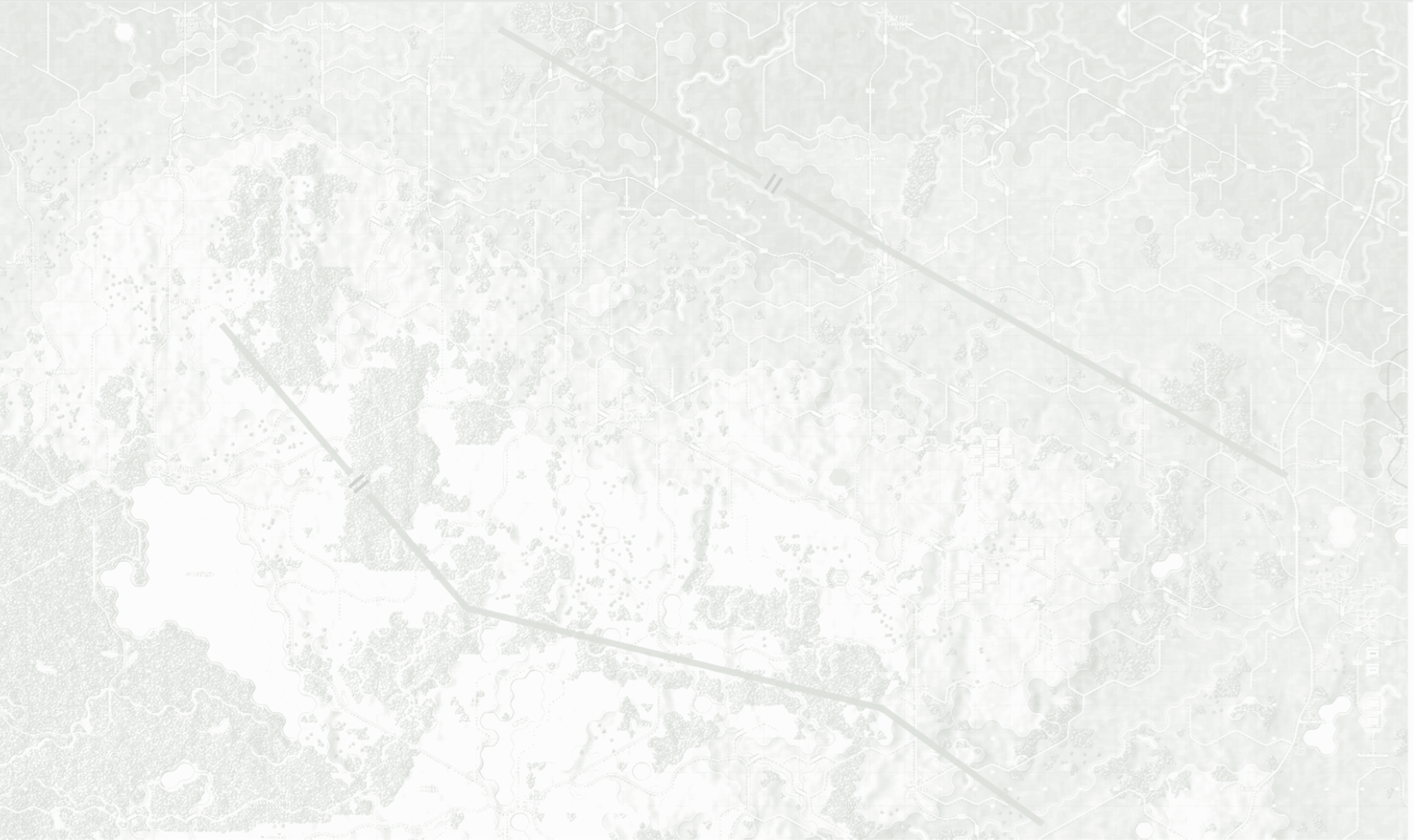
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Battlefield Primer

Field Manual FCCW-02/R0

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# A military tank in a field AI-generated content may be incorrect.Introduction

Welcome to FLASHPOINT CAMPAIGNS: COLD WAR

This is a grand tactical combat simulation on the Cold War battlefield. As the force Commander, you will plan and then issue orders and Standard Operating Procedures to your battalion, brigade, or regimental forces, shaping the fight by maneuver and your intent. Your forces will engage the enemy on rendered real-world map locations. Each hex is 500m of militarily significant terrain. Each battle can last 4 to 24 hours of in-game time. Your troops will meet their foes any time of day and in any environment.

The game engine is based on asynchronous WEGO turns. This means you will issue orders and then watch a variable amount of time unfold on the battlefield. Then, issue or adjust orders to react to what has happened as you execute your battle plan.

***Flashpoint Campaigns: Cold War*** is a deep simulation of combat operations where your forces are arranged in maneuver units of companies, platoons, and sections of tanks, infantry fighting vehicles, infantry squads and teams, recon forces, engineers, air-defense and anti-tank systems, helicopters and more. As the Commander, you must use available off-map assets like long-range artillery, rockets, or airstrikes.

Your efforts in this complex battlespace will be constantly challenged by modeled features like Electronic Warfare, Air Superiority, Realistic Weather, Line of Sight and Fire, Terrain and Elevation, Smoke and Mines, and Human Factors like training, morale, and readiness. All these elements must be considered if you are to be victorious on the battlefield.

The game is packed with information dialogs, map overlays, and range rings to aid you as Commander, master the situation, and understand your force’s capabilities.

***Flashpoint Campaigns: Cold War*** is a data-rich simulation where each nation has information on National Characteristics, Command Parameters, and Orders of Battle. Data Tables are packed with era-specific equipment and troops. Weapon Systems of the time, such as guns, missiles, precision munitions, small arms, and much more, are comprehensively modeled.

As a toolkit, you can create your own scenarios and campaigns. You can also dive deeper and create or modify game data, artwork, and sound effects as you see fit. All these modding capabilities are supported by detailed documentation

## What's in This Document

This document describes basic information and use of the various unit types, weapon types, sensors, and systems found in the game. We will do our best to provide real-world service and in-game details of how they work or what they do.

We provide some of the basic "dos and don'ts" of modern tactical warfare, but not an army training manual deep. We try to impart lessons learned from the game and those elements of real-world tactics that apply and can save your backside in this game.

**NOTE:** Areas of interest or buttons on form pictures are outlined in red.

**NOTE:** Some images in this manual are from other game versions. While your maps and units may differ, all the information and how it is used and displayed will match the information in this manual.

## Manuals

We have chosen to go with many living manuals to cover game interface/play, learning the game, basic tactics, Content Creation, and Game Modding for the Cold War game engine. We also have guides that cover that area of operations. The affected manuals and guides will be updated as the game is updated, and PDFs of these changes will be included with the new patches.

### The Field Manuals (FM)

These are the core manuals on how to play, create content for, and modify data for the Cold War game engine. Before jumping into Content Creation, we strongly recommend you review the first three manuals, **Game Operations**, **Battlefield Primer**, and **Tutorial Operations,** if you are new to this type of game and warfare. Returning Flashpoint Campaigns players should review **Game Operations** to get details on new features, as there are many.

These documents are found in the Documents\FMs folder.

* FM01: Game Operations – Detailed information on the game, its interface, and how to use it
* FM02: Battlefield Primer – ***This Manual*** – Fighting in the Cold War
* FM03: Tutorial Operations – How to learn and play the game
* FM04: Scenario Design – How to make or edit scenarios
* FM05: Battle Planning – How to create or edit battle plans
* FM06: Campaign Design –How to make or edit campaigns
* FM07: Map Construction –How to make simple maps for the game
* FM08: Game Engine Modifications - How to mod elements of the game engine
* FM09: Data Structures and Editing–How to edit or build data sets
* FM10: Weather Setup – How to add in weather from other locales

### What’s New

The What’s New PDFs summarize any changes and fixes when updates are released.

These can be found in the Documents\WhatsNew folder.

### FPC Hotkeys

This PDF document lists all the unique game key presses for Function keys and all hotkey definitions. Due to the large number of functions in the game, rebinding is not possible.

This document is in \Documents folder.

### Flashpoint Campaigns: Cold War FAQ

To stave off forum-clogging threads on various topics we either don't control or can't support, we created this FAQ document with the answers to those specific topics.

Please review the FAQ for answers to several game topics related to the game but not on how to play the game.

This document is in the \Documents folder.

## Gender Pronouns and Inclusion

We understand that users of all genders will play our simulation. We try to keep language in the game and manuals gender-neutral, when possible, but sometimes use the pronoun “he” to refer to the user. This is merely to streamline the writing, not to exclude anyone or note a specific gender.

The On Target Simulations team supports the inclusion of all people in the field of wargaming.

# Surviving Modern Warfare

The battlefield in the late Cold War and beyond is a very unforgiving and lethal mistress. During WW II, it was not uncommon for a tank that was put out of action by enemy fire to be repaired and returned to service, with the effort and time being well short of a factory rebuild. Desert Storm and the Ukraine War show that those days are long past. Even the development and fielding of things like ACA, ERA, and APS only slightly mitigate the immense shift from combat damage to catastrophic kill.

Overall, time is compressed compared to WW II. Armored formations can cover ground much quicker than in the 1940s, and radio communications are distributed at every command level. Commanders have a much clearer picture of the battlefield.

Artillery is much more accurate and can serve missions much faster. Artillery was, and still is, the King of Battle.

## Force Ratios

The classic ratio for success has been a 3:1 attacker advantage. This stemmed from Historical Analysis of conflicts where, by and large, throughout the world, major armies had no significant offsets to one another. They had about the same troop quality and battlefield capabilities.

WW II saw the effect of tactical-level offsets, particularly in tank performance and troop quality versus mass.

In the late Cold War and beyond, offsets in various platform capabilities and troop quality grew more pronounced. There are examples of numerically inferior forces handily defeating larger forces while attacking.

The effect of these offsets (weapon range, lethality, sensor capability, and troop quality) results in it being entirely possible to operate outside the Lanchester range of 1:6 to 6:1. For example, given the right set of circumstances, a company can defeat an attack by a regiment (a 1:9 force ratio). This situation is absent from the traditional "force multipliers" of artillery and combat engineering.

## Tempo

A unit can't turn on a dime. Even individual soldiers can't do that in most cases. Send an experienced, well-trained soldier off to make contact with an adjacent unit at the Contact Point, and that soldier, even knowing where he is and where he is going, needs to look at a map and choose a safe route. And that gets more complicated as you add more moving parts, like Squads, Vehicles, and Platoons. This tempo is Command Delay. Give an order, and there will be some interval of time before the unit starts to execute.

Commanders and their Staff track the battle, getting reports of contact, casualties, and BDA. That's data, and the Staff's job is to turn that into actionable information for the Commander's decisions. That takes time, and that time is part of the Command Cycle.

The upshot of all this is, as the Commander, you, the Player, can only give orders so often, and when you do, things won't start moving in your intended direction for some minutes (perhaps over an hour).

You are in a dangerous situation if you are surprised during your fight.

## Combined Arms Battle

Some nations use the term "All Arms" with this concept. The core of an Army is its Combat Arms – Infantry, Artillery, and Armor. The idea is about using multiple *mutually supporting* Combat Arms in a battle. This concept did not start in WWI when tanks were fielded on the battlefield. It goes back at least to the Thirty Years War (Gustavus Adolphus). Let's dissect things and look at the Combat Arms and how their contributions on the battlefield.

One can view this as a triad consisting of an Arm with very high mobility, another with very high lethality, and another with very high survivability, with each of these characteristics compared to the others. This view has held up well over the ages.

### Artillery

The US Army calls this the "King of Battle". That stems from the fact that artillery is the greatest producer of casualties, not just soldiers. It's armored vehicles, too, even in the Ukraine War. But that is not the main benefit of artillery. The large casualty production is the mechanism that affects one's enemy and the execution of the enemy's plan matters.

While it can require a relatively large expenditure of ammunition and take considerable time to annihilate a unit employing artillery, the large number of immediate casualties inflicted on a unit with the initial rounds can degrade the target unit's effectiveness. In some cases, take it entirely out of the fight for a period ranging from minutes to days (requiring replacements to be assigned).

This impact is why artillery preps are fired at "likely" enemy positions just before an assault and why there is such a thing as a Final Protective Fire. The most important effect of artillery fires is disrupting current enemy activities.

### Infantry

The "Queen of Battle" is the name given to the infantry. The infantry's mission is to close with and destroy the enemy. It is the one Combat Arm that can seize, clear, and hold any terrain type.

There are several types of infantries, mainly varying in mobility – leg (they walk), motorized/mechanized (moving about the battlefield in trucks, APCs, or IFVs), and airmobile (moving via helicopter). But when it comes to seizing and holding terrain, the infantry is the source of the phrase "boots on the ground".

Infantry is predominantly a close-range Arm, typically having its greatest combat power at ranges under 300 meters. Some infantry units have medium-strength anti-armor weapons, but generally, these range to around 1000m.

Infantry shines when deployed in complex terrain (those locations with a high Cover value) and often require infantry or sustained intense artillery barrages to dislodge them from such areas.

### Armor

The "Arm of Decision" has its roots in horse cavalry. Cavalry is the Combat Arm with the most significant mobility (across all subtypes within each), and it is that mobility that provides a Commander with the Arm's most considerable capability.

It's tempting not to equate the horse cavalry of old with tank units today, but that is mainly in error. The cavalry of the pre-WWI era had several battlefield missions – reconnaissance, envelopment, flank attacks, and security. One of the critical attributes of cavalry actions was the shock effect. Tanks certainly have a rich history of that.

In the WW II era and later, we see tank units having the most impact on combat operations when used as an exploitation force. During WW II, they were frequently used to conduct "break-in" attacks versus prepared defenses. The results were mixed and looked to be mixed at best. Yes, tanks and break in. You do need enough tanks.

The most successful uses of armor seem to be to bypass, flank, or otherwise maneuver faster than the opponent can reposition to counter these actions.

Modern tanks (post-WWII) have a good combination of mobility, lethality, and protection. Still, they cannot function in all terrain (swamps, heavy forest, urban areas) and, unlike old horse cavalry, can't seize and clear terrain well (see Buford at Gettysburg on Day 1). Dismounted infantry in and amongst tanks can make a tanker lose sleep.

## Battlefield Functions and Activities

The battlefield, and battles, can be viewed as a collection of tactical activities. It can be helpful, both in planning and execution, to categorize these activities.

### Intelligence

Intelligence has been defined as "gathering information." A view more helpful to the Player is the result of considering the meaning of data provided by the game. These data include ground unit spotting reports, radio intercepts, and radar detections.

The Player's task here is to use that data with knowledge about the enemy's composition, organization, and likely objectives to "paint a picture" of the battlefield at any instant.

Some data is beyond the Player's ability to control or influence (radio intercept and radar detection). There is a lot the Player can plan to do and execute to enhance data collection. The Player uses units to do this. At first blush, one's attention goes to the reconnaissance units in the Player's forces. The reality is any maneuver unit should be viewed as an asset to accomplish this crucial task.

### Reconnaissance

Closely related to Intelligence is Reconnaissance, which provides data for the Intelligence staff to turn into actionable information for the Commander. Recon is probably the most challenging aspect of playing this game, let alone in the real world.

#### Combat Reconnaissance

First, as a Player, don't limit your thinking of Reconnaissance to "where do I move/place my Recon units." In addition to your dedicated recon units (recon companies, scout platoons, etc.), the Player needs to think about Combat Recon. That is, the use of front-line combat units to perform reconnaissance tasks.

A prime example is a template the WP used when advancing to contact. The Advance Guard for a regiment, one of the regiment's battalions, used the basic concept of reaching the enemy using only a single subordinate element. This detachment provides the commander with the option to attack the contact or bypass it, and this pattern is common to all modern armies. The Soviets thoughtfully provided an easy-to-understand template for this.

The use of a single subordinate element to make contact is carried down to the platoon level: the Advance Guard Main Body (AGMB, battalion strength) detaches a Forward Security Element (company strength), which detaches a Combat Recon Patrol (platoon strength). This last level is the recon part of the force.

#### Recon Composition and Strength

We can broadly classify recon units into Light patrols and Heavy Patrols. Light means less than platoon strength and is often equipped with machine guns for armament. Heavy patrols will be either IFVs or tanks in platoon strength.

Compared to the parent formation, a recon formation is typically 10% or less of total strength. The recon element is often two levels of command down from the owning formation. A Brigade/Regiment has a recon company, and a battalion has a recon platoon.

#### Recon Use

Heavy patrols are used for route recon of the axis of advance of a force. These have enough lethality and survivability to eliminate enemy recon forces and prevent them from detecting the leading elements of the friendly formation. Another use of a heavy patrol is as a recon reserve. It follows the line of light patrols and can be used to overcome the enemy's light resistance or counter-recon efforts.

Light patrols should be used to discover potential infiltration or bypass routes or to find enemy rear area assets. This action means using paths that are through high cover and concealment.

Do not use recon assets to find the enemy front-line trace. You will find it and mark it with casualties.

Also, remember that not finding the enemy is incredibly useful for your recon forces.

### Security

There are two fundamental missions at the level of this game. These are Screen (not to be confused with the Screen order. Which is the order to give units doing a Screen type mission. That is a unit posture.) and Cover/Guard (We'll use Cover here. The nuance is Cover means the protected unit does not support, either logistically or by artillery, and Guard means the protected unit provides both).

A Screen is simply a chain of observers that provide early warning. It's an everyday use of recon elements to provide flank security. A screen need not be static. Having the patrols move laterally while screening can give significantly more width of coverage at the expense of timeliness of reporting. Combat patrols are not often used for screening, as the geometry usually does not allow prompt re-purposing of those patrols to a pure combat role.

Cover is typically used to provide time for the covered formation to prepare for the upcoming fight. This will usually be the focus of an entire scenario in the game. The covering force executes its mission using defense, delay, or attacks to cause the enemy to have to deal with the covering force, thus delaying the enemy's attack or advance to contact with the friendly main body.

A subset of Cover is Counter-Recon. These are actions designed to purposely hunt and destroy enemy recon elements to prevent the discovery of the friendly main body.

### Maneuver

Maneuver is about positioning forces and using their direct fire on the enemy. It's not about "moving" units. There will be situations where the Player needs to have a unit at a particular location. That could mean getting a unit back at that location or another unit taking its place if forced off it. Think geometry or shaping.

Obviously, maneuvering involves moving units, too. How much depends entirely on the situation, both from a mission aspect and the reaction to enemy contact. Attack a discovered enemy or bypass it? That depends on the mission, and there is no general "rule of thumb" to consult.

Attacks will involve a lot of movement and decisions about what to do upon enemy contact. The defense will likely require less movement of units as part of the primary plan, but the employment of the reserve as well as contingency plans to introduce movement. Static defenses overwhelmingly fail.

### Fire Support

We stress again that the most helpful contribution by artillery is the degradation of effectiveness a target undergoes. It's not about simply racking up kills, though that will happen. It's about supporting the other two Arms in their missions, whether breaking up an enemy attack or suppressing enemy defenders.

The standard ratio of artillery to its supported unit is a battery (6 to 8 tubes) per maneuver battalion. Specific missions may see more artillery assets, particularly deliberate attacks against a well-prepared defense.

In that mission, where minefields and counter-mobility obstacle belts are to be breached, it is common to see an artillery battery firing missions in support of a company-sized element. So, an entire artillery battalion may be tasked with supporting a single maneuver battalion during the break-in.

Time and space need to be considered when planning fire support. Many systems will not cover the entire map, necessitating repositioning. Another thing to prepare for is ensuring your artillery units are full of ammo when the heavy fight begins.

### Air Defense

Air Defense is an area where there is quite a bit of difference from nation to nation. Even so, some generalities at the NATO vs. WP level are relevant.

High to Medium Range Air Defense (HIMAD): These are the medium to long-range (>10 km) SAM systems. NATO's primary air defense across the theater was its air forces. NATO HIMAD SAM systems were positioned in belts extending as far forward as the rear of Corps sectors and aren't portrayed in the game. WP had HIMAD systems at the Division level, but even these would not be so far forward as to appear on the game map. HIMAD capabilities are part of the Air Superiority setting for each side.

Short Range Air Defense (SHORAD): Short-range systems were used by both NATO and WP and included both SAM and gun systems. Not all nations used both types throughout the Cold War. NATO tended to have SHORAD units at the Division level and parcel them out according to mission needs. These systems were to be used to help ensure the Brigade/Regiment/Battalion Commander's freedom of maneuver. NATO did not deploy SHORAD in sufficient density to provide an "umbrella" effect. WP had SHORAD platoons organic to motorized rifle battalions (MANPADS SAMs) and a battery of both gun and SAM systems at the regiment level.

Air Defense assets are a scarce battlefield resource, and no one, not even WP formations, can always protect everything. Both factions recognized that, and the driving principle for air defense is to preserve the commander's freedom of maneuver. And this does not necessarily mean "protect the only line units." The Player needs to apply METT-T (Mission, Enemy, Terrain, Troops available, Time, and Civilian considerations) to this decision.

### Engineering

There are three crucial ways combat engineering (as opposed to construction engineering, which is building facilities) contributes to the fight:

* Mobility – This is gap crossing (rivers, ditches, obstacles, and minefields).
* Counter-mobility – This is "obstacles" and bridge demolition. Professionally speaking, both the in-game "obstacle" and "minefield" are classified as obstacles. These are used to shape the battlefield to enhance terrain to the commander's advantage.
* Survivability – Combat engineer assets in the real world can significantly shorten the time needed to prepare a defensive position. Digging positions is not within the time scope of a scenario, so this capability is not in the game.

#### Bridging

Engineer units have bridging assets for wet gap (river) crossing. The WP realized they would have to bridge a wet gap on average every 25 km. Thus, WP battalions had bridging equipment as part of the line battalion kit. At the regiment level, there was more, but not the hardened kind. Line battalions would bridge, cross, and then recover bridges. Regimental level bridges would be emplaced to establish a supply route.

NATO bridging requirements were much less and were more about deciding when to demolish east-west bridges after NATO was done using them to move westward. NATO recognized the need for crossing the Rhine by REFORGER reinforcements at non-highway points, so there were units dedicated to that mission (often ferry units of the Bundeswehr).

**NOTE:** REFORGER is Exercise Campaign REFORGER (from REturn of FORces to [GERmany](https://en.wikipedia.org/wiki/Germany)) was an annual [exercise](https://en.wikipedia.org/wiki/Military_exercise) and campaign conducted by NATO during the [Cold War](https://en.wikipedia.org/wiki/Cold_War). The training was intended to ensure that NATO could quickly deploy forces to [West Germany](https://en.wikipedia.org/wiki/West_Germany) in a conflict with the [Warsaw Pact](https://en.wikipedia.org/wiki/Warsaw_Pact).

#### Obstacles and Minefields

Obstacles in the game are to be viewed as reinforced triple-strand concertina wire. In actual practice, these can be breached with wire cutters, explosives, or blades (engineer dozer type or tank-mounted mine plows).

Obstacles and minefields can be breached by combat engineers, infantry, and tanks (with the appropriate plows installed). WP tank companies are nothing but tanks, so each tank platoon had one tank with a mine plow. The reason for this is described below.

There are two styles of this: In Stride and Deliberate. "In Stride" does what it sounds like – a unit breaches using assigned assets without pausing to wait for another unit (infantry or engineer) to move forward to breach. This form of breaching imposes the slightest delay and is why WP tank platoons carry one plow per platoon. The downside is that only the breaching unit may use the resulting lane.

Deliberate breaches are more involved and are planned as part of a mission. Any unit may use a deliberate breach. This is a result of not only other units being notified of the breach location, but the lanes are handed over to each crossing unit, meaning a guide is present on the ground, and units coordinate for the transfer of "ownership". The downside is that executing a Deliberate Breach consumes more time.

Typically, a battalion requires two breach sites (meaning two separate breach hexes in a belt) to pass through an obstacle/minefield belt with a minimal delay once the lanes are established.

### Spectrum Warfare

***Content to be added before release***.

### Command and Control

As a Player, you have three things to pay attention to regarding Command and Control (C2): your Command Cycle, Command Delay, and Command Range.

#### Command Cycle

The Command Cycle is the amount of time between opportunities to issue orders. It starts and 15 minutes of game time and gets longer from there, depending on several factors. First is the force structure in terms of the ratio of HQ to other units. Losing the highest HQ unit will increase the Command Cycle. The Electronic Warfare (EW) burden contributes to the force's average unit Readiness.

#### Command Delay

Command Delay is the time between issuing an order to a unit and the unit beginning to execute its order. Some things can delay this. Most are about getting the order to the unit. Another bit is how much time the unit takes to transition from its current order to the new order.

* Whether the ordered unit's immediate HQ is moving, under fire, or firing
* Ordered unit's direct HQ's Readiness, Initiative level, and Training
* The EW level at the time of the order
* If the order starts or takes the ordered unit out of its immediate HQ Command Range
* Transition time depends on what the current order is for the ordered unit compared to the new order.

#### Command Range

Command Range has a significant impact on maneuver flexibility. Not only does Command Range have a possible effect on Command Delay, but you can't even issue an Assault order to a maneuver unit outside Command Range.

Of note is the fact that Recon units may operate normally outside of the Command Range of their headquarters. This means they suffer no Command Delay owing to a distant HQ. An isolated line unit may struggle to move back to its parent unit's area.

Command Range is not just a function of the type of radios in an HQ unit, though that is part of the picture. The other part is how much of the battlefield that HQ level is responsible for and thus trained to control. So, the higher the echelon of command for the HQ, the larger the Command Range.

## Missions

While there are many mission types (Hasty Attack, Deliberate Attack, Breakout from Encirclement, etc.), this being a Primer, we will focus on three fundamental missions. The more nuanced mission types are either basic ones done under particular circumstances or have a limited and desired outcome.

### Advance to Contact

Also known as Movement to Contact or Attack from the March is defined as the following actions:

* This mission has an objective to seize
* Enemy contact is expected
* The enemy's location is unknown
* You will likely need to react to enemy contact by maneuver

The above characterization of this kind of fight drives planning to a set of principles:

* Make initial contact with the smallest force possible
* Preserve your freedom of maneuver. A battalion bumping into a platoon does not warrant a battalion-level attack. Maintain the option to bypass disruption forces.
* Keep in mind that disengaging from contact often results in casualties.

### Defend

Defense is much more than simply piling forces on a piece of ground the enemy wishes to seize. An attack is very complex and affords a defender many opportunities to wreck the attack plan. First, an attacker must approach the objective(s). Making an attacker fight en route to his attack before all his pieces are set in place will disrupt the plan and timetable. Some points to keep in mind are:

* This mission has one or more objectives to defend
* Once your enemy spots your defensive positions, artillery will rain down
* A competent enemy attack will be preceded by reconnaissance. Kill it. Make a counter-recon plan.
* Infantry is tenacious in complex terrain. They are simply targets if you select a beet field to dig in.
* Small arms are in-the-same-hex weapons. An excellent technique is the "reverse slope". This means your defending infantry is not visible until the enemy is adjacent.
* Unspotted units that open fire have fire superiority. It may make perfect sense, especially when using the reverse slope, to set infantry to fire at point-blank range (meaning in the same hex). This can be devastating to enemy infantry and armored vehicles when your infantry has light AT weapons and is in complex terrain.

### Attack

This is the most complex mission for several reasons. First, there are more units you need to engage. Second, there will likely be situations to deal with as the attacking forces approach the objective before making the assault. And probably the hardest is synchronizing reconnaissance, various maneuver elements, and fire support efforts. Some areas to give particular attention to:

* Attack from multiple directions at the same time
* Perform reconnaissance of the approach as well as the objective itself.
* Find and destroy defender reconnaissance elements before spotting the attacking maneuver forces.
* Select assault positions for ground elements that will seize objectives. These are close to the objective, but not within line of sight.
* Use artillery preps to degrade defenders' effectiveness.

# Tips and Tricks – Helpful Staff Tips

***Content to be added before release***.

# Types of Units in the Game

This section will cover the basic types of units found in the game and describe what they can do. As we develop more DLCs there is the potential for new kinds of platforms to be introduced into the game.

## Air Platforms

This covers everything from Aircraft and Helicopters to Drones (Unmanned Aerial Vehicles-UAV).

### Aircraft

Fighters are various single and multi-engine aircraft used in CAS and SEAD missions. Those are missions where bombs, guns, rockets, or Precision Guided Munitions (PGMs) are fired or dropped on enemy ground targets. They appear on the map when they execute a strike mission. Strikes are ordered very similarly to artillery missions. When the aircraft arrives and execute its strike, they are vulnerable to enemy air superiority fighters and AD systems within range of the strike target.

### Drones

Unmanned aerial units operate much like helicopters, but typically fly at higher altitudes and have a smaller detection signature. They may be harder to see, but they don't use as much terrain masking to protect AD systems. Flight paths don't depend on the terrain.

**NOTE:** We currently do not have any drones in the game, but we may add them later. Drone technology was in its infancy in the 80s, and there were not many systems suited to the battlefield at this time.

### Helicopters

These are low-flying, crewed aircraft. They move much faster than ground units and will plot flight paths that utilize terrain masking to minimize vulnerability to enemy AD fires. Various helicopter types include recon, attack, and utility types.

#### Attack Helicopters (HELO-AT)

They are usually armed with autocannons, rockets, and missiles (both anti-tank and anti-air). Usually unarmored, sometimes lightly armored. These are very lethal to all types of ground targets. They are vulnerable to anti-air (gun and SAM), autocannons (from IFVs <2500m), and machine guns at close range (<1500m). Think "eggshells armed with hammers" when employing them. Their Precision Guided Munitions (PGMs) will usually outrage the weapons of their targets (except AD systems).

#### Scout Helicopters (HELO-SC)

Lightly armed or unarmed and unarmored. It has better sensors, and the crew is trained to find targets, so these have a better spotting range.

#### Utility Helicopters (HELO-UT)

Usually armed with at most a door-mounted MG, unarmored, and have basic sensors. Think flying Jeep.

### Surface to Surface Missile (SSM)

These are long-range ballistic missiles with a heavy warhead. Some have chemical or nuclear warheads. Nearly impossible to intercept with 80s technology.

## Ground Troop Platforms

These are anything, not a vehicle nor a static facility (like a FARP). Most are infantry squads and weapon crews (MG, ATGM, RPG, and teams). It also includes towed platforms, like field artillery and air defense weapons guns. Most infantry is transported on the Cold War battlefield in trucks, Armored Personnel Carriers, or Infantry Fighting Vehicles. Some units still move by marching with their legs.

### Anti-Tank Weapon Systems (ATWS)

These are towed for AT guns. Often designed using a tank's main gun and mounted on a two-wheeled carriage. Most often requires a prime mover for mobility.

### Engineers (ENGR)

Ground troops with special training to remove mines and obstacles, build defensive structures, blow bridges and defensive enemy structures, and create minefields and obstacles to hinder and shape the enemy movement in future versions.

### Flak Systems (FLAK)

These systems are towed or emplaced Air Defense (AD) platforms that utilize a gun-based AD system. Some platforms with an AD gun and a SAM will be classed here.

### Infantry (INF)

Infantry squads have rifles, grenades, short-range grenade launchers, AT rocket launchers, and often light MGs. AT rocket launchers are very short-range and will fire in volleys against tanks. Very hard to spot and shoot when stationary in complex terrain. Line squads (as opposed to HQs sections and non-infantry gun crews) are very lethal to soft targets, owing to better fire control and the resulting heavy volume of fire. These troops move primarily by marching.

### Infantry – ATGM (INFAT)

These are dismounted infantry teams whose primary weapon is an Anti-Tank Guided Missile (ATGM). Will reserve ATGM fire for Main Battle Tanks (MBTs).

### Command Units (INFHQ)

They give orders and such. Most communications go through them. See them as links in a communications network. Command units can manage communications/orders more efficiently/effectively. Low volume of fire if they get into a fight. Typically, few, if any, AT weapons.

### **Infantry – Machine Gun (INFMG)**

These are dismounted infantry teams whose primary weapon is a Machine Gun. Typically, this is a heavy MG and has more range than an infantry squad with light MGs.

### Scouts (INFSC)

These infantry units are trained to blend into the terrain, locate enemy units, and pass that information on to superiors, who can use that information to plan troop movements or artillery or air strikes to hit enemy positions.

### SAM Infantry (INFSM)

These are dismounted infantry teams whose primary weapon is a Man-portable Air Defense Missile (MANPADs). These troops' primary duty is to scan the skies for enemy aerial units and engage them with their anti-air missiles. They carry a small number of missiles and are armed with various protective small arms weapons.

### Towed Artillery

Artillery comes in three types – mortars, howitzers, and rocket launchers (Surface to Surface Missile (SSMs) battery predominantly uses nuclear or chemical warheads). The differences among these are the types of munitions available and their range. These are crew-served weapon systems that are towed to a location for use. Other transports carry the crews and munitions.

#### Mortars (MTRWS)

In most cases, these are man-portable, relatively short-range (out to about 6000m), and limited to HE and Smoke munitions. The caliber range is 60mm-120mm. The Warsaw pact does have some heavier mortars, 160mm and 240mm, for example.

#### Howitzers (ARTY)

These represent towed field guns. Caliber ranges from 105mm to 203mm. Munitions include HE, HERA, Smoke, ICM, and FASCAM.

#### Rockets (RKTWS)

These are towed multiple launch systems that can lay down an intense barrage in a short time. Munitions may include HE, ICM, and FASCAM. These systems can fire a Saturation Mission with a footprint of 1500m across.

## Land Platforms

The following sections cover a number of the ground-based platforms that are found in the game. As we add more features with future DLCs, more types of units may be added to the game.

### Armored Personnel Carrier (APC)

Transports infantry. Armed with machine guns. Lightly armored. They are designed for moving infantry around without getting them killed by small arms fire and provide some protection from artillery and mortar fire.

### Air Defense (AD)

These can be either guns or missiles. Gun systems designed for AD are labeled as "Flak," and missile systems are marked as "SAM." Such systems are labeled as Air Defense Weapons (ADW). Guns and missiles designed to engage ground targets have a limited effect on air targets. The air targets are limited to helicopters, and the helicopters must be either hovering or engaged through the frontal 60-degree arc if moving. Such weapons are noted as Air Defense Limited (ADL).

### Infantry Fighting Vehicle (IFV)

Transports infantry, but sometimes used without infantry in offensive roles. Armed with autocannon. Lightly armored. Usually, they have ATGMs. They are designed for transporting infantry and providing additional fire support. If they have long-range ATGMs, they can also be suitable for taking out vehicles from a distance. Autocannons can be effective against helicopters at close range.

### Command Vehicles (COMV)

As the name suggests, these are platforms that aid in C2. The majority are in HQ units at Bn and higher echelons. Some specialty platoons that operate at extended ranges will also have them. The same platform is also used for artillery Fire Direction Centers (FDCs).

### Reconnaissance (RECCE/RECON)

They usually have better sensors and can see a bit further, classify (tank vs. APC), and identify (T-72 vs. tank) enemies quicker. They usually try to stay hidden. Their weapons can vary, depending on their vehicle, and there's a recon version of many vehicles (ranging from wheeled utility vehicles to tanks to helicopters). They may have AT rocket launchers. Typically, they are small units.

### Self-Propelled Artillery (SPARTY)

Howitzer mounted on a vehicle. The bulk of this kind of platform is a howitzer on a lightly armored tracked or wheeled vehicle.

### Self-Propelled Anti-Tank (SPAT)

ATGM launcher mounted on a vehicle. SPATs are a purpose-built platform. Some APCs and IFVs have ATGM launchers, but retain troop-carrying capability. SPATs based on IFV or APC chassis will have the passenger space converted to missile racks.

### Self-Propelled Flak (SPFLAK)

Air Defense (AD) gun system mounted on a vehicle. Typically, it is lightly armored. Some may also have SAMs in addition to the gun. The weapon system(s) may be mounted on a tracked or wheeled chassis.

### Self-Propelled Mortar (SPMTR)

Mortar mounted on a vehicle. Most are lightly armored, derived from APC designs. The weapon system(s) may be mounted on a tracked or wheeled chassis.

### Self-Propelled Rocket (SPRKT)

This is a Multiple Rocket Launcher (MRL) mounted on a vehicle. The chassis may be a truck and unarmored or derived from an APC design and be lightly armored or mounted on the hull of a heavily armored tank.

### Self-Propelled SAM (SPSAM)

SAM mounted on a vehicle. The chassis may be a truck and unarmored or derived from an APC design and be lightly armored. It may be on a tracked or wheeled chassis.

### Tank

Generally, found as a tracked vehicle. Armor can vary from light to heavy. They are armed with large-diameter cannons and machine guns (MGs). Sometimes they can fire ATGMs that have a more extended range than the cannon. Tanks are the best ground-based fighting units, and they are at the forefront of any combat on the ground.

### Utility Vehicle

Often unarmored. These vehicles are sometimes armed with machine guns but rarely with heavier weapons. Transports infantry and supplies. They are also used to tow weapon systems like anti-tank guns and field guns.

### Weapon Locating Radars (WLR)

***Content to be added before release***.

### Logistical Locations

These logistic platforms include FARP, ammunition, and fuel transfer points. Currently, we only model on-map FARPs for helicopter reaming and refueling capabilities.

# Other Unit Types

There are some additional off-map unit types that we have not added to the game. These may become active in later updates as new features are released.

## Sea (Ships and Submarines)

These platform types would support ships and submarines that could provide firepower with weapons or troops in the case of transports and landing craft.

## Space (Stations and Satellites)

These platform types would provide additional intelligence-gathering assets to provide recon before and during a battle or campaign.

# Weapon Types

The following sections cover the numerous types of weapon systems that are included in the game. This list may expand in the future if new features require new types to be defined for use.

## Aircraft Guns and Cannons

These are machine guns and cannons of various calibers used to attack other aircraft or strafe ground targets.

## Anti-Aircraft Gun (AAA)

These are gun systems. Some are autocannons, and the rest are machine guns.

## Air Defense Autocannon

Effective up to a few kilometers. It counts as a short-range anti-air defense. Good against helicopters, but might struggle to take out aircraft. It can also be used against lightly armored ground units but at the usual 1500 or so meters effective range. The reason it's more effective against air units is because anti-air units often use radar and computers to fire the cannon at aircraft.

## Air-Launched Rockets (ARK)

These are unguided short-ranged (1-4km) rockets carried in pods on helicopters and aircraft. The pods are fired in volleys to hit soft targets with high explosive (HE)or hard/armored targets with high explosive anti-tank (HEAT) warheads.

## Anti-Tank Guided Missile (ATGM)

PGMs are designed to defeat MBTs. Earlier models have lighter warheads and range up to 2000m. Ground units will tend not to shoot these against targets other than tanks. These may be mounted in ground vehicles, helicopters, or employed by dismounted troops.

## Automatic Grenade Launcher (AGL)

These fire grenades are 20mm-40mm in caliber and range around 2000m or so. They may be either vehicle or tripod-mounted.

## Autocannon (AUCN)

Small caliber (20mm-60mm) cannon that fires quickly. Effective up to 1500 or so meters. Good against everything that is not heavily armored. It can also be used against helicopters.

## Rifle

They are used by infantry. Effective up to a few hundred meters. If not armed with optics, best used within 200 meters.

## Machine Gun (MG)

They are used by infantry and vehicles. The range is usually up to 700 meters. It can be a bit higher with 50 cal machine guns. Good against everything that is unarmored. More than two of these in a unit can be devastating to dismounted infantry assaulting in open terrain.

## Rocket-Propelled Grenade (RPG)

They are used by infantry and are effective up to 200 meters. Against heavy armor, infantry will volley fire up to four rounds if more than one is available. They are also used against point-target troops, such as MG teams or other gun crews. They are fired singly at lightly armored targets. Depending on the target aspect, warhead strength, and amount of armor, some IFVs may "earn" a volley of RPGs.

## Tank Cannon

A large caliber cannon. Effective up to 3000 meters but can reach about twice that far if a line of fire is available. Good against everything on the ground. Only the biggest cannons are effective against heavy armor.

## Surface to Air Missiles

These are labeled as "SAM" and can be long and short-range. Infantry-based AA missiles are always short-range, i.e., effective up to 5km. Short-range AA missiles may struggle against aircraft with countermeasures. The most powerful SAMs are vehicle mounted and may have air search radars associated with them (which broadcast a signature) or be passive IR or thermal systems. These are more dangerous to aerial units as they can strike without warning.

# Munitions

Several weapon systems in the game can fire different types of munitions from their barrel (like tank guns) or tubes (artillery weapons and rocket pods).

## Armor Piercing (AP)

Kinetic penetrators are used against armored targets.

## Anti-Radiation (ARR)

Munition that homes in on radar emitters

## Anti-Tank Guided Missile (ATGM)

Gun tube-fired ATGMs mainly used in Soviet tanks and anti-tank guns.

## Canister/Flechette (CAN)

Close-In, short-range, widespread round that can devastate soft targets.

## Demolition Charge (DEMO)

The munition is used to remove obstacles or blow bridges and is used primarily by engineers.

## Fuel Air Explosive (FAE)

A munition has a warhead with a Thermobaric type of explosion.

## High Explosive (HE)

A munition with a blast fragmentation-type warhead is used to destroy soft targets and structures. They are commonly used with artillery units.

## High Explosive Anti Tank (HEAT)

A munition with a formed HE penetrator warhead. They are used against armored vehicles.

## HEAT - Tandem Warhead

This round has a dual-formed HEAT penetrator warhead meant to defeat reactive-type armor by using the first charge to negate the reactive armor block.

## HEAT - Triple Warhead

This round has a triple-formed HEAT penetrator warhead meant to defeat reactive-type armor by using the first charge to negate the reactive armor block. This round is also effective against composite armor.

## HESH/HEP (HESH)

A munition with an explosive squash head warhead. Used against armor and creates a spalling effect when it hits armor plates.

## Hyper Velocity Round (HVR)

This round is an armor-piercing shell of the late WWII era used versus armor with a higher velocity design for greater penetration than a standard AP round.

## Illumination Rounds

***Content to be added before release***.

## Improved Conventional Munition (ICM)

ICM is a munition with dual purpose/sensor fused warhead commonly used as a submunition in cluster bomb weapons.

## Non-Persistent Chemical (NCHEM)

A chemical dispersion warhead releases a cloud of non-persistent gas that can kill or incapacitate exposed troops. It dissipates over time.

## Nuclear (NUKE)

A nuclear warhead (Tactical Yields) devastates units and structures for several kilometers and leaves vast area radiation contaminated.

## Persistent Chemical (PCHEM)

A chemical dispersion warhead releases a cloud of persistent chemicals that can kill or incapacitate exposed troops. The area is contaminated for the duration of the fight.

## Precision Munition – Designated (PMD)

These precision-guided munitions are guided to the target by a laser source.

## Precision Munition – Guided (PMG)

These precision-guided munitions use onboard guidance to home in on a target.

## Scattered Mines (MINES)

These mines are munitions with AP/AT mine submunition payload that deploys the mines over an area

## Smoke – Normal

These munitions dispences visual obscuring smoke to block the line of sight between your forces and the enemy. Thermal sights will see through this type of smoke.

# Sensors

The following section list a number of the more common sensors that can be found on the platforms in the game. Sensors use active (sending out signals) or passive (receiving signals) means to find or detect other platforms. This listing may be expanded in the future as new game features are added.

## Air Search Radar (ASR)

ASRs combine search and fire control radar capabilities for air defense (AD) systems. Depending on the class of system, they have different ranges of detection. These systems require an open line of sight to find aerial targets.

## Avionics (AVS)

Avionics represents all of the computers and sensors that control an aircraft. We added this entry as flavor text. This system does not impact play.

## Ground Search Radar (GSR)

Ground Search Radars are used to detect personnel and vehicles on the ground. Personnel is usually detectable out to 5km or so, and vehicles on the order of 10km or more use these radars. The radar system needs a line of sight to detect enemy units.

## Infra-Red Sights (IR-S or IR-L)

These night sights require IR illumination to function. They extend the range of weapons during nighttime compared to visible spectrum sights.

## Laser Warning Receivers

These devices are used to detect enemy lasers and provide the platform with a warning of being spotted and potentially attacked. During the Cold War, these were new technology and were rarely seen on various platforms.

## Night Vision (NV)

Low light level amplification is commonly referred to as "starlight scopes". Natural illumination is generally all that is needed for these to function.

## Optical Sights

There are a few different types of optical sights in the game. Optical (OPT) uses the standard mk1 eyeball. Optical with Zoom (OPZ) is powered zoom-like binoculars. Optical Gunsights (OPG) and Optical Gunsights with Zoom (OGZ) are also modeled in the game.

## Radar Warning Receivers

These devices are used to detect enemy radars and provide the platform a warning of being spotted and illuminated to be attacked. During the Cold War, these are found mainly on aircraft and some helicopters.

## Thermal Sights (TIS)

A passive sight that forms an image from the heat radiated by the scene. These systems are degraded during the periods shortly after sunset and sunrise, owing to low contrast between targets and the ambient background.

## Weapon Locating Radar (WLR)

Weapon Locating Radar systems are used to detect enemy artillery that shoots both on and off-map. The enemy also possesses these systems to find and your artillery systems and issue missions to engage them. These systems can detect the various types of indirect fire porjectiles like artillery shells, mortar shells, and ballistic rockets and in some cases missiles.

# Systems

The following section list a number of the more common systems that can be found on the platforms in the game. This listing may be expanded in the future as new game features are added.

## Fire Control/Range Finding System (FC/RF)

Fire control systems are the pieces of a weapon system that aid a shooter in hitting a target. At the lowest and simplest end of the spectrum is the iron sight. At the top end is the Laser Fire Control System, which has an integrated Laser Range Finder (LRF), a ballistic computer, an incline (sideways tilt) sensor, and a crosswind sensor. Addition inputs for ammunition variances can also be input. That fire control system also does lead computation for moving targets based on the gunner smoothly tracking the target for a few seconds.

Between these extremes, fire control systems vary, with most requiring either some manual inputs or gun lay to account for range and motion lead.

## Laser Range Finder (LRF)

Increases the accuracy of gun systems by obtaining an accurate range measurement. Mostly found on Tanks (MBTs) and Infantry Fighting Vehicles (IFVs).

## Advanced Gun Sight (AGS)

Sight for aircraft that does lead computation. These systems increase gun system accuracy against both air and ground targets.

## Stabilization System (Stab)

Stabilizing the gun allows a vehicle to engage targets while the firing platform moves with minimal accuracy degradation. The most common is two-axis stabilization, where the gun's elevation remains unchanged as the vehicle pitches up and down, and azimuth stabilization, where the weapon remains pointed in the same compass direction as the firing vehicle turns left and right. Stabilization does not account for any required lead due to own vehicle or target motion.

## Stadia Coincidence Sights (STC)

Sight with a built-in optical rangefinder. Typically, it uses two light paths, and the gunner adjusts the sights until the two images coincide, thus measuring the range. Imprecise much beyond 2000m.

## Stadia Reticle Sights (STR)

The range is determined by comparing the target height to a range scale. Precision drops off beyond 1500m.

## Electronic Countermeasures (ECM)

Electronic countermeasures are signals that jam radars and other radio frequency systems to avoid detection or defeat threats like radar-guided missiles.

## Electronic Counter-Countermeasures (ECCM)

Enhancements to munitions or fire control systems to make them resistant to electronic countermeasures deployed by a target.

## Defensive Countermeasures (DCM)

These include flares (hot source to mimic engine exhaust) used to decoy Infra-Red missiles or chaff (strips of aluminum foil) to spoof radar-guided missiles. They are mainly carried by aircraft and helicopters. These are items of limited use.

## Smoke Dischargers

Many ground platforms (tanks and infantry fighting vehicles) are equipped with a smoke discharging system used to blind then sensors and weapons. During the Cold War, they are visual obscurants. They have a limited number of uses in combat.

# Types of Protection

We model several types of protection systems in the game to keep hardware and troops safe from enemy fire.

## Armor

Basic armor is a thickness of various metals like steel, aluminum, or depleted uranium designed to stop kinetic and chemical-based warheads from destroying a vehicle. Depending on vehicle type, the thickness can range from 10mm to 1000mm or more.

## Explosive Reactive Armor (ERA)

ERA has many types based on the continued improvement in its design. This armor is made up of a combination of explosives and metal plates used to bend the jet of a HEAT round and, in the cases of the more advanced ERAs, break the long rod penetrators of an AP round.

## Non-Explosive Reactive Armor (NERA)

Non-Explosive Reactive Armor, also known as Non-Energetic reactive armor (NERA), is a type of vehicle armor used by modern main battle tanks (MBTs) and heavy infantry fighting vehicles (IFVs). NERA advantages over explosive reactive armor (ERA) are that they are inexpensive, completely passive, and thus easy to integrate into armored vehicles. This type of armor is effective against HEAT warheads.

## Advanced Composite Armor

Composite armor is a type of vehicle armor consisting of layers of different materials such as metals, plastics, ceramics, or air. Most composite armors are lighter than their all-metal equivalent, but occupy a larger volume for the same resistance to penetration. It is possible to design composite armor that is stronger, lighter, and less voluminous than traditional armor. Still, the cost is often prohibitively high, restricting its use to especially vulnerable vehicle parts. Its primary purpose is to help defeat high-explosive anti-tank (HEAT) projectiles. Some versions add layers of depleted uranium plates to enhance the armor’s ability to defeat armor-piercing rounds.

## HEAT Resistant Armor

Similar to NERA and Composite armor, HEAT-resistant armor is specifically designed to be placed on lighter vehicles like armored personnel carriers and infantry fighting vehicles as it is lighter in weight due to its sandwiched materials.

## Armored Skirts

An added protection measure from WWII, armored skirts have evolved into several types, such as plates, slats, wire, and spaced configurations. These all degrade both kinetic and chemical rounds

## Active Protection Systems (APS)

These systems were designed in the late 70 and early 80s to provide hard and soft kill capability for tanks against ATGMs and RPGs. The Soft Kill systems are meant to jam or degrade the guidance systems of incoming missiles. These are like the Shtora Thermal-Optical Jamming System (TIJ). The Hard Kill systems (Drozd, Arena, Trophy) track the incoming ATGM or RPG and fire an explosive charge to take out the threat.

## Stealth and Low Observable Technology

These were US-based technologies from the late 70s and applied to the F-117 Nighthawk stealth fighter. Stealth (STP) and Low Observable (LOP) platforms have significantly reduced radar and thermal profiles, allowing them to fly into hostile and contested airspace.

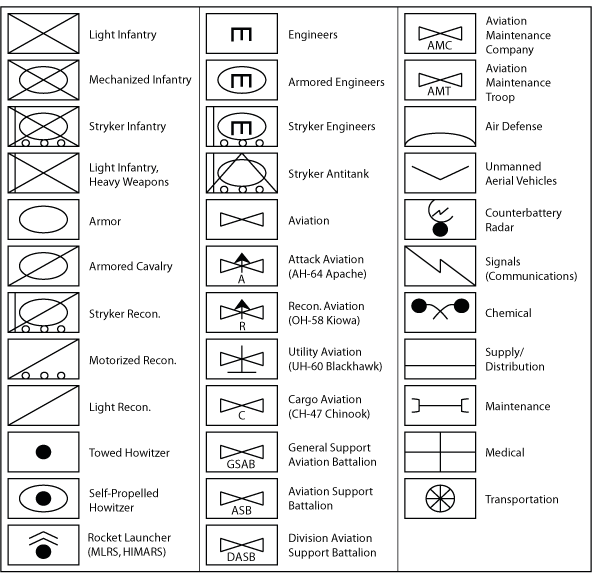
Map

Description automatically generated

# NATO Symbols

NATO symbols are used to represent various types of forces on the map by military users. The table below shows a number of the commonly used symbols, but the game has many more depending on function.

If you want to look closer at all of the possible NATO map marking and symbols, do a web search for NATO APP-6A, and you can see the extent of the military symbology used by the professional military.



# Force Organization

Forces are usually organized into tiers of three or four or the lower tier of core type, with HQs units and mechanized infantry units being the exceptions. For example, a tank company consists of three or four tank platoons. The echelons are:

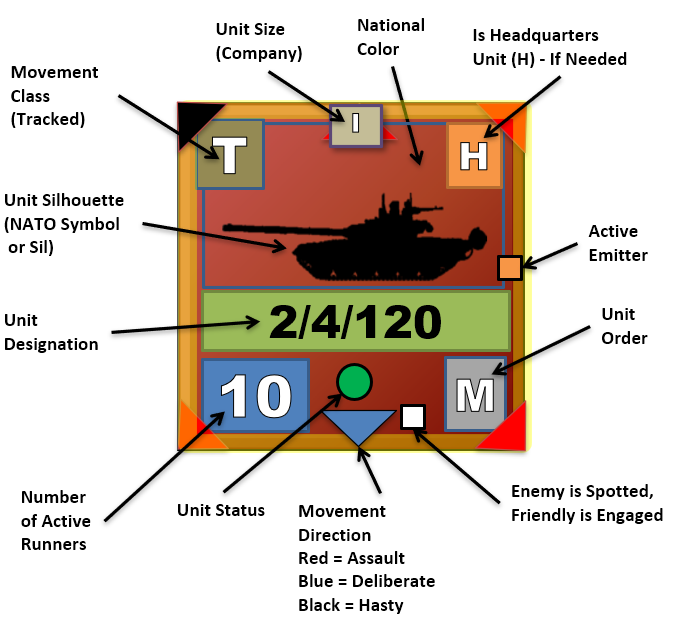
* Team (●) – 2-4 Troops, usually using a specific heavy weapon.
* Squad / Section (●●) - 2 to 3 Platforms or 4-10 troops.
* Platoon / Troop (●●●) - 3 or 5 Platforms or 30-40 troops.
* Company (**|**) – 3 or 4 Platoons, possibly including an HQ Section or 150-200 troops.
* Battery (**|**) – 4 to 6 Platforms (mortar, artillery, or air defense), possibly including an HQ Section.
* Battalion (**||**) – 3 to 4 Companies, an HQ Section, and possibly some specialty platoons or 500-800 troops.
* Brigade (**X**) / Regiment (**|||**) – 3 or 4 Battalions, an HQ Platoon, possibly specialty Companies or Platoons, maybe an Artillery Battery or 1000-3000 troops.

# Counter Layout and Map Objects

Detail about these items can be found in FM FCCW-01 Game Operations.

## Counter Layout

The image below shows all the various bits of information contained on most of the counters in the game. Understanding these items and their meaning is an essential part of the game.



## Map Markers (Full and Hex Edge)

Full hex map markers apply their effects on the entire hex and any units within. The color shows ownership. Red for Player one and Blue for Player two. Unowned markers are in yellow.Logo, company name

Description automatically generated

Hex Edge Map Markers are placed along the edge of a hex, and the marker's effect only applies when crossing that hex edge. These markers are shown as full on the top of the picture below or reduced at the bottom of the image for each type. The color shows ownership. Red for Player one and Blue for Player two. Unowned markers are in yellow.A picture containing text

Description automatically generated

# Table of Common Abbreviations

The information in the following section provides a listing of various terms and standard military abbreviations. This should be helpful for new players to review to become familiar with these terms.

|  |
| --- |
| A/C – Aircraft. |
| AA – Anti-Air |
| AAA – Anti-Air Artillery. It mainly refers to gun or cannon systems. Also known as flak. |
| AAM – Air-to-Air Missile |
| ACA – Advanced Composite Armor. Sandwich of metal and either ceramic or rubber |
| AD – Air Defense |
| ADA – Air Defense Artillery. This includes SAMs. |
| ADL – Air Defense Limited. The weapon system has limitations in the engagement envelope. |
| ADW – Air Defense Weapon. The weapon is designed specifically to engage flying targets. |
| AGM – Air to Ground Missile |
| AP – Armor Piercing |
| APC – A Armored Personnel Carrier. Carries infantry troops and provides minimal protection for a machine gun and artillery fire. Very vulnerable to any AT weapon and most autocannon (20mm, 25mm, 30mm). Armored Personnel Carrier is lightly armored and lightly armed. |
| APS – Active Protection System. A radar sensor and counter-rocket/missile munition are designed to destroy the incoming munition several meters from the protected target. The sensor is usually some sort of radar. |
| AT – Anti-Tank. The broad category of weapons/munitions capable of killing an MBT. |
| ATGM – Anti-Tank Guided Missile |
| BDA – Battle Damage Assessment |
| Bty – Battery. This applies to artillery and air defense units |
| C2 – Command and Control |
| CAS – Close Air Support |
| Cav – Cavalry. Reconnaissance forces. |
| CP – Command Post |
| Echelon (Operational) – During the Cold War, Soviet doctrine used the concept of the Echelonment of Forces. These are "waves of Divisions". The First Echelon was tasked with creating a breakthrough, and the Second Echelon would exploit that. The time gap between these Army-level echelons was anticipated to be five to seven days into the war. |
| Echelon (Tactical) – This represents the formation size and span of control. The echelons in the game are Platoon (about 30 infantry soldiers or three to four fighting vehicles), Company (three to four Platoons), Battalion (three to five Companies and 1-3 specialty platoons), Brigade or Regiment (three to five Battalions and two to five specialty Companies/Batteries) |
| ERA/NERA – Explosive and Non-Explosive Reactive Armor. These are armor, usually enhancements designed to defeat HEAT-based munitions. They function by disrupting the plasma-cutting jet created by the HEAT round, reducing the penetration to a level less than the hull or turret armor. |
| EW – Electronic Warfare |
| FARP – Forward Arming and Refueling Point. Where helicopter units rearm. |
| FASCAM – Family of Scatterable Mines. Western term for a scatterable cluster munition. These are minelets used for area denial. Usually, it will cause mobility kills on armored vehicles. These include anti-personnel minelets in the mix as well. Units that detect these will attempt to bypass them. |
| FDC – Fire Direction Center. A platform where artillery computations are made to determine gun lay for azimuth and elevation and what charge for a particular target. |
| HE – High Explosive |
| HEAT – High Explosive Anti-Tank |
| HERA – High Explosive Rocket Assisted. Artillery rounds that have a rocket in the base to provide extended range. |
| ICM – Dual purpose (anti-personnel and anti-armor) scatterable cluster munition. Each shell or bomb ejects several bomblets that attack soft and armored targets (top armor being relatively thin). The target will have dud rounds remaining that impede future movement. |
| IFV – Infantry Fighting Vehicle. Armored more than an APC but less than an MBT. Usually armed with an autocannon, and many have ATGM as well. IFVs carry a squad or less of infantry. More survivable than an APC. |
| Improved Position – Field fortifications consisting of dug fighting positions affording improved cover. Includes positions for fighting vehicles and CPs. |
| IR – Infrared. This is a short wavelength or near-infrared spectrum of light. For surveillance sensors or weapon sights, illumination is required. |
| ISR/ISTAR – Intelligence, Surveillance and Reconnaissance/Intelligence, Surveillance, Target Acquisition, and Reconnaissance. |
| LOS – Line of Sight. This is the ability to see from one location to another. This is how spotting in the game is done. |
| MBT – Main Battle Tank. Tracked, heavily armored, with a large caliber and high-velocity gun. |
| MG – Machine Gun. There are three groupings of these based on caliber – 7.62mm cal, .50/12.7mm cal, and 14.5mm. There is no essential difference among nations or weapons within the caliber category. |
| MRL – Multiple Rocket Launcher. Generally, a grouping of tubes or rails that hold unguided rockets fired in a salvo at a target area. |
| PGM – Precision Guided Munition. The munition is guided to the target by one of various means. These are generally missiles, either air or ground-launched. |
| Platform – The lowest atomic element of capability. These are individual aircraft and ground vehicles, squads, gun crews, etc. |
| Prep – Short for preparatory fires. These are artillery fires directed against known or suspected locations just before a ground assault. The primary aim of a prep s to degrade the effectiveness of defending forces, not the destruction of them. |
| RPG – Rocket Propelled Grenade. Shoulder-fired anti-tank rocket launcher. |
| SACLOS – Semi-Active Command Line Of Sight. Gunners need only keep their sight on the target. No gunner inputs are required to correct munition ballistics or lead compensation. |
| SAM – Surface to Air Missile |
| SEAD – Suppression of Enemy Air Defenses |
| Smoke – A type of artillery round that generates a large, dense cloud of smoke that impedes LOS. This has minimal impact on TIS systems. |
| TIS – Thermal Imager Sight. Detect targets using the electromagnetic spectrum's long wave or mid-wave infrared portion. These wavelengths correspond to heat emitted by a target and are not effectively blocked by standard smoke rounds. No illumination is required. |
| TIV – Using the same technology as a TIS, but not part of a fire control system, the TIS can spot enemy units. |
| UCAS – Unmanned Combat Aerial System. Flying drones which have the primary purpose of attacking enemy targets. |
| UAS/UAV – Unmanned Aerial System/Unmanned Aerial Vehicle. This broad classification of flying drones doesn't speak to their battlefield purpose, including recon, surveillance, situational awareness, and strike systems. |

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# OTS on the Web

Matrix Games Forum: <https://www.matrixgames.com/forums/viewforum.php?f=10149>

Check Us Out on Discord: <https://discord.com/channels/911711314051739659/911711314257248331>

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