

The Mini-Manual for the Urban Defender



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By John Spencer

About the author

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Serving over twenty-five years in the active Army as an infantry soldier, Spencer has held ranks from Private to Sergeant First Class and Second Lieutenant to Major. His assignments as an Army officer included two urban-centric combat deployments to Iraq as both an Infantry Platoon Leader and Company Commander, a Ranger Instructor with the Army's elite Ranger School, a Joint Chief of Staff and Army Staff intern, fellow with the Chief of Staff of the Army's Strategic Studies Group, and Co-Founder, Strategic Planner, and Deputy Director of the Modern War Institute at West Point where he also taught everything from military tactics to strategy.

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Spencer's Standing Orders (for the Urban Defender)

1. The defense is the strongest form of war. The attacker must come to you and you must be in prepared positions. He must cross the open street to attack you. Kill him in the streets and alleyways.
2. Never stop preparing the defense. Even when you are fighting you should be continuing to improve your positions.
3. Make the attacker go where you want, not where he wants. Build barriers as high as you can. Block all streets, alleyways, doors, and windows. Turn the city into a fortress of walls that make the enemy enter your prepared traps.
4. Use concrete. It is your greatest defensive resource. Do not use wood and sandbags, they are weak. Concrete reinforced by steel bars (rebar) is one of the strongest materials. Build barriers and fighting positions out of it.
5. Always hide yourself, your position, your weapons. Always believe the enemy can see you from above. If he can see you, he can strike you with missiles, bombs, and mortars. If you are always hiding, moving inside buildings, under tarps between buildings, the enemy will not be able to strike you.
6. Use any and all underground facilities. If there are none beneath you, start digging. The attacker will bomb you before assaulting. You can use the underground to hide, escape, protect yourselves, store supplies, move, and counterattack.
7. Surprise is everything. The attacker cannot see through concrete. You decide when and where the fighting will occur. The enemy fears urban snipers deeply. Make him think every window holds a sniper.
8. Fight in groups. One fighter is not enough. Fight in a minimum of 3-5 person teams.
9. Always attack from a protected and hidden position. It does not matter if you are throwing something or shooting something; do so from inside a building, from high or low floors, behind piles of rubble, or popping up from the underground.
10. Always have an escape plan after attacking. Put holes in walls, floors, and ceilings so you can run between rooms and buildings when the enemy bombs are falling, or if they are too close to you. Dig tunnels under buildings and houses as escape venues. Make lots of different interlocking attack positions. Pre-position supplies everywhere: ammo, grenades, rocket-propelled grenades, water, etc.
11. Do not get surprised. The enemy fears urban warfare. He will attempt to sneak past your defenses. Never have more than 2/3s of your fighters asleep.
12. Drink water. You cannot fight if you are dead. You can survive only 3 days without water, but 3 weeks without food. Purify any water (boil it, add bleach or iodine). If your pee is clear nothing to fear; yellow or brown you are going down.
13. Wash your hands before eating. Disease can kill you more than enemy bullets. When you eat and drink ensure that your latrines are more than 100 meters away. Do not let flies touch your food.
14. You must follow the laws of war. You must wear markings to identify you as fighters. No matter the enemy's tactics, you must follow the laws of war to include handling of captured enemy fighters.

8 Rules of Attacking a City

There are rules that restrain a military force attacking a city. A smart defender plans to maximize and use each rule against the attacker. The rules are:

1. The urban defender has the advantage. It takes much more force to attack and defeat an enemy that is in an established and properly constructed defense than one in the open.

2. The urban terrain reduces the attacker's advantages in intelligence, surveillance, and reconnaissance, the utility of aerial assets, and the attacker's ability to engage at distance.

3. The defender can see and engage the attacker, because the attacker has limited cover and concealment. The biggest tactical advantage for the defending force is that it can remain hidden inside and under buildings.

4. Buildings serve as fortified bunkers that must be negotiated. Cities are full of structures that are ideal for military defense purposes. Large government, office, or industrial buildings are often made of thick, steel-reinforced concrete that make them nearly impervious to many military weapons.

5. Attackers must use explosive force to penetrate buildings. The primary current methods of attacking an urban fortification are to either destroy it or prepare the building with explosive munitions and then send infantry in to enter and clear the entire building if necessary.

6. The defender maintains relative freedom of maneuver within the urban terrain. They can prepare the terrain to facilitate their movement to wherever the battle requires. They can connect battle positions with routes through and under buildings. They can construct obstacles to lure attackers unknowingly into elaborate ambushes because of the limited main avenues of approach in many dense urban environments.

7. The underground serves as the defender's refuge. Defenders can use existing tunnels or dig their own to connect fighting positions, hide from detection, and provide cover from aerial strikes, and even employ them offensively as tunnel bombs against a stationary military forces.

8. Neither the attacker nor the defender can concentrate their forces against the other. A defense established in dense urban terrain constrains both the rapid movement and the ability to concentrate formations against decisive points.

6 Main Elements of Any Defense

These six elements of the defense apply to any defense no matter the scale or environment. In the urban defense the defender must always think about how the urban terrain can be shaped and used to allow defenders to do what they want to do while stopping the enemy from doing what they want to do. The six main elements are:

- **Preparation** – As soon as the urban defender decides to fight, they must start to plan and shape the urban area to their plans. The urban defender never stops preparing. Even when they are fighting, they can have some fighters shooting while others are continuing to build obstacles, positions, and more.
- **Flexibility** – The entire defense must have flexibility to change to the attacker's actions. This is important for the entire defense of a city down to a single block.
- **Security** – Defenders must ensure all sides of the city are safe. All fighting positions require more than one person.
- **Operations in depth** – Be able to kill the enemy out as far away as possible and in belts or rings around the center of the city going out as far as possible.
- **Disruption** – Use the city to break apart the attacker's formations, convoys, separate tanks from infantry.
- **Maneuver** – Use both fires and fast-moving defenders
- **Mass and concentration** – Be ready to surge large groups of defending fighters against the attackers at critical moments.

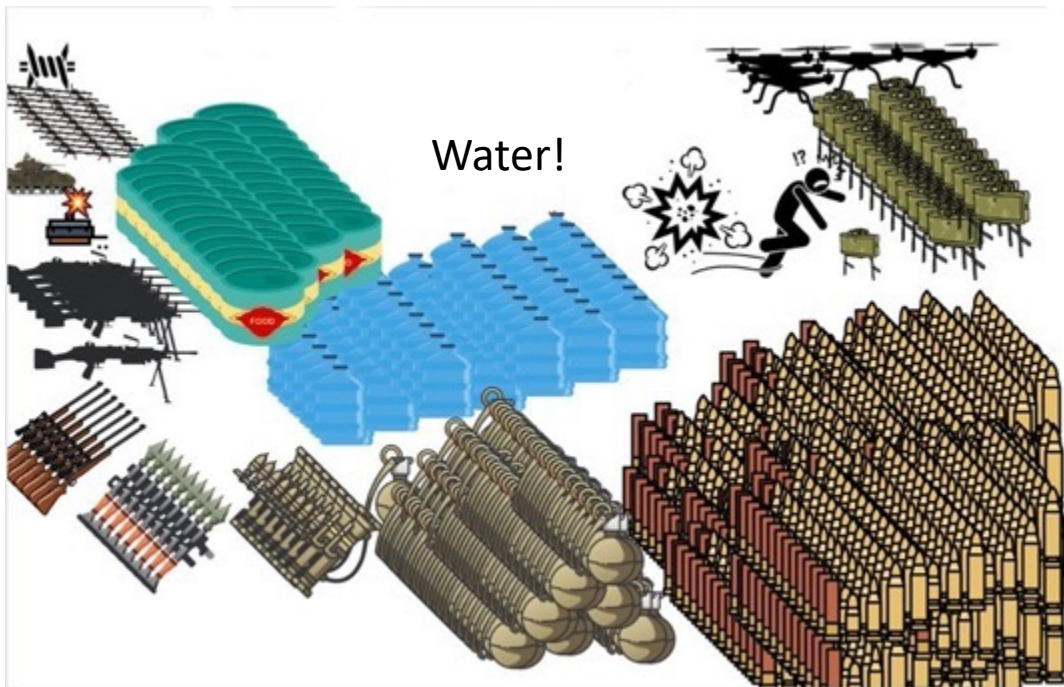
General Information

Gather Supplies

Urban warfare, to include defending, requires four times the amount ammo as the same operation in rural terrain.

On top of anti-tank guided missiles (ATGMs) like Javelins and NLAWs, defenders needs a lot of rifle bullets, grenades, anti-tank mines, anti-personnel mines, disposable drones, mortars and mortar rounds, water, non-perishable foods, and fuels (cooking/vehicle/generator)

What does a defender need?



Very Important

1. Ammo(a lot)
2. Grenades (many)
3. Water
4. Ready-Food
5. Anti-Tank-Weapons (Javelins)

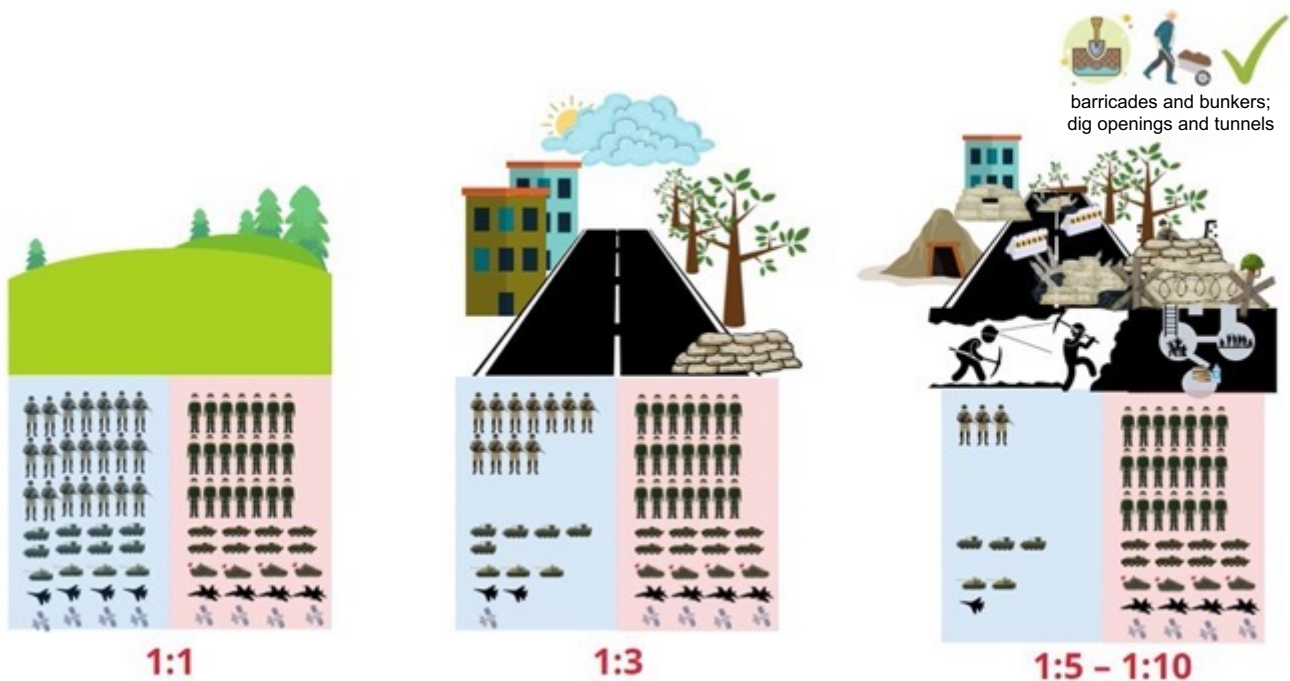
Important

1. Anti-Aire raft (Stingers)
2. Mines (Claymore)
3. Sniper Rifles
4. Rifles
5. Anti-Tank Mines
6. Fuel
7. Drones

You have the Numbers & Advantage

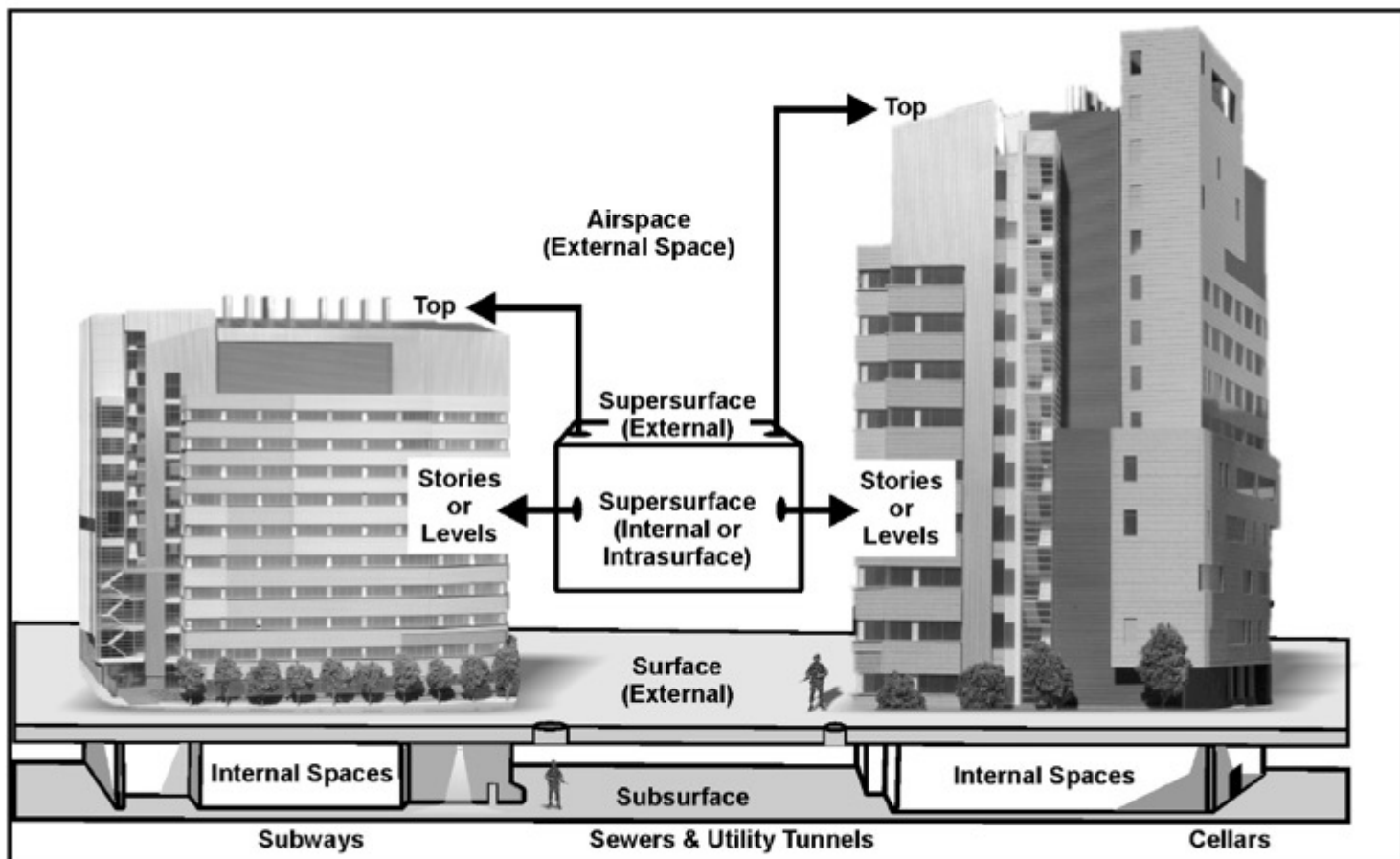
Prepared urban defenders have the advantage. In 2016, it took over 100,000 security forces 9 months to take Mosul against 5,000 to 10,000 ISIS. The Germans employed tens of thousands of soldiers to try and take Stalingrad, and they were unsuccessful. Military doctrine says the attacker needs 3 to 5 times more than he would during an attack in wooden or open terrain. The enemy could need as much as 5, if not more, attacking soldiers to 1 defending soldier/fighter.

A few prepared defenders can hold against a lot of attackers in a city



The Urban Defender Uses Everything

The urban defender understands the urban environment. It is theirs. The urban terrain is the source of their power. They maximize every dimension. The narrow streets, high buildings, concrete, elevations, basements, tunnels, the millions of hiding and attacking spaces.



Introduction Figure-1. Multidimensional urban environment

Protection and Safety

You cannot fight if you are dead. Shape the urban area to provide you the most protection and safety to fight the enemy when he comes.

Phase I of an Enemy Attack

The first phase of the enemy to attack a city will be bombing of any known enemy positions (buildings/places seen from the sky or already known) to soften the defense of the city and demoralize the defending force in the city. In this phase, all efforts to hide known key locations and fighting positions must be taken. Defenders must know where to escape the bombings (strong buildings, underground) and where to reemerge ready to fight: this is essential.



Phase II of an Enemy Attack

The next phase, as the attacker gets closer to the city, will begin heavy bombardment on all urban structures, with hope that the defenders will surrender. This could last days and weeks. This is where the underground is critical to survive while maintaining weapons and supplies. Defenders must stay aware of the enemy's location, when they are moving towards the city, getting close.



Phase III of an Enemy Attack

The next phase of the city attack will be indirect and direct fires as the enemy military moves to the city's boundary lines, attempting to enter the urban environment. This is a dangerous time because the defenders must be able to attack the invaders but also survive their attacks. The defenders can "hug" the attackers, allowing them to get so close they can no longer use their artillery out of fear of killing their own soldiers.

The rubble from earlier phases makes strong fighting positions.



Stay hidden at all times

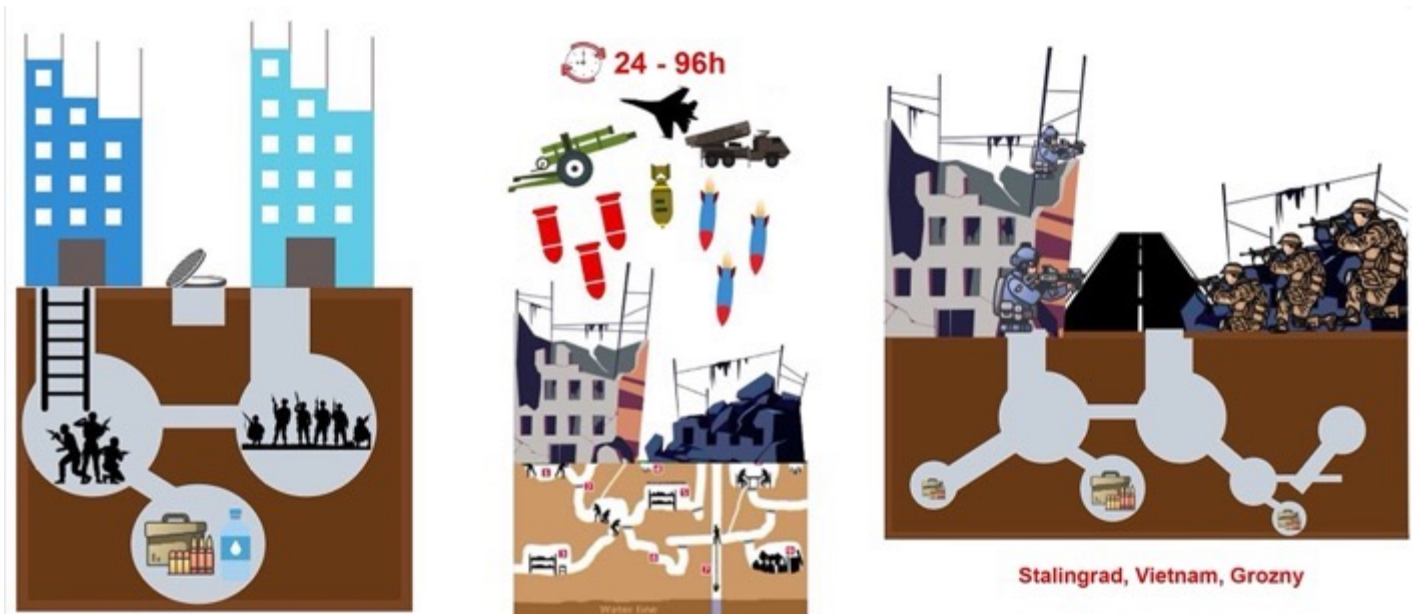
You must stay hidden. If you can be seen, you can be attacked by missiles, bombs, artillery, and mortars. Put tarpaulins, sheets/blankets, wood, plastic, tin, anything across the top of or between building so the things above or down the street can't see you. Hide everything.



Use the Underground!

The underground has long served as a powerful urban warfare tool. It allows defenders to escape bombs, hide fighters, cache and protect supplies, to move unseen, and to attack the invading enemy.

The underground is the defenders best friend



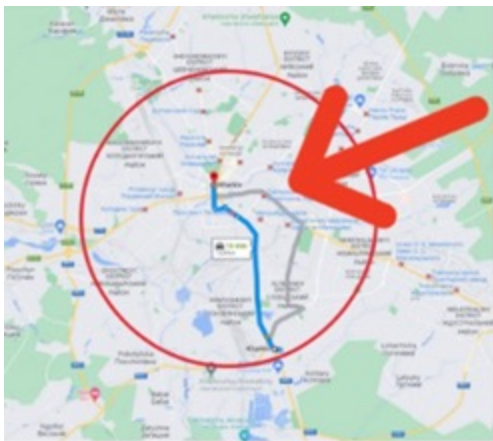
If there is no underground below you, start digging. You would be surprised at the depth and length of a tunnel a team of civilians can dig in just a few days. Dig bomb shelters, passages under buildings, and safe places to put caches.



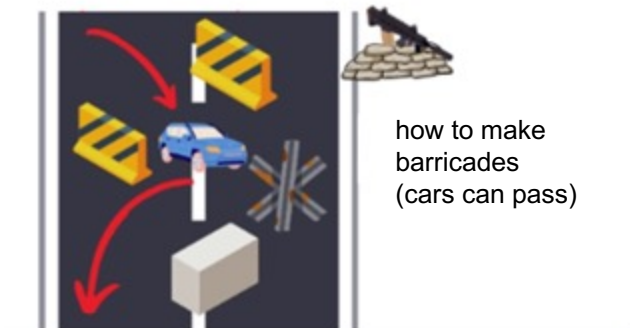
Barriers, Barriers, Barriers

The urban terrain must be shaped to slow or stop an invading military forces so they can be attacked; force them into traps and ambushes, denying them access to the urban area.

Build multiple defense lines. Prepare complete circles around the city. Build fortifications. Place layer after layer of obstacles and blocks. Put up blockades on every street. Speed is security. A slow vehicle or soldier is easier to hit and destroy!



- piercing = 30 min to the centre
- fast to the goal
- multiple barricades
- consumes more fuel
- slow = easier to target
- line of defence
- before each intersection



Always improve the defense

In any city defense, you always continue to prepare for the enemy's attack.

Even when fighting, continue to improve your position. Some defenders can be fighting while others are making positions stronger. Do not sit around and don't stand in the open! Build bunkers near the checkpoints. Dig tunnels! Build bunkers near the checkpoints. Dig tunnels!



Block all ways into the city

Go out and build obstacles in the streets! Start with any bridges that were not destroyed. Block them with buses, dump trucks, cars, concrete, wood, trash, anything. Then block any spot in the city where there are tall buildings on each side in already tight areas. All streets and alleys!



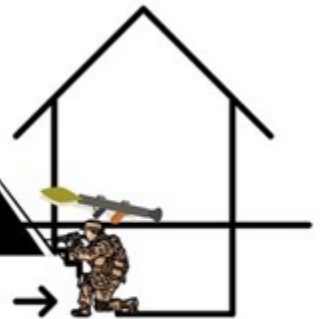
Use the strongest materials

You must turn the city into a fortress and close the gates. Block every street, alleyway, sidewalk, door, and first floor window. Use urban material, it is strongest and gives the most protection.

Cement and building material are your best protection



protection
class



basement

Use reinforced concrete

Use concrete as the primary defense material. An urban defender uses the unique urban material to their advantage. Concrete reinforced with steel bars (rebar) is ten times better than sandbags. Use rubble, rock, bricks.



Concrete reinforced with steel bars (rebar)



Sandbags for barriers/bunkers

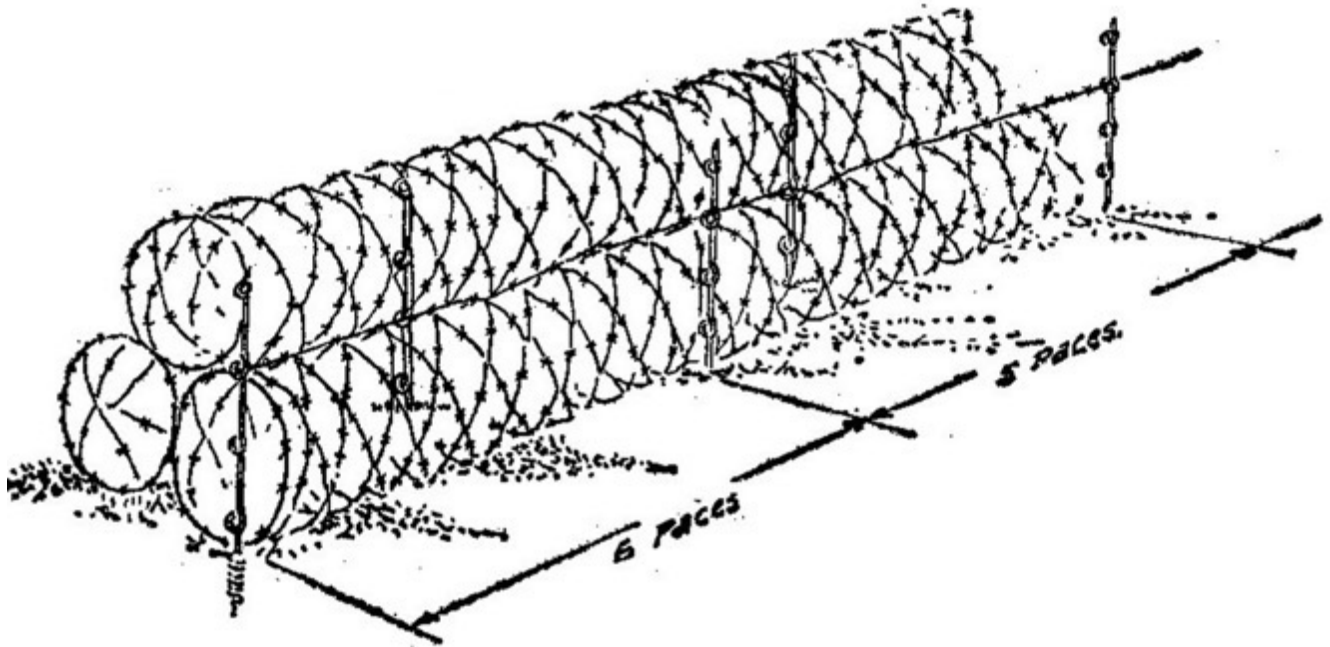
Make barriers that will stop everything

Use existing concrete barriers. Modern cities often have existing concrete barriers for vehicle checkpoints or infrastructure protection. These barriers offer ready-made field fortifications. Steel hedgehogs are good too.



Use Razor Wire

If you have razor wire, use it. Stack three together. Lay between buildings. A triple strand razor wire can stop most vehicles, even slow a tank.



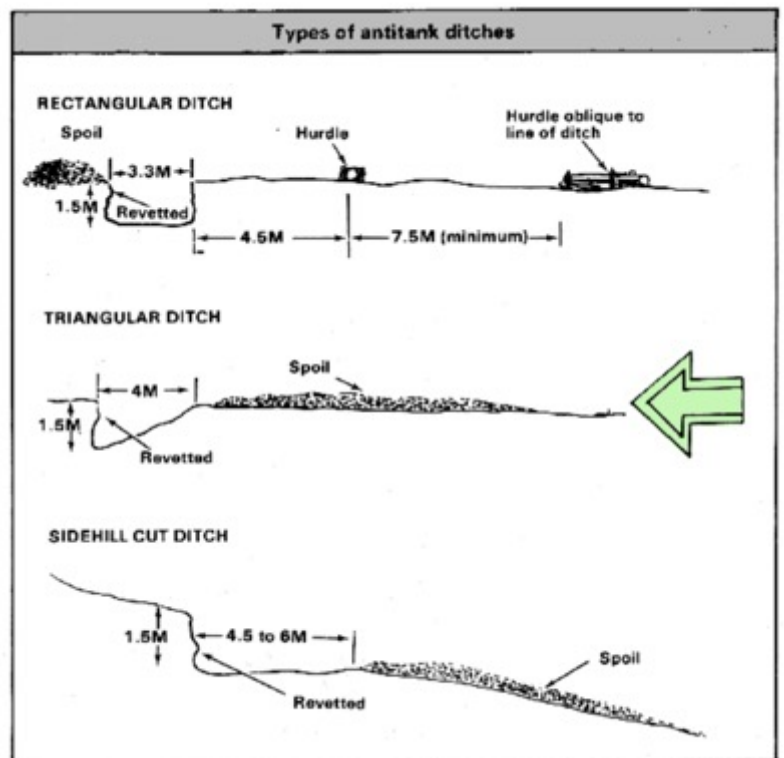
Use Rubble

Deconstruct buildings: create rubble by destroying structures to produce broken concrete, rebar, stones, bricks, or solid material to include debris.



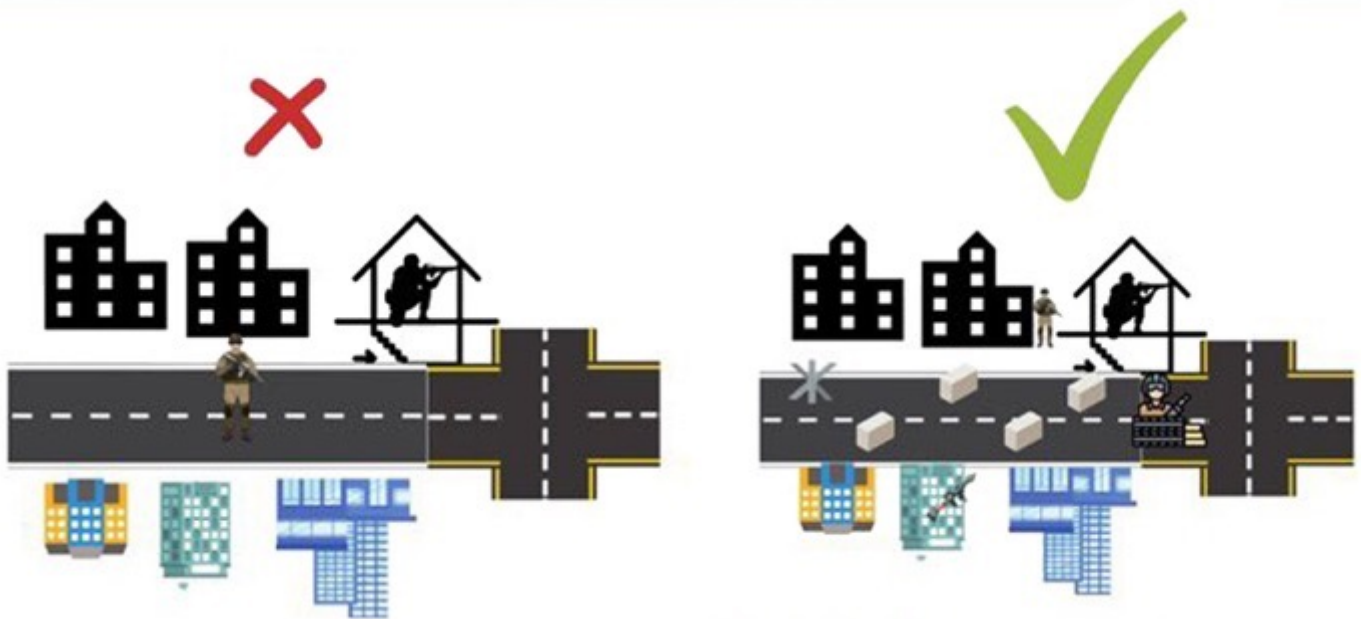
Dig Anti-tank ditches and trenches

If you have time and digging assets, dig tank ditches and emplace a barrier around the densest parts of the city, especially any entrances that can be spared without impacting civilians needs. The goal is to add density to already dense urban areas.



Stop or Slow all Vehicles

Slow or stop all vehicles from entering or moving through your areas. Block all the streets. Slow vehicles down so you can shoot or throw Molotovs at them. You must be inside buildings. Anyone with a weapon on the streets can be seen by the enemy and hit by rockets or artillery.



- Roadblocks in every town
- slows enemy down
 - (they) burn more fuel
 - easier to target

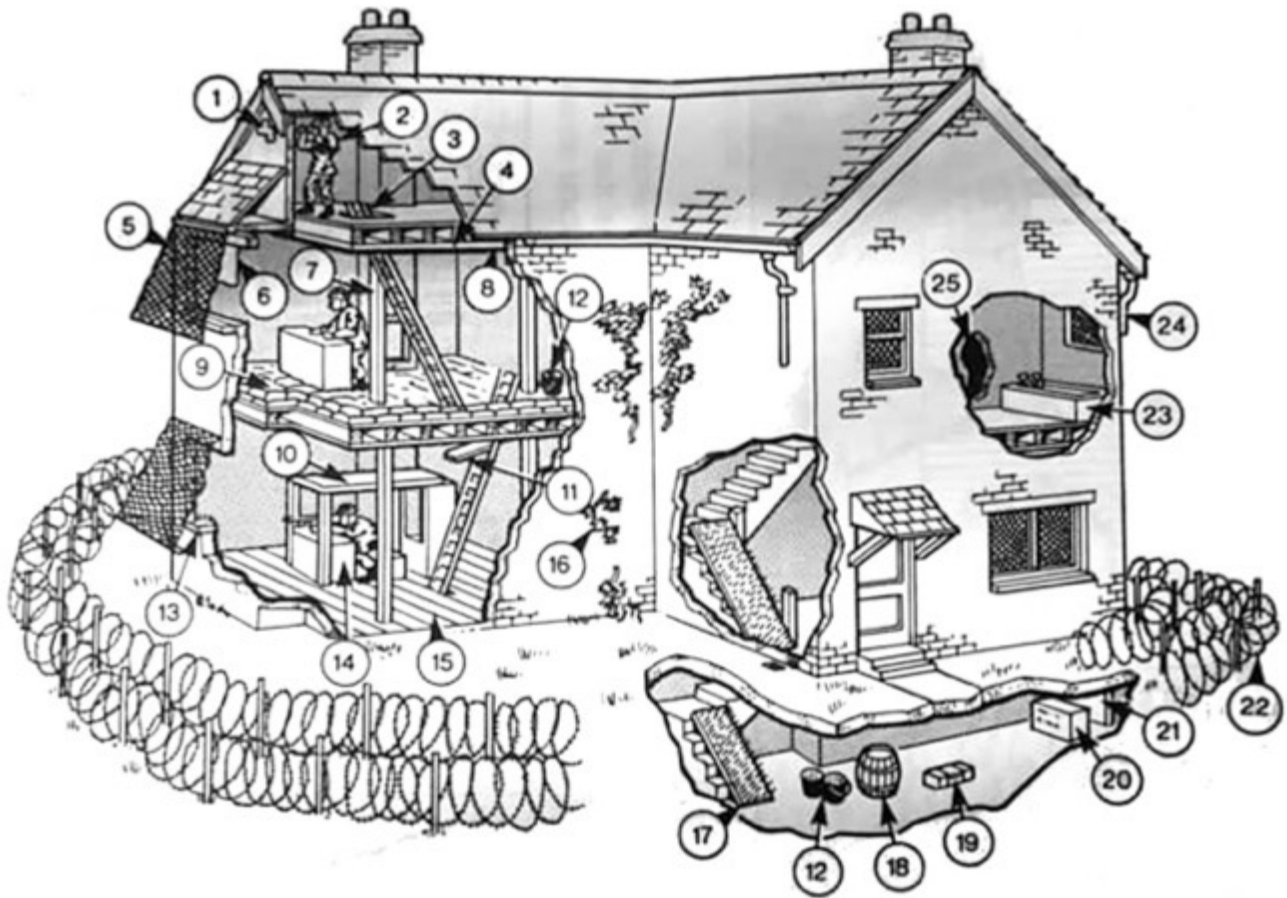
Attack, Attack, Attack

While the purpose of the urban defense may not be to destroy all the enemy attackers, continual/selective attacks achieve the goal of holding the city. You want to turn every street into a meat grinder into which the attackers feed their soldiers to die.

Build Strong Points Inside the City

Build strongpoints along key avenues into the city. Be sure to have an escape route (like a hole into the next building); key strong strongpoints, though, can take days to clear. Do not use buildings with glass or wood, which will shatter or burn.

A House Prepared as a Strong Point



1. Small hole in wall under eaves
2. OP in attic
3. Opening in floor
4. Capsill
5. Wire netting
6. Curtain or sacking
7. Strut

8. Remove plaster or provide hard cover
9. 2 Layers of sandbags on floor
10. Doors
11. Ledge (To impose delay)
12. Sand
13. Boards with nails on sill
14. Boxes filled with stones
15. Groundsill
16. Creeper removed

17. Boards with nails
(Narrow passage left for defenders)
18. Water
19. Ammunition
20. Packing case filled with stones
21. Door leading to emergency exit
22. Barbed wire obstacles thickend at corners
23. Bath filled with water
24. Rainwater pipe removed
25. Intercommunication hole in partition wall

Preparing a House for Defense

There is no end to the tasks that will improve your defence: the only limiting factor will be time. After you have worked out your arcs of fire and cut firing ports to cover these, you will have to work out a priority of work to achieve the best possible defence in the time available.

Observation

Cut a hole for observation in the attic, the wall underneath the eaves.

Use **curtain or sacking** to cover the windows. Cover windows with **wire netting** to keep out grenades or satchel charges.

Floor boards should be removed

below downstairs windows so that if the enemy breach the window they will not land on a solid floor. Put nails or broken glass between the floor spars.

Grenade holes

Small bores should be cut in the floors so that if the enemy get in downstairs you can drop grenades on them from your fighting positions

Do not forget the **chimney**: fill it with barbed wire

Remove all the plaster off the ceiling and use this to fill sandbags etc. If you remove the plaster now it will not fall on your head later.

Two layers of sandbags

on the floor will stop the enemy shooting through it from below should they break in downstairs

As temporary stairways, use holes cut in floors with jadder or knotted rope.

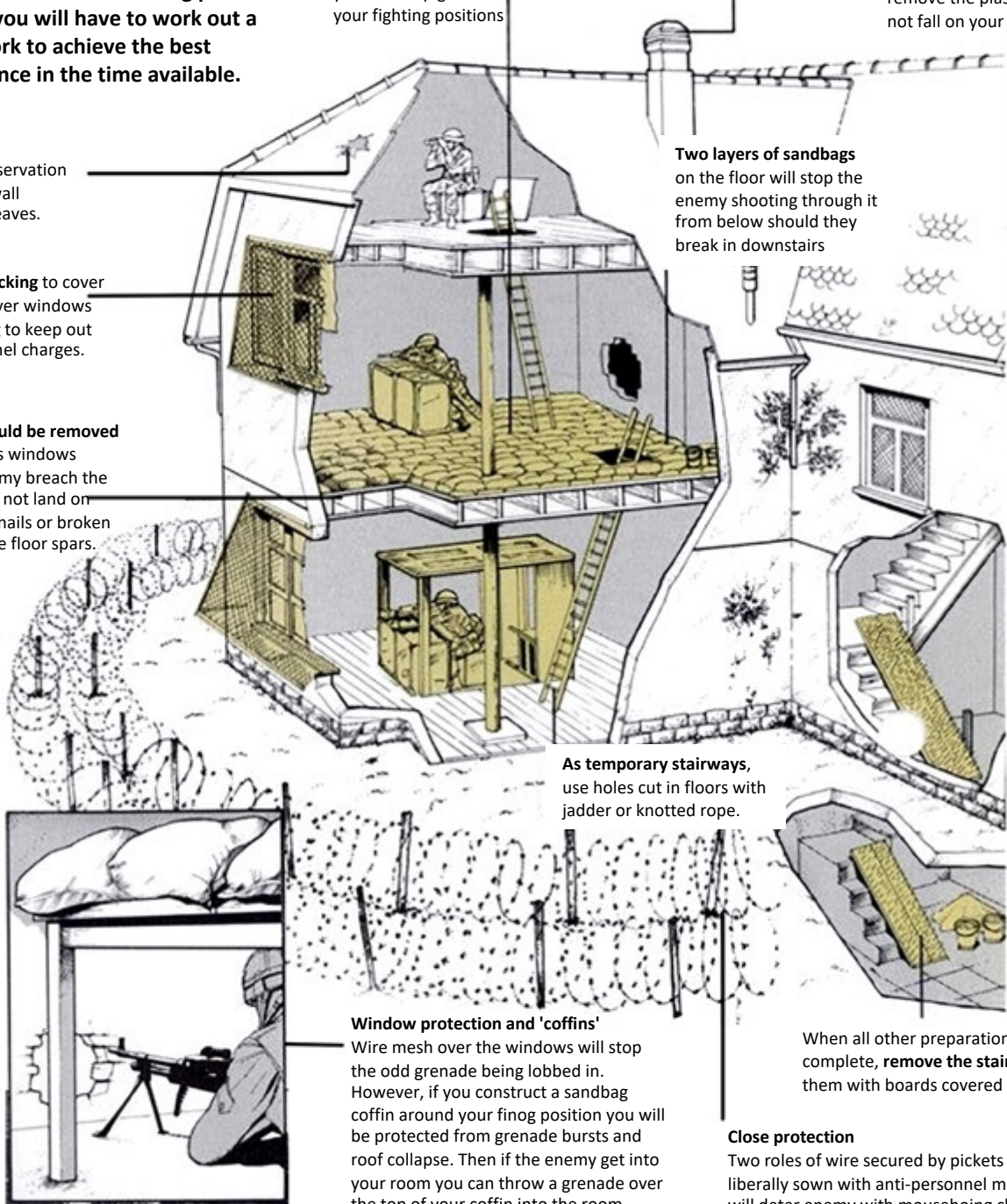
Window protection and 'coffins'

Wire mesh over the windows will stop the odd grenade being lobbed in. However, if you construct a sandbag coffin around your firing position you will be protected from grenade bursts and roof collapse. Then if the enemy get into your room you can throw a grenade over the top of your coffin into the room.

When all other preparation is complete, **remove the stairs** or cover them with boards covered in nails.

Close protection

Two roles of wire secured by pickets and liberally sown with anti-personnel mines will deter enemy with mousehoing charges.



Public services

Gas is a real hazard, so turn it off outside the house the same goes for the electricity If the enemy gets in, having to fight in the dark gives you the advantage you know the layout of the house, he does not.

Fighting in the dark

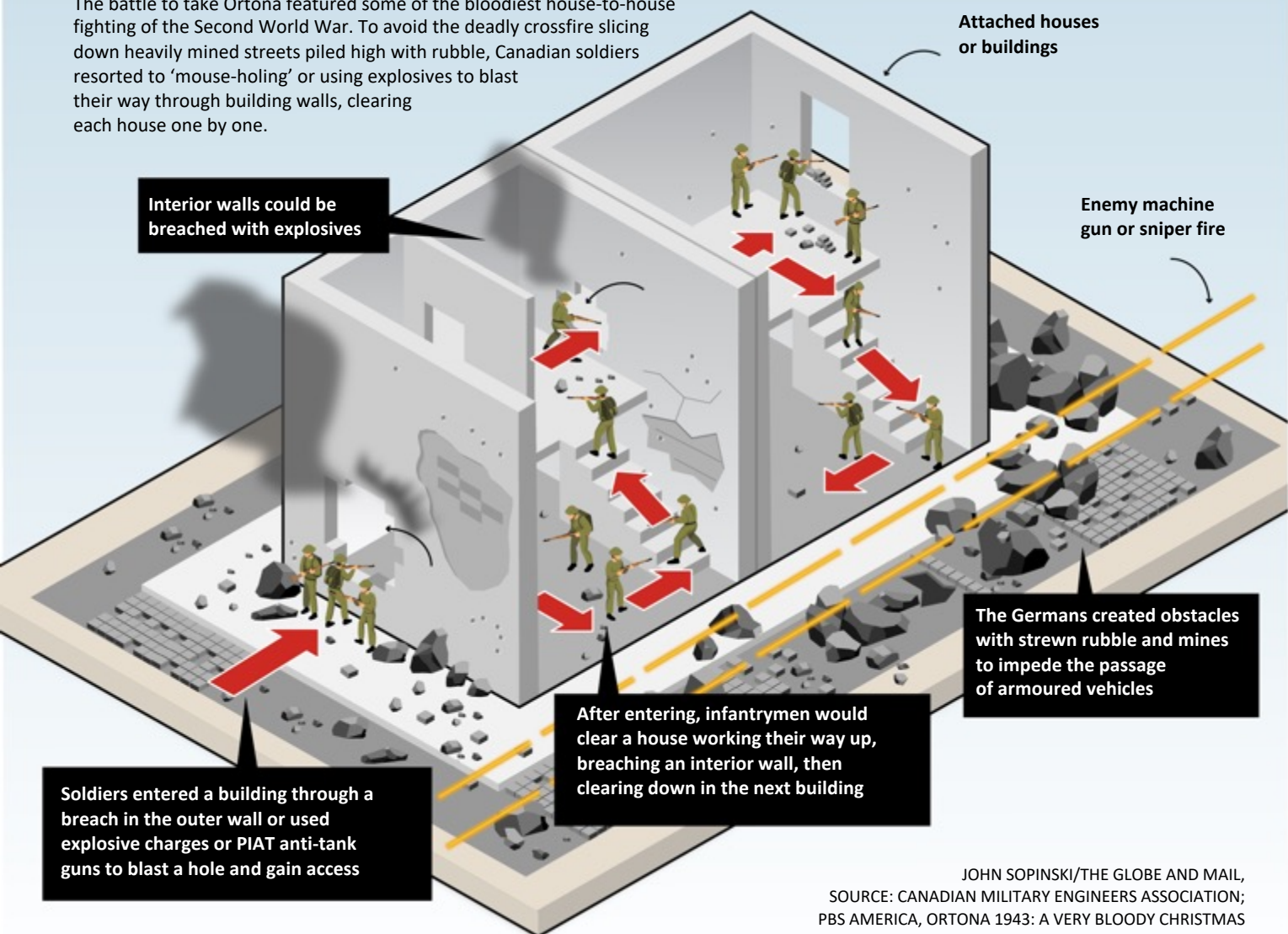
The rooms will be in total or semi darkness, so you can use neck wires and low wire entanglement in the rooms. This will slow the attacker up and give you time to get out of a lost room,

Make Lots of Mouseholes

Make mouseholes and tunnels. The tactic of using mouseholes—holes created in interior and exterior walls of buildings that allow soldiers to move through the exterior walls and interior spaces of buildings—is one of the most dominant, recurring defense technique. It allows you to move and attack unseen and protected in the concrete structures. Tunnels allow you to also escape bombings.

MOUSE-HOLING AT ORTONA

The battle to take Ortona featured some of the bloodiest house-to-house fighting of the Second World War. To avoid the deadly crossfire slicing down heavily mined streets piled high with rubble, Canadian soldiers resorted to 'mouse-holing' or using explosives to blast their way through building walls, clearing each house one by one.



JOHN SOPINSKI/THE GLOBE AND MAIL,
SOURCE: CANADIAN MILITARY ENGINEERS ASSOCIATION;
PBS AMERICA, ORTONA 1943: A VERY BLOODY CHRISTMAS

Build Bunkers Inside and Outside Buildings

If there is time, create make-shift pillboxes, i.e. enclosed bunkers. They should have overhead cover (concrete on top of you) and be hidden from above.



Put Heavy Weapons Inside Buildings

You can put heavy weapons systems inside buildings. Large weapons can be disassembled and reassembled on the higher floor of a building to provide superior lines of sight and angles of fire. This also creates bunker-like protection to the defender's most casualty-producing weapons.



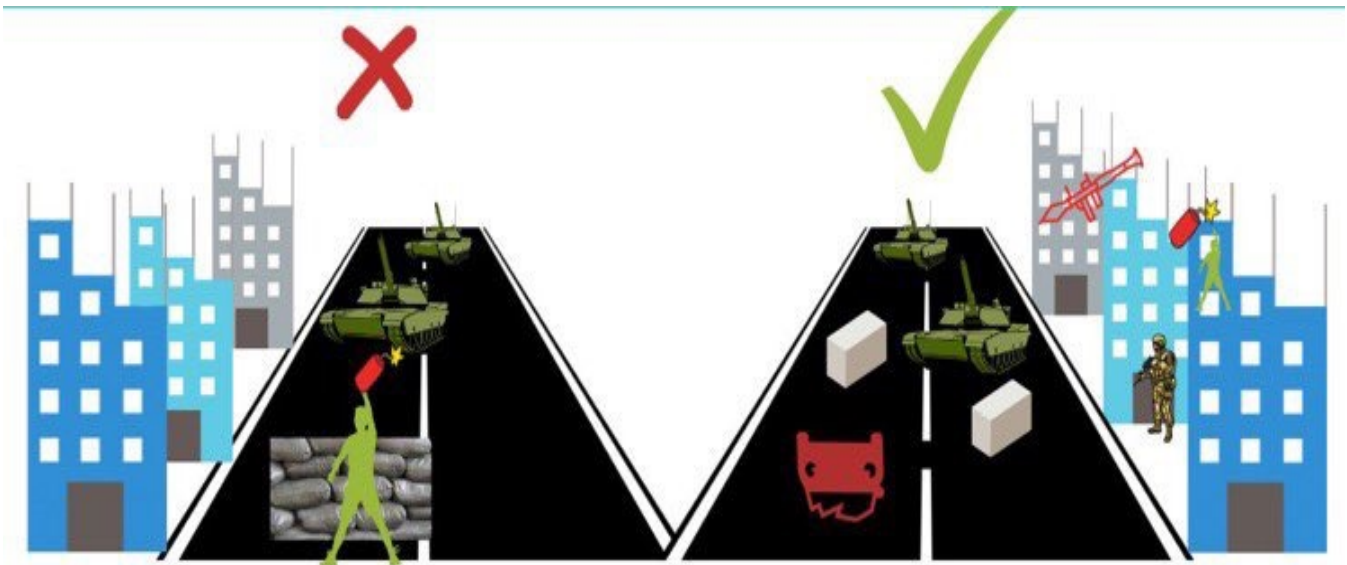
Put Caches (hidden supplies) Everywhere

Place caches everywhere you plan to fight: primary, second, and third positions. Urban terrain provides great advantages for hidden, protected, and concealed pre-positioned supply points to support multiple primary, alternate, and supplementary battle positions.



Attack From the Buildings (stay off streets)

Use the streets with buildings close to the roads to attack. The higher floors are even better because tanks and other guns cannot elevate their barrels that high. It is just harder for the attacker to fight looking up. Defenders must stay hidden inside buildings until the moment of attack, then change positions.

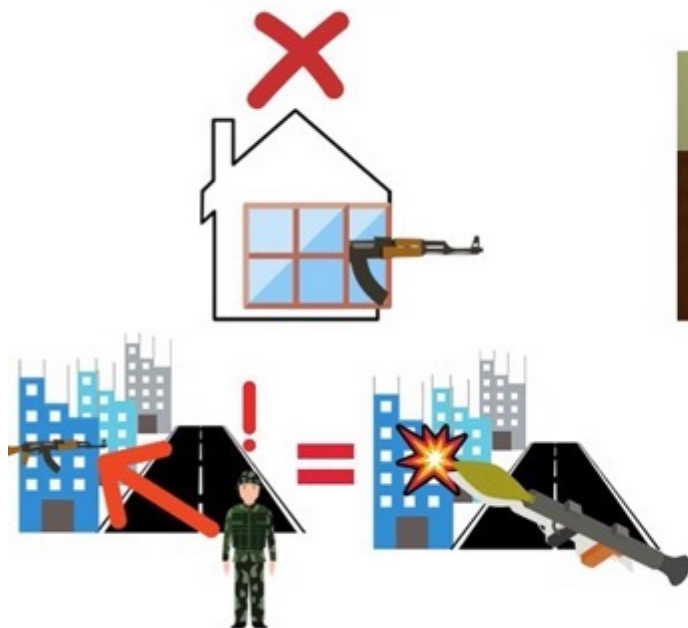


Shoot From Inside Buildings

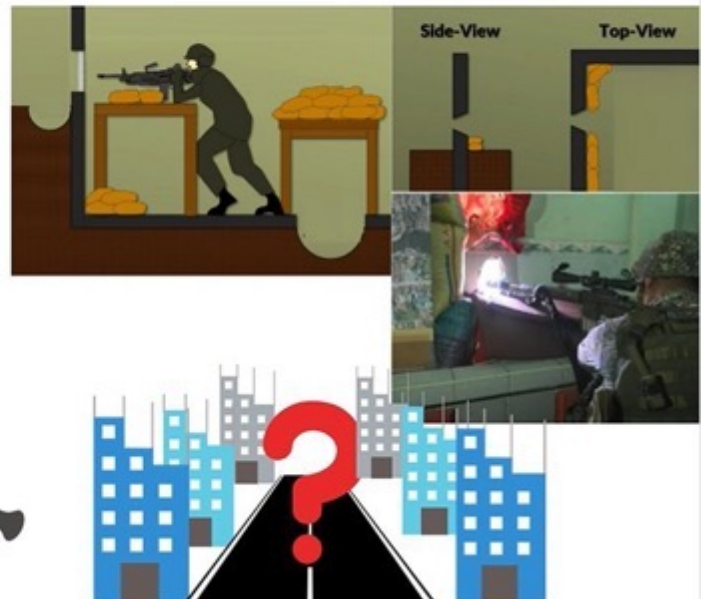
There is no reason an urban defender should be visible from the sky or street by the approaching attacker when in their attack positions. Do not stick weapon barrels out of windows. Stay back and shoot from inside the rooms to reduce visibility.

Militaries fear snipers. Turn every window into a possible sniper position. Fire through rooms and buildings to the outside.

Don't stick weapons out of the windows



Inside you are invisible



Plan Deliberately Where to Shoot

Again, your survival in order to fight is important, so think hard about where you will shoot. Choose elevated positions down long streets; shoot and run; employ ambushes. Aim for the windows and doors of non-armor vehicles or soldiers in the open. Snipers are one of a soldier's greatest fears.

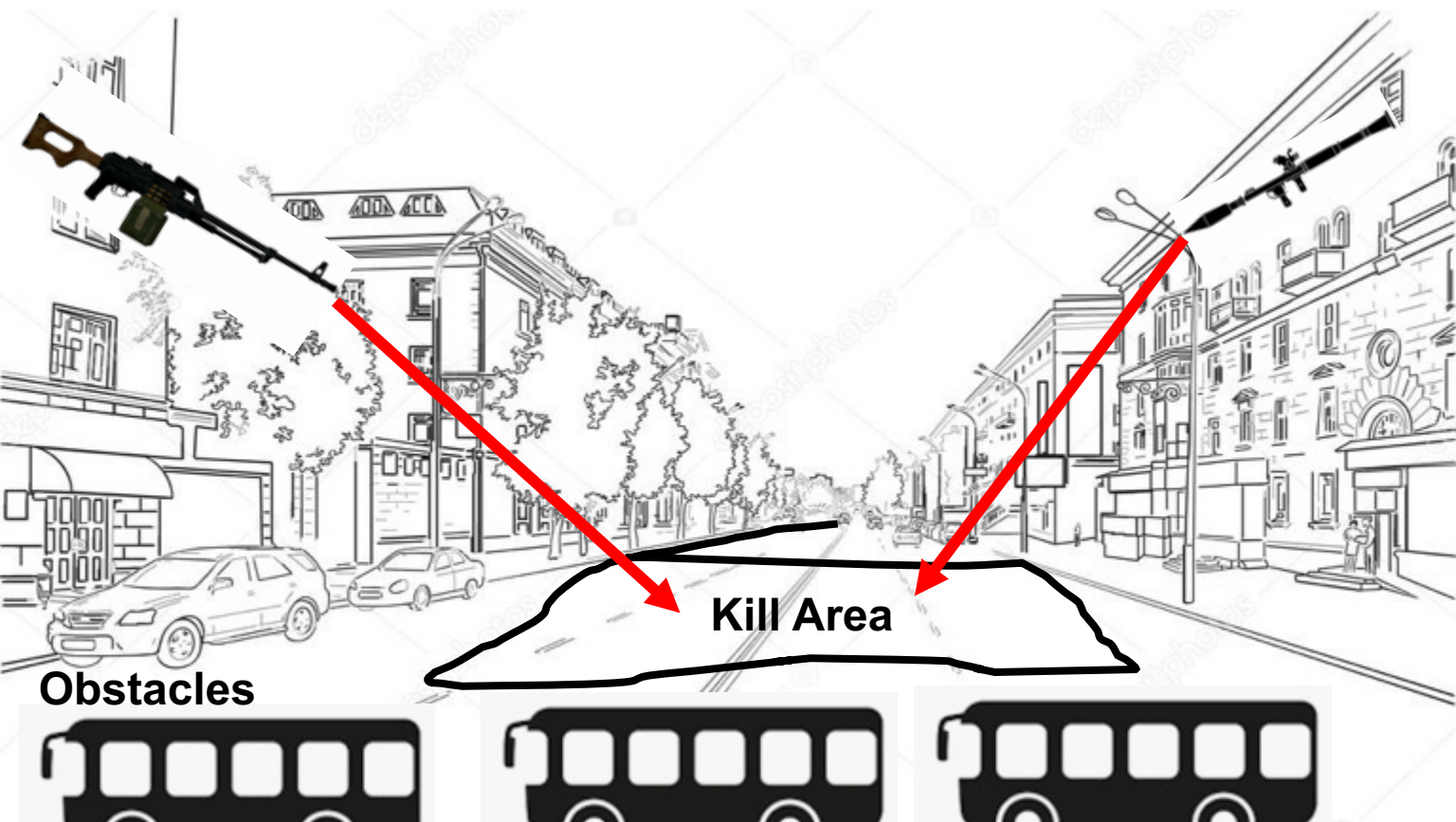


Build Engagement Areas (Kill Zones)

One of the most powerful defense tactics is the establishment of engagement areas (kill zones...places the enemy will die).

7 simple steps to build a kill zone (adjusted for simplicity):

- Identify all likely ways the enemy will come.
- Determine what the enemy will do/try to do.
- Determine where you want to kill the enemy.
- Plan and integrate obstacles (slow/stop them)
- Decide where to hide and shoot from.
- Plan and integrate indirect fires (to include molotov cocktails).
- Practice the plan multiple times.



Commercial Drones Can Be Helpful

Based on the electronic warfare capabilities/jamming situation, commercial hobby drones can be used to spot the incoming attackers and prevent the attacker from surprising the defenders. They can also put fear into the hearts of soldiers. If they have to look up, and not know what is in the sky, they will not know if it is a killer drone or not.



Use Hit and Run Attacks

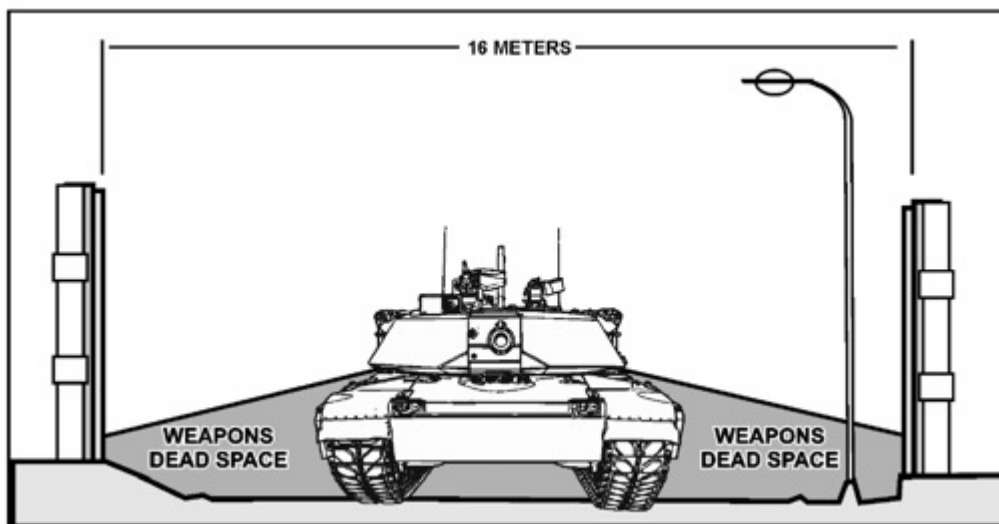
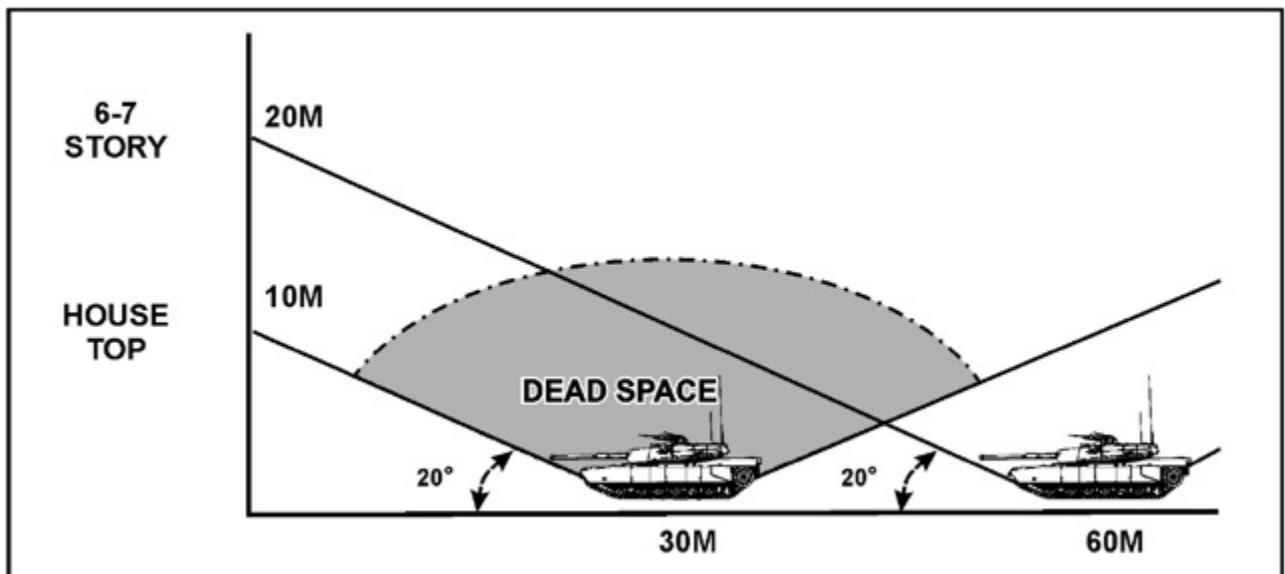
Use hit-and-run, antiarmor ambushes. At the First Battle of Grozny, small groups of 3-5 fighters armed with only AK-47s, grenades, and RPG-7s or RPG-18s, engaged armored vehicles from either basements or upper stories of buildings, where main tanks and other weapons could not effectively return fire. They would strike the first and last vehicles to trap the others inside their trap, hitting then moving away.



Tanks

The attacker of a city in high intensity combat must have tanks to go inside the city. They need tanks, infantry, engineers, artillery and more. But they really need tanks. The defender should prioritize destroying tanks.

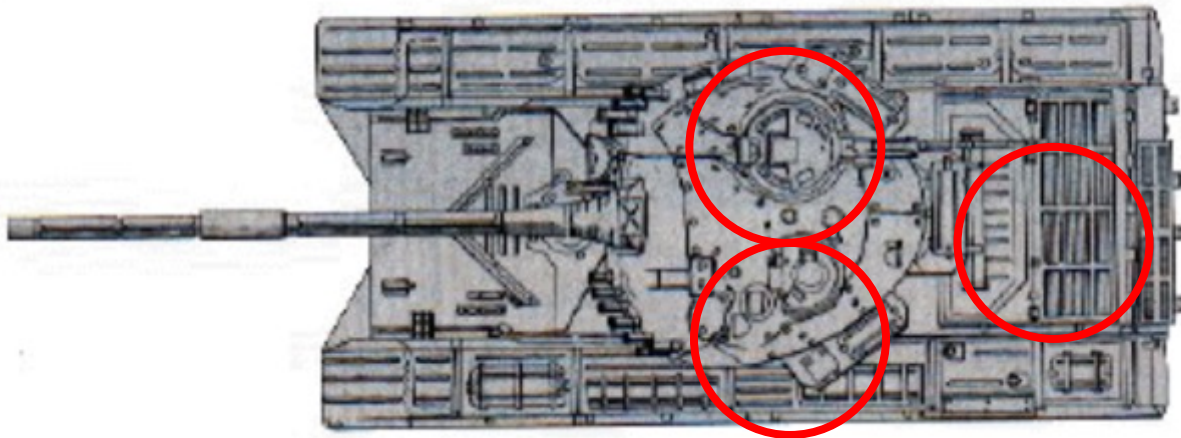
Tanks cannot elevate their guns to higher levels or lower levels of buildings. When planning to attack one, be where it cannot shoot.



*Diagrams from US Army Army Tactics, Techniques, and Procedures 3-06.11
Combined Arms Operations in Urban Terrain

The Top of The Tank is Weak

The most vulnerable spot on any tank is the top where the armor (steel) is thinnest. That is why they fear the Javelin and other anti-tank armaments that are “top-attack” weapons, which fly up into the sky and then come down on top of the tank. If the defender has rocket-propelled grenades that cannot penetrate thick armor or anti-tank hand/rifle grenades, it is best to be on the upper floors of buildings and drop them onto the tanks.



A closed tank relies on optics that could be blinded

Defenders may not be able to destroy a tank, but they can make it not work or not work as well. One way to do this is to blind the tank, impacting the vision of the soldiers inside. This is possible by shooting at the vision block (places they look out – outlined in red below), especially with large caliber weapons such as rocket-propelled grenades (RPGs).

The upper left is the tank commander vision block. The upper right is likely the loader independent viewer (depending on model of tank), while the area on the tank front, under the the main gun is the driver vision block. Shoot or throw things to break or cover these ports.



Other last resort blinding material

Any attempt to blind a tank must be done from a position of safety, such as from high floors of a building where things can be dropped/thrown on top of it.

Some liquids (not water) poured onto the vision blocks of a tank will make driving difficult. This can be old oil or paint which is hard to wipe off. If a soldier inside opens the tank, he can be shot.

Choose carefully what vehicles to attack in any situation. A gasoline truck that cannot reach the tanks in forward position is more damaging than a truck that carries troops.



Molotov Cocktails

Molotov cocktails can be effective weapons if used properly. Throw them from protected sites, at the right targets, and at select spots on vehicles.

Think about where you will stand to throw (then run). Dropping from windows above vehicles most ideal. Vehicles without weapons on top the most vulnerable, but if it is armor, choose where to hit.

Vulnerable places of the enemy's equipment



Molotovs & other close tank attacks

Molotov cocktails will likely have very little to no effect on a tank that is closed. If the tank hatches are open, Molotovs may be effective, may cause a tank to slow/stop to support an ambush with anti-tank or other better tools.

Two Molotovs is better than one such as a volley from both sides of a street from upper floors.

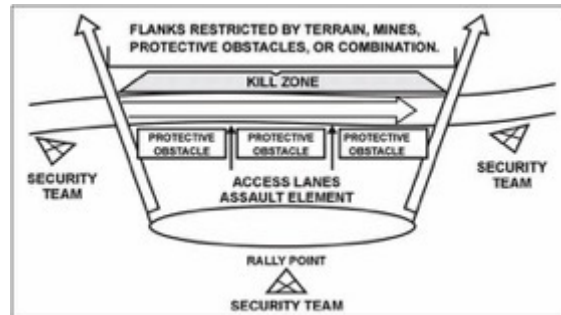


The Ambush

The urban defender can employ ambushes in support of their overall area or mobile defense. Preferably they should maximize the urban terrain but can also be employed on vulnerable routes such as roads between urban areas.

The ambush maximizes the greatest surprise in a planned and practiced military tactic. It must be executed with extreme caution.

An ambush is a surprise attack from a covered and concealed position on a moving or temporarily halted target.



There are two categories of ambushes: **hasty** and **deliberate**.

There are three types of ambushes:

Point. In a point ambush, defenders deploy to attack an enemy in a single kill zone.

Area. In an area, defenders deploy in two or more related point ambushes.

Anti-armor. An anti-armor ambush focuses on moving or temporarily halted enemy armored vehicles.

There are two formations the **linear** and **L-shaped**

Principles of the Ambush

Security – The urban defender must always protect themselves. In conducting an ambush securing and protecting the group is critical. Plan to secure the ambush group getting to the ambush site, when doing the ambush, and getting away. A security team is always the first people to put in position at the ambush.

Surprise – The ambush must be a surprise to the enemy. When and where the enemy least expects it. That is why it takes a lot of planning, stealth, and discipline to do an ambush. If you lose surprise, all is lost.

Violence of Action – A ambush requires overwhelming fire superiority and aggressive action. Both must be maintained throughout the ambush.

Coordinated Fire – The ambush should isolate the kill zone to prevent the enemy escaping or being reinforced by other enemy. All weapons should be used including mines. The leader of the ambush makes sure all weapons are used at the same time to inflict the maximum damage on the enemy in the opening seconds.

Control – The leader must control the actions of each group in the ambush to include during moving, waiting in the ambush and getting away. Controlling the ambush group when the enemy get close is critical.

Best Why to Organize for an Ambush

- **Leaders** – There should be a single leader of the ambush and a leader of each team.
- **Assault Team** – The assault team will shoot during the ambush. They will seize and secure the ambush area. They protect the defenders that will go into the kill zone/ambush to do special things like pickup enemy weapons.
- **Support by Fire Team** – The guns/fighters that will provide direct fire support to the ambush.
- **Security Team** – Fighters that will be put in place first before other elements can be emplaced, provides local security for squad, provides early warning, isolates the objective, supports the withdrawal

Thinking Before the Ambush

After organized to do an ambush, the urban defenders should think and plan for doing an ambush. A common tool for military groups to think and plan an ambush is mission, enemy, time, terrain, and troops available.

Mission - All members of the ambush group must know what they are supposed to do, their exact job and duties, and why they are doing the ambush. Every defender must understand.

Enemy – The ambush group must think about the enemy. Never attack an enemy the group can't overwhelm with the tools they have. Think of the type and size of the enemy you will or won't attack. Think about what the enemy will likely do in the ambush. Will support come to them? Can they call for help? What weapons and equipment will they have?

Time – The ambush group should think how much time it will take to get to the ambush location, time to setup, how long they will wait hidden once setup. Will they do at day and night?

Terrain – The ambush group thinks about choosing the best place to do the ambush. How to get there. How to use the urban terrain, roads, obstacles to help keep surprise and conduct the ambush.

Troops – Available – How many defenders are available to do the ambush. How many are needed in each team?

Deliberate, Point Ambush

A strong type of ambush is a point, deliberate ambush that is planned ahead in great detail and again conducted against a specific target at a predetermined location.

A point ambush is where the defenders deploy to attack an enemy in a single ambush with one kill zone.

The ambush leader and team requires detailed information in planning a deliberate ambush. To include:

Size and composition of the enemy

Weapon and equipment available to the enemy

Enemy's route and direction of movement

Location and time of ambush

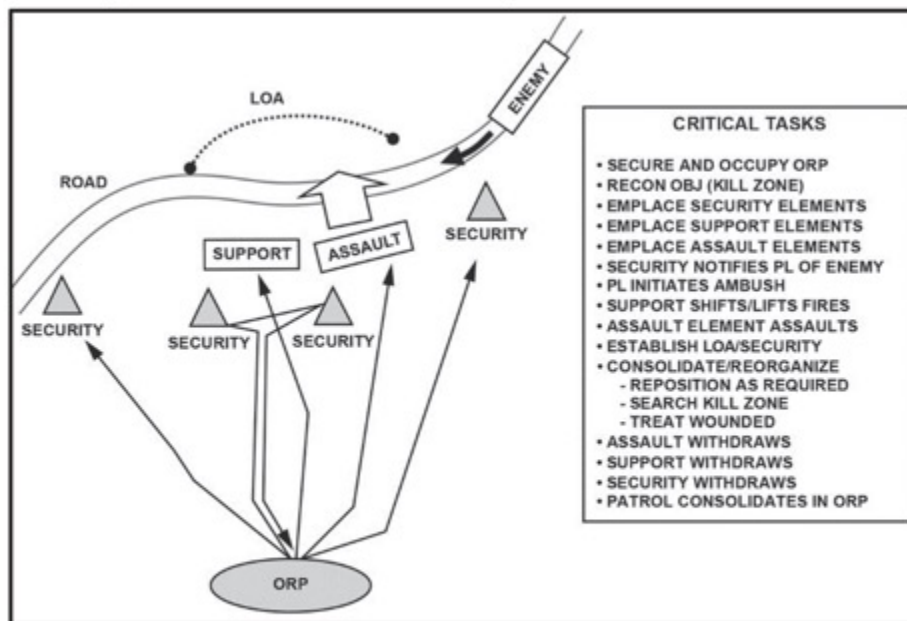


Figure 7-4. Deliberate ambush

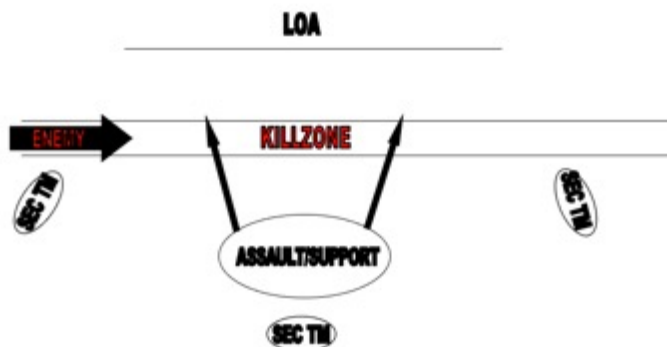
LEGEND

LOA – limit of advance; OBJ – objective; ORP – objective rally point; PL – platoon leader; RECON – reconnoiter

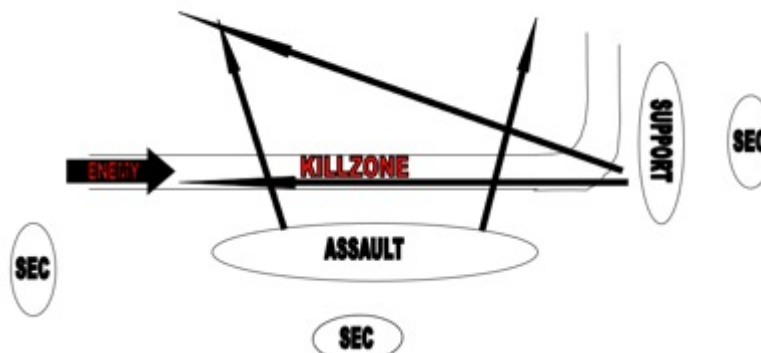
Picking the Ambush Location and Formation (1)

The urban defender picks the best location for the ambush to maximize the use of surprise and success.

Linear. In an ambush using a linear formation, the assault and support teams deploy parallel to the enemy's route. This positions both elements on the long axis of the kill zone and subjects the enemy to fire on their side. This formation can be used in close terrain that restricts the enemy's ability to move against the ambush team or in open terrain, provides a means of keeping the enemy in the kill zone.



L-shaped. In an L-shaped ambush, the assault team forms the long leg parallel to the enemy's direction of travel into the kill zone. The support teams forms the short leg at one end and at a right angle to the assault team. This provides both flanking (long leg) and enfilading (short leg) fires against the enemy. The L-shaped ambush can be used at a sharp bend in a trail, road, or stream. It should not be used where the short leg would have to cross a straight road or tr



Picking the Ambush Location and Formation (2)

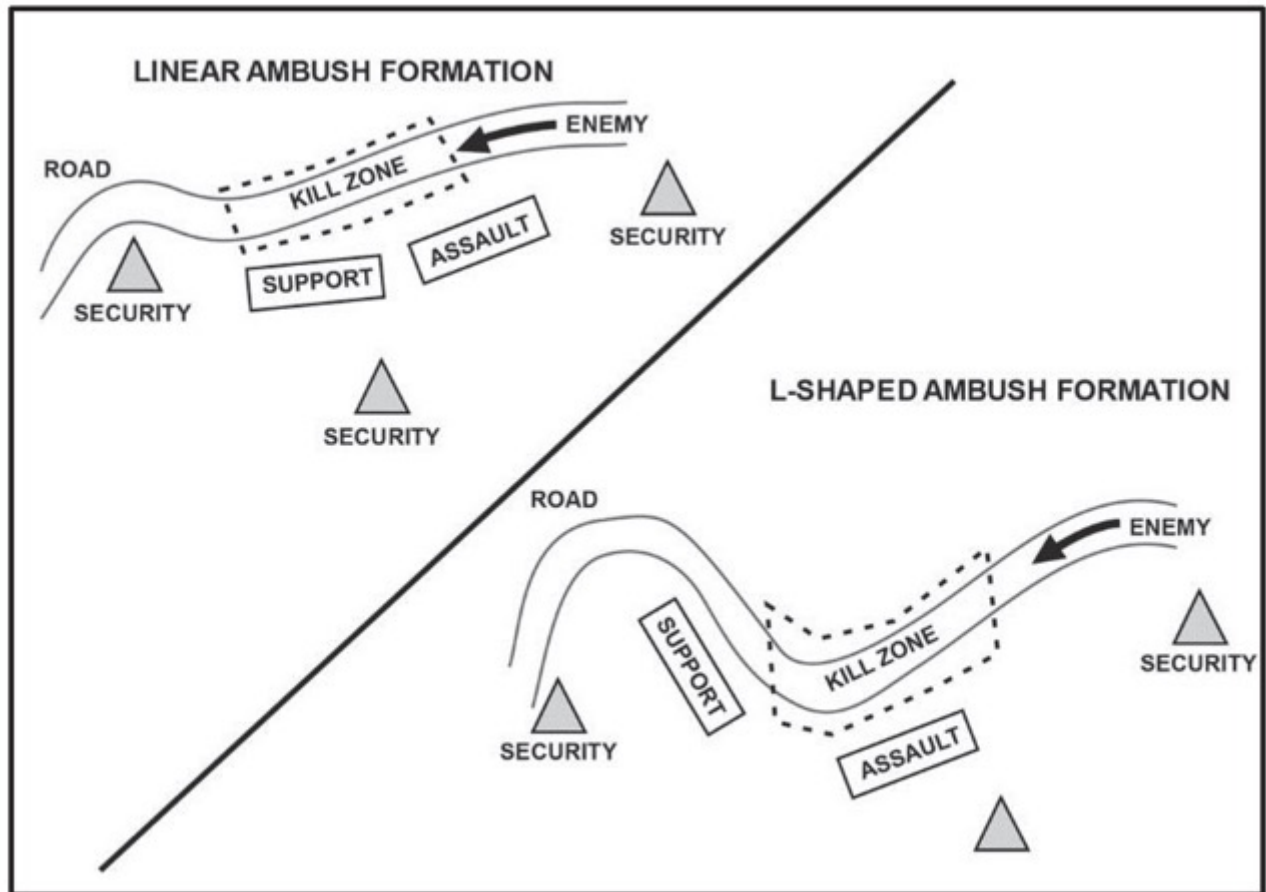


Figure 7-2. Ambush formations

Tips for doing an Ambush (1)

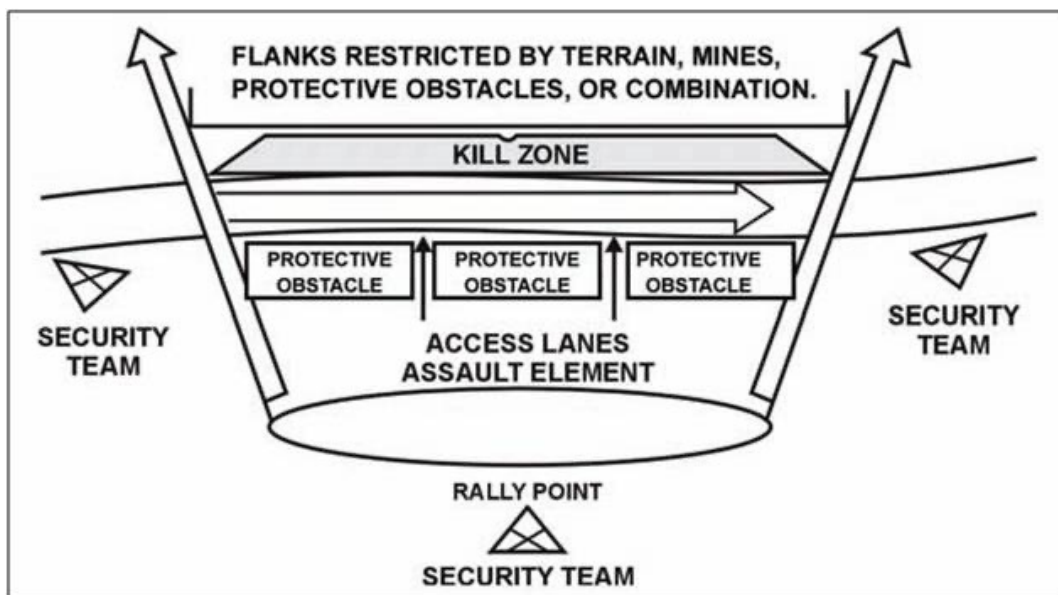
*An ambush is a very dangerous military operation and should be executed by trained individuals, with a LOT of planning, and with extreme caution

The ambush must surprise the enemy. If surprise is lost, the defenders must get away.

The leaders check each fighter to make sure they know the plan for setting up and doing the ambush.

The security teams on both side of the ambush always go in first. They keep the others safe. They let the leaders know when the enemy is coming. Make sure it is the enemy they planned and seal the ambush so the enemy cannot escape.

The leaders look at the ambush site to make sure it is what was planned. This can also be done with a drone to ensure the ambush group stays hidden. Do not walk all the way up to the ambush site.



Tips for doing an Ambush (2)

The ambush group should put protective obstacles, even mines if they have them, to make sure the enemy does not come towards them once the ambush starts.

The leader controls when the ambush starts.

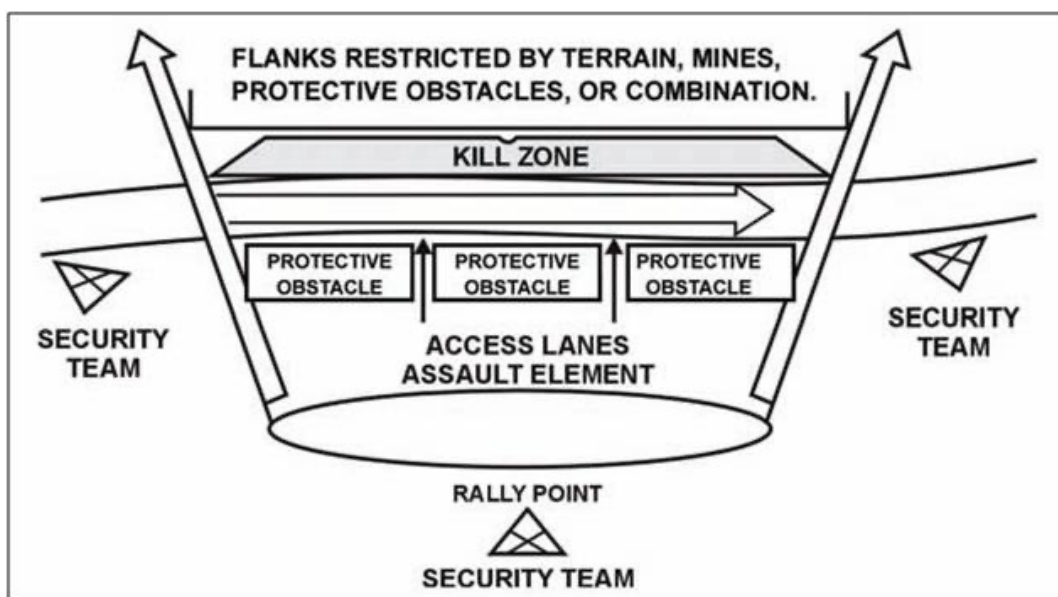
Always start with the biggest mine, gun, weapon the ambush team has.

Once one defender fires, everyone must fire.

The leader can designate some of the defenders to run into the kill zone to ensure the enemy is dead and take any weapons or equipment.

The ambush group must plan to get away very fast after doing the ambush. There may be more enemy coming to help. Use a watch to time how long. Do not stay there more than a few minutes.

When leaving, leave a security team in position. They should be the last to leave to protect the group.



Protecting Civilians

Defenders must help protect civilians. They have control over where military forces and equipment are placed in relation to the civilian population. The defenders often have better information than the attacker about where civilian persons are and are therefore better positioned to avoid knowingly leaving them in harm's way. The defender's tactical actions and overall strategy may contribute to the danger facing civilians. To avoid that:

1. Respect international humanitarian law and human rights law.
2. Issue guidance that protecting civilians is important
3. Avoid locating military objectives in civilian areas or from buildings that are used primarily by civilians such as schools, hospitals, residential and religious buildings, and co-locating with civilians to respect the principle of distinction and take constant care to not put civilians at risk during an attack.
4. Fighters must wear uniform or insignia distinguishing them from civilians (like arm bands).
5. Give warnings to civilians of incoming attacks through sirens, social media, SMS, loudspeaker to allow enough time for civilians to seek shelter.
6. Pre-position food, water, first aid in shelters for civilians.

7. Always allow humanitarian actors safe passage to provide food, water, medicine and transport of injured civilians between frontlines.
8. Mark protected areas clearly—schools, hospitals, religious sites, and shelters. Don't co-mingle with civilians.
9. Mark areas where there are unexploded ordnance (UXO) and explosive remnants of war (ERW) until the area has been cleared.
10. Identify safe routes for civilians to leave.
11. Provide first aid tips to civilians, distribute first aid and tourniquets to civilians.
12. Instruct civilians not to stand in balconies or near windows with binoculars or cameras as they can be mistaken for snipers.
13. Ensure civil defense is adequately equipped with fire blankets, rubble removal equipment, water treatment tablets, body bags, markers to cordon of dangerous areas, antidotes in the event of chemical or biological weapon attack.
14. Train and deploy medical teams that know how to treat gunshot wounds, fragmentation injuries, blast wounds, burns for adults and pediatric bones as bone structures are distinct.
15. Restore when feasible, essential services that civilians rely on such as water treatment facilities and electric power grids.

The rules of war are not optional. They are designed to minimize human suffering.

- Do not target civilians.
- Respect the principles of distinction and proportionality.
- Take all feasible precautions to minimize and avoid incidental harm to civilians.
- Don't use civilians as human shields.
- Do not resort to indiscriminate or disproportionate attacks.
- Do not target civilian infrastructure such as hospitals, schools.
- Do not torture and execute people
- Detainees and prisoners of war must be treated humanely.
- Do not kill or kidnap humanitarian workers.
- Allow humanitarian assistance to affected population and safe access to humanitarian workers to deliver aid.
- Investigate violations and hold persons accountable

Casualty and Fighter Care

Fighting in urban terrain leads to higher casualties for both attacker and defender. The defender must be prepared to do self-care and care of wounded.

Medical items for a combat/survival kit

The Urban defender uses the tools they have. US Army survival doctrine recommends the following items/kit (author has added some items) to provide a starting point for combat medicine capabilities. Many may not be available, but some may.

- Pocket knife/scissors
- Water purification tablets (such as iodine tablets)
- 1 oz bottle of 2% tincture of iodine
- Small tube of crazy glue/super glue
- Small tube/bottle Betadine
- Emergency blanket
- Floss card (dental floss)
- Roll of Duct tape with peel-away backing
- Heavy duty canvas sewing needle
- Assorted dressings
- Assorted bandages
- Clean rags and blankets
- Combat Gauze
- Tourniquets, SOFT-T or combat application tourniquet (CAT), Israeli bandage, or make-shift tourniquets.
- Small package of prescription medications
- Multi-purpose items that can be used for multiple tasks
 - Bandanas, the larger the better (compress, sling, bandage, and eye patch)
 - Rigid devices (boards, sticks, poles) varying lengths

Basic Medical Lifesaving

M.A.R.C.H. is an acronym used to help identify and treat injuries in a combat situation in the most effective order to prolong life until the wounded can reach higher medical care.

- M - massive hemorrhage (bleeding)
- A - Airway
- R - Respiration
- C - Circulation
- H - Hypothermia

Stop Massive Bleeding (1)

HOW TO RECOGNIZE MASSIVE, LIFE-THREATENING BLEEDING

BRIGHT RED BLOOD is pulsing, spurting or steady bleeding from the wound



Overlying clothing or ineffective bandaging is becoming **SOAKED WITH BLOOD**



IMPORTANT! Casualties with severe injuries can bleed to death in *as little as 3 minutes*



BRIGHT RED BLOOD is pooling on the ground

AMPUTATION of the arm or leg

Three tools in your first aid kit can be used to CONTROL MASSIVE BLEEDING!



TOURNIQUET



HEMOSTATIC DRESSING



PRESSURE BANDAGE



A **TOURNIQUET** cuts off blood flow to an arm or leg past the application site; this is the best method to control massive bleeding

APPLY A TOURNIQUET AND STOP BLEEDING WITHIN



WHEN AND HOW TO APPLY A TOURNIQUET (TQ):

CARE UNDER FIRE/THREAT HASTY TQ "High and Tight" on the wounded extremity or when the bleeding source is uncertain

TACTICAL FIELD CARE DELIBERATE TQ applied 2-3 inches above the wound

Apply a **SECOND TQ** if bleeding is not stopped with one properly applied TQ (Note: a severe bleeding wound to the thigh frequently requires a **SECOND TQ**)

Stop Massive Bleeding (2)

APPLY DIRECT PRESSURE AND PACK WOUND



PACK tightly using a **HEMOSTATIC Dressing** that contains a special agent that promotes blood clotting or a clean cloth, if dressing not available

APPLY FIRM, DIRECT PRESSURE for at least 3 mins or until the bleeding stops

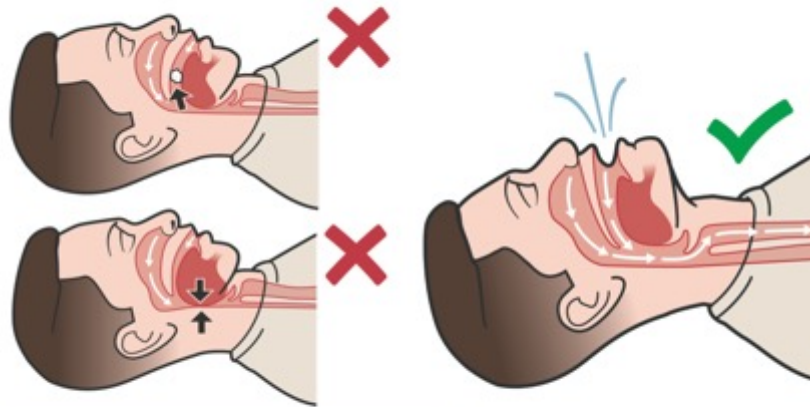
WRAP BANDAGE tightly around injured extremity




APPLY using short tugs evenly around the extremity while maintaining continuous tension on the bandage so pressure is maintained

Airway must be/stay open

Ensure **AIRWAY IS NOT BLOCKED**

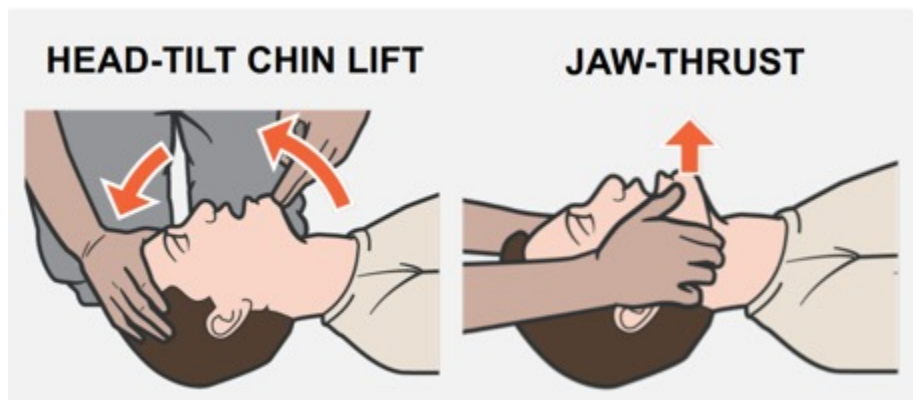


 **IMPORTANT!** Remove any visible objects, but do not perform a blind finger sweep

Signs and symptoms the airway might be blocked:

- Casualty is in distress and indicates they can't breathe properly.
- Casualty is making snoring or gurgling sounds.
- There is visible blood or foreign objects in the airway.
- Severe trauma to the face

In a casualty without an airway obstruction, you can perform the following maneuvers



Airway must be/stay open

For an unconscious casualty not in shock, place them into the **RECOVERY POSITION**



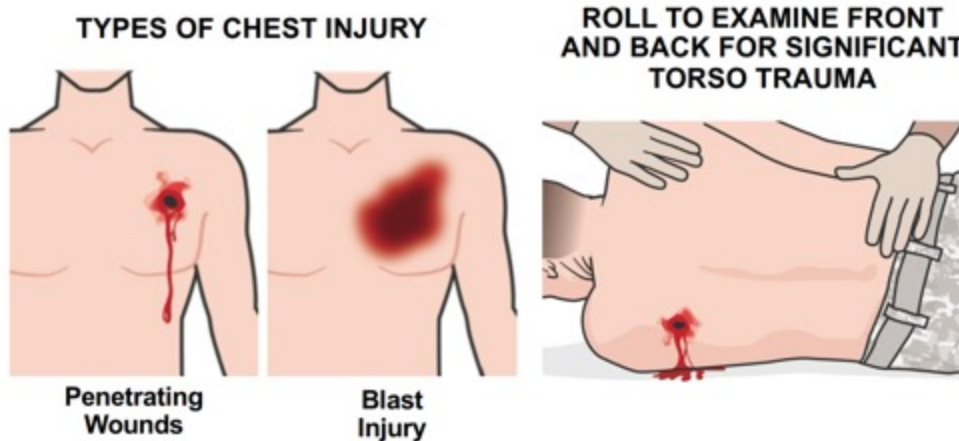
Assist a conscious casualty by helping them assume any comfortable sitting-up position that **ALLOWS THEM TO BREATHE EASILY**



Respiration

Signs of respiratory distress can include:

- Difficulty breathing
- Struggling to get air in and out
- Breathing too weak to be effective (less than 6 breathes a minute)
- Rapid breathing (more than 20 breaths per minute)
- The above could indicate and underlying chest injury.



DO NOT PACK WOUNDS IN THE CHEST OR ABDOMINAL AREA!

Seal the chest with an occlusive dressing the plastic wrapper off of the bandage.

Circulation

Take steps to prevent shock

- Reassess all bleeding control measures are still effective.
- Ensure any tourniquets are still tight.
- If tolerable to the casualty and their wounds, elevate the legs.

Signs and symptoms of shock include:

- Rapid breathing
- Losing focus or having difficulty engaging
- Sweaty, cool, clammy skin
- Pale or gray skin

Hypothermia

Hypothermia is a potentially dangerous drop in body temperature, usually caused by prolonged exposure to cold temperatures. It must be monitored, prevented, or addressed due to massive blood loss not cold weather.

Signs and symptoms of hypothermia:

- Slurred or mumbling speech
- Shivering
- Slow breathing and drowsiness

Help prevent hypothermia by doing the following:

- Keep clothing on casualty unless it is extremely wet, then remove
- Get the casualty off the ground
- Cover the casualty with blankets, sheets or any material that will retain heat.

Get Wounded to Safety and More Care

The defenders needs to be ready to move their casualties to safety and care. They must make lots of homemade litters (2-person carry device). All that is needed is poles (wood/metal/plastic) and a material (blankets, jackets, tarps), like:

Improvised Litter Using Blankets and Poles

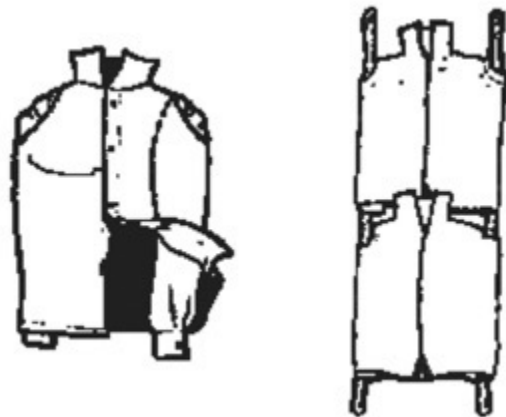
To improvise a litter using blankets and poles, the following steps should be used:

- Open the blanket and lay one pole lengthwise across the center; then fold the blanket over the pole.
- Place the second pole across the center of the folded blanket.
- Fold the free edges of the blanket over the second pole and across to the first pole.



Improvised Litter From Shirts or Jackets and Poles

To improvise a litter using shirts or jackets, button or zip the shirt or jacket and turn it inside out, leaving the sleeves inside, then pass the pole through the sleeves.



Drink Water!

The urban defender must drink water. You can survive only a few days without it. Hydration is key. Dry mouth is a sign of dehydration, as are fatigue, headache, dry skin, not sweating, sunken eyes, muscle and stomach cramps, no urges to urinate over an extended period, and even blackouts and seizures. Know the signs. There are ways to make water safe to drink. Collect/melt snow/rain. Boil water found. Add 2 eye drops of unscented household bleach to a liter. Or 5 - 10 drops of iodine. If you are ever not sure, purify the water. Drinking bad water can cause vomiting/diarrhea and lead to severe dehydration and death.

How to Purify Water



Water purification tables

Table A-1. Chlorine dose calculator using five percent unscented household bleach and 70 percent high-test hypochlorite

For 5 Gallons of Water	Chlorine dose using 5 percent liquid (unscented household) bleach				
	1 mg/L	2 mg/L	5 mg/L	10 mg/L	100 mg/L
	6 dp	0.75 mL	1.9 mL	3.8 mL	8 tsp
	Chlorine dose using 70 percent high-test hypochlorite or solution concentrate				
	1 mg/L	2 mg/L	5 mg/L	10 mg/L	100 mg/L
	0.9 mL	1.7 mL	4.1 mL	8.3 mL	0.25 tsp
Legend:					
dp drops					
mg/L milligrams per liter					
mL milliliters					
tsp teaspoons					

A-10. Table A-2 identifies equivalent volumes for use by Soldiers when determining how much disinfectant is needed to produce potable water.

Table A-2. Equivalent volumes chart

	<i>dp</i>	<i>mL</i>	<i>tsp</i>	<i>tbsp</i>	<i>oz</i>	<i>cp</i>	<i>pt</i>	<i>qt</i>	<i>L</i>	<i>gal</i>
<i>dp</i>	1	0.067	0.013	0.004	0.002					
<i>mL</i>	15	1	0.200	0.067	0.033	0.0042	0.0021	0.0011	0.0010	
<i>tsp</i>	74	5	1	0.333	0.167	0.021	0.010	0.005	0.005	0.001
<i>tbsp</i>	222	15	3	1	0.500	0.063	0.031	0.016	0.015	0.004
<i>oz</i>	444	30	6	2	1	0.125	0.063	0.031	0.030	0.008
<i>cp</i>	3550	237	48	16	8	1	0.500	0.250	0.240	0.063
<i>pt</i>	7100	473	96	32	16	2	1	0.500	0.480	0.125
<i>qt</i>	14200	946	192	64	32	4	2	1	0.960	0.25
<i>L</i>	15000	1000	203	68	34	4.2	2.1	1.06	1	0.26
<i>gal</i>	56775	3785	768	256	128	16	8	4	3.785	1
Legend:										
cp cups										
dp drops										
gal gallon										
L liter										
mL milliliter										
oz ounce										
pt pint										
qt quart										
tbsp tablespoon										
tsp teaspoon										

*US Army Training Circular 4-02.3 Field Hygiene Sanitation

Rain and Snow

Rain - Fresh rainwater collected into containers does not require purification. However, rain that runs down buildings, leaves, and other vegetation or structures on its way to the container can contaminate the water and must be purified. Collect rainwater by putting out improvised nonporous items to catch the rain as it falls from the sky.

Snow – Use fresh, clean snow as a water source. Place containers filled with snow near a fire or between clothing layers to allow body heat to melt it. Adding water to snow will help it melt faster. Avoid directly eating snow as it lowers the body's temperature and requires the body to use more energy reserves than if the snow is heated externally.

Keep Hands, Food, Water Clean!

Disease and sickness can kill more urban defenders than enemy bullets. In the past, disease and nonbattle injuries have been the cause of up to 80 percent of casualties for even the world's best militaries. Now militaries practice strict hygiene and sanitation standards.

You must sanitize your hands before eating. Use alcohol-based hand sanitizer or wash with anti-bacterial soap.

Keep bathrooms and places of human waste as far from your food as possible (100 meters or more). That means wind and downslope. Keep bathrooms downslope from wells, streams, and other water sources (30 meters or more).

Do not let flies touch your food.



Treatment of Enemy Prisoners of War

The urban defender may find themselves capturing or taking charge of enemy prisoners. Always treat prisoners humanely. Follow the 5 S's of handling prisoners:

- **Search** - Search prisoners for weapons and ammunition, items of intelligence value, and any inappropriate items.
- **Silence** - Do not allow prisoners to speak (to include to each others) or allow anyone to speak to them. Speak to prisoners only to give orders.
- **Segregate** - Segregate prisoners by rank, gender, nationality, and status.
- **Safeguard** - Keep prisoners safe from harm according to the Geneva Conventions. This includes from the dangers of the battle. Provide prisoners medical care if needed.
- **Speed to the rear** - Remove prisoners from the battlefield and back to a rear collection point as quickly as possible.

Unexploded Ordnance (UXO)

In urban warfare, there will be many bombs, grenades, mortar, artillery and other rounds that do not explode. The enemy may also leave mines, booby traps and other things behind.

Treat all unexploded ordnance as live. They are very dangerous. Use the three R's.

Recognize – That they are there, very dangerous. Especially to kids and others who may approach.

Retreat – Do not disturb, touch, move, go near it.

Report – to local authorities

If you did not drop it, do not pick it up!

UXO, Dud, Training Round, War Trophy, Souvenir
NO MATTER WHAT YOU CALL THEM! THEY CAN BE DEADLY!

Learn and Follow the 3Rs

RECOGNIZE: The danger that a souvenir munition poses to yourself, your family and your neighbors

RETREAT: Do not disturb, touch or move it
Do not give or throw it away

REPORT:

Recognize
Retreat
Report

www.denix.osd.mil/uxo

The Will to Fight

Urban defenders must keep the will to fight inside them.

They must keep hope that they can win and prevail. They have the advantage in the urban terrain.

Soldiers do not fight for dictators. They do not fight when coerced or just for pay.

Soldiers fight for their nation, for freedom, for their families, and for each other.

Do not let fear overcome you. All soldiers experience fear. Fight and stay together in small groups. The bonds of cohesion formed in your group is the shield against fear in battle.

The urban defender wants to put crippling fear into the attacker, making him lose the will to fight.