

OLVANAN TACTICS TECHNIQUES AND PROCEDURES AT COMPANY DETACHMENT AND BELOW

Olvanan Tactics, Techniques and Procedures

Background to this Document

The OPFOR doctrine is comprehensively described in the two major relevant U.S. Army publications (TC 7-100.2 Opposing Force Tactics and FM 7-100.1 Opposing Forces Operations) and duplicated on the ODIN website, but generally it does not provide information below company/combat team level. However, there are a range of multimedia products, both available and being developed, that show tactics at company level and below.

The OPFOR 'doctrinal approach' presents a distinct enemy method, especially the idea of functional tactics which specifies how enemy commanders will use different tactical actions as building blocks to flexibly build a plan with. Similarly, their concepts like systems warfare lead to a different targeting focus than in many western militaries. However, in order to present a pacing adaptive enemy, the doctrine has been written deliberately to avoid the kind of prescriptive guidance that was available for enemies based on the Soviet military.

The DATE enemy OPFOR operations and tactics doctrine is generic. As a principle, the variation between different adversaries is driven by their different intentions, equipment and ORBAT. This means that all DATE enemy forces have essentially the same basic 'doctrinal approach' to operations and tactics, with the crucial caveat 'unless otherwise/additionally specified'.

The following information on the Olvanan tactics, techniques and procedures is intended to fill a current gap in the level of detail provided about OPFOR. It can be considered 'additionally specified' extra detail and/or local variation, over and above the generic OPFOR information. Importantly, the content has been selected to meet training establishments immediate needs, while limiting the total amount of material in order to avoid contradiction with new OPFOR information generated elsewhere.

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Notes on Olvanan minor tactics

- Tactical dominance is considered a psychological effect. The objective is to either overwhelm the enemy commander's cognition with concurrent threats or present them with ambiguity and multiple dilemmas. In the attack and defence, the plan should ensure that once surprise is lost, the enemy should experience events and effects from multiple directions concurrently or in quick succession.
- The commander is almost always either centrally located ready to move to the point of main effort, or close to the front of the formation to ensure correct navigation and be able to make tactical judgements quickly. In contact they will move to the point of main effort or with the assault force.
- The emphasis in organizing dismounted minor tactics is on exploiting the most potent weapons. This is reflected in Squad groupings based around launcher and machine gun groups, with launchers referring to both tube launched weapons as well as handheld and high velocity grenade launchers.
- In the mechanised Squad, the vehicle is regarded as the pre-eminent weapon, with the enduring task of the infantry being to protect the vehicle so that its weapon systems can defeat the enemy. In most circumstances the Squad commander will remain mounted to fight the Squad.
- The immediate response to contact is aggression. At very close quarters it is an immediate assault, otherwise it is immediate engagement with explosive and white phosphorus munitions. The intention is to immediately inflict shock and obscure friendly troops caught in fire pockets.
- Envelopment is always favoured, especially the double envelopment. The risk of fratricide is acknowledged but regarded as small and acceptable for the great benefits offered.
- In the assault, the Olvanans prefer to hug supporting fire and move close to direct fire, accepting casualties in order to be able to rapidly close with a suppressed enemy.

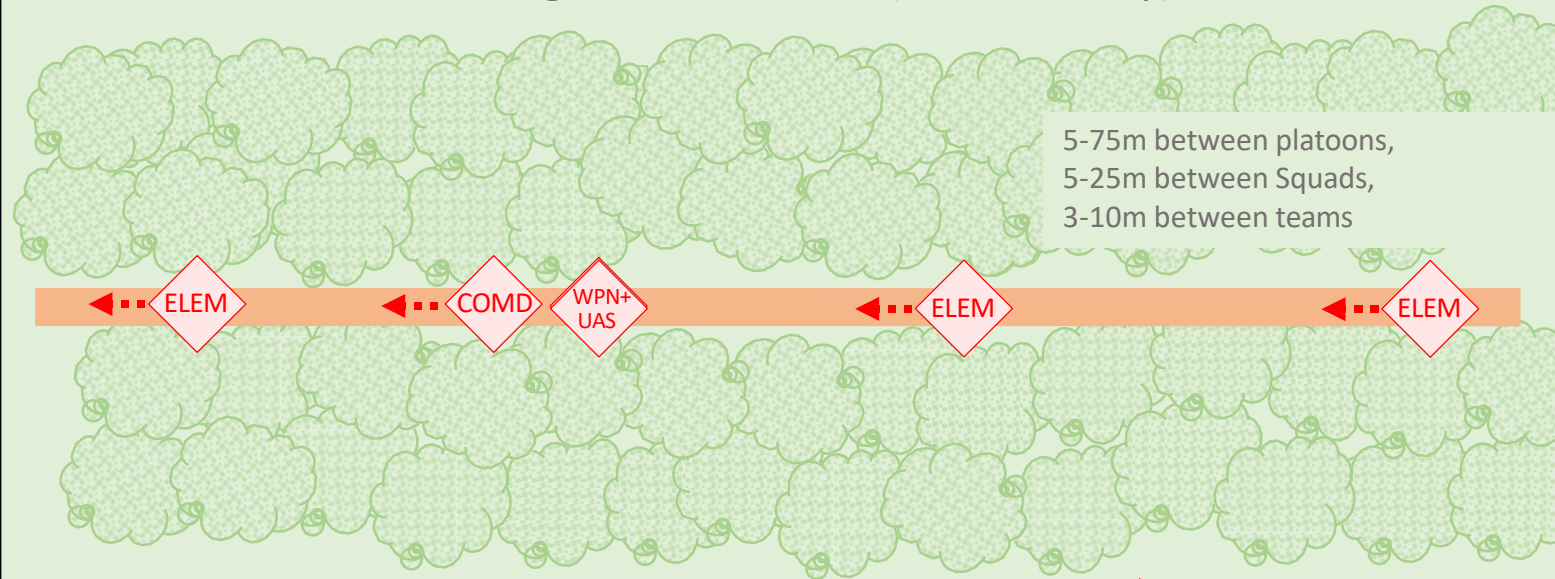
[In this document the word team is used to describe the elements smaller than a Squad. This differs from OPFOR doctrine which calls everything smaller than a company an element, but it is consistent with our own practice and therefore easier for the military reader.]

Basic Formations

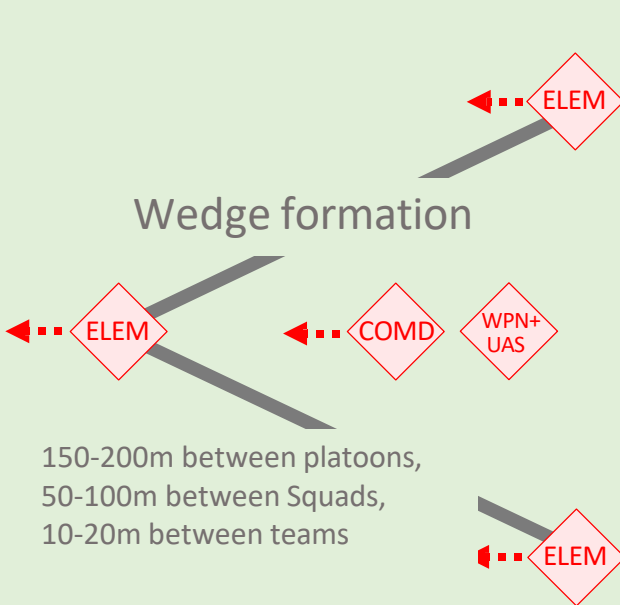
Similar formations are used at Company, Platoon and Squad level. The commander always locates for best control and retains both a UAS and HE weapon operator immediately to hand to gain the initiative and situational awareness in a contact. In close country where navigation is difficult, the senior commander at any level may move behind the lead soldiers to navigate.

- The wedge is general-purpose for all-round security and balance.
- Echeloning left or right guards against a threat from that flank.
- The Vee covers a wider axis of advance.
- Line formation is typically used for the assault.
- File/Single file is used in close country. The soldiers switch between file and single file to suit foliage but remain in the element order of march. In urban areas or on wide tracks and roads, platoon or Squad file may be used where complete elements are deployed on opposite sides of a street or track.

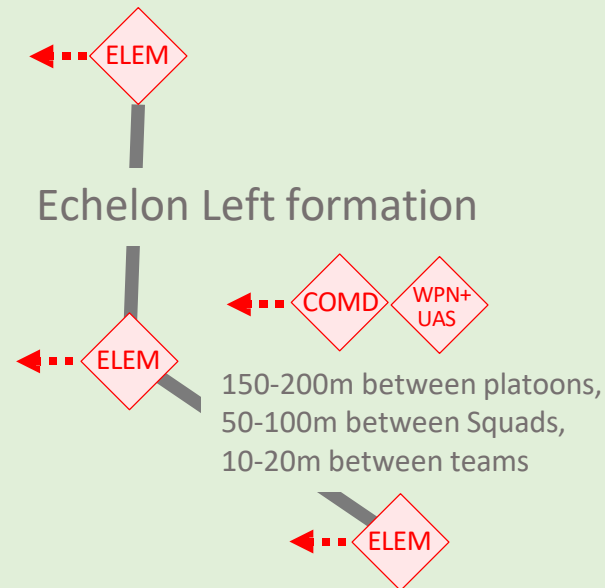
File/Single file formation (close country)



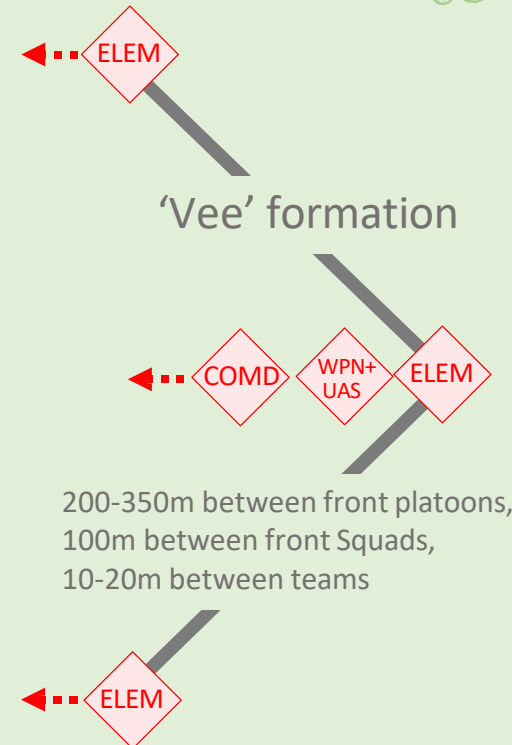
Wedge formation



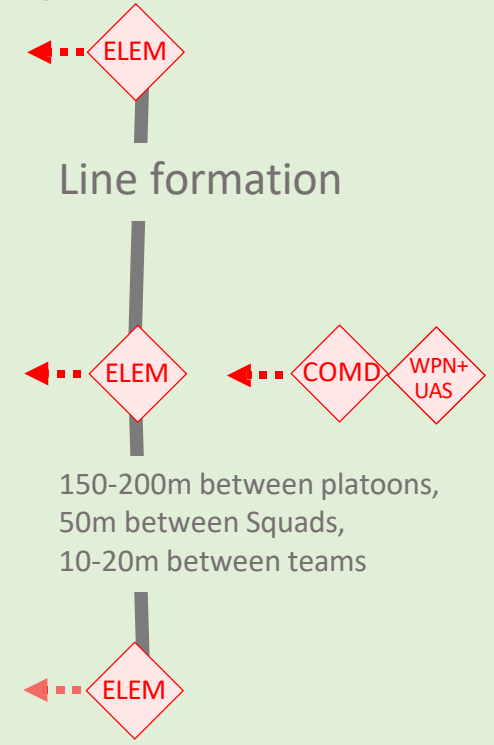
Echelon Left formation



'Vee' formation



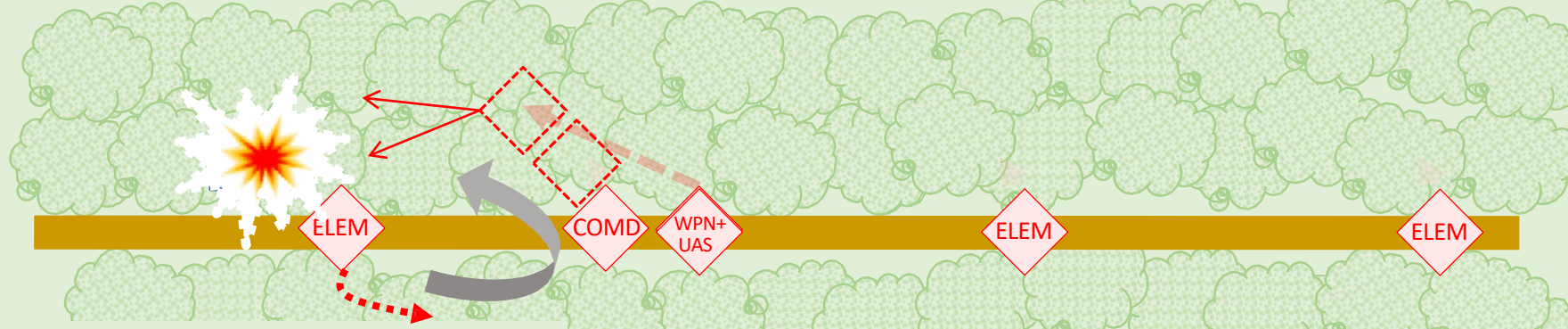
Line formation



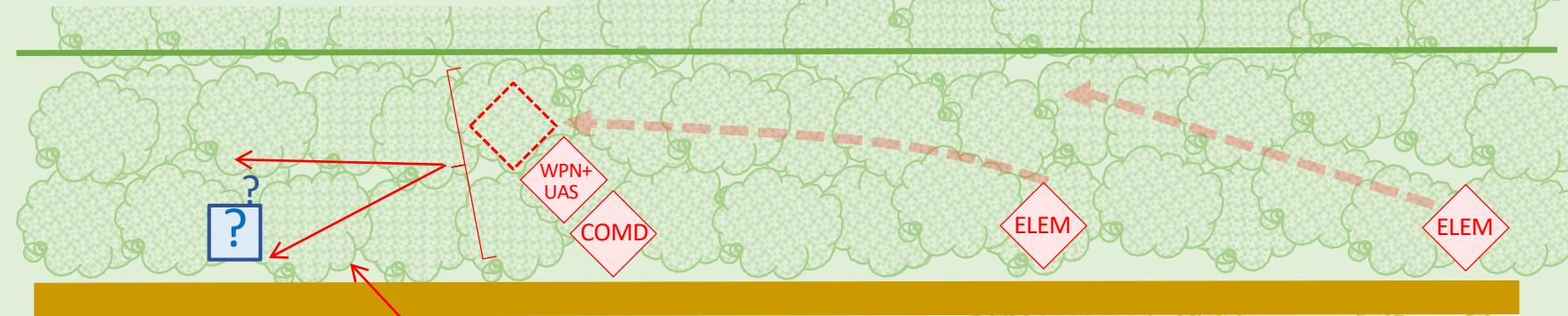
Immediate Action: Contact Close Country

The Olvanan response to ambush or sudden contact at very close quarters is to assault firing. Where the ground prevents this, the Close Country IA is standard at Coy, Pln and large Squads. It also adapts to mine and IED attacks.

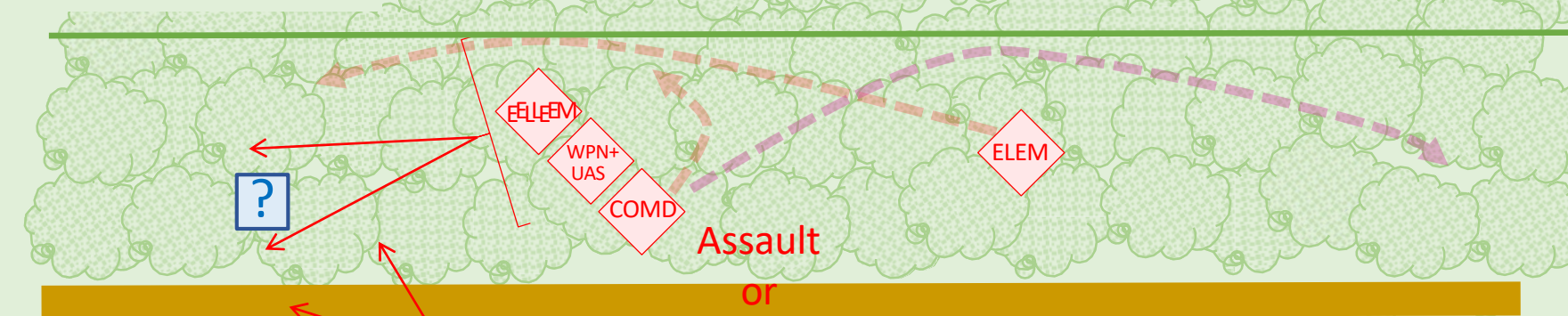
1. The engaged leading element fires smoke and HE to break clear of the fire pocket/killing area, preferably on the side of the track away from the contact. The commander with the heavy weapon or weapon group moves forward on to the contact side of the track and applies fire, preferably high explosive, ideally thermobaric. The push forward on the contact side and the withdrawal on the opposite one gives a so-called 'spin' effect
2. The following element closes up on the outside of the commander and builds a base of fire, with the point element adding crossing fire.
3. The commander then decides whether to assault or break to the rear. If they order *assault*, the third element closes up behind the base of fire from where he leads it to outflank the enemy. If they order *break* then the original point element bounds to the rear first, after which they lead the second element to bound past the third



1- Smoke and 'spin' on contact



2- Build base of fire



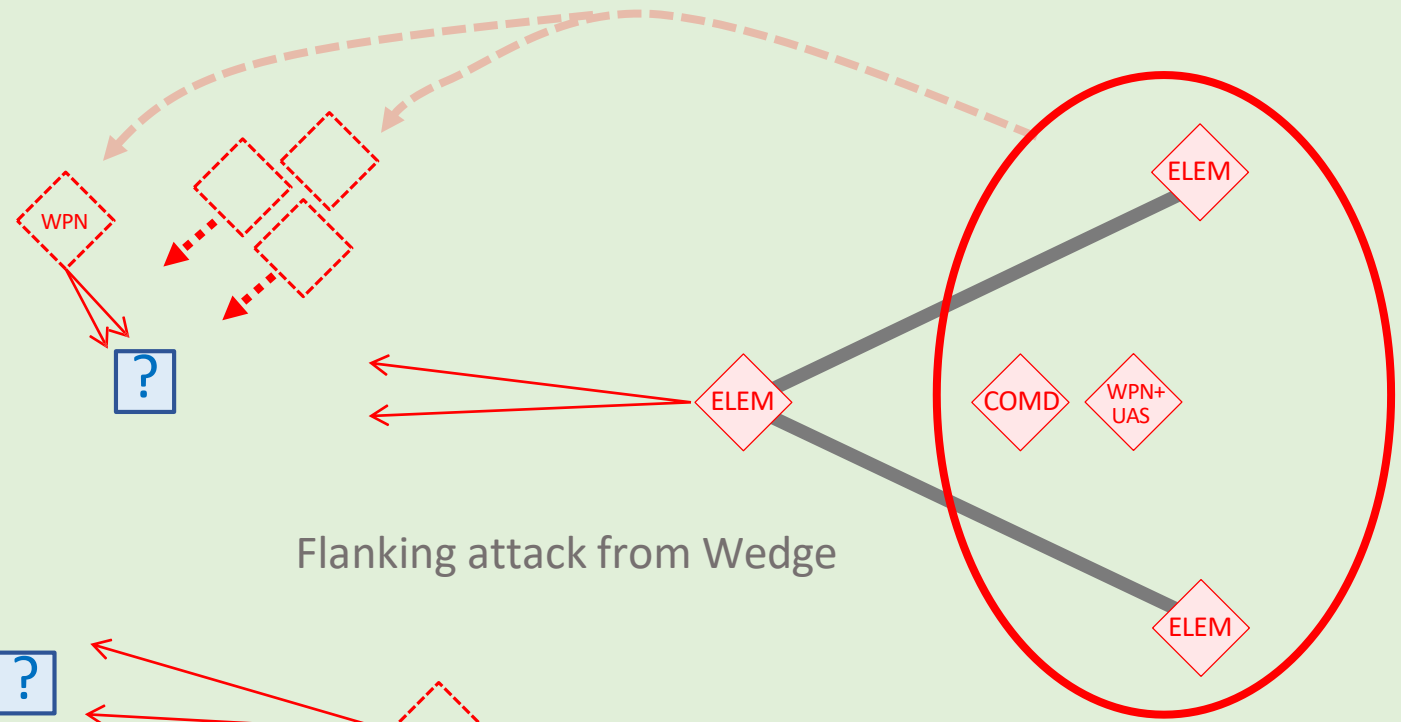
3- Assault or Break

Quick Attack from Wedge

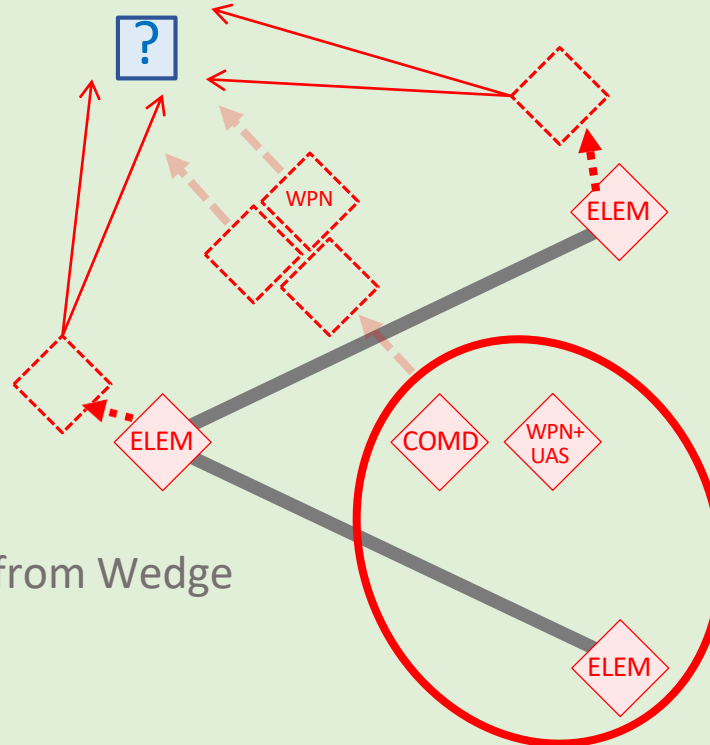
The wedge is general-purpose formation that readily allows the commander to manoeuvre uncommitted elements.

The upper diagram shows a typical example where the point element has come into contact and the commander leads the remaining elements in a flanking attack. In this case the weapons team is deployed on the open flank in order to both provide both flank security and converging covering fire. This is similar to Western tactics.

The lower diagram shows a quick attack against an enemy to one flank, which may provide the opportunity to rapidly deploy the leading and one flanking element to provide enveloping fire support. On coming into contact the commander pushes elements forward on both flanks of the enemy position in order to envelop it with fire from different directions. This achieves fire superiority and security for the commander to lead the remaining element to assault between the elements providing fire support. Olvanans favour this method as it is simple and fast.



Flanking attack from Wedge



Attack with enveloping fire support from Wedge

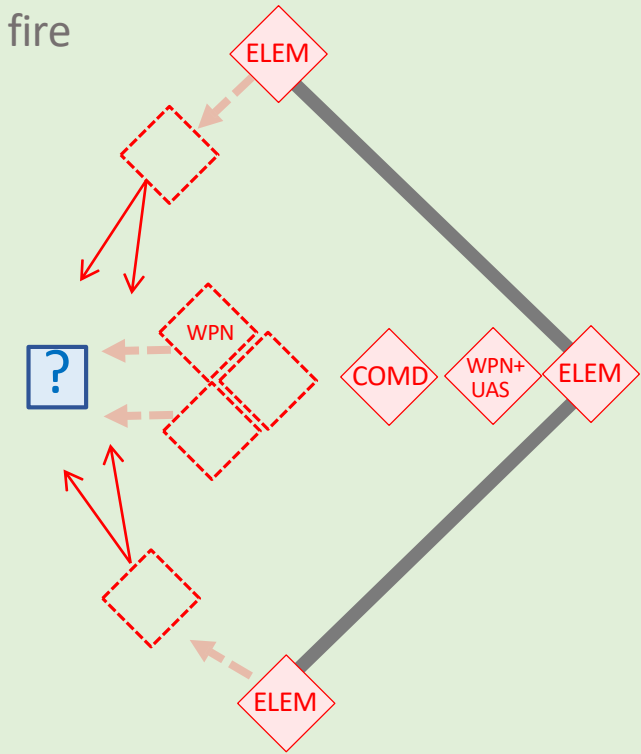
Quick Attack from 'Vee'

The Vee formation covers a wider front and may provide the opportunity for enveloping with fire support which Olvanans favour.

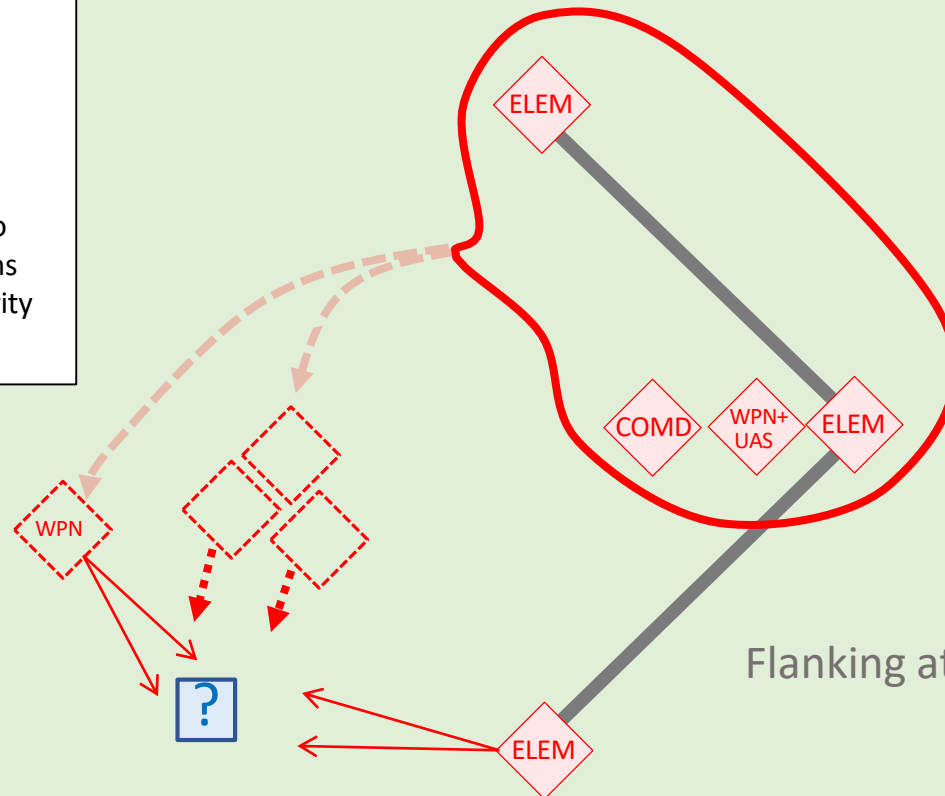
The upper diagram shows a typical example where enemy are contacted forward and centre of the formation, allowing the commander to push elements forward on either side until both are able to provide fire support. They then lead the remaining element into an assault between the fire elements, pushing the weapons element forwards in order to provide both shock effects for the final assault and a clear signal (to the fire support element) that this is about to occur

The lower diagram shows a possible quick attack against an enemy contacted in front of one flank. The commander leads the remaining elements to conduct a flanking assault, deploying the weapons element on the outside flank for both flank security and to provide final converging fire support.

Attack with enveloping fire support from 'Vee'



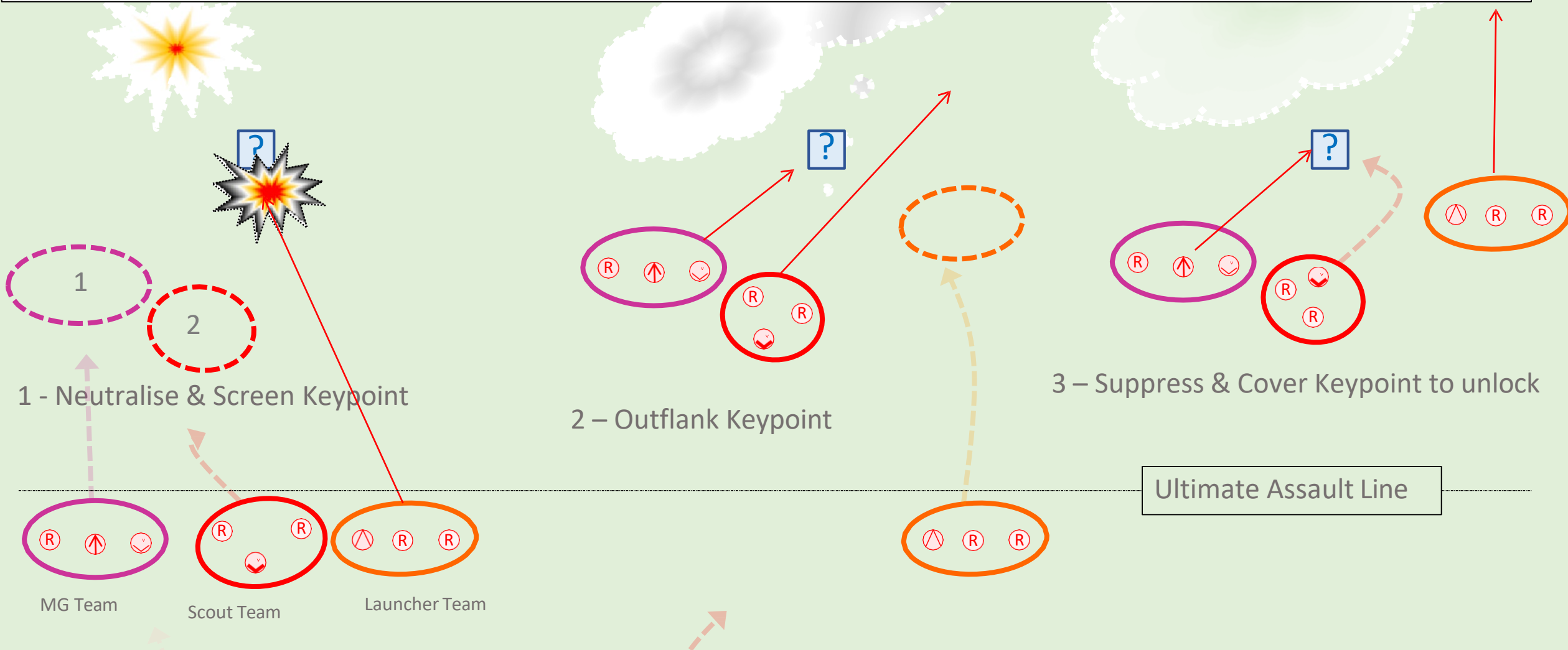
Flanking attack from 'Vee'



Squad Break-in Drill

When attacking prepared positions, keypoints are chosen to be secured first. This is the position or part of a position that gives most advantage when captured. A Squad tasked to unlock or break into a defensive position uses a drill. The attack force advances in extended line to the ultimate assault line, either silently or under supporting covering fire and/or bounding by Squad fire and movement. The ultimate assault line is chosen to be the closest the assault force can approach to the enemy forward positions without suffering casualties from flanking supporting explosive fire or its own thermobaric munitions.

1. The launcher team strike the keypoint with a HE/TB and a flame/smoke launcher places isolating smoke behind the keypoint, and the Scout and MG team dash forwards on one flank.
2. The MG team suppresses the key point from the flank while the Scout team provide cover towards depth threats to enable the forward dash of the launcher team.
3. The Scout team dash towards the key point swinging out away from the fire of the MG team to approach the key point at right angles and throw or post grenades or handheld demolition charges before they enter the enemy position. Subsequent action in enemy positions continues to use explosive charges as the enabling tool.

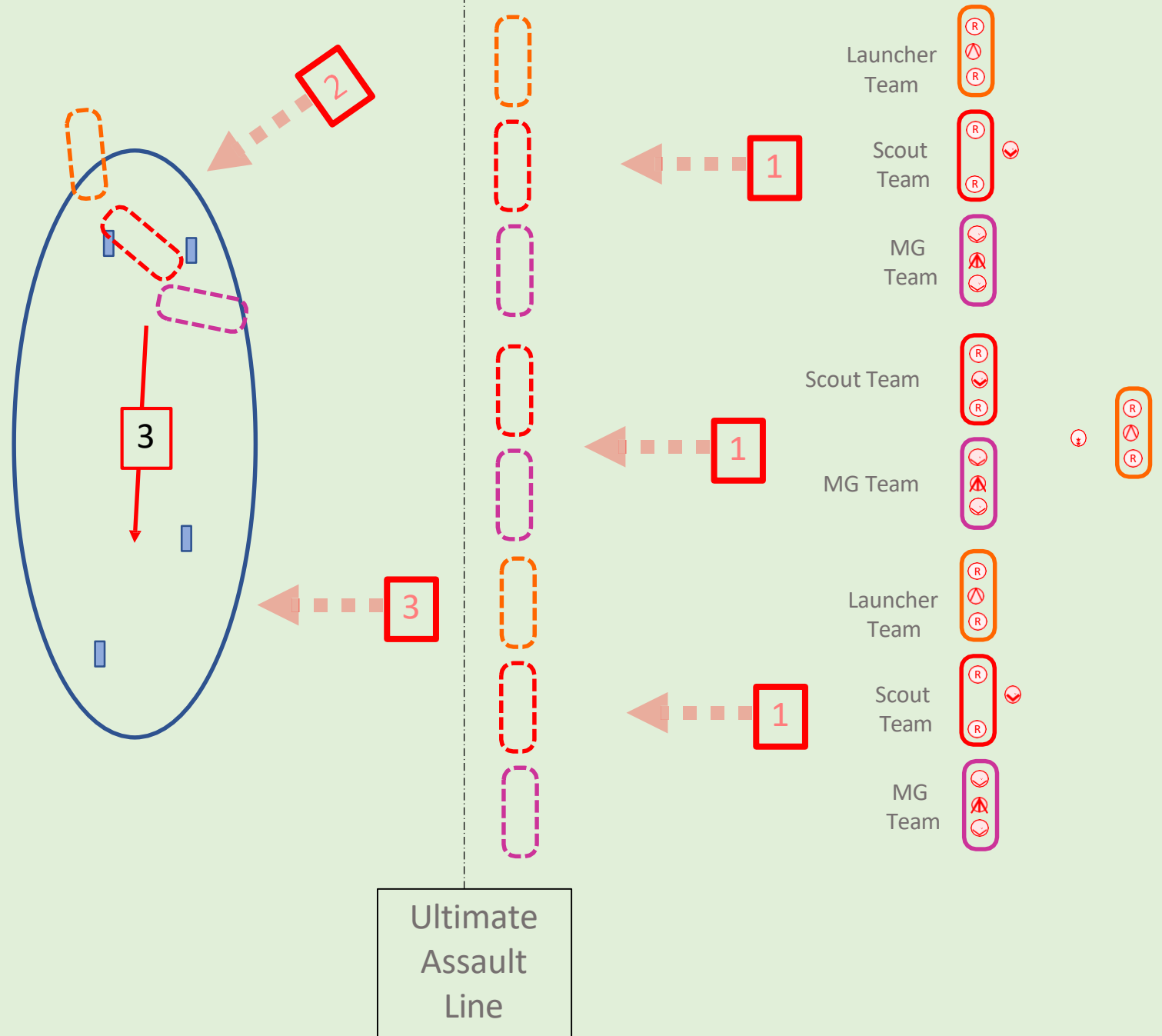


Platoon Assault: Unlock from Flank

In an assault the platoon fires and moves as far as the ultimate assault line, where explosive munitions are fired. At this point the entire platoon may charge the enemy position, or continue forwards, firing and moving in teams, particularly if the enemy position is not well defined.

However, whenever possible the Olvanans seek to attack from more than one direction. One way of following this principle is to attempt to 'unlock' the defence by getting an element forward to provide local direct fire at right angles to the assault line. This occurs as follows:

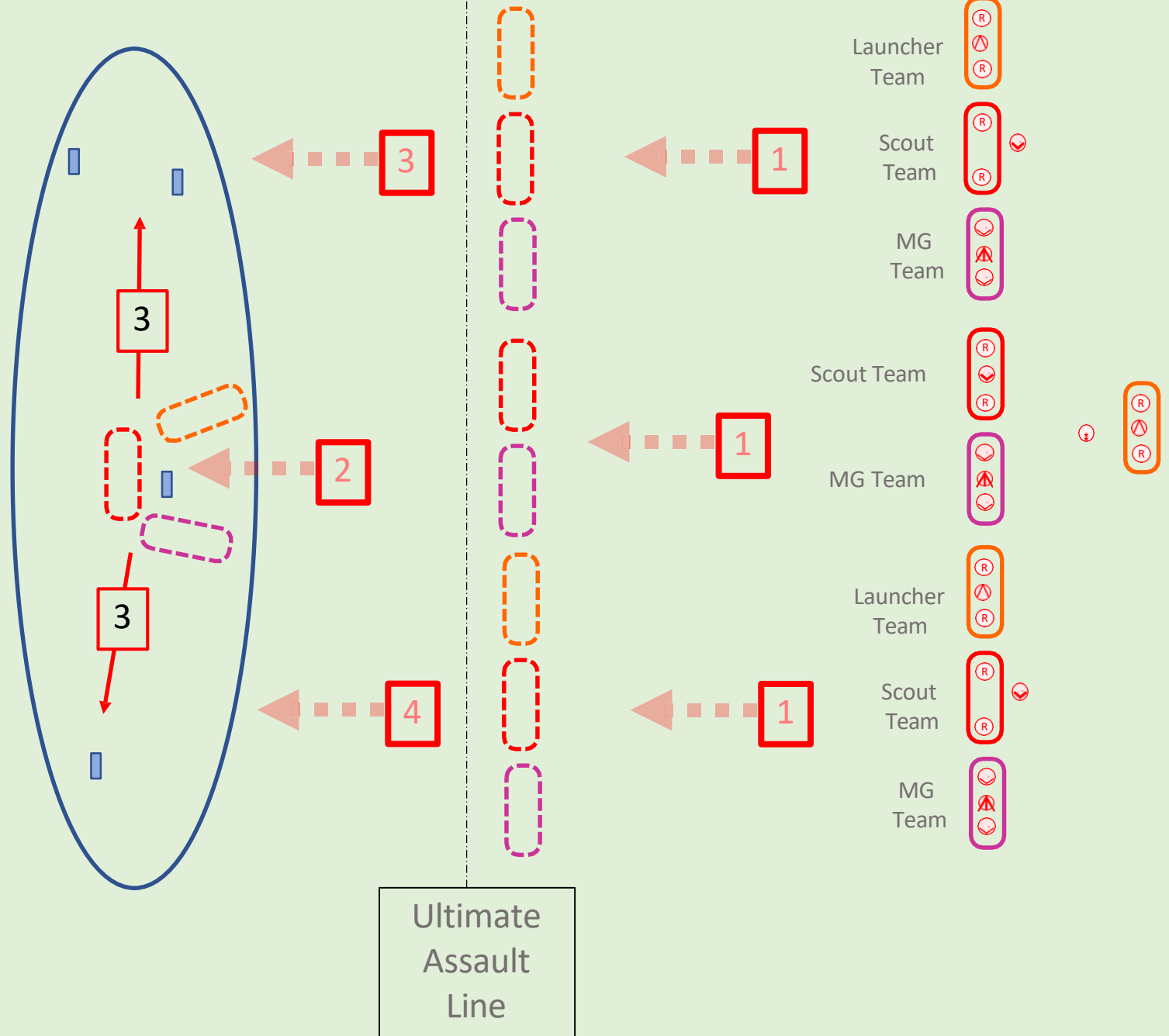
1. The platoon fires and moves as far as the ultimate assault line where they pause briefly to deliver explosive fire.
2. The remainder of the platoon engages from this line while one Squad on the flank pushes forwards and unlocks the defence by clearing a 'key' positions to its front. The platoon commander will likely lead this personally and may take additional fire units forwards to the unlocking Squad.
3. This foothold is then used to provide fire onto the remainder of the position also giving the platoon commander good control during the fight.



Platoon Assault: Unlock from the Centre

As previously described, the Olvanan is will always seek to attack from more than one direction. Another variation on unlocking the enemy defence, especially if it is more widely spread across the frontage of the assault, is to unlock from the centre. This occurs in the following way.

1. The platoon fires and moves as far as the ultimate assault line where they pause briefly to deliver explosive fire.
2. The remainder of the platoon engages from this line while the platoon commander leads the centre Squad forwards to seize a 'key' position in the centre of the enemy defence. They may pull additional fire units forwards to the unlocking Squad to achieve fire domination.
3. This foothold is then used to provide fire onto enemy positions to both flanks and the remainder of the enemy position. The flanking Squads in turn clear the ground to their front – in this case the right-hand Squad.
4. The left-hand Squad then clears forward.

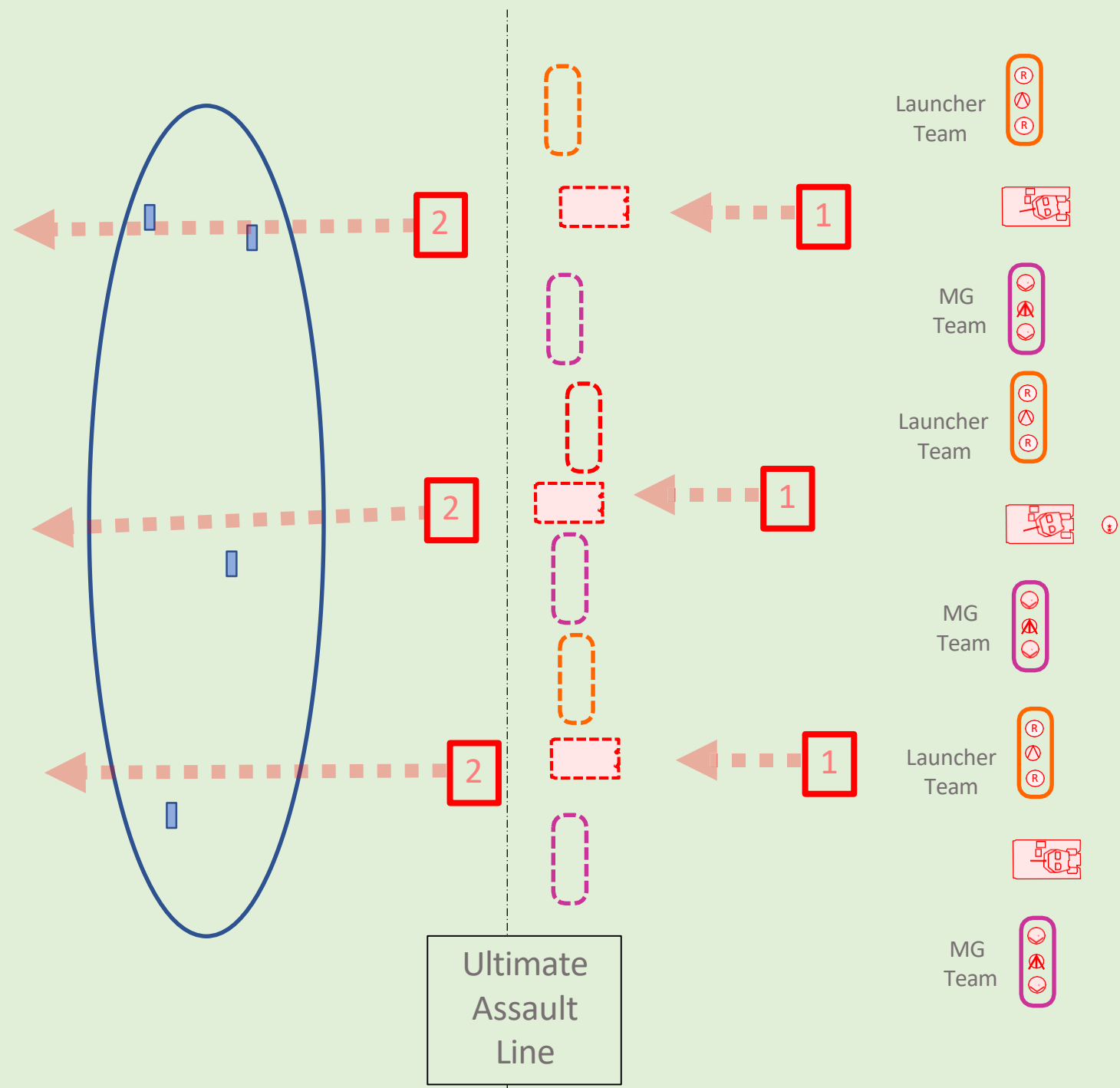


Mechanised Platoon

Assault: Shock Attack

The basic formation for mechanised assault is an extended line with Squads split either side of their AFV, except in smoke when they move behind the vehicle for the first stage. This is used against poorly prepared and/or ill-defined objectives, especially as part of a company level attack. As its name implies, it relies on rapidly exploiting the shock of firepower. The tactic is vulnerable to individual Squads being caught up in a local flight and falling behind the rest of the attack.

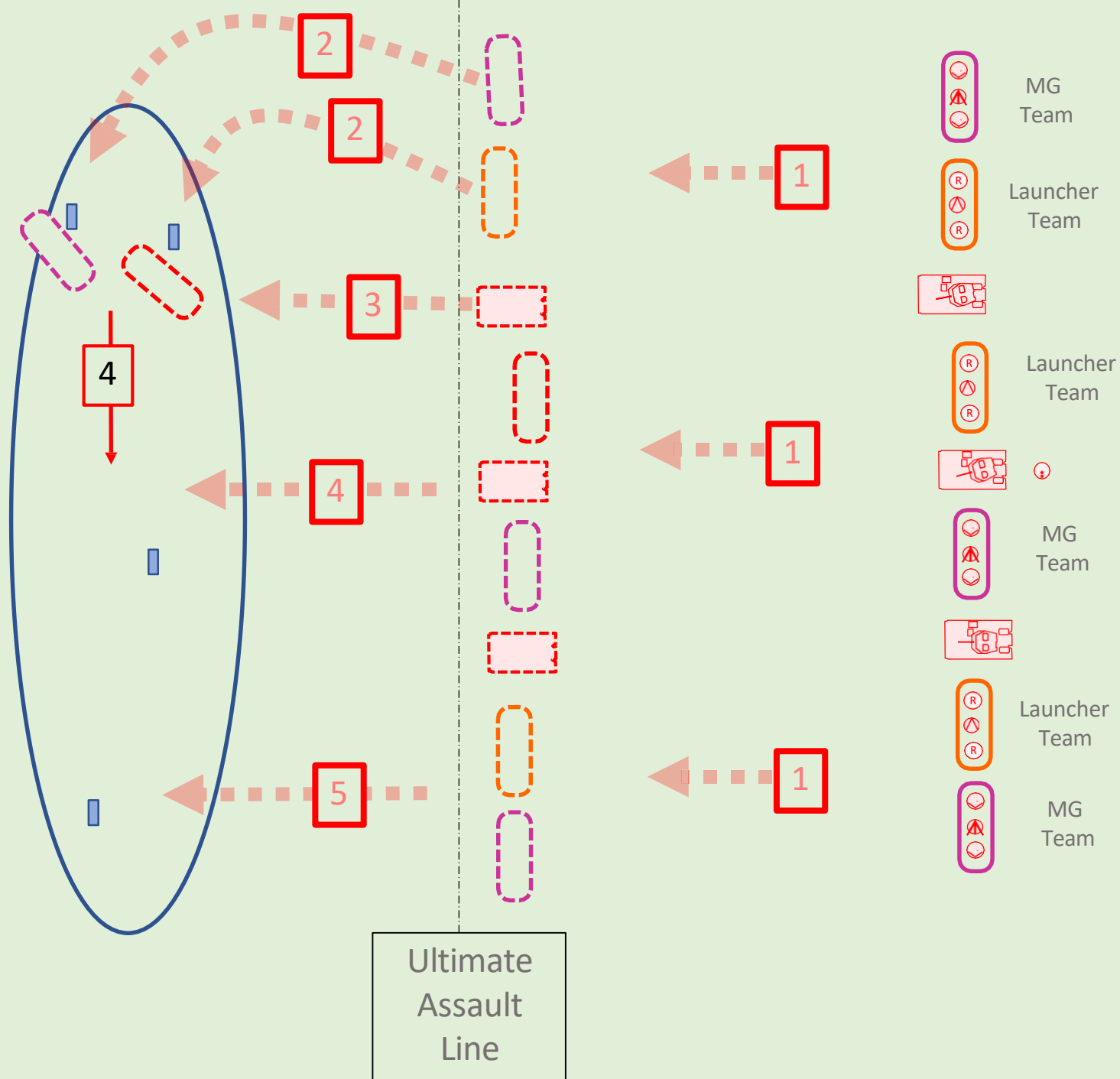
1. The platoon advances in extended line at a brisk walking pace with the vehicle gunners engaging targets on the objective with HE. A high proportion of the dismounted Squads will carry tube launched explosive munitions on their shoulders ready to fire. This stage may be conducted under obscurity, with the vehicles navigating using thermal optics and the infantry Squads following behind their AFV orientated by a coloured strobe light on the rear of the vehicle. On the platoon commanders signal and timed to coincide with the smoke reducing, the vehicles pause at the ultimate assault line and switch to cannon and machine-gun fire, which orientates the infantry to the target if it is still obscured by smoke. A volley of shoulder launched munitions is then fired.
2. After the volley has impacted and detonated across the objective, the platoon resuming the advance at walking pace. The fight is controlled by the Squad commanders who remain in the vehicle turrets.



Mechanised Platoon Assault: 'Vehicles Tight'

As previously described, the Olvanans will always seek to attack from more than one direction. To ensure greater freedom of manoeuvre, platoons may deploy in the so-called 'vehicles tight' formation. This places the three AFV closer together and only separated by the half Squads of the centre Squad. The effect is that the other two Squads are complete and better able to manoeuvre from a flank when the opportunity presents itself. This may occur as follows:

1. The platoon advances at a brisk walking pace in extended line with the vehicle gunners engaging targets on the objective with HE. This stage may be conducted under obscuration, with the vehicles navigating using Thermal optics and the infantry Squads following behind their AFV orientated by a coloured strobe light on the rear of the vehicle. On the platoon commanders signal the vehicles pause at the ultimate assault line and switch to cannon and machine-gun fire.
2. While the remainder of the platoon is static, one of the flanking Squads, in this case the right-hand one, conducts a local flanking attack to clear positions in front of it.
3. That Squad's AFV then moves forwards to where it will be protected by its own Squad and moves as far as the ultimate assault line where they pause briefly to deliver explosive fire.
4. This leading Squad then provides fire onto the enemy positions in front of the centre Squad which moves forward to clear them.
5. This process is then repeated by the left flank Squad.

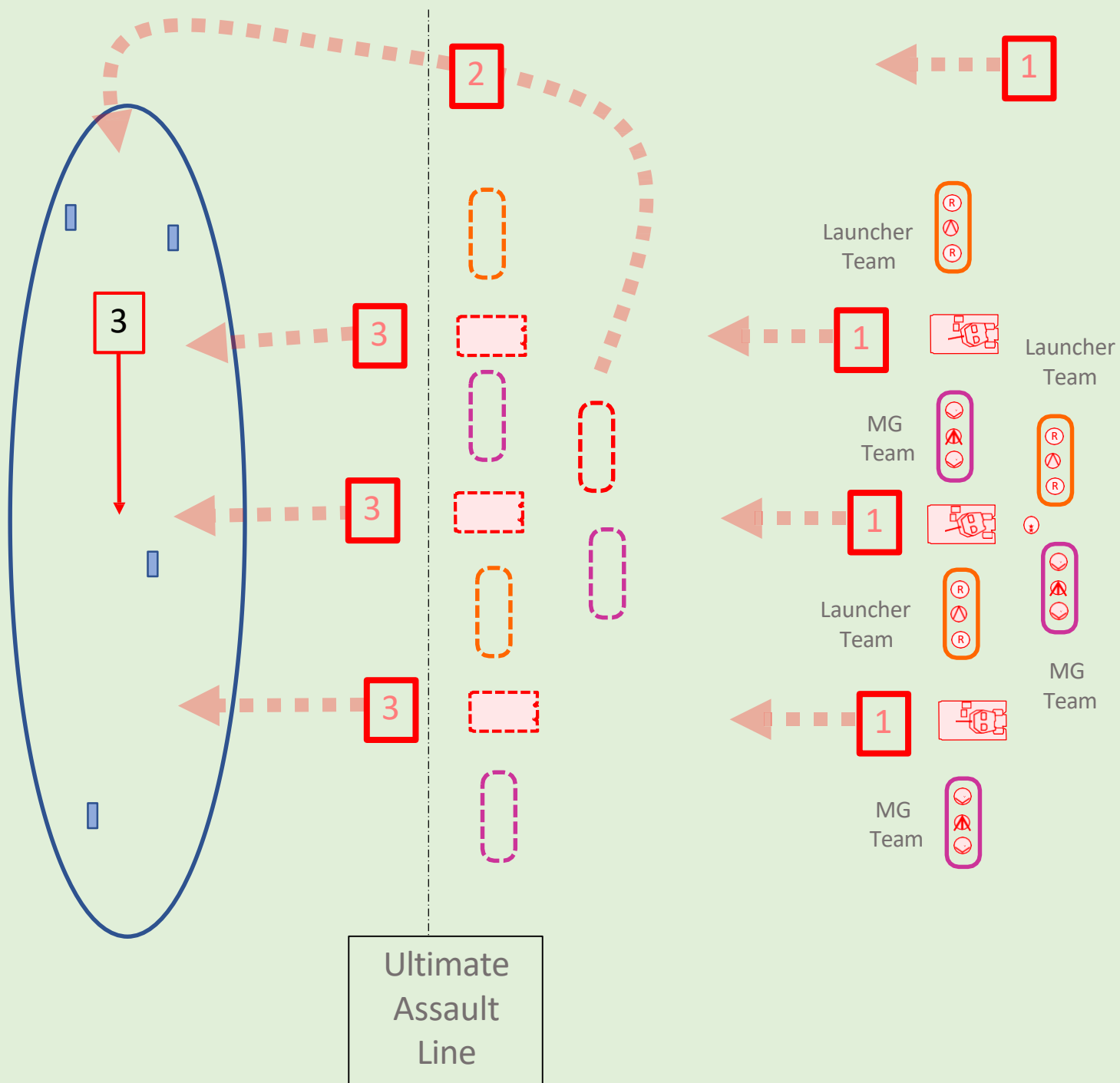


Mechanised Platoon

Assault: Squad in Reserve

The preferred formation for a platoon to assault is with a Squad in reserve in order to give the commander the flexibility to influence the battle. Importantly, this does not include the Squad vehicle which is kept forwards in order to maintain firepower. (The term 'two Squads forward' would be used to describe deploying with one complete Squad including its vehicle to the rear). Options include but are not limited to achieving a local supporting attack from a different direction to unlock the enemy defence.

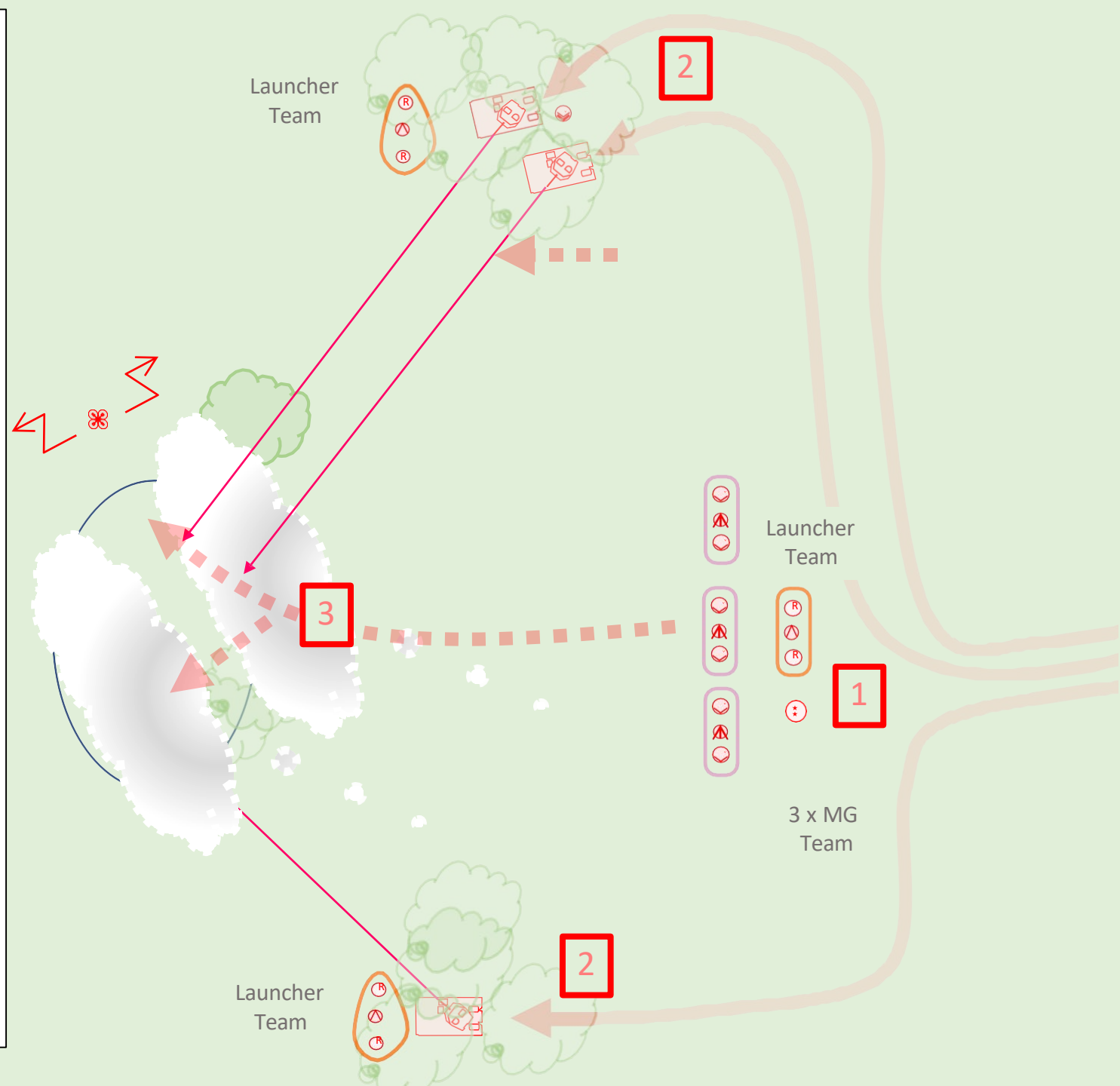
1. The platoon advances in extended line at a brisk walking pace with the vehicle gunners engaging targets on the objective with HE. This stage may be conducted under obscurity, with the vehicles navigating using Thermal optics and the infantry Squads following behind their AFV orientated by a coloured strobe light on the rear of the vehicle. On the platoon commanders signal the vehicles pause at the ultimate assault line and switch to cannon and machine-gun fire,
2. While the vehicles and the two forward Squads are on the ultimate assault line, the platoon commander then personally leads the reserve Squad to shape the battle. Typically, this will be an outflanking move to either one side or the other, but it plausibly could be to unlock the centre.
3. In this example, the reserve Squad has unlocked the enemy position from the right flank from which it provides supporting fire for the other two Squads to clear their objectives. This might be done concurrently or in sequence.



Mechanised Platoon Assault: Drop and Support

The Olvanans are extremely conscious of the vulnerability to contemporary guided weapons of AFV moving at an infantry pace across an objective, and the risk is increasing with wider use of UAS. Compounding this, a small number of intelligent top attack antiarmour mines on an objective also represent a severe threat. Equally, the provision of sophisticated weapons sights with thermal capability creates new tactical options, which is further enhanced if vehicle gunners are able to use drones to acquire targets. Consequently, they have adopted a new mechanised tactic where the AFV drop the assault infantry short of the objective and then moved to fire support positions on the immediate flanks. Preferably these positions are amongst or inside buildings or within bushes and foliage for protection from guided weapons. Often, they will reverse into a fire position from the direction of the objective to ensure they have a clear field of fire directly towards it. An important feature of this tactic is that it is largely driven and controlled from the vehicles providing supporting fire, usually under the command of the platoon senior sergeant. It may be executed as follows:

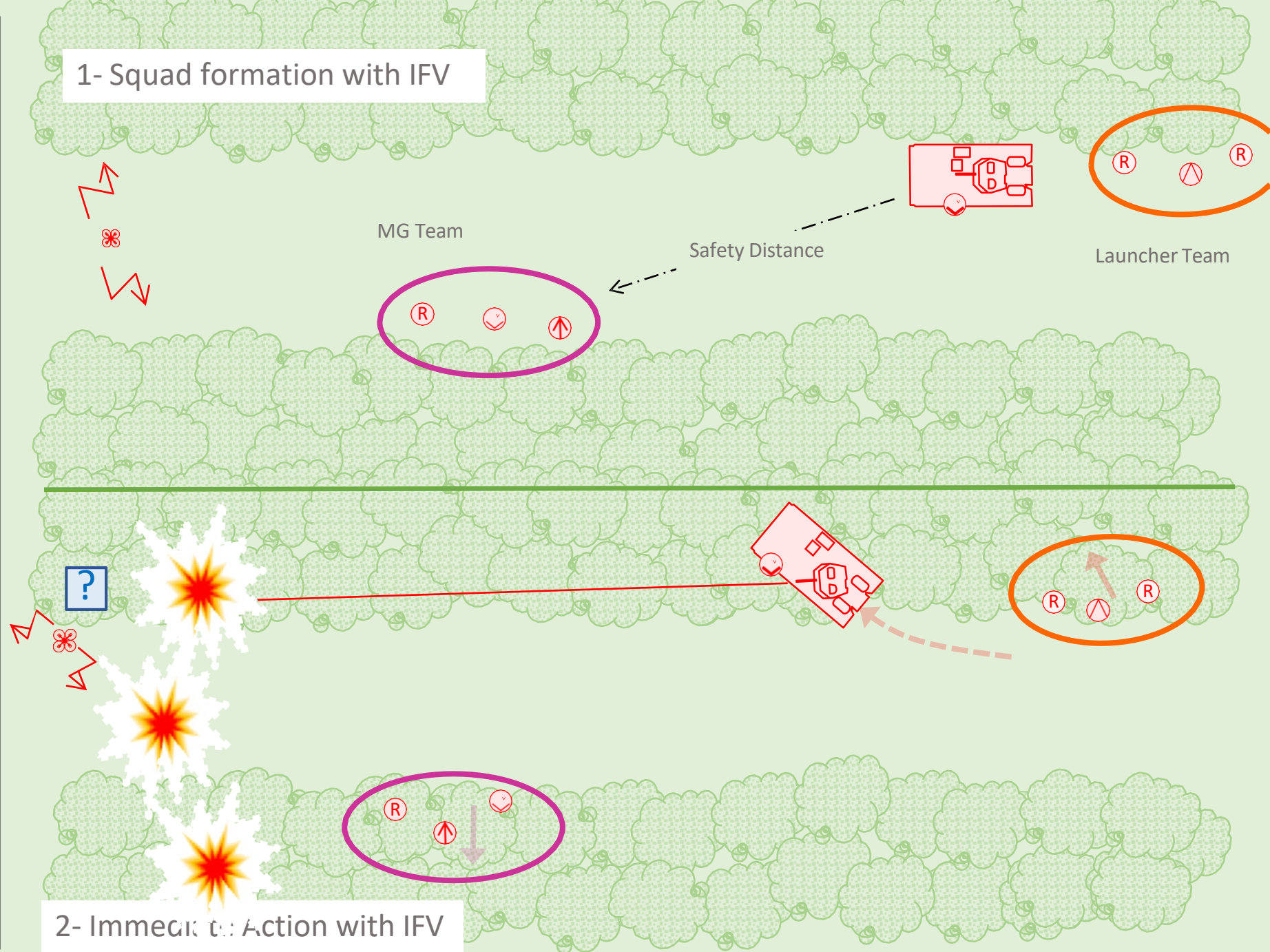
1. While the objective is under supporting fire the platoon motors towards it at speed until it reaches the debus point. When the infantry shake out into assault formation.
2. The vehicles continue to the selected fire positions. A single position has the advantage of requiring fewer dismounted soldiers to keep the vehicle secure, however firing from multiple angles will give better suppression and better understanding of what is occurring on the objective. The gunners use smoke munitions to obscure the objective and engage through it. The platoon senior sergeant provides a running commentary on the radio.
3. The platoon advances into the obscuration towards the objective relying on the firepower of the AFV to maintain suppression until they are warned to halt by the sergeant, who then coordinates the shifting of the vehicle fires to allow the platoon to attack individual positions in turn.



Mechanised Squad dismounted formation and Immediate Action to contact in close country

The mechanised Squad normally only forms two dismounted Groupings, a launcher team and a MG team. The vehicle weapons are considered the decisive tool, emphasising thermal sight use under smoke. The Squad commander normally stays mounted to fight the vehicle and they or the gunner operate the vehicle drone.

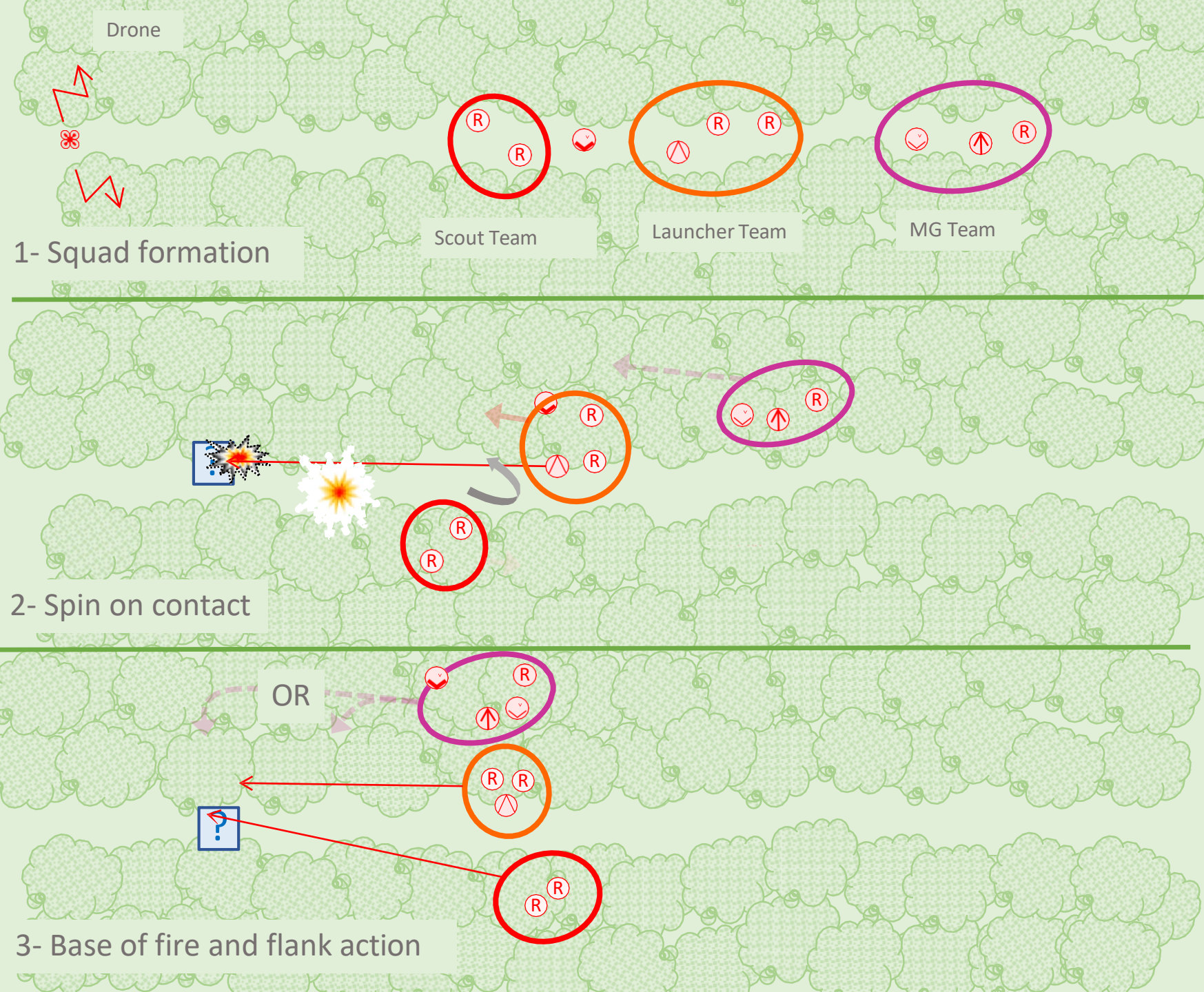
1. The MG team normally move ahead of the IFV on the opposite side of the route (away from the vehicle), scanning both sides. If there is little cover the distance is determined by safety considerations – far enough away from the vehicle’s active protection system but short of where vehicle smoke discharge canisters will burst. The launcher team move behind the vehicle, also scanning both sides. The drone is operated well ahead of the vehicle in semiautonomous mode.
2. The normal IA is to fire the smoke dischargers and accelerate aggressively into the nearest cover and apply machine-gun or cannon fire towards the enemy. The two teams move off the track into cover. Their focus is to find targets for the vehicle which will also use the drone to correct ‘blind’ cannon fire through cover



Squad Formation and Immediate Action Contact Close Country

The dismounted Squad forms three groupings or teams; the Scout team, the launcher team, and the machine-gun team. Spacing is similar to Western practice except that teams tend to bunch slightly and have bigger spaces between them. The commander moves with and between teams to personally influence the most important action at any time.

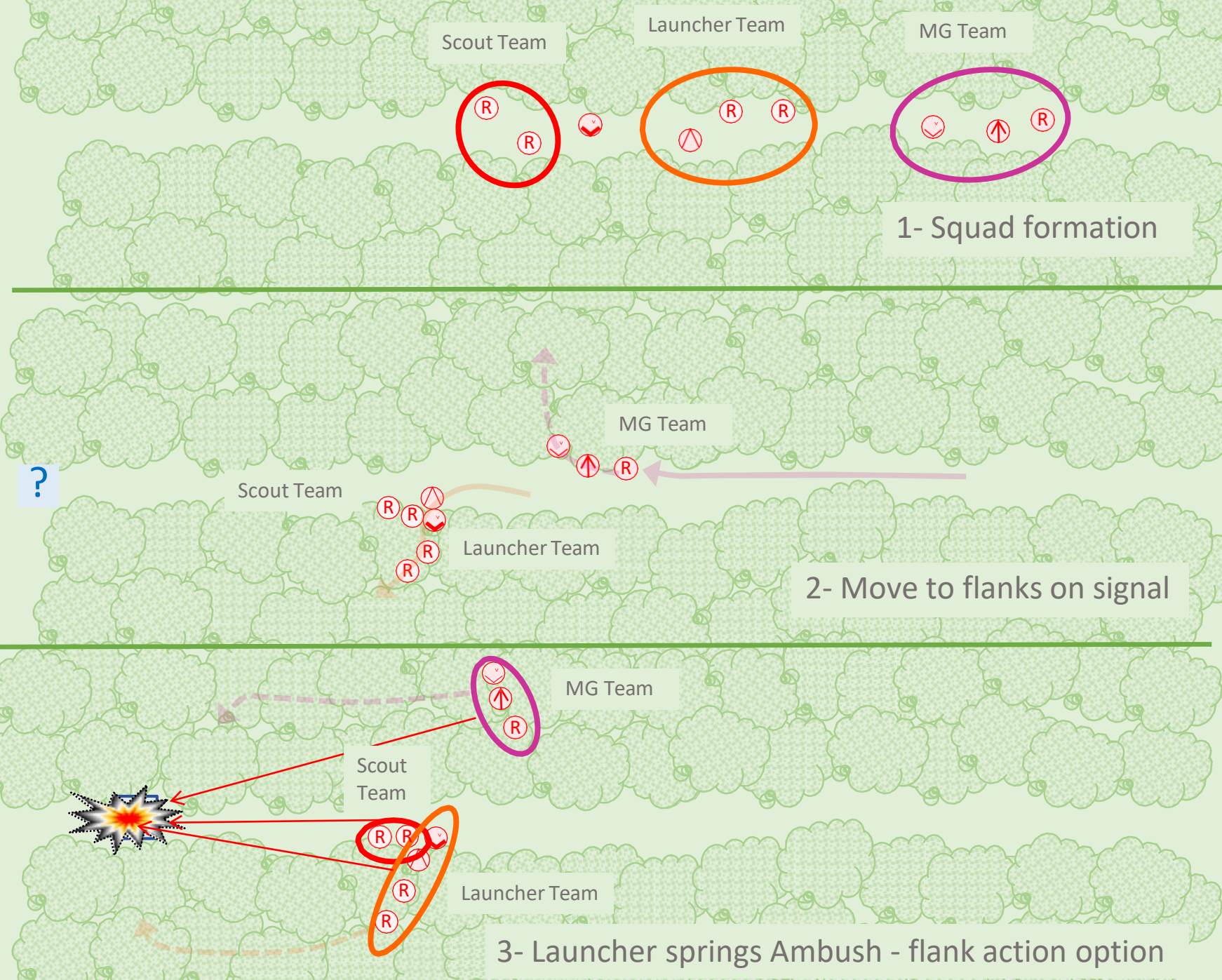
1. The Scout team move a short bound ahead. If contact is anticipated, one or both soldiers will have a hand flame & smoke launcher prepared to fire. The Squad commander moves next, navigating. Immediately behind follows the launcher operator with the tube shouldered and loaded with HE/TB or smoke. If a drone is used ahead of the Squad it will be operated by the Squad commander if moving by bounds and by the Squad 2 IC if moving continuously.
2. On contact, the Scouts charge very close enemies but otherwise fire flame-smoke and drop back to one side of the axis. The launcher immediately fires an explosive round for shock effect and the commander leads the launcher team forwards off the route on the opposite side to the Scouts. The 2IC closes the MG team up on the same side.
3. The commander moves to the MG team and leads it forwards – slightly forwards to apply flanking fire on the enemy to enable the other teams to begin withdrawing or forwards to the flank to assault the enemy.



Squad Execute Immediate 'Mouth' ambush

If a dismounted Squad detects an enemy ahead, the commander has two options. One is to move the entire Squad into cover on one side of the axis, as is done in Western jungle doctrine. However, normally the Olvanans prefer not to risk yielding the element of surprise and choose to engage frontally within an explosive munition. The method is described as a mouth ambush because when deployed the two weapons teams form a mouth and the scouts a tongue. The same method is used if an armoured vehicle is encountered but the teams may move further to the flank to ensure minimum arming distances for antiarmour weapons.

1. The dismounted Squad advances in three teams.
2. When the enemy is pre-seen, the scout team will attempt to halt in cover on one side of the axis. Squad commander gives the signal for a mouth ambush and the launcher team close up and move off the axis on the Scouts side. Concurrently the machine-gun team move off on the opposite side. The distance they move is determined by the need to keep surprise and visibility considerations. The scouts, the launcher gunner and the commander will usually be very close in order that they all engage together.
3. The ambush is sprung by firing an explosive munition. The commander will not normally remain static after the initial burst of fire. Either they will immediately push the two weapons teams forwards alternately to envelop the ambush site (accepting the risk of firing towards own elements), or they will rapidly withdraw.



Platoon Occupation of 'Y' Harbour or Ambush

1- Platoon in single file

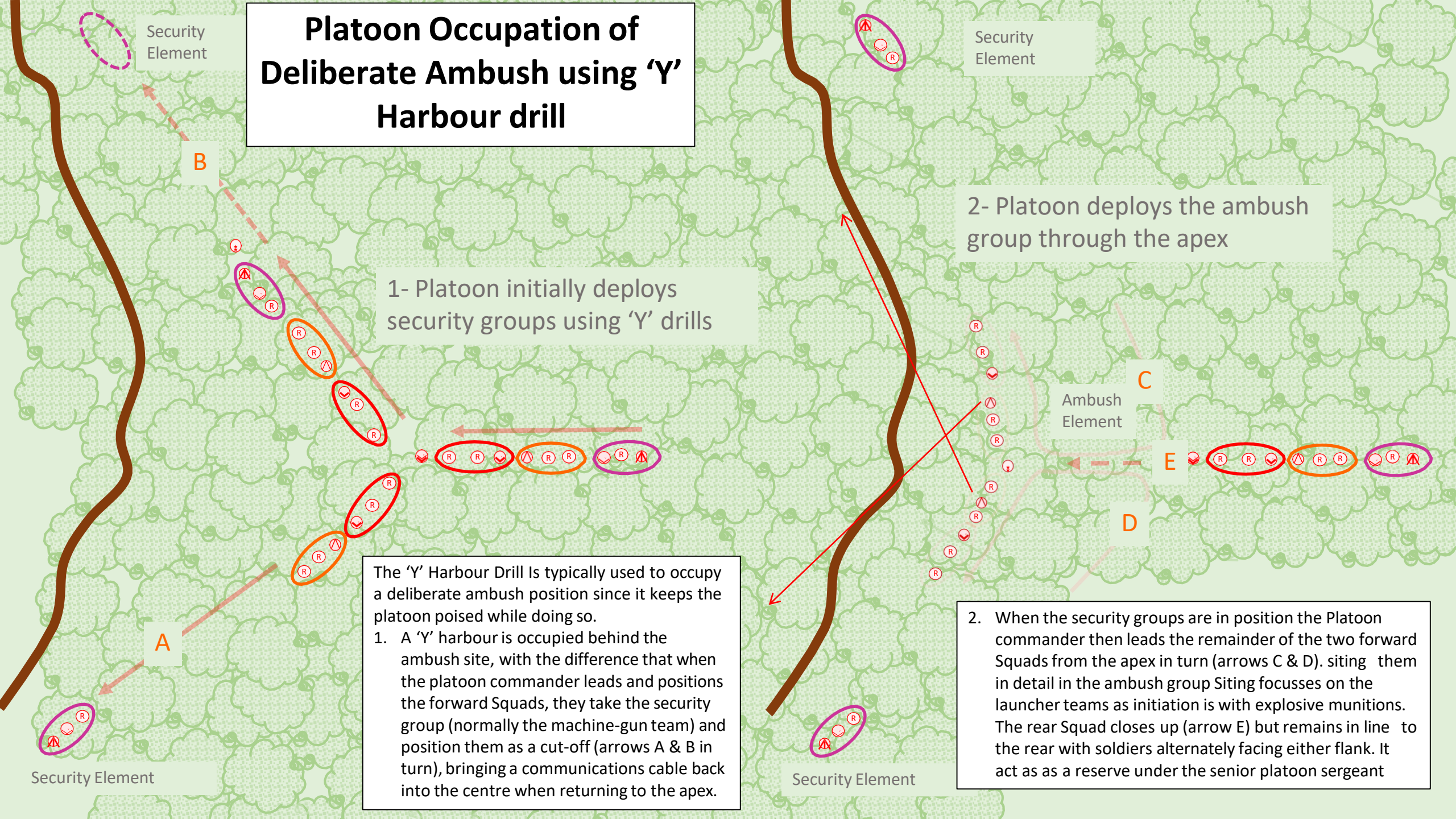
2- Platoon forms one arm of 'Y'

3- Platoon completes 'Y'

The 'Y' Harbour is standard formation for halts in close country and is also used to deploy for platoon ambushes..

1. In anticipation of forming a harbour the platoon commander and platoon senior sergeant move to the front of the platoon. The commander may halt the platoon in order to go forwards with soldiers from the leading Squad's Scout team to choose the exact position. When chosen, the signal is given and the senior sergeant halts at what will be the apex
2. The platoon commander leads the first Squad forwards placing each soldier on the ground at his exact position. This occurs in reverse order and therefore leaves the machine-gun group as the final soldiers to be placed on the tip of the 'Y'. The Squads behind follow on and keep closed up.
3. When the first Squad is sited, the commander then returns to the apex and leads the second Squad out to form the second arm of the 'Y', again placing each soldier personally. The third Squad closes up and ends up in the correct order with the machine gun team at the rear or last tip of the 'Y'. The commander then returns to the centre.
4. When moving out from the wire harbour, the Squad that is arrayed in the chosen direction of travel moves last. One of the other Squads moves inwards to the apex from where it is led out by the platoon commander parallel with the static Squad. As its last man reaches the apex the other 'middle' Squad follows on. When the last man of the middle Squad reaches the apex the platoon senior sergeant follows on and picks up the last Squad from the centre outwards. They peel off so that their order of marche is reversed and the gun group is at the tail again.

Platoon Occupation of Deliberate Ambush using 'Y' Harbour drill



1- Platoon initially deploys security groups using 'Y' drills

2- Platoon deploys the ambush group through the apex

The 'Y' Harbour Drill is typically used to occupy a deliberate ambush position since it keeps the platoon poised while doing so.

1. A 'Y' harbour is occupied behind the ambush site, with the difference that when the platoon commander leads and positions the forward Squads, they take the security group (normally the machine-gun team) and position them as a cut-off (arrows A & B in turn), bringing a communications cable back into the centre when returning to the apex.

2. When the security groups are in position the Platoon commander then leads the remainder of the two forward Squads from the apex in turn (arrows C & D), siting them in detail in the ambush group Siting focusses on the launcher teams as initiation is with explosive munitions. The rear Squad closes up (arrow E) but remains in line to the rear with soldiers alternately facing either flank. It act as as a reserve under the senior platoon sergeant

Security Element

B

A

Security Element

Security Element

Ambush Element

C

D

E

Security Element

Olvanan Defensive TTP

Key Points

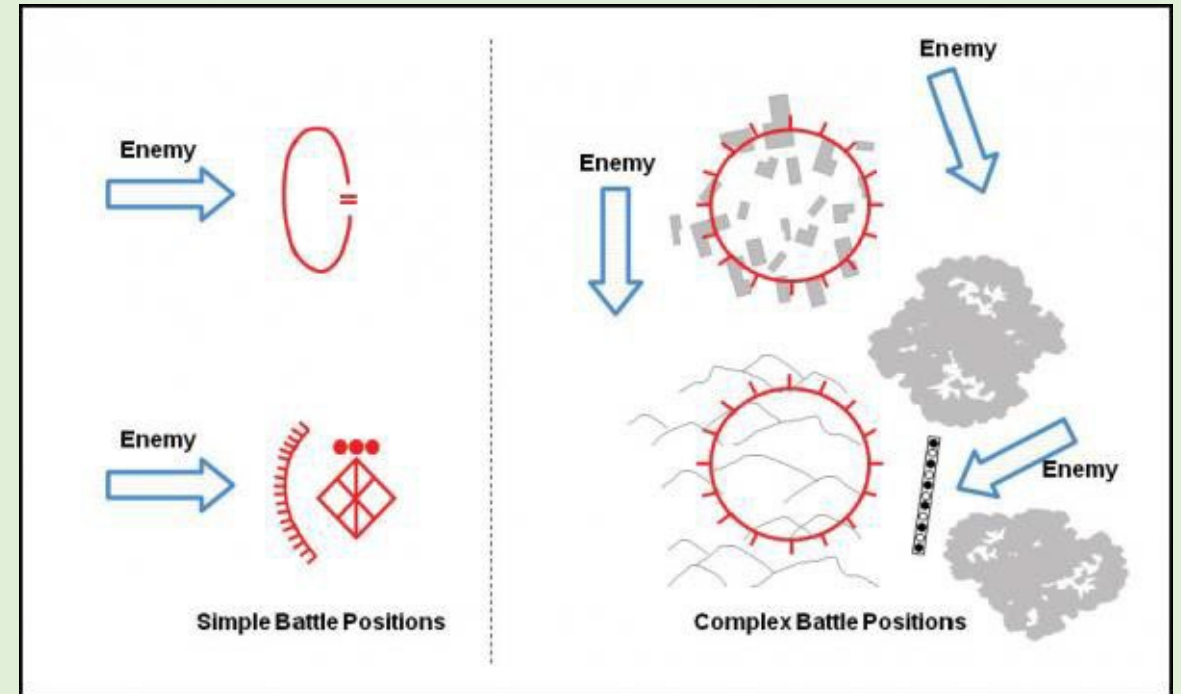
The Olvanan approach to defence is predicated on their assumption that if a defensive position can be located it can be destroyed. Their approach, and the basis of their TTP can usefully be understood based on their two categories.

Simple Battle Positions are analogous to Western-type defensive positions employed in the delay and mobile defensive battle and focused on delivering combat effects. Individual fighting positions are mostly sited to cover enemy approaches and killing areas, themselves often defined by obstacles. Generally, they are expected to be fought from in order to achieve a tactical effect and then abandoned.

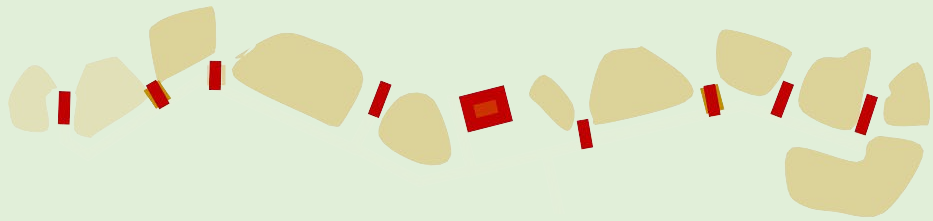
Complex Battle Positions, in contrast, are focused on force preservation in order to engage in battle at another time and place. Positions are sited and constructed in the first instance

- to avoid enemy detection, then to
- be difficult to define and target, then to
- provide maximum protection and finally to
- use terrain and deconstructed so that an enemy assault will be difficult and slow.

The complex battle position defence should not be misunderstood as passive, rather as providing a firm base from which to emerge and move concealed to previously selected and reconnoitered positions to ambush, attack by fire or conduct spoiling or counter-attacks.

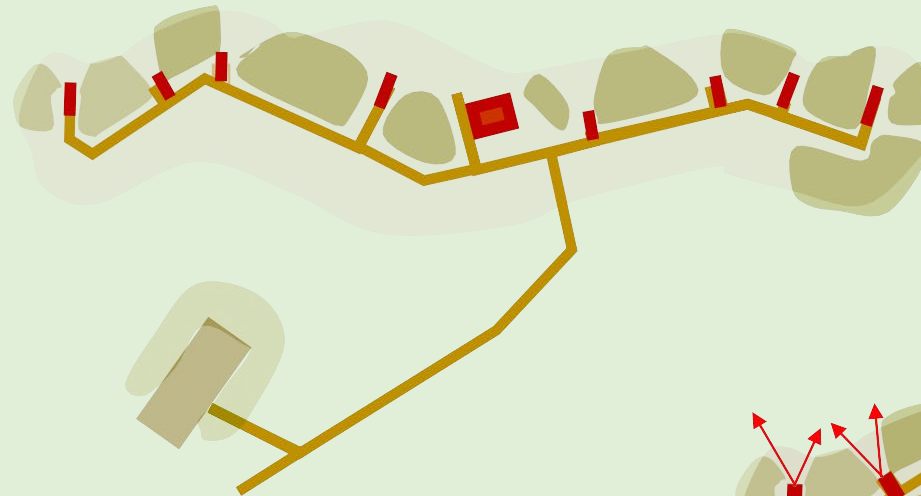


This diagram indicates the difference between the two types of battle positions. The Simple Battle Position typically lies astride the enemy axis, whether extensively fortified or not. In contrast a Complex Battle Position is chosen to avoid the likely enemy axes with a view to engaging from the occupied terrain into the flank of the enemy or otherwise at a relative advantage because of that terrain.



1- Initial individual pits

2- Link-up with zig-zag trench



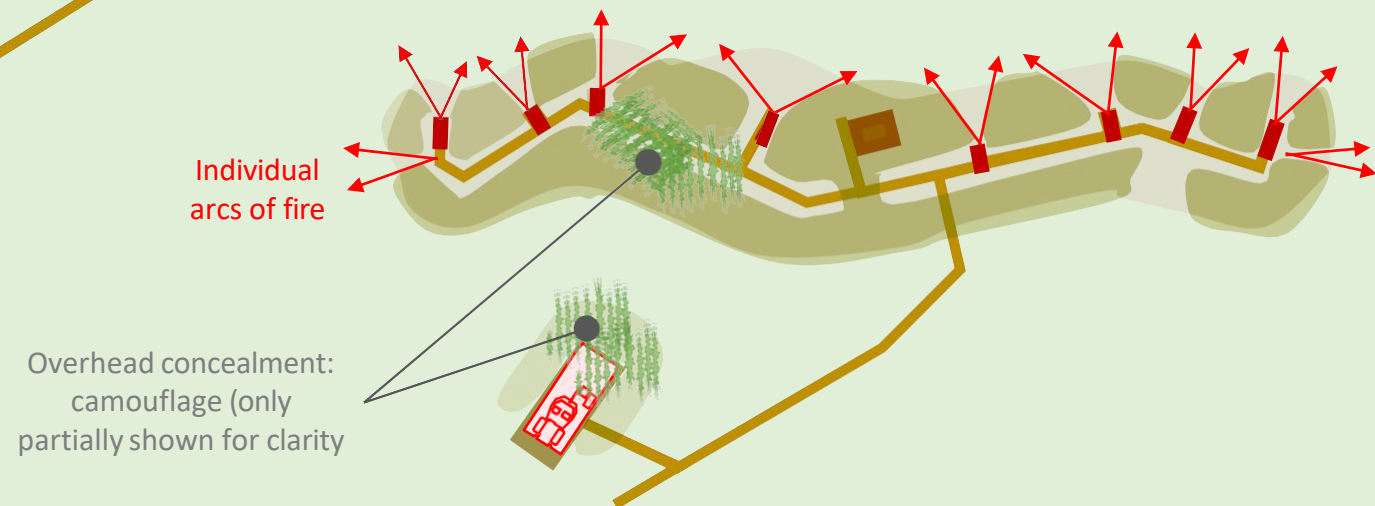
Squad Traditional Continuous Trench

The traditional standard trench design for the Olvanan army reflects collective generation of morale and centralised leadership. It can be dug rapidly with in service mechanical trench digging equipment. When completed it provides for the whole Squad to shelter in a protected central bunker and move out to individual fighting positions that mostly dominate a particular assigned arc.

Sequence of construction

1. Initially the full position is marked out and camouflage nets erected before Squad members dig individual pits (red) and the Squad shelter bunker, throwing the spoil forwards to form berms between arcs of fire. The frontage is up to 100 m.
2. When pits are complete, the Squad then works to connect them up with a zigzag communications trench and dig in the Squad AFV. They throw the spoil to form both parapet and parados.
3. The position is completed by revetting, reinforcing and constructing overhead protection for (as a minimum) the shelter bunker and the entranceway. If time permits the entire system will be provided with overhead protection but overhead cover/concealment is considered nonnegotiable. Spoil is camouflaged as work progresses.

3- Construct overhead protection

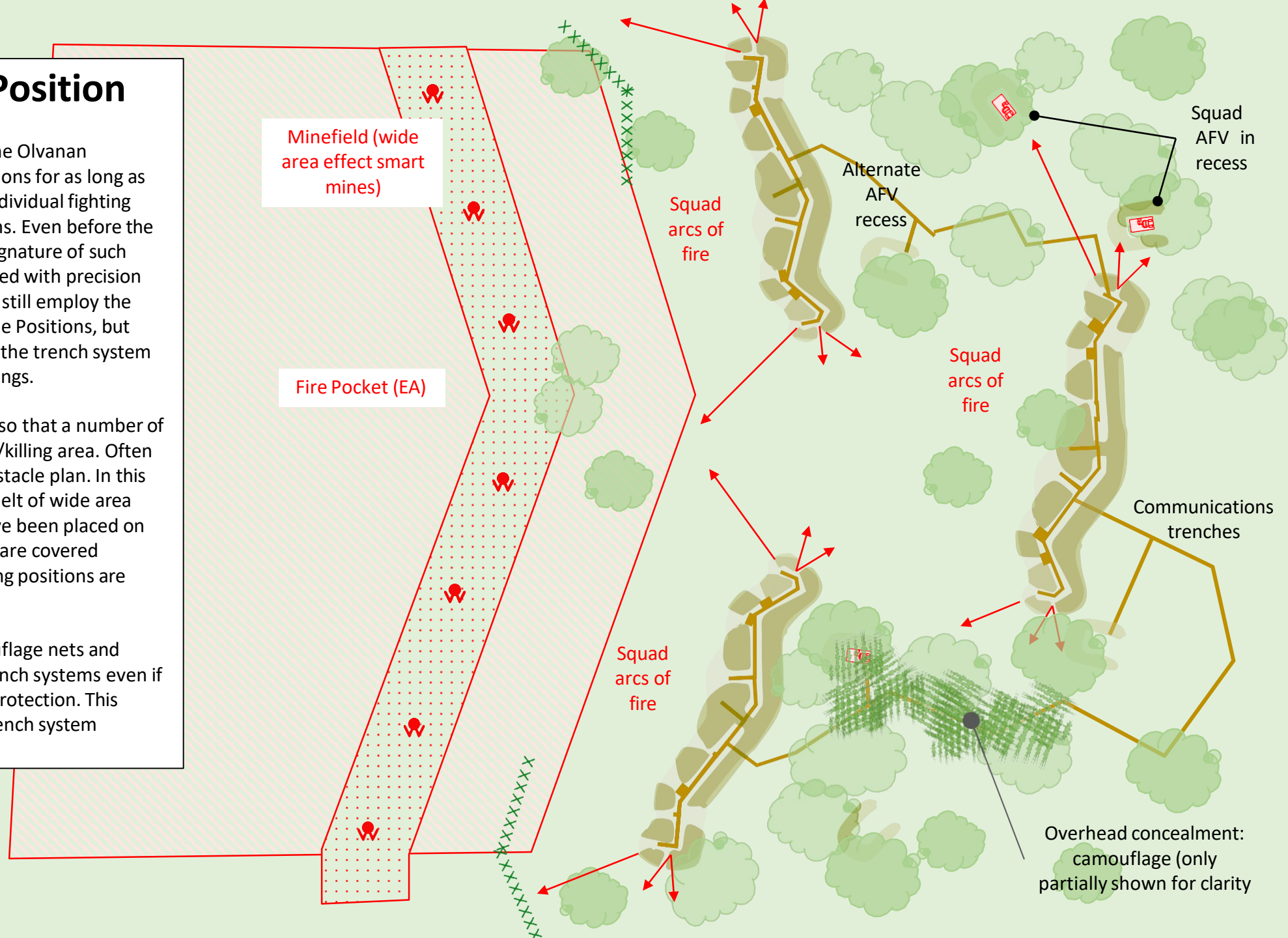


Platoon Traditional Position

When conducting a deliberate defence, the Olvanan historically kept working on fighting positions for as long as possible, continuously developing from individual fighting pits to entire connected battalion positions. Even before the advent of drones on the battlefield, the signature of such systems and the risk of them being targeted with precision weapons was forcing a rethink. They now still employ the traditional Squad position for Simple Battle Positions, but usually only where the distinctive lines of the trench system can be disguised amongst woods or buildings.

A Simple Battle Position is normally sited so that a number of Squad positions cover a single fire pocket/killing area. Often the file pockets are integrated with an obstacle plan. In this example the fire pocket includes a mine belt of wide area effect smart mines and why obstacles have been placed on the home side of the pocket where there are covered approaches to the position. Several fighting positions are constructed for each of the Squad AFV.

The Olvanan's will construct under camouflage nets and invariably use overhead cover on their trench systems even if they are not able to cover them all with protection. This diagram only shows a small part of the trench system covered over.



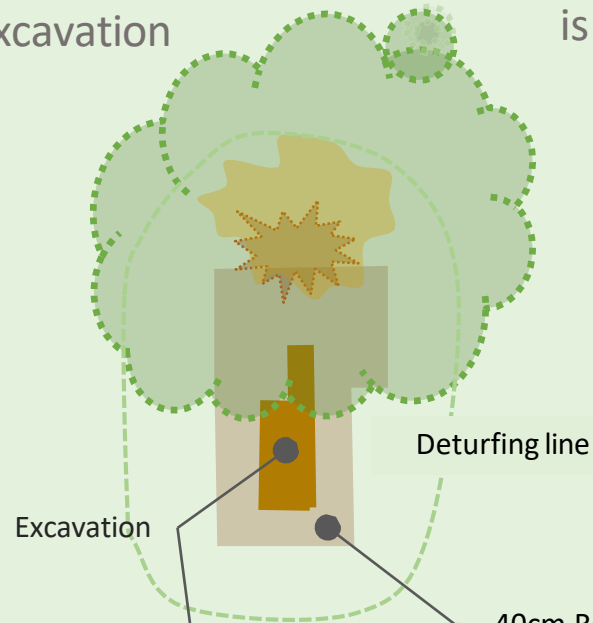
Pairs Fighting Position

The emphasis for complex battle positions is avoiding detection, therefore concealment is a priority. The pairs fighting position is designed to have the lowest possible signature, while providing deep overhead protection for survival. In order to minimise profile, the position is constructed level with the ground and spoil removed. Overhead concealment is always provided for the openings, but this may be lowered to ground level when required. The design is particularly suitable for construction beneath trees, where the main shelter bunker can be located between the radiating root system.

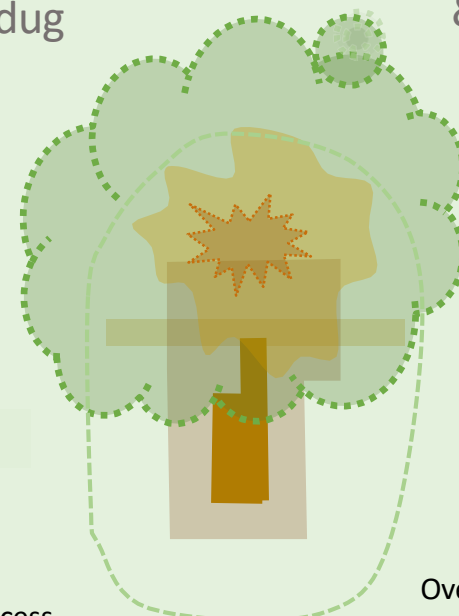
The construction sequence is as follows.

1. Large camouflage nets are erected to cover the entire work area if tree cover is not complete. The position is marked out and turf stripped back and set aside, Fabric is placed for excavated soil. The shelter bay is excavated including 40 cm deep recesses for overhead protection.
2. The 'Tee' for the fighting positions is dug.
3. Retaining material is then placed over the parts of the excavation to be covered, before it is backfilled to ground level. The whole position is then covered back over, the turf replaced, and the construction is thoroughly camouflaged.

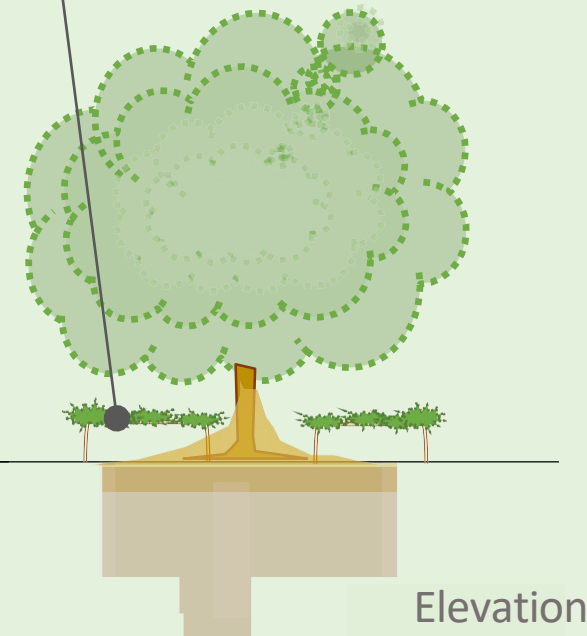
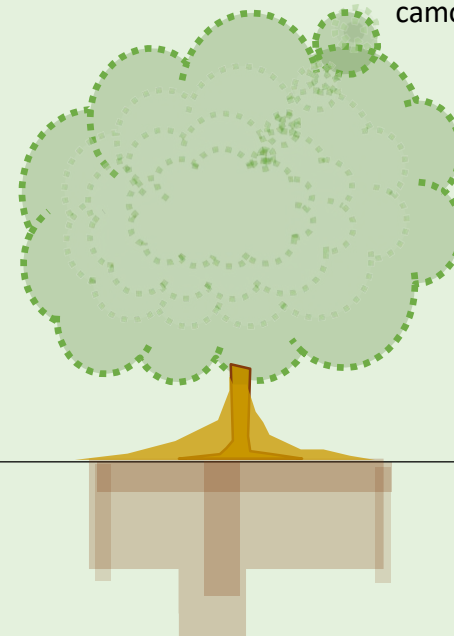
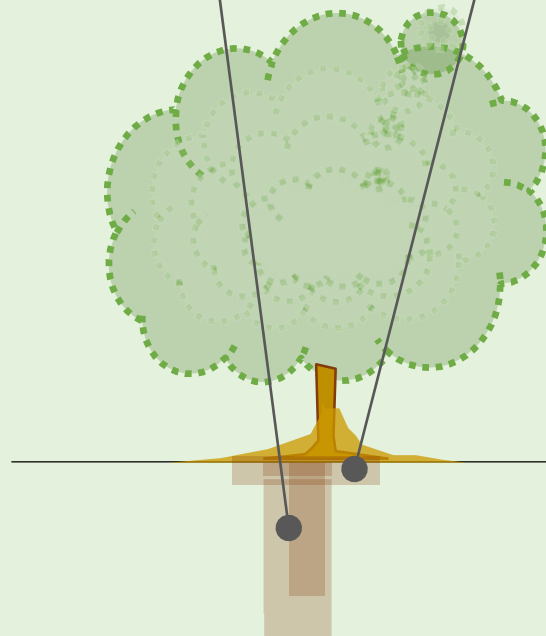
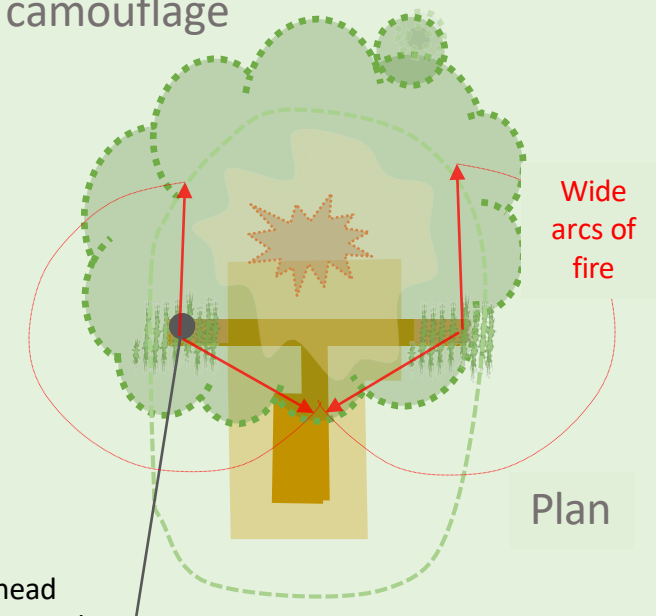
1- Initial Excavation



2- 'Tee' is dug



3- Backfill. Cover & camouflage

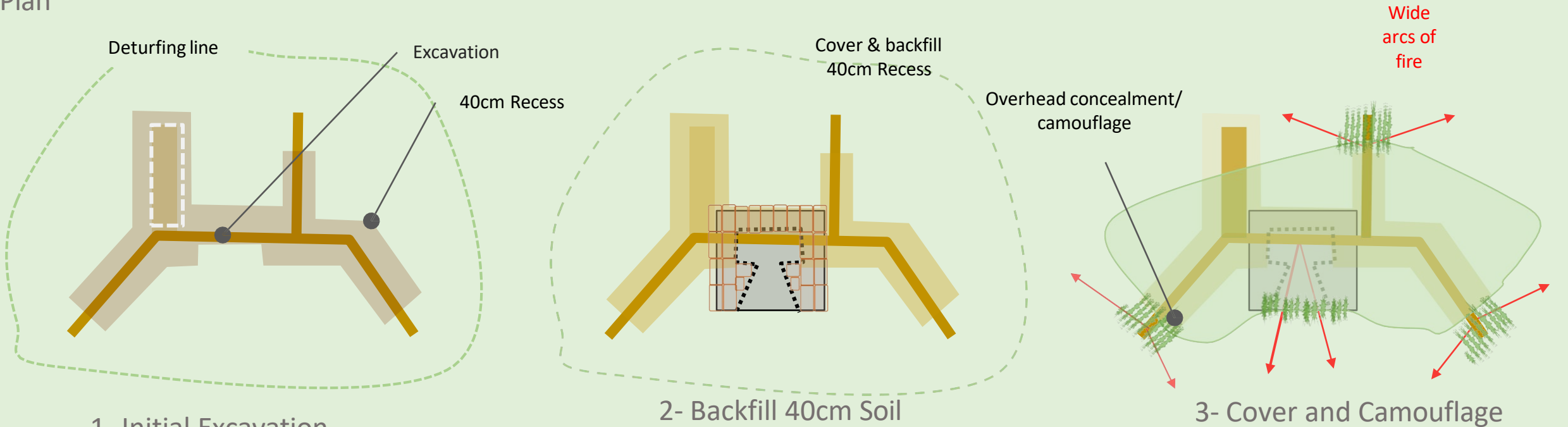


Team Fighting Position

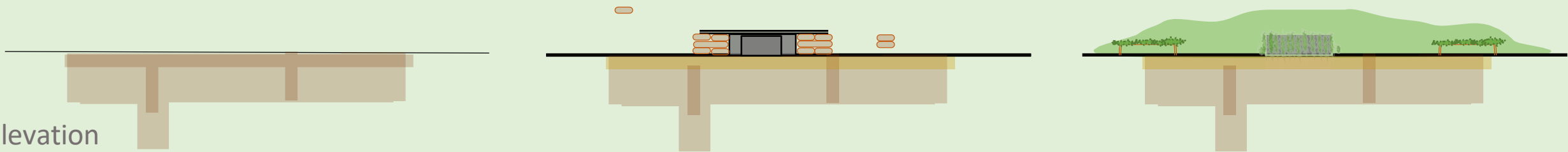
In response to the increasing threat from overhead surveillance and in order to be able to conceal positions adequately for the complex battle position concept to be viable, the Olvanans have introduced new fighting position designs. The team fighting position is intended for three or more soldiers and is designed to provide a deep shelter, overhead protection for soldiers covering a primary arc and surface level positions for fighting and observing that offer good arcs. Normally, in order to avoid an overly large construction, overhead protection is not provided for these other positions, and they simply have overhead cover/camouflage. The construction sequence is as follows.

1. Large camouflage nets are erected to cover the entire work area for each position. The position is marked out and turf stripped back and set aside, fabric is placed for excavated soil. Starting with the bunker (marked in white) for immediate protection, the position is excavated including 40 cm deep recesses for overhead protection.
2. Retaining material is placed over the parts of the excavation to be covered, before it is backfilled to ground level. A sandbag roof support is then constructed for the key firing position.
3. The whole position is then covered back over, the turf replaced, and the construction is thoroughly camouflaged.

Plan



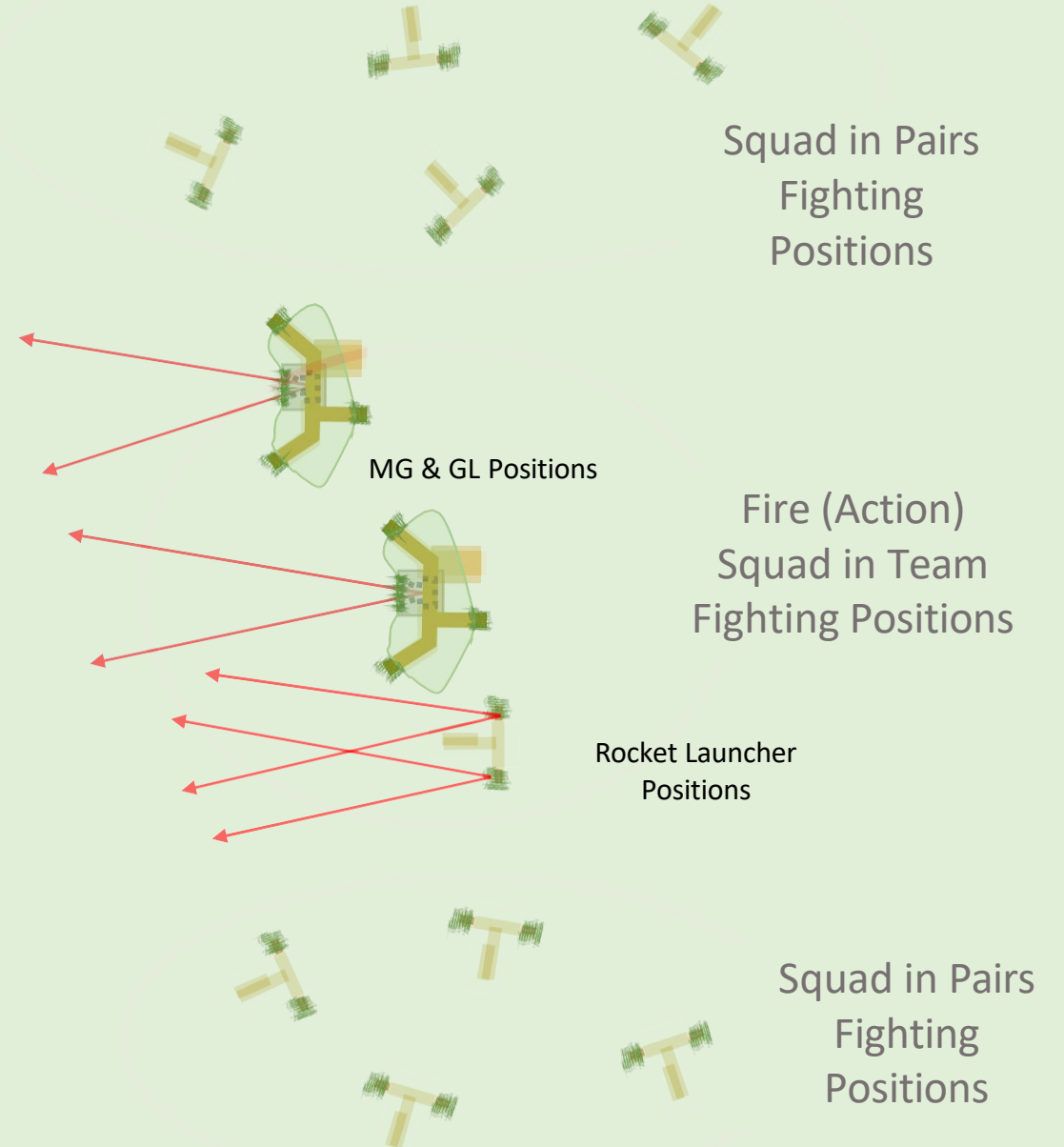
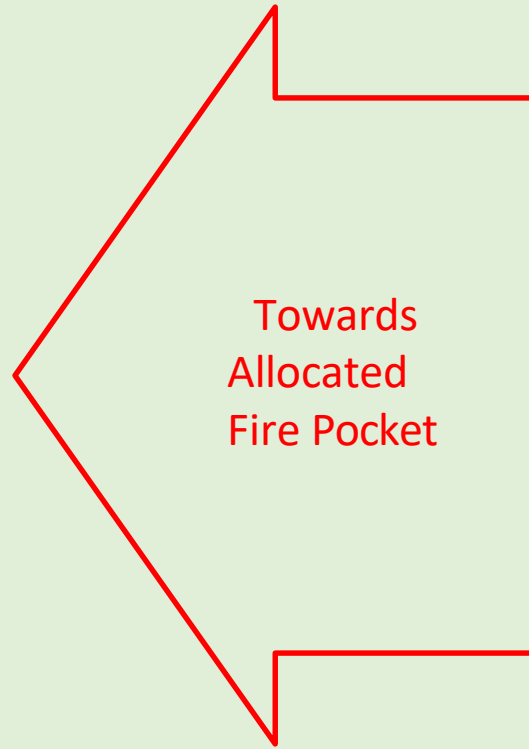
Elevation



Platoon Simple Battle Position

Even in Simple Battle Positions the Olvanans emphasise concealment and survival. In this example of a simple battle position the platoon has constructed to team positions and one pairs position to cover the allocated killing area with direct fire weapons – this is the action element. The commander is likely to collect the machine guns and grenade launchers from the other Squads to increase firepower. The remainder of the other two Squads are deployed to maintain security for the action element.

In the schematic only the arcs of fire of the action Squad are shown. Furthermore, for clarity, no relief nor foliage nor buildings are shown. In practice the Olvanans will always seek to conceal positions amongst the most complicated terrain available.



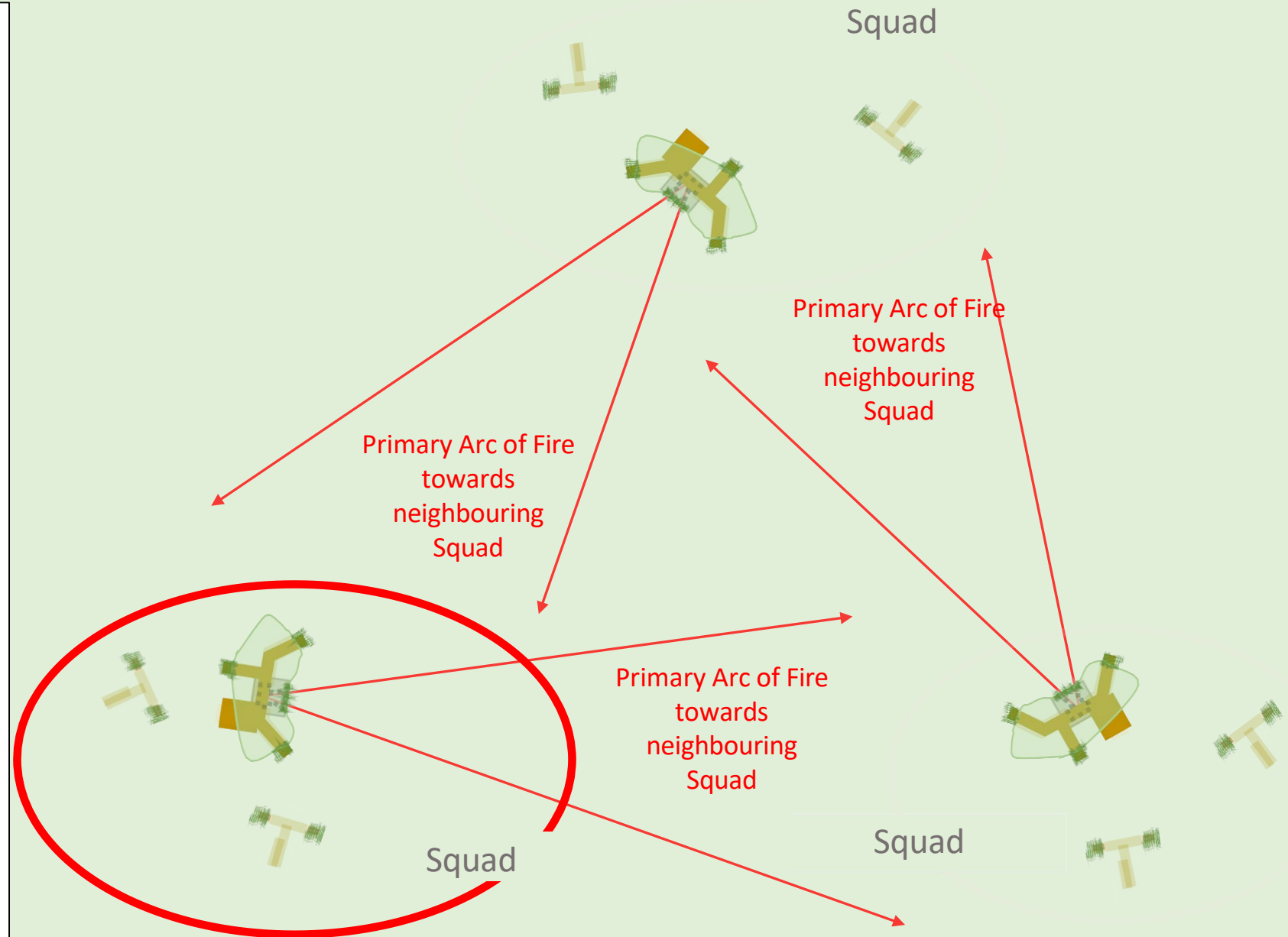
Platoon Complex Battle Position (Inward Sited)

The primary function of a Complex Battle Position is usually survival of the force. This places a design premium on avoiding detection and then close self-defence in the event of surprise. In many cases the intention is not to fight from the position, rather on enemy approach to redeploy to ambush or exfiltrate.

Complex Battle Positions will usually be designed to avoid any need to move outside of fighting positions during routine. Soldiers will remain below ground at all times unless in contact.

The demands of maintaining security are likely to require anchor positions from which sentries can observe not only from under concealing overhead cover, but also from under overhead protection if the position becomes engaged, noting the also the preferred Olvanan tactic of calling own fire onto own (protected) positions. In an inward-looking or inward sited position, individual fighting positions with full overhead protection are arranged to observe neighbouring positions and their approaches.

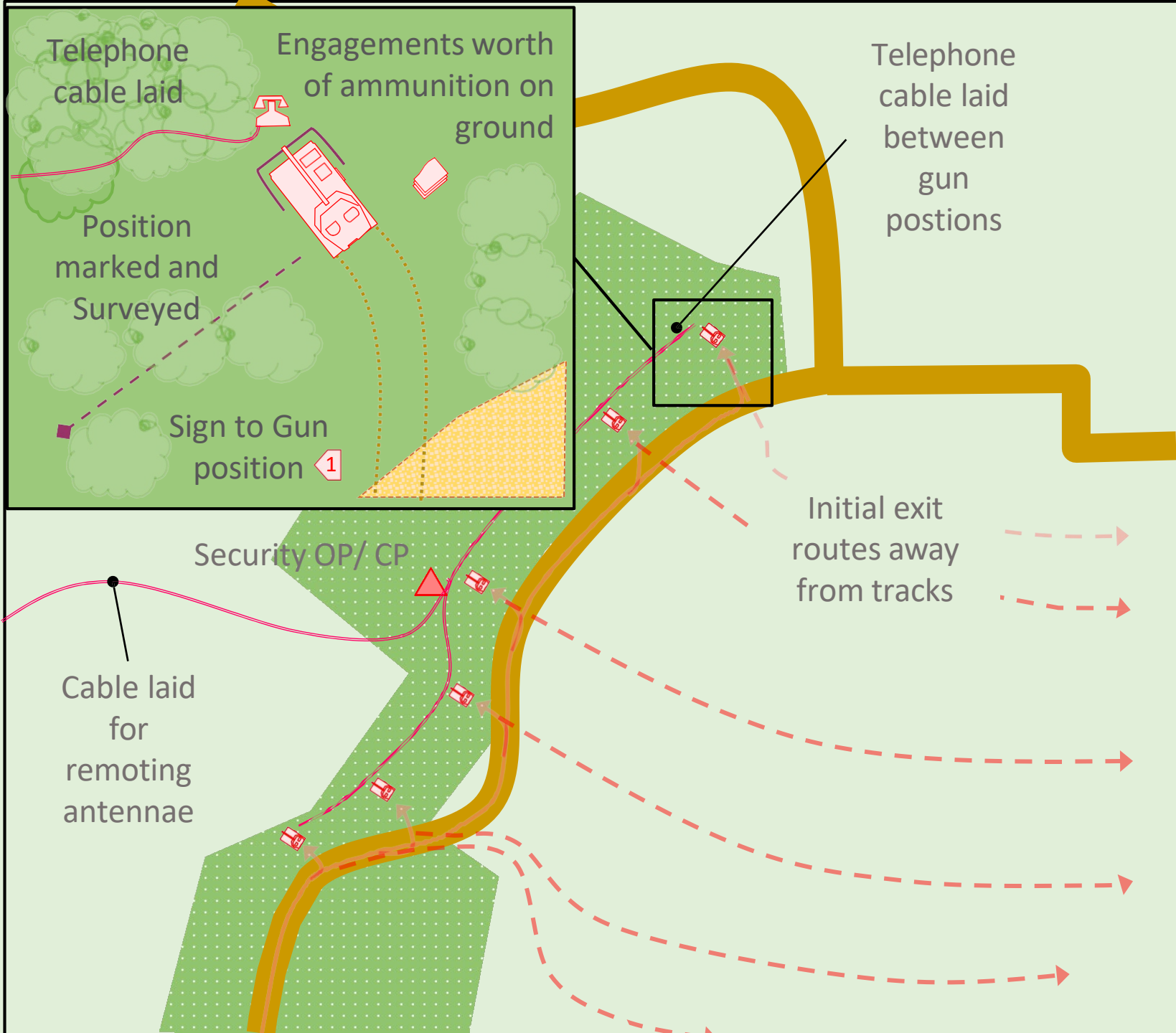
Again, this example does not show any concealing terrain or structures.



Limited Action Battery Gun

Position Olvanan artillery increasingly employ limited action gun positions because of the synergistic threat from overhead surveillance and precision counterbattery fire. Their use is feasible because smartphone based mission planning software allows rapid calculation of individual gun firing solutions given the gun location.

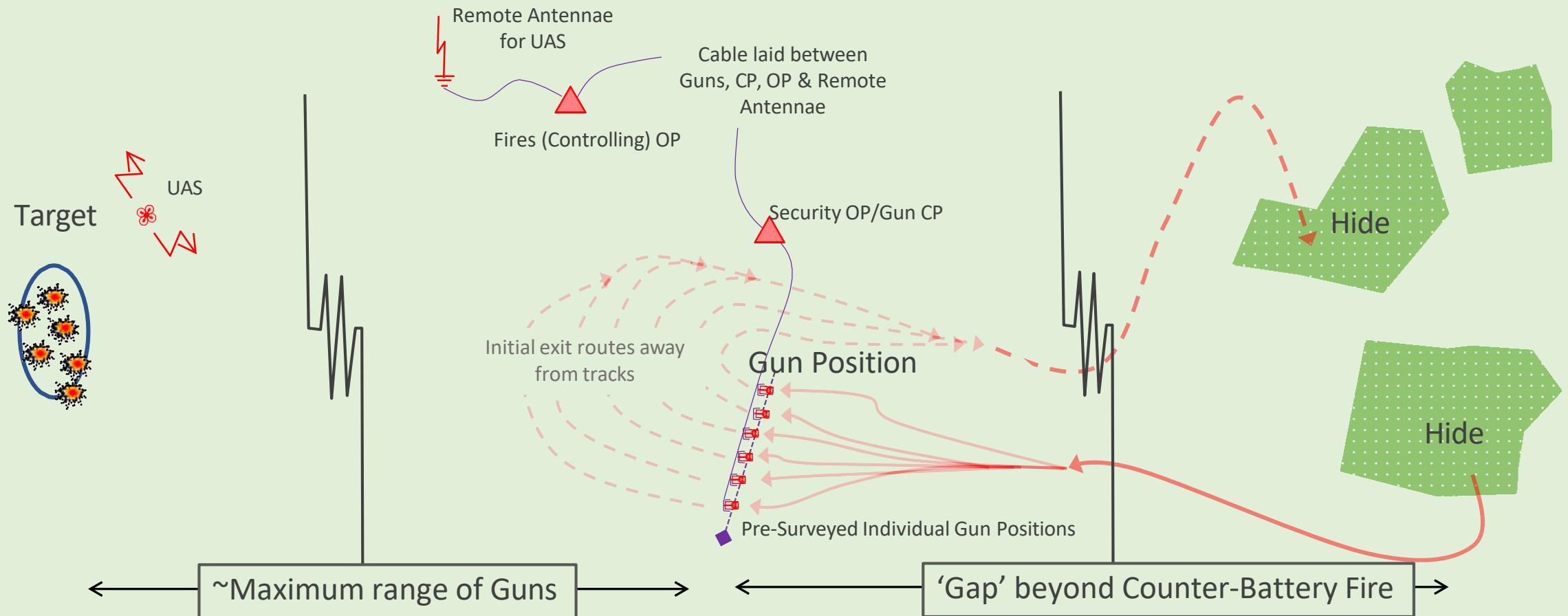
- The position may be at any location where the guns can be concealed, readily positioned and rapidly withdrawn, preferably at a point where there are multiple routes in and out to avoid predicted counterbattery fire. They set up many positions, of which only a proportion are used
- A survey team in light vehicles or motorbikes employ a UAS to check the site and then approach the future position from a different direction than its planned occupation. They mark the gun positions, place survey/direction stakes & lay out telephone cable, cables for remoting antennae and marker signs. They may dig in a CP pit and/or deploy and leave behind Unattended Ground Sensors (UGS) or motion activated camera sensors to maintain a level of security.
- Prior to action an advance party is deployed to place an engagements worth of ammunition on the ground at each gun position, they may also erect camouflage nets and leave an OP behind for security.
- When occupying, the guns confirm survey and connect to the phone cable network while the CP sets up. Communications external to the Battery are by radio transmitted via remote antennae, internal via phone digital cable and voice
- After engagement, whenever possible the Battery initially evacuates using routes away from existing tracks & roads.



Battery Fires Raid

Another Olvanan artillery technique to reduce vulnerability to counterbattery fire is the fires raid. The guns move forward from hides to a firing position close to the maximum range of the guns, engage and then withdraw.

- The position may be at any location where the guns can readily positioned and rapidly withdrawn and where there are multiple routes out to avoid predicted counterbattery fire.
- A survey team approach the future position from a different direction than its planned occupation. They mark the gun positions, place survey/direction stakes & lay out telephone cable between gun positions, Gun CP and the Fires OP as well as cable from the latter remoting antennae for UAS. The survey team may remain as a security OP or set up the Fires OP.
- When occupying, the guns confirm survey and connect to the phone cable network. The only radio transmissions are to the UAS via the remoted antennae.
- After engagement, whenever possible the Battery initially evacuates using routes away from existing tracks & roads.

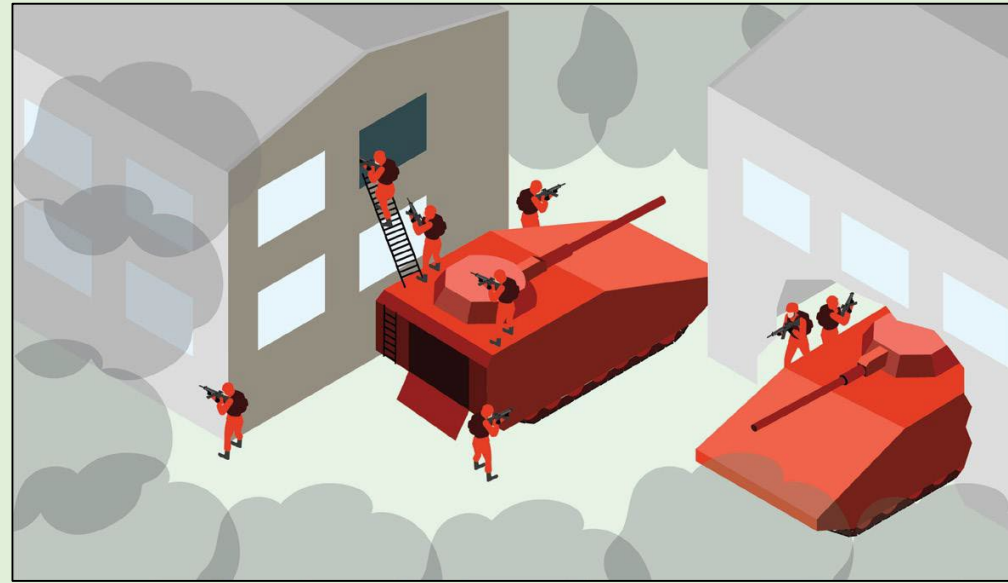


Olvanan Urban TTP

The Olvanan is have adopted the Olvanan urban doctrine, known as enclosure warfare, also known as *fused-masked-secerned warfare* merges three key ideas:

- Fusing is the notion of preceding and combining kinetic warfare, including 'robotic and intelligent warfare' with non-kinetic forms, especially information warfare and the wider constructs of the three warfares including inciting action amongst populations and the employment of low collateral weapons.
- Masking is the notion of concealing and protecting own forces by using both less lethal and nonlethal systems such as obscurants and moving in and through the fabric of the urban area
- Secerning is the notion of focusing military effort and lethal effects into closely defined areas, separating non-combatants, isolating enemy forces and denying them favourable engagement. It especially exploits remote technologies.

It is uncertain how far the Olvanans have been able to develop robotic and intelligent warfare. However, they have embraced the aggressive use of masking, both by using smoke and incendiarism as well as employing obsolescent armoured vehicles to mechanically breach and manoeuvre in and through buildings.



Aggressive & mechanical use of armoured vehicles

Olvanans employ their AFV very aggressively in urban areas, accepting the risk of driving in smoke only guided by the gunner's thermal picture and mechanically breaching buildings, often by reversing into them. They also use vehicles to climb from to enter at the first-floor level

Urban Offensive TTP: Characteristics

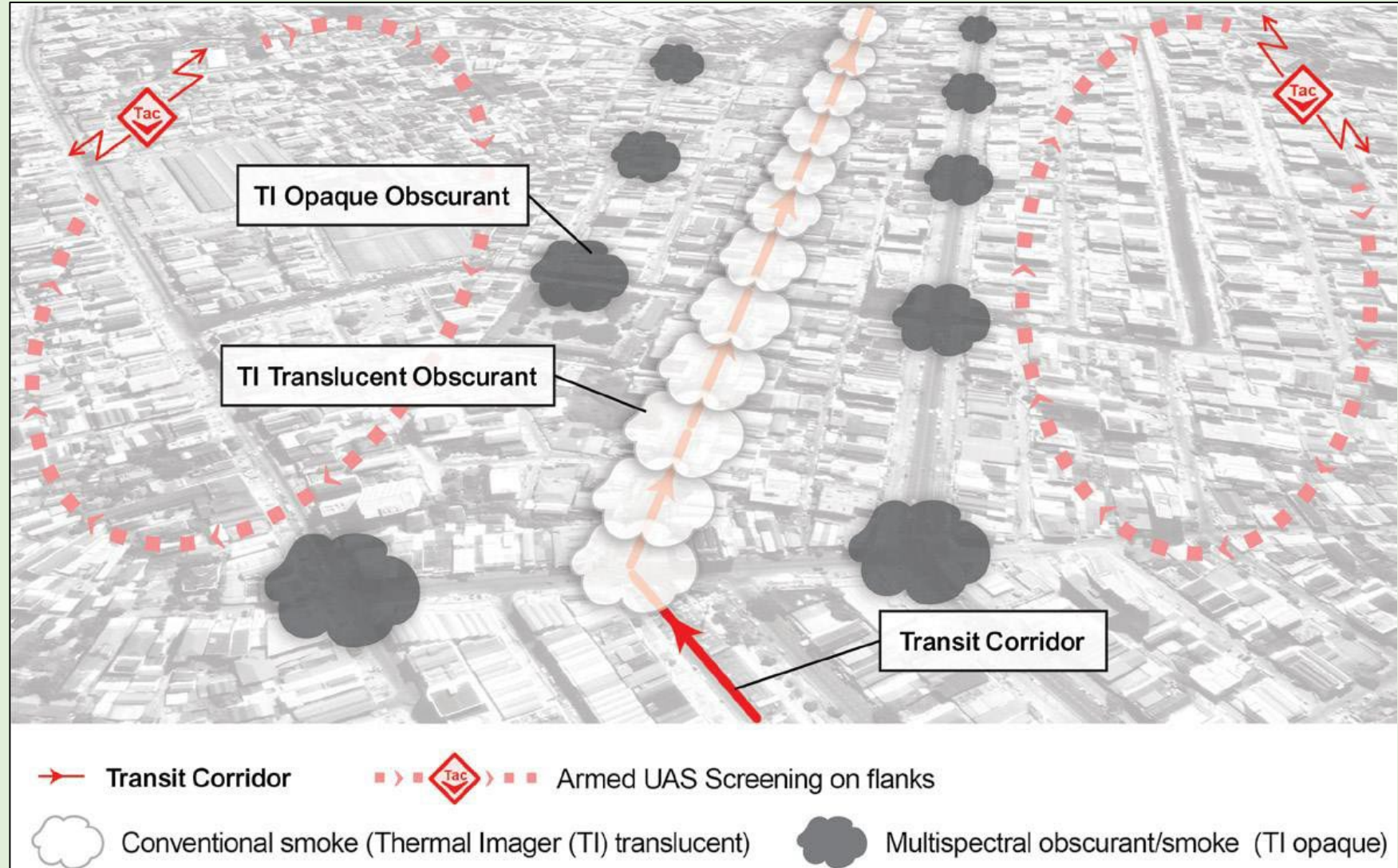
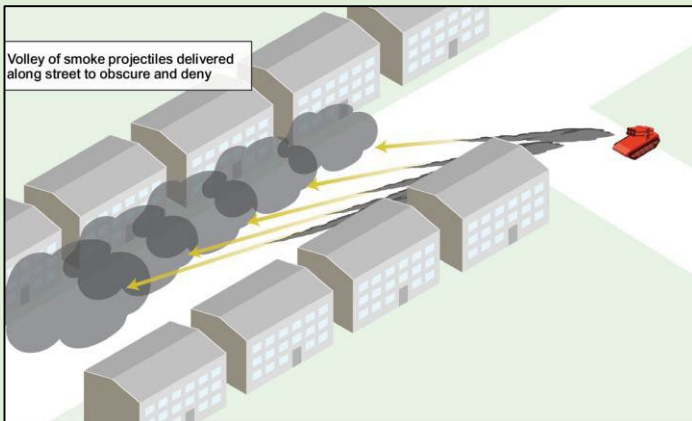
The offensive doctrine is characterised by use of obscurant combined with mechanical and explosive reshaping of the battlefield to restore manoeuvre and to reduce vulnerability. Obscurants, linear explosive breaches and mechanical tunnelling are all used to bypass defences and reach deep into urban areas and secure less defended areas in order to collapse the integrity of the defensive plan. Both obscurants and incendiaries may be fired into buildings on the flanks of an axis of advance to deny them to defenders.

The Olvanans have embrace the Olvanan dictum that a human should never be the first thing into a room or building. Where they cannot use explosives, a dog, a drone, a probe or even a mirror on a stick should always be employed before entry. Firepower, and particularly the weapons of APCs and IFV as well as shoulder launched larger munitions are considered the key enablers of clearing and securing buildings. Where direct firepower is not available or cannot be applied, demolition charges are exploited. Importantly the Olvanans, like the Olvanans, consider the use of prepared pole charges to be a normal infantry tactic.

The urban attack philosophy is that the heaviest weapons available prepare each part of an objective in turn. Clearing is done by a three-man team known a Trishula, and the rest of a Squad is organised to support the actions of that team.

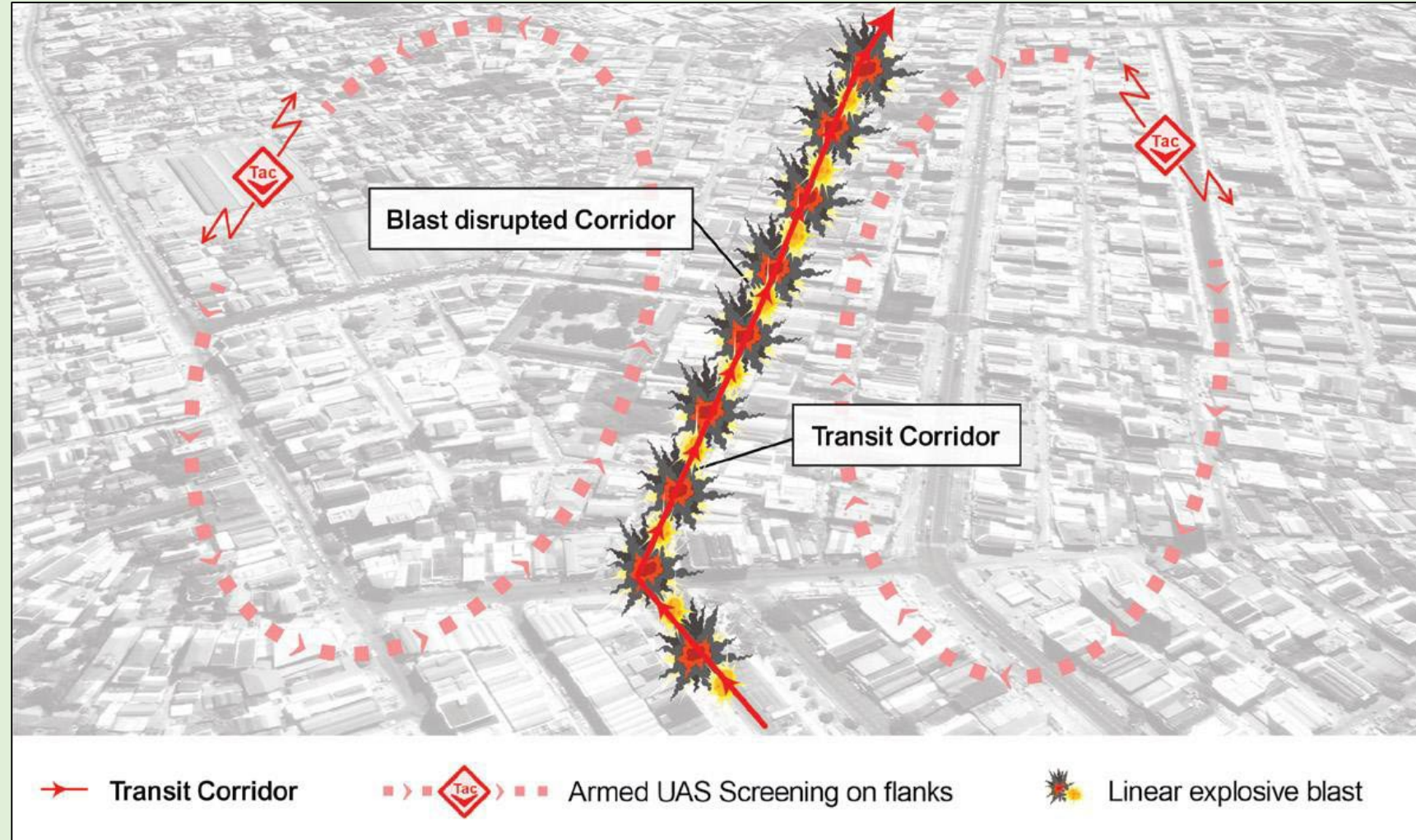
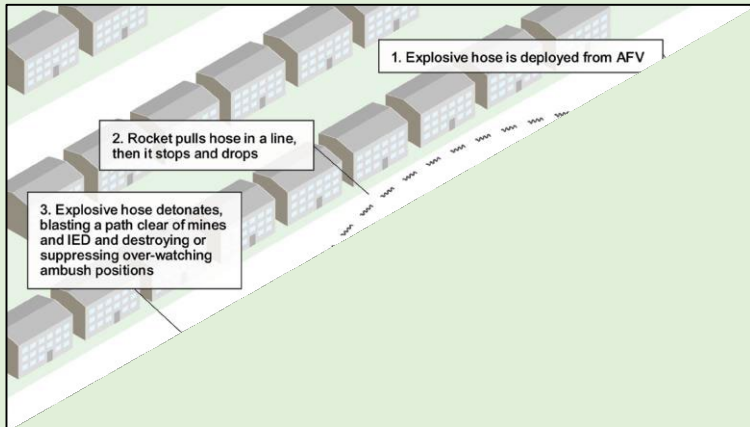
Urban Concept: Obscured-Manoeuvre

The Olvanans will use obscurants to create a 'transit corridor' to enable manoeuvre in urban areas, particularly for mounted operations. While this can be delivered by tube artillery, they generally employ their various multi-barreled rocket launchers, often in a direct fire mode in order to deliver smoke along a particular axis. While along their intended avenues of movement they will use TI translucent smokes, on the flanks they may use multispectral varieties that blind enemy thermal sights.



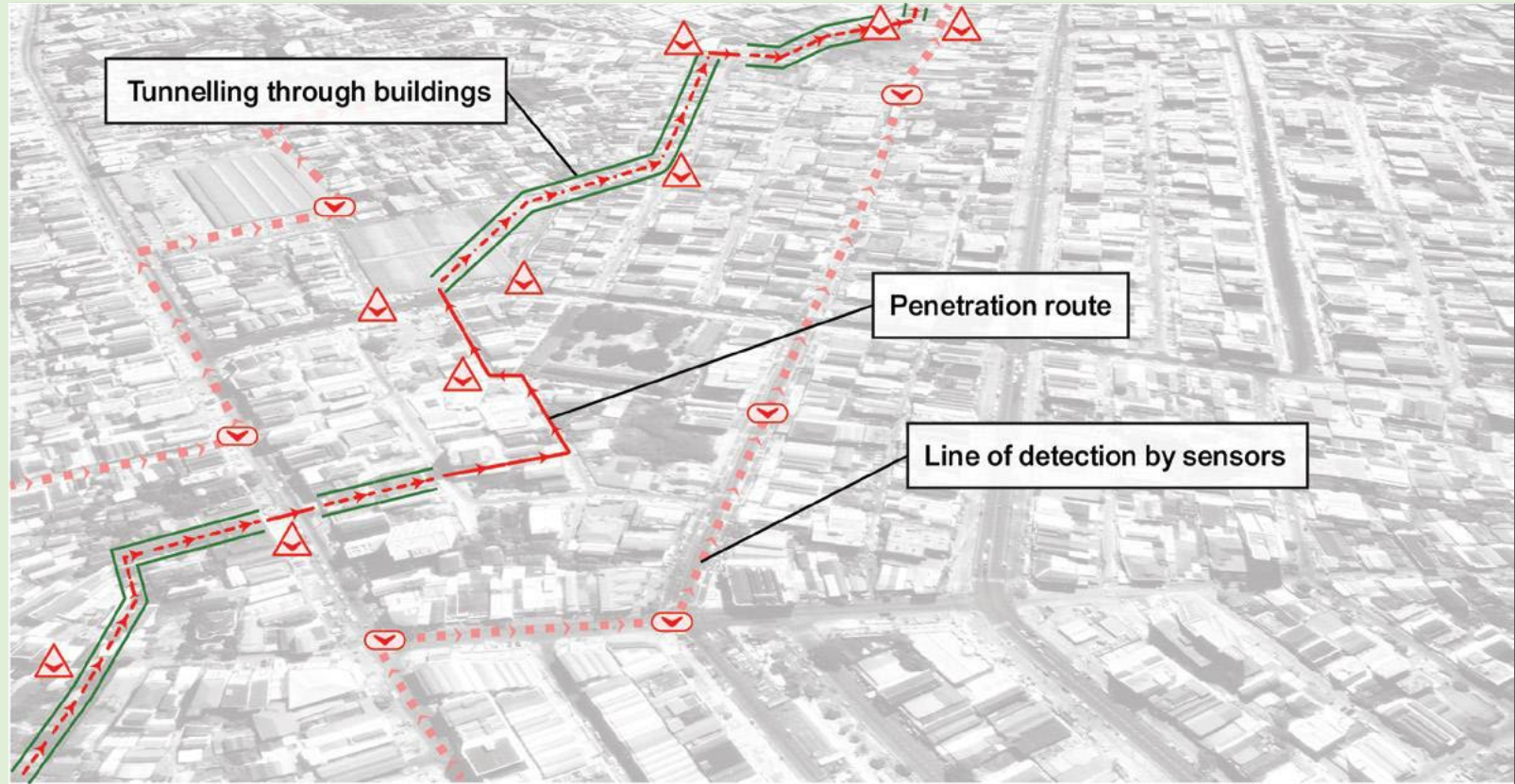
Urban Concept: Line-Blast Enabled Manoeuvre

When facing a developed urban defence the Olvanans may seek to open one or more transit corridors for manoeuvre by using explosive minefield breaching line charges. These are deployed along a suitable street or backyard area. The explosive effect not only will neutralise most mines and IEDs but also the blast will typically disrupt the fields of fire of those positions overlooking the route that it does not simply destroy.

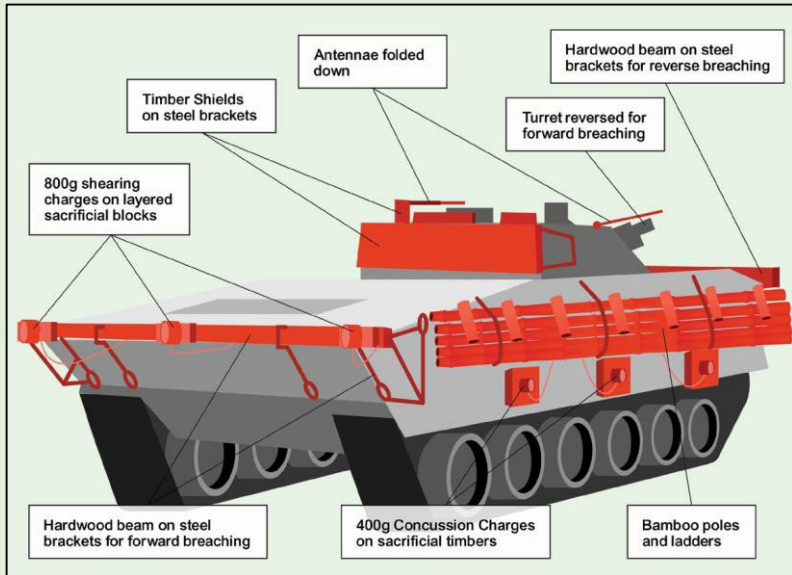


Urban Concept: Tunneling Manoeuvre

In order to manoeuvre through an urban area in the north audience plan to move away from existing roads and create new routes at least partially through buildings and/or backyards. While they are ready to accept damage to vehicles in doing this, if they have time, they will prepare them with sacrificial timber shields to minimise this and may mount breaching & concussion charges on vehicles.



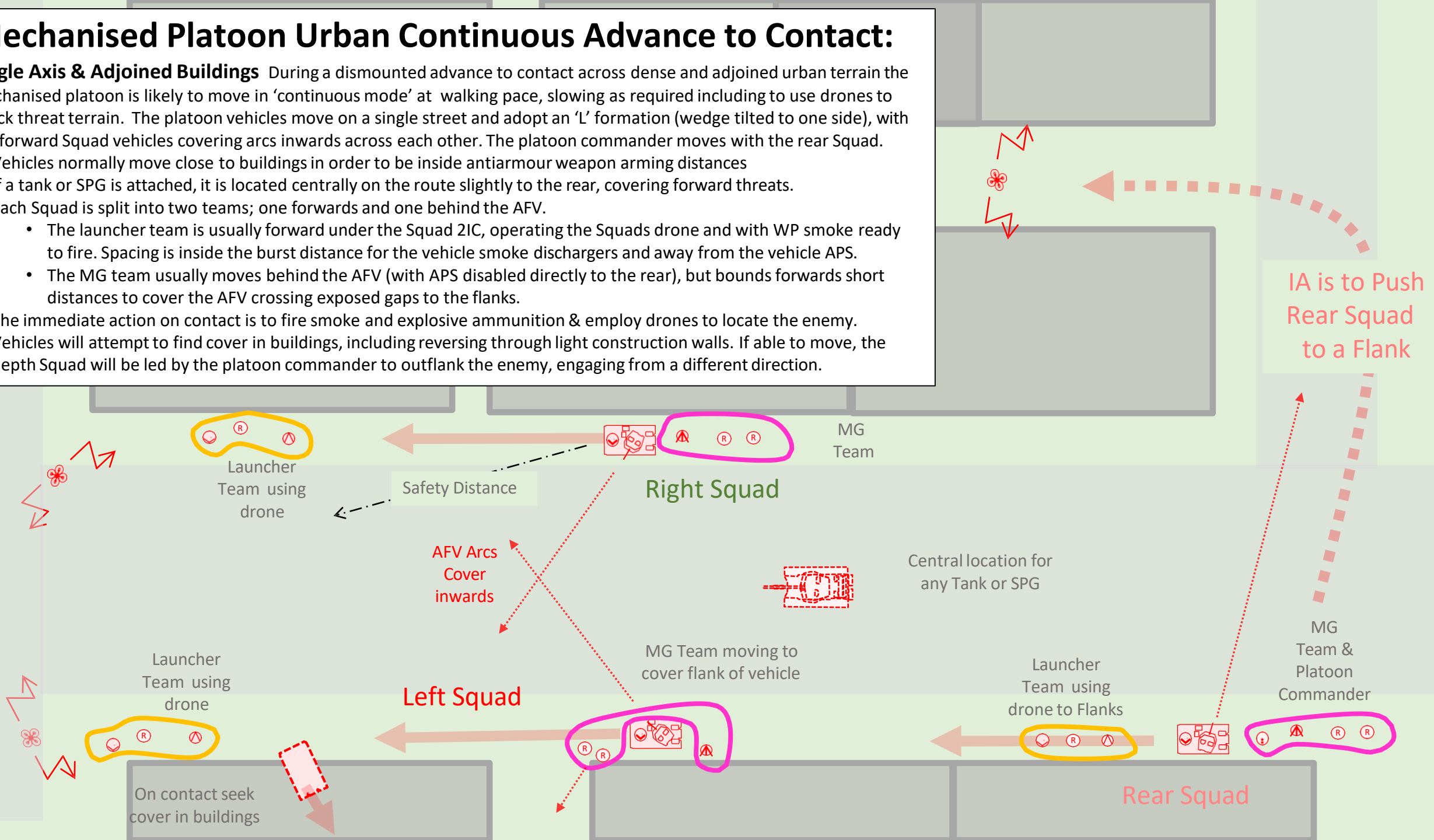
- ➔ Penetration route in open
- ➔ Penetration route through buildings
- Tunnels cut through buildings
- ⋯ Security detection line (UGV sensors)
- Ⓜ Key uncrewed Ground Vehicles/Systems
- ⚠ Observation Posts controlling uncrewed systems



Mechanised Platoon Urban Continuous Advance to Contact:

Single Axis & Adjoined Buildings During a dismounted advance to contact across dense and adjoined urban terrain the mechanised platoon is likely to move in 'continuous mode' at walking pace, slowing as required including to use drones to check threat terrain. The platoon vehicles move on a single street and adopt an 'L' formation (wedge tilted to one side), with the forward Squad vehicles covering arcs inwards across each other. The platoon commander moves with the rear Squad.

- Vehicles normally move close to buildings in order to be inside antiarmour weapon arming distances
- If a tank or SPG is attached, it is located centrally on the route slightly to the rear, covering forward threats.
- Each Squad is split into two teams; one forwards and one behind the AFV.
 - The launcher team is usually forward under the Squad 2IC, operating the Squad's drone and with WP smoke ready to fire. Spacing is inside the burst distance for the vehicle smoke dischargers and away from the vehicle APS.
 - The MG team usually moves behind the AFV (with APS disabled directly to the rear), but bounds forwards short distances to cover the AFV crossing exposed gaps to the flanks.
- The immediate action on contact is to fire smoke and explosive ammunition & employ drones to locate the enemy. Vehicles will attempt to find cover in buildings, including reversing through light construction walls. If able to move, the depth Squad will be led by the platoon commander to outflank the enemy, engaging from a different direction.

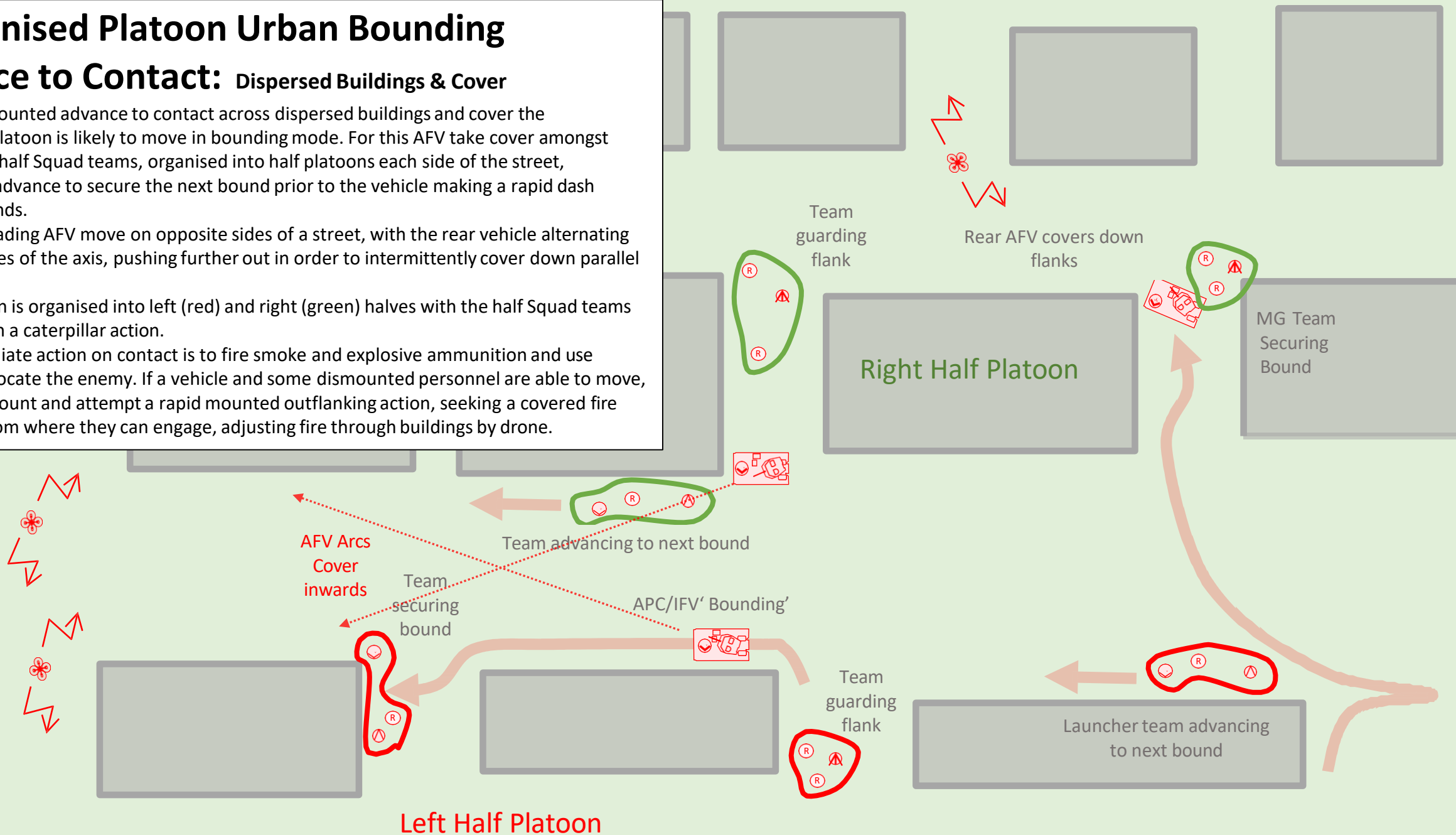


Mechanised Platoon Urban Bounding

Advance to Contact: Dispersed Buildings & Cover

During a dismounted advance to contact across dispersed buildings and cover the mechanised platoon is likely to move in bounding mode. For this AFV take cover amongst buildings and half Squad teams, organised into half platoons each side of the street, continuously advance to secure the next bound prior to the vehicle making a rapid dash between bounds.

- The two leading AFV move on opposite sides of a street, with the rear vehicle alternating to both sides of the axis, pushing further out in order to intermittently cover down parallel axes.
- The platoon is organised into left (red) and right (green) halves with the half Squad teams bounding in a caterpillar action.
- The immediate action on contact is to fire smoke and explosive ammunition and use drones to locate the enemy. If a vehicle and some dismounted personnel are able to move, they will mount and attempt a rapid mounted outflanking action, seeking a covered fire position from where they can engage, adjusting fire through buildings by drone.



Trishula: the Basis of Urban Offensive Action

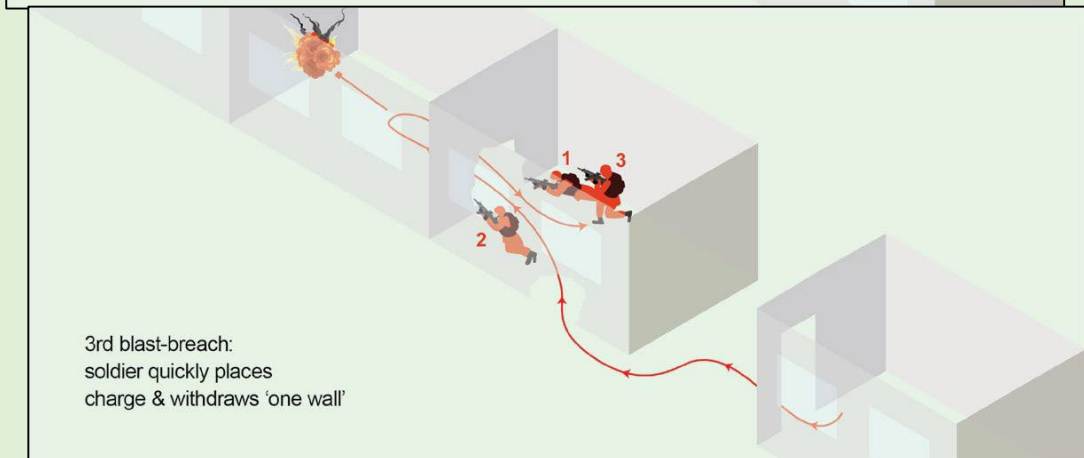
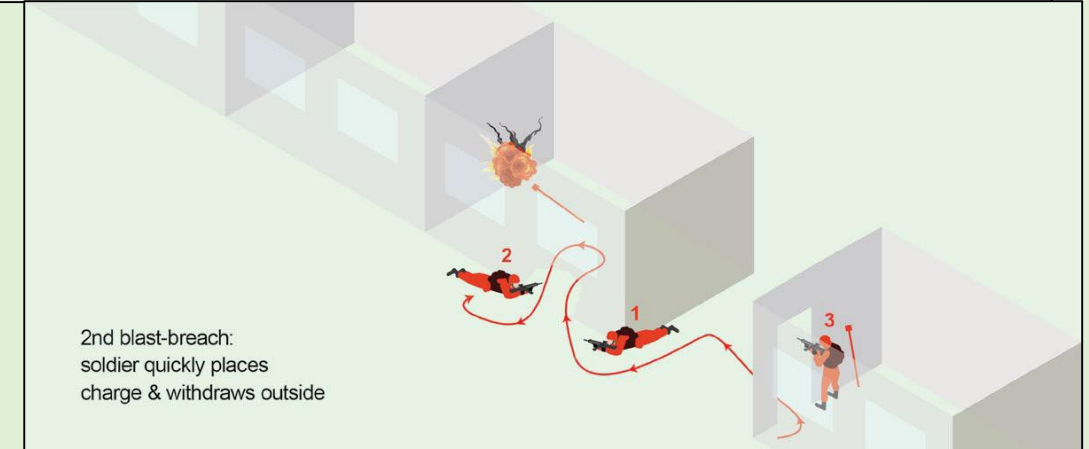
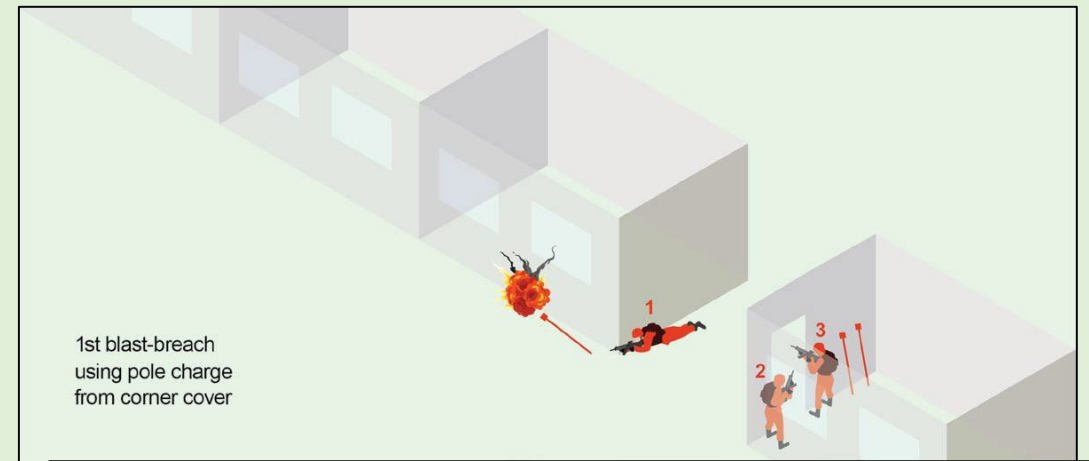
The basics of urban offensive action is the three soldier team known as the Trishula. It's actions are explained below and the way in which it performs the key action in building clearing is explained in subsequent slides.

The Trishula Blast-Breaching Drill

The basic method of building clearing relies on a series of explosive charges being used to breach walls in succession so that a new pathway is opened, IEDs are disrupted and the blast effects kill or disable defenders. The blast-breach drill always starts from a concealed position and preferably hardcover, where the Trishula briefly concentrate with a supply of pole charges.

1. Covered by the team the first soldier moves from cover and places a pole charge to make a suitable breach where there is also cover from the blast. The charges detonated and the first soldier confirms that a breach has been made but remains prone in cover.
2. On receiving the signal that the breach is clear, the second soldier moves forward with another pole charge, enters the building through the new breach, quickly places the pole charge against a suitable interior wall and then moves back outside the first breach to detonate the charge. The first two soldiers then enters the first space, check it is clear and then take up covered positions inside relative to the next blast.
3. On their signal the last man comes into the building with all the remaining pole charges, drops all but one, moves through the internal breach to place a pole charge on the next internal wall point to be attacked and then withdrawals back through the second breach into cover and detonates the charge.

This blast-breach drill with its systematic use of explosions is the basis of Olvanan fighting in buildings and fortifications. Increasingly they use small robots to position the charges or stand-off launchers that can be fired from cover to create breaches. Whenever possible the blast and breaching effect is delivered by support weapons from outside the building. AFV crews are trained to breach interior walls and floors with cannon and main gun fire.

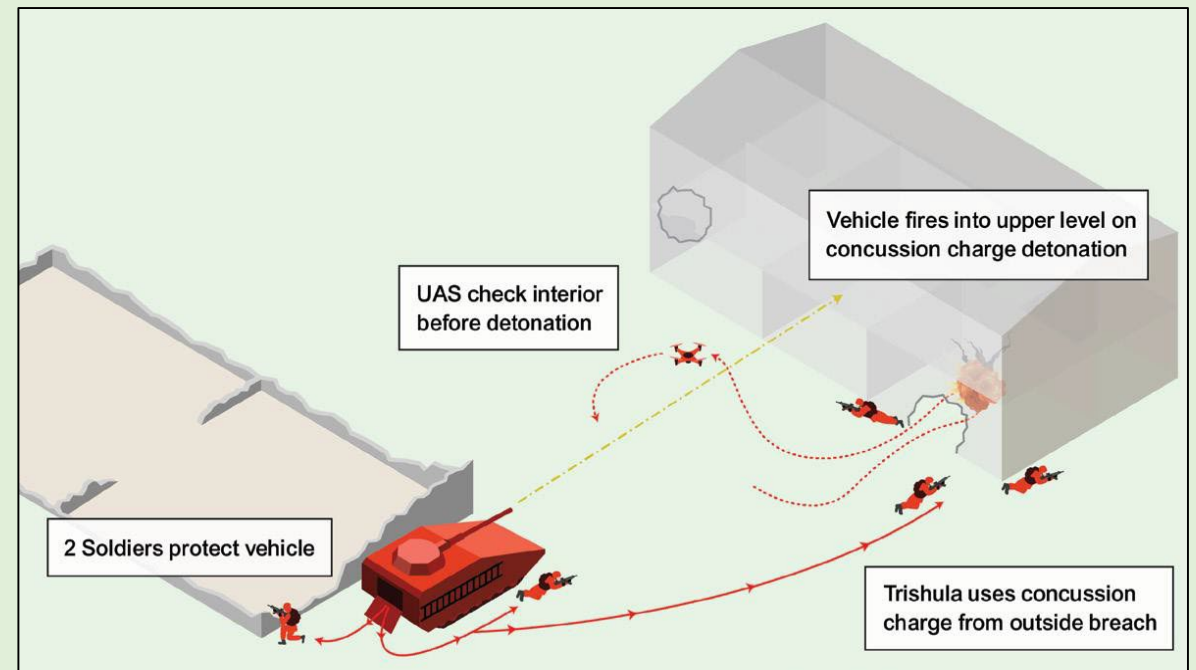
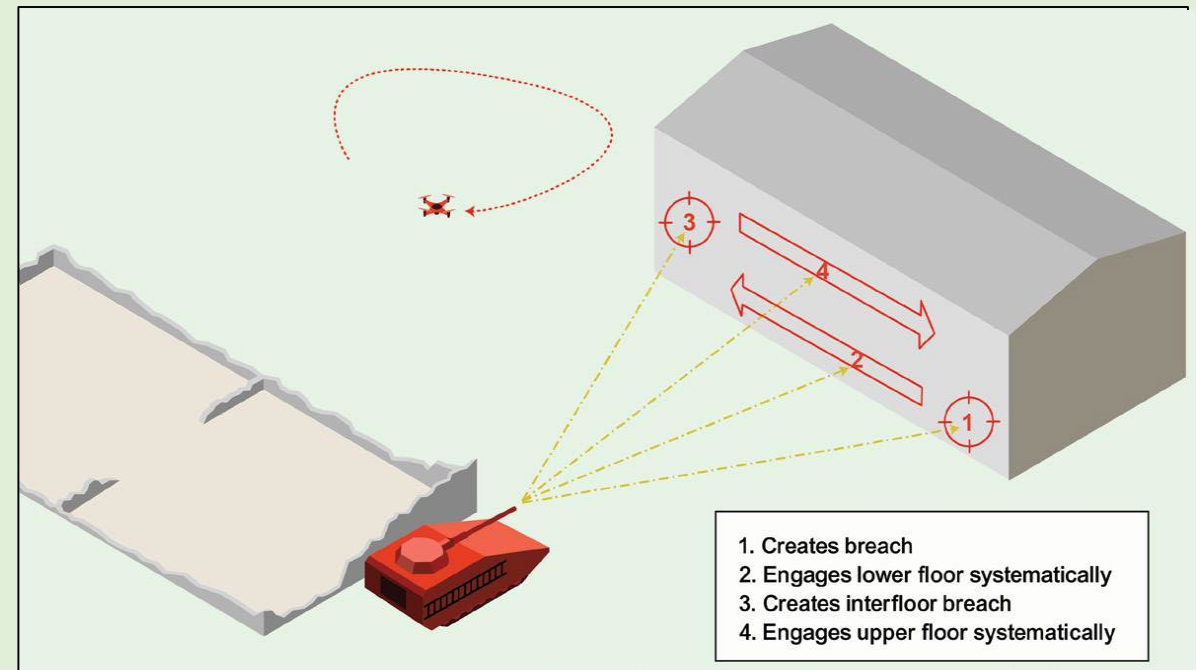


The Mechanised Squad Trishula

Blast-Breaching Drill: Stages 1&2

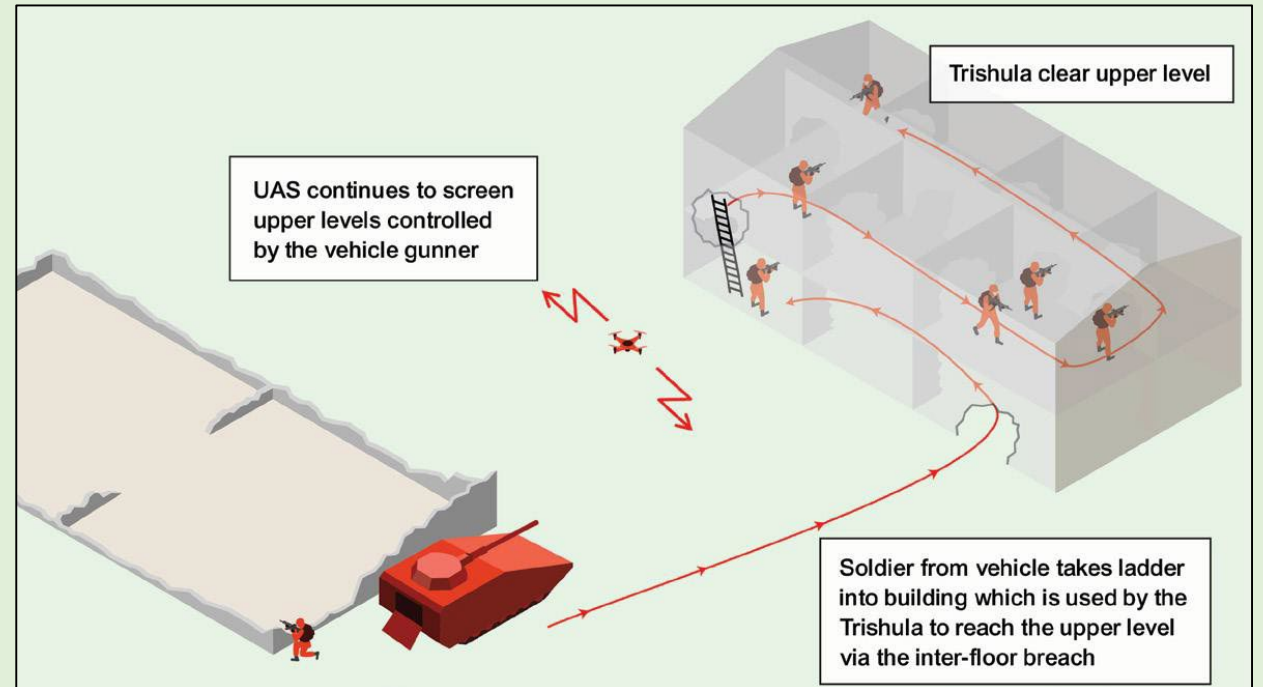
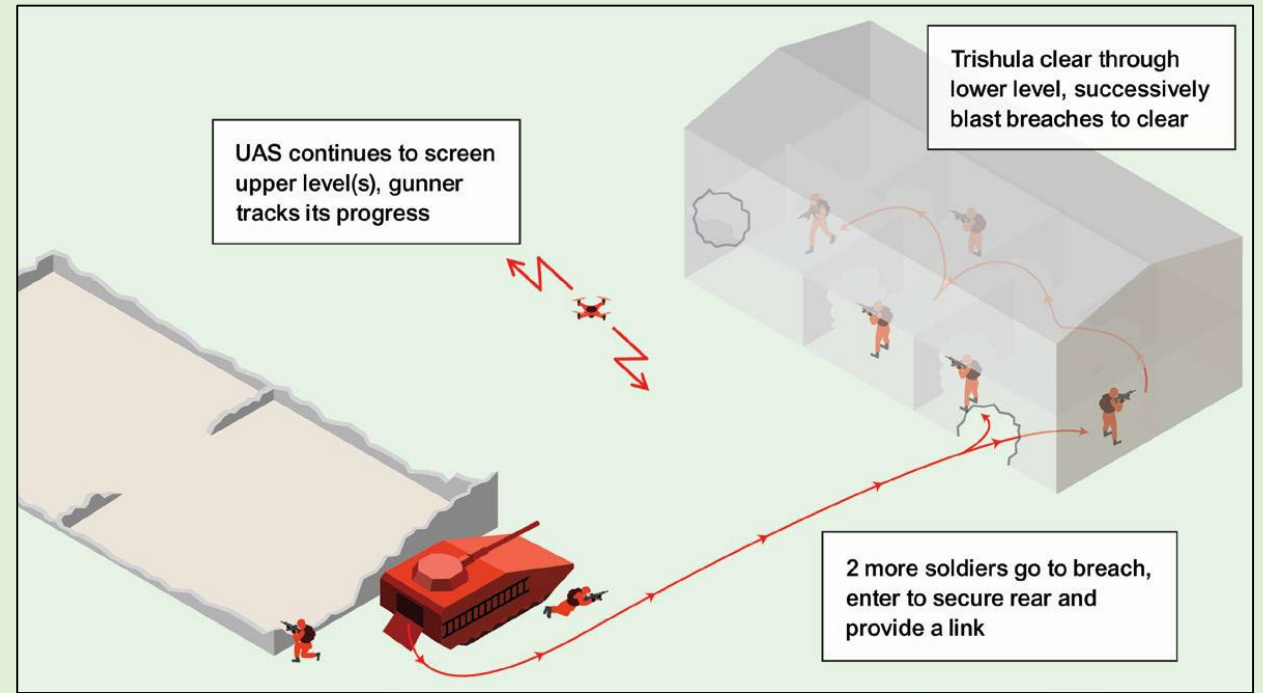
The TTP for a mechanised Squad clearing a building relies on the same basic method of a series of explosive charges being used to breach walls in succession so that a new pathway is opened, IEDs are disrupted and the blast effects kill or disable defenders. In some cases the fire of the Squads vehicle can be coordinated closely enough to achieve the blast breaching effect. The drill commences with the Squad still mounted and the AFV halted in overwatch position with a drone searching for targets controlled by the gunner or the commander.

1. The first stage of the drill is for the vehicle Gunner to systematically engage the interior of the building to suppress defenders and create both a ground-level access breach and inter-floor breaches as required. The Squad UAS is used to check the effects of the fire and identify the location of defenders. If they are identified the gunner will engage by firing through external and internal walls.
2. The second stage is for most of the Squad to dismount. The Trishula move rapidly to the breach and take cover outside it while two soldiers take cover near the vehicle to protect it. A concussion charge is thrown into the breach, and then the UAS is flown into the breach to check. As soon it is flown clear the concussion charge is detonated. This is a signal for the gunner to recommence firing into the upper levels.



The Mechanised Squad Trishula Blast-Breaching Drill: Stages 3&4

3. The third stage of the drill is for the Tricia to enter the building and start blast-breaching inside to clear the lower floor. The use of the concussion charge also acts as a signal for the two remaining soldiers in the AFV to rush to the breach and enter in order to secure the rear of the Trishula and provide a link to the vehicle. One of them may trail a communications cable from a dispenser in order to have reliable communications. The Trishula commander may communicate with the gunner to call for fire into the building ahead of their movement
4. The fourth (and usually final) stage of the drill is that one of the soldiers guarding the vehicle then removes the ladder from the outside and carries it into the building so that the Trishula can reach the upper floor. The pattern of clearing is then repeated for the upper level.



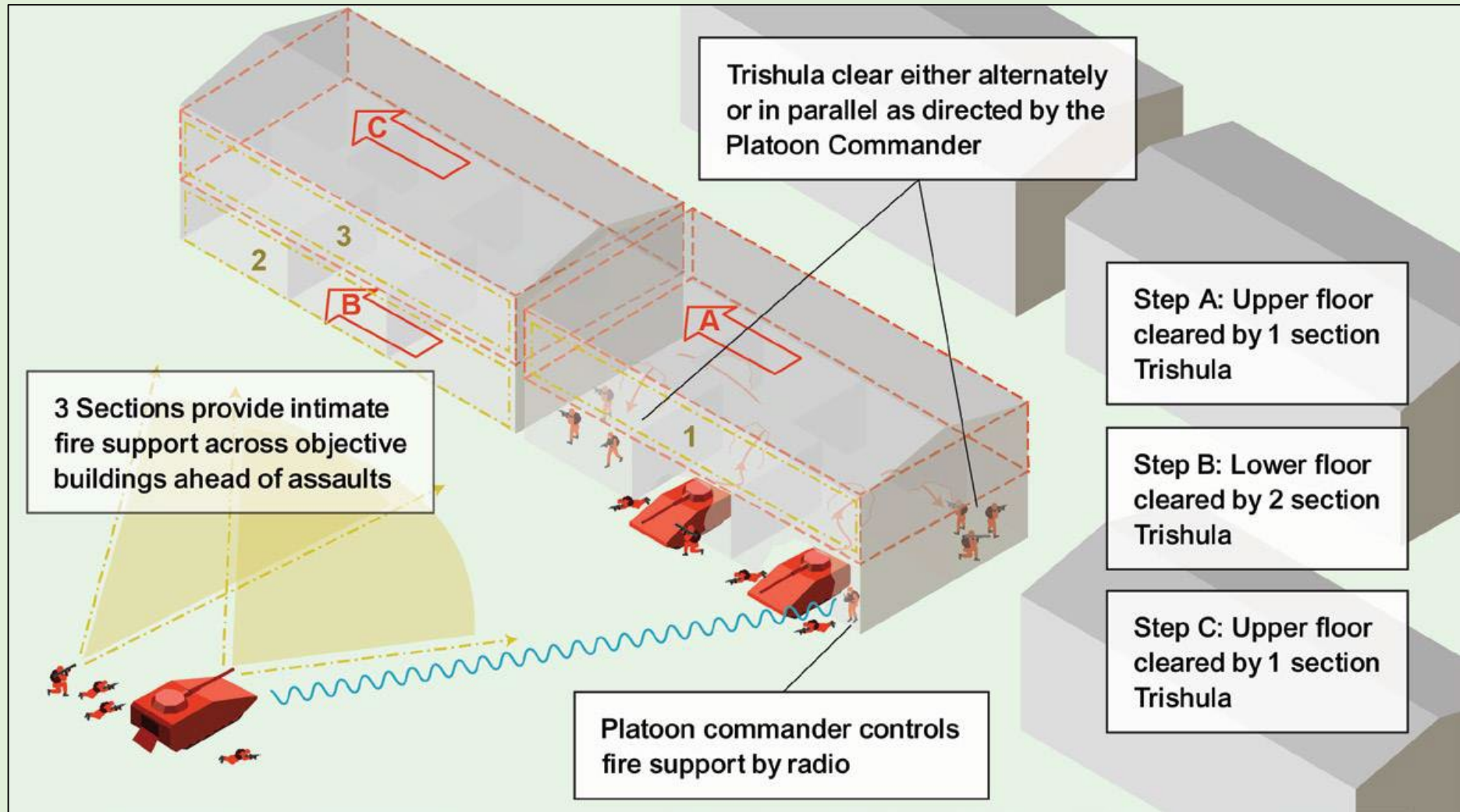
The Mechanised Platoon Drill

The mechanised platoon building clearing drill is a logical progression from that of the Squad, except that with multiple vehicles one can be used to provide fire and breaching support while the other two deliver assaulting troops into the objective.

Prior to assaulting the objective building will be suppressed by all vehicle weapons, with an emphasis on making breach points.

The assault begins with driving the assaulting Squads vehicles into (or against) the objective building(s) where they employ grenades or concussion charges before debussing. They then clear an initial foothold.

From this foothold and controlled by the platoon commander and supported by the intimate fire of the external vehicle, the two Trishula of the assault Squads systematically clear through the building image supported by the remainder of their Squads.



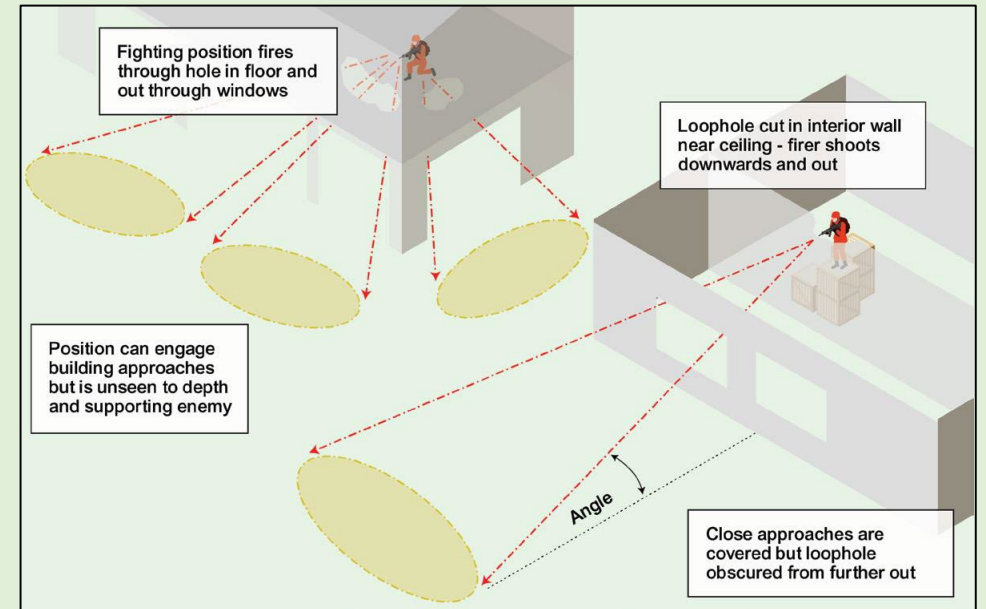
Urban Defensive TTP: Characteristics

The Olvanan's recognise that precision munitions are changing the character of war and, in particular, teach that if a target can be located it can be struck. This is the driver of their notion of a defence focused on preserving combat power by employing complex terrain to conceal and protect. For mechanised forces in particular, this dictates urban areas where vehicles can be concealed from overhead sensors within buildings.

The Urban defensive approach is characterised by very high standards of concealment and associated deception, dispersal of elements in order to reduce casualties from single strikes and investment in protective measures, particularly placing personnel underground. The maxim is "Do not be seen, do not radiate, do not put humans in predictable or other obvious dominant positions and fight with explosives and shells". They emphasise that the defender must:

- Maximise the use of laid electrical and fibre-optic cable, existing reticulation networks and the use of tethers for uncrewed systems in order to present a very small electronic signature.
- Conceal systems within buildings and structures, or within false structures.
- Find or construct protection below ground level, especially for personnel.
- Strike the enemy remotely, using mines, IED barge demolitions and indirect fire.
- Employ sensors extensively to maximise situational awareness and enable remote attack, especially on covered approaches and within buildings.
- Employ remote weapon systems (notwithstanding technical challenges) to create uncertainty and, especially, to strike the enemy from behind.
- Site fighting positions amongst dense complicated terrain, with an emphasis on mutual support between positions, and killing areas between and inside buildings in order to destroy enemy that reach the positions, rather than extensive fields of fire beyond.
- Emphasise secerning, fighting enemy elements in turn and defilade.

[The concept of 'secerning' (isolating individual parts of the battlefield in which to concentrate effects) is adopted from the Olvanans].



3D Defilade

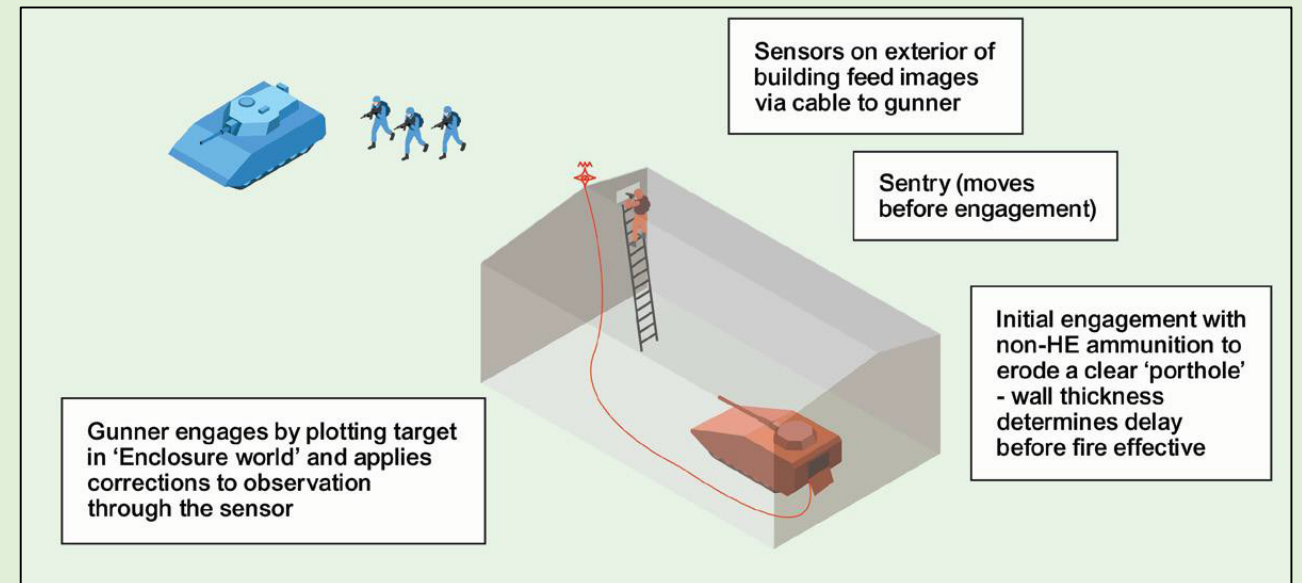
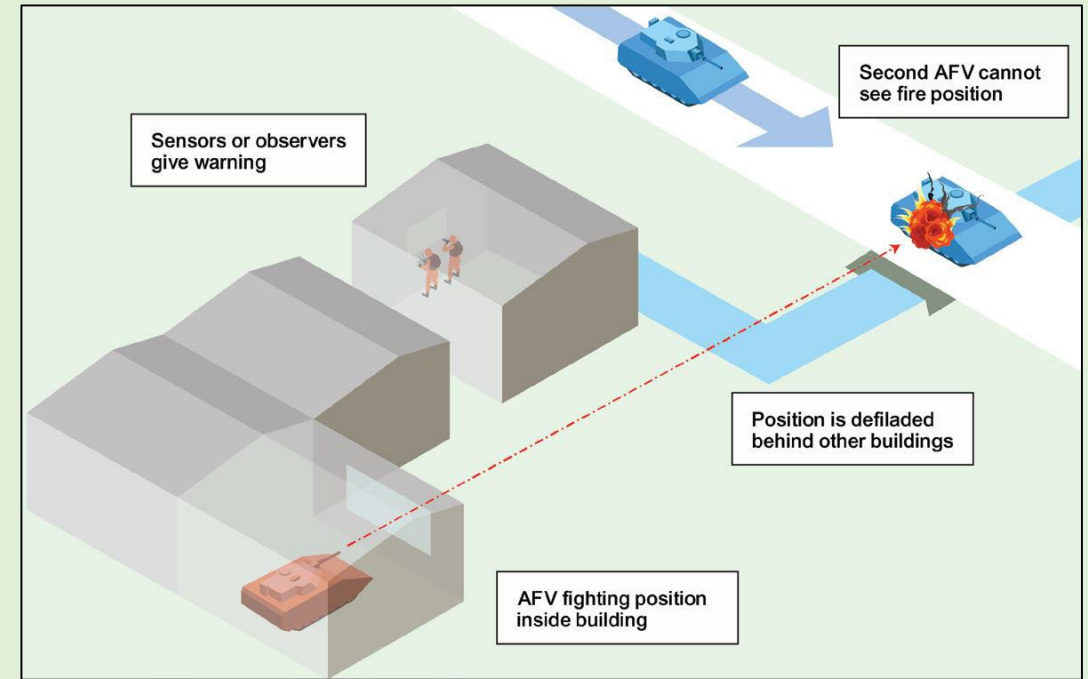
The Olvanan employment of defilade in the defence is central to the concept of secerning (isolating) and is given great emphasis when designing and siting urban fighting positions. Importantly, the Olvanans do not limit their understanding of defilade to 'crest defilade' as the U.S. Army does, nor to lateral defilade as the Commonwealth armies do, but includes 3D defilade where elevated positions are adopted that allow the engagement of enemy close by but are out of line of sight to enemy behind them.

Vehicle 3D Defilade and Blindfire

The Olvanan employment of defilade in the defence extends to vehicles. They consider that urban terrain provides the best and sometimes only significant level of concealment and protection for vehicles from overhead surveillance and attack, particular by precision munitions. However, they do not limit the use of buildings simply to hides, rather whenever possible they treat them as fighting positions.

- Positions inside buildings will be chosen that allow a vehicle to emerge briefly to engage or preferably engage from within a building while remaining concealed. This will be constrained by weapon type – for example self-propelled guns and tanks will usually need to extend the muzzle beyond the building structure to limit damage to by blast. This increases the importance of choosing buildings and parts of buildings that offer defilade engagement across the enemy axis of advance as illustrated.
- New technologies, particularly availability of remote visual sensors such as those in drones, combined with the electronic azimuth and elevation information available from contemporary at the gun sites to increasingly allow direct fire AFV weapons to engage targets directly without line of sight, or at least without line of sight at the beginning of the engagement. As illustrated opposite, an AFV inside a building can preregister a series of targets at points beyond the building wall which cannot be seen. An observer can then call for fire which is delivered through the wall of the building and adjusted on instruction. Increasingly the Olvanans are now able to use a visual sensor feed such as that from a drone to identify a target beyond the building, and then, on observing strike, make adjustments.

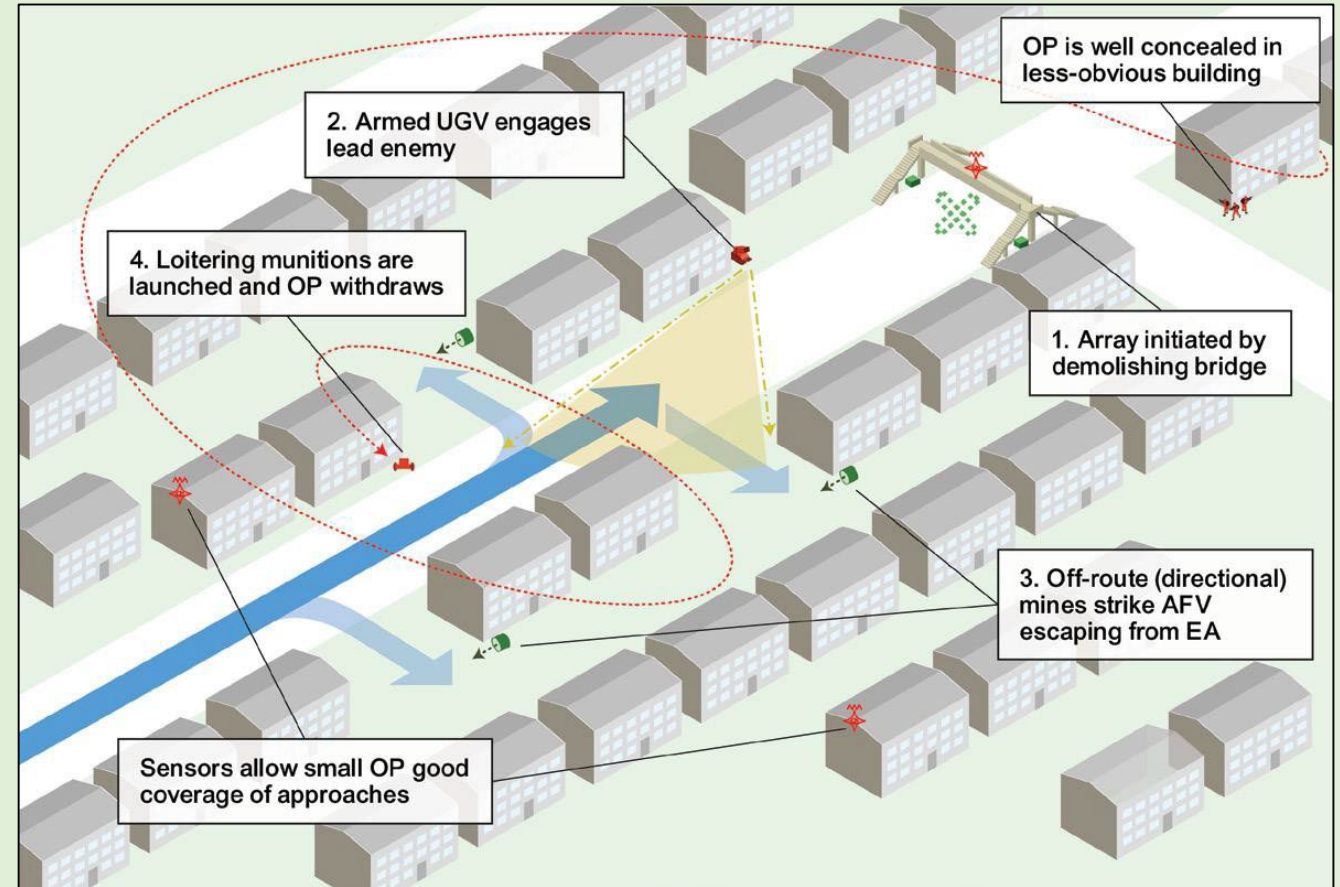
These two techniques represent a significant threat challenge, particularly from automatic cannon on IFV hidden within buildings.



Urban Delay TTP

The Olvanans Have been quick to follow the Olvanans and integrate new technologies into their concepts of urban defensive battle. This is illustrated in the example opposite where a small team is able to exert a significant tactical effect.

- An OP is selected at a suitable protected and well concealed position (in this case represented by three figures in the open for clarity). Whenever possible firing and data cables are laid from the position to allow communication and control with minimum electronic signature.
- A demolition is prepared to obstruct the enemy main avenue of advance. In this case it is a footbridge prepared to demolition. This is provided with a sensor to allow appropriate timing.
- Other sensors are laid looking down the major approach and across alternative approaches.
- An armed UGV or simple remote weapon station, or even a directional antipersonnel mine is positioned across a killing area in front of the demolition.
- Off-route mines are prepared and armed across exit routes from the killing area.
- When enemy lead elements approach the obstacle the ambush is initiated (some lead vehicles may be allowed to pass depending on the plan). Firing the demolition and using a remote method to engage the killing area – likely including indirect fire. Crew served weapons or vehicles may blind fire from within a building to apply fire to the killing area while minimising the chance of being detected. Enemy vehicles attempting to move out of the killing area then initiate off route mine. Loitering munitions are then launched to attack the now halted enemy force and enable the OP to withdraw.

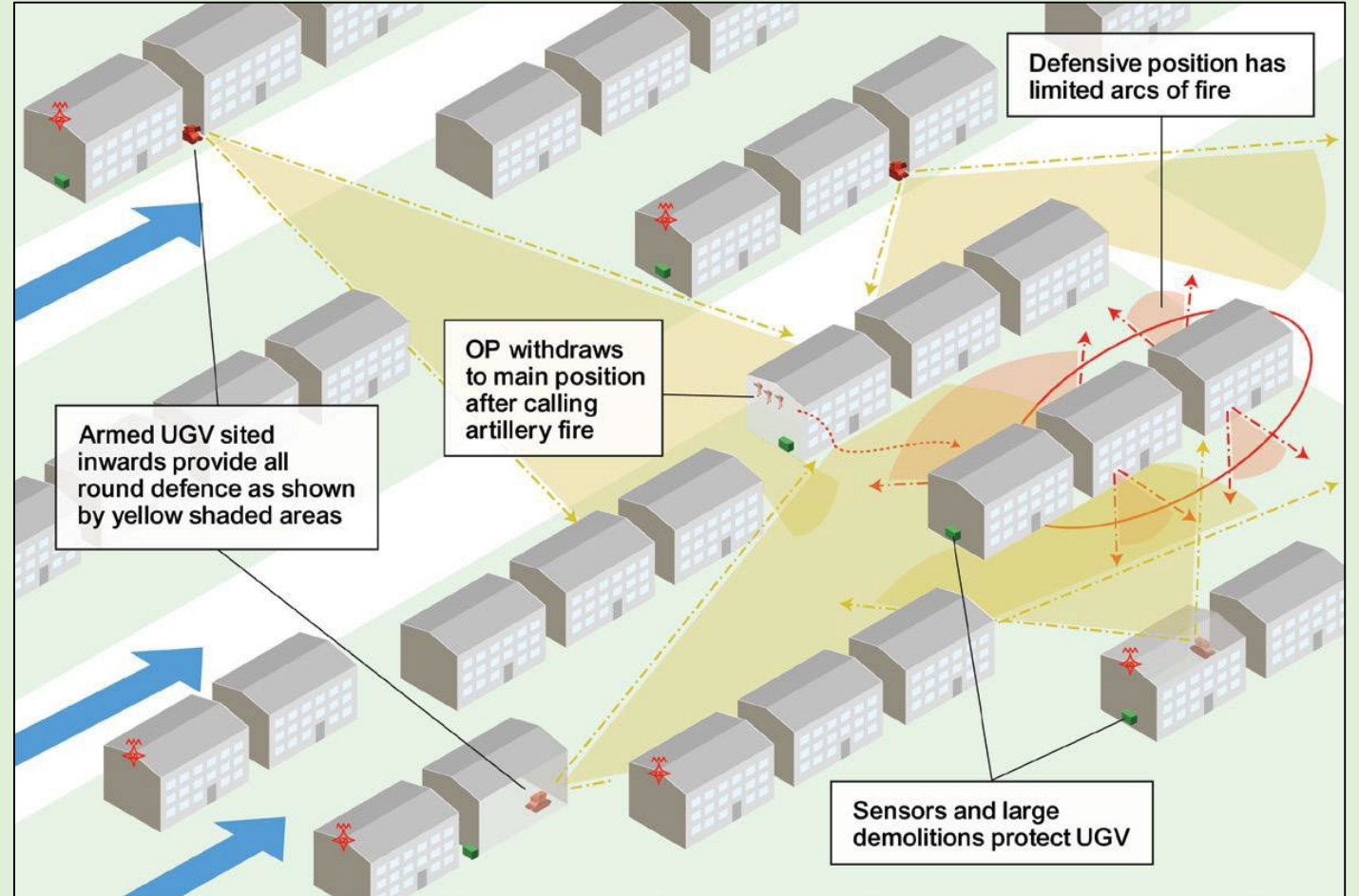


Urban Complex Battle Position

As described earlier, the key function of a complex battle position is the concealment and protection of the defenders. Battle positions will therefore be placed off major routes and amongst dense and cluttered structures, using buildings that have subterranean protection and all are suitable for vehicle height and fighting positions. The illustration opposite indicates how this may be applied.

- The defensive position is constructed within three buildings on the right. In order to remain well concealed it has relatively limited arcs of fire.
- One or more OPs are likely to be positioned in suitable locations where withdrawal to the main position is feasible.
- An extensive network of sensors, demolitions and UGV, remote weapon stations or directional mines are positioned around the battle position to control approaches, with a special emphasis on delivering fire inwards towards the battle position.

The concept of defence is that an approaching enemy is detected by the sensors and then engaged with indirect fire. Enemy that subsequently approach the position are first attacked with large demolitions, with those that continue to approach being engaged by the inward cited directional weapons. The emphasis on deep protection for the fighting positions is also intended to enable the Olvanans to bring indirect fire on their own position without hesitation. They would not envisage fighting a protracted smallarms battle from complex battle positions because of the risk of being destroyed by precision weapons. They would either withdraw or redeploy for other offensive action.



Urban Complex Fighting Position

While the complex battle position emphasises concealment and survival and is not intended to be contested for any length of time (because of the danger of elimination by precision weapons) they are still designed to inflict decisive effects on attacking enemy. However, rather than traditional approaches where buildings are defended by extended fields of fire across the approaches, such fields of fire are limited and carefully chosen to provide mutual support. The killing function is primarily achieved by remote weapons of different kinds, including artillery. A battle with small arms is not avoided, rather it is conducted within buildings from prepared positions to have maximum advantage against an assaulting enemy. Because the primary function of a complex fighting position is to remain concealed and survive, locations are first chosen to allow construction of reinforced shelters below ground and, for mechanised troops, associated vehicle fighting positions or at least hides for vehicles.

- A reinforced shelter is constructed below ground with a reinforced fighting position at the entrance to the shelter, ensuring the latter can be defended.
- Interior routes within the occupied building and adjacent buildings are prepared with holes being knocked through interior walls.
- Whenever possible a route is prepared to the vehicle hide.
- On the most likely enemy approach, armed UGV, remote weapon stations or directional mines are sited across the approach. An OP or fighting position is likely also sited covering this. Large demolition charges are placed adjacent to the major approaches, hidden within buildings, and victim activated directional mines are placed to engage vehicles or personnel moving between buildings.
- A comprehensive network of sensors, with backup, is laid around the position and connected by 'laddered' (networked to ensure that the system will sustain a significant number of broken wires without losing communications) wires or fibre-optic cables.

The concept is to subject an approaching enemy to adjusted indirect fire and then a series of explosive and remote attacks before it reaches the defensive position. The enemy commander may then choose to allow the enemy to close with the position in order to fight on the insides of buildings at an advantage, redeploy to counter-attack, employ the vehicle to engage, or withdraw.

