

URBAN OPERATIONS

A game by S. de Peyret

2nd EDITION



Lead a combined arms combat team in an urban environment

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DOWNLOADABLE CONTENT ON www.nutspublishing.com

- Urban Operations in a nutshell
- Mission preparation matrix

- Scenario Cards for Fulda '85 campaign and Mogadishu '93 campaign
- Example of play

A rulebook with every notable change between the first and the second edition highlighted in red is available from the Nuts! Publishing website.

BASIC RULES

1. Introduction

1.1 About the designer

Sébastien de Peyret is a French infantry officer who has worked for many years on a game system which smoothly simulates all the complexities of urban combat. His reflections have been influenced by his various postings as an instructor at Saint-Cyr (the French Army's officer training academy in Brittany), on operations, and as Officer Commanding the Training Wing of the Sissonne Urban Warfare Training Centre (CENZUB). At this site, the French Army trains all of its units for urban warfare, using very realistic methods and with a team of instructors whose expertise is internationally recognized.

1.2 Overall game concept

Urban Operations is a tactical level wargame. The rules are designed to recreate operations in an urban environment in campaigns ranging from World War II through to the present day. The campaigns published in this version cover the last few decades, ranging from Kolwezi in 1978 to Fallujah in 2004.

The rules are divided into two sections:

- **Basic rules**, which are all that players need to play nearly all the scenarios.
- **Advanced rules**, which add more realism and complexity, and which are detailed after the basic rules.

The game takes account of:

- The limitations on movement and on firing weapons that arise in an urban context
- Friendly fire and collateral damage
- The need to coordinate the effects provided by the different units at the player's disposal (artillery, engineers, armored vehicles, foot units etc.).
- The fog of war factor, represented by the use of blocks
- External elements independent of the two enemies (civilian population, unexploded ordnance, hazardous substances, obstacles, etc.)

1.3 Goal of the game

The aim of each side is to complete the objectives assigned by the scenario in a given number of turns. Depending on the victory conditions achieved by the players, a game can end up in a decisive or marginal victory for one of the two sides, or a draw if neither side manages to impose itself.

Victory conditions may include controlling buildings, controlling parts of the battlefield or destroying enemy units. Some actions may result in the lowering of the victory level, especially when collateral damage has been caused among the civilian population.

2. Game presentation

2.1 Components

- 1 rulebook
- 3 campaign books with scenario presentations
- 12 double-sided Campaign Scenario Cards
- 2 double-sided Introductory Scenario Cards
- 2 double-sided maps and 1 river map
- 1 double-sided underground map
- 2 ten-sided (d10) dice (the 0 on these dice is a zero, not a ten)
- 2 A4 double-sided player aids
- 2 additional double-sided explanatory player aids (covering: an explanation of the differences between the 1st edition and the 2nd edition of the game; combat declarations; and multiplayer games)
- 156 rectangular wooden blocks: 82 Green and 74 Red
- 2 sticker sheets
- 4 white cylindrical blocks
- 2 double-sided counter sheets (containing 192 double-sided counters and markers)
- 144 Unit and Event Cards + 1 Turn Counter card

2.2 Number of players

In Urban Operations, two opposing sides confront each other. Each side commands one Combined Arms Company Team. The game is typically played by two players, each controlling a side, but it also supports multiplayer modes.



"French soldiers in Afghanistan"
The cover of the box was made from a photograph provided by Thomas Goisque (<http://www.thomasgoisque-photo.com>)



Game setup



Game instructions

Read the scenario instructions presented in the campaign booklet. Check if there are any special rules. Check on www.nutspublishing.com if there are any rules updates.

1. The map

Unfold the map(s) in the middle of the table.

2. Scenario Cards

Each player places their side's Scenario Card on the table next to them.

3. Unit Cards and 4. Support Cards

Each player selects the Unit Cards and Support Cards detailed on the Scenario Card.

5. Special instructions

Each player takes their Scenario Card, and reads any special instructions it may contain: e.g. Events and special rules. Place the Support Points markers, if any, for the company in the Support box on the bottom left of the Scenario Card (marked with a red cross).

6. Event Cards

Depending on the scenario, each player may need to create a deck of Event Cards.

7. The player aids

Place them within easy reach of both players.

8. Markers & counters

Place the different markers & counters, as well as the cylindrical blocks, somewhere you can easily reach them.

9. Impulse Forces

Each player reads the entry procedures for each Impulse Force, and places the Support Points markers, if any, for the platoon in the Support box provided for each Impulse Force on the Scenario Card (marked with a red cross).



2.3 Glossary

Note: the words of this glossary are printed in blue when used for the first time in the rulebook to help new players to familiarize themselves with those terms and thus avoid confusion.

Action: once activated, in addition to moving, a block may perform an Action, e.g. Fire, Assault, Breach (see 8.2, Performing an Action).

3D action (3rd Dimension action): Unmanned Aerial Vehicle (UAV or drone) missions, mortar fire, smoke shells or airstrikes (Close Air Support, Helicopter Fire Support).

Adjacent: 2 blocks/counters are said to be Adjacent when they are in locations connected to each other and that have a line of sight, a partition, or an aperture between them.

AoE: Area of Effect. The area in which an effect is applied: the effect of a weapon, a group lying within the Command Range of its Platoon Commander, etc.

APC: Armored Personnel Carrier (see details concerning vehicles in 4.3.1).

Aperture: a graphic element on the map, usually associated with a building, that represents a door/window (red symbol), or an opened breach (orange symbol). This term generally applies only to doors/windows.

Assault: a close quarter battle. This action does not necessarily represent an all-out assault with the bayonet; in most situations it means fighting between two rooms with hand grenades and a heavy exchange of fire.

CACT: Combined Arms Company Team of about company size (100-150 men) with combined arms capability. Both sides are usually composed of a CACT, each of which is composed, in turn, of several platoons.

Civilian population: represents the local civilian population. Abbreviated to 'population' on the counters and on the player aids.

Combat Service Support (Plt Support): comprises all non-combat actions that support a unit: treatment of minor wounds, evacuation of the seriously wounded, emergency repairs of a vehicle, ammunition resupply, etc.

Combat Support: elements acting in support of an engaged unit, most often Reconnaissance or Engineer blocks temporarily attached to a Platoon Commander.

Concealed/Revealed: a block is concealed when it is set upright so that its face is only visible to the owning player. It is revealed when it is laid down flat, with its face up and visible to both sides.

Contact: a block is said to be in Contact with another block if it is within 3 EPs of that block and with a LoS between them, or if both blocks are Adjacent.

Control (of a location): a location is controlled by the side with a block currently present in it, or by the last side to have moved through it.

Company Commander (Coy Comd): the officer in charge of a Combined Arms Company Team, represented by a block. In many nations this role is given to a Captain, but some armies (e.g. United Kingdom) have a Major as the Coy Comd.

CP: Command Post may designate either the Coy Comd's vehicle, or all the blocks of HQ Platoon.

Defensive Terrain: a location which has been organised to enhance defence (reinforced walls and ceilings, foxholes etc.).

DRM: Die Roll Modifier.

EP: Effect Point. Used to determine the range of a weapon, the extent of its effect, and for Command Ranges. EPs are less affected by terrain than MPs are.

Event Cards: cards representing certain Events, favorable or unfavorable, that occur during the action.

FP: firepower. Defines the combat capability of a block.

FP modifier: modifier used during combat resolution. See the scenario events and the Combat & Weapon Effects player aid.

Heavy Weapon: weapon with a minimum range and with a Weapon Effects area around the firer and the target (example: RPG-7).

Hex: a hexagon on the map representing about 7 meters on the ground.

IED/UXO: Improvised Explosive Device/Unexploded Ordnance. These are represented by No Man's Land counters.

Impulse: a sub-sequence of a turn during which a Plt Comd may activate blocks.

Impulse Force: the term for all the blocks under the command of a Plt Comd for the current scenario. These blocks are shown in the Order of Battle on the Scenario Card, in the same Impulse Force as their Plt Comd and may also include support (combat support, combat service support) or command elements.

JFO: Joint Fire Observer.

Light Weapon: weapon with no minimum range and with no Weapon Effects area around the firer and target (example: AK47).

Location: a part of the map on which it is possible to place a block (hex, room, zone, or roof).

LoS: Line of Sight, the straight line from the center dot of one location to the center dot of another location. The LoS may exist only if there is no visual obstacle between the center dots of the two locations.

MBT: Main Battle Tank (see vehicle definitions in 4.3.1).

Moving Out: as for Withdrawal, a block falls back: it has to leave its position. In the case of a Move Out, losses are automatic; there is no die roll to determine losses.

MP: Movement Point. Used to determine the distance a block may move. MPs are affected by terrain.

OSL: Operational Strength Level. Defines the overall combat effectiveness of a block. A loss of OSL may represent dead, wounded, a state of shock, loss of morale, high ammunition expenditure, etc.

Opportunity Fire: fire performed against a moving enemy block during an enemy Impulse..

Platoon: a platoon includes all the blocks placed directly under the responsibility of a Platoon Commander (Plt Comd). The combat capacities of each of the platoon's blocks are detailed on the platoon's Unit Card.

Platoon Commander (Plt Comd): the Plt Comd is represented by a block. In most of the armies portrayed the Plt Comd is a Lieutenant, but it is not uncommon to see senior non-commissioned officers - such as a Colour Sergeant or a Warrant Officer - command platoons.

Reaction: only two Reactions are possible: Opportunity Fire or Withdrawal (see 8.3, Reacting). Does not count as an Action.

Squad (Section): a group of about ten soldiers (each nation has its own norms), represented by a block.

Turn Track: see the player aid - this is in the form of a playing card. Each turn represents a few minutes of real time.

Unit: a unit is represented by a block. A unit is a foot unit if the block has the silhouette of a soldier on it, or a vehicle unit if it has the silhouette of a vehicle.

Unit Cards: cards that detail the characteristics of the blocks deployed on the map. Some cards describe several types of blocks, others only one type.

Weapon Effects: indicates the effect of a Fire action or a 3D action on the soldiers of both sides, on the civilian population or on the environment. Weapon Effects can affect the enemy (the desired effect) but may also have an effect on friendly units (friendly fire/blue on blue) or the civilian population (collateral damage).

Withdrawal: movement made by a targeted block to exit an enemy fire zone. Withdrawal is a reaction to a Fire/Assault action or a reaction to Opportunity Fire. A Withdrawing unit may suffer damage, determined by a die roll.

3. Sequence of play

3.1 Game turn

A game turn is a succession of Phases, Sequences and Impulses. Certain actions, such as **3D actions**, are resolved during the Initial Phase, at the beginning of a turn. The main actions of movement, combat and support take place during Impulses.

3.1.1 Initial Phase

Note: Unless otherwise mentioned on the Scenario Cards, the only sequences of the Initial Phase of Turn 1 are the Events and the 3D Actions Request sequences. The full Initial Phase is played from the beginning of Turn 2.

- ▶ **Conceal Revealed Blocks sequence:** Blocks revealed during the previous turn are now set upright, except for those in **Contact**. Any revealed No Man's Land counters remain revealed.
- ▶ **Civilian Population Movement sequence [Advanced rules (13.3)]:** Each revealed civilian population counter not inside a building moves 1 location in the direction determined by the roll of 1d10.
- ▶ **Check IED/UXO Stability sequence:** If an IED/UXO has been revealed by **Weapon Effects** or close movement, the player rolls 1d10. On a result of 0-3, the IED/UXO explodes. Apply the same rule to the Wreck markers of destroyed vehicles.
- ▶ **Events sequence:** Certain scenarios have Events that can influence the course of the game. Depending on the scenario, each player draws an **Event** Card and/or rolls 1d10 (depending on the scenario instructions) and checks against the Campaign/Scenario Events Table.
- ▶ **3D Actions Resolution sequence:** Blocks that are on target locations for recon/strike missions by 3D actions are revealed, and any damage is applied immediately.
- ▶ **3D Actions Request sequence** for the next turn.
- ▶ **Order of Battle Reorganization sequence [Advanced rules]:** Each side may reorganize the Order of Battle between two **Impulse Forces** already in play, or between two Impulse Forces coming into play at the same time.
- ▶ **Initiative Determination:** The scenario states which side starts the game with the initiative and, unless otherwise instructed, the conditions for changing the initiative at each game turn.

3.1.2 First Phase

The player whose side has the initiative may:

- ▶ **Either:** execute his first **Impulse**, in which case he becomes the active player. At the end of the Impulse, his opponent becomes the active player in a possible 2nd Phase.
- ▶ **Or:** pass his Impulse and let his opponent become the active player in a possible 2nd Phase.

3.1.3 Second and following phases

The player on the active side may:

- ▶ **Either:** execute an Impulse. At the end of the Impulse, his opponent becomes the active player for a possible 3rd Phase.

Or: pass his Impulse and let his opponent become the active player for a possible 3rd Phase.

Both sides continue to alternate phases, activating their Impulse Forces in any order they choose.

If both sides pass an Impulse consecutively, the turn ends and the players move to the Final Phase.

If a player has more Impulse Forces available than his opponent he activates them all before the end of the turn, or elects to pass.

3.1.4 Final Phase

Players remove Smoke markers and all Completed, Reacted & Activated markers and proceed to the Initial Phase of a new turn.

3.2 Impulse principle

During each Impulse, a side activates one (and only one) of its Impulse Forces - i.e. one **platoon** and any elements attached to it (command, support). Each Impulse Force can only be activated once per turn.

An Impulse Force includes all of the blocks under the command of a **Plt Comd**: the squads and/or vehicles of the platoon, and any attached HQ and support elements.

Depending on command status, an Impulse Force may activate up to 3, 5 or 7 blocks during the Impulse (7.2.1).

During an Impulse, enemy blocks cannot be activated, they may have the option to Return Fire (see 8.2.7.3) or to react by **Opportunity Fire** or **Withdrawal** (see 8.3).

A block can only be activated as part of its own Impulse Force.

4. Blocks, counters and cards

4.1 Sides and environment

The blocks belong to three different entities:

- The green side
- The red side
- The non-combat elements of the urban environment, termed No Man's Land.

The green and red sides consist of:

- **Unit** blocks, which represent all the combatants and their vehicles
- **Environment** blocks that represent dummies and barricades.

4.2 No Man's Land counters

The No Man's Land counters help to constitute the environment the combatants must operate in. They consist of:

- IEDs/UXOs (Improvised Explosive Device/Unexploded Ordnance)
- Toxic waste
- Civilian Population
- Vehicles
- Barricades

Consult the Scenario Card for the set-up of the environment counters.

Impulse Forces

IMPULSE FORCE

Soviet Impulse Force #3 from The Breakthrough scenario is an infantry platoon mounted on BMP2 armored personnel carriers, reinforced by a main battle tank, engineers, combined arms elements, and command post elements.

IMPULSE FORCE 3

0

1

2

3

4

1

3

4

PC 2

PC 3

PLT COMD

PLT SUPPORT

INFANTRY

INFANTRY

INFANTRY

MBT

ENGINEERS

APC

LOGISTICS

IFO

2

6

7

8

Unit Cards - Infantry + BMP2

Unit Cards - T-72 / Engineers + BTR70

Unit Card - CP

Setup - once building 23 or 38 has been captured, enter on next turn by hex 0121 and/or 0110

The Support Points marker is placed in the corresponding box

Unit Card(s): mentions the name of the Unit Card(s) used for the base platoon, its supports and CP elements

Setup: describes the Impulse Force setup at game start or its entry condition during play

★ Gives the unit quality of each element (★recruit /★★veteran /★★★elite)

When this Impulse Force is activated, the number of blocks that can be activated is related to the situation: only 3 if the Platoon Commander is not on the map, 5 if the Plt Comd is on the map, 7 if the Plt Comd is inside the Command Range of the **Company Commander**, and the Coy Comd is in Command Range of his **CP**. All of the blocks are activated during the activation when the Impulse Force enters the map.

PLATOON

The infantry platoon of Lieutenant Simonov forms the base of Impulse Force #3. It is associated with two Unit Cards, one for the infantry (Infantry card), the other one for the armored vehicles (BMP2 card).

IMPULSE FORCE 3

0

1

2

3

4

6

7

8

PLT COMD

PLT SUPPORT

INFANTRY

INFANTRY

INFANTRY

APC

APC

APC

2

Unit Cards - Infantry + BMP2

Each block composing the platoon has an identity and ratings

BLOCK

Block type

●

 foot unit / unarmored vehicle

■

 armored

▲

 Main Battle Tank

Block number

0

Operational Strength Level

▲▲▲

 fully operational

▲▲

 operational

▲

 poorly operational

Function or speciality

PLT COMD

Platoon ID color

0

Special capabilities

■

 Company Commander (Coy Comd): May provide a Command bonus (up to 7 blocks activated) if on map and within 6 EPs of both the CP and the Plt Comd

■

 Platoon Commander (Plt Comd): +1 FP modifier in Fire and Assault (6 EPs radius) may request 3D action (15 EPs radius)

📡

 Command Post (CP): May provide a Command bonus if on map and within 6 EPs of the Coy Comd

+

 may perform a Support action

🔥

 may request a 3D action (20 EPs radius)

🎯

 Sniper capability

🏠

 may climb onto a roof from clear terrain

🔧

 may perform a Demolishing/Placing action, spot an AT mine, breach in situ

👁

 may Scout up to 10 EPs

Effect Points (EPs)

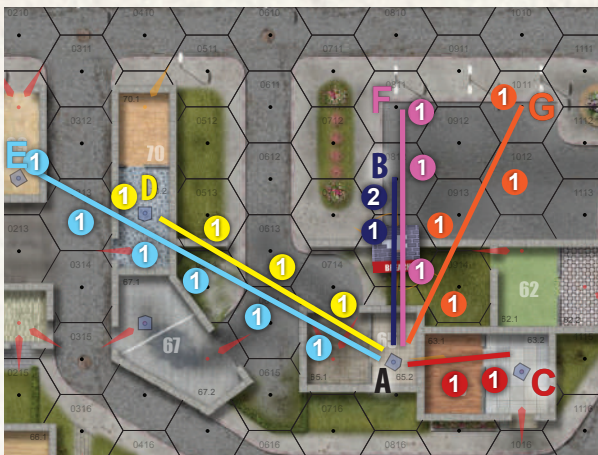


ILLUSTRATION 1

- All calculations when Firing either from a roof to the ground, or from one roof to another, are counted in single EPs. The exception is when a block is on a different level to the target and the LoS is through a breach or an **aperture**. The cost for passing through the Breach/Aperture is 2 EPs.
- In the following examples A, C, D and E are on a roof. B, F and G are on the ground.
- A wouldn't be able to see B if not for the breach (blind hex) but going through the breach costs 2 EPs, for a total of 3. Even though F is one hex farther, since F is not right next to the breached outer wall (so out of the blind hex area), every hex to reach it costs only 1 EP, for a total of 3.
- All other costs are limited to 1 EP per hex/**location**, above walls (A to G for a total of 4 EPs), buildings (A to C for a total of 2 EPs and A to D for a total of 4 EPs), and facades (A to E for a total of 6 EPs).

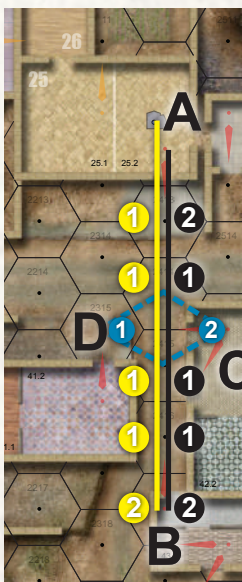


ILLUSTRATION 2

- When Firing from the ground, calculate the cost for the most direct path.
- If A is on the roof, the cost per location for Firing at B from the roof is 1 EP, as per Illustration 1. The yellow track therefore gives a total cost of 6 EPs. But if A were inside the building, instead of on the roof, the cost of the aperture in 25.2 would be counted (2 EPs - as for any breach or aperture) and the total cost would therefore be 1 EP higher (black trace, total of 7 EPs).
- It is possible that the LoS may traverse the boundary between two hexes (here C and D). Should this be the case, choose the least 'expensive' track between the two hex centres. In our example the Firer has the choice between two tracks (dotted blue tracks) although in that case it doesn't matter since they have the same 'cost'.



ILLUSTRATION 3

- All EP distance calculations for 3D actions, Command Range, etc., are made from the ground, except when Firing from roof to roof.
- All the examples above are for calculating EPs, but do not include the calculations for Fire. For Fire a direct LoS to the target is used (see illustrations 1 & 2).
- Crossing a breach, aperture, facade or outer wall costs 2 EPs (A to G, A to B etc.). In each case count the cost of crossing the breach, facade etc, and ignore the terrain cost of the next hex.
- Crossing a partition or a zone boundary costs 1 EP (first 2 EPs of D to E track).
- The EP track to a roof must use stairs (roof access). See D to E, and the final EP.

4.3 Combat Units

4.3.1 Foot and vehicle blocks

Each block represents a **squad** or a vehicle. Additionally, some blocks represent environmental elements for each side.

Each block has a neutral face and an information face. On the information side are shown:

- The side's color (Green, Red)
- Specific information (see Impulse Force illustrated examples, p. 7)
- Silhouettes: human silhouettes are foot blocks and vehicle silhouettes are vehicle blocks. Vehicles are composed of unarmored vehicles (soft skin), armored vehicles (like APCs), and Main Battle Tanks (see 4.3.5 and p. 39, section 'Kind of block', for their capabilities).

4.3.2 The different block statuses

4.3.2.1 Operational Strength Level (OSL)

Each block has 3 OSLs (2 OSLs only for Coy Comd, Logistics, Joint Fire Observer (JFO) and Sniper blocks). When the block is upright (in its **concealed** state, only visible to its owner), the OSL is displayed at the top of the block. When the block is laid flat (revealed), the OSL used is the one on the side pointing towards the other player's map edge.



Fully operational



Operational



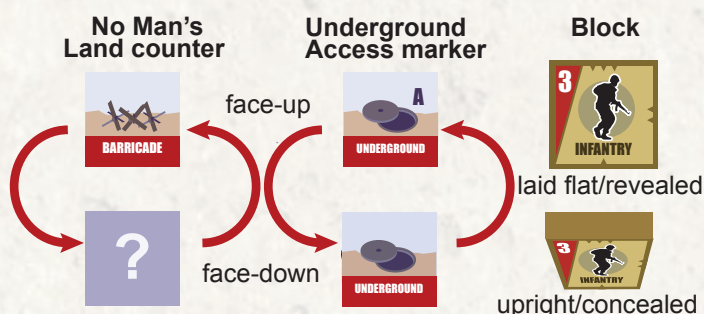
Poorly operational

The OSL varies according to combat losses, or as a result of specific actions (elimination of an enemy block, Support action, etc.).

A block may be eliminated after a Critical Hit result or a 3D action, or if its OSL is further reduced when the unit is already at its lowest OSL level:

- A foot block is removed from the map.
- A vehicle block is destroyed and removed from the map. Replace it with a Wreck marker.

4.3.2.2 Concealed and Revealed blocks & counters



In the Initial Phase of each game turn all the blocks of both sides are placed upright, their information faces concealed from the enemy in order to preserve the fog of war. Only blocks in Contact (see 8.1.12) are left revealed. A block is revealed (laid flat) when:

- It undertakes an action that requires the block performing it to declare that action (8.2).
- It is impacted by a 3D action or Weapon Effects.
- It has been Scouted by an enemy block or a 3D Scouting action.
- It has undertaken Opportunity Fire.
- It is in Contact with or **Adjacent** to an enemy block.

4.3.2.3 Transported Blocks

A foot block inside a vehicle is not kept on the map, but is removed and placed on the Order of Battle section of its Scenario Card and is positioned standing upright on the icon of the vehicle in which it is being transported.



Infantry block #2 mounts in transport #6. It is placed on the Scenario Card, on vehicle icon #6.

4.3.3 Markers

During the course of play, markers are placed on the blocks as a result of actions and reactions performed.



Activated marker: a block which has just performed an action and/or a movement, or suffered an OSL loss due to friendly fire, receives an Activated marker. The block cannot be activated again this turn.

Reacted marker: a block which has conducted a Withdrawal or performed Opportunity Fire receives a Reacted marker. This block cannot conduct any additional Opportunity Fire or Withdrawal reactions again this turn (exception: see 8.2.7.4).

Completed marker: Place a Completed marker on a block which:

- Has been activated and then performed a reaction
- Has performed a reaction and then been activated

These markers may be lifted at any point in order to see the exact nature of the block, if it is in revealed status.

4.3.4 Unit Cards

Impulse Forces are composed of several blocks that represent foot units or vehicles of different types.

The characteristics of each block are detailed on the Unit Cards.

Each block is associated with a Unit Card, containing the combat characteristics of the whole platoon. These Unit Cards are placed next to the Scenario Card, where they can be seen. NB: a block retains all the capabilities described on its original Unit Card, even if it is attached to another Plt Comd.

4.3.5 Weapon capabilities

On the Unit Cards, each weapons system is linked to symbols that give the specific weapon capabilities of the blocks associated with a particular Unit Card.

- △ Weapons that are effective against all kinds of target (foot units, soft skin, armored, and MBTs). A white symbol with a black frame signifies standard armor-piercing ammunition.
- △ A pink symbol with a red frame means a rocket, missile or arrow shell with special armor-piercing capabilities (and therefore a more destructive Critical Hit).

- ☐ Weapons that are effective against foot units, soft skin and armored vehicles.
- ☐ Weapons that are effective against foot units and unarmored vehicles (soft skin).
- ◆ Weapons that have the capability to open breaches in walls. A black symbol means it can only Breach in situ; a red symbol means it can Breach remotely (2 EPs minimum).
- 🏠 Portable infantry weapons that cannot be used from within a building (due to back blast, flames, heat, smoke etc.).

A weapon's capability is the same for Fire and **Assault**. In the example below (T-72 Unit Card), the Plt Support (BRDM2 7,62) can only ever fire on Foot units and unarmored vehicles and can never Assault an armored unit.

4.3.6 Firepower (FP)

The FP of a block is indicated on its Unit Card. It may vary depending on the distance between the block and its target.

The FP provides the basis for the resolution of Fire and Assault between blocks. Bonuses related to the situation or terrain may be added to it (see the Combat and Weapon Effects player aid).

The first outline, in the shape of a star, (with the number in red) represents the FP of the block during an Assault. The outlines that follow (numbers in black) represent the FP at 5 EP intervals. The outlines may be in the shape of a circle, a square or a triangle, with a black or red border. The first circle, square, or triangle therefore represents a range of 1-5 EPs.



In the example above, each T-72 **MBT** block on the map has the following FPs:

7.62 mm and 12.7 mm machine guns:

- In an Assault they have a base 6-point FP.
- Firing at a range of 1-5 EPs they also have a base 6-point FP.
- Firing at a range of 6-10 EPs they have a base 7-point FP.
- Firing at a range of 11-15 EPs they also have a base 7-point FP.
- The block cannot fire its machine guns beyond a range of 15 EPs.

125 mm gun:

- The gun cannot fire at a range of less than 11 EPs.
- Firing at a range of 11-15 EPs the gun has a base 8-point FP.
- Firing at a range of 16-20 EPs the gun also has a base 8-point FP.
- The block cannot fire its main gun beyond a range of 20 EPs.

4.3.7 Effect Points and weapons' Area of Effect

4.3.7.1 Effect Points (EPs)

Distances are calculated in Movement Points (MPs) only when blocks are moving (see 8.1). All other distances (weapon ranges, Command Ranges, Weapon Effects, 3D actions etc.) are expressed in Effect Points. The effects of terrain on MPs and EPs are described on the Terrain Effects player aid. See also illustrated examples of EPs (p. 8).

- Calculate EPs for Fire (Fire/Assault actions, Return Fire or Opportunity Fire) directly along the LoS.
- For other EP distances use the most direct path, even through walls (only at ground level), using stairs if the beginning or the end of the route is on a roof (exception: for roof-to-roof calculation, any location (hex/room/zone) counts as 1 EP).

4.3.7.2 Weapons' Area of Effect (AoE)

The AoE of a weapon is given on the Unit Card for each type of block. It represents all the effects caused by its fire (at the point of fire, along its trajectory, and its effect on the target).

The AoE of **light weapons** extends along the length of the Axis of Fire, up to the maximum range of the weapon used.

The AoE of **heavy weapons** extends:

- In some cases, around the firing unit
- Always in locations next to the target

For the application of Weapon Effects in combat and their Area of Effect, see 8.2.1 and the specific table on the Combat and Weapon Effects player aid.

4.3.8 Unit Quality

Units are ranked in 3 different qualities, which represent their experience and their resilience under fire.

A unit's quality is shown on the Scenario Card, in the Order of Battle section. The quality of a unit has an effect on combat results (Application/Adjustment of Losses, see 8.2.7.6):

- ★★★ **Elite**: for each combat result (Fire, Opportunity Fire or Assault, but not Withdrawal) resulting in a loss of OSL, the player rolls 1d10. On a result of 0-5 the combat results are applied normally, on a result of 6-9 the block loses one less OSL.
- ★★ **Veteran**: straight application of the Combat Results Table.
- ★ **Recruit**: for each combat result (Fire, Opportunity Fire or Assault, but not Withdrawal) resulting in a loss of OSL, the player rolls 1d10. On a result of 0-3 the block loses 1 additional OSL, on a result of 4-9 the combat results are applied normally.

Note: the quality and FP of each block depend on the platoon it originally starts with, not on the Impulse Force it may currently be activated with. So, an MBT that comes from a Recruit platoon may be part of an Impulse Force in which every other block comes from Veteran or Elite platoons. For combat resolution, the MBT block still has the characteristics of a Recruit unit.



Maps



Map A



Map B



Map C



Map D

The river map and the underground map also count as Maps.

5. The Urban environment

5.1 The map

Each of the maps represents a particular type of urban area with its own characteristics that affect movement and combat.

The underground maps are used according to the Scenario Card instructions. Blocks move on these maps when they are using sewers and underground passages.

A map covers approximately 260 x 180 meters (850 x 590 feet). A given scenario might use a single map or an assembly of several maps. **Advice:** read this chapter with the double-sided Terrain Effects player aid close at hand.

5.1.1 Hexagons (Hexes)

A grid of hexes is superimposed on the terrain located outside buildings. Hexes are used to regulate the movement of blocks and to calculate weapon ranges.

A hex represents approximately 7 meters (23 feet) of ground from side to side. It should be noted that although for the sake of clarity this is not represented on the map, the streets would be cluttered with various items, such as vehicle wrecks, smoke, streetlights, street furniture - all of which provide units with an assumed degree of visual cover and greatly restrict LoS and weapon ranges.

Unless otherwise instructed in the scenario, the half-hexagons on the edge of the maps are playable.

The dot printed in the center of the hexes serves two purposes:

- When it is necessary to determine a Line of Sight, an imaginary line is drawn between two dots. If the line crosses an obstacle, the target is out of sight.
- The terrain type on which the dot is printed determines the terrain type for the whole hex, including its sides. See details on the Terrain Effects player aid.

A hex without a center dot is not playable.

Stacking is limited to 1 block per hex, EXCEPT temporarily, during movement (see 8.1.1).

5.1.2 Buildings, rooms and zones

The interiors of the buildings printed on the map are divided into rooms, defined by thinner walls that represent partitions. A room may contain several apertures (doors, windows or

breaches). A room may include several zones.

A white line separates two zones within the same room. Each zone may have only one aperture.

Stacking is limited to 1 block and 1 marker per zone, or per room that is not divided into zones, except temporarily during movement (see 8.1.1).

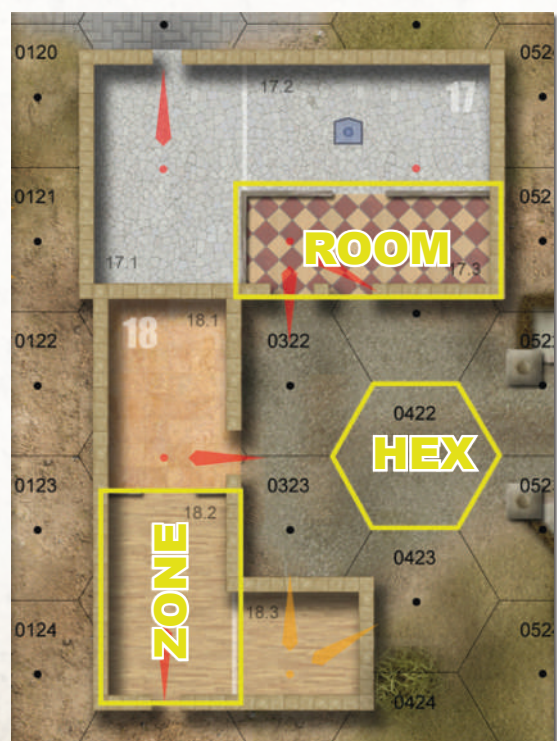
The dot printed in the room or zone is used to check the LoS. Zone boundaries do not obstruct LoS, but partitions may (see 8.2.7.8.1).

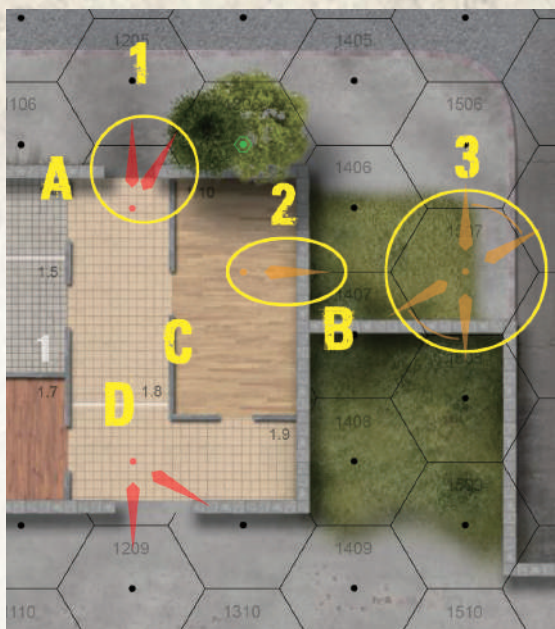
5.1.3 Walls and apertures

5.1.3.1 Walls, facades, partitions and zone boundaries

There are 2 different types of walls on the map: outer walls (all walls that are not part of a building) and facades (walls that define the outline of a building)

- **Outer walls:** these obstruct LoS, restrict movement and penalize some effects (command, Weapon Effects etc.)
- **Facades:** these obstruct LoS, cannot be crossed unless there is an aperture, and penalize some effects (command, Weapon Effects etc.)





- | | |
|------------------|----------------------------|
| A. Facade | 1. Aperture |
| B. Outer wall | 2. Breach in a facade |
| C. Partition | 3. Breach in an outer wall |
| D. Zone boundary | |

There are 2 different types of zone:

- Zones bordered with partitions: partitions have doors and openings, but they penalize movement, LoS, Fire, and certain other effects (see 8.2.7.8.1).
- Zones with zone boundaries: these divide large rooms into multiple areas but LoS between them is clear and movement, Fire, and certain other effects are less costly than for partitioned zones.

For complete information on the [EP](#) and [MP](#) costs of walls, facades, and partitions, see the Terrain Effects player aid and the illustrated examples of EPs (p. 8) and MPs (p. 22).

5.1.3.2 Apertures and breaches

Outer walls and facades may be pierced by apertures or breaches (see illustrated examples on apertures and on breaches p.13).

- Apertures (doors, windows): marked by red arrows on the map, they allow blocks to fire through them under certain conditions, and allow blocks to pass through facades. They can only be crossed by foot units.
- Breaches (in facades): indicated by orange arrows on the map, they are identical to apertures as soon as they are created (a Breach marker is placed on the newly created breach). Until a Breach marker is placed on the map symbol, it is treated as an intact facade. A breach created in a facade can only be crossed by foot units.
- Breaches (in outer walls): marked on the map by orange crosses with Arcs of Fire, breaches are an opening in the wall that a vehicle can pass through from the moment they are created (place a Breach marker on the newly created breach. See 8.2.5). Until a Breach marker is placed on the map symbol, it is treated as an intact outer wall. A breach created in an outer wall can be crossed by foot units and vehicles. A breach in an outer wall only offers cover for units:
 - that are Firing or Assaulting through it
 - AND are positioned on the center dot of the breach hex or on a hex immediately next to the breach. See 5.1.9.4 for LoS through a breach.

Combat resolution may be affected by the position of blocks, particularly inside buildings. Any block located in a building benefits from a bonus. Any block protected by a breach in an outer wall also benefits from a bonus (see above paragraph and Combat & Weapon Effects player aid).

5.1.4 Levels

The terrain on the map and of the underground maps may represent several levels. See the Terrain Effects player aid and Terrain in 3D illustrated examples, pp. 14 & 15.

Units are considered to be on the following levels on the map:

- they are on level 2 when on a roof (foot units)
- they are on level 1 when on an elevation (any block)
- they are on level 0 when in clear terrain (any block), in a wood (any block), in a Fortified position (any block), in defensive terrain (foot units only) or in a building (foot units only).
- they are on level -1 when in water (any block), an open sewer (any block), an underground sewer (foot units only), or underground (foot units only).

Vehicle blocks may transit through levels 1, 0 and -1 but cannot move underground. Note: some alleyway hexes (yellow center dot) and [defensive](#) terrain are also impassable to vehicles.

Foot blocks may transit through any level. They may move from one level to another in several ways.

The rules on changing level (5.1.5 to 5.1.8) function in both directions. A block can go up the same way it came down, and vice versa.

5.1.5 Underground

A scenario may necessitate the use of one or other of the underground maps. Any access points to the underground network are identified on the map by an Underground Access marker (indicated by a manhole cover).

A block moving through a hex with an Underground Access marker on it must choose between going underground or remaining on the surface.

5.1.6 Sewers and water

Sewers, both open and underground, are one level below ground (level -1).

A unit may exit from an underground sewer to an open sewer at no extra cost. A unit may exit an underground sewer only through a connected open sewer hex, and vice versa (see the Terrain Effects player aid).

5.1.7 Underground locations

Zones and rooms in underground locations are treated as buildings, and hexes in underground locations are treated as hexes in open terrain.

5.1.8 Roofs

Buildings with a Roof Access symbol (see the Terrain Effects player aid) have a roof that foot units can position themselves on.

Buildings without a Roof Access symbol do not have a usable roof; the roof is inaccessible.

To display that a unit is on the roof, place a white cylindrical block under the unit. The cylinder is placed on the Roof Access symbol.

Access to a roof can be achieved by:

- Reaching the Roof Access point from the room/zone that contains the symbol.
- Climbing over a vehicle block Adjacent to a roof with a Roof Access symbol
- Climbing over a block with a ladder symbol that is adjacent to a roof with a Roof Access symbol.
- A block with a ladder symbol that is Adjacent to a roof with a Roof Access symbol.

Some roofs have a connection between each other: their Roof Access symbols are not square but have an apex; the apexes of two connecting Roof Access symbols always point towards each other.

Apertures & Breaches

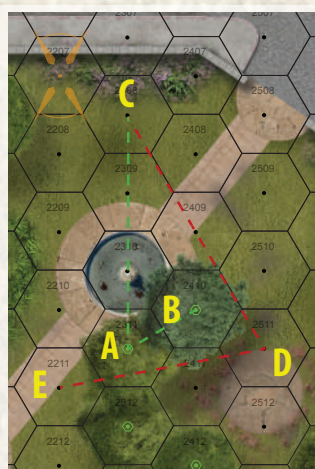
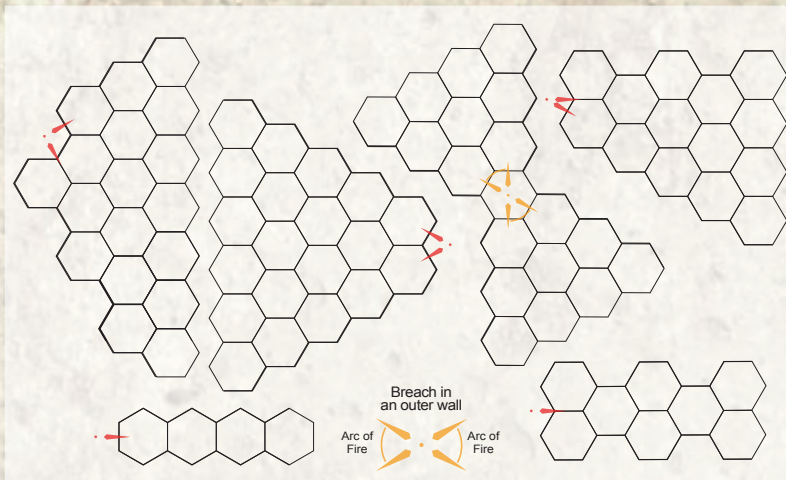
The red arrows (apertures) and orange arrows (breaches) represent the Arcs of Fire.

If an arrow points towards the center of a hex, then the whole row is part of the Arc of Fire.

If an arrow points towards a hexside, draw an imaginary line along all the hexsides in the extension of the arrow. The hexes crossed by the line and those where the line passes along their side are all within the Arc of Fire.

For breaches/apertures with two arrows, the Arc of Fire consists of every hex crossed by each of those arrows (as described above) and every hex in between (see diagrams to the right).

See 5.1.9.4 for the LoS through a facade breach or an outer wall breach.



LoS Examples

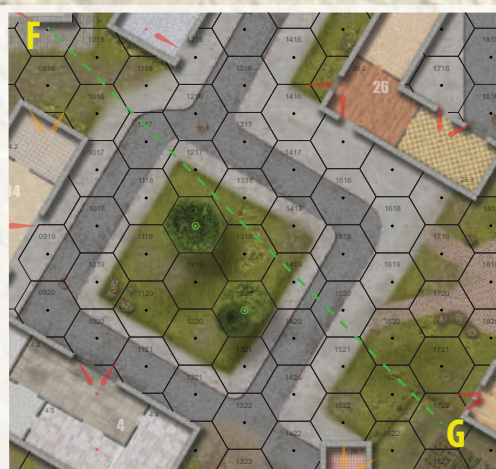
LoS is clear between A and B: it starts and ends on a LoS obstacle.

LoS is clear between A and C: it starts (A) on a LoS obstacle.

LoS is blocked between C and D: it passes along one side of the Wood hex.

LoS is blocked between D and E: it passes through the Wood hex.

LoS is clear between F and G: LoS does not come into contact with the vertex of a LoS obstacle.



5.1.9 Lines of Sight (LoS)

Each location has a LoS dot. Hexes have the dot in their center. The LoS dots in Rooms and zones could be in a variety of positions. The LoS goes from the center dot of the firing block's location to the center dot of the target location.

A block can see its target (block, marker, or breach to be opened remotely) if there is no obstacle between the block and the target. This is verified by linking the center dots on the map with a transparent ruler or a thread after an attack has been declared:

- If there is no obstacle in the path of the LoS, the Fire or Scouting action is resolved against the intended target.
- If there is an obstacle in the LoS, a unit that Fires (but not a Scouting unit) is revealed and its activation is complete. Any losses are applied to those blocks and markers located within the weapons' AoE between the firing unit and the obstacle.

Lines of Sight are reciprocal: if a clear LoS exists from one block to another, then both blocks can see each other.

5.1.9.1 LoS obstacles

LoS Obstacles are those terrain elements, counters and markers that block a unit's view: woods, facades, outer walls, partitions, defensive terrain, elevations, Fortified, Smoke and Wreck markers & vehicles. All of them are listed on the Blocks, Counters & Markers, and the Terrain Effects player aids.

LoS obstacles block the LoS passing through their hexes or along their sides. A LoS can start and end on a LoS obstacle (hex, counter or marker) but cannot move through it (i.e. cannot pass through two sides or along one side).

A LoS that comes into contact with the vertex of a LoS obstacle hex is similarly blocked (see illustrated example above).

It is possible to Fire through any block, marker or counter which is not a LoS obstacle; as such they may suffer Weapon Effects.

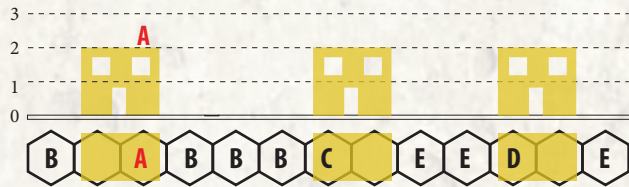
Walls do not act as an obstacle for the entire hex that they pass through; only their actual outline provides an obstacle to LoS. Breaches in facades may be an obstacle (see 5.1.9.4), but breaches in an outer wall are not (see 5.1.9.4 and the illustrated examples p.14).

5.1.9.2 Obstacle levels

LoS obstacles do not all have the same height; they are divided into 3 levels: see details on the Terrain Effects player aid.

Visual obstruction: the LoS between two blocks/counters is blocked by an obstacle if they are located on a lower level than the obstacle level. If the two blocks/counters are at different levels, the LoS between them is blocked if it crosses an obstacle located at a higher level.

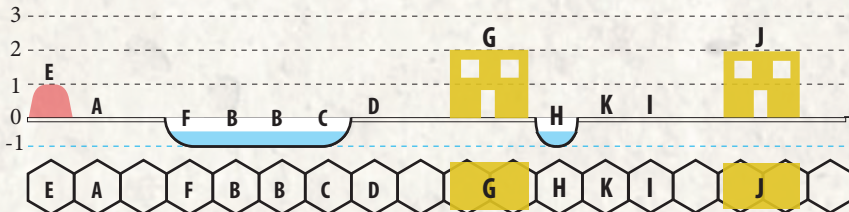
Lines of Sight - Terrain in 3D



- A (on the roof) can see B
- A (on the roof) can see C, whether C is on the roof or in the building (provided the LoS runs through an aperture)
- A (on the roof) can see D, only if D is on the roof
- A (on the roof) cannot see E



- A (on the roof) can see B
- A (on the roof) cannot see C (blind hexes)
- A (on the roof) cannot see D, because the LoS runs through a tree (visual obstruction)



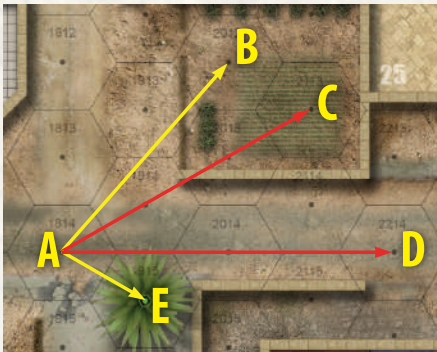
- A, D, E and G can see each other
- D can see C
- E can see B and C, but not F (blind hex)
- A cannot see F, B and C (plateau effect)
- G can see B and F, but not C (blind hex)
- G can see H, K can see H
- H cannot see I or J (I is in a blind hex for H, H is in a blind hex for J)

Plateau effect



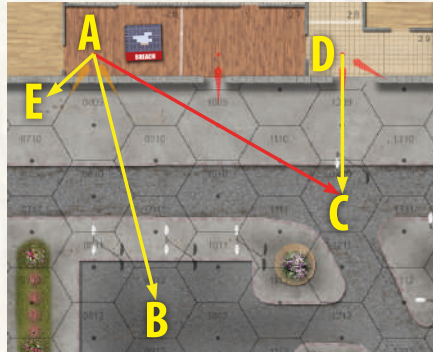
- A (on the roof) can not see B: building 25 creates a plateau effect
- C cannot see D: the first hex in the LoS is an elevation creating a plateau effect
- C cannot see E: the outer wall creates a plateau effect

Visual obstructions



- A can see B, because the LoS is clear
- A can see E, because E is located on the obstacle and not behind it
- A cannot see C, because the wall is an obstacle
- A cannot see D, because the LoS runs along the side of an obstacle hex

Apertures & Breaches



- A can see B and E: the LoS runs through the Arc of Fire of a breach (Breach marker in zone 2.6)
- D can see C: the LoS runs through the Arc of Fire of an aperture
- A cannot see C: the LoS is outside the Arc of Fire of the breach

View from above & blind hexes



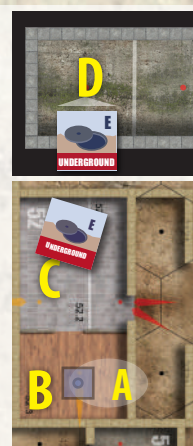
- A (level 2 on the roof) can see B because B is located at least one hex away from a level 1 obstacle
- A cannot see C because C is located immediately behind a level 1 hex (blind hex)

Various LoS cases

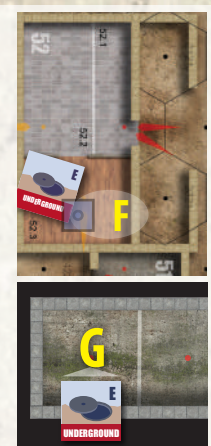


- A, C and D can see each other
- B and C cannot see each other
- E (on the roof) and G can see each other, but E and F cannot (blind hex)
- C, F and G can see each other
- D and F cannot see each other, as with D and G (plateau effect)

Vertical LoS

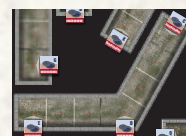
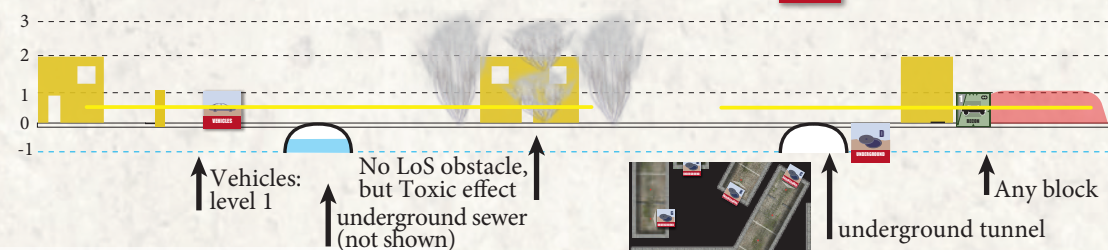
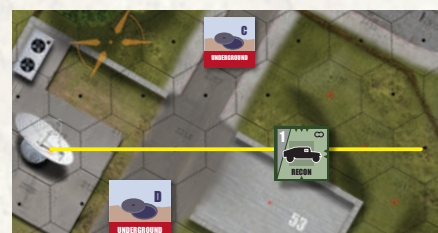
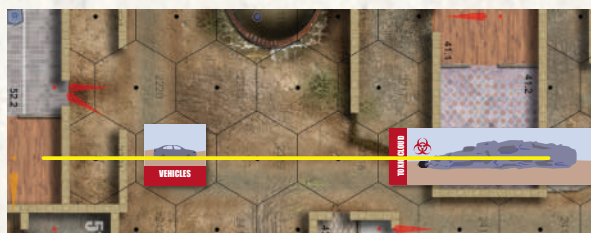
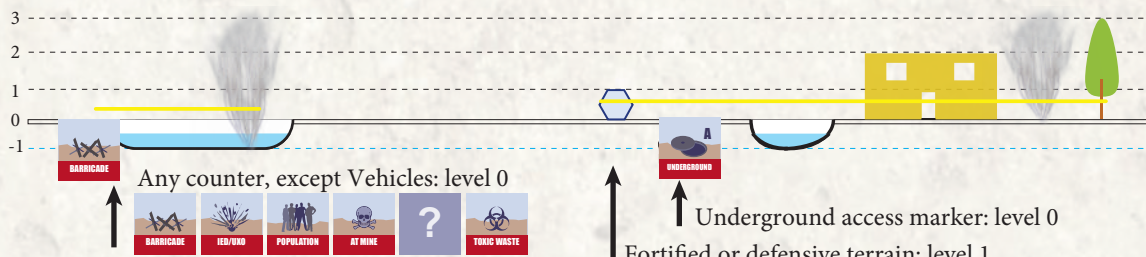
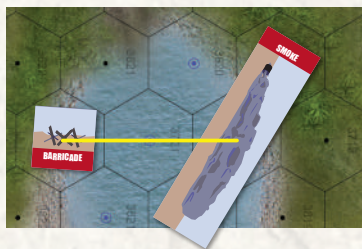


- C (on the ground floor) and D (underground) can see each other
- A (on the roof) and C cannot see each other
- A and B (in the room below) can see each other

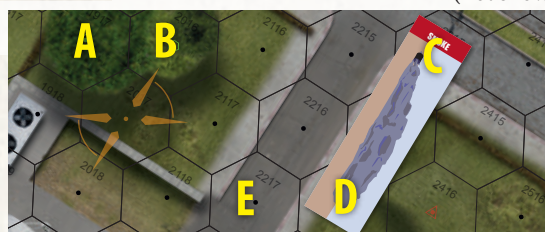


- F (on the roof) and G (underground) cannot see each other

How to see the environment in 3D

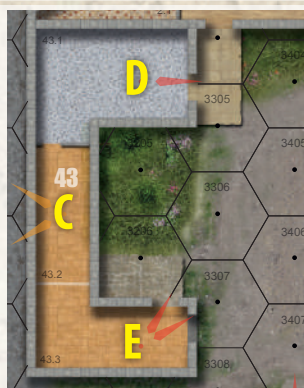
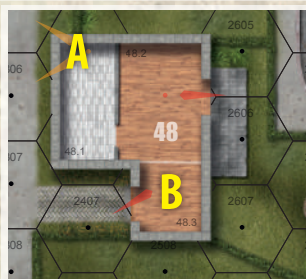


Any block underground tunnel



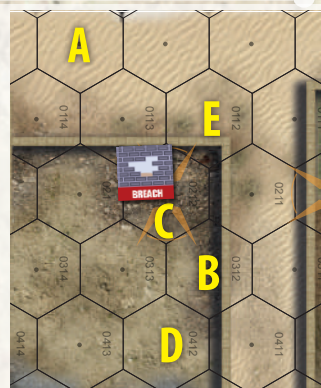
- A and B are in adjacent locations: they can see each other.
- B can see C and D.
- A and C cannot see each other: the hex where B is located is a LoS obstacle.
- E can see A, B and D, but not C.
- C and D cannot see each other.
- A and D cannot see each other: the hex where B is located is a LoS obstacle and the LoS passes along one of B's hex sides.

Buildings, Breaches - LoS & Combat



Examples: Firing within a building (8.2.7.8.1):

- A and B can fire at each other (Fire within a building, no outer wall blocking the LoS)
- C can Assault E (adjacent - same room)
- C can Assault D (adjacent)
- E cannot fire at D (Fire within a building is possible, but they are not adjacent and the LoS is blocked by the facades)



Example: Breach in an outer wall (5.1.9.4):

- A, B and C can all see each other
- A and D cannot see each other

Example: Breach in an outer wall - Combat (5.1.3.2):

- Firefight between A and C: C has +1 FP modifier
- Assault between C and E: C and E have +1 FP modifier each
- Firefight between A and B: because B is in a hex adjacent to the center dot of the breach symbol, B has a +1 FP modifier
- Assault between C and B: no bonus. The LoS does not pass through the breach, as C and B are on the same side of the breach.

5.1.9.3 Firing/Scouting from two different levels or over an obstacle

See the illustrated examples of Terrain in 3D, pp. 14 & 15.

View from above: a block located on a level higher than an obstacle has a clear LoS to a block located on a level lower than the obstacle (but see 'blind hex' and 'plateau effect' below).

Plateau effect: the LoS is blocked by an obstacle if one of the two blocks is located on the same level as the obstacle, and the other block is on a lower level: for example, a building (level 2) blocks the LoS between a block on the roof of a different building (level 2) and a block at level 0. Players must pay attention to the plateau effect when a block on level -1 engages a block on clear terrain.

Blind hex: a hex located on a lower level, and immediately behind an obstacle or a change of level, is said to be blind. This means that a block with a view from above has no LoS to that hex.

Firing from a roof: a block may fire from a roof in any direction. The LoS is checked from the blue dot in the Roof Access symbol. The building on whose roof the block is located (defined by its walls) has no effect on the LoS; the block occupies the whole roof. However, the Adjacent buildings and all other buildings generate a plateau effect.

5.1.9.4 LoS through apertures and breaches

Apertures/breaches in buildings: the LoS is clear through apertures/breaches in a building only if one of the blocks is on the aperture/breach location.

Outer wall breaches: the LoS is clear through the center dot of the aiming location and the center dot and Arc of Fire of the breach towards the targeted location.

5.2 The No Man's Land environment

The No Man's Land environment is represented by blocks belonging to both sides, and neutral markers and counters. The AT mines laid by both sides can be concealed (the player notes down the location on a sheet of paper) or can be represented by counters placed on the map.

5.2.1 No Man's Land blocks

The No Man's Land blocks of both Green and Red sides consist of either barricades or dummies:

- **Barricades:** obstacles created by Engineers to hinder the enemy's mobility, often placed in locations suitable for use as killing zones either by direct or indirect fire (see 5.2.2.5);
- **Dummies:** placed at game setup to impede the enemy's operational intelligence and cause errors in unit positioning (dummies can move as foot blocks or vehicle blocks as the owning player chooses). Moving a dummy counts as a block activation.

Each side deploys the No Man's Land blocks along with its other blocks. When they are Scouted or are engaged with direct Fire, the owning player reveals them. A barricade remains revealed until the end of the game (or until it is destroyed); a dummy is immediately removed from the game.

5.2.1.1 Re-introduction of dummy blocks:

Re-introduction of dummy blocks is possible during play. During the Conceal Revealed Blocks sequence (Initial Phase of a turn), place a dummy block which has been removed from the game back in a location occupied by a friendly block (you can then "shuffle" the blocks a bit to preserve secrecy). During the Impulse Force's activation, the player MUST activate those two blocks. Each block requires a separate activation. They can move and must finish in different locations at the end of their activations. During subsequent turns the dummy block is played according to the standard dummy rules.

5.2.2 No Man's Land counters

No Man's Land counters do not belong to either side.

The front (concealed) side of each counter is generic, with a "?". The flip (revealed) side shows the obstacle or counter type.

At the game's start, all the No Man's Land counters required by the scenario are placed on the board. The scenario specifies if there are special instructions for their setup (location, revealed or otherwise). By default, counters are placed concealed (face-down); players roll 1d10 to determine which side sets up first. When counters have to be placed face-down, neither player is allowed to inspect them before placing them on the map.

A No Man's Land counter is revealed (flipped face-up):

- When it is Scouted by a block (see 8.2.6)
- When a block moves Adjacent to the counter
- When the counter is in an Axis of Fire or in the AoE of a weapon

When a concealed No Man's Land counter is revealed in the Axis of Fire or in the AoE of a weapon:

- If it is a civilian population counter, it is immediately eliminated
- If it is toxic waste, it is pierced/opened
- If it is any other type of counter, it suffers no damage

It may happen that, once revealed, the counter actually blocks the Axis of Fire (and thus prevents any Fire passing through the hex to the original target). In such conditions the Fire is still considered to have occurred and any actions regarding the No Man's Land counter are performed.

5.2.2.1 IED/UXO

At the moment a block reveals or Scouts an IED/UXO counter, the player rolls 1d10. On a result of 0-3, the IED/UXO explodes immediately.



An IED/UXO counter revealed by Weapon Effects does not explode, but it may still explode during subsequent turns. During the Check IED/UXO Stability sequence of the Initial Phase of subsequent turns, roll 1d10. On a result of 0-3, the IED/UXO explodes immediately.

When an IED/UXO explodes, immediately apply the Weapon Effects of -1 OSL to all blocks and population counters within a range of 2 EPs, then remove the counter.

A hex with an IED/UXO counter may not be entered, but it is possible to Fire through it. Only an Engineer block may attempt to destroy an IED/UXO counter.

5.2.2.2 Toxic waste

If a toxic waste counter is revealed, the player places the head of a Toxic Cloud marker in the same hex (oriented downwind). The marker represents a permanent Toxic Cloud (see 5.2.3.3).



A block may fire through a Toxic Cloud marker (it has no effect on LoS).

5.2.2.3 Civilian Population

If a block moves Adjacent to a No Man's Land counter and the counter turns out to be a civilian population counter, then the enemy player must move the civilian population counter 3 MPs away, following these rules:



- The civilian population counter HAS to move as far as possible from the block that moved Adjacent to it.
- If movement is impossible, the civilian population counter stops moving.

- If the civilian population counter moves Adjacent to another block, it stops moving.

When a civilian population counter is moved, it follows the same rules as for a foot block. The civilian population counter may pass through or across an unrevealed No Man's Land counter (without revealing it) but may not end its movement on a location occupied by another counter.

No block may move through a civilian population counter.

No side may target (direct fire or 3D action) civilian population counters.

Firing through a civilian population counter leads to its elimination. The elimination of a civilian population counter by the action of either side may impose a penalty on that side in terms of victory conditions (see the scenario details). In case of crossfire between two firing blocks that passes through a civilian population counter, the initiating firing block suffers the penalty.

5.2.2.4 Vehicles

A vehicle counter represents several adjacent damaged vehicles. It is an obstacle to LoS for the whole hex.

A block may move through a revealed vehicle counter, and may also end its movement in that hex. There is no extra cost in MPs (see Terrain Effects player aid). Vehicle counters cannot be moved or removed from the map.



5.2.2.5 Barricades (these may be counters or blocks, belonging to one or both sides.)

No block may move through a barricade block or counter.

Moving a block into a location within a radius of 1 EP from the barricade costs 2 MPs per location. There is no additional effect if the location is Adjacent to several barricades.

Only an Engineer block may remove a barricade (using explosives); in doing so it generates Weapon Effects (see 8.2.4).

A barricade counter or block does not obstruct LoS and has no effect on Weapon Effects or Command Ranges.



5.2.2.6 Anti-tank mines (AT mines)

The only mines represented in the game are AT mines, which each side may lay according to the scenario instructions.

5.2.2.6.1 Placing an AT mine

AT mine counters are laid at the start of the game, or during a turn (as an Engineer block action, see 8.2.4). Alternatively the player may simply note the number of the hex where the mine was laid on a sheet of paper.

An Engineer block may also attempt to destroy an AT mine (see 8.2.4).

5.2.2.6.2 Triggering an AT mine

An AT mine cannot be triggered by foot blocks; it is triggered by any vehicle moving through the hex in which the mine was laid. The player who laid the mine announces that the enemy block has triggered it as soon as the block enters the mine's location. The vehicle's owning player rolls 1d10:

- On a result of 0-7 the vehicle block is destroyed. Place a Wreck marker on the mine's location (oriented downwind). It remains in play until the end of the game. The mine counter is then removed from the map, or the hex reference is removed from the owning player's notes. The Weapon Effects rules for the AT mine are applied at the moment the mine explodes.
- On a result of 8-9 the mine does not explode. It is removed from the game and the player can resume his activation.



If a player neglects to reveal a mine when an enemy vehicle moves through the hex in which it was placed, the mine (counter or hex reference) is removed from the game.

Gentlemen's agreement: During scenarios where AT mines are in play, and if their opponent has AT mines, players can announce "vehicle block" before moving a vehicle block.

5.2.2.6.3 Scouting an AT mine

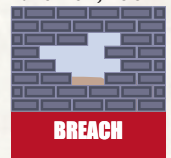
Only Scout and Engineer blocks are able to detect mines. To do so, the player reveals his Engineer/Scout block and declares that he is Scouting. The Scouting block's movement is limited to 3 MPs. The enemy must reveal any AT mines laid within a radius of 2 EPs of the hexes moved through by the block, providing there is a clear LoS to the AT mine location(s). When a mine is Scouted it is revealed by placing an AT mine counter on the mine's location, but the mine does not explode.

5.2.3 Environment counters and markers

The number of environment counters for each side is detailed on its Scenario Card.

5.2.3.1 Breach markers

A breach can only be opened on locations marked by orange Arc of Fire arrows. The Breach marker is placed in the hex, room or zone into which the breach opens, allowing players to use the newly created Arc of Fire. It remains in place until the end of the game.



Foot units may move through any breach, but vehicles may only move through breaches opened in outer walls.

Creating a breach (in situ or remotely) counts as an action (8.2.5).

5.2.3.2 Fortified marker

The Fortified markers are set up at game start as indicated on the Scenario Card (number and location).

They may be placed in any terrain type (hex, room, zone, roof, underground). They give a +1 FP modifier during combat resolution, effective in all directions (when fighting from room to room, only the block located in a Fortified room or zone benefits from the FP modifier).



In addition, they offer protection against Weapon Effects:

- If the block is located in the Axis of Fire or in the AoE of a weapon, the player rolls 1d10. On a result of 0-7 any losses due to Weapon Effects do not apply.
- In case of 3D Fire (3D actions, see 7.3), a block located in a Fortified zone loses 1 less OSL than the stated result.

Fortified markers are never removed from the game. Their protection effect is still valid after direct and indirect hits or Breaching. Fortified markers are level 1 obstacles to LoS except when located on a roof, in which case they are considered level 3 obstacles.

The effects of Fortified markers only apply to their location and not to a complete building, unless specifically stated except when located on a roof, in which case they are considered level 3 obstacles.



5.2.3.3 Smoke, Toxic Clouds and Wrecks

For simplicity, all 3-hex markers (Smoke, Toxic Clouds and Wrecks) are referred to as 'cloud' in this paragraph.

The cloud marker is placed with its 'head' in the targeted location and the 'tail' extending downwind (see 5.2.3.3.1).

If the cloud marker area affects a building and covers part of a room, or part of one of the zones of the room, then the whole room is affected by the cloud. Roofs are affected by clouds in exactly the same way as rooms or zones; if the marker touches any part of the roof then any block on the roof is in the cloud.

Clouds do not expand into Underground Access points or underground sewer entrances.

5.2.3.3.1 Wind direction

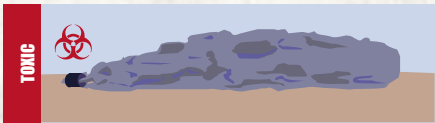
The wind direction is always specified in the scenario presentation and on the Scenario Cards. It is referred to when placing Smoke, Toxic Cloud and Wreck markers.

5.2.3.3.2 Smoke markers

Smoke may be fired at a location:

- From a vehicle (armored or MBT) during a Fire action (see 8.2.7.8.2).
- As part of a 3D action, to be resolved during the Initial Phase of the turn.

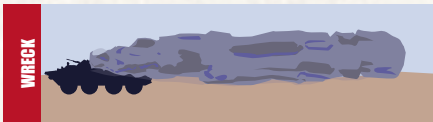
The Smoke marker is removed at the end of the turn. It is a LoS obstacle extending to all height levels from -1 to +3.



5.2.3.3.3 Toxic Cloud markers

The Toxic Cloud marker replaces a toxic waste counter (5.2.2.2) as soon as the toxic waste counter is revealed. The marker represents a permanent Toxic Cloud. Any block located 'in' the cloud when the marker is placed on the map loses 1 OSL. Any block that moves into or through the cloud loses 1 OSL for each location entered. If a civilian population counter passes through the Toxic Cloud, it suffers no damage.

The Toxic Cloud marker remains in place until the end of the game. It is not an obstacle to LoS.



5.2.3.3.4 Wreck markers

When a vehicle block is eliminated, the block is removed from the map and replaced with a Wreck marker.

The Wreck marker remains in place until the end of the game. It is a LoS obstacle extending to all height levels from -1 to +3.

During the Initial Phase of the turn, munitions in a wreck may explode, like an IED/UXO, as per the rules in 5.2.2.1. Unlike an IED/UXO, the Wreck remains in place after an explosion and may explode again during the Initial Phase of the following turns.



6. Events

Some scenarios include Events, which can help or hinder the sides and have an effect on the flow of the game. Events are introduced either via the Events Table printed in the campaign booklet, or by Event Cards. Instructions relating to the management of the Events in any given scenario are supplied on

each side's Scenario Card:



Depending on the scenario, there are four possible options:

- The scenario does not use any Events.
- Events are managed by Event Cards.
- Events are managed by an Events Table.
- Events are managed by both Event Cards and an Events Table.

6.1 Setup

If the scenario refers to the use of Event Cards, each player selects the cards which will be used by his side and shuffles them:

- Cards must be those of the correct **campaign** (refer to the back of the card)
- Cards must be those of the correct **scenario** (see the front of the card: the scenario's name or number is written in white in the inset at the bottom right of the card)

The Scenario Card specifies the following:

- Which Event Cards are to be played during the game. They are shuffled and placed face down to form a deck.
- Which Event Cards are in the player's hand at the beginning of the game.

If the scenario refers to the use of an Events Table, this table is displayed in the campaign booklet.

The back shows the campaign



The front shows if the card is used in the scenario; this card is for use in scenarios 1, 2, 3 & 6

6.2 Determining Events

The side which held the initiative last turn determines its Events first.

6.2.1 Events Tables

During the Events sequence, each player rolls 1d10 and consults the Events table. Events on the table must be put into effect during the current turn. However, if the table mentions the drawing of an Event Card, it may be that the card can be kept in hand for later use. No effect lasts more than one turn, unless otherwise specified.

6.2.2 Event Cards

During the Events sequence, each player draws one card from his deck and places it in his hand.

Each Event Card gives all the details of the rules to be applied (if the Event Card text contradicts the rulebook, apply the rule(s) stipulated on the card) and specifies when the Event may be put into effect. The color of the title also determines whether the Event must be played immediately or if the player may keep the card in his hand for later use:

- **Red** title: the Event must be implemented immediately.
- **Black** title: the card may be used immediately or kept for later use.

Any number of Events can be played during the same turn. If both sides want to play an Event at the same time, the player who has the initiative plays first.

Unless otherwise stipulated, once a card has been used it is removed from the game.

7. Commanding Units

7.1 Chain of Command

The Command Post co-ordinates with the Coy Comd, the Coy Comd commands the Plt Comds, and the Plt Comds command the units.

The Coy Comd and the Plt Comds each have a Command Range of 6 EPs.

The Command Post is in Range of the Coy Comd if it is within 6 EPs of the Coy Comd.

Command Range is not affected by underground entrances. See the Terrain Effects player aid for calculating the Command Range in EPs.

7.1.1 Effect on activations

The status of the Chain of Command affects the number of units that can be activated. See 7.2.1 Activating an Impulse Force.

When the Coy Comd is within Command Range (6 EPs) of the Plt Comd AND of the CP, the player may activate up to 7 of that Impulse Force's blocks.

If the Plt Comd is off map, the player may only activate up to 3 of the Impulse Force's blocks (whether the units are within Command Range of the Coy Comd or not).

7.2 Activations

7.2.1 Activating an Impulse Force

The number of Impulse Forces available to each side each turn is detailed on the Scenario Card. This number is equal to the number of Plt Comds displayed on the side's Scenario Card at game start.

Unless otherwise instructed, a player activates his Impulse Forces in any order he wishes.

During each Impulse, it is possible to activate any block belonging to an Impulse Force, within the following limitations:

- Up to 5 blocks if the Plt Comd is on the map, but is not within 6 EPs of the Coy Comd. This is the most common level of activation seen in the game
- Up to 3 blocks if the Plt Comd is off map (for instance, previously eliminated)
- Up to 7 blocks if the Plt Comd is in Command Range (see 7.1) of the Coy Comd when the Impulse starts AND the Command Post block (CP) is deployed on the map within 6 EPs of the Coy Comd

In the particular case of a platoon entering play after the start of the game, all the blocks of its Impulse Force are activated for this turn. All of the blocks must be placed on the map, starting on the entry hex specified on the Scenario Card.

7.2.2 Activating a block

During his Impulse a player activates his blocks in succession. The movement of a block may be interrupted by an enemy block performing Opportunity Fire.

During its activation, a foot block may:

- Perform an action then move up to 3 MPs
- Move up to 3 MPs then perform an action
- Move up to 6 MPs if it performs no action
- Move up to 9 MPs if the whole of its movement is out of the enemy's LoS (Enhanced movement - see 8.1.14)

During its activation, a vehicle block may:

- Perform an action then move up to 6 MPs
- Move up to 6 MPs then perform an action
- Move up to 12 MPs if it performs no action
- Move up to 18 MPs if the whole of its movement is out of enemy LoS (Enhanced movement - see 8.1.14)
- Armored vehicles and tanks only: Move & Fire : Armored vehicles and MBTs may move, fire, then move again, spending up to 6 MPs in total (see 8.1.15)

A block's activation cannot be interrupted to activate another block. Once a block's activation has ended, it may not be activated again that turn. Place an Activated marker on the block to serve as a reminder of the block's status.

7.3 Third Dimension Actions

7.3.1 Available 3D actions

3D actions can be of different types:

- Helicopter reconnaissance missions
- Drone reconnaissance missions
- Close Air Support
- Close Combat Attack (by helicopter)
- Mortar or Artillery fire
- Mortar or Artillery Smoke missions (not to be confused with Firing Smoke performed by some armored vehicles during Impulses)
- Mortar or Artillery flares

The 3D actions that are available to players during a scenario are detailed in the 3D actions matrix on each side's Scenario Card.

3D support	#	U	T+1	T
AH-1 Cobra	2/1	0-4	5-9	-
A-10 Thund.	2/1	0-4	5-9	-
Mo 120mm	1/1	0	1-7	8-9
M109 155mm	2/1	0-2	3-8	9
OH-58 Kiowa	1/1	0-2	3-8	9
Smoke	2/2	0	1-7	8-9
Air defense				
M163 Vulcan	1/1	0-2	-	3-9

- *3D Support/Air Defense: name of the available support asset, referring to the related Support Card*
- *#: number of missions available for the scenario/number of support requests that can be made each turn (A d10 roll is checked across the next three columns to see if/when support is available.)*
- *U: Support unavailable this turn*
- *T+1: 3D action takes place during next turn's 3D Actions Resolution sequence*
- *T: immediate 3D action*

7.3.2 Who can request a 3D action?

Only Plt Comds and Joint Fire Observers (JFO) can request 3D actions. The target must be within observation range of the requesting block:

- JFO: the targeted position must be no farther than 20 EPs away when support is requested
- Plt Comd: the targeted position must be no farther than 15 EPs away when support is requested

Plt Comds can only request Mortar, Artillery, Smoke, or Flare missions, but JFOs can request any kind of 3D action.

It is not necessary to have a clear LoS between the requesting block and the target.

7.3.3 Procedure for 3D actions

A player can only request a 3D action if the action requested is listed in the 3D actions matrix on his side's Scenario Card. The number of actions available for the scenario cannot be exceeded (track using the sheets available on the Nuts! Publishing website). All the details of the requested action and its effects on the ground are shown on the relevant 3D Support Card.



A Plt Comd or a JFO can only request one action at a time. If the player wants to request several 3D actions during the same turn, he must task a different Plt Comd or JFO with each 3D action.

JFO and Plt Comds can be inside a vehicle when they request or adjust 3D actions.

Unless otherwise stipulated 3D actions are requested during the 3D Actions Request sequence of the Initial Phase. If the request is successful the 3D action either occurs during the next turn's 3D Actions Resolution sequence or (more rarely) takes effect immediately. (see 7.3.3.1).

All units performing 3D actions are off-map; they are only represented by their Support Cards.

7.3.3.1 3D action request

During the 3D Actions Request sequence, the player notes down on a sheet of paper the location to be targeted by the 3D action, as well as the type of the desired support. When a building is targeted, specify a particular room or zone. Targeting any location inside a building targets its roof as well. No underground location can be targeted by 3D assets.

The player then rolls 1d10 and checks the result on the 3D actions matrix of his side's Scenario Card (referring to the line related to the requested support). Three different results may occur:

- U: 3D support is unavailable this turn (perhaps radio contact is impossible or the support assets are already tasked to another area). No 3D action occurs, and the action is not deducted from the number of missions available for the scenario (first number in the # column).
- T+1: the 3D action will take place in next turn's 3D Actions Resolution sequence. It is deducted from the number of missions available for the scenario (first number in the # column).
- T: the 3D action is implemented immediately. It is deducted from the number of missions available for the scenario (first number in the # column).

7.3.3.2 Adjusting a requested 3D action

During the 3D Actions Resolution sequence, it is possible in some circumstances to cancel or adjust a 3D action planned in the previous turn as long as the target is still within the observation range of the same Plt Comd or JFO who tasked the strike.

Rules for ground-to-ground 3D actions (mortars, artillery, smoke and flares):

- Cancelling the action is possible if the LoS is clear between the Plt Comd or JFO and the targeted position
- Cancelling the action is impossible if there is no LoS between the Plt Comd or JFO and the targeted position
- Adjusting the targeted location is impossible in either case

Rules for air-to-surface 3D actions (Close Air Support, helicopters, and drones):

- Canceling the action is always possible, even if there is no LoS between the JFO and the targeted position
- If the LoS between the JFO and the planned target is clear, the target for the 3D action may be adjusted by up to 10 EPs from the original location (even if there is no LoS to the adjusted position)

Note: A cancelled mission is not deducted from the number of missions available for the scenario.

If the targeted position is inside a building, a clear LoS is said to exist as long as the observer has a LoS to the building's facade. The observer does not have to see inside the building.

7.3.3.3 Resolution of 3D actions

After any potential adjustment, the player refers to the Support Card and immediately applies the Weapon Effects to enemy and friendly blocks, and to any civilian population counters.



The specific box on the Support Card specifies the 3D action's effects:

- *Area of Effect radius (left hand column, in red):*
Targeted location/1 EP radius/2 EPs radius/...
- *Type of selected target:*
 - Foot unit, unarmored vehicles AND civilian population
 - Foot unit, armored/unarmored vehicles (not MBTs) AND civilian population counters
 - △ Any kind of block AND civilian population counters
- *Affected sides:*
 - ■ ▲ : both sides AND civilian population
 - ■ ▲ : friendly side AND civilian population

Special case for roofs: when a building is targeted by a 3D action, a block located on the roof of a building suffers the same damage as if it were in the targeted room or area. If the targeted position is not within the building, no Weapon Effects are applied to the roof.

7.3.3.4 Smoke and flares

Smoke and flares can be delivered by artillery or mortar fire.

Smoke: place a Smoke marker downwind on the targeted location. A friendly or enemy block in the targeted location loses 1 OSL; a civilian population counter is eliminated.

Flares: Flares illuminate the entire playing area, and the turn is thereafter considered a day turn. Flares do not exert Weapon Effects and no marker is placed on the map.

7.3.3.5 Air defense

When a player announces a 3D air-to-ground action on a position (planes or helicopters only; not drones), his opponent may attempt an immediate interception if an air defense asset is available on his 3D actions matrix.

The result of a 1d10 roll is interpreted as follows on the 3D actions matrix:

- **U:** air defense assets are unavailable; the enemy 3D action takes place. No air defense action is deducted from the number of missions available for the scenario (first number in # column)
- **T:** the enemy plane or helicopter is intercepted; the 3D action is canceled. Both the friendly and the enemy 3D actions are deducted from the number of missions available for the scenario (first number in # column).

7.3.4 Scouting using 3D actions

A 3D Scouting action is allowed anywhere except for woods, underground, and inside buildings. Roofs can be Scouted.

The 3D Scouting procedure is the same as that for any other 3D action. The Scouting rules are the same as the Scouting rules for vehicle or foot blocks (see 8.2.6).

It is not necessary to specify a location when this 3D action is requested: this can be done when the action is performed. A JFO can scout 2 eligible locations, not necessarily Adjacent, that are within EP range (Reminder: 20 EPs).

8. Activating a block

During a game turn, each activated block may move and/or perform an action. Once a block has done so, an Activated marker is placed on it.

It is mandatory to end the activation of one block before starting the activation of another block. Once a block has been activated, it cannot be activated again during this turn. But as long as it is not Completed (see 4.3.3), it may still perform a reaction.

8.1 Movement

The movement of blocks and counters is calculated in Movement Points (MPs). The number of MPs spent by a block or a counter depends on the terrain crossed (see the Terrain Effects player aid and the illustrated examples p. 22).

The maximum movement allowances per turn are detailed in 7.2.2.

Entering the map (entering the game): a block entering the map begins its move when it enters the first hex on the map (and can then be targeted by Opportunity Fire).

8.1.1 Moving through a block

Two blocks cannot be in the same location at the end of an Impulse. However, a block may pass through a hex containing a friendly block during its movement at no extra cost in MPs. (See also 8.1.6 and 8.1.7.)

8.1.2 Moving from one hex to another

A block may move from one hex to another as long as there is no impassable obstacle (for example: an outer wall) blocking the WHOLE shared hex side. Vehicle units are more restricted than Foot units in the hexes they can move between (see below).

8.1.3 Moving inside a building

Only foot blocks may move inside buildings. Crossing a partition to enter a room costs 2 MPs. Changing zone within the same room costs 1 MP (see 5.1.2 and 5.1.3).

8.1.4 Crossing an aperture

The red Arcs of Fire shown on doors and windows also indicate the directions from which those apertures may be crossed. A block in a hex Adjacent to an aperture must be located in its Arc of Fire to be able to move through it.

A foot block may move through an aperture by moving through its Arc of Fire for a cost of 2 MPs.

Vehicle blocks cannot enter buildings, except the warehouses of map B (buildings 53, 54, 55 and 56).

8.1.5 Crossing a breach

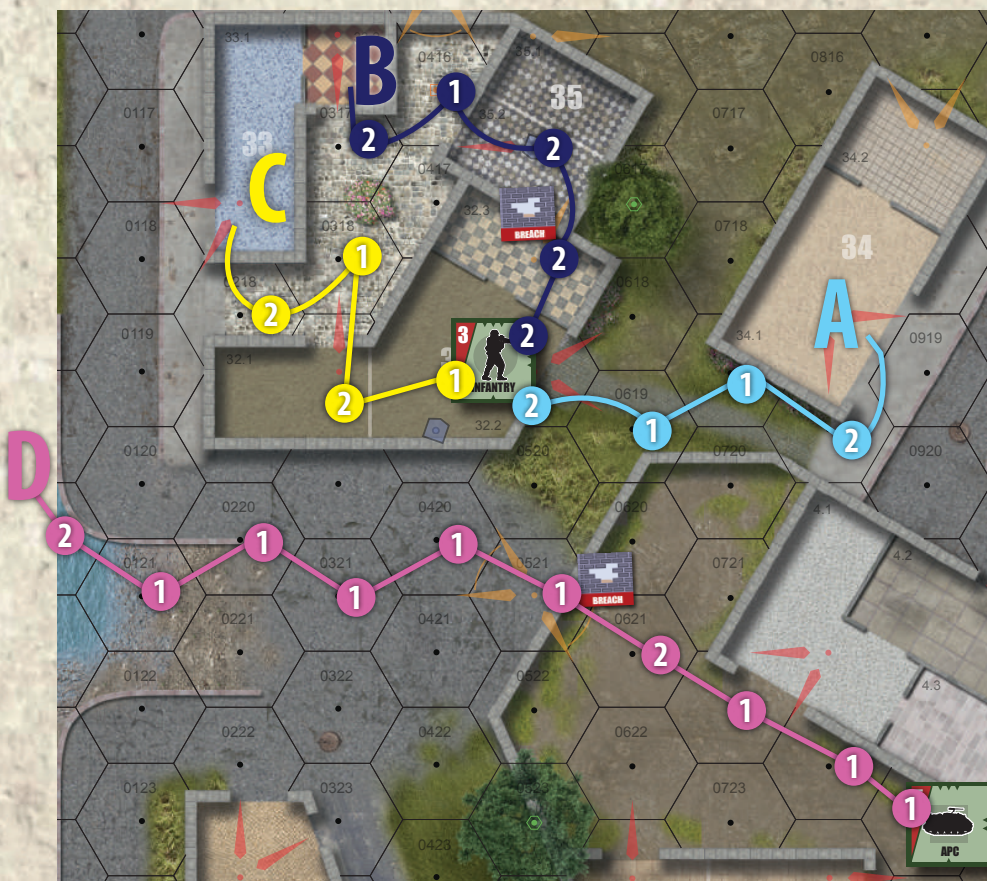
The orange Arcs of Fire marking breaches also indicate the directions from which those breaches may be crossed. A breach may only be crossed if a Breach marker has been placed on the location to show that the breach has been opened. (see 8.2.5). A block in a hex Adjacent to a breach must be located in its arc of fire in order to move through it.

Crossing a breach costs 2 MPs. All blocks may move through breaches in outer walls. Only foot blocks may move through breaches in facades.

8.1.6 Climbing over an outer wall

A foot block without a ladder may cross an outer wall for a cost of 5 MPs.

Movement Points (MPs)



PRINCIPLE

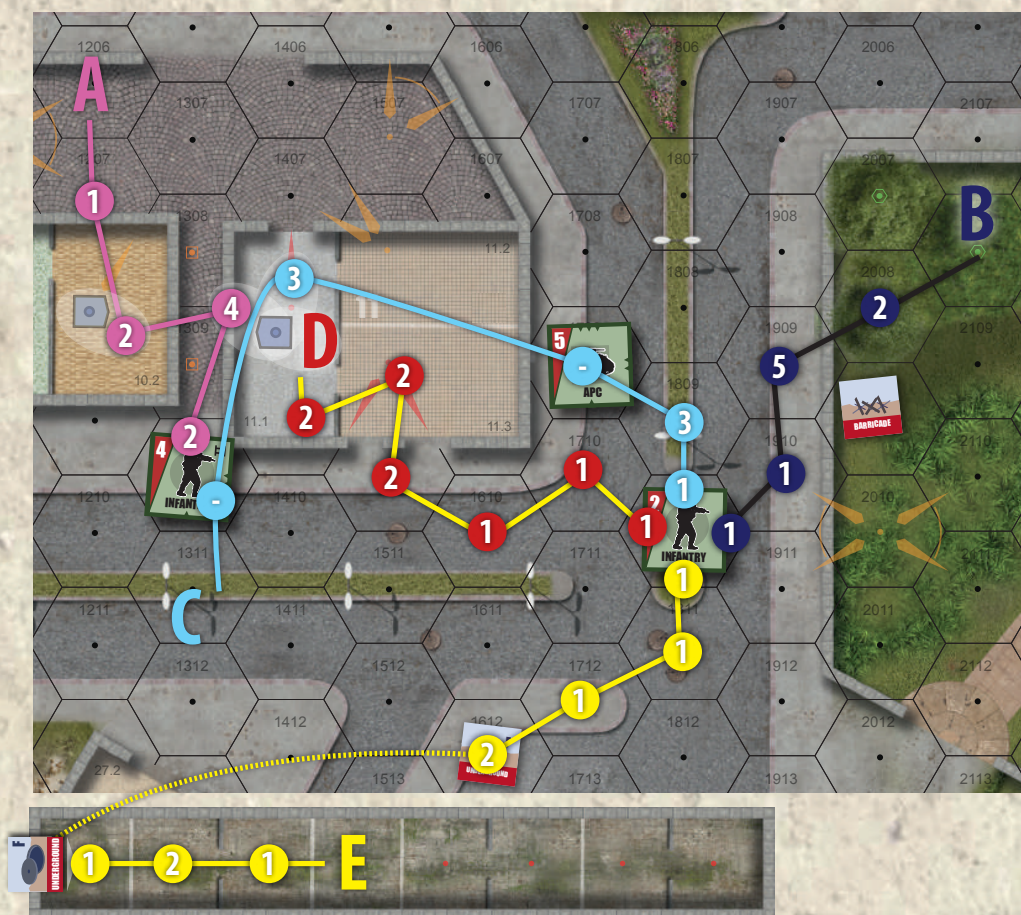
MP costs are not cumulative.

EXPLANATION

To enter a hex/zone costs 1 MP; if a wall/partition or an aperture/breach is crossed, the cost of crossing the obstacle is counted and not the cost to enter the hex/zone.

When moving from:

- A. Each crossing of an aperture costs the block 2 MPs.
- B. The block crosses two apertures, then a breach, before passing through a partition. (2 MPs for each crossing). It is allowed to use 9 MPs since it remains out of LoS of any enemy block.
- C. The block expends 2 MPs to move through each aperture. It has to follow the rules for Arcs of Fire when entering 32.1 (see 8.1.4).
- D. The block enters the map through the $\frac{1}{2}$ hex of water (water hexes : 2 MPs), and then crosses a breach in an outer wall (2 MPs).



When moving from:

- A. INFANTRY block 4 (with ladder) climbs onto the roof of 10.2 using its ladder (2 MPs), then moves from one roof to the other (4 MPs) and climbs down off the roof, again using its ladder (2 MPs).
- B. INFANTRY block 2 expends 2 MPs to move through a hex adjacent to a barricade. The barricade no longer has any effect once the block has crossed the wall (without use of a ladder) (5 MPs). The hindrance caused to movement by a barricade only applies in a radius of 1 EP around the barricade.
- C. INFANTRY block 2 climbs over block 4 onto the roof of 11.1 for a total of 3 MPs (8.1.7 + Terrain Effects table). It then climbs down off the roof, over the vehicle, for a total of 3 MPs.
- D. INFANTRY block 2 comes down the stairs from the roof of 11.1 (2 MPs) then crosses a partition (2 MPs) and an aperture (2 MPs).
- E. INFANTRY block 2 crosses the zone boundaries and partition of the underground as if it were in a building, then moves from the Underground map onto the Underground Access marker on the main map at a cost of 2 MPs (8.1.10).

A foot block with a ladder may cross an outer wall for a cost of 2 MPs.

A foot block without a ladder may cross an outer wall by moving over a vehicle block (any kind of vehicle), or a block with a ladder, that is located in a hex Adjacent to the outer wall. The block spends a total of 3 MPs to move over the vehicle or the ladder and cross the outer wall (see the Terrain Effects player aid).

8.1.7 Climbing onto a roof using a ladder or a vehicle

A foot block without a ladder cannot climb onto a roof from the outside of a building without assistance (see below). (See 5.1.8 for roof access eligibility.)

A foot block with a ladder may climb on to a roof from the outside of a building or climb down from the roof to any terrain for a cost of 2 MPs.

A foot block without a ladder may climb on to, or come down from a roof by moving over a block which has a ladder, or a vehicle block (truck, APC or MBT only), located in a hex Adjacent to the building. To do so, the block pays a total of 3 MPs (see the Terrain Effects player aid).

8.1.8 Climbing on to a roof from the inside of a building

Any foot block in a building that has a Roof Access symbol may climb on to its roof. When the block is in the room or zone with a Roof Access symbol, it spends 2 MPs to climb on to the roof. Use the same procedure to come down from a roof (see 5.1.8).

8.1.9 Moving from roof to roof

Once on a roof, a foot block may move over to the roof of a contiguous building if the apexes of the Roof Access symbols of the two buildings point to each other. This move costs 4 MPs.

8.1.10 Movement underground

The presence or otherwise of underground terrain, as well as a side's knowledge of maps or access points, are detailed in the scenario instructions.

Access to the underground is made via an Underground Access marker. Each marker has a different letter, linking the location where the marker is placed on the map with the underground zone. Thus, Underground Access marker 'A' allows access to zone 'A' of the underground map.

It is possible that only one side has the underground map, in which case the Underground Access marker may be placed face-down (letter concealed). It is turned face-up only when an enemy block enters the underground using this access point. If a block wants to exit the underground without knowing the location of the exit point on the surface map, then the player owning the underground map has to indicate the exit location back to the surface map once the decision to move has been made.

The scenario instructions may also specify that some Underground Access markers are dummies (they do not lead to any zone on the underground map and are simply intended to mislead the enemy).

Moving from the location containing an Underground Access marker to the underground map zone costs 2 MPs. Performing the move in reverse also costs 2 MPs.

8.1.11 Moving inside sewers

All blocks may move inside an open sewer, but only foot blocks may move inside underground sewers.

Movement inside underground sewers is performed exactly as surface movement (the sewer map also uses hexes).

8.1.12 Contact with a block

Two blocks are in Contact and immediately revealed if, during their movement, they are:

- Either within 3 EPs range and with a clear LoS to each other
- Or in the same room as each other (in different zones)
- Or Adjacent to each other

After a Contact, a block may resume its movement.

8.1.13 Block Adjacent to a No Man's Land counter

When a player's block moves Adjacent to a No Man's Land counter, the counter is immediately revealed. If there is an outcome (for instance the counter is civilian population or an IED/UXO), then see 5.2.2 for details.

After the counter has been revealed and any incident linked to the counter resolved, the block may resume its movement.

8.1.14 Enhanced movement

A block may move faster if it remains out of LoS of all enemy blocks for its ENTIRE movement (including its start location). An enhanced move for a foot unit is up to 9 MPs and for a vehicle is up to 18 MPs. Enhanced movement is not possible underground, in underground sewers or at night.

8.1.15 Fire & Move

During Fire & Move, MBTs and armored vehicles may move, fire, then move again, up to a maximum of 6 MPs.

8.2 Performing an action

In addition to its movement, a foot or vehicle block may be able to perform an action (Exception: No Man's Land blocks). This action may take place before, after or (in the case of Fire & Move) during movement. The various actions a block may perform are:

- Assault (8.2.8)
- Breaching (8.2.5)
- Demolishing (8.2.4)
- Dispersing civilian population (8.2.9)
- Fire/Covering Fire (declare the weapon being used if the block has two or more armaments) (8.2.7 and 8.2.7.3.1)
- Firing Smoke (8.2.7.8.2)
- Mounting/Dismounting (8.2.3)
- Placing (8.2.4)
- Scouting (8.2.6)
- Support (8.2.2)

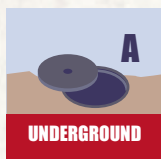
Returning Fire is never counted as an action or a reaction. Firing, Assault, Firing Smoke, Breaching and Demolishing generate [Weapon Effects](#). Depending on the action, players may have to declare the kind of action and reveal some blocks. Paragraphs 8.2.2 to 8.2.9 detail the procedures.

8.2.1 Weapon Effects

Light or heavy weapons and explosions (3D actions, IED/UXO, Breaching etc.) generate Weapon Effects that could affect any of the blocks and counters on the map. This can obviously include enemy blocks (intended effect), but also friendly blocks (friendly fire), or the civilian population (collateral damage).

8.2.1.1 Blocks and counters affected

Design note: although gunfire and explosions on the battlefield are indiscriminate, in game terms and for instructional purposes, their effects are differentiated according to the side involved (friendly, enemy, and civilian population).



Weapon Effects

Area of effect

The effect of every armament is described with the symbols on the Unit or Support Card.



Axis of Fire

This symbol means Weapon Effects apply up to 5 EPs beyond the maximum range of the weapon.



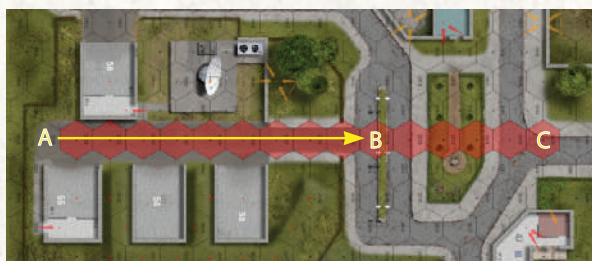
Radius

This symbol means Weapon Effects apply within a range around the shooter (blast effect) and/or the target (explosion). The radius of the Weapon Effects is 1 EP per bar above the red arrow.

Light weapons

This **light weapon** (AK 47) generates Weapon Effects up to 15 EPs along the Axis of Fire:

- whatever the range to the target is (even point-blank Assault).
- even though the weapon has a range limited to 10 EPs



A fires on B, which is at maximum range (10 EPs).
The Weapon Effects are effective up to C, 5 EPs beyond A's maximum range.

Heavy weapons

This 105mm gun generates Weapon Effects:

- up to 25 EPs along the Axis of Fire.
- up to 1 EP radius around the firer.
- up to 2 EPs radius around the target



A fires on B, generating Weapon Effects within a 1 EP radius effect around A and a radius of 2 EPs around B. The Weapon Effects along the Axis of Fire will be effective up to a range of 25 EPs (i.e., 14 EPs beyond the target, B).

3D actions

The 3D strike of this HOT Gazelle generates Weapon Effects effective within a 2 EPs radius around the target.



SA 342M Gazelle HOT

Hex -2 OSL ● Eliminated ■ ▲
1 EP -2 OSL ● ■ ▲
2 EPs -1 OSL ●

IMPACT

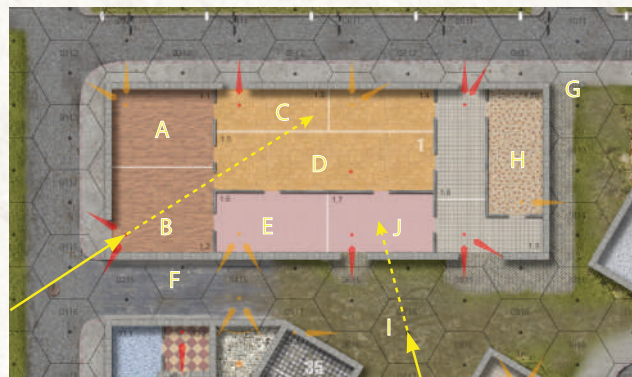
IMPACT of the Weapon Effects: see the Weapon Effects matrix on the Combat & Weapon Effects player aid.

	Around the Firing Block	Along the Axis of Fire	Target location	Around the Target Location
Light weapons		-1 CGL -1 CGL	Destroyed by the combat result	
Heavy weapons	-1 CGL No effect	-1 CGL -1 CGL	Destroyed by the combat result	-2 CGL -1 CGL
3D actions			See Support card	See Support card
Breaching, Demolition actions			-1 CGL within 2 CGL range	-1 CGL within 2 CGL range
IED/BOV, AT mine and Wreck			-1 CGL within 2 CGL range	-1 CGL within 2 CGL range



A fires on B with a light weapon:

- The Weapon Effects are only effective 2 EPs beyond the wall (see 8.2.1.4), but this is enough to eliminate the civilian population counter (1).
- If C is friendly to A or is a civilian population counter, it suffers the Weapon Effects. If it is enemy, no Weapon Effects are applied.
- If B does not withdraw and instead Returns Fire on A, then the civilian population counter (2) is affected by the Weapon Effects and is eliminated.



- B is the target of light weapons fire and the Weapon Effects are applied up to 2 EPs beyond the partition – C and D are therefore in the weapon's Area of Effect.
- If B is the target of a heavy weapons strike (explosion radius = 2 EPs), then A, D, E and F are affected by the Weapon Effects due to the explosion. C is also in the weapon's Area of Effect because it is in the Axis of Fire.
- G is the target of a 3D action (explosion radius = 2 EPs), therefore all blocks in the explosion radius - for instance H, which is 2 EPs from G - are also affected by the Weapon Effects.
- I is the target of light weapons fire. J suffers Weapon Effects, but not D.

To determine which blocks or markers are affected (i.e. revealed, or possibly damaged) by Weapon Effects, there are 5 specific cases detailed below. Reference to the Combat and Weapon Effects player aid allows all of these situations to be dealt with:

- Weapon Effects, whatever the source, always affect No Man's Land counters.
- A block performing any voluntary action of Fire, Assault, Breaching, or Demolition generates Weapon Effects. This affects all blocks of its own side within the Weapon Effects zone, excluding the block performing the action.
- A block performing an involuntary action (triggering an IED/UXO or AT mine) generates Weapon Effects. This impacts all blocks of its own side within the Weapon Effects zone, including the block performing the action.
- Weapon Effects caused by Fire or Assault against an enemy block impact only the enemy target block, never any other enemy blocks.
- Weapon Effects triggered during the initial phase (IED/UXO or Wreck explosion) may cause losses to all blocks and civilian population counters.

Special case regarding 3D actions with AoE: the Weapon Effects apply to all friendly and No Man's Land counters within their Area of Effect AND within a more confined Area of Effect to all enemy blocks (see Support Cards).

8.2.1.2 Area of Effect

The Area of Effect is given on the Unit Cards or Support Cards. The symbols on the card are explained in the illustrated examples of the cards on p. 39. Two situations may occur:

- *Weapon Effects in the Axis of Fire caused by light and heavy weapons:* these affect all friendly blocks and No Man's Land counters in the LoS between the firer and its target, from the firer's position up to 5 EPs beyond the maximum range of the weapon.
- *Weapon Effects radius caused by heavy weapons and all types of explosions (IED/UXO, 3D actions, Breaching, AT mines etc.):* these affect all friendly blocks and No Man's Land counters within a radius around the firer (blast effect) and/or the target (explosion).

8.2.1.3 Impact

The result of Weapon Effects is described in the relevant chart on the Combat and Weapon Effects player aid.

The result of Weapon Effects on friendly blocks varies according to the block type (foot/unarmored unit, armored, MBT) and the weapon type used (light, heavy, 3D action). Important: the OSL status of an armored or MBT block may never go below Operational as a result of the Weapon Effects of a friendly heavy weapon along the Axis of Fire.

All blocks impacted by friendly Weapon Effects and suffering an OSL loss are marked Activated (see 8.2.7.7).

Weapon Effects on a civilian population counter always lead to its elimination.

If a facedown No Man's Land counter is impacted by Weapon Effects, immediately flip the marker faceup:

- A civilian population counter is eliminated
- A toxic waste counter is replaced by a Toxic Cloud marker (see 5.2.2.2 and 5.2.3.3.3)
- Any other counter remains on its revealed face

8.2.1.4 Terrain-based modifications

Weapon Effects may be diminished because of the presence of many kinds of obstacles, detailed in the Blocks, Counters and Markers and the Terrain Effects player aids.

Examples of obstacles to Weapon Effects: outer walls, partitions, woods, defensive terrain, Fortified or vehicles counters:

- *In the Axis of Fire:* Weapon Effects apply up to 2 EPs beyond the obstacle.
- *Within the Weapon Effects radius:* Weapon Effects are lowered for each obstacle encountered (see the number of EPs on the Terrain Effects player aid and the illustrated examples of Effect Points, p. 8).

Underground network: The Weapon Effects of light weapons around the firer are more powerful than on open ground, because of the deafening reverberation caused by fire and detonations in an enclosed space. The Weapon Effects spread along the Axis of Fire as usual, but also generate an AoE within a 2 EPs range around the firer.

Levels: When the Firing block and its target are not at the same level, Weapon Effects only impact along the LoS anywhere it would be possible to target (therefore there is no effect on blind hexes and where plateau effect applies).

Weapon Effects do not extend through Underground Access points or through underground sewer entrances.

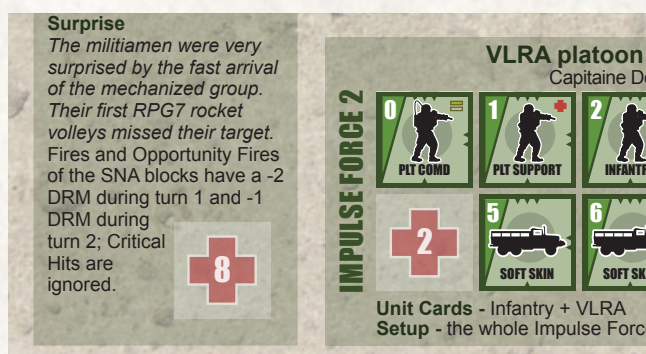
8.2.2 Combat Service Support

[No declaration of the action required. No blocks revealed.]

The creation of a supply chain allows every block to recover OSL losses caused by combat. Combat Service Support is provided by Plt Support blocks for each Impulse Force, and the Logistics block which acts for the whole company.

Unless specified otherwise in the scenario instructions, at game start:

- All blocks are fully operational.
- Each Impulse Force has 2 Support Points that are attached to the Plt Support block. The points are represented by putting a Support marker on the box marked with a red cross located in the bottom left space of each Impulse Force display.
- Each side also has a number of Support Points in reserve (as detailed in the scenario instructions).
- These Support Points are attached to the Logistics block (see below) and the markers are placed in the box with a red cross in the bottom left of the Scenario Card.



In order to recover 1 level of OSL, a block must be in a location Adjacent to the Plt Support or Logistics block. To perform the Support action, the Plt Support/Logistics block transfers 1 Support Point from its own resources to the foot/vehicle block being supported.

A Support action is an action that involves both the block being supported AND the supporting block. Each block is activated immediately, one after the other, and carries out its action (supporting or being supported) immediately after the other block's action. For example:

- The block requiring support moves to a location Adjacent to the Plt Support/Logistics block. Reminder: maximum of 3 MPs (foot) or 6 MPs (vehicle) (see 7.2.2). The Support action is completed, and the supported block is now Activated. The Plt Support/Logistics block may then move to complete its own activation if desired.
- The Plt Support/Logistics block moves to a location

Adjacent to the block requiring support. The Support action is completed, and the Plt Support/Logistics block is now Activated. The supported block may then move to complete its own activation if desired.

- The block requiring support is in a location Adjacent to the Plt Support/Logistics block. The Support action is completed. One of the blocks (owning player's choice) is now Activated and the other block, if desired, may then move before completing its own activation.

As an example, it would be illegal to move a Plt Support block, then move a foot block, and finally perform a Support action (the Plt Support block's activation was terminated as soon as the foot block moved).

A Plt Support block can recover 1 level of OSL by expending one of its own support points.

For each Support action, adjust the Support Points marker of the block performing the Support action. On the Scenario Card, flip a '2' Support Points marker onto its '1' face, or remove a '1' Support Points marker. A Plt Support or Logistics block that has no remaining Support Points markers in its support box on the Scenario Card cannot perform a Support action.

A Plt Support block that has no remaining Support Point markers may move Adjacent to the Logistics block to resupply with 1 Support Point. Like the Support action, this counts as an action for both the Plt Support block AND the Logistics block. The Plt Support block can never have more than 2 Support Points. For this particular instance, the Logistics block may be activated separately from its own Impulse Force but can not already have been activated. During this Support Marker Recovery action use the Scenario Card to transfer the appropriate Support Points markers from the Logistics block's support box to the relevant Impulse Force's support box.

If a Plt Support or Logistics block is eliminated, the attached Support Points markers are permanently lost.

A Support action performed for a vehicle with mounted personnel can only apply to the vehicle block, never the mounted block. Foot blocks must disembark to receive support.

8.2.3 Mounting/Dismounting

8.2.3.1 Vehicle block transport capacity

- The number of solid blue symbols on the vehicle Unit Cards (see alongside) shows the load capacity of each vehicle block.

8.2.3.2 Foot block transport load value

- The number of hollow symbols on the foot Unit Cards shows the load value in transport terms of each foot block.

The load value of the block to be transported cannot be higher than the transporting vehicle's load capacity. A vehicle may carry multiple blocks as long as its load capacity isn't exceeded. For example, a vehicle block (load capacity of 3) is transporting a Sniper block (load value of 1). It can transport another block of load value of 2 or less - or two blocks with a load value of 1 each.

8.2.3.3 Mounting

[No declaration of the action required. No blocks revealed.]

The vehicle and foot blocks involved must be in Adjacent locations (exception: the foot block cannot be on a roof or in an underground location).

The mounting unit's block is removed from the map and placed on the transporting vehicle's icon on the Scenario Card.

Mounting activates both the vehicle AND the foot blocks. Each block is activated and carries out the Mounting action immediately, one after the other. For example:

- The vehicle moves to a location Adjacent to the foot unit. The foot unit mounts. Both have now been activated.
- The foot unit moves to a location Adjacent to the vehicle

and mounts. The vehicle may move.

- The foot unit is in a location Adjacent to the vehicle and mounts. The vehicle may move.

Therefore, the player cannot move both blocks, then mount AND have the vehicle move again.

8.2.3.4 Dismounting

[No declaration of the action required. No blocks revealed.]

Dismounting activates both the vehicle block AND the foot block. Each block is activated and carries out its action (Dismounting) immediately, one after the other. For example:

- The vehicle moves, the foot block Dismounts and then moves.
- The foot block Dismounts and then only the vehicle moves
- The foot block Dismounts and then only the foot block moves.

Therefore, the player cannot dismount a foot block, move the vehicle block, and then subsequently move the dismounted foot block.

The foot block is removed from the Scenario Card and placed on the map, in a location Adjacent to the transporting vehicle (NB: the foot block cannot be placed on a roof or in an underground location).

8.2.3.5 Mounted foot block

A foot block mounted in a vehicle cannot perform an action or be targeted.

A mounted foot block shares the same fate as its transporting vehicle. It suffers the same OSL losses as the vehicle and is also eliminated if the vehicle is eliminated. The application/adjustment of losses for elite or recruit blocks does not apply for mounted blocks: do not roll on the Application/Adjustment of Losses table.

Activating a vehicle block transporting one or more foot blocks counts as just one activation if none of the mounted blocks Dismount during the turn. However, any block performing a Dismounting action must be a separate activation.

8.2.4 Placing/Demolishing

Engineer blocks have the capability to place or demolish No Man's Land elements.

8.2.4.1 Placing (laying, constructing, and setting)

[Declaration of the action required. No blocks revealed.]

An Engineer block may lay an AT mine, construct a barricade, or set an IED/UXO in an Adjacent location. The player declares his intention by stating: "I am Placing".

- The IED/UXO counter is placed face-down in an Adjacent location
- The owning player's barricade block is placed upright in an Adjacent location
- The AT mine counter is placed facedown in an Adjacent hex
- Or the player may simply note the AT mine location on a sheet of paper

8.2.4.2 Detonating/Demolishing

[Declaration of the action required. The Detonating block is revealed.]

An Engineer block can Detonate an IED/UXO or a mine, or Demolish a barricade (friendly, enemy or from No Man's Land). The Engineer block must be in an Adjacent location to carry out this action.

The player declares "I am Detonating" or "I am Demolishing", as appropriate, and permanently removes the block or marker from

the map. Immediately apply Weapon Effects up to 2 EPs around the target. The block that conducted the action is unaffected by this.

IED/UXO counters and AT mines must be revealed in order for a Detonation action to be performed. If a friendly barricade is being demolished, there is no requirement to reveal it.

8.2.4.2.1 Movement when demolishing an obstacle or creating a breach in situ

When detonating a charge to demolish an obstacle or to create a breach in situ, the Engineer block must move 2 MPs in any direction before detonating the explosives. This move does not cost any additional MPs; it is part of the Detonation action.

8.2.5 Breaching

[Declaration of the action required. The Breaching block is revealed.]

It is possible to open a breach in facades or outer walls at the location of a breach symbol (orange).

Breaches may be opened by blocks with a Breaching capability on their unit card. The symbol may be:

◆ The block can Breach in situ. The block must be located in the room or zone with the breach symbol or within its Arc of Fire, and Adjacent to the wall. Unless otherwise mentioned all Engineer blocks can create breaches in situ, and only they can do this.

◆ The block can Breach remotely. The block must be located within the breach symbol's Arc of Fire, be at least 2 EPs away from it, and within range (minimum ranges apply).

Opening a breach causes Weapon Effects up to 2 EPs around the centre dot of the breach. The block that took the Breaching action is unaffected. See 8.2.4.2.1 for compulsory movement before detonating a charge. Weapon Effects for remote Breaching are similar to the Weapon Effects of Firing (along the Axis of Fire, and/or around the firer, and/or around the target).

As soon as the breach has been opened, a Breach marker is placed in the relevant room, zone or hex. It remains in place until the end of the game.

8.2.6 Scouting

[Declaration of the action required. The Scouting block is not identified. Only the scouted block is revealed.]

Scouting a block or a counter reveals it; the Scouted block is laid face-up, or the counter is flipped.

8.2.6.1 Scouting with a block

Any block can Scout an environment counter or an opposing block up to a range of 5 EPs provided the LoS is clear.

8.2.6.2 Specialist means of observation

Scout, Recon, Sniper, and JFO blocks are all equipped with specialist means of observation. They may Scout up to 10 EPs provided the LoS is clear.

8.2.6.3 Scouting inside a building

A room or a zone can be Scouted from the outside through an aperture, but only if the Scouting block is in the aperture's Arc of Fire and the LoS is clear.

A block cannot Scout any further than the neighbouring room. (NB: 2 Adjacent blocks are automatically revealed, see Contact).

8.2.6.4 Scouting a toxic marker

Scouting a toxic counter triggers a Toxic Cloud. Replace the counter with a Toxic Cloud marker (see 5.2.3.3.3).

8.2.6.5 Scouting IEDs/UXOs

Scouting an IED/UXO may cause it to be triggered (see 5.2.2.1).

8.2.6.6 Scouting an AT mine

Scouting an AT mine is only possible with a Scout or Engineer block (see 5.2.2.6.3).

8.2.6.7 Scouting before Opportunity Fire

A block wishing to perform Opportunity Fire may Scout its target beforehand, without revealing itself. The block is then free to open Fire or not, but whatever it chooses to do it receives a Reacted marker.

8.2.7 Fire

[Declaration of the action required. Both blocks are revealed.]

All blocks can Fire up to the limit of their armament's range, provided there is no obstacle blocking the LoS. A block can fire over an enemy block if it is targeting a specific block behind.

If both blocks can move into each other's location, fire between Adjacent blocks is resolved as an Assault (see 8.2.8). If at least one block cannot do this, combat is resolved as a regular exchange of fire as detailed below.

Firing is carried out strictly in the following order:

- Declaration of Fire
- LoS check
- Enemy block reaction
- Range and weapon capability check
- Fire resolution
- Application/adjustment of losses
- Friendly fire and collateral damage

8.2.7.1 Declaring Fire

The attacking player indicates the Firing block, reveals it and indicates the target of the action. Then, on his Unit Card he indicates the armament being used. If the attacking block's armament is inadequate the Fire/Assault action still takes place, after which the attacker may elect to either Withdraw or remain passive (see 8.2.7.4).

8.2.7.2 LoS check

If the LoS is clear, Fire resolution proceeds as normal. (See LoS rules, 5.1.9)

If, after checking, the LoS is obstructed then place an Activated marker on the attacking block. The attacker's Fire has occurred, but there is no combat resolution. Any damage due to the firing block's Weapon Effects is applied to friendly blocks and counters within the Weapon Effects range (see 8.2.1).

8.2.7.3 Enemy block reaction

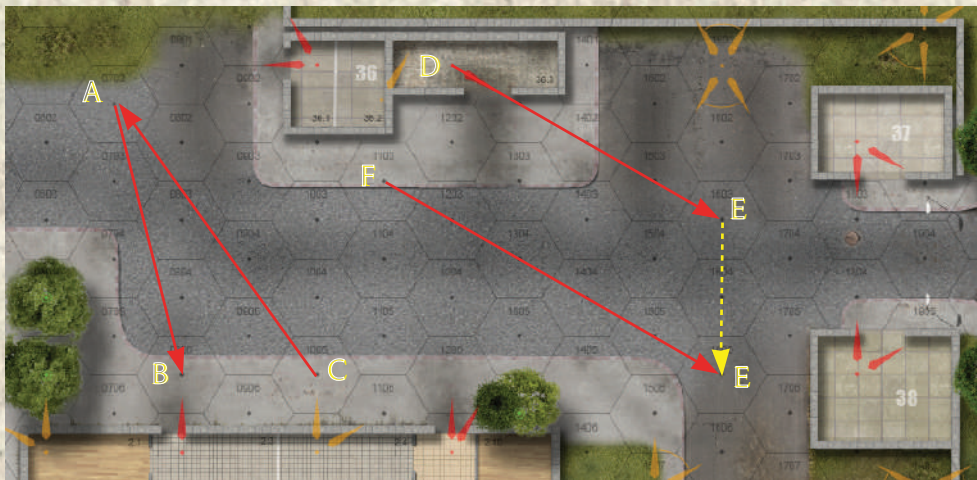
The block on which a player has opened fire has a choice of:

- Remaining passive, which is neither an Action nor a Reaction. A block that does not want to Return Fire or resist an Assault may remain passive. It loses 2 OSL.
- Withdrawing, which is a Reaction. Withdrawal: the attacking block does not roll the die. None of the firing blocks generate Weapon Effects. A block may only Withdraw under fire once per turn (see 8.3.2).
- Returning Fire, which is neither an Action nor a Reaction. Return Fire: the targeted block Returns Fire at the attacking block; this is carried out as if it were a standard Fire action (including, for instance, the application of Weapon Effects). A block may always Return Fire no matter how many times it is fired upon.

All blocks involved in a Firing action are revealed when the player announces the Firing action.

Combat

FIRE



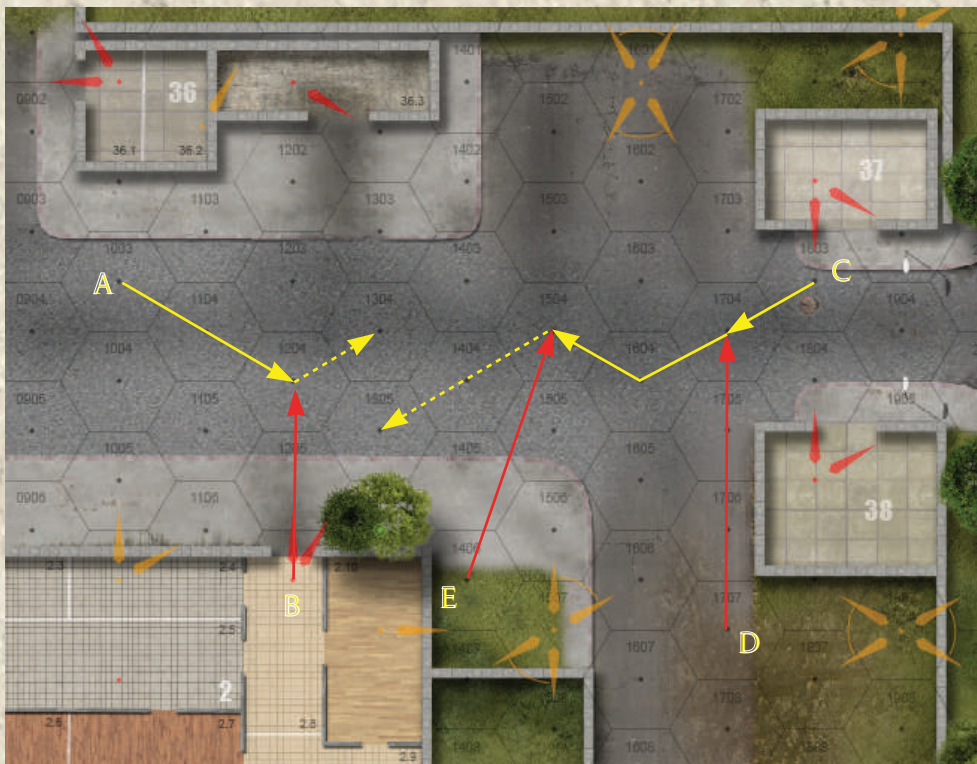
- A (Infantry) fires on B (Plt Spt). Since B has a weak firepower value (FP), the player decides that C (Infantry, closer than 6 EPs to B). will conduct Covering Fire (see 8.2.7.3.1). C's FP is used, but B will suffer any losses.
- D (Infantry) fires on E which performs a Withdrawal and moves 2 MPs (see the Combat & Weapon Effects player aid for possible losses). The player then activates F (MBT) to fire on E. Although E has a Reacted marker, since it has no antitank capability, it may perform a second Withdrawal (see 8.3.2).

ASSAULT



- A assaults B, which decides to Withdraw to 36.2. A takes the place of B in 36.1.
- C assaults D, which cannot choose to Withdraw since it has nowhere to Withdraw to. If C wins the assault, then D is eliminated since it cannot [Move Out](#).

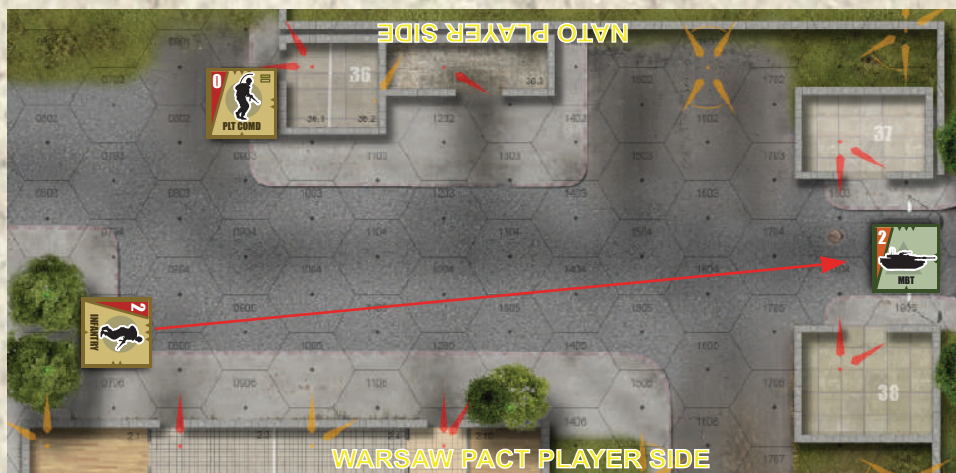
OPPORTUNITY FIRE



- A moves. As soon as it enters hex 1204, the enemy stops it to conduct Opportunity Fire with B. The engagement is too hazardous for A, and the player therefore performs a Withdrawal towards hex 1304 (he chooses to move only 1 MP). The result of the d10 roll is 5, and A loses 1 OSL.
- C moves, it is stopped in hex 1704 by the enemy, who chooses to conduct Opportunity Fire with D. After the exchange of fire, C resumes its movement. It is stopped again in hex 1504 and E conducts Opportunity Fire. This time C chooses to Withdraw and moves towards 1305. Since it has Withdrawn, its activation is now complete, and it receives a Completed marker.
Note: C can only be the target of one Opportunity Fire per location. D conducted Opportunity Fire in 1704. E must therefore wait for C to resume its movement towards 1504 before conducting its own Opportunity Fire.

Combat

EXAMPLE



The moving NATO M1A1 Abrams MBT is the target of RPG-7 fire from a Soviet infantry block. The engagement range is 12 EPs, the MBT belongs to an elite platoon and the infantry to a recruit platoon. The infantry is operational while the MBT is poorly operational.



1. FIREPOWER

12 EPs: the NATO MBT block has a firepower of 8

12 EPs: the Warsaw Pact (WarPac) Infantry block has a firepower of 7

2. MODIFIERS

The NATO block suffers a -1 penalty because it is poorly operational.

The Warsaw Pact Block has a +2 FP modifier for Opportunity Fire, and a +1 FP modifier because the Plt Comd is within 6 EPs range.

NATO's modified FP is $8 - 1 = 7$, Warsaw Pact's is $7 + 2 + 1 = 10$

Each player rolls 1d10. Here are three different possible outcomes:

OUTCOME 1

3. CHANCE (1d10)

Result: NATO = 6, WarPac = 4

NATO gets a +1 FP modifier

The modified FPs are:

NATO = 8 and WarPac = 10

4. CRITICAL HITS

No Critical Hit.

5. COMBAT RESULT

Despite a better die roll, the NATO player loses the combat and the MBT block loses 1 OSL.

6. LOSSES APPLICATION

NATO's MBT block is elite, the player rolls 1d10. Result: 7.

The losses are reduced by 1 OSL and the MBT is narrowly saved.

OUTCOME 2

3. CHANCE (1d10)

Result: NATO = 5, WarPac = 9

The WarPac block gets a +1 FP modifier

The modified FPs are:

NATO = 7 and WarPac = 11

4. CRITICAL HITS

The WarPac block gets an 'Eliminated' Critical Hit result.

5. COMBAT RESULT

The WarPac player wins.

6. LOSSES APPLICATION

NATO's MBT block is replaced by a Wreck marker. The WarPac block gains 1 OSL (for eliminating an enemy block) and becomes fully operational again.

OUTCOME 3

3. CHANCE (1d10)

Result: NATO = 9, WarPac = 2

NATO gets a +1 FP modifier

The modified FPs are:

NATO = 8 and WarPac = 10

4. CRITICAL HITS

The NATO block gets a Critical Hit. The WarPac block loses 1 additional OSL and NATO automatically wins the combat.

5. COMBAT RESULT

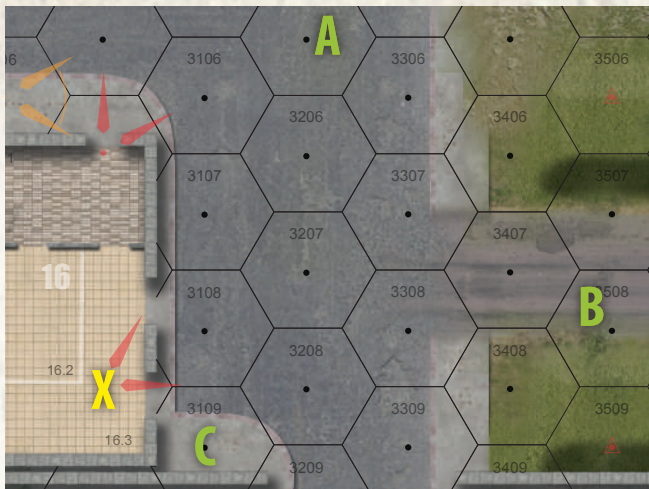
Despite a lower modified FP, the NATO player wins the combat due to the Critical Hit.

6. LOSSES APPLICATION

The WarPac block loses 2 OSLs and is eliminated while the NATO block gains 1 OSL.

8.2.7.3.1 Combined Combat action: Covering Fire

Covering Fire: the targeted block may designate a friendly block within 6 EPs range to conduct the Return Fire in its place.



Covering Fire:

A is fired on by X. A designates a friendly block (B) to Return Fire in its place. B is within 6 EPs range of A and must be able to Fire (clear LoS, adequate armament).

Fire resolution: use the Fire Power of the Covering Fire block (B) against X. Block A does not Fire.

Potential losses: only apply to A or X.

Weapon Effects: only apply to B and X.

A, B and X are revealed.

Note: In some cases X may find it has inadequate armament for its combat resolution against B.

Covering Fire - Assault:

A is fired on by X. A designates a friendly block (C) to Return Fire in its place. C is within 6 EPs range of A and is able to conduct an Assault (see the conditions in 8.2.8) so the Covering Fire is resolved as an Assault by C against X.

Assault resolution: use the Fire Power of the Covering Fire block (C) against X. Block A does not Fire.

Potential losses: apply to C, A or X. If C loses the fight, C suffers the losses of the Assault and A loses 1 OSL.

Weapon Effects: only apply to C and X.

A, C and X are revealed.

Note: In some cases X may find it has inadequate armament for its combat resolution against C.

8.2.7.4 Range and capability check: Inadequate armament

The weapons used by both blocks must be in range of their target (see illustrated examples of Effect Points p. 8) AND have the appropriate capability (anti-armor, anti-tank, etc.).

Inadequate armament: a block which cannot Fire or Return Fire because of an out of range target and/or inadequate armament (4.3.5) must either:

- Withdraw: if it has inadequate armament a block may Withdraw even if is already marked Reacted or Completed.
- Remain passive: immediately lose 2 OSL (no die is rolled; however, the Firing block's Weapon Effects are still applied)

If neither block has adequate armaments, then there is no combat resolution, but the Fire action is still considered to have occurred and an Activated marker is placed on the Firing block.

8.2.7.4.1 Snipers

When snipers use their long range weapons they can only target a Plt Comd, a Coy Comd, a JFO, another Sniper or any vehicle (soft skin, armored or MBTs). If any other target is engaged while using their long-range weapons, snipers must

either lose 1 OSL or Move Out. In effect the sniper is in a situation where his armament is inadequate, even if his target is also inadequately armed.

If an attacking Sniper has inadequate armament, it also has the additional option to Withdraw instead of remaining passive.

Because Snipers have no anti-tank capability, they may only reduce an MBT's OSL from Fully Operational to Operational, no more. The Sniper may Fire and the MBT Return Fire, but the Sniper's Fire causes no further damage.

8.2.7.5 Fire action resolution

Each player, simultaneously:

- Selects the relevant FP for the range his block is firing at (see the Unit Card).
- Adjusts the FP with the appropriate modifiers (see the chart on the Combat & Weapon Effects player aid).
- Rolls 1d10. The player with the higher result benefits from a +1 FP modifier (no modifier in case of a tie).
- The d10 roll may generate a Critical Hit: on a roll of 7-9 refer to the Critical Hits chart (Combat & Weapon Effects player aid). A result of Eliminated is applied immediately (although see the case of tied rolls, below).

The side with the higher modified FP wins the firefight.

A Critical Hit may improve the chances of winning the firefight (the Critical Hit may result in 1 or 2 FP modifiers; one of the blocks may immediately win the combat; or one of the blocks may be eliminated).

A tie occurs when the modified FPs are of the same value: both blocks suffer -1 OSL. If two blocks with the same FP score a Critical Hit with the same d10 value (including a '9'), the result is also a tie and both blocks therefore suffer -1 OSL.

Finally, the players refer to the Combat Results table (on the Combat & Weapon Effects player aid) to determine the losses inflicted on the losing block.

8.2.7.6 Application/Adjustment of Losses

The player applies the losses given on the Combat Results table, potentially modified by the Application/Adjustment of Losses table.

The Application/Adjustment of Losses table may reduce or increase the OSL loss result, depending on a block's quality (see 4.3.8). Roll 1d10 and modify the losses indicated on the Combat Results table if required. To keep the system simple, the Application/Adjustment of Losses table only applies to Fire and Assault actions (not Withdrawal, for instance). Reminder: see 8.2.3.5 for Application/Adjustment of mounted elite or recruit blocks.

When a block eliminates an opposing block due to the Fire/Assault sequence, it immediately gains +1 OSL (where possible). This applies even if the opposing block was destroyed because of extra losses incurred due to it being a recruit unit, or as the result of a Withdrawal.

8.2.7.7 Friendly fire and collateral damage

Each player applies Weapon Effects results to friendly blocks and No Man's Land counters in the Area of Effect of their weapons. No Man's Land counters suffering Weapon Effects from both sides are affected only by the attacking player. (See 8.2.1.3 for friendly fire).

8.2.7.8 Special cases

8.2.7.8.1 Firing within a building

Fire between two blocks in a building, which are not Adjacent, is possible if they are separated either by one or more zones, or by a partition and one or more zones. If a facade blocks the LoS between the center dots, Firing between them is impossible.

8.2.7.8.2 Smoke

Armored and MBT blocks can also fire Smoke during the turn:

- Firing Smoke at distance from an MBT: apply the same procedure as for main gun Fire.
- Defensive Smoke from an MBT (while Returning Fire): Fire up to a maximum of 3 EPs range.
- Defensive Smoke from an armored vehicle (while Returning Fire): Fire up to a maximum of 3 EPs range.

Place a Smoke marker with its 'head' in the target hex and oriented to the wind direction (the marker remains in play until the end of the turn). Only hexes can be targeted with Smoke. No Weapon Effects are applied.

8.2.8 Assault

[Declaration of the action required. Both blocks are revealed.]

Provided movement between the two locations is possible, all blocks can conduct an Assault on an Adjacent enemy block. If the Assault procedure is possible, then any combat action against an Adjacent location (Fire, Covering Fire, Opportunity Fire) is resolved as an Assault.

As for all actions, a block can conduct an Assault either at the end of its movement or before it.

The Assault resolution procedure is the same as the Fire resolution procedure, except:

- The Covering Fire rule cannot be applied during an Assault, although Assault can be conducted as Covering Fire (see 8.2.7.3.1).
- If one of the blocks engaged in the Assault Moves Out or is eliminated, the winner can advance to occupy its location. A block that advances after combat following an Assault does not incur any additional MP cost.
- When a foot block conducts an Assault, Weapon Effects apply in the same manner as for a Fire action. When a vehicle block conducts an Assault there are no Weapon Effects; it either runs over or rams the opposing block and does not use its main or subsidiary weapons. The combat result of this 'ramming' is defined in the Combat & Weapon Effects player aid, in box 5 'Combat Outcomes'.
- A block which has lost an Assault must Move Out (see 8.2.8.5).

8.2.8.1 Assault to enter a building

Assaulting a building is only possible within Command Range of the Plt Comd (because of the need to coordinate this hazardous action, see 7.1).

This rule does not apply to elite blocks or to bottom up/top down Assault (see 8.2.8.3).

8.2.8.2 Assault between two roofs

A foot block located on a roof may Assault a block located on another roof provided that movement is possible between the two roof symbols (see 5.1.8). This Assault is made under the same conditions as a normal Assault.

8.2.8.3 Top down/bottom up Assault

Normal Assault rules apply for combat:

- between two blocks located on either end of a Roof Access symbol (one on the roof, the other in the zone or room with the Roof Access symbol).
- between two blocks located on either end of an Underground Access symbol (surface access and Underground Access, with the same letters). The block firing from inside the underground location triggers Weapon Effects around it (echo) (-1 OSL within a 2 EPs range, see 8.2.1.4).

It is impossible to conduct an Assault between a roof and the outside of a building and vice versa (not even if the unit uses a ladder or a vehicle's superstructure).

As stated on the Combat & Weapon Effects player aid the

block in the upper location benefits from a +1 FP modifier.

8.2.8.4 Movement after Assault

When a block moves to occupy the location of an enemy block that has been eliminated, or has Moved Out as the result of an Assault, there is no extra cost in MPs.

8.2.8.5 Moving Out

A block which has lost an Assault must Move Out, with 2 OSL losses. Moving Out is not a reaction. It does not incur Weapon Effects. A foot block must move up to 2 MPs; a vehicle block must move up to 4 MPs. A block Moving Out has to exit the location it is occupying and may not return there at the end of its move. If a Move Out is impossible, the block is eliminated.

8.2.9 Dispersing the civilian population

[Declaration of the action required. The block doing the Dispersing is not revealed.]

A block which comes within 3 EPs and with a clear LoS to a civilian population counter can perform a Dispersing Population action. The active player then moves the civilian population counter up to a maximum of 6 MPs at his choice. The counter cannot be placed Adjacent to an enemy or a friendly block.

8.3 Reacting

A block without a Reacted or Completed marker may react during the enemy's Impulse (if it undergoes Fire or an Assault), or during activation in its own Impulse (if it is the target of Opportunity Fire for example).

Two types of reaction are possible: Opportunity Fire (opening fire on a moving target) and Withdrawal (avoiding enemy fire).

Except in the case of a Withdrawal due to inadequate armament (see 8.2.7.4), a block may benefit from only one reaction per game turn. The player whose block has performed the reaction adds a Reacted marker to it if it has not yet been activated, or a Completed marker if it has been previously activated.

Returning Fire is never counted as a reaction.

8.3.1 Opportunity Fire or Assault

[Declaration of the reaction required. Both blocks are revealed.]

A block may perform Opportunity Fire on an enemy block as it is entering a location in LoS (even an enemy block moving after an Assault). If the enemy block is Withdrawing or Moving Out, Opportunity Fire is not possible. If a player wants to perform Opportunity Fire, he declares his intention to do so at any suitable point in the enemy block's move.

If the necessary conditions can be met, a block may carry out an Assault instead of conducting Opportunity Fire.

It is not possible to perform Opportunity Fire on a moving block until the block has left its starting location. A block may be targeted by only one Opportunity Fire per location it enters.

A block with a Reacted or Completed marker may not conduct Opportunity Fire or Assault.

8.3.1.1 Procedure

The player who wants to perform Opportunity Fire interrupts the active player as soon as the enemy activated block enters a location where he can engage it. Once the enemy block exits the location, it is not possible to recall it. The opportunity has been missed.

A block which performs Opportunity Fire may first Scout the targeted block. This does not count as an action. (See 8.2.6 for Scouting range.) Then it may either open Fire (and be revealed) or do nothing. In either case it receives a Reacted or Completed marker, as appropriate.

The procedure for performing Opportunity Fire is identical to the standard procedure for Firing.

Note: as shown in the Modifiers table on the Combat & Weapon Effects player aid, the block performing Opportunity Fire has a +2 FP modifier.

If the active player enters a location and decides to perform an Assault or a Fire action, and the enemy block chooses to perform Opportunity Fire, then the Opportunity Fire is resolved first. The Assault or Fire action of the active block is performed afterwards, if the result of the Opportunity Fire still allows it.

8.3.1.2 Conclusion of Opportunity Fire

Once the Opportunity Fire has been resolved, the targeted block may resume its movement from the location where it was interrupted, and, where appropriate, perform an action.

The block performing the Opportunity Fire receives a Reacted or Completed marker, even if it did not actually open fire after Scouting the potential target block.

8.3.1.3 Special cases

Moving through a friendly block: a block passing through a friendly block, or over it, in order to cross a wall or climb onto a roof, may be targeted by Opportunity Fire. The Opportunity Fire is resolved normally. The exchange of fire takes place where the two blocks are temporarily stacked. The friendly block being moved through does not suffer any Weapon Effects.

Opportunity Fire on an Adjacent location: Opportunity Fire against a unit in an Adjacent location is resolved as an Assault action if the Assault procedure is possible.

8.3.2 Withdrawal

[Declaration of the reaction required. Both blocks are revealed.]

8.3.2.1 Who can perform a Withdrawal

A block may perform a Withdrawal when:

- It is the target of Opportunity Fire when activated.
- It is the target of a Fire or an Assault action when not activated.
- It has inadequate armament and does not want to suffer an automatic 2 OSL loss from staying passive.
- It has inadequate armament and has a Reacted or Completed marker (see 8.2.7.4).

8.3.2.2 How to perform a Withdrawal

A block performing a Withdrawal has to exit the location it is occupying and may not return there at the end of its Withdrawal movement. If it cannot move, then Withdrawal cannot be chosen. A foot block Withdrawal may move up to a maximum of 2 MPs in any direction. A vehicle block may Withdraw up to a maximum of 4 MPs in any direction.

8.3.2.3 Consequences

A block performing a Withdrawal must roll 1d10 to check if it takes any losses. These losses are not losses due to Fire, and therefore the Application/Adjustment of Losses table is not used.

- 0 to 1 (Critical Hit): - 2 OSL
- 2 to 6: - 1 OSL
- 7 to 9: no effect

A Withdrawing block cannot be fired on during its Withdrawal.

None of the Firing blocks generate Weapon Effects.

After a Withdrawal, the block receives a Reacted marker. If it has already been activated, it receives a Completed marker. A block performing a Withdrawal in reaction to Opportunity Fire ends its activation (no other movement or action allowed) at the end of the Withdrawal and receives a Completed marker.

When a block Withdraws because it does not wish to resist an Assault, its location may be occupied by the Assaulting block.

9. Night rules

The conditions for switching to night combat are defined in the scenario. In a night scenario, some Impulse Forces or blocks may be equipped with night vision equipment. This capability is displayed on the Scenario Card by a yellow circle on each block's icon.

9.1 Impact on movement

Normal movement is not affected by night, but enhanced movement when out of the enemy's LoS (8.1.14) is prohibited.

9.2 Impact on combat

Weapon accuracy decreases as follows:

- Without Night Vision Equipment: range is no longer measured in increments of 5 EPs, but in increments of 3 EPs instead (Assault/5/10/15/20/25 becomes Assault/3/6/9/12/15)
- With Night Vision Equipment: range is no longer measured in increments of 5 EPs, but in increments of 4 EPs instead (Assault/5/10/15/20/25 becomes Assault/4/8/12/16/20)

Note: Weapon Effects are not modified; they are still determined by the weapon's range in daylight.

Exception: when a weapon has a minimum range at which it can fire (such as a tank gun or rocket launcher), these empty boxes are still measured in 5 EP increments. They represent the physical limitations of a weapon which cannot fire at close range, a limitation that is not affected by night vision.

9.3 Impact on Scouting

Night Scouting capability is as follows:

- Without Night Vision Equipment: 5 EPs for Scout, Recon, Sniper, and JFO blocks; 3 EPs for all other blocks
- With Night Vision Equipment: 10 EPs for Scout, Recon, Sniper, and JFO blocks; 5 EPs for all other blocks

ADVANCED RULES

Urban Operations is perfectly playable with the basic rules alone. Nonetheless, experienced players may want to add more realism to their games at the cost of a slight increase in complexity. It is strongly recommended that players use rule 10.5 (antitank weapons vs Infantry).

The advanced rules are optional, and players may agree to use any or all of them. The advanced rules are organized in four parts: Combat, Movement, Command, and Environment.

10. Combat

10.1 Infantry Smoke

Among the foot blocks, only Infantry and Engineer blocks may use Smoke grenades.

The player announces he is Firing Smoke, which counts as

one action. The block can throw the Smoke grenade up to a range of 3 EPs. Place a Smoke marker as for a 3D action or vehicle Fire action (see 5.2.3.3 for Smoke effect). A Smoke grenade can be tossed over any obstacle, into or out of a building through an aperture/breach, but may not be thrown through a partition.

Note: rule 10.1 does not apply to militia and guerrilla units.

10.2 Combined Combat actions

10.2.1 Supporting Fire/Assault

Supporting Fire is a specific Fire/Assault action allowing block A to benefit from the support of a block B (A and B must belong to the same Impulse Force).

The player announces he is using Supporting Fire when block A is activated; he designates the target, and then designates a block from the same Impulse Force and within 6 EPs, as fire support. These two blocks are activated together, contrary to 7.2.2. For instance, the 2 blocks can both move before Firing/Assaulting.

Although marked as activated, Block B takes no actual action, it only provides a bonus to A's combat roll. Block A makes a normal Fire/Assault action with the following differences and conditions:

- Block B gives a +1 FP modifier to block A's FP.
- Only block A is affected by the combat result (including a possible Withdrawal for inadequate armament before rolling the die),
- B must have a LoS to the target, and appropriate weapons (otherwise, the +1 FP modifier is not applied, but B is still considered activated),
- The Plt Comd gives his +1 FP modifier if both blocks are within his Command Range at the beginning of both activations (only block A profits from this modifier).
- When the combat has been resolved, place Activated (or Completed) markers on A and B.

10.2.2 Supported Withdrawal

When a block Withdraws, the Withdrawing block may benefit from another block's support if:

- the supporting block is within 6 EPs of the Withdrawing block;
- the supporting block has LoS to the enemy block which prompted the Withdrawal; and
- the supporting block has adequate armament against that enemy.
- It must be able to fire on the enemy block (it cannot do so if it has inadequate armament).
- The supporting block gives a +1 DRM to the Withdrawing block's die roll.

Place a Reacted (or Completed) marker on both blocks.

Unlike a regular Withdrawal, the Plt Comd gives a +1 DRM to the Withdrawing block's die roll if both blocks are within his Command Range at the beginning of the Withdrawal.

10.2.3 Recruits

Recruit blocks cannot use these Combined Combat actions.

10.3 Suppressing Fire

Suppressing Fire is a specific Fire action, which can be performed by an Infantry block (or a Spt Weapons block, where the Spt Weapon is a machine gun) against an enemy foot block. Unlike other actions, a block performing Suppressing Fire cannot move during its activation. The player must announce it is carrying out Suppressing Fire when activated.

The procedure is exactly the same as a Fire action, except as noted:

- The Suppressing Fire block gains a +1 FP modifier in

combat.

- On a Critical Hit result (7, 8 or 9) the Suppressing Fire block simply wins the combat and the Critical Hits results as printed are ignored.
- If the Suppressing Fire block wins the combat, then place a Reacted (or Completed) marker on the targeted block, ignore any OSL losses and do not roll on the Application/Adjustment of Losses table.

10.4 Armor cover

A foot block can benefit from the proximity of a tank or an armored vehicle to protect itself from enemy fire, by moving directly next to the tank/armored vehicle or just behind it.

10.4.1 Pairing

In order to be protected by the vehicle, the foot block must enter the protecting vehicle's hex (place the two blocks side by side), thus forming a pair (this happens before the opponent has a chance to perform Opportunity Fire in the hex). This counts as an action for both blocks, which become Activated.

A foot block within a pair cannot be targeted or Scouted. However, it suffers all Weapon Effects in the zone (heavy Weapon Effects, including at the moment of firing, and 3D actions).

Dismounting under armor cover: a pair can be created immediately during a Dismounting action. The foot unit is placed directly in the hex of its transporting vehicle. This counts as an activation for both blocks. It is not possible to Opportunity Fire on a foot unit during a Dismounting action that takes place under armor cover.

10.4.1.1 Activating a pair

During the following turns, the player may activate the pair, which marks both units as Activated. The pair may move up to 6 MPs. The only action the vehicle block can perform is a Firing action, and the only possible reaction it can make is Opportunity Fire. The foot block can perform no action or reaction while it is paired.

10.4.1.2 Splitting a pair

Instead of activating a pair, a player may decide to activate only one of its blocks (counting for only one activation). The block must immediately, before performing any action, leave the pair's hex, paying the usual MP costs to do so. The block may continue to move normally thereafter.

A pair is immediately terminated when one of its blocks is eliminated. If the vehicle block is eliminated, the foot block suffers the related Weapon Effects.

10.4.2 Recruits

Recruit blocks cannot use armor cover.

10.5 Antitank weapons against Infantry

A foot block using an antitank weapon (red or black triangle symbol) against another foot block loses 1 OSL. This loss of OSL is applied immediately after the combat results have been implemented.

Design note: antitank rockets and missiles are regularly used against infantry even if this is not their primary function. Some models even have specifically designed antipersonnel ammunition. The -1 OSL penalty simulates the low availability of ammunition for these weapons and serves to encourage the player to use the correct weapon against the appropriate target.

10.6 Antitank weapons and Breaching

A foot block can use an antitank weapon (red or black triangle symbol) to open a breach remotely. If this rule is used, assume the antitank weapon can remotely create a breach at a Breach symbol (orange).

A foot block using an antitank weapon to open a breach

loses 1 OSL.

Design note: the caliber and explosive amount of some antitank weapons allow them to open a breach in a wall. Nonetheless, this action leads to unpredictable results (the munition can pass straight through the wall or only create a small sized breach) and may require excessive ammunition. The -1 OSL penalty simulates the low availability of ammunition for these weapons and serves to encourage the player to use the correct weapon against the appropriate target.

10.7 Countering Sniper Fire

When a friendly block is the target of enemy Sniper Fire or Opportunity Fire (but not Return Fire), then a friendly Sniper can perform Covering Fire even if he is not within 6 EPs range of the targeted block. The Covering Sniper block must be able to fire (LoS and range). If the Covering Sniper block was not revealed when the combat started, then it benefits from a +2 FP modifier.

10.8 Ambushing vehicles

A foot block that engages a vehicle block with an anti-tank weapon benefits from a surprise effect. This effect only applies if the vehicle Returns Fire and does not apply if the vehicle is using Superstructure Transport (see 11.1) or has Covering Fire from from a friendly foot block.

The surprise effect is as follows: when Ambushed in this way, the maximum FP the vehicle can Return Fire with is 5 regardless of the range.

10.9 Dismount & Assault

[Assault declaration required. The Assaulting and targeted blocks are revealed.]

When conducting a Dismount & Assault action the player can move an APC up to 6 MPs then Dismount the transported foot unit. The foot unit must then launch an Assault, moving up to 3 MPs beforehand if wished. The Assaulting block has a -1 FP modifier to its Fire Power.

Note: this rule should only be used with armored vehicles able to perform this action on the battlefield: Infantry Fighting Vehicles and Armored Personnel Carriers such as the M113, Warrior, VCC-1, and BMP.

10.10 Support action supplied by a different Impulse Force

A Plt Support or a Logistics block can support a block from a different Impulse Force. The supporting block must not have an Activated marker. Both blocks are activated and count against the activation allowance for the supporting block's Impulse Force.

A foot unit support block can only support foot blocks from another Impulse Force. Vehicle support blocks can support any kind of block.

10.11 Concurrent Combat actions

Support, Mount and Dismount actions are usually made with 2 blocks activated one after the other. But in contrast to 8.2.2, 8.2.3.3 and 8.2.3.4, by using Concurrent Combat actions it is also possible to move the 2 blocks and then carry out the action (Mount, Dismount or Support) in combination with each other. The reverse is also possible with the action carried out first, and both blocks moving afterwards.

10.12 Friendly units in the Axis of Fire

Friendly blocks are not affected by Weapon Effects when they are in the Axis of Fire if:

- The friendly block is on a different level to the 2 Firing blocks.

or

- The two blocks in the firefight are on different levels, but the vulnerable friendly block is farther than 5 EPs from the lower of them.

Note: We suggest using this rule for Sniper rifle fire. We strongly suggest this rule should not be used when the friendly Firing block belongs to untrained units (Recruits and militia).

11. Movement

11.1 Superstructure transport

A foot block can mount an armored vehicle's superstructure. An armored vehicle can only transport one block. The rules are the same as the Mounting/Dismounting action, except as noted:

- A foot block mounted on a vehicle cannot perform an action or be targeted.
- Any weapon (4.3.5) can be used against the transporting vehicle but the vehicle block suffers losses only if the enemy weapon is adequate against it. The transported foot block suffers all the Weapon Effects caused by the enemy's Fire if the vehicle loses the combat.
- The transporting vehicle cannot use its heavy weapons.
- A vehicle block transporting a foot block cannot use the rule for Enhanced Movement out of the enemy's LoS (see 8.1.14).
- The transporting vehicle is immune to ambush (see 10.8).

Design note: An armored vehicle that is transporting troops on its superstructure must drive more carefully to avoid dislodging its external passengers. For the same reason, it cannot easily rotate its turret or use its main armament. On the other hand, the troops being transported provide extra pairs of eyes to spot potential ambushes.

11.2 Scaling walls

A block performing Opportunity Fire on a foot block that is scaling an outer wall (as opposed to via a breach) gains a +3 FP modifier (instead of +2). The Opportunity Fire must be performed as the block is crossing the outer wall, whether climbing it or descending it. The targeted block may perform a Withdrawal, but with a -1 DRM penalty.

12. Command

12.1 Order of Battle Reorganization

Each side can reorganize its Order of Battle during the game, changing the allocation of blocks between Impulse Forces (on or off map). This operation is performed during the Order of Battle Reorganization sequence of the Initial Phase.

Players use the numbered markers to transfer the blocks from one Impulse Force to another. The number of markers provided in the box is a design limit.

The Impulse Forces involved, whether by the detachment or attachment of a block, cannot perform a Fire or Assault action for the rest of the turn.

The Warsaw Pact player wishes to reinforce the recon capacity of his Impulse Force 1. Using the Scenario Card, he places the black #1 marker on the block he wishes to detach from Impulse Force 2 and the white #1 marker on its attachment box in Impulse Force 1.



12.2 Impulse Force cohesion

12.2.1 Company Commander elimination

If the Coy Comd block is eliminated, all Impulse Forces which still have their Plt Comds are penalised as follows, from the elimination of the Coy Comd block until the end of the current game turn:

- Only 3 blocks can be activated.
- The Plt Comds forfeit their +1 combat bonus.

This penalty is applied immediately the Coy Comd block has been eliminated.

12.2.2 Platoon Commander elimination

If the Plt Comd of an Impulse Force is eliminated, apply the following penalties:

- Elite Impulse Force: only 4 blocks can be activated per turn until the end of the game (this rule modifies rule 7.2.1).
- Veteran Impulse Force: only 3 blocks can be activated per turn until the end of the game. Additionally, immediately after the Plt Comd block has been eliminated, each of the Impulse's blocks within LoS of the Plt Comd rolls 1d10: 0-1 = -2 OSL; 2-7 = -1 OSL; 8 = no effect; 9 = +1 OSL.
- Recruit Impulse Force: only 2 blocks can be activated per turn until the end of the game (this rule modifies rule 7.2.1). Additionally, immediately after the Plt Comd block has been eliminated, each of the Impulse Force's blocks within LoS of the Plt Comd rolls 1d10: 0-2 = -2 OSL; 3-8 = -1 OSL; 9 = no effect.

13. Environment

13.1 Blocking an Underground Access point

An Engineer block can perform a Demolition action on an Underground Access point (denoted by an Underground Access marker) from level 0 (but not from underground). The Underground Access marker is removed and a Barricade counter is immediately placed on the underground map location with the same letter as the underground marker. If there is a block on the underground map 'under' the Underground Access marker, it is eliminated.

13.2 Booby traps and anti-personnel mines

A side can use its AT mine allocation to create anti-personnel booby traps (assume the mine allocation includes AT and AP mines). These booby traps are set in accordance with the rules for AT mines setup (either during the game setup, or with a Placing action during the game). Each AP booby trap uses up two AT mines of the initial allocation.

An AP booby trap can be set in a room or a zone (including underground). The player may secretly note the location on a sheet of paper or place the counter on the map.

Scouting an AP booby trap follows exactly the same rules as scouting an AT mine (except that an IED/UXO counter is placed

on the Scouted location instead of an AT mine counter).

A block entering a booby-trapped location suffers -2 OSL. The Weapon Effects are -1 OSL within a 1 EP range.

13.3 Civilian Population movement

During the Civilian Population Movement sequence of the Initial Phase, each revealed civilian population counter performs one of the following actions, determined by a 1d10 roll:

- **0:** Panic, the civilian population scatters. Remove the civilian population counter from the game.
- **1-6:** Move the civilian population counter 1 location in the direction given by the die-roll (1 = north, continuing clockwise around the hex.)
- **7:** The civilian population counter remains where it is.
- **8:** The red player moves the civilian population counter 1 MP in the direction of his choice.
- **9:** The green player moves the civilian population counter 1 MP in the direction of his choice.

If a civilian population counter cannot move as determined, roll the die again.

A civilian population counter inside a building does not move again during the Civilian Population Movement sequence for the remainder of the game.

13.4 Rubble

A building may collapse, because of the Weapon Effects, when a heavy weapon or a 3D action targets one of its locations (room or zone, but not the roof). Apply the combat or 3D action result normally, then roll 1d10. If the result is 0-8 there is no effect. If the result is a 9, a part of the building collapses - roll again:

- Even result:
 - a block in the targeted location is eliminated
 - place a Barricade counter in the targeted location
- Odd result:
 - a block in the targeted location is eliminated
 - place a Fortified marker in the targeted location
 - remove any Breach markers from the targeted location

Design note: A collapsed building creates a new unpredictable configuration. The rubble may collapse inside the building, considerably complicating its access, or on the exterior, which may result in the creation of a thick bank of rubble along the walls.

13.5 LoS through apertures and breaches

13.5.1 Breach in an outer wall

A breach in an outer wall is depicted on the map with an Arc of Fire, but the actual opening is as wide as a vehicle. When a breach is opened in an outer wall, the whole surface of the hex with the Arc of Fire symbol is no longer considered a LoS obstacle.

13.5.2 Firing from an inner zone of a building

A limited Arc of Fire exists for a block through an aperture/breach outside its zone. Draw a line starting from the center dot of the block's location, to the center dot of the opening/breach and continuing outward to finish at the first LoS obstacle. All hexes crossed or bordered by the line are in the LoS of the block inside the building. Firers' LoS are not blocked by the partitions of the building where they are located.

With the agreement of both players, this rule may be applied for Snipers only. In such a case, only Snipers have a LoS from an inner zone. Other blocks cannot see the Sniper's block, but they can Return Fire. If both players agree to apply this rule to Snipers only, it leads to an exception to LoS reciprocity (see 5.1.9).

Design note: Soldiers are taught to avoid standing close to windows. Because the safest positions are further into the building, axes of fire are necessarily more limited, potentially aligned through doors and windows. Holes may be made in internal walls to provide an even safer fire position.



Example:

- A and B can fire at each other through the aperture in 61.3.
- Firefight (5.1.3.2): A has a +1 FP modifier.

DESIGN NOTES

Urban Operations was designed on the basis of observations and lessons learned as a serving soldier in the field, on operations and on training areas. From the start, the game was also intended to be used as part of a professional soldier's training. As in most games a balance was sought between realism and playability, but always with the intention of teaching good habits through playing the game. From genesis to completion the game has gone through a significant number of intermediate versions, often with deep changes and radical choices, but the key points have remained consistent with the original starting goals. The game thus offers the player a special experience, one in which all aspects of the urban environment have to be considered and where every action in this complex universe can have significant consequences.

A game designer is always tempted to add more realistic effects, which can be to the detriment of playability. A balance is maintained in the basic rules, whereas the advanced rules allow for more detail. Players are free to include house rules as they see fit.

Time and space

A turn theoretically represents a few minutes on the battlefield. During this period, a combat group might move a much greater distance than the forty meters shown on the map. But when a group's actions throughout the duration of a real combat mission are summarized, the list of actions is often brief. The game's time scale builds in a notional representation of time spent waiting for orders and time required for reorganization or observation; time that is not otherwise represented in the game and which is 'inserted' between discrete actions.



In urban areas, lines of sight are quickly blocked with multiple visual obstructions. The effect of fighting (rubble, vehicle wrecks, etc.) reinforces this phenomenon still further.

The use of two simple concepts - Movement Points and Effect Points - helps to factor in this elastic time and space scale.

Modeling the ground

Choices had to be made as to how the map was to represent the ground. In a combat zone the view is very quickly limited by many obstacles: street furniture, vehicles, vegetation, rubble, barricades, smoke, piles of debris, and other refuse. This greatly hinders orientation and with it the combatant's ability to target and observe. Representing all the debris on the map would have been realistic, but it would have also made the map unreadable and would have greatly confused LoS (line of sight) arbitration. Hence, it was decided to represent relatively clean streets but limit the effective range of weapons within the map sections. Blind spots are numerous in built up areas. The limited arcs of fire available from wall apertures and breaches greatly constrain players, making them better understand combatants' difficulty in choosing the best routes over the ground and selecting the best fire positions.

To understand the omnidirectional threat, we needed to represent the 3rd dimension. For this reason, although using a 2D map it was important to provide the opportunity to fight underground and from rooftops.

The battlefield environment

The game features all the elements that operational forces may meet on the urban battlefield, elements that do not belong to any given side and which bring with them a permanent uncertainty.

Population

Combatants are rarely alone in operational areas: most of the time refugees or locals remain, people who have nowhere to flee to or who do not want to leave their property unattended. The population can even constitute a major factor in the battle if they are hostages (Kolwezi) or hostile (Mogadishu). There are more than just combatants involved in urban operations.

Modeling the presence of the civilian population in the combat zone and making it a factor in the outcome of the game demands a little imagination. The units shown in the various Urban Operations campaigns each have their own way of behaving with respect to that part of the civilian population still remaining in the combat zone. It was necessary to encourage compliance in the game with the rules of engagement - for those troops who have them. By the same token it was inconceivable that the game's framework (rules, scenario instructions, events) should lead a player heedlessly to commit lawless actions such as war crimes. The game's mechanics thus prompt all sides to take account of the presence of the civilian population.

Other No Man's Land elements

Easier to integrate into the game than the civilian population, their presence is covered in the rules: IEDs/UXOs, barricades etc.



The urban environment is littered with dangers for the combatants: electric cables, fuel, toxic materials, sharp edged rubble, etc. IED/UXO and toxic counters simulate the presence of these dangerous elements.

Mines and booby traps

Combatants' imagination - particularly that of irregulars - being limitless, it is not possible to represent in a simple way all the devices used in current urban conflicts. The anti-tank mine and IED/UXO markers allow the combatants to portray this particular threat in a generic manner. For interested players the Advanced Rules offer a more refined simulation of booby traps.

The fog of war

In built up areas the soldier and his leader feel threatened from all directions: the enemy is present, but it is very difficult to locate him precisely and track his movements. Noise is distorted and there are loud echoes. Lines of sight are obstructed (by barriers, smoke etc.) and appearance times are often fleeting, which greatly limits the possibilities for correct identification and targeting.

Most of the time, the enemy position has to be occupied if the target's destruction is to be confirmed. Intelligence must be constantly gathered and updated. To represent these difficulties in the game the choice was made to use blocks, all of the same size, and to limit firing opportunities.



Clouds of smoke and dust caused by combat (moving vehicles, firing of large caliber weapons, explosions, fires, collapsing buildings etc.) contribute greatly to shortened lines of sight and complicate target identification (friend, enemy, neutral?).

Arbitrating combats

In urban areas it is often difficult to determine where enemy fire is coming from, but most engagements are at short or very short range. Firefights are successions of duels, portrayed in the game by the fact that every time a team/vehicle fires it brings

the possibility of a reaction. The combat resolution procedures also take account of two other very common possibilities: the inability to return fire or the risky decision to break contact. It is important to remember that the opportunities to return fire in the game are unrestricted - returning fire is not counted as an action - even if the player knows he is taking a risk each time he does so.

The mechanism for opportunity fire allows the game to maintain a permanent rhythm and gives a realistic advantage to the defender and to a side that has planned ambushes.

In urban combat there are a few maxims such as "Armor's worst enemy is the infantryman, and the infantryman's worst enemy is armor."

Setting variable firepower depending on distance is the most effective way to highlight this, and also effectively to model training and doctrinal differences between the sides represented in the game.

Weapon ranges are deliberately reduced in the game because of target acquisition difficulties and firing conditions. The combat resolution procedures prevent aberrant situations such as the destruction of a tank by a sniper and represent the limitations of the weapon systems employed.

Missiles and rockets have a minimum range to allow the projectile to arm itself. Some missiles may not be fired from inside buildings due to the backblast. Tanks have extensive blind spots that affect both vision and firing.

Weapon Effects

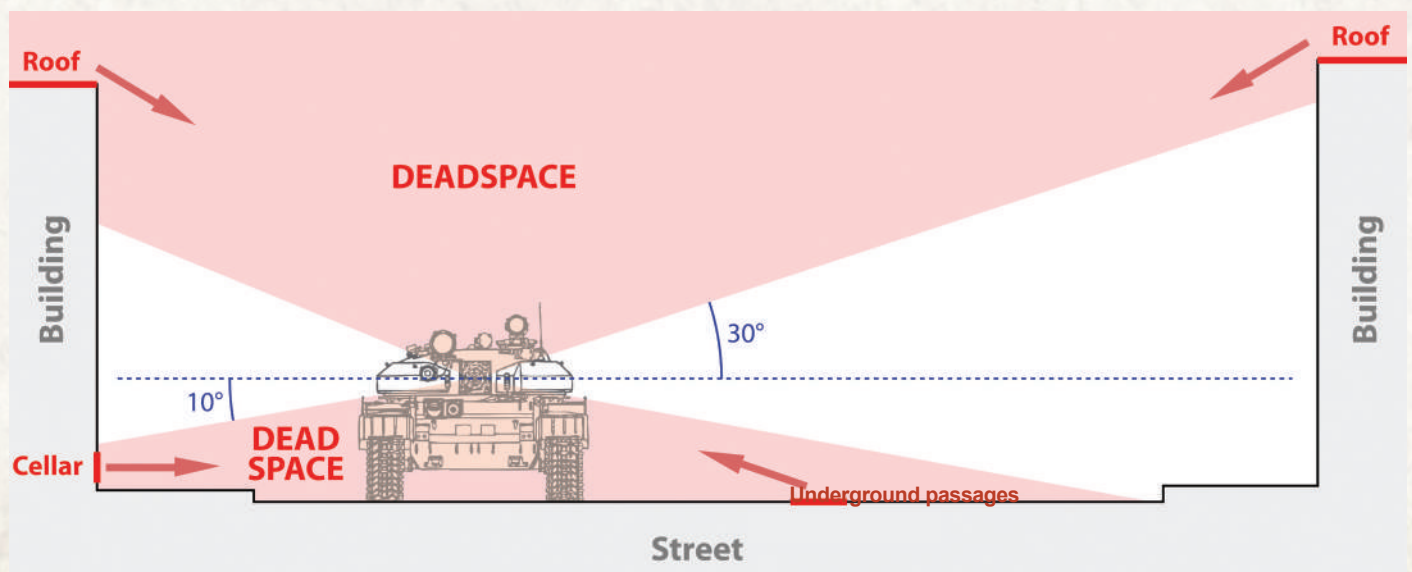
A commander's main concern on operations is to avoid friendly fire and collateral damage. But using multiple armaments in built up areas means that ballistics, blast effects (pressure waves), ricochets and random shots, or echoes in tunnels, all entail significant risks. These are represented by the Weapon Effects rules.

Of course, bullets and high explosives affect everyone indiscriminately but, for instructional purposes, any damage to friendly forces and the civilian population is more severely penalized than that inflicted upon opponents. This encourages players to be more careful in their operations when performing strikes with multiple collateral effects.

Players may find this Weapon Effects mechanism unusual but will soon learn to pay attention to axes of fire when coordinating actions.

Units and their actions

A block is a vehicle or a combatant group. Detailed studies undertaken on conflicts since the early twentieth century show



The clearances of a tank or an armored vehicle's weapons result in extensive blind spots in its immediate surroundings and limit its ability to fire at upper storeys and rooftops.

that only a small number of soldiers are actually active during combat. For a poorly trained unit, it is estimated that only 10% of soldiers are really active. This can rise to 20-30% for better trained units, which is reflected in the 'elite' unit modifiers. To portray this, when a combat group occupies part of a building, firing and scouting are from only one position. This is also why a significant loss of OSL limits a unit's firepower.

Many factors have to be represented in order to make the game realistic: doctrine, morale, armament, combat group size, possible losses. The key points are represented by firepower and OSL. The OSL symbolizes the unit's combat effectiveness: morale, cohesion, casualties, and ammunition consumption. It can decrease due to combat failure and increase in case of victory, or if reinforcements/resupply have been received through a support action.

Firepower combines attack and defense capabilities into a single value. This value allows combat resolution in the form of a duel, the form on which most firefights are based in Urban Operations. Firepower is allocated by the scenario designer. It also represents a unit's training level: a highly efficient unit fires more effectively than a heavily armed but poorly trained unit. Similarly, a crew that is well protected behind armor is more likely to hit its target than an unprotected crew operating a missile launcher. It may therefore happen that a vehicle with strong armor but light weapons has the same firepower at certain ranges than a more weakly armored vehicle with better penetration capabilities.

Unit quality completes this classification. Combat resolution results may limit losses if a unit is well trained and resilient (elite) or increase them if it is inexperienced (recruit).

A group that has suffered high losses is not always physically destroyed and can maintain some combat effectiveness, but its response capacity is limited. It suffers a penalty in combat resolution if it has a poor OSL. However, once a group sustains major losses it can no longer fulfil its mission and is completely committed to safeguarding its wounded. In game terms the unit's OSL drops below poorly operational and the block is removed from the map.

The unit cards allow the designer great freedom in depicting various weapons and specific munitions without complex rules and at low cost.

Command and logistics

Despite the development of ever more efficient digital devices, communications remain very difficult in an urban setting. Therefore, the physical proximity of the leader is important to facilitate the transmission of orders and reports, as well as essential fire control orders. This is the reason for the two types of bonuses which reward the setting up of a chain of command.

In the same way a force whose supply lines are well organized will perform better than others who are not so well organized. Evacuation of the wounded to the rear, and replenishment of all types of supply (ammunition, water, equipment) is done by combat units temporarily assigned to a support mission. To implement this in the game it was easier to include small logistics-dedicated teams (Plt Support blocks) that perform these actions.

Scouting

To highlight the importance of intelligence gathering, the rules for scouting provide many opportunities to players. It is crucial to positively identify a target before engaging it in order to avoid collateral damage or disclosing oneself to a more powerful adversary. Cases of misidentification are common in urban warfare and this is why scouting distances are intentionally very limited in the game.

It was originally intended to create two different block sizes: small for foot units and large for vehicles. This option was

abandoned to better recreate the fog of war. Of course, even if they do not know the nature of the enemy blocks, players are nevertheless aware of the entire enemy presence on the map. To counterbalance this advantage it was chosen to enhance the fog of war by not making any differentiation between block sizes.

3rd dimension actions

Given the map size, it is logical to represent indirect fire (artillery, mortars, etc.) by off-map units.

The availability of assets (unavailable/available next turn/immediately available) is a means of representing the uncertainties of several elements. For ground support it can mean the asset is already committed to another area, is the target of counter-battery fire, has its communications cut off, is on the move, etc. For air support, uncertainty is often stronger: air assets not available in this area, communication impossible,



Viewing angles from inside an armored vehicle are very limited which is problematic, especially at close range.

Credits

Design: Sébastien de Peyret

Development: Thomas Pouchin & Sébastien de Peyret, supported for the current edition by Grégory Deniaud & François-Xavier Euzet.

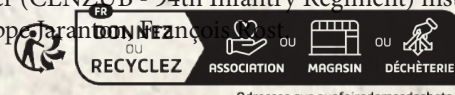
Graphics: 1st edition: Thomas Pouchin. Current edition: Angelica Caradec, Donal Hegarty

Translation: Current edition: Angus Clarke, Scott Moore.

Playtest team: Christophe Donnet, Cédric Jahier, Philippe Morel, Yann Pedron-Flores, Arthur Percie du Sert, Guillaume Percie du Sert, Arnaud de Peretti, Thibaud de Peyret, Alexandre Pouchin, Emilien Pouchin & Alexis Seydoux.

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Inspiration: French National Urban Warfare Training Center (CENZUB - 94th Infantry Regiment) instructors, Philippe Jaran...



The cards

Title of the Event:

Red: the Event must be played immediately
Black: the card may be kept and played anytime

EVENT CARD

"We're taking heavy small arms fire"

Description:

The text on the card takes precedence over the written rules

Notes:

Explanations or historical background

Scenarios in which the card is used (in white)

Box providing information on:

- the **side** (green or red)
- the **name**
- the **country**
- the **period**

Each white box refers to a **block** on the map

123456

Losses and Weapon Effects:

Target hex/1 EP radius/2 EPs radius

Affected target type:

- Foot units (and unarmored vehicles) AND civilian population
- Foot units and armored vehicles AND civilian population
- ▲ Foot units, armored vehicles, MBTs AND civilian population

Affected sides:

Red symbol: any block AND civilian population

Blue symbol: friendly blocks AND civilian population

USSR '70-now MI-24 Hind



MI-24 Hind

Loc: -2 OSL ● Eliminated ■▲
1EP: -2 OSL ●■▲
2EPs: -1 OSL ●

3D SUPPORT CARD

The back of the Event card specifies the **campaign** in which the card is used

UNIT CARD

Name of the block

Block load value
number of hollow symbols
or
transport capacity
number of solid symbols

Weapon Effects:

(L) light: along Axis of Fire
or
(H) heavy: along the Axis of Fire
AND blast/explosion radius

Block capabilities:

- ◆ Can breach (◆ in situ/◆ remotely)
- Cannot Fire from within a building

Weapon Effects along the Axis of Fire

Red box: 5 EPs beyond the maximum range of the weapon

Armament

◆ 120 mm
☆ - ▲ ▲ ▲ ▲ ▲ H

Firepower at ranges of 5/10/15/20 EPs

Inadequate armament: -

Firepower is related to the capabilities of the munitions:

- Can engage foot units and soft skins only
 - Can engage foot units, soft skins and armored vehicles
 - ▲▲ Can engage any target (▲ rockets /▲ missiles or shells)
- Particular munitions may generate a Critical Hit result.

Radius of the Area of Effect (blast/explosion)

1 bar: 1 EP (leftmost symbol: 1 EP around the firer)

2 bars: 2 EPs (rightmost symbol: 2 EPs around the target)

MBT

◆ 12.7
☆ 6 6 7 7 L
◆ 120 mm
☆ - ▲ ▲ ▲ ▲ ▲ H

Kind of block:

- Foot unit. The block moves and is treated as a foot unit target
- Unarmored vehicle. The block moves as a vehicle but is treated as a foot unit target
- Armored vehicle. The block moves as a vehicle and is treated as an armored vehicle target
- ▲ MBT. The block moves as a vehicle and is treated as an MBT target

Firepower for an Assault

