Introduction

0801. Enabling activities link and support the transition between different types of tactical activities, for example, between deliberate attacks or when transitioning from one defensive position to another. They may be conducted to make or break contact with the enemy or may be conducted out of contact. An enabling activity is never carried out in its own right. Its execution must lead to the active prosecution of another type of tactical activity. The successful and rapid execution of these activities relies on such factors as devolution of decision, collocation of headquarters, liaison and a simple plan.

0802. The effective execution of enabling activities will help ensure the following:

- a. The ability to make a transition between phases and activities without a loss in tempo;
- b. The forces taking over the battle having the most up to date information;
- c. Fluid movement;
- d. Fire control so as to use all weapons to further the aim and to avoid fratricide; and
- e. Quick regrouping.

0803. Enabling activities consist of the following activities:

- a. Reconnaissance:
- b. Security and protection;
- c. Advance to contact;
- d. Meeting engagement;
- e. Link-up;
- f. Withdrawal;
- g. Retirement;
- h. Relief of troops in combat and encircled forces; and
- i. Obstacle breaching.

Section II - Reconnaissance

- 0804. Reconnaissance activities are those activities undertaken to obtain information about the enemy, other adversary, terrain and environmental conditions or indigenous population of a particular area. Area, point and route reconnaissance are common tasks. Gaining information and providing it to the relevant staff elements is a general task for all formations.
- 0805. Tasking of reconnaissance forces must be done with care. They normally execute their missions while planning is ongoing for the forthcoming mission and are then re-tasked to support follow-on missions with little or no opportunity for recovery.
- 0806. The employment of reconnaissance forces must be closely tied to the intelligence cycle and integrated into the overall ISTAR plan. Key is the rapid dissemination of information gained, particularly to those units in contact or potential contact.
- 0807. Any combat or combat support troops may be employed in reconnaissance tasks, and many combat and combat support units have integral specific reconnaissance capabilities and dedicated troops. In general, the following forces will be dedicated to reconnaissance activities:
 - a. Armoured reconnaissance units;
 - b. Reconnaissance troops and platoons in regiments and battalions;
 - c. Engineer reconnaissance sections or detachments; and
 - d. Special forces.

Section III - Security

- 0808. Security activities provide early and accurate warning of adversary dispositions and activities. Depending upon their mission and structure, they may provide an element of protection for a main body force or gain time for the preparation of other deliberate activities. Security activities are normally conducted as part of a larger enabling activity or in support of another type of tactical activity such as the defence.
- 0809. Security activities consist of screen, guard and cover, and are defined as follows:
 - a. **Screen Force.** A screen force is defined as: any body or detachment of troops that provides security for a larger force by observation, reconnaissance, attack, or defence, or by any combination of these methods. A screen force's primary task is to observe, identify and report information and normally only fights in self-defence. A screen force will normally consist of reconnaissance elements, possibly supported by indirect and tactical air fire support controllers. It will be key to **finding** the enemy for subsequent fixing and striking.

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¹ AAP 6 NATO Glossary of Terms and Definitions (English and French).

A flank screen may also provide security² for a main body against a flanking or surprise attack;

- b. **Guard Force.** A guard force is defined as: a security element whose primary task is to protect the main force by fighting to gain time, while observing and reporting information.³ Apart from gaining time for the commitment of the main body, the guard force, depending upon the circumstances, may contribute to the attrition of an enemy, may conduct counter-reconnaissance tasks, or may **fix** an adversary element for **striking** by the main force. Guard forces may also deploy to the flank of a main body to provide protection (vice only security as is the case for a flank screen force); and
- c. **Covering Force.** A covering force is defined as: a force operating apart from a main body for the purpose of intercepting, engaging, delaying, disorganising and deceiving the adversary before he can attack the covered force. Based on the definition and the intent of deploying a covering force, the force must consist of enough combat power to meet the commander's intent. Depending upon the commander's intent and concept of operations a covering force may be required to fight a delay battle in support of a main defensive position.

0810. The composition of any security force will be determined by its mission and the intent that the commander has in terms of effects to be created by its commitment. It must be task tailored to meet its responsibilities and tasks will normally be a armoured or mechanised force.

Section IV - Advance To Contact

Purpose

0811. The advance to contact seeks to gain or re-establish contact with an enemy under the most favourable conditions. To achieve this, forces may be employed in both supporting security and reconnaissance missions. It differs from a meeting engagement in that contact is not made unexpectedly. The advance to contact is normally executed in preparation for a subsequent offensive activity and therefore ends when the main force is positioned for the subsequent activity and in accordance with the commander's plan. Subsequent activities will be determined by the mission assigned to the main force. This may also be determined from the posture of the main body when contact is made with the adversary.

² There is a key difference between *security* and *protection*. A force that is providing security will only be able to give warning of adversary activity. It can do little to pre-empt or disrupt it. A force that is tasked to provide protection, must be able to alert the main body to the adversary, and must be capable of defeating or disrupting the adversary force long enough for the main force to take appropriate action.

³ AAP 6 NATO Glossary of Terms and Definitions (English and French).

⁴ AAP 6 NATO Glossary of Terms and Definitions (English and French).

0812. By advancing to contact, the force seizes and maintains the initiative. The activity may involve destroying or forcing the withdrawal of minor enemy elements and seizing ground of tactical importance.

Conduct

- 0813. **General.** In the advance, the tempo will change in accordance with the situation encountered. Bold rapid action should be combined with the retention of balance and control, so that enemy reaction and changes of terrain can be met without disruption. Subordinate commanders must be prepared to act boldly within the superior commander's intention and their missions, in order to surprise the enemy, keep him off balance and exploit unexpected opportunities and success. The advance to contact ends either when the intended posture is achieved or when enemy action requires the deployment and coordinated effort of the main body.
- 0814. **Planning.** Planning for the advance to contact should note the following:
 - a. The primary consideration in planning for an advance to contact is anticipating actions that may occur during the activity and the requirements for manoeuvre and fire support when contact is made. At all levels, even down to the lowest tactical levels, contingency plans should be issued, prior to commencement that anticipate possible contact and required actions;
 - b. During the planning and the advance to contact, the commander will need to analyze the situation continually using current reports and intelligence from all sources. The positions of units and groupings in the formation are dictated by the threat, mission and ground, particularly the anticipated employment of combat forces. Combat service support units are integrated in the movement of combat forces to provide support but without interfering with tactical movement; and
 - c. Planning must make the best use of intelligence from all sources, including air reconnaissance, which will be of particular importance. When moving, it is best to advance with multiple columns. This permits combat power to be deployed well forward and decreases the dependence on any one axis. In this operation, security elements are of particular importance because the force is vulnerable on all sides.
- 0815. **Situational Awareness.** While reconnaissance forces and other ISTAR capabilities (such as forward deployed UAVs) will provide a good deal of situational awareness, the advance to contact will never be conducted with full situational awareness. This is particularly true in close terrain and situations involving unconventional adversaries. The commander will adjust plans such as speed of advance and formations used, depending upon the level of awareness provided, the adversary and the overall amount of risk he is willing to accept.
- 0816. **Organisation and Scheme of Manoeuvre.** The commander will task, array and commit his forces as demanded by his assessment of the situation (See figure below):
 - a. Covering Force Action. The advance to contact will be led by a covering force that
 normally contains reconnaissance forces. It should be a highly mobile, well-balanced force
 ORIGINAL

capable of undertaking the tasks listed below, in accordance with the commander's intent. Integrated aviation and armour forces provide a mobile and flexible force capable of achieving rapid reconnaissance in the advance. The covering force will assist in **finding** the adversary and other information, to support subsequent fixing and striking. The covering force may have sufficient combat power to fix initial enemy units. Whenever possible, axis should be given in the most general terms to the leading elements. Axis should be allowed to develop as the battle unfolds so that success can be exploited. Possible tasks of the covering force may include the following:

- (1) Locate and determine the strength of adversary positions;
- (2) Find and exploit gaps so as to provide information on possible routes for enveloping or bypassing action by the main body;
- Obtain information on routes, obstacles, terrain conditions affecting movement, as well as civilian population distributions;
- (4) Conduct deep penetration either to disrupt adversary communications and logistic units or possibly to seize a crossing site, in particular, a bridge or defile. Integral engineer support will be required to make safe and remove any demolitions on the crossing and the main force must follow very quickly;
- (5) Provide security for the advance guard and main body by conducting counterreconnaissance; and
- (6) Support subsequent activities such as an attack by securing lines of departure, identifying attack positions and fire bases, etc.

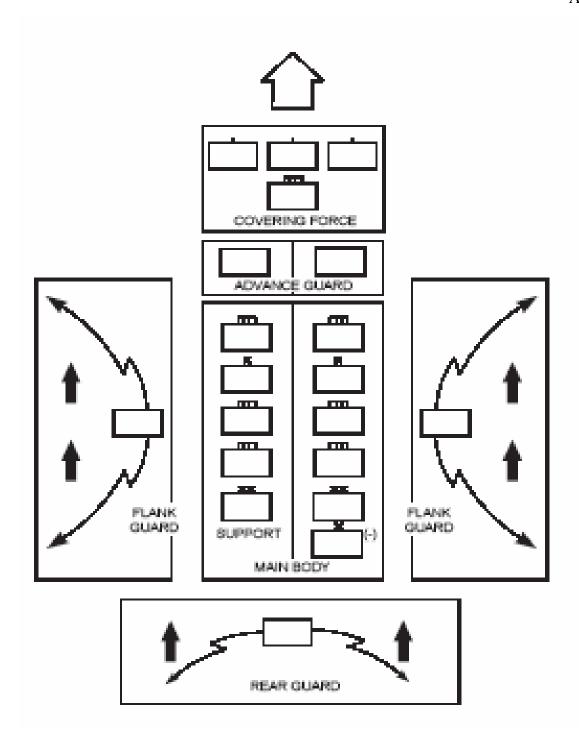


Figure 8-1: Example Organisation for an Advance to Contact (Division size force shown)

b. Advance Guard and Main Body. An advance guard may be deployed to provide additional security for the main body, to counter unexpected situations and to fix adversary forces for subsequent striking by the main body. It may be used to expedite the force's movement, maintain contact with the covering force, and provide security and protection to

the immediate front of the main body. The tactical handling of the advance guard will depend on the number of routes available;

- c. Main Body. The main body contains the main combat power of the force. Its units are organized into combined arms elements and are so positioned in the advancing columns to permit maximum flexibility for employment during the movement or once contact with the enemy is established. The position of the main body in relation to the covering force and advance guard is an important decision for the commander. Observation, surveillance and close coordination with air reconnaissance contribute to the security of the main body. The rate of advance will vary across the front and will depend on the terrain, the location and strength of adversary positions and the possibility of bypassing the opposition. Advances through urban areas will be particularly slow if advancing across a wide frontage or using an urban saturation technique. The main body must be prepared to reinforce other elements in the advance or to undertake tasks, such as a hasty attack, on order from the commander in order to meet threats. The grouping within the main body must be sufficiently flexible to allow elements to:
 - (1) Assume the advance guard role;
 - (2) Change direction or route of any of the elements of the main body either to bypass adversary positions or to take advantage of better routes;
 - (3) Deal with the adversary which has been bypassed or is holding up the main force; and
 - (4) Assume tactical tasks to defeat threats encountered in the advance.
- d. Flank and Rear Guards. Flank and rear guards protect the main body from ground observation and surprise attack. They should be strong enough to defeat minor enemy forces, or to delay strong attacks until the main body can deploy. The deployment of the flank and rear guards will depend on the assessment of the adversary. Flank guards normally travel on routes parallel to the route of the main body, moving either continuously or by successive or alternate bounds to occupy key positions on the flanks. In some situations, flank protection may be provided by a flanking formation. Armoured reconnaissance units are suitable for flank protection of the advancing force by moving on a route parallel to the main axis or by picketing likely adversary approach routes. These reconnaissance forces are unlikely to be able to deal with a strong adversary force, but will give early warning of an adversary approach that can then be dealt with by reserves. Attack or armed helicopters are particularly effective in this instance. Mobile air defence units are particularly effective against the helicopter threat. The rear guard follows the main body.
- e. **Action on Contact.** On contact, speed of manoeuvre and initiative may overcome the adversary before he can react. The sequence of action on contact might be as follows:
 - (1) Within its capabilities, the covering force destroys enemy forces that can interfere with the movement of the main body and pickets or blocks those that it

- cannot destroy. It should be prepared to hand-over quickly to the advance guard and to resume its assigned tasks;
- (2) The covering force should develop the enemy picture and inform the commander of the main body of terrain that will support a subsequent offensive action, such as positions for attack and fire base;
- (3) Elements of the advance guard or of the main body may be committed to reduce pockets of resistance contained or bypassed by the covering force;
- (4) Any elements of the covering force tasked with containing such pockets initially are relieved as rapidly as possible and rejoin the covering force to avoid dissipating its strength;
- (5) The commander monitors the progress of the leading and engaged combat forces and anticipates their requirements. When resistance is encountered, he commits forces from the main body in order to maintain the momentum of the advance; and
- (6) Significant enemy forces may require the commitment and deployment of the entire force. This will likely involve deliberate operations.
- f. **Maintenance of Momentum and Subsequent Actions.** It is of the utmost importance that the momentum of the advance be maintained. Whenever possible, adversary positions should be outflanked. The commander must lay down whether they are to be bypassed and cleared by follow-up forces, or to be taken by the leading elements. A commander may well decide that a hasty attack by troops in contact is to his advantage, while another part of the force continues the advance. In either case, if the adversary established a continuous front and the strength and width of his positions preclude an outflanking move, an attack may be mounted to force a gap;
- g. **Bypassing Policy.** The policy for bypassing enemy elements encountered by the lead forces must be carefully considered and clearly specified. It will always be extremely difficult to determine the exact strength of a position, and much will depend on accurate reconnaissance and intelligence. Should an enemy element by bypassed, it must be picketed until it is destroyed or rendered ineffective;
- h. **Routes.** Once routes have been opened it may be necessary to employ forces to ensure their security, particularly if small pockets of adversary have been bypassed and remain to the rear of friendly forces. Routes used for logistic traffic should be kept separate from those used by combat forces, if possible. These routes are especially vulnerable to adversary action and require security against land and air attack. CSS assets may require planned convoy security particularly when dealing with a non-contiguous battlespace and an unconventional adversary;
- i. **Airmobile and Airborne Forces.** Airmobile or airborne forces achieve surprise and maintain momentum by being deployed ahead of the covering force to seize key terrain,

including defiles, bridges and crossing sites and to overcome obstacles. The ground force can then link up with them and continue the advance without the need to undertake an activity that may slow the momentum of the advance. Such forces must not be deployed too far ahead and against targets that they are unable to overcome, as the force may be lost before assistance arrives and momentum will suffer; and

j. **Transition to Other Activities.** The advance to contact ends either when the intended posture is achieved or when adversary action requires the deployment and the coordinated effort of the main body.

Employment of Combat Support Forces

Artillery

- 0817. Immediate and effective fire support will enable the force to engage the enemy, retaining freedom of action to bypass or to attack the enemy force. A heavy volume of fire will reduce the need to deploy troops on contact with the enemy.
- 0818. As the nature of the advance to contact is one of sustained movement, a high degree of fire support coordination is required. Artillery, mortars and ships providing naval gunfire must move in such a way that maximum support is available at all times. Forward observers must accompany leading elements and units on exposed flanks.

Air And Close Air Support

- 0819. Tactical air support is required in the advance to contact, to:
 - a. Assist in protecting advancing units from enemy air attack;
 - b. Provide information and intelligence about the enemy;
 - c. Provide close air support to supplement artillery, particularly when it is not possible to concentrate its fire; and
 - d. Interdict enemy units attempting to withdraw or reinforce.

Aviation

- 0820. Helicopter support is used mainly for the following purposes:
 - a. Surveillance and reconnaissance;
 - b. Flank protection;
 - c. Exercise of command and control;

- d. Seizure of critical points and key terrain features; and
- e. Re-supply and medical evacuation.

Air Defence

0821. Air defence weapons must keep up with the advance. To achieve this, ground based air defence must have a priority for road movement. Likely tasks will include protection of vulnerable points on the route and cover for critical operations such as an attack, river crossing or breaching operation.

Engineers

0822. The main role of engineers in the advance is to open and maintain routes using specialist engineer equipment. They also have the tasks of assisting the leading troops to overcome obstacles and to clear mines, and of helping in the protection of the flanks. Engineers and their heavy equipment should be positioned so that they can be deployed quickly when required. An engineer reconnaissance element must move with the leading troops and engineer resources may have to be well forward.

Electronic Warfare

0823. Emphasis will be placed on the employment of passive EW (intercept and direction finding) resources in order to detect and locate the enemy.

Command And Control

- 0824. Commanders should move well forward so that they can influence the battle quickly and make the most of fleeting opportunities. Normal command arrangements will be strained by distances and rapid movement. Command posts will be on the move, particularly at lower levels, as follows:
 - a. As the main body normally moves on radio silence the problem of maintaining coordination along the routes will require special arrangements and may also cause a restriction on the use of air defence assets:
 - b. Special arrangements may be required to provide additional radios for relay purposes;
 - c. Extensive use will have to be made of liaison elements:
 - d. Coordination with supporting air forces will present special problems;
 - e. The command responsibilities for each route and for traffic control must be established; and

- f. Traffic control systems should be able to:
 - (1) Easily rearrange the order of march on routes allocated;
 - (2) Improve measures to keep routes open;
 - (3) Assist in regulating the flow of traffic to help units reach their destinations in a timely manner; and
 - (4) The command relationship between the various elements of the force must be established beforehand.

Combat Service Support

- 0825. CSS must provide for the requirements of the advance and for the anticipated requirements of any subsequent mission. The support problem in the advance is that of sustaining forces that are moving and thus extending the supply lines. Because there will seldom be sufficient transport, a careful calculation of anticipated requirements must be made and priorities established.
- 0826. At the start of the operation, units should be as self-contained as possible and arrangements made so that they can be refuelled during the move. Engineer stores for bridging and route repair are likely to be a large transport commitment. It is important that maintenance and recovery resources and traffic control are deployed to keep routes open and assist units.
- 0827. At all times, Medical units should be able to provide medical support in line with the timelines prescribed in AJP 4.10A Allied Joint Medical Support Doctrine and apportioned to the supported population and risk. Helicopters should be available for evacuation of high priority casualties as the lines of communication may become extended.

Section V - Meeting Engagement

Purpose And Circumstances

- 0828. The meeting engagement is a combat action that may occur when both sides seek to fulfil their mission by offensive action. It will often occur during an advance to contact and can easily lead to a hasty attack. In offensive, defensive or delaying activities it will often mark a moment of transition in that the outcome may well decide the nature of subsequent activities. This is the reasons a meeting engagement is described as a transitional phase. Even when the main part of a force is attacking, defending or delaying, individual elements may find themselves in situations that have the characteristics of a meeting engagement. The meeting engagement normally occurs at brigade level and below.
- 0829. The meeting engagement differs from the advance to contact in that it occurs unexpectedly whereas in the advance to contact the commander is deliberately seeking to establish contact with the enemy.

- 0830. A meeting engagement may occur in various circumstances:
 - a. When a force which is moving makes contact with an adversary about whom the friendly force has little or no information. It more occur if reconnaissance has been ineffective:
 - b. When both sides become aware of the other and decide to attack without delay in an attempt to obtain positional advantage, gain ground of tactical importance, maintain momentum or assert dominance over the adversary; and
 - c. When one force deploys hastily for defence while the other attempts to prevent it from doing so.
- 0831. The important characteristics of meeting engagements are a shortage of information about the enemy and a limited amount of time available for the commander to develop the situation. Plans must be drawn up and executed as quickly as possible. Success will depend primarily on the ability of the commander to anticipate a Meeting Engagement and to bring to bear, fully and quickly, the combat power at his disposal. Thus, at all levels, bold, vigorous action by subordinate commanders is often the key to success. Prompt action to gain control of the situation quickly will reduce the enemy's chances of carrying out his plans and may help to preserve freedom of action. Well rehearsed drills will be of immense importance.

Seizing And Retaining The Initiative

- 0832. Meeting Engagements will usually force a commander to reconsider and often to adjust his plans. The basic principle in a Meeting Engagement is to seize and retain the initiative. This gives the commander the freedom of action he needs, either to accomplish his original mission or a fresh mission if he so decides. Success depends, to a large extent, on the speed of reaction of the commander and of his forces. He can then decide how to develop the meeting engagement into one of the three major types of operations (ie defence, offence, or delay).
- 0833. If the enemy is much stronger, or if he is at a higher state of combat readiness, it may be necessary for the force in contact to engage him with the maximum combat power available, in order to hinder him from deploying his forces and prevent him from using favourable ground. This will gain time to allow action to be taken by a superior commander.

Conduct and Planning

0834. It will not be possible to plan in detail for a meeting engagement. However, a force that is properly deployed in accordance with recognized tactical principles will be poised to react to most situations. Meeting engagements will invariably force a commander to reconsider and often adjust his plans. The basic principle is to seize and retain the initiative. This will give the commander the freedom of action he needs, whether to accomplish his mission as he originally intended or to change his plan to suit the new situation. High tempo is at a premium and success depends, to a large extent, on the speed of reaction of the commander and his forces. The commander can then decide how to develop the meeting engagement into a subsequent offensive or defensive action.

- 0835. While commanders can make no firm plans, they should make use of the Intelligence Preparation of the Battlefield process. In particular, they should study the terrain and the map to deduce areas that are favourable to a meeting engagement. Additionally, they should take particular note of the latest situation or intelligence reports and assessments concentrating on likely adversary capabilities, objectives, avenues of advance, going and natural obstacles.
- 0836. Meeting engagements are such that there will not normally be enough time for complete battle procedure to take place as the two opposing forces close. Assuming a reasonable balance of forces, victory will go to the side with the higher tempo. The commander who reacts more quickly, strikes the first blow and keeps the adversary off balance. In the planning stage, this implies careful reconnaissance, balanced grouping, forward command and responsive indirect fire support on call. Planning in this type of battle should never be so detailed as to lead a commander into a preconceived course of action, as a plan is not a substitute for initiative and bold leadership that overturn material superiority.

Scheme of Manoeuvre

- 0837. The commander whose forces make contact with the adversary in a meeting engagement must immediately decide how he wants to fight the battle. In deciding on a course of action he must not lose sight of his original mission and of his superior commander's intent. On the other hand, he must not shirk his responsibility to act independently. His decision must be notified to his superior commander immediately.
- 0838. One of the commander's first tasks in a meeting engagement is to determine the adversary's strengths and dispositions. He should particularly ascertain the situation on the adversary's flanks. The identification of, and an attack on, an assailable flank will generally disclose the adversary's dispositions more rapidly than a frontal attack and will give more opportunity for tactical surprise and decisive results. Whilst trying to identify the enemy's weakness, the commander must ensure his own flanks are secure.
- 0839. Often, it may not immediately be possible to use all the forces that the commander might wish to deploy. In this case, he must establish an order of priority for deployment early in the activity. Throughout the activity, he must keep a clear picture of the location and status of all elements of his force.
- 0840. The commander's decision on how to continue a Meeting Engagement should, wherever possible, be based on his personal assessment of the situation on the ground. However, he must not sacrifice valuable time in order to obtain detailed information. He must realize that he is in a race for time and space with the enemy commander. It is, therefore, extremely important that, before the operation starts, the commander evaluates possible routes for movement and assesses any area of terrain that may be useful, and that he keeps these in mind while his force is moving.
- 0841. The speed of reaction and considerable fire power of armed helicopters, allow them to be committed very quickly against the enemy in a meeting engagement. In particular, early

deployment of reconnaissance and AH in a combat as opposed to a combat support role will nearly always give a commander an advantage.

Employment Of Combat Support Forces

Artillery

0842. The amount of initial fire support available to the forces which become involved in a meeting engagement depends on the organization for movement laid down by the commander. It is, therefore, particularly important that there is fire support available to support the leading elements of a moving force. Forward artillery observers must be allocated to the leading elements of a combat force. A meeting engagement is also an ideal situation in which to make use of scatterable mines to restrict the enemy's freedom of manoeuvre.

Air Defence

0843. Air defence weapons should be positioned along enemy air avenues of approach to overwatch forces on the move. Enemy ground forces will often be supported by armed helicopters or they may approach under air cover, or by air transport.

Engineer

0844. The rapid deployment of engineers can be crucial in transitional phases of the battle. Engineer reconnaissance must be well forward as must armoured engineers. Combat engineers must be readily available for mobility or counter mobility tasks. An appropriate and quick employment of engineer equipments can ensure freedom of movement and deny it to the enemy. Engineer planning of scatterable mines, for example, can provide responsive counter-mobility support if the assets are available.

Electronic Warfare

0845. EW (intercept and direction finding) resources will provide additional information on the enemy. Once battle is joined, jamming of enemy command and control and fire support communications will assist the commander in achieving his aim.

Command And Control

- 0846. A meeting engagement will create a number of challenges for a commander, in terms of command and control:
 - a. Initially, he will have little intelligence on the strength, location and intention of the enemy. It may even be necessary for him to confirm the locations of his own forces.

Immediate and clear situation reports from lower commanders are essential to allow him to make his plan;

- b. The headquarters may be on the move, and, therefore, its effectiveness may be restricted. The staff may be dispersed or the commander separated from them. Characteristically, units will be moving in radio silence and it will take time to activate communications between HQs; and
- c. If a meeting engagement is likely, therefore, it is vital that commanders are well forward and able to speak to each other, even if their HQs temporarily cannot.

Combat Service Support

- 0847. CSS must enable the commander to seize and maintain the initiative and must be capable of responding quickly to the rapid changes in plans which may occur. Because of the limited information available when a meeting engagement occurs, combat service support commanders must be ready for the unexpected. Ensuring that combat supplies and materiel levels are maintained at the maximum practical level is one means of achieving this readiness. At a certain extent, CSS elements must be able to protect their material and combat supplies against enemy attacks in unclear situations.
- 0848. In a meeting engagement speed is the major criterion and combat service support planning is subordinated to achieving that. At the level above that which is in contact, combat service support should concentrate on directing its efforts on the formation or unit involved both during and after the battle. This might include:
 - a. Ammunition for the battle if there is time, and certainly after reorganisation;
 - b. Refuelling after reorganisation;
 - c. Prioritization and/or movement closer of medical support and the review of the casualty evacuation plan;
 - d. Ensuring maximum availability of equipment both during the engagement and in preparation for subsequent operation; and
 - e. Planning for the recovery of battle-winning equipments.

Section VI - Link-Up

Purpose And Concept

0849. Link-up is conducted to join two friendly forces in enemy controlled territory. It may therefore be necessary to destroy the enemy between these forces before a link-up is established. It is followed by another activity such as a forward passage of lines, a withdrawal or a relief.

- 0850. The mission to carry out a link-up operation will always be given in the context of a subsequent mission for the forces involved. It will normally state the location or the route where the link-up will take place. Frequently, a time will be stipulated for the link-up.
- 0851. In a link-up, both forces may be moving towards one another, or one may be stationary or encircled. They may have the same or differing missions. A link-up activity could occur under the following **circumstances**:
 - a. A link-up between two forces engaged in converging attacks may take place when each force captures adjacent objectives, thus completing an encirclement;
 - b. A link-up with encircled or cut-off forces may take place on the perimeter of the defensive position established by that force. When the link-up is combined with a break-out action, it may take place at another designated objective. The encircled force should try to break out, or at least mount some form of diversionary action in order to ease the task of the relieving force by diverting adversary attention; and
 - c. A link-up activity with an air delivered or infiltrated force may take place on the perimeter of its defensive position. In this case, the link-up is normally followed by a passage of lines or by a relief of the forces involved.

Conduct and Planning

- 0852. The requirement for the link-up may be part of the concept of activities from the outset. Alternatively, a link-up may become necessary in the course of an activity and must be planned as the situation develops.
- 0853. Link-up operations are generally offensive in nature. The size and composition of the force will be determined by the requirements of the link-up as well as those of the subsequent mission.
- 0854. The requirement for the link-up may be part of the concept of operation. Equally, a link-up may become necessary in the course of an operation and must be planned as the situation develops. In any event, details of plans must be passed to all concerned in good time, without undermining security.
- 0855. When planning a link-up activity, particular attention should be paid to:
 - a. The coordination of manoeuvre forces involved:
 - b. Command relationships;
 - c. Communications; and
 - d. Control measures.

Execution

- 0856. The following planning and execution considerations and procedures apply:
 - a. A major consideration in this type of activity is speed in establishing the link-up in order to reduce the possibility of adversary reaction and to minimize the period of vulnerability;
 - b. For the moving force in a link-up, the operation may involve deliberate attacks or, if circumstances permit, the more rapid movement of an advance to contact deployment;
 - c. Ground link-up points must be coordinated at locations where the axis of advance of the moving force intersects with the security elements of the stationary force;
 - d. A restrictive fire control measures are required to coordinate fire from the converging forces:
 - e. During the last phase of the link-up operation the speed of advance of the forces must be carefully controlled; reconnaissance elements must seek to establish contact with the other force as early as possible and additional information will be obtained to confirm/adjust earlier plans;
 - f. When the link-up is made, the moving force may join the stationary force or pass through or around and continue to attack the adversary. If they join up to continue activities, a single commander for the overall force must be designated. Subsequent activities must be launched as quickly as possible so as to exploit the success achieved by the link-up;
 - g. Primary and alternate link-up points are established on the boundaries where the two forces are expected to converge;
 - h. As they move closer to one another, the need for positive control to avoid incidents of fratricide is important and must be coordinated to ensure that the adversary does not escape between the two forces; and
 - i. Leading elements of each force should monitor a common radio net.

Employment of Combat Support Forces

Direct and Indirect Fire Support

- 0857. Fire control must be carefully exercised until a link-up has been achieved in order to avoid losses. Link-up forces will use normal fire control measures. Specific coordination must be established, however, for any phase when the fire of one force may affect the operations of the other.
- 0858. Particular attention must be given to the control of CAS/AH in the area between the forces as they approach the area of the link-up.

Engineers

0859. In link-up operations, mobility support of forces that are moving to linkup is critical. Clearing of routes and enemy barriers is essential for the timely completion of the operation.

Electronic Warfare

0860. Employment of EW must be carefully coordinated in order to avoid mutual interference and duplication of tasks.

Command And Control

- 0861. The convergence of friendly forces in the area of the link-up may present particular problems that require the appointment of a single commander in the area. This procedure will also be normal when there is a significant difference in the size of the two forces taking part in the operation. Where this is the case, this commander must be designated beforehand and in sufficient time to allow for concerted action to be planned. The time or conditions under which command is assumed must be clearly stated.
- 0862. The following control measures require emphasis:
 - a. Axis of advance or boundaries for the link-up;
 - b. Objectives to be held and/or to be captured by each of the forces taking part;
 - c. The locations where contact between the two forces will be established;
 - d. The timings of the operation for the forces involved; and
 - e. Fire coordination lines to avoid fratricide, particularly as the two forces are converging.
- 0863. Liaison between the forces taking part and with the overall commander is very important. Communications in these circumstances can normally be maintained by radio only. The majority of detail for liaison and communications will be laid down in the overall commander's plan; where that is not possible; these arrangements must be judiciously expedited on the initiative of the two forces carrying out the link-up operation. The measures include:
 - a. Liaison teams;
 - b. Passwords and visual identification signs;
 - c. Measures for combat identification;
 - d. Report lines and reference points; and
 - e. Contact frequencies, radio authentication procedures and codes.

Combat Service Support

0864. Apart from taking account of the requirements of the link-up force itself, the commander has to consider the need to provide combat service support for the force with which it is intended to link-up. In principle, CSS considerations are generally the same as those for offensive operations.

Section VII - Withdrawal

Purpose

- 0865. A withdrawal occurs when a force disengages from an enemy force in accordance with the will of its commander. It seeks to disengage its combat forces from the enemy although contact may be maintained through other means such as indirect fire, reconnaissance or surveillance. The withdrawal will be followed by another specific activity such the defence in a new location.
- 0866. The order to withdraw will not normally be given by the commander without the agreement or direction of his superior commander. A withdrawal may be undertaken for the following reasons:
 - a. If the object of the activity cannot be achieved and the force is threatened by defeat;
 - b. The objective is achieved and there is no further requirement to maintain contact;
 - c. To avoid battle in unfavourable tactical, CBRN or environmental conditions;
 - d. To draw the adversary into an unfavourable posture, for example, to extend his lines of communication;
 - e. To conform to the movements of adjacent friendly forces;
 - f. To avoid fighting in sensitive areas, be they near potentially toxic industrial sites or culturally sensitive sites;
 - g. To allow for the use of the force or parts of the force elsewhere; and
 - h. For combat service support reasons; i.e., the force can no longer be sustained.

Considerations

0867. The withdrawal should be conducted so as to minimise adversary interference and preserve fighting power. The ability to move rapidly to offensive or defensive activities should always be retained. There will be an emphasis on intelligence, surprise and speed. However, as it must always be assumed that the enemy may react, provision must be made for the security of

- the withdrawing force. Protective elements must be organized and tasked in accordance with the enemy's capability.
- 0868. Due to the inherent difficulties of this type of operation the commander must have the flexibility to switch to any other type of operation as the situation demands (eg delay, defence or offence).
- 0869. The commander's mission is to disengage his force. If it is in response to the deliberate intention of a higher commander, the mission will be included in a complete operations order. If, on the other hand, the decision has been forced upon the commander by highly unfavourable circumstances, the order to withdraw may contain nothing more than the authority to do so and give only minimum direction.
- 0870. The conditions under which a withdrawal takes place are often adverse. The enemy will then have the initiative on the ground and the force will be vulnerable to ground attack while moving rearward, perhaps having to redeploy to protect itself. In addition, the air situation may be unfavourable. In this case, the operation may have to be initiated in darkness or under conditions of limited visibility.
- 0871. The withdrawal takes place when a force is in contact with the adversary. The commander's primary concerns in planning and conduct will be:
 - a. To disengage;
 - b. To retain an intact front by the deployment of strong covering troops;
 - c. To safeguard withdrawal routes; and
 - d. To maintain balance throughout the activity.
- 0872. Success will depend on the maintenance of morale, tight control and secrecy. A commander must also be ready to take the offensive if the opportunity arises, albeit with only limited objectives.

Conduct

Organisation of the Withdrawal

- 0873. A withdrawing force should normally be organized into:
 - a. A protective element that covers the withdrawal; and
 - b. A main body protecting itself with advance, rear and flank guards.
- 0874. The withdrawing force's subsequent mission will have an influence on its organisation and on the sequence of the withdrawal. Depending upon the subsequent tasks, there will likely be

- required to send an advance party, often under the command of a second-in-command, in order to conduct the reconnaissance and planning for the next task.
- 0875. Forces not required for immediate operations, including combat service support elements and wounded, should be moved out early to keep routes clear for the withdrawal and to allow for a rapid withdrawal.

Planning

- 0876. The commander's estimate of the situation should consider:
 - a. The distance to be moved;
 - b. The weather/ground conditions and the degree and duration of darkness. To maintain secrecy, achieve surprise and reduce casualties from the air, withdrawals are generally better carried out at night, although, against an enemy with a good surveillance capability, darkness will not hide movement. Bad weather conditions, however, such as heavy rain, mist or fog, may enable a withdrawal to be carried out effectively by day. Difficult ground conditions may make a withdrawal in daylight the only practical way to avoid loss of control;
 - c. Possibilities of impeding the enemy's mobility particularly by barriers;
 - d. Enemy ground strength;
 - e. The situation on both flanks;
 - f. The mobility of the force;
 - g. The air situation; and
 - h. Combat service support.
- 0877. The scheme of manoeuvre must cover the entire operation. It must be simple and normal organizations should be retained as far as possible. Regrouping during the activity should be avoided. Particular attention should also be paid to:
 - a. The plan being simple to permit flexibility;
 - b. Grouping for the withdrawal remaining the same, if possible, throughout the operation;
 - c. Surprise and deception, possibly including noise coverage by artillery;
 - d. The maximum use of cover and concealment to achieve protection; and
 - e. Allocation of routes and an appropriate traffic control system.
- 0878. The withdrawal is coordinated and controlled through key timings:

- a. The time at which thinning out may occur;
- b. The time until when the position must be denied. This is the main coordinating timing of the withdrawal plan;
- c. The time to be clear of the current position;
- d. The time to be clear of any specific coordination line. This will be needed for the coordination of supporting fires; and
- e. The time by which the subsequent task (such as manning a new defensive position) is to be completed.
- 0879. The preparation of demolitions and other obstacles along the withdrawal routes must be carried out as early as possible. This is particularly important for preliminary demolitions, which must be carefully coordinated with the plan for the withdrawing force. The preparation of denial measures should be carried out as soon as possible and their execution carefully coordinated with the plan for the withdrawing force.
- 0880. Along boundaries the preparation of denial measures should be coordinated by the appropriate higher level commander. Execution should be carried out carefully and in accordance with the plan of the withdrawing force. The final decision on the execution of any denial measures will be made by the higher commander after consultation with adjacent commanders.
- 0881. A withdrawal will either be conducted directly to a new main position, or indirectly through one or more intermediate positions. The decision to use intermediate positions will depend on the distance, the strength of the force, the state of the adversary and the delay required to prepare the new position. In this case a rearward passage of lines will be required in order to check the adversary at the intermediate position.
- 0882. Considerations when planning and selecting intermediate positions are:
 - a. They must be strong enough to force the adversary to deploy early and to undertake time consuming preparations for an attack. This will mean selecting positions that incorporate natural obstacles and deploying long range direct and indirect weapon systems;
 - b. They should be far enough from one position to the other to force the attacker to move his artillery each time to engage;
 - c. The time before which there will be no rearward movement except for normal traffic and reconnaissance parties;
 - d. The time up to which the position has to be denied to the adversary;
 - e. The time at which troops may start thinning out equipment and supplies to the rear; and
 - f. The time by which all troops will be clear of a line behind the position. This will be needed for the coordination of supporting fires.

Execution - Scheme Of Manoeuvre And Sequence Of Withdrawal

- 0883. The disengagement of the main body could be executed either by stealth and concealment or after a successful engagement. Normally, the withdrawal is planned to be conducted under contact. It uses supporting fire and movement to break contact with enemy forces and to cover its rearward movement until a complete break of contact can be gained.
- 0884. Based on the timings issued in the superior's orders (for such activities as thinning out, time to which the position must be denied and time for the crossing of any coordination lines), the sequence for the withdrawal from a position may be:
 - a. Reconnaissance parties move back and all nonessential vehicles and equipment are cleared from the position;
 - b. Covering forces take up station behind the position and reserves move to the appropriate locations;
 - c. Troops on the position withdraw through the covering troops. By night, where surprise is easier to achieve and a commander considers a disengagement possible, rear elements should pull out first leaving those forces deployed forward until later. Where disengagement is not possible, forward troops will move first covered by those in depth;
 - d. The task of the protective force is to prevent the enemy from engaging the main body;
 - e. The main body withdraws on order. At the lower tactical levels, the plan must include a staggered withdrawal of one element moving whilst covered by another element until a clean break with any enemy has been achieved;
 - f. As soon as the main body has disengaged and is at a safe distance, the protective elements start their disengagement, although they could remain in their original position until the adversary attacks in force, so as to achieve the maximum deception and delay. If the enemy launches a strong attack, they will continue their protective task with a delaying activity. If the distance to be moved is great and the adversary is expected to react quickly, a portion of the protective force may occupy a number of intermediate defensive positions in the rear of the position being abandoned before the withdrawal of the main body;
 - g. If the protective element is not able to disengage or to prevent the adversary from closing in on the main body, it must either be reinforced by elements from the main body, or the overall commander must commit the majority, or all, of this force. In this event, the withdrawal must be resumed at the earliest possible time. If the protective element has disengaged, it will follow the main body and continue to provide security. In this case, it will maintain surveillance of the adversary until ordered to break contact completely or until this task is taken over by another force; and
 - h. This sequence is repeated at each intermediate position. The withdrawal is terminated when a force is ready to assume its next task.

Employment Of Combat Support Forces

- 0885. **Artillery.** Artillery must be organized and deployed so that it can cover the entire operation. Long range artillery will be withdrawn early and placed far enough back so that they can cover the withdrawal. Artillery elements remaining with the protective elements will endeavour to maintain the previous fire support cover for as long as possible.
- 0886. **Air Support.** Air interdiction and close air support may play an important part in harassing the enemy following up the withdrawal or attempting to bypass the withdrawal forces. Close air support will be particularly useful, especially where withdrawing artillery causes a reduction of, or interruption to, indirect fire support. Forward air controllers will be required with the protective element. Defensive counter air (air defence) effort may be needed for protection against enemy ground attack aircraft.
- 0887. **Aviation.** Transport helicopters can enhance the speed with which withdrawal operations can be carried out. Helicopters in a reconnaissance role may be used to observe enemy activity during the withdrawal. Helicopters can also be used to extract stay-behind forces. Armed aviation may be used to provide a covering force in order to assist with disengagement and a delay of any advancing enemy.
- 0888. **Air Defence.** There are unlikely to be sufficient organic air defence resources available to provide comprehensive cover throughout the area of operation, so priorities of tasks must be established. The deployment plan of air defence units should ensure that they are effective at critical periods to cover locations where the withdrawing forces are likely to be particularly vulnerable or areas which the enemy might select as landing sites for air delivered forces.
- 0889. **Engineers.** Engineers will be heavily committed in the withdrawal. Many will be used in preparing any new defensive position to which forces are withdrawing. Some however may remain to assist with the withdrawal:
 - a. **Mobility.** Withdrawal routes must be cleared and maintained. The main body and rear echelon elements are assisted in breaching unforeseen obstacles and crossing restrictive terrain; and
 - b. **Counter-mobility.** Demolitions and obstacles are prepared to delay enemy forces near the withdrawing forces.
- 0890. **Electronic Warfare.** EW assets will be particularly useful in executing the deception plan, as well as in disrupting enemy command and control communications.

Command And Control

- 0891. Control measures of particular importance in the withdrawal are:
 - a. Liaison elements;
 - b. Routes/axes:

- c. Report/phase lines;
- d. Traffic control measures;
- e. Check points; and
- f. Timings as required for critical phases or sequences.
- 0892. Good communications are vital, and the policy for radio and electronic silence must be clearly stated. Communications links, methods of operation and density of communications traffic should remain unchanged for as long as possible to avoid disclosing, to the enemy, the intention to disengage. The creation of radio traffic by forces remaining in contact, will add to the overall deception of the enemy. Elements which have disengaged from the enemy will normally be ordered to keep radio silence.

Combat Service Support

- 0893. **General.** The CSS plan should ensure that the requirements of the withdrawing force are met and that useful materiel, particularly fuel, does not fall into enemy hands. It may take considerable time to evacuate stocks. The supply of ammunition to protective elements and artillery must be guaranteed.
- 0894. **Planning Considerations.** The enemy must be denied the use of the military equipment and supplies of own forces, other than medical equipment and supplies. Maintenance is to be concentrated on the readiness of materiel required to conduct the operation. Recovery equipment is to be marshalled at critical locations to keep routes open and recover all materiel possible.
- 0895. **Supply.** Before rearward movement begins, the forward stocks will be reduced by stopping forward supply and, when possible, back-loading any unnecessary forward stocks. Mobile distribution points should be established to meet urgent needs and changes in the operational plan. Losses of equipment may exceed normal wastage rates and special arrangements for replacements may have to be made.
- 0896. **Medical**. Medical and surgical timelines are the primary driver for the layout of medical support and casualties should be evacuated swiftly. Visible evidence that casualty evacuation is operating effectively will help maintain morale.
- 0897. **Military Denial of Equipment and Stocks**. This must be coordinated with the timings used in the operational plan, so that tactical security is not prejudiced. The plan should provide for the denial of any equipment or dumps which cannot be back-loaded. However, it is not permitted under the Geneva Convention for medical equipment to be destroyed.
- 0898. **Traffic Control**. To expedite rearward movement military police may be deployed at critical junctions and potential defiles.

Section VIII - Retirement

0899. A retirement is different from a withdrawal. It is a movement away from the adversary by a force out of contact with the adversary. It is completed generally in the same manor as a withdrawal; however, since the force is out of contact, it is unlikely that there will be a requirement for a robust covering force.

Section IX - Relief

Purpose And Types Of Relief

- 08100. When combat activities are taken over by one force from another, this is referred to as the conduct of relief activities. Relief activities are undertaken when forces:
 - a. Are unable to continue with their mission;
 - b. Are required for activities in another area;
 - c. Have accomplished their mission;
 - d. Are due for rotation to avoid exhaustion; and
 - e. Are not suitable to accomplish the new task.

08101. The types of relief are as follows:

- a. **Relief in Place.** A relief in which all or part of a force (outgoing force) is replaced in a sector by an incoming unit. In certain circumstances the force being relieved may be encircled by adversary forces and unable to breakout;
- b. **Forward Passage of Lines.** A relief in which a force advances or attacks through another which is in contact with the enemy; and
- c. **Rearward Passages of Lines.** A relief in which a forces effecting a movement to the rear (outgoing force) passes through the sector of a unit occupying a defensive position. Normally, a delay force would be expected to conduct a rearward passage of lines.

Considerations For A Relief

08102. Relief is normally undertaken in order to sustain the overall level of fighting power. Inherent, is the transfer of operational responsibility for a combat mission. The requirement is that this transfer should take place while maintaining the required level of operational capability. Commanders normally co-locate to affect the handover.

- 08103. The mission will be determined by the commander's intentions, the type of activity in which the force has been engaged, the type of adversary force involved and his anticipated course of action.
- 08104. During any relief, there is a period when congestion increases the vulnerability of the forces involved. The possibility of confusion is inherent, as two parallel command systems will be operating in one area at the same time. The complexity should not be underestimated, but by contrast, the beneficial and possibly decisive effects to be gained from successful synchronisation of the combat power of both forces should not be forgotten.
- 08105. It is quite possible that a relief activity will involve forces of differing nationalities. In this instance, the following additional points should be considered:
 - a. Dissimilar unit organizations may require special adjustments in some areas, particularly during a relief in place;
 - b. Control of fire support may require special liaison;
 - c. Language difficulties may require the increased use of guides; and
 - d. Special communications arrangements may be required including additional liaison teams and communications detachments.

General Planning For A Relief

08106. In planning for any relief, the following should be considered:

- a. Security and Protection. The intention to conduct a relief must be concealed from the enemy. Deception measures should include the continuation of normal patterns of activity. Additional protection may be required due to the increased vulnerability during such operations;
- b. **Early Liaison**. Close cooperation and coordination are required at all levels and at an early stage between the troops in position and those that are moving. As much detailed reconnaissance as the tactical situation allows must be made by an incoming force;
- c. **Allocation of Routes for Movement**. Incoming and outgoing forces should, where possible, be allocated separate routes;
- d. **Allocation of Areas**. This will include the allocation of areas for staging and deployment, including areas for artillery;
- e. **Timings**. The detailed timing of the operation will be made within the guidelines set by the overall commander; and
- f. **Fire Support**. The force in position will always provide fire support for the moving force.

Relief In Place

- 08107. **Purpose.** The incoming force normally assumes the mission of the outgoing force, usually within the same boundaries and, at least initially, with a similar disposition of forces, where possible. Relief in place is normally conducted in defensive activities and might occur in the following circumstances:
 - a. When the existing force is depleted or exhausted and needs to be replaced;
 - b. When troops of one capability or role need to be replaced by troops of a different role; and
 - c. For routine rotation of troops.
- 08108. **Mission Transfer.** The incoming force normally assumes the mission of the relieved force, usually within the same boundaries and, at least initially, with a similar disposition, assuming the types of unit or formation are the same. The transfer should take place without a loss in operational capability. Commanders will agree as to the point at which the incoming commander assumes command of the mission/area.
- 08109. **Planning.** Once begun, all relief activities take place as quickly as possible. Where possible, the activities should take place at night or during periods of reduced visibility. Detailed planning and preparation for a relief in place is preferable if the activity is to be conducted successfully. The incoming force should conduct a thorough reconnaissance if time permits. If time is limited, relief is planned and executed from oral or fragmentary orders. The liaison personnel are left by the outgoing formation to assist with the coordination. Personnel from combat, combat support and combat service support units remain with the incoming force until barrier, fire support, counterattack and combat service support plans are coordinated. Planning must pay particular attention to the following:
 - a. Allocation of sufficient time at all levels for a detailed handover of essential information, in particular:
 - (1) The current tactical situation;
 - (2) The current operation orders and plans; and
 - (3) The organisation of the area, assignment of tasks, arcs of fire, and location of facilities and routes.
 - b. The sequence of the relief;
 - c. The time of transfer of command; and
 - d. Reducing vulnerability by moving at night or limited visibility.
- 08110. **Timings.** The detailed timing of the activity will be made within the guidelines set by the superior commander commencing with a timely warning order. Ideally, sufficient time must be allowed, at all levels, for a detailed handover of essential information including:

- a. Current tactical situation and intelligence assessment;
- b. Current activity orders and plans, including the deception plan;
- c. Organization of the area and location of facilities and routes;
- d. Combat service support plan;
- e. Sequence of relief;
- f. Location of other units that will not be replaced;
- g. Timings, particularly the time of transfer of command; and
- h. Details of the intelligence collection plan and location of sources where appropriate.
- 08111. **Route Allocation.** Careful route planning and movement control are essential to avoid congestion. The movement control plan must be simple in concept but in sufficient detail to ensure that it meets the aim. Movements in opposite directions will be conducted on separate roads and tracks if possible, and lateral movements will be avoided. Where possible, incoming and outgoing formations and units should make shared use of transport allocated for the activity.

08112. Execution.

- a. The relief in place depends essentially on the time available and the local conditions. It can take place simultaneously over the entire width of the sector, or it can be decentralised and staggered across the formation with regard to time and place. If forces are relieved simultaneously over the entire width, a shorter time is required, but the readiness of the defence is considerably reduced and the enemy is more likely to be able to detect the higher level of movement. By contrast, a relief staggered with regard to time and place takes longer, but a larger element of the outgoing forces is combat ready at all times and concealment is easier;
- b. Combat support troops should not be relieved at the same time as combat troops;
- c. In general, night and limited visibility will be exploited for the relief, particularly when close to the enemy. If possible, the advance parties of the incoming unit will make a reconnaissance in daylight. If this is not possible or if the incoming unit needs assistance from the outgoing unit to familiarize itself with the local conditions quickly, rear parties of the relieved unit will carry out the orientation;
- d. Communication links must be maintained, unaltered if possible, for the entire duration of the relief;
- e. Combat service support troops of the outgoing unit will be sent back as early as practicable. Prepositioned common user bulk supplies and barrier materiel will normally be taken over by the incoming unit; and

- f. The relief then consists of a series of relief activities conducted by formations and monitored by respective superior headquarters. Once the relief has started commanders and staffs are concerned with:
 - (1) Timings and movement of formations and units;
 - (2) Coordination of transportation resources;
 - (3) Movement control;
 - (4) Current activities;
 - (5) A constant surveillance and intelligence collection capability;
 - (6) A coordinated air defence plan involving air, aviation, Air defence and all arms air defence resources; and
 - (7) The availability and notice to move of reserves.
- 08113. **Defence Plan Review.** The assumption of responsibility for an existing defensive position and barrier may force the new commander to fight the previous commander's plan, unless significant adjustments are made. A full review of the barrier plan, fire support plan and manoeuvre plan should be conducted to ensure that the new commander's intent may be met.

Relief of Encircled Forces

08114. The purpose of relieving encircled forces is to break through adversary positions to reach an encircled force, thus restoring its freedom of action. In such a situation, it is unlikely that the encircled force will have the combat power necessary to break out of the encirclement, even with support from another force. The break through will result from a deliberate attack, followed by a link up activity with the in-place, encircled force, and then the relief.

Extended Relief in Place

- 08115. During campaigns that are short of major combat (such as peace support activities and COIN campaigns) a relief in place being conducted between units or formations may be conducted over an extended period of time. They still follow the same procedures and principles, but will require additional time for incoming commanders to learn and understand the complexities of an AO such as key political leaders, persons of influence, power structures, aims and desires of local populations and tribes, cultural habits and conventional and unconventional adversarys. In short, the relief in place will include a hand-over of the knowledge base that considers all aspects of the AO that influence the achievement of the activity and strategic end states.
- 08116. In coming commanders must gain an understanding of the end-states and objectives sought, and the current lines of activity driving towards those objectives. During the period of relief, he will

- be able to reflect upon the prosecution of these lines of activity and begin to make an assessment as to how they may be adjusted if necessary.
- 08117. Much of the information that will support a relief in place may be passed to the incoming/moving force by the in-place force during the period leading up to the relief as part of the battle procedure of the incoming force. The in-place force can even dispatch trainers and advisors to the relieving force in order to assist in their battle procedure and training.

Forward Passage Of Lines

- 08118. **Purpose.** During a forward passage of lines, a moving force passes through an in-place force in order to assume the latter's mission or a new mission. The force in contact (in place force) remains in place and must provide the advancing force with as much assistance as possible including tactical and logistical support. A forward passage of lines will be used when:
 - a. An attack is to be continued with fresh or more suitable forces;
 - b. A moving force is required to pass through an area held by another force, such as a bridgehead or crossing site; and/or
 - c. The advancing force has to take possession of suitable terrain in order to continue the battle.

08119. **Planning**.

- a. The planning procedures for a forward passage of lines are similar to those for a relief in place, although less physical reconnaissance may occur;
- b. The incoming force will be organized so that the mission can be carried out after the passage of lines;
- c. The outgoing force should adopt a posture which will facilitate the passage and provide the maximum support;
- d. The plans for the moving force take priority. On receipt of the warning order, the commander and staff of the moving force establish liaison with the force in place;
- e. The moving formation/unit will normally co-locate its tactical or main headquarters with that of the in place force;
- f. All levels of command should exchange liaison personnel; and
- g. The plans of the incoming force will have priority.
- 08120. **Responsibilities.** Responsibilities for the various planning requirements will be split between the different headquarters involved in the activity. They are detailed below. The list is not exhaustive and any given activity may require a different allocation of responsibilities:

a. Controlling Headquarters.

- (1) Overall plan including timings, control lines, routes and rendezvous points. The overall commander will likely designate:
 - (i) Control lines and areas;
 - (ii) The time for the beginning of the attack;
 - (iii) The extent of support for the attack by the outgoing force;
 - (iv) Particular reconnaissance requirements; and
 - (v) Command relationships.
- (2) Arrangements for liaison, reconnaissance and advance parties;
- (3) Fire support coordination including tactical air support;
- (4) Deception plans, including emission control and electronic warfare, and restriction on forward reconnaissance;
- (5) Movement;
- (6) Airspace control measures and coordination of air defence; and
- (7) Combat service support including criteria for handover of equipment, combat supplies and medical support.

b. Force In-Place.

- (1) Intelligence, including adversary dispositions and topographical information. This will also include information concerning the local populace, key figures, attitudes, aims, intentions and power structures;
- (2) Coordination of reconnaissance;
- (3) Liaison where required. (Normally the moving force provides liaison to the in place force);
- (4) Security of the line of departure of the moving force. Selection of the line of departure should be done in line with the plans of the moving force;
- (5) Selection, security and maintenance of routes and movement control;
- (6) Allocation of terrain for the moving force, such as harbours, hides and waiting areas;

- (7) Provision of air defence cover, essentially up to the line of departure and desirably, forward of it;
- (8) Guides;
- (9) Fire support until the pre-H hour fire plan starts. Thereafter the provision of fire support while still in range. Ideally, the in place force will be able to position assets to support the moving force across the line of departure; and
- (10) Forward replenishment, especially fuel, after the move forward and before the commitment of the moving force.

c. Moving Force.

- (1) Provision of a headquarters, to be co-located with the headquarters of the force in contact. There should be representatives from the staff and artillery and engineer advisors;
- (2) Timings for the move forward and control of movement;
- (3) Agreement with the existing force over provision of terrain, especially for gun areas, concentration/assembly areas and attack positions;
- (4) Liaison officers to subordinate headquarters or units of the in-place force; and
- (5) Assistance with movement control.
- 08121. **Timings.** The detailed timings of the activity will be made within the guidelines set by the superior commander commencing with a timely warning order. Time must be allowed for:
 - a. Planning, initially at force level and then at subordinate levels;
 - b. Movement and co-location of command elements;
 - c. Movement of reconnaissance, advance and combat support elements;
 - d. Battle procedure; and
 - e. Movement of the main body.

08122. Execution.

a. **General.** The moving force will take advantage of the security provided by the in-place force to deploy for the attack. The entire movement from the rear through the in-place force should be completed as a single fluid movement in order to avoid congestion. The indirect fire support elements of the attacking force may be deployed in the in-place force's area prior to the arrival of the manoeuvre force;

- b. **Grouping.** Whenever possible, re-grouping should be carried out before the move forward. Regrouping in a forward assembly area should be avoided. The moving force will be organized so that the mission can be carried out/continued after the passage of lines;
- c. **Order of March.** The order of march will generally be reconnaissance elements, followed by combat support units which may have to move early in order to support the move of the combat units, followed by combat units. The combat support elements may initially lead and deploy amongst the in-place force in order to support the crossing of the line of departure and launch of the moving force; and
- d. **Forward Assembly Area**. A forward assembly area may be necessary for the replenishment of vehicles, rest for crews and any final orders on regrouping.

Rearward Passage Of Lines

- 08123. **Purpose.** The rearward passage of lines is an activity in which one force passes through the static position of another, in-place force. It normally passes back, rearward from the direction of orientation, through a defensive position. A rearward passage of lines may occur for various reasons including the following:
 - a. As the final phase of a delaying activity in which the moving force has completed the delay, breaks clean from adversary contact and passes through an in-place force manning a defensive position;
 - b. As a means of changing the type of force facing the adversary;
 - c. When terrain can be abandoned;
 - d. As a means of relieving a force unable to continue with its mission; and
 - e. As part of a withdrawal activity. Forces withdrawing may have to conduct a rearward passage of lines when moving back through a new position or intermediate positions manned by other forces.

08124. **Planning**.

- a. The outgoing force should be organized for disengagement. The incoming force (inplace force) will be organized so that it can carry out its mission as soon as it assumes this responsibility. Additionally, it will ensure the smooth passage of lines of the force moving rearward. For this purpose a handover line will be established, which will have some or all of the following characteristics:
 - (1) The line should be forward of the feature from which the enemy can first engage the next defensive position with observed fire, and be situated so that crossings and defiles used by the outgoing force can be protected;

- (2) The line should be in an area which can be defended at least temporarily;
- (3) Good lateral routes should exist behind the handover line to allow the use of alternative entry points; and
- (4) The line location should be easily identifiable on the ground.
- b. The planning procedures of forward and rearward passage of lines are similar although movement to the rear is likely to be more difficult because:
 - (1) The desire for speed and lack of troops will make detailed liaison, reconnaissance and recognition of friendly troops difficult;
 - (2) If the moving force has been in action, its soldiers and units will be tired and possibly disorganized; and
 - (3) The adversary may be pressing hard the moving force, trying to overtake them or cut them off from withdrawal.
- c. The sequence of the rearward passage of lines should allow for the early passage by elements not essential to the immediate operation, in order to reduce the density of the force when it moves.
- 08125. **Responsibilities**. The planning responsibilities of the various headquarters are:
 - a. **Controlling Headquarters.** The orders for the passage of lines issued by the controlling headquarters will determine, as a rule:
 - (1) The location of the crossing areas or points;
 - (2) Task organization and mission of the in-place forces, in relation to support for the moving force and for subsequent tasks and intent;
 - (3) Allocation of sufficient routes for the outgoing force;
 - (4) The time by which the force's defences are to be ready;
 - (5) **Control lines** (including the handover line);
 - (6) Areas at which the moving force will assemble or deploy;
 - (7) The responsibility for the closure and activation of barriers;
 - (8) The passage of command for the conduct of activities and new command relationships;
 - (9) Communications, identification and recognition signals; and
 - (10) The subsequent employment of the moving force.

b. Moving (Outgoing) Forces and In-place (Incoming) Forces.

- (1) Plans must be coordinated for fire in support of the moving force. If necessary the force in-place must occupy gun positions forward of their main position in order to give maximum coverage and to help guarantee a clean break for the moving force from adversary contact. In any event, the in-place force will be prepared to provide fire support for the moving force;
- (2) The in-place force must physically show all obstacles, and the routes and gaps through them, to the moving force. They must also be prepared to provide guides and movement control;
- (3) Control of movement to the rear of the handover line is the responsibility of the in-place force. The number of routes back should be considered against the requirements for dispersion and the need to close routes to improve the effectiveness of barriers:
- (4) The moving force requires information about routes, obstacles and fire support, whereas the in-place force requires information on the adversary;
- (5) The moving force provides liaison detachments at all crossing sites that will see elements of the moving force coming through the in-place force;
- (6) Planning must include mutually agreed recognition measures for day and night. That must include passwords, visual and audio signals, and the exchange of liaison personnel; and
- (7) There should be checkpoints for the moving force to enable tight movement control to be exercised and to inform commanders of when the passage of lines is complete. If possible there should be no pause by the moving force in the forward areas in order to avoid congestion.

08126. Execution.

- a. The moving force must be prepared to disengage from the adversary, and move through the in-place force to a new concentration or deployment. Movement should be at night or in conditions of poor visibility if at all possible. Before the operation starts, casualties, non-essential vehicles, equipment and supplies should be evacuated early so that routes are kept clear for the movement of the main force;
- b. The first elements to move will normally be combat support units that must clear the forward area at an early stage. Vulnerability to adversary attack is reduced by selecting areas or points of passage that permit the moving formation to pass around the flanks of the formation in position and by designating release points well to the rear of these positions. The moving formation must have priority on an adequate number of roads and facilities to ensure its rapid movement through the defended area;

- c. The in-place force must be deployed so that it can carry out its task when it assumes responsibility for the continuation of the mission. It must ensure that its elements in location to cover the handover line are of sufficient strength to conduct a temporary defence and to hold open crossing sites, passages and other defiles until the rearward passage of lines is complete;
- d. Protective elements in position must be of sufficient strength to conduct a temporary defence until the rearward passage of lines is completed;
- e. It may be necessary for elements of the moving force to be placed under operational control of the in-place force to deal with a critical situation caused by adversary action. Additionally it must facilitate the disengagement of the moving force by providing routes, guides and traffic control;
- f. The movement across the handover line, where responsibility changes, must be without interruption; and
- g. The commander of the moving force is responsible for identifying the last of his forces as it passes through the in-place force and for reporting his force clear to his formation's commander and to the in-place force's commander.

Employment Of Combat Support Forces

- 08127. **Artillery.** Firing positions of incoming artillery should be sited so that further redeployment is not necessary. They should not be in positions that have already been located by the enemy. In a forward passage of lines, fire support units of the outgoing force should not normally redeploy as long as they can provide support from their positions.
- 08128. **Air.** Local air superiority may reduce the vulnerability of the forces during periods when congestion cannot be avoided on the ground. For relief in-place operations there will be situations where CAS could assist the successful completion of operations.
- 08129. **Aviation.** Helicopters may be required to save time in the deployment of liaison and reconnaissance parties. Otherwise they are used in their normal operational role.
- 08130. **Engineers.** Whether conducting a forward or rearward passage, the in-place force has the responsibility to provide mobility for the passing unit along cleared routes or corridors through its sector. Creating lanes through the in-place units obstacles requires permission from the force commander who is in command of both the stationery and moving forces. Tasks will include:
 - a. **Relief in Place.** Assistance with survivability tasks and the takeover of the existing barrier plan;
 - b. **Forward Passage of Lines.** Opening and maintaining routes, including the crossing of obstacles; and

- c. Rearward Passage of Lines. The maintenance of routes and counter-mobility tasks, including the closure of routes and the destruction of crossing points to impede the enemy.
- 08131. **Air Defence.** The unavoidable concentration of units during relief operations will increase vulnerability to air attack. This may require the adjustment of the air defence posture.
- 08132. **Electronic Warfare.** EW assets will support the deception plan, as well as continuing to provide information on enemy locations and intentions.
- 08133. **CBRN Defence.** CBRN defence units will monitor units passing to the rear for contamination and conduct decontamination operations to prevent the spread of contamination.

Command And Control Of Relief Operations

Responsibilities

- 08134. **Relief in Place.** The incoming force establishes liaison with the outgoing force during a relief of combat troops. The outgoing commander is responsible for the defence of his sector until command passes. The moment when command is to pass is determined by mutual agreement between the two unit commanders within the overall direction of the superior commander. Both commanders should be collocated throughout the operation. Following the passing of command, the incoming commander will assume the appropriate control of all elements of the outgoing unit which have not yet been relieved. The change of command will be reported to the overall commander.
- 08135. **Forward Passage of Lines.** The overall command and control of the operation should be with the superior headquarters of the forces involved. Normally, the commander of the incoming forces assumes responsibility for the conduct of the operation beyond the line of departure at the time the attack begins.

Rearward Passage of Lines

- a. The movement control of elements of the outgoing force will be in accordance with the higher commander's direction and will normally be the responsibility of the incoming force;
- b. The actual transfer of responsibility will normally be agreed between the two commanders executing the operation. This can be carried out most effectively if they are collocated. Where appropriate, as the operation progresses lower level commanders may also be collocated;
- c. The change of responsibility is reported by the incoming commander;
- d. The commander of the outgoing forces will report when the rearward passage of his forces is completed; and

e. During rearward passage of lines, liaison is to be established from the outgoing (moving) to the incoming (in-place) force.

Coordination

- 08136. In general, the higher headquarters directing a relief operation will stipulate the following details:
 - a. The time frame in which the operation is to be conducted;
 - b. Designation of control lines and routes;
 - c. Arrangement for liaison, reconnaissance and advance parties;
 - d. Fire support;
 - e. Tactical air support of land operations;
 - f. Deception plans;
 - g. Airspace control means;
 - h. Air defence; and
 - i. Combat service support including criteria for handover of equipment and combat supplies.

Communications

- 08137. In order to conceal the presence of another force from the enemy, the communications plan must support the deception plan.
- 08138. The communications plan should include all those details which the two forces involved will require for coordinated operations. Equipment incompatibility will have to be overcome by the use of liaison teams.

Combat Service Support During A Relief Operation

- 08139. During a relief operation, the stationary force should assist, whenever possible, with casualty evacuation, traffic control, vehicle recovery, fuel and ammunition. A force taking over responsibility for further operations should be fully replenished.
- 08140. The higher commander may direct that the outgoing forces hand over stocks that are not required for their subsequent mission. Stocks must be checked for interoperability prior to any such operations as this may influence the plan.

08141. CSS units may have to move early to be in place on arrival of the combat forces. Alternatively, if CSS units are following, plans will have to take account of a reduction or discontinuity in sustainment; in both cases logistic coordination is essential.

Section V - Crossing And Breaching Of Obstacles

Introduction

- 08142. **General**. An obstacle is a natural or man-made restriction to movement which will normally require special equipment or munitions to overcome it. A coordinated series of obstacles is known as a barrier.
- 08143. Forces require an ability to cross obstacles in order to continue movement in support of operations. Although crossings normally occur during offensive operations, they may also be necessary during defensive or delaying operations. They can occur throughout the combat zone and along lines of communication further to the rear. Often they involve a passage of lines.

Types of Obstacles and Their Characteristics

08144. Inland Areas of Water or Waterways.

- a. Areas of water are normally obstacles after the destruction of fixed bridges;
- b. Detours are not normally possible;
- c. The need for crossing operations can normally be foreseen, from existing geographical data and confirmed by ISTAR assets;
- d. Assault boats and some other types of vehicles may cross without engineer assistance; and
- e. Crossing difficulty will depend on climatic and terrain conditions.

08145. Minefields.

- a. Normally cause attrition;
- b. Are covered by observation and fire;
- c. Detours/bypassing may be possible;
- d. The need for a breach may not be anticipated; and
- e. Normally engineer assistance is required for a breach.

08146. Other Obstacles.

- a. Rough, soft or marshy ground, terrain covered by deep snow;
- b. Craters and ditches;
- c. Vertical steps and slopes;
- d. Contaminated areas:
- e. Abatis, extended wire entanglements, debris, including collateral damage from the effects of weapons;
- f. Existing and reinforcing obstacles including craters, mines, landfalls and avalanches. Bypass will almost always be difficult or impossible; and
- g. Artificially induced flooding and inundation.

Types of Crossing and Breaching

- 08147. **Hasty Crossing/Breaching**. A hasty crossing/breaching takes place from the line of march, with little preparation, using resources immediately available. The intent of conducting such an operation is to execute a crossing before the enemy has the opportunity to prepare his defensive position fully.
- 08148. **Deliberate Crossing/Breaching**. A deliberate crossing/breaching requires thorough reconnaissance, detailed planning, extensive preparations, rehearsal and heavy or special engineer equipment. It is conducted because of the complexity of the obstacle, or when a hasty crossing/breaching has failed.
- 08149. **Assault Breaching**. This type of breaching operation provides a force with the mobility it needs to gain a foothold in an enemy defence and exploit success by continuing the assault through the objective. The assault breach allows a force to penetrate an enemy's protective obstacles and destroy the defender comprehensively.
- 08150. **Covert Breaching**. The covert breach is a special breaching operation used by dismounted forces in conjunction with an infiltration during limited visibility. It is carried out silently to achieve surprise and to minimize casualties.

General Planning Concepts And Factors

Concept

08151. Any obstacle can be overcome given sufficient resources and time. A commander should aim to seize a crossing site or minefield lane or gap intact or conduct a hasty crossing/breaching of the obstacle before the enemy has time to react.

- 08152. Bypassing an obstacle is often more expeditious, even if forces have to travel greater distances. On the other hand, bypassing an obstacle may comply with the intentions of the enemy.
- 08153. If obstacles cannot be bypassed, it may be useful to overcome them in places where it is not expected by the enemy. Combined with deception measures, it may thus be possible to surprise the enemy and to avoid losses.
- 08154. The movement of troops and equipment across the obstacle and their deployment on the far side must be strictly controlled to maintain momentum, avoid congestion, provide flexibility and establish sufficient force to defeat any enemy counter-action.
- 08155. Limited visibility creates favourable conditions for overcoming obstacles while impeding observed enemy fire. The protective effect of limited visibility may be reduced by modern surveillance and fire control means, while our use of night vision aids allows for use of periods of limited visibility with an advantage; speed, situational awareness and ability to conduct operations may be greatly improved.
- 08156. If the obstacle is defended, successful breaching must be preceded by the suppression of enemy fire, obscuration of the enemy or screening friendly movement, and securing the breach/crossing site by either fire or force as necessary.

Planning Factors

- 08157. The following factors are applicable to all crossing and breaching operations:
 - a. Adequate and timely intelligence and reconnaissance will:
 - (1) Confirm the existence and nature of any obstacles; and
 - (2) Assist the commander's decision to bypass or mount a hasty or deliberate operation. From this decision, the requirement for any deployment of engineer equipment and other forces will be established.
 - b. Effective movement control measures including timings;
 - c. Maximum use of deception to achieve surprise;
 - d. Adequate air defence and fire support, particularly tactical air support and counter battery fire;
 - e. Adequate CBRN defence measures must be undertaken; and
 - f. Adequate logistics support for clearing/breaching the obstacle.

Conduct Of Water Crossing Operations

Planning Considerations

- 08158. **General.** Water crossing procedures are fully described in STANAG 2395.
- 08159. **Phases.** Once the near side of the obstacle has been secured, a crossing of a water obstacle is be done in three phases:
 - a. **Assault.** To gain a lodgement on the far side of the obstacle. This phase is not required for an unopposed crossing;
 - b. **Build-Up**. To extend the lodgement into a bridgehead; and
 - c. **Consolidation**. To establish a firm base within the bridgehead from which to break out and continue the overall operation.
- 08160. **Crossing Sites.** If possible crossings should be conducted on a broad front with multiple crossing sites. Areas selected for the crossing of obstacles should have, either naturally or through engineer development, the following features:
 - a. A suitable number of crossing sites, with alternatives, which are dispersed to reduce vulnerability and to provide flexibility. The number of crossing sites established is normally twice that required by the desired traffic flow. This is necessary as time does not normally allow other sites to be started, should the initial ones fail. In addition, the threat may dictate moving to another site;
 - b. Cover from observation;
 - c. Routes to and from crossing sites, to include lateral routes which have the required load classification and capacity;
 - d. Waiting areas that provide cover for units and sub-units;
 - e. Sufficient space for the establishment of a bridgehead;
 - f. Locations for elements providing support by direct fire and observed indirect fire; and
 - g. Assembly areas which are located some distance from the obstacle where forces wait to move to the crossing site. The assembly areas need to be dispersed and have good routes to the crossing sites, and good cover and concealment.
- 08161. **Selection of a Bridgehead.** The bridgehead is secured on the far (enemy) side of the obstacle by the assault crossing forces. In selecting areas for the establishment of a bridgehead, the following should be considered:

- a. Defensible terrain of sufficient extent that the enemy cannot seriously interfere with the crossing. The bridgehead should be sited so as to remove all enemy from positions of direct fire and observation onto the crossing site and bridgehead area;
- b. Sufficient crossing and movement facilities to avoid congestion; and
- c. A base for the continuation of the overall operation.
- 08162. **Crossing Area.** The tactical commander generally the commander of a brigade or higher formation will order a crossing area only if the tactical situation or the nature of the obstacle requires it. The depth of the crossing area is normally not very great. However, its depth will depend on the size of the obstacle and the terrain. Its near and far boundaries should be positioned within the closest lateral routes approximately 3 km from the water or on easily recognizable terrain features, which run parallel to the obstacle. There may be a number of crossing locations, or sites, within the crossing area.
- 08163. **Equipment Reserve.** Selected items of equipment must be held in reserve, ready for short notice replacement or to maintain crossing sites and equipment. Once a crossing is completed, equipment must be recovered for re-use or replaced with permanent equipment as soon as possible.
- 08164. **Liaison.** The tactical commander must keep the engineer commander informed of his intentions and plans. Thus the engineer commander is able to make his estimate of the situation and advise on the resources available, the number and location of suitable crossing sites, the assistance needed from other elements and the time required for preliminary work. Additionally this allows the crossing area commander and the crossing site commander to operate away from each other in times of reduced communications or changes in the situation or threat.

Execution

- 08165. **Forces and Tasks.** Normally a force conducting a crossing must pass through an in-place force that has cleared and secured the near side of the obstacle. A crossing force consists of a bridgehead force and a breakout force.
 - a. **In-Place Force.** The in-place force secures the near or friendly side of the obstacle in order to support a forward passage of lines and the assault onto the far side of the obstacle. It provides fire and other support to the bridgehead force during the crossing. Within its area, it has normal responsibilities regarding security, including defence of the obstacle and the home bank (near or friendly side);
 - b. **Bridgehead Force.** The bridgehead force consists of an **assault echelon** and a **main body**. Its mission is to seize or to control ground in order to permit the continuous embarkation, landing or crossing of troops and materiel. It will also provide the manoeuvre space needed for subsequent operations;
 - (1) The **assault echelon** is tasked to gain the lodgement, normally seizing intermediate objectives. This must be done so as to prevent enemy ground

- observation and direct fire onto the obstacle, and thus allow crossing sites and equipment to be prepared and operated with minimum interference to bring the main body and breakout force to the far side;
- (2) The **main body** of the bridgehead force conducts the build-up, including the seizure of the objectives on the bridgehead line, and consolidation. Within its area, the bridgehead force has normal responsibilities for security, including the defence of the far side of the obstacle; and
- (3) **Breakout Force.** The breakout force is tasked with the continuation of the operation. In some situations this may be an additional task for the bridgehead force.
- 08166. **Assault Phase.** Once the near bank is secured, plans for the assault crossing complete and preparatory movements complete, the conduct of the assault phase may commence by the bridgehead force.
 - a. The **assault echelon** of the bridgehead force establishes a lodgement on the far side of the obstacle to eliminate enemy direct fire and observation of the crossing sites. The lodgement is achieved either by:
 - (1) Infiltration;
 - (2) Boating, swimming, fording or snorkelling a force; and
 - (3) Air lifting.
 - b. At H-hour, the assault echelon crosses the line of departure, which is normally the near bank, and proceeds across the obstacle. Fire and other support is provided by elements of the in-place force on the near side of the obstacle. Normally this support includes direct and indirect fire support and the protection of crossing sites from air attack and from attacks along the obstacle by divers, sabotage squads, vessels, mines or drifting objects.

08167. Build-Up Phase.

- a. Once the assault echelon is across the obstacle and secure on the objectives, the tactical commander orders the crossing area into effect. Engineers complete their preparation of crossing sites and means, and movement control elements complete their deployment and control the move of the main body across the obstacle, in accordance with the crossing plan;
- b. The crossing area organization must be flexible as, once a crossing site is detected by the enemy, it is extremely vulnerable. Equipment, such as bridging, may have to be dispersed at short notice and alternative means and sites may have to be used. In some cases, it may be necessary to split a bridge into rafts, or alternatively, use smoke to obscure the site; and

- c. Once across the obstacle, the lead elements of the main body pass through or around the assault echelon and carry on to secure the final objectives in the bridgehead. Once these have been secured, the bridgehead is established.
- 08168. **Consolidation Phase.** This phase is an extension of the build-up phase. Enemy pockets of resistance are eliminated and the remainder of the main body and assault elements of the breakout force are moved across the obstacle. Crossing sites are improved and preparations are made for the breakout and the continuation of the overall operation which must be resumed as quickly as possible.

Water Crossings As Part Of The Delay Battle

- 08169. During a delay battle, there may be a requirement to withdrawal back across a water obstacle once the required amount of delay has been imposed. The delaying force will, once the delay objective has been reached, cross back over an obstacle and conduct a rearward passage of lines with a friendly force on the home bank, likely manning a deliberate defensive position. This home bank or in-place force will support the delaying force in breaking contact with the enemy.
 - a. **Preliminary Withdrawal and Rearward Passage of Lines.** During a delay battle, those units and forces not required to actually conduct the delay should be withdrawn over the crossing as early as possible. Maximum use should be made during this phase of existing bridges (if these are available) as directed by the tactical commander. Bridges or ferries may be ordered as part of the withdrawal plan;
 - b. **Delaying Battle and Withdrawal of Delaying Force.** Once the desired delay has been imposed or the delaying force is ordered to do so, the delaying force with break contact with the advancing enemy, withdrawal and cross the obstacle to conduct a rearward passage of lines. The forces engaged on the enemy bank are withdrawn under cover of supporting fire from armoured and infantry elements on the home bank. This phase would be coordinated by the tactical Commander. The rate of crossing is dependent on the pressure from the enemy: the commander may risk employing all the crossing means available concentrating on those bridges which are best concealed. By the end of this phase all bridges should if possible have been withdrawn or dismantled, or destroyed; and
 - c. **Withdrawal Phase.** During this phase obstacles to movement on either side of the crossing are improved or activated. The last vehicles are withdrawn by ferries or on pontoons, or by swimming or snorkelling (if the river bed and banks are suitable). These are protected by an infantry screen supported by artillery and mortars. The last troops are transported by boat, helicopter or any available means.

Employment Of Combat Support Forces In Obstacle Crossing

08170. **Artillery Support.** Artillery and mortars are usually positioned so that they can provide continuous support during all phases of a crossing. The primary task of both of these weapons is to provide supporting fire to troops in the bridgehead. They should also mask enemy

- observation of the crossing sites and employ counter battery fire to neutralize enemy forces defending the obstacle. Deception fire can also be used in order to draw the enemy's attention away from the actual crossing site.
- 08171. **Air Support and Air Defence.** Forces conducting a crossing present a particularly attractive target to the enemy. The time and location of the crossing must be carefully coordinated with requested air support and air defence. The ground force should have integrated air defence elements and coordination should be made with the ADA for potential CAS requirements.
- 08172. **Aviation.** Helicopter forces could have much to contribute to obstacle crossing and both attack helicopter (AH) and other helicopters can be used to secure the approach to the obstacle during the assault phase. AH also provide the commander with additional and flexible fire support.
- 08173. **Engineer Support.** Nearly all crossings require engineer support. The main task of the engineers is to enable the bridgehead force to cross the obstacle. As a secondary task, they may be required to prepare obstacles to protect the flanks of the crossing force. Usually most personnel and equipment committed to both of these tasks are drawn from forces not involved in the crossing or subsequent operations as these forces require their own engineers for the assault and tasks in and beyond the bridgehead. Operations may be restricted by the amount of specialized crossing equipment available. Additionally, engineers are required to support following forces.
- 08174. **Electronic Warfare**. EW support to crossing operations will be based initially on passive measures to aid intelligence gathering. Electronic deception and jamming may be used to support the main operation.

Combat Service Support In Obstacle Crossing

- 08175. **Replenishment.** The assault echelon commander should ensure that his force is self sufficient in combat supplies, as during the assault phase, his force will be temporarily separated from its full combat service support. Provision should be made for emergency replenishment, possibly by helicopter. Within the crossing plan, it is important that ammunition and fuel replenishment vehicles cross early to ensure timely replenishment.
- 08176. **Repair and Recovery.** Repair and recovery resources must be included in the movement control plan to ensure that routes, particularly at defiles and crossing sites are kept open. Resources should be positioned on both sides of crossing sites. Special consideration must be given to the arrangements for the repair and recovery of vehicles in the process of crossing the obstacle.
- 08177. **Medical**. The movement control plan must include medical arrangements particularly for the evacuation of casualties. Medical facilities with casualty evacuation assets should be established each side of the water obstacle crossing and there may be a need to deploy a medical holding facility on the other side of the obstacle. Aviation is particularly useful in this situation.
- 08178. **Provost.** Traffic control will be vital at crossing points and defiles to prevent congestion with vehicles becoming static and exposed.

Command And Control Of Obstacle Crossing

General

08179. The need for a clear command organization, which plans and executes a complete but simple crossing plan, is paramount in all water crossing operations. The controlling headquarters must provide a flexible organization and make the best use of the resources available to react to any changes in the crossing flow and the tactical situation.

08180. The basic requirements for control are:

- a. A crossing control organization with clearly defined responsibilities;
- b. A movement control organization; and
- c. A command and control communications network.

Considerations for the Commander of the Obstacle Crossing

- 08181. The commander has overall responsibility for command and control of the crossing operation and will issue the Crossing Plan:
 - a. In certain areas, particularly in rear areas, the commander may be a national territorial area commander, not part of the NATO command chain. In operating the movement control net, he exercises control for the movement of deploying formations based on priorities; and
 - b. In areas in which tactical operations are occurring, the commander is normally the overall tactical commander. His task is to guarantee the movement of any unit/formation in or through his area of responsibility. He will likely exercise operational control for this particular operation.

Direction

08182. The commander may select, determine and allocate the following:

- a. Crossing areas;
- b. Crossing sites;
- c. Assembly and waiting areas; and
- d. Deployment routes.

08183. The commander may also issue special instructions for crossing and times and, if necessary, the organisation of convoys.

Controlling Headquarters

- 08184. The commander for a major crossing operation may form a special controlling headquarters, at which the following elements will be represented:
 - a. Movement control; and
 - b. Engineers.

08185. It may also be necessary to have the following represented:

- a. Logistics;
- b. Communications and EW; and
- c. Liaison elements from crossing formation/units.

08186. For major crossings, a Crossing Area HQ and several Crossing Site HQs may be required.

Engineer Commander Responsibilities

- 08187. Each level of command in an obstacle crossing operation will have an engineer who is responsible for the technical aspects of executing the crossing.
- 08188. Engineer commanders are responsible at their respective levels of command for:
 - a. Giving advice on all engineer matters;
 - b. Ensuring that there is an adequate communications network for engineers involved in the operation; and
 - c. Assigning crossing site commanders.

Crossing Site Commander and Headquarters

- 08189. The Crossing Site Commander is normally an Engineer appointed by the appropriate level of command. He will normally provide the crossing site HQ. He has the following responsibilities:
 - a. To develop and maintain the crossing site including entrances and exits;
 - b. To construct, operate and maintain the means of crossing;

- c. Movement across the water at his crossing site including the giving of orders to troops during the crossing;
- d. Advice to the Waiting Area Controller on movement to his crossing site; and
- e. All technical aspects of maintaining the survivability of his crossing site and crossing equipment.

Crossing Formations and Units

- 08190. When a force is required to conduct a move which is controlled and supported by another authority (Command or Nation) it is mandatory for this force to liaise as early as possible at its respective level of command within that authority. The purpose of this liaison is to exchange relevant documents and to be briefed on:
 - a. The movement control organization;
 - b. Organization and procedures of any water crossings;
 - c. Reporting details for movement and for water crossings; and
 - d. Status of convoy commanders and drivers of isolated vehicles.

Crossing Plan

08191. The crossing plan should include the following items:

- a. Tactical situation;
- b. Commander's intentions, special directives and any arrangements for delegating control;
- c. Protection, security, reaction to enemy attacks and instructions for denying the crossing;
- d. Designation of crossing sites, alternative crossing sites and routes leading to and from them;
- e. The grouping and tasks for the engineers;
- f. The boundaries of the crossing area;
- g. The movement control plan to include routes to and from the obstacle, lateral routes, movement control posts and waiting areas;
- h. A crossing schedule that provides a timetable for the crossing as well as:
 - (1) Movement credits per unit; and

- (2) Priorities for the crossing.
- i. Any limitations such as the capacity, speed and Military Load Class (MLC); and
- j. Nicknames for each crossing site.

08192. The detailed layout of an obstacle crossing area and sites is illustrated in the figure below.

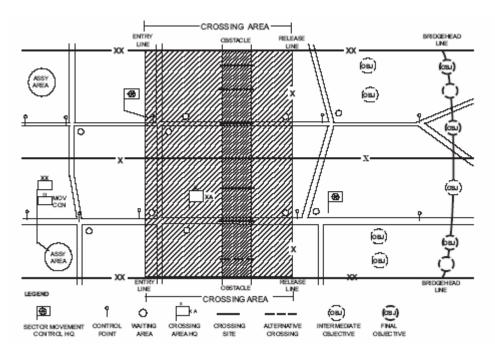


Figure 8-2: A Schematic Diagram of a Divisional Crossing Plan

08193. **Notes**:

- 1. The tactical commander will normally be at the crossing control organization HQ with which the Movement Control HQ will be collocated. This is represented by the Divisional HQ.
- 2. The tactical commander may deploy forward to the Crossing Area HQ.
- 3. Crossing Site HQs are not shown.

Conduct Of Breaching Operations

General

08194. The breaching of a minefield or other manmade obstacle and barrier plan will be conducted in a manner similar to that of the deliberate crossing of a water obstacle.

Planning

- 08195. Seizure of minefield lanes intact or an opportunity for a hasty breaching must be exploited. If this fails a deliberate breaching will be necessary.
- 08196. For breaching to have a reasonable chance of success the minimum information required is the minefield depth, its front and rear edges and details of enemy weapons covering the minefield.
- 08197. The aim must always be to breach paths and lanes through enemy minefields from the very beginning in order to enable dismounted infantry and combat vehicles to cross the barrier. Whether paths may be prepared in advance will depend on the situation, terrain, type of barrier and breaching equipment available. Paths are to be enlarged rapidly to form lanes. As many lanes as possible should be breached. As a minimum, two breaches should be attempted.

Execution

- 08198. For enemy obstacles, reconnaissance should include, if possible, the breaching of a patrol path or lane through the minefield.
- 08199. If the enemy situation allows, dismounted troops cross the minefield and establish a lodgement on the far side, although this may not always be possible. In either case, it is necessary to form a breaching force to open lanes for personnel and vehicles of the assault echelon.
- 08200. If the minefield has been prepared by friendly forces, it is crossed using existing gaps or lanes, or newly breached lanes.
- 08201. Once lanes are open, traffic control posts both ends of the lanes are required. In addition, recovery posts will be established at the approaches to all lanes and, occasionally, on both sides of the minefield.
- 08202. With the assault echelon across the minefield and secure, engineers complete their preparation of breaching sites to include marking. Movement control elements complete their deployment to control the movement of the main body across the minefield. Complete clearance of barriers requires a considerable amount of time and resources. Therefore usually it can be justified only if operationally necessary.

Combat Service Support

08203. Similar considerations to those required for water crossings apply. The scale of support for breaching operations tends to be lower than that for water crossing.

Command and Control

08204. The level of command is likely to be lower than for water crossing. Minefield breaching may involve a number of independent simultaneous actions each with its own commander, whereas

water crossing is a centralized operation. The breaching commander is the commander who has the tactical responsibility for operations in that area.

Conduct Of Other Obstacle Crossing

08205. **Considerations.** The considerations which apply to the conduct of other obstacle crossings are the same as those for water crossing operations and minefield breaching. The major difference is normally one of scale. Therefore, the crossing of other types of obstacles is conducted at lower tactical levels. Nevertheless, the tactical commander must ensure the appropriate engineer support is available to maintain his mobility.

Section XI - March

- 08206. The march is a tactical enabling activity that involves tactical movement from one point to another by combat and other forces without the expectation of combat. It differs from an advance to contact in that forces conducting the march are prepared to counter enemy activities but are not expecting nor seeking to make contact en route.
- 08207. The march may be used by forces moving from one location to conduct other tactical activities such as stability activities in a given area. It is generally used in non-linear, non-contiguous battlespaces in which the adversary is unlikely to be located in a fixed location. During the march forces do not actively seek contact but are prepared for enemy contact. The greatest threat to forces on the march will be ambush and improvised explosive devices (IEDs).
- 08208. Movement during the march is done tactically and schemes of manoeuvre and the use of security activities will reflect the tactical situation and enemy profile.
- 08209. The conduct and planning considerations for the advance to contact may be applied to the planning and conduct of the march. Given the possibility of contact during the march, the commander will assess the need for the security of the force throughout the activity, and will take the necessary precautions, such as the deployment of security forces and the clearing of defiles and danger areas.

Section XII – Convoy Operations

08210. Recent experience has shown that convoy operations must not be treated as scheduled, routine military road traffic. Instead they should be treated as carefully planned military operations. This point is valid throughout the full-spectrum of operations and conflict in the Contemporary Operating Environment (COE) which re-emphasises force protection. More than ever, convoys and escort forces face an increased threat. Attacks against static and moving soft targets will increase as the enemy chooses to attack perceived weaknesses rather than confront the superior protection and firepower of combat forces.

CHAPTER 9 - OPERATIONS IN SPECIFIC ENVIRONMENTS AND CIRCUMSTANCES

Section I - Introduction

0901. This chapter describes the planning and execution of military activities, in case they are conducted under the influence of specific weather and terrain conditions, such as major artificial or natural obstacles, extreme cold, desert regions, jungles and mountains. Sometimes there is a combination of these conditions (for example, extreme cold and mountains). These specific conditions may also be combined with those that occur in forests, built-up areas and in poor visibility. (The latter occur more frequently in normal terrain.) The subordinate sections of this chapter should thus be read in combination with each other.

0902. Effects of weather and terrain:

- a. Weather and terrain affect every military operation and therefore the range of military activities, tasks and actions. Extreme temperatures and terrain will impose a considerable burden on the troops. Potential areas of operation differ significantly in terms of terrain and climate. Commanders must assess the effects of weather and terrain and draw conclusions regarding the capabilities and limitations of the forces under command;
- b. In this chapter, the effects of woods and forests, built-up areas and limited visibility are separately covered in the first sections and in the sections about the different types of military activities. After all, these terrain and weather conditions are always present in most potential areas of operation and their effects can almost always be felt. The effects of extreme or exceptional terrain and weather conditions (extreme cold, desert areas, jungles and mountains) are described in the remaining sections of this chapter; and
- c. Determining the effects of weather and terrain is part of the intelligence preparation of the battlefield. In the evaluation of the area of operations, meteorological data, observation zones, fields of fire, concealment and cover are used to draw conclusions regarding obstacles, key terrain and avenues of approach. The former aspects being the more traditional ones, the scope of the IPB should also be the collection of data in relation with the stability activities that have to be planned and executed. One can think about possibilities and restrictions for observing and monitoring, securing areas and routes, and helping refugees and the local populace.

0903. Limited Visibility:

- a. Regardless of the environment at hand, all commanders and forces must expect to operate under conditions of limited visibility, mainly night conditions. Need, the capabilities of Alliance members will provide them with advantages of operating at night against less advances forces. Any advantages must be balanced against the risk of increased collateral damages as a result of the darkness; and
- b. Additional time and control measures may be prudent when working in periods of limited visibility. Additional rehearsals may be necessary.

Section II - Woods And Forests

Introduction

0904. The collective term of wooded areas refers to an area of terrain that consists mostly or completely of forests and of which the obstacle value is such that dispersed mounted operations are barely possible, if at all. Wooded areas affect the operation because of their location, size, density, structure, soil composition and available roads. The structure of wooded areas is seldom alike. As well as a variation in structure, there may also be scattered clearings. Operating in wooded areas is extremely demanding for commanders and troops. Normal practice is to deploy infantry in these areas. They mainly conduct close combat. After a prolonged period of drought, one must take account of the possibility of forest fires as a result of fire support.

Characteristics

0905. The following characteristics apply to operations in woods and forests:

- a. Short observation zones and fields of fire;
- b. Good concealment, but limited fire cover;
- c. Slow-moving combat actions, because movement mainly takes place on roads, paths and in clearings, and these movements can be seriously impeded by just a few obstacles;
- d. The effects of artillery and mortar fire on unprotected personnel are increased by the fragmentation effect on tree branches;
- e. The deployment of fire support is restricted if fire is delivered a short distance ahead of friendly troops; and
- f. Problems with orientation, observation, reconnaissance and communication.

Considerations

- 0906. The infantry supported by engineers and where possible by armoured vehicles and tanks, is the bearer all activities and inherent tasks and actions. The emphasis is on close combat, conducted on a decentralised basis by units of company and platoon strength, who operate more or less autonomously in the separate sectors. The through-roads and paths often form the key terrain where the battles are initially fought. The ground between them, particularly the lateral routes, can be used for flanking (counter) attacks and other offensive activities carried out by means of infiltration. During activities with mechanised infantry, it is the traversibility of the forests and the density of the roads and paths that determine whether operations must be mounted, dismounted or carried out on foot. In the last, most unfavourable case, weapons and necessary ammunition are adapted. The crews staying behind with the vehicles are kept to a minimum.
- 0907. In the event of operations in wooded areas, plans will have to be adapted. Some of the necessary adjustments are:
 - a. More security measures at all levels to eliminate surprise;
 - b. Strict movement control and allocation of routes;
 - c. Decentralisation of armoured assets and of combat support; and
 - d. Small reserves which are kept ready just behind the forward units.
- 0908. If CBRN weapons are used in wooded areas, the following effects must be borne in mind. Trees will be brought down by the air pressure of nuclear weapons, thus impeding movement even further. The effect of heat radiation from nuclear weapons is substantially reduced; the risk of forest fires, however, is considerable. If chemical weapons are used, the size of the contaminated area is relatively small in comparison to other types of terrain. The period of contamination, however, is longer.
- 0909. Since woods and forests can be used as hiding places for combatants as well as non combatants, commanders should always plan on the possibility that stability activities need to be carried out. This means that infantry units not only need to be reinforces with armoured vehicles and CS elements, but also need extra reconnaissance elements and the possibilities to bring in humanitarian aid immediately after combat actions have been completed.

Offensive Activities

- 0910. Offensive activities in forests should be avoided. A turning movement around the enemy is preferable, as the enemy is thus outmanoeuvred. The enemy may, however, organise his defence in such a way that the attack must be conducted through forests.
- 0911. The preparations for offensive activities in forests cost a great deal of time. Reconnaissance in advance, including air reconnaissance, generally yields little information. Simplicity is the key element when formulating the plan. Subsequent phases are prepared in broad outlines and

- refined on the basis of combat reconnaissance and the course of the battle. The axes of advance are largely determined by the available roads and paths. One must bear in mind that the enemy defence only starts deep inside the forest.
- 0912. The attack is primarily determined by the intent of the higher commander. This is used to decide whether it is necessary to rid the entire forest of the enemy or whether it is enough to take control of one or more corridors in order to break out at the other side. Other aspects of the attack (order of battle, formation, main effort) are to a great extent determined by the size and density of the forest. In dense forests, (mechanised) infantry is the most suitable option. Support must always be provided in the form of armoured assets, even if these are confined to the roads and paths. Armoured units are used to attack in forests wherever movement is possible (limited density, open areas of land).
- 0913. Capturing a forest with limited depth or a corridor through forests is done by pushing through with infantry to the exits from the area without phasing. Battalions are usually assigned relatively narrow sectors, each having, if possible, two through-roads as approach possibilities. A simultaneous airmobile operation may be considered in order to attack the defender via the rear exits and to cut him off from his service support In deep forests, the attack is conducted in phases with intermediate objectives at short range in order to ensure cohesion in the operation. Broadly grouped reconnaissance should also be used, behind which the grouping of combat power should be narrow and deep. In this way, weak points in the enemy defence can be exploited immediately.
- 0914. The attack within the forest commences from intermediate objectives which have provided a firm foothold in the forest. The forward elements should avoid roads and paths, as these are easy for the enemy to control with obstacles and fire. If possible, enemy positions are located by combat reconnaissance, bypassed by most of the unit and attacked from the rear.
- 0915. It must be possible to shift the main effort quickly, as the way the enemy defence is organised only becomes clear once the battle is underway. Not all assets should, therefore, be committed prematurely. Reserves generally follow close behind the forward units, preferably in their (armoured) vehicles, so that they can quickly take advantage of any success.
- 0916. Maintaining the tempo of the attack is usually only possible by passing forward units that have got stuck or by carrying out a forward passage of lines. If dusk sets in before the objective is reached, the action continues unchanged. Infiltrations and flanking attacks can also be applied in these conditions. To continue the attack in darkness is ultimately a problem and can only be done if thorough preparations have been made for operating in such circumstances.
- 0917. If it is necessary to mop up the enemy in the whole forest, this is done on both sides of the original axes of advance by following units, for instance by parts of the brigade or division reserve. They mop up the entire area systematically. Timely preparations must be made for breaking out of the forest. The required order of battle is established while troops are still in the area to enable a fast, mounted break-out. If necessary, mechanised units are brought up in good time.

Defensive Activities

- 0918. Forests favour defensive activities, certainly if the necessary preparations have been made. Executing defensive activities in forests is only useful if the attacker, given the mission and the possibilities offered by the terrain cannot execute a turning movement and has to capture the area in order to proceed. Making full use of the obstacle value of forests results in a manoeuvre grouped over the full depth. The preparations for defensive activities, particularly the reconnaissance and the selection and setting up of the positions, are normally very time-consuming.
- 0919. The defence commences in the forward edge of the forest. However, the fringe of the forest draws a great deal of direct and indirect enemy fire. Tanks and long and medium-range antitank weapons are flanked as much as possible or positioned in front of the edges. The (mechanised) infantry establishes its positions so deep in the forest that the enemy cannot attack them directly with armoured units, nor is he able to observe indirect fire. From forward positions on or in front of the forest edge, troops can combat the enemy approach. If this is not possible because of the limited depth of the forest, for example positions can be prepared on the edge and not used until later. The units for these positions are kept ready in assembly areas deeper inside or behind the forest. Effective security and fire support must provide enough time to take up these positions.
- 0920. If the enemy has gained a foothold in the forward edge, friendly troops fall back to positions deeper in the area. The manoeuvre in the depth of the forest is based on the (temporary) defence of positions which control the through-roads and paths. Positions in the forest must be located in such a way that:
 - a. Roads, paths and clearings are controlled;
 - b. The units can support each other;
 - c. All-round protection is possible.
- 0921. It is virtually impossible to control the entire area between the positions. Intensive patrolling, observation posts and unmanned sensors provide time and space to be able to respond in this area. The laying of artificial obstacles in this area costs a great deal of time and resources, while the effect against troops operating on foot is often limited.
- 0922. In clearings in the forest, armoured units are deployed to prevent the enemy from turning around forest sectors. These units are also deployed if, in the event of a successful enemy attack, friendly troops have to disengage to leave the area under cover. Tanks and anti-tank weapons of long and medium range are deployed at places with sufficient fields of fire, usually on and along paths and roads, in support of the infantry's operation from their positions. Tanks can also be deployed at a low level for anti-armour defence at locations under threat.
- 0923. If the enemy penetrates positions, he must be attacked with fire and counterstrokes. Immediate counterstrokes by small, local reserves are usually more effective than counterattacks started later. Counterattacks by armoured units are confined to clearings which offer sufficient space to

carry them out. If the enemy manages to penetrate deep into the defence area, uncommitted elements should be concentrated as quickly as possible to block the breach. Elements which still occupy their original positions conduct attacks on the enemy flanks. When positions are released and troops move on to a delaying operation, the contact with adjacent units may be lost. In a forest, this quickly leads to the loss of cohesion in the higher level's defence.

0924. If there are a limited number of friendly troops available, the same unit will be forced to operate over the entire depth. In such a situation, the preferred option is a mobile operation with ambushes and raids, whereby the unit ultimately falls back to positions at or behind the exits from the forest, where a prolonged defence is possible.

Stability Activities

- 0925. With respect to security and control, woods and forests bring forward the same problems and limitations that already have been described in relation with offensive and defensive activities. Exceptions are tasks such as: curfew, cordon and search and crowd control
- 0926. Stability activities however, need to be executed, since they are the most important step towards a more peaceful satiation in the operation area. In relation to this category of activities wooded and forested areas have to be checked and covered. Avoidance is not an option. Patrolling, observing, securing and protecting these areas requires probably in the most case light units, equipped with light, flexible, small vehicles.
- 0927. Support to SSR related tasks need to be executed as well. Woods and forests are ideal areas to hide, thus making tasks as finding and disarming of belligerents a necessary and essential.
- 0928. Restoration of services also applies to roads, rail roads and waterways that run through these areas. In many cases special heavy equipment will be needed. Transportation of this kind of equipment to the allocated areas will cause many difficulties. Also the protection will need extra attention.

Enabling Activities

0929. When planning and executing these activities, commanders will have to take into account the same precautions and thoughts as they have to do in case of offensive and defensive activities. Certain tasks cannot be avoided and must be accomplished no matter which problems their execution will cause. Relief of encircled forces and all security related tasks are examples. Once offensive and defensive activities are planned and executed in these areas, the planning and execution of enabling activities as the underlying, necessary activities, can not be avoided anymore.

Section III - Built-Up/Urban Areas

Introduction

- 0930. Throughout the world, particularly in developed nations, urban and industrial areas continue to grow in size and number. Most will be particularly significant as centres of population or industry, many will be operationally significant as centres of communication and some will have tactical value being near or on important ground. To an increasing extent military operations are bound to be conducted around, in or through them. The need to understand and perfect the tactics and techniques of operating in built-up areas has become increasingly important.
- 0931. The collective term built-up areas refer to towns, villages, hamlets, industrial areas and the associated infrastructure. The extent of their influence on operations depends on structure, density and size. Built-up areas are normally at road intersections and often form political, cultural and industrial concentrations. Furthermore, the largest part of the population usually lives in built-up areas. Their presence has a direct effect on operations. In their operations, commanders must prevent civilian losses and damage to the infrastructure which is vital to the civilian population. The presence of nuclear power stations, large quantities of chemicals and oil supplies carries risks of unpredictable proportions during combat actions. The protection of important cultural items is particularly significant. The Geneva Conventions can play a vital role in this respect, something which places demands on the civil military coordination.
- 0932. Everything that is stated in this section, especially in case of planning and execution of offensive and defensive activities, has to be considered in the light of the presence of the local populace, IO's, NGO's, or stating it otherwise: all relevant actors have to be taken into account. Commanders at each level have to be constantly aware of the presence of all actors and plan every activity and actions with this awareness as a major factor of influence. Troops, especially at the platoon and group level, have to be aware of and trained in handling these complex situations.

Characteristics

- 0933. When operating in built-up areas, the following characteristics will affect the conduct of operations:
 - a. Short observation zones and fields of fire;
 - b. Good concealment and possibilities for protecting troops and equipment;
 - c. Limited manoeuvre possibilities for mechanised units, but good opportunities for infiltration and turning movements by the infantry;
 - d. Close combat and greater vulnerability of vehicles;
 - e. Restrictions because of the presence of civilians;

- f. Limitations in command and control and communications;
- g. More limited effect of artillery and mortar ammunition;
- h. High consumption rate of ammunition and fortification materials; and
- i. Extremely demanding, both physically and mentally.

Considerations

- 0934. Cities of the world are characterized by density of construction and population, street patterns, compartmentalization, affluent and poor sections, modernization and presence of utility systems. The differences in built-up areas are in size, level of development, and style.
- 0935. Most major cities throughout the world have European characteristics. They have combination street patterns, concrete and steel high-rise structures distinct economic and ethnic sections, and sometimes areas known as shanty towns or poor districts; all of which hinder movement and limit radio communications.
- 0936. Variations in cities are caused mainly by differences in economic development and cultural needs. Developed and developing countries differ more in degree and style rather than in structure and function. Major urban trends are: high-rise apartments, reinforced concrete construction, truck-related industrial storage, shopping centres, detached buildings, suburbs at outer edges, and apartment complexes.
- 0937. The spatial expanse of cities in the last three decades presents problems for planning and execution of military activities in built up and urban areas. The increased use of reinforced concrete framed construction is only one example of the trend to use lighter construction, which affects how forces will attack or defend such an area. Another example is the growing apartment complexes, shopping centres, and industrial business areas that lie on the outskirts of towns and cities.

Descriptions Of Urban Areas

- 0938. A typical urban area consists of the city core, commercial ribbon, core periphery, residential sprawl, outlying industrial areas, and outlying high-rise areas.
- 0939. In most cities, the core has undergone more recent development than the core periphery. As a result, the two regions are often quite different. Typical city cores of today are made up of high-rise buildings, which vary greatly in height. Modern planning for built-up areas allows for more open spaces between buildings than in old city cores or in core peripheries. Outlying high rise areas are dominated by this open construction style more than city cores
- 0940. Commercial ribbon development are rows of stores, shops, and restaurants that are built along both sides of major streets through built-up areas. Usually, such streets are wide and open. The

- buildings are uniformly two to three stories tall about one story taller than the dwellings on the streets behind them.
- 0941. The core periphery consists of streets with continuous fronts of brick or concrete buildings. The building heights are fairly uniform 2 or 3 stories in small towns, 5 to 10 stories in large cities.
- 0942. Residential sprawl and outlying industrial areas consist of low buildings that are 1 to 3 stories tall. Buildings are normally detached and arranged in irregular patterns along the streets with many open areas.
- 0943. It is not so easy to categorize the underground systems that abound in cities and towns, and which provide an additional dimension to urban operations. Most European houses have cellars, usually self-contained, which differ with the type of building. Many towns have sewage systems or passages for electric or telephone cables which are frequently large enough to permit passage of troops. Some cities have underground railways or rivers. It is important to be aware of the tactical implications of any underground systems.
- 0944. For towns, particularly the centre of towns or the older parts of the town, the houses are normally closely packed with smaller streets and open areas laid out in an irregular manner. Outside the town a more modern and methodical layout can be assumed.
- 0945. Although most villages are small and compact, usually comprising a few streets, more recently they have grown in size and density. Although there may be much open land around a village, within the village itself the density of housing and construction could well be the same as for a town.
- 0946. The built-up areas of developing nations will lack developed infrastructure and planned layouts. They will be dense in terms of structures and population masses.
- 0947. There are various other factors that commanders and staffs have to take into account when planning activities in built up areas. These factors tend to be become more complicated at the lower levels of the force organisation. At company level and below detailed TTPs need to be described and well trained in order to be able to carry out activities and actions within a built up area. TTP's on these levels are not described in this ATP, but should be dealt with in national training documents.

Offensive Activities

- 0948. These activities in built-up and urbanised areas are avoided wherever possible. It is advisable to bypass such areas. An enemy may, however, have deployed his defence in such a way that built-up or urbanised areas cannot be bypassed and must be incorporated in the plan of attack. An attack in a built-up area usually gives rise to prolonged combat actions with heavy losses. As much combat support as possible must be provided. Freedom of action is limited by the need to spare the civilian population and objects of cultural value.
- 0949. As the international situation shows there can be seen a tendency to use built up areas more and more as part of the strategy and tactics that irregular operating opponents use. Therefore the

basic, generic advise to avoid built up areas is maybe still a valid one, but can in many cases and circumstances not be followed.

- 0950. The considerations mentioned in the following points are, therefore, of increased importance. The following considerations may apply when planning offensive activities in a built-up area.
 - a. The enemy can set up all-round protection. His fortified positions which are grouped in the depth and can be reinforced with tanks and guns. He will not always be able to defend urbanised areas cohesively. Irregular operating opponents, however, will use any form and way of defending themselves against attacking forces. They will use unorthodox methods (including the use of civilians as human shields, hostage taking and killing of representatives of NGO's, IO's and the international press) and do not have subscribed any international legal convention;
 - b. The higher commander's intent should be used to decide whether the entire built-up area must be cleared of the enemy or whether just one or more corridors should be taken and cleared in order to break out at the other side of the area. Bringing security to the populace and facilitate the early start of humanitarian oriented activities will also be an important factor in the commander's intent, also in those cases and circumstances that hostilities have not yet ended;
 - c. The size, structure and location of the built-up area have a major influence on the plan of attack. It may be more efficient to merely isolate the built-up area rather than attack it directly. Phasing is not used in areas that are widely scattered. In a dense built-up area, the operation should be conducted in phases with short-range objectives. In large built-up areas and urbanised districts, troops must push through to the depth in order to break the enemy cohesion;
 - d. Although operations in built-up areas require thorough preparation, the plan should be kept simple. The plan of attack should be detailed for the first part of the attack; detailed planning far in advance is not normally useful. Follow-up plans are made on the basis of combat reconnaissance; and
 - e. The momentum should be kept up around the clock, as any brief interruption enables the enemy to regroup and regain the initiative locally. The plan of attack must, therefore, make provisions for quickly taking over the fighting from forward units, positioning the reserve close behind the forward units and a permanent supply of ammunition.
- 0951. The attack on a built-up area consists of three phases:
 - a. Isolation of the area;
 - b. Attack on and in the built-up area; and
 - c. Clearing the area of enemy elements (if necessary).
- 0952. Before an attack is mounted inside and through the built-up area, the area itself will have to be isolated. The axis of advance to and in the built-up area is such that a rapid drive into the depth

is possible. A flanking attack whereby the exits from the built-up area are cut off is advisable. If necessary, security units operating outside the built-up area are eliminated first. In this phase, the built-up area is cut off from its surroundings, which makes it difficult for enemy reserves to intervene. An airmobile operation may be conducted to attack the enemy from the rear and cut off his service support.

0953. The attack on the outskirts of the built-up area is mounted from a surprise direction, ideally by armoured units. The defence in the outskirts of the built-up area needs to be neutralised by means of fire support, particularly smoke. The first (intermediate) objectives are selected to provide a foothold in the outskirts. A brief reorganisation will then be necessary, which will lead to phasing. If a mounted attack on the outskirts of the built-up area proves impossible, (mechanised) infantry should be deployed immediately. The built-up area is captured by pushing through with the infantry grouped in the depth to the exits from the area as quickly as possible. This attack is characterised by a decentralised method of operating by companies and platoons supported by engineer assets, such as tank dozers and demolition teams for creating openings or corridors. Tanks and armoured vehicles can provide local support, which means that mixed teams need to be assembled. Guns can be assigned if necessary to open up gaps with direct fire. Engineer units must first have made the roads passable and cleared minefield barriers. If it is necessary to clear a built-up area of enemy elements, this is done by the following units on each side of the original axes of advance. The entire area must be cleared systematically, whereby priority is given to securing the through-roads and their intersections, bridges and viaducts. If the attack is to be continued beyond the built-up area, reorganisation must take place in the built-up area itself.

Defensive Activities

- 0954. Depending on their size and location, built-up areas can represent key terrain. The obstacle value and the concealment and cover make built-up areas an ideal backbone for a defensive operation. The defence of a built-up area is useful if the attacker cannot circumvent it. Urbanised areas are only involved in the defence if they are to remain inaccessible to the enemy and it is impossible to conduct or continue a defensive operation in front of these areas.
- 0955. Ideally, built-up areas are not incorporated in the defence if:
 - a. There is insufficient combat power available for the defence;
 - b. Certain buildings or areas (such as historical buildings or hospitals) make it impossible to conduct an effective defence within the built-up area;
 - c. The built-up area is dominated by an area situated at a higher level, from where more effective fire is possible; and
 - d. It has been declared an 'open city' for humanitarian or political reasons.
- 0956. Setting up a defence in a built-up area requires thorough reconnaissance. A great deal is also required in the way of field fortification equipment, some of which is available in the built-up

- area itself. Underground structures should also be involved in the defence, such as sewage systems, underground transport systems, cellars and garages.
- 0957. Even after a built-up area has been surrounded, it can still be held for a while provided that appropriate preparations have been made. In the long term, a defence can only be sustained if the built-up areas are part of a larger-scale, cohesive defence. Defensive operations in built-up areas have a particular requirement for (mechanised) infantry and engineers. Most of the armoured units are kept on standby outside the built-up area to avoid being closed in. Urbanised areas are defended on the fringes and in the clearings in between. The main traffic arteries constitute the key terrain in these areas.
- 0958. The defensive operation starts in front of the fringes and focuses on mounted approach routes and on the enemy who is attempting to cut off the built-up area. Because enemy fire support will primarily be directed at this outer edge, armoured assets will be deployed on the flanks or in front of the built-up area. If this is not possible because of terrain conditions or the availability of assets, the forward positions should be located in the built-up area. Armoured units can prepare their positions on the fringe and take them up if necessary from assembly areas. Within the built-up area, the limited fields of observation and fire mean that not only narrower sectors are necessary, but also those personnel need to be concentrated. Positions should be prepared for all-round protection. The main priority is to hold positions; only then can the cohesion in the defence be maintained. The operation quickly turns into a large number of smaller-scale combat actions, during which the (mechanised) infantry conducts the battle in and around houses and other buildings. Reserves must be kept ready locally and close behind the front line.
- 0959. The main effort should be established at the point which offers the enemy the best opportunity to penetrate deep into the defence area by means of wide roads or through non-urbanised terrain. In this terrain, the defence must be grouped in the depth and reinforced with anti-tank weapons.
- 0960. Armoured units are not normally deployed in concentrated formations in built-up areas. They have to work closely with the infantry and are thus mixed as far as team level. Assets must be kept ready at all times, however, to reinforce the anti-armour defence at threatened points.
- 0961. The area between the positions is integrated in the defence plan. As far as possible, this area is covered with fire, supplied with obstacles and secured by patrols and posts. This results in a cohesive defence, which prevents enemy penetration of the defence area if he has gained a foothold in the forward edge of the built-up area.
- 0962. The sector boundaries are chosen in such a way that entire streets, including the buildings on both sides, fall under the responsibility of one unit. If a unit has to give up a position, another unit must have occupied a deeper position in order to take over the battle. This overlapping method of operating is recommended. The necessary rearward passage of lines must have been prepared. The plan for the manoeuvre must also have been drawn up in such a way as to ensure that the loss of a single position does not lead to the loss of cohesion.

0963. If possible, the enemy is halted in front of the positions by means of fire from different directions. If the enemy manages to penetrate the defence area, he should be engaged immediately by local reserves. Counterattacks are carried out before the enemy is able to consolidate. A rapid counterstroke at low level has more chance of success than a counterattack after the necessary preparation. If there are no assets available for a counterattack, a built-up area offers countless possibilities for continuing the defence from deep positions. Where necessary, demolitions can be carried out in order to deny the enemy unrestricted use of the built-up area

Stability Activities

- 0964. The nature and the importance of this category of activities requires execution under all circumstances, despite the limitations and problems described above in relation to planning and executing offensive and defensive activities. The most important advice, to avoid urban areas where possible, can not be followed in case of this category of activities. These activities are so crucial for the restoration of security that they have to be carried out, no matter what effort it takes. Saying this the security of the involved own troops and the civilian population is always a very critical point of influence.
- 0965. Urban areas are the concentration points of the populace, the local and national government, industries, other business facilities and transport capabilities on one hand, but offer also excellent hiding areas for adversaries and their supporters.

Enabling Activities

0966. Since these activities are the connecting, supporting factor for the other three categories, troops have to be prepared to execute these activities. The limitations and problems to be encountered can be seen as equal as those described in the sections on offensive and defensive activities.

Section IV - Cold Weather & Arctic Conditions

General

0967. Executing military activities in extremely cold weather conditions requires special techniques, training and equipment. Snow, ice, frost and fog are likely to occur in such conditions. Wind intensifies the effect of cold on people.

Characteristics

0968. Extremely cold conditions have a number of radical effects on operations. Once normal conditions have returned, these effects usually disappear quickly. The weather is often highly unpredictable. Depending on the time and place, conditions can change extremely quickly. The following effects can be identified.

- a. Severe frost can improve the condition of terrain that was previously difficult or impossible to negotiate. The obstacle value of waterways is reduced or eliminated completely if extreme cold persists;
- b. Heavy snowfalls can make movements over previously passable terrain impossible. Roads can then only be used after they have been cleared;
- c. After a period of extreme cold, a thaw can make sizeable areas impossible for vehicles to cross;
- d. Keeping weapon systems, vehicles and other equipment combat ready requires special measures, equipment and facilities. Metals and plastics become hard and brittle in extremely low temperatures;
- e. The living conditions are particularly tough for personnel and impose heavy demands on their physical stamina. Measures need to be taken against frostbite and dehydration. Special provisions in terms of clothing, equipment, food and medical support must keep the combat power up to the required level. Because of the cold, it is often impossible to remain for any length of time in unheated positions without the risk of cold injuries;
- f. Making trenches and cover is problematic. Normally, this can only be done with the aid of explosives;
- g. After a snowfall, special measures must be taken for camouflage;
- h. The effect of artillery and mortar fire is considerably reduced by the smothering effect of snow; and
- i. Fuel consumption is higher than normal. This is because it is used for heating, which is necessary to prevent breakdown. Semi-arctic areas have many hours of daylight in the summer and few in the winter. Biting winds make it more difficult to see with the naked eye.

Considerations

0969. Extreme cold affects all military activities, tasks and actions: these cost a great deal more time than under normal circumstances. The effect of cold weather on the terrain and on enemy and friendly operations usually leads to an adjustment of plans. Units must be able to survive in these extreme conditions and be deployed for prolonged periods. This requires proper training and equipment and a modified organisation. The combat is usually conducted by relatively small units which can hold out independently over a prolonged period. It is often difficult to make any changes in the order of battle during the course of the operation.

Offensive Activities

- 0970. In extremely cold weather, success can be guaranteed if the attacker manages to separate the enemy combat units from their combat service support. Without food or fuel to survive, the effectiveness of combat forces is drastically reduced. Because of the need to concentrate positions, the defender's flanks and rear are only covered by surveillance so there is good scope for circumventing the opponent.
- 0971. Heavy snow, storms and fog provide excellent opportunities for a surprise attack. Severe frost over a prolonged period reduces the obstacle value of waterways, swamps and lakes. However, movements in a winter landscape are more easily observed. The attack is delayed, as more time has to be spent on service support for both personnel and equipment.

Defensive Activities

- 0972. The number of personnel available for combat actions in extremely cold weather conditions is usually limited. It is also difficult to construct defensive positions. As a result, it is often impossible to set up a complete defence with mutually supporting positions. Certainly (mechanised) infantry will operate in relative isolation from various positions with perimeter protection. This applies less to tanks.
- 0973. The use of observation posts is necessary for the surveillance of unoccupied areas between the positions in order to enable the timely deployment of reserves. The reserves will, therefore, be deployed in a more decentralised manner. Account must also be taken of the fact that once a unit has been deployed, it cannot automatically be moved; this may even be impossible because of heavy snowfalls or thaw. The choice for the initial positions is, therefore, extremely important.
- 0974. The possibility that the enemy's avenues of approach could differ from what was originally expected must also be borne in mind. Given the dispersion, it is relatively simple for the enemy to infiltrate and then seize the logistic support installation and the lines of communications. The protection of the rear area thus requires special attention.

Stability Activities

- 0975. The problems and limitations that are caused by the conditions described above in the sections on offensive and defensive activities are applicable for this category as well. However the impact of these severe weather conditions may even more hamper the civilian populace, which often suffers much more from the bad conditions through lack of food, heating and shelter. This means that despite the bad weather circumstances and all the constraints they may bring for the execution of a military operation, this operation has to be planned and executed, in order to bring security and start restoration of services and infrastructure.
- 0976. Restoration of services is also negatively influenced by severe cold. It will take considerable more effort to restore water and electricity supply and all types of infrastructure.

Enabling Activities

0977. Enabling activities will face the same limitations and constraints as described in the sections of offensive and defensive activities.

Combat Functions In Cold Weather/Arctic Conditions

- 0978. **Command and Control**. In operations in extremely cold weather, the emphasis lies on centralised planning and decentralised execution. The commanders at lower levels are expected to pay special attention to personnel care as well as showing initiative and persistence. The planning must take account of longer preparation periods and an increased requirement for rest, clothing and equipment. The capacity of communications equipment is also severely reduced in extremely low temperatures.
- 0979. **Intelligence**. Sensors are ideal in these situations for observation over a prolonged period. However, the energy supply for these sensors is limited. Most of the intelligence, therefore, must still be gathered by combat reconnaissance. The use of helicopters for patrols can offer great advantages.
- 0980. **Manoeuvre**. Extreme cold has a major effect on the condition of the terrain. Little or no snow is generally good for movements. Heavy snowfalls, on the other hand, seriously hamper movements. Wheeled vehicles must have snow chains. Much-used roads and paths must be cleared if possible. Mine clearance is difficult under these circumstances because of the (partially) frozen detonators, reduced effectiveness of detectors and excavation difficulties. Helicopters are a good alternative for rapid movements, for example in the case of reserves. It may be necessary to block routes over frozen waterways, albeit temporarily, with the aid of explosives or by deploying artillery. Helicopters can be seriously hampered by heavy snow; for this reason, helicopter operations may be locally and temporarily impossible. Landing strips and zones with loose snow may also restrict helicopter operations.
- 0981. **Fire support.** The effectiveness of the weapon systems may be reduced substantially, particularly by the diminishing effectiveness of batteries, engines and fuel, oil and lubricants. Artillery and mortar fire becomes less effective because of the smothering effect of the snow. Air support, may be limited due to weather conditions.
- 0982. **Protection**. More than in any other conditions, it is vital that personnel be sheltered from the cold and the wind. Positions can often only be constructed by means of explosives. Setting up cover for armoured vehicles can also cause problems. Laying obstacles can be very costly in terms of time, equipment and explosives. After intensive snowfalls, the concealment and camouflage of positions, personnel and equipment require time-consuming adjustments. The effect of concealment of weapon positions is partly cancelled out by the cloud of loose snow that is produced when weapons are fired.
- 0983. **Combat Service Support**. The service support has to take account of a higher rate of consumption of food and fuel and an increased incidence of non-combat losses (cold injuries). Since movements will generally proceed at a slower pace, turn-around distances between

service support and user units will increase. This may lead to an increased transport requirement, for which helicopters can be deployed. If the supply of user units is jeopardised by the weather conditions, their self-sufficiency can be increased, possibly by storing supplies in dumps. Maintenance activities are more difficult. The capacity can be kept up to the required level by means of sheltered and heated work sites.

Section V - Desert And Hot Regions

Introduction

0984. Operations in desert regions are mainly affected by features of the terrain: the lack of infrastructure and local supplies; good fields of observation and fire; and, significant temperature ranges and arid conditions. Temperatures have a major effect on the performance of personnel and equipment. Ground water is often so deep that only small amounts can be obtained by digging wells.

Characteristics

- 0985. Desert regions are usually located in warm or tropical climate zones, which mean that there is a combined effect of climate and terrain. Deserts consist of large stretches of terrain with a passable surface, fairly flat and relatively uninterrupted by obstacles. There are also areas with great differences in altitude and with steep rock formations, sometimes even in the nature of a low mountain range, and vast sand dunes.
- 0986. The lack of water makes the desert an inhospitable region. It is sparsely populated and has an extremely limited infrastructure. Inhabited areas are few and far between and are only to be found where there is water.
- 0987. The surface conditions away from the few roads require equipment with some degree of offroad capability, such as tracked vehicles.
- 0988. Vegetation is scarce in the desert, which means that artificial aids have to be used for camouflage.
- 0989. The extensive fields of observation and fire require a permanent all round protection, mobility and long-range reconnaissance. Because of the limited possibilities for orientation, the use of navigation apparatus is essential at all levels.
- 0990. There are enormous differences in temperature in the desert; during the day in the summer the temperature can rise to above 45°C, and at night in the winter it can drop to -5°C. Temperatures can vary some forty degrees from day to day. Intensive rainfall occurs sporadically in desert regions. Because of the lack of vegetation, the ground is unable to soak up the enormous amount of water, which results in local flooding. Some low-lying areas (wadis) then become dangerous. The wind can be extremely strong and cause sandstorms, in which units may become completely isolated. This can also cause considerable damage and wear to equipment.

Good uninterrupted visibility across terrain with few features can cause people to underestimate distances. Rising air can limit visibility; the effect of vibrating air is compounded by the use of binoculars. Atmospheric refraction distorts the shape of objects, especially vertically. All of this combines to reduce orientation and observation capabilities.

Considerations

- 0991. **Effects on Personnel**. Surviving in desert regions over a prolonged period imposes heavy physical and mental demands on personnel. Operating in the desert affects them physically and psychologically, particularly because of dehydration, exposure to the sun and the high temperatures. Physical capabilities are more limited and water consumption is extremely high. Strict discipline and extra personnel care are essential if the negative effects are to be kept to a minimum. Acclimatisation is necessary to allow the body to adjust to the extreme heat. A period of approximately four weeks is usually enough. If that is impossible, deployment in hot conditions must alternate with a period in a cool area. Protection against the effects of the sun and sandstorms is also vitally important.
- 0992. **Effects on Equipment**. Heat and sand take their toll on much of the equipment. The performance of helicopters diminishes considerably. The heat can have an adverse effect on supplies. Sand and dust can also have adverse effects, such as the accelerated wear of equipment. Frequent maintenance is thus highly important.
- 0993. **Planning and Execution**. In flat desert regions, the operation is mainly conducted by armoured units, sometimes supported by airmobile and airborne units. Combat will usually take place in a large area which offers good scope for conducting highly mobile combat. In general, the command and control will not differ greatly from that under normal circumstances; the time and space factors, however, will be different.

Offensive Activities

- 0994. Because of the large amount of space available, the desert region is ideal for envelopment and turning movements. Assault troops should use the enemy's open flanks to circumvent the enemy main effort and occupy key terrain in the depth; the enemy will thus be outmanoeuvred. Because of the lack of cover, assault troops are also vulnerable.
- 0995. Close cooperation between ground, airmobile and air components is essential. Covered approaches for helicopters are by no means always available; the enemy will thus observe these airmobile movements relatively early and it will be simple for him to attack. The consequences of the lack of camouflage possibilities are reduced by surprise, rapid movement and operations security (communications discipline and deception). Ideally, the combat is conducted at night because of the relatively higher degree of protection, favourable temperatures and the possibility of fighting without air superiority.

Defensive Activities

- 0996. The extensive fields of observation and fire, the lack of obstacles and the numerous avenues of approach are the specific problems for defensive operations. This can be compensated by conducting the defence in the depth and by keeping a strong reserve. The initial emphasis should in any event be on establishing the location of the main enemy effort, so that it is possible to concentrate the counterattack force or the reserve on the enemy flank or rear. Key terrain in the desert consists of logistic facilities, road and rail intersections, water-collection areas, mountain passes, and so on. Holding the desert region itself will seldom be a deciding factor in achieving the ultimate objective. A cohesive defence is not usually possible without a major engineer effort. Both sides will make much use of minefields in the defensive operation.
- 0997. Special attention is required for timely reconnaissance, the preparation of positions in the depth and maintaining contact with the enemy in order to prevent turning movements. The extensive fields of fire mean that the enemy can be attacked at the longest possible range. Field artillery, aircraft and attack helicopters can be used to support the withdrawal and the subsequent movement to the depth. Smoke can also be used to conceal these moves.

Stability Activities

- 0998. As these regions will have less dense populations in general, there will be built up areas in its entire occurrence, ranging from small farmer settlements to larger cities and industrial areas. This means again that the establishment of security and control and, inherent, SSR will be the direct effects that an operation will focus on. The harsh climate affects the execution of such activities in the same way it affects offensive and defensive activities, but beyond that there is an absolute urgency to carry out these categories of activities as soon and effective as possible.
- 0999. In relation to restoration of services, water supply will probably be the key issue. One of the characters of such terrain is the absence of roads and tracks, and quite often the impossibility to use the terrain outside these, makes it urgent to open as soon as possible key roads. Usage of air transport is also a necessity, special for the most remote areas.

Enabling Activities

09100. The conduct of enabling activities in desert conditions will require the same considerations as those given for offensive and defensive activities.

Combat Functions In Desert/Hot Weather Conditions

09101. **Command and Control**. Command posts should be kept as mobile as possible so that they can follow the mobile operation over long distances. The speed of the operation and the large space in which it takes place require extra communications measures, such as relay stations, satellite links and (airborne) tactical command posts.

- 09102. **Intelligence**. Because of the vast space in which troops operate and the high tempo of the operation, there is a requirement for long-range collection units. Airborne and spaceborne platforms such as UAVs, tactical air reconnaissance and helicopters are ideally suited in this respect. Electronic support measures are also an important aid, as there is virtually no interference of radio traffic by external factors in these uninhabited areas.
- 09103. **Manoeuvre.** The vast space in desert regions gives rise to large-scale movements with long, open flanks. These movements mean that rear operations are a crucial factor in the sustainability. The use of helicopters offers considerable advantages.
- 09104. **Fire support**. The artillery and mortar units should have the same mobility and must be able to develop the same tempo as the combat forces. The use of artillery observers from helicopters can be highly effective because of the extensive fields of observation. Vast space and high tempo require CAS by fixed and rotary wing. The absence of any cover may endanger the use of attack helicopters. Regular and irregular opponents can use all types of weapon systems to attack low flying CAS elements.
- 09105. **Protection**. The scant vegetation in the terrain provides little cover. This can be compensated by a deception plan in which dummy operations play a major role. The lack of obstacles means that mines are used extensively. Air operations are almost always possible in desert regions. This lays a substantial claim on air defence units. Because of the scarcity of air defence assets, each unit must provide more all arms air defence than usual.
- 09106. **Combat Service Support**. The high tempo of the operations in desert regions means that turnaround distances increase rapidly. The huge requirement for fluids means that the distribution of drinking water to personnel is the most essential provision. Temperature controlled storage and transport of foodstuffs is usually another necessity. The maintenance system is stretched to the utmost because of excessive wear as a result of the effects of sand and dust. The logistics system should focus mainly on the prevention of sand and heat damage to engines and the moving parts of pieces of equipment. The medical system concentrates mainly on the prevention of dehydration and infections. Air-conditioned treatment areas are needed because of the high temperatures. The medical system must be prepared for the treatment of various ailments specific to desert conditions, such as sunburn, heat-stroke, dehydration and cold injuries.

Section VI - Operations In Mountains

Introduction

09107. Mountainous territory is extremely uneven terrain, which has steep slopes and valleys and which covers a large area. Mountainous terrain includes built-up areas and lowlands between the mountain ridges, highlands and passes. Towns and other built-up areas are concentrated in the valleys. The weather conditions are extremely changeable.

Characteristics

09108. Operating in mountains has the following characteristics:

- a. The enormous differences in altitude offer good observation possibilities, but at the same time create large areas of dead space. These differences also affect the range of communications equipment;
- b. The road infrastructure generally follows the pattern of watercourses. This affects the manoeuvre, as most of the assets are confined to the road network. At higher altitudes, the road network is extremely limited. Movements off the roads and paths in such areas are only possible for troops on foot;
- c. On the lower slopes, the vegetation often consists of woods and bushes, which provide the necessary concealment. There is virtually no cover above the tree line;
- d. At higher altitudes, the ground is made up of rock; digging trenches is thus time-consuming and can only be done with special equipment;
- e. Operating on foot in mountainous terrain is extremely demanding in physical terms because of the thin air and the enormous differences in altitude; and
- f. The weather is often unstable and can change very quickly.

09109. These characteristics result in the following restrictions:

- a. Armoured units can only be used to their full advantage in the valleys and in the areas near the roads over the passes;
- b. Because of the limited scope for movement, changing the combat organisation after the initial deployment is complicated;
- c. The differences in altitude often hamper mutual support between units; this requires a low-level order of battle of essential weapon systems; and
- d. The limited road infrastructure imposes restrictions on the combat service support for tactical formations.

Considerations

09110. **Effects on Personnel**. The effects of the weather on personnel under normal circumstances is intensified in mountainous terrain (for example, the dazzling effect of the sun, hypothermia caused by cold winds and snowstorms, avalanches, floods caused by heavy rainfall, altitude sickness, thinning of air as altitude increases). For this reason, only those personnel who have had good mental and physical training and who have the necessary equipment can operate effectively in mountainous terrain. An acclimatisation period of at least a few days is required.

09111. **Effects on Equipment**. Extra training is needed for driving in mountainous terrain. Tracked vehicles can easily skid in loose stones and rubble, mud or snow. Not all roads are passable for large service support vehicles. The thin air also has an adverse effect on engine performance. Above certain altitudes, there will be loss of power from engines.

09112. Planning and Execution.

- a. The area is compartmentalised because of the great differences in altitude; this makes it difficult to maintain the cohesion in the operation. Operations in mountainous territory focus primarily on key terrain. In mountainous terrain, this consists of areas which control passes, road intersections, exits from valleys, defiles and through-roads. The possession of these key areas of terrain has a canalising effect; they can often be controlled from a higher altitude. Combat actions to gain or hold high ground will often dominate mountain warfare; and
- b. Infantry can operate virtually anywhere in mountainous country. Only infantry can capture and hold key terrain that is situated high in the mountains. Units of platoon and company size can often delay or halt a larger enemy unit by occupying critical high ground near passes or on mountain ridges. Movements are ideally carried out by helicopter, as passing critical high ground any other way is extremely time consuming. Support by artillery and mortars and close air support makes the helicopters even more effective.

Offensive Activities

- 09113. More assault troops are needed than in flat terrain in order to compensate the terrain advantages of the defender. The scope for influencing the operation is increased if a central reserve with a high degree of mobility is available. Airmobile units are particularly suitable in this respect. Axes of advance which follow the course of the valleys are the most favourable. The speed of attack will be lower than in flat terrain.
- 09114. The assault troops will encounter the most resistance in the valleys, as long as the enemy controls the valleys with fire from higher ground. In that case, it is necessary to first take up forward positions, if possible on the flank and in any event on higher ground, before the attack can be mounted in the valley. If this is not possible, the enemy is first fixed frontally so that he can be circumvented via the surrounding valleys and high ground.
- 09115. The reserve follows along the roads so that it can be deployed quickly. Normally, tank units can only conduct an attack via the roads. Turning or enveloping movements by infantry should be carried out via higher ground. This is very costly in terms of combat power and time. Airmobile units can play an important role in this respect.
- 09116. The terrain may restrict the attack direction of the CAS strikes and may limit communications. However, mountain terrain may force the enemy to concentrate his forces along roads, valleys, reverse slopes, and deep defiles, where CAS can be very effective. Attack helicopters can get close to the enemy positions as they are barely affected by the nature of the terrain and the

mountains can provide extensive cover. Unstable weather conditions can, however, impose sudden restrictions on CAS and the deployment of attack helicopters.

Defensive Activities

The Defence

- 09117. The combat organisation is heavily influenced by the terrain. Task forces often need to be formed for prolonged periods. The size of units that receive independent orders must be such that they can also form their own reserve. The need for a central reserve is determined by the estimated reaction time for its deployment.
- 09118. The defence is mainly conducted on passes, road intersections and critical high ground. Mountain ranges running transversely in the defence area favour the operation. Although it is possible to select positions with extensive fields of observation and fire, it is often difficult to introduce cohesion into the defence. The defence is characterised by local combat actions on a small scale.
- 09119. In terrain with good visibility and few obstacles, armoured units can conduct mobile operations. Counterattacks of any substance are only possible in wide valleys or on upland plains. When the enemy attacks, armoured units will stop him in the valley. These combat actions may be supported from positions in areas of higher ground. The later troops open fire, the deeper the enemy will penetrate the defence area and the greater the possibility of attacking him on the flanks. If, despite counterattacks and counterstrokes, the enemy pushes through, he must be countered with a defence grouped in the depth.
- 09120. Mountainous terrain provides favourable possibilities in this respect. The use of transverse connecting routes makes it possible to attack the enemy quickly in the flank and rear. The main effort of the friendly operation is situated at the point at which the terrain allows a rapid enemy drive with armoured assets. It is difficult to shift the main effort in mountainous terrain. The nature of the terrain often means that reserves have to be decentralised and located close behind the forward units.
- 09121. Reserves from the higher level are, on the one hand, intended for reinforcement of forward units in the identified main enemy effort and, on the other, for disabling enemy airmobile or airborne elements. Friendly airmobile units thus make an ideal reserve. Engineer units support the defence by setting up obstacles, particularly on passes and roads.

The Delay

09122. The same considerations apply to the activity of delay in mountainous terrain as those for the activity of defence. On his approach, the enemy will initially deploy his assets on the through roads in order to be able to push through into the depth of the area. If he encounters fierce resistance or if he wishes to use surprise, he will use the areas in between.

- 09123. Mountainous terrain provides good opportunities for repeatedly forcing the enemy to deploy by means of obstacles and temporary defence. There is also the possibility of setting up ambushes and surprise positions from constantly changing directions. The terrain often provides clear indications for the location of the main effort; it is difficult to shift it because of the nature of the terrain.
- 09124. Mechanised infantry may also be involved in the execution of delay. They must conduct mobile actions, supported wherever possible by tanks. These tanks always depend on the support of the (mechanised) infantry. The obscurity of the terrain means that there is a need for several task forces which conduct the combat more or less independently. There will often be just a small reserve which is maintained locally and located close to the forward units. A larger reserve is kept if:
 - a. the terrain allows the rapid transfer of the reserve to threatened areas
 - b. the reserve is able to conduct counterattacks
 - c. the reserve is designated as a protective element for the purposes of disengagement.

Stability Activities

- 09125. Security and control will focus on the valleys and the key terrain around these. The larger part of the populace and the life supporting mans, such as agriculture and industry will be found here. The main focus on establishing security and control and SSR activities will lie in these valleys. However, since opponents most likely will pull back in the mountains, their strongholds will require constant attention as security in a whole region depends on the neutralisation of these strongholds.
- 09126. Restoration of services will focus mainly on the valleys. A special problem will be the opening and securing of roads and the facts that distances will be enormous. Bringing in supplies and building up such an area will consume lots of time and transport means. The process will be very vulnerable for quick changing weather conditions and the fact the height of an area can limit the transport capacities of air lift means.

Enabling Activities

09127. The considerations described above for other tactical activities apply equally to enabling activities in mountainous terrain.

Combat Functions In Mountains

09128. **Command and Control**. Command and control is problematic in mountainous terrain because of the compartmentalisation of the terrain. As a result, units operate independently and in smaller groups. Plans must be closely coordinated. Communications pose an additional problem in this case as the operation is conducted in a mobile way over great distances and the

terrain causes receptions to be shielded. Units often operate separately because of mountain ridges. Because of the limited scope for deployment and the communication problems, the location of the command post must be chosen carefully. Commanders and staff officers need to be able to move quickly and frequently. Command and control units should, therefore, be as small and light as possible, if necessary in an airborne tactical command post. It may be necessary to incorporate them in combat units in order to provide adequate protection.

- 09129. **Intelligence**. Reconnaissance should also extend to adjacent and adjoining valleys in order to identify ambushes in good time. The need for reconnaissance in the depth of the sector is greater than in flat terrain because of the limited scope for observation and movement. Air reconnaissance is often the only method for collecting intelligence from the depth of the sector in mountainous terrain.
- 09130. **Fire Support**. If centralised battle command is not possible, parts of the artillery will be placed under the command of the assault troops. In mountainous terrain, the artillery must establish a close network of observers. An enemy that makes use of extremely steep slopes can sometimes only be countered with mortar fire. Mortars can also be deployed in places which cannot be reached by guns. The terrain conditions in the valleys often restrict close air support for the forward units; therefore, CAS needs to be planned carefully in these circumstances. Weather, ceiling and visibility may affect the decision to employ low, medium, or high altitude tactics.
- 09131. **Protection**. The air defence should mainly be directed at valleys and roads. It must also be possible to attack an enemy airmobile or airborne deployment. For the deployment of air defence, the following aspects need to be considered:
 - a. Areas from which adequate early warning for the delivery assets is possible;
 - b. Good locations for the delivery assets;
 - c. Local protection of isolated air defence positions; and
 - d. Resupply of ammunition.
- 09132. **Combat Service Support**. In mountainous terrain, the combat service support is vulnerable because of the lack of sufficient infrastructure. In the preparatory phase, therefore, sufficient stocks must be built up. The timely resupply of goods and evacuation of casualties are often only possible by helicopter or by means of pack animals. Logistic support in mountain terrain requires a thorough reconnaissance of service support routes and areas. It may be enough to ensure that units down to a low level have a certain degree of self-sufficiency.

Section VII - Operations In Jungle And Tropical Terrain

Introduction

09133. Jungles are vast tropical forest areas which are often combined with mountainous terrain or swamps. They have extremely dense vegetation with relatively few open spaces.

Characteristics

- 09134. There are virtually no roads in jungles; paths must be cleared and kept open by hacking through vegetation. Because of the dense vegetation, the fields of observation and fire are extremely limited; areas which would normally be designated as key terrain no longer have this value. The larger rivers form good approach routes. The living conditions are tough, not least because of the exhausting climate. Reliable maps are often unavailable or have limited value because of the lack of orientation possibilities, but this is fully compensated by the availability of navigation equipment.
- 09135. The unfavourable terrain can restrict communications and limit the possibilities for movement. Helicopters are essential for movements and support tasks.

Planning And Execution

09136. The planning considerations given under operations in woods and forests apply to operations in jungles.

Offensive Activities

09137. The attack is conducted by infiltrating on paths that troops have themselves cleared along the flanks of the enemy defence and then capturing objectives in the enemy's rear. These units usually operate independently over a prolonged period. They must be specially trained and equipped for such operations. For reasons of secrecy, it may be necessary to dispense with airmobile supply. In that case, the unit has to carry the own provisions. Support from porters is indispensable in this respect. As the attack progresses, reserves are brought up, ideally in armoured vehicles, along the cleared and secured tracks and paths. Rivers can also play an important role here.

Defensive Activities

- 09138. The defence focuses primarily on the available routes, including the rivers. Along these routes, positions that can be defended on all sides are grouped in the depth and normally occupied by units of platoon size. The protection of the defence area, the service support installations and the friendly routes is ensured by extensive patrols and by laying ambushes. In this way, enemy infiltration can be prevented, or a decision can be made on where to deploy a reserve. A large number of friendly troops are deployed for this purpose.
- 09139. Deployment opportunities must be created for the reserve, which will move on foot or, preferably by aviation (airmobile). The routes to be used must be prepared in detail.

Stability Activities

- 09140. Despite the fact that in the greatest part of this kind of areas the number of civilians will be very scarce and therefore built up areas will be limited as well, establishment of security and control in these (even low) populated areas is extremely important. The well feeling of the populace is the main key for rest and restoration of facilities. In this relation also key terrain that influences concentrations of civilians must be monitored and secured.
- 09141. Jungles and tropical regions may be bordered by extremely important agricultural or industrial areas. In this case the security and control of these areas is vital. Destruction often means the destruction of the complete future of large parts of a population and will cause immense environmental damage.

Enabling Activities

09142. The considerations for offensive and defensive activities in jungles apply equally to the conduct of enabling activities.

Functions In Combat In Jungle Regions

- 09143. **Command and Control**. Command and control is extremely decentralised. The use of communications equipment is limited; special provisions, such as airborne relay stations and satellite links, are usually required.
- 09144. **Fire Support**. The deployment of mortars in jungles is generally more effective than that of other fire support assets because of the limited space for positions, the vertical impact and the mobility. Mortar support must be assured while troops are patrolling.
- 09145. **Combat Service Support**. The service support system is highly decentralised, because supplies can only be moved up to units by helicopter, small boats or special tracked vehicles, or sometimes even on foot. Special equipment must be available for jungle warfare. The high degree of humidity affects personnel and equipment. Preventive hygiene is, therefore, extremely important. The combat readiness of friendly troops can be affected by tropical diseases. Vermin cause major problems in this respect. Compulsory and controlled use of medication and other preventive measures are necessary. The medical system should have specific medical expertise and medication.

Section VIII - Littoral Regions

09146. Littoral regions know many forms of appearance. Some of these and the impact they have on military activities, are already described earlier in this chapter. One can think about big river deltas, swamp areas, fjords, and dunes. Some areas, like coral reefs and fishing areas are environmental protected areas and crucial for the future of the region.

- 09147. The importance of littoral regions may increase in the future, since the influence that maritime forces can execute is widening, due to new long range weapon systems.
- 09148. The function of a littoral region can also differ in various operations. It can be an assembly / staging area, from where land forces start their operation. Maximum protection against attacks from the sea and land borne attacks is the main priority. The area can also be key terrain it self, that has to be taken by offensive activities, straight after the amphibious part of the operation has been completed.

Section IX- Operations By Encircled Forces

General

- 09149. A force may become encircled by the enemy during either offensive or defensive operations. This situation restricts the freedom of action of the commander of the encircled force and that of his superior commander. It threatens the destruction of the force for the force is highly vulnerable to attacks from any direction and re-supply is difficult or impossible. Short of surrender, a reinforcement (followed by a link-up and possibly withdrawal) or breakout are the only options. The prime concern of commanders is the preservation of combat effectiveness, particularly the maintenance of morale. A high standard of leadership is demanded.
- 09150. Once a force is encircled, the immediate responsibility of the superior commander is to decide if its mission should be changed. His decision is based on an estimate of how long the force can fight on its own, the importance of its mission and the resources he has available to assist it. He must decide if the encircled force should defend (and await relief) or break out. He must also decide if it should do so alone or with additional support, particularly fire support. A break-out operation may be done in combination with a supporting attack and/or a link-up.

Defence

- 09151. **General.** As soon as a force is encircled, a commander and his superior must take action, including: establishing communications and a command structure; organizing defensive sectors and fire support; constituting a reserve; and reorganizing and consolidating combat service support. In the absence of direction from the superior commander, the senior officer present takes command of the force and establishes a command structure. If the superior commander does not provide additional resources or, if there are no communications between the two commanders, the commander of the encircled force organises the defence using his own resources.
- 09152. **Planning.** A commander selects a defence area based on the terrain, the troops available and the original or revised mission. He plans his defence so that: surveillance is established to cover the entire perimeter; reconnaissance provides information on enemy activity and intent; forces are assigned to cover likely enemy approaches; a relatively strong mobile reserve is available to reinforce threatened sectors; and fire support from inside and outside the perimeter is coordinated. The following matters require specific attention:

- a. **Fire Support.** There must be a single artillery commander responsible for fire support. Firing positions for elements within the perimeter are selected to enable fire to all parts of the perimeter. Fire support from outside the encirclement is coordinated with that from within. A superior commander may have to deploy some fire support elements further forward than is normal. Often close air support and tactical aviation are the only means by which he can provide fire support. To do this, he may have to deploy additional forward air controllers to support the encircled force;
- b. **Air Defence.** The limited manoeuvre space of encircled forces makes them particularly vulnerable to air attack and, consequently, they are unusually reliant on air defence. Reserves should be given high priority for coverage. A superior commander may be able to compensate for deficiencies in air defence capabilities by arranging for air support and by providing the encircled forces support from outside the encirclement; and
- c. **Engineer Support**. The normal tasks for engineers apply, but with particular emphasis on counter-mobility and protective digging. A greater proportion of engineers may have to be earmarked to deal with unforeseen threats.
- 09153. **Conduct**. A commander must react immediately with defensive fire and reserves to block and contain any significant penetration. It may be difficult to identify the enemy's main effort, but any serious threat to the cohesion of the defence must be blocked to prevent the piecemeal destruction of the force. A commander may have to shrink his perimeter progressively to prolong his defence.

Break-Out Operations

- 09154. **General**. A break-out occurs when an encircled force creates an opening in enemy lines and extricates itself to join with friendly forces. In this operation, it is essential to maintain momentum while retaining the integrity of the force. Normally a break-out is ordered by the superior commander. If no communications exist between the superior commander and the commander of the encircled force, the latter makes his decision to break out based on his superior's intent.
- 09155. **Organisation.** The break-out force is organised to provide: an assault element to create and maintain the opening; a security element to provide protection and deception on the perimeter; and security elements to cover the front, flanks and rear of the main body while it is moving. If it is impossible for the force to fight its way out, break-out by stealth (ex-filtration) is the only remaining option. Usually in this situation the force is organised into small elements that move on separate routes to join with friendly forces.
- 09156. **Planning.** The responsibility for planning a break-out rests with the commander of the encircled force. Any activities by outside forces in support of the break-out must be in response to his plan. Planning is similar to that for a deliberate attack. A commander must plan the activities of regrouping, deception, assault and subsequent movement to join friendly forces and conduct a link-up. The main body must move protected by advance and flank guards or screens, and a

rearguard. The security elements on the perimeter disengage last and may be tasked as the rearguard in the final stage. The following matters require particular attention:

- a. **Point of Break-out.** The point of break-out must be selected in relation to the enemy's disposition, routes for subsequent movement and next mission of the force;
- b. **Break-out Routes.** The most direct routes may not be the best. Enemy weaknesses must be exploited and attempts made to avoid him by the use of less direct routes, difficult terrain and periods of reduced visibility. Advance and flank guards or screens provide information on enemy locations. The number of routes used depends on the terrain, location of the enemy, size and composition of the force, and fire support available. The number of routes available to an armoured force is likely less than those for a non-armoured force. Use of a single route simplifies command and control and provides depth for any subsequent attack, thereby maintaining momentum. On the other hand, if the lead elements are stopped, there is a danger of the following elements concentrating and presenting a large target with open flanks. Although the use of more than one route may complicate command and control, it offers protection through dispersion and greater flexibility. If there are lateral routes, units can be shifted from blocked routes to maintain momentum. Normally it is preferable to have at least one alternate route;
- c. **Fire Support.** There are times when organic fire support is limited due to movement, particularly just after the break-out opening is established and the main body starts moving. There may thus be a need for increased fire support, including close air support and tactical aviation support, from outside the encircled force;
- d. **Engineer Support.** Engineer support is required to breach enemy obstacles and to clear or breach lanes in friendly obstacles. Some engineer resources should be in the rear guard to carry out counter-mobility tasks. They can also assist in the denial of equipment and supplies through their destruction;
- e. **Aviation Support.** If the entire force cannot be extracted by helicopters, any limited support available may be used to position forces on key terrain along break-out routes in order to act as security forces. Aviation fire support may be critical to support the initial attack at the break-out point, to provide flank protection of the main body and to prevent enemy manoeuvre. Ideally, it will be placed under the tactical control of the encircled force; and
- f. **Combat Service Support Elements**. Combat service support elements are grouped with combat and combat support elements within the main body for their own protection and for immediate re-supply as required.
- 09157. **Conduct**. A break-out is conducted as a deliberate attack, followed by movement, with the overall objectives of avoiding the enemy and joining friendly forces. A break-out by stealth is conducted similarly to an infiltration.

Section X - Operations In Enemy Controlled Territory

General

09158. This section considers the employment of land forces in enemy controlled territory and the purpose and control of these operations. The types of operations considered are normally limited in size and scope and are special in nature. Although the forces employed may be delivered through the air, these operations should not be confused with full-scale airborne or airmobile operations.

Concept

- 09159. These operations may be conducted in conjunction with those of other forces, or independently, deep in enemy occupied territory without a direct link with another force. Their planning and execution must take account of who is responsible for the area of employment.
- 09160. They will be conducted with emphasis on mobility, evasion and surprise, where offensive action is required, or, on concealment and stealth, where the role is intelligence collection or target acquisition. The forces involved should not allow themselves to be contained by the enemy.
- 09161. In spite of careful planning and preparation, the pattern of operations is normally less predictable than that of any other combat action and so commanders will need extensive freedom of action.

Mission

- 09162. Forces operating in enemy controlled territory will normally be employed to support the achievement of operational objectives on behalf of the theatre level commander. It follows that such forces should not be employed on missions that have no operational significance.
- 09163. Forces may be given one or more of the following missions:
 - a. Information Reporting;
 - b. Target acquisition eg enemy HQs, reserves, weapons of mass destruction etc;
 - c. Gathering information on enemy forces movements, strengths, dispositions;
 - d. Offensive action;
 - e. Interdict enemy lines of communications;
 - f. Attack enemy units and installations;
 - g. Impede enemy command and control;

- h. Disrupt communications;
- i. Harrass enemy movement and CSS;
- j. Attack weapons of mass destruction delivery means;
- k. Direct fire on important targets in the enemy area;
- 1. Tie down enemy forces;
- m. Assist in establishment of resistance movement in enemy controlled territory; and
- n. Coordination of resistance and conventional forces operations (the synergy is important).

Deployment Considerations

09164. Urban areas may be suitable for such operations because centres of population can provide a source of support. However, careful consideration must be given to the impact of such an operation on the local population, since it is much easier for the enemy to seal-off a populated area than a rural area and put pressure on the local population to cooperate. Alternatively, forests, difficult terrain, mountains and sparsely populated areas are very suitable for these operations.

Conduct Of Operations

09165. Organisation.

- a. **Size**. Forces conducting operations in enemy controlled territory will vary in size according to the mission they are to carry out. They will generally be composed of infantry, although specialized personnel may be included, depending upon the mission; and
- b. **Selection of Personnel**. Operations in enemy controlled territory present a particular challenge to the troops employed in this type of operation. Commanders should have sound training, a strong will, physical endurance, and initiative. Soldiers should be physically and mentally strong and self-reliant. All must be highly skilled in the use of their weapons and equipment and have a high standard of training in combat survival and in resistance to interrogation. It is also an advantage to be able to use enemy weapons and equipment, and have a thorough knowledge of the local language, culture and geography.

09166. **Planning**.

a. Operations must be coordinated with any friendly forces in the vicinity and with the headquarters that has responsibility for the area, especially when operations are conducted in close proximity to friendly main positions;

- b. The time necessary for preparation will also have to be taken into consideration. The forces deployed behind enemy lines will require time to reach their area of operations unnoticed and to establish themselves, depending upon whether they let themselves be bypassed by the enemy, infiltrate or are flown into the enemy rear area or use a sea approach. If the operation is conducted in combination with, or in support of, that of a main force, the preparation time required must be taken into account in the overall planning; and
- c. Planning must always allow for the difficult stage of recovery of forces operating in hostile territory. This may be accomplished by:
 - (1) The forces making their own way through the enemy lines;
 - (2) Link-up with friendly forces after an attack;
 - (3) Evacuation by air and/or sea;
 - (4) Use of previously established escape routes;

09167. Combat Support.

- a. **Fire Support**. Depending upon its size and type, the force may have its own organic fire support. If not, the ability to give fire support will depend on the situation, the distances involved and the fire support available. CAS may be the only form of fire support available. Early joint coordination of such support is necessary; and
- b. **Operational Assistance**. Engineers will frequently be an essential element of the force. Helicopters will often be required to assist in the deployment, resupply or recovery of the force. EW support may be crucial to insertion and extraction, and of value during offensive action. Forces operating in enemy controlled territory may also support the EW effort by the placement of unattended jamming equipment. Early joint coordination of EW support is required.

Command and Control

09168. General.

- a. Operations in enemy controlled territory should be conducted in close coordination with those being carried out by the main force. The closest liaison must, therefore, be established at all levels; and
- b. If the operation is to be carried out deep in enemy territory, the mission and control of the operation may be given to a higher headquarters to which the force will report. If more than one unit is to operate within an area, it will be necessary to issue coordinating instructions and sometimes to establish a coordinating headquarters. This headquarters may be permanently established or only created for the specific mission.

- 09169. **Communications**. Long-range radio communications and tactical satcom are essential for the control of forces conducting operations in enemy controlled territory and may also be necessary to provide them with nuclear strike warning. If radio is used, communications security measures will be essential to avoid detection and these may include:
 - a. Predetermined times for signal transmission together with a well varied frequency plan;
 - b. High-speed transmission, to include where available, Data Entry Devices;
 - c. The use of low-power transmitters in forward areas and sophisticated highly sensitive receivers at the base communications station; and
 - d. Placing radio transmitters away from the base or command post.

Combat Service Support

09170. Considerations.

- a. Units operating in enemy controlled territory cannot expect normal CSS. They may have to rely on self sufficiency and, although there are increased risks involved, consideration must be given to obtaining some support from the local population. In this case, careful and intelligent planning is required to avoid the operation being compromised;
- b. Normally, air transport is the most effective method of delivering supplies to the forces and for evacuation of the sick and wounded. Should landing not be possible, plans should be made to airdrop supplies; and
- c. Maximum use should be made of logistic intelligence to identify the existence of combat supplies, notably, fuel, rations and water.

LEXICON

PART 1 – ABBREVIATIONS

1. Refer to AJP 3.2 Allied Joint Doctrine for Land Operations Lexicon, Part 1 – Abbreviations

PART 2 – TERMS AND DEFINITIONS

Ambush

A surprise attack by fire from concealed positions on a moving or temporarily halted enemy. (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).

Area of Responsibility

A geographical area of ground, sea or air under the command of a commander who has the necessary authority and power to exercise it. This responsibility is normally extended to intelligence collection, conduct of operations, control of movements and possibly the maintenance and protection of facilities, but it can also be limited to a specific domain (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).

Air Assault Operation

An operation in which air assault forces (combat, combat support, and combat service support), using the firepower, mobility, and total integration of helicopter assets, manoeuvre on the battlefield under the control of the commander to engage and destroy enemy forces or to seize and hold key terrain. (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).

Close Operations

Operations conducted at short range, in close contact and in the immediate timescale. (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).

Deep Operations

Operations conducted against forces or resources not engaged in close operations. They expand the battle area in time and space, help to shape the close battle, make it difficult for the enemy to concentrate combat power without loss, and diminish the coherence and tempo of his operations. (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).

Feint

To divert the enemy's attention away from the area of the decisive action by seeking contact but avoiding a decisive engagement. (Term approved at LOWG 19 and submitted to LSB).

Fire Support Coordination Measure

ORIGINAL

A measure employed by land or amphibious commanders to facilitate the rapid engagement of targets and simultaneously provide safeguards for friendly forces. (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).

Killing Zone or an Engagement Area

An area where the commander intends to contain and destroy an enemy force with the massed fires of all available weapons. (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).

Limit of Exploitation

An area where the commander intends to contain and destroy an enemy force with the massed fires of all available weapons. (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).

Main effort

A concentration of forces or means, in a particular area, where a commander seeks to bring about a decision. (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).

March

An enabling activity that involves tactical movement between locations by combat and other forces, without the expectation of enemy contact, albeit prepared for contact. (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).

Measures of Effectiveness

A criterion used to evaluate how a task has affected selected system behaviour or capabilities over time. (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).

Synchronisation

The arrangement of military actions in time, space, and purpose to produce maximum relative combat power¹ at a decisive place and time. (Term proposal submitted to LOWG terminology panel for inclusion in AAP 6).