



STEEL RAIN

Design Document

STEEL RAIN

In distant fields, where echoes cease to fade, cannons sing their solemn, iron refrain— A tempest born of smoke and fire, displayed, As heaven weeps its tears in steel rain.

Each shell a messenger of fate untold, Its trajectory traced by mortal hand, As soldiers brace for futures yet untold, Where life and death collide upon the land.

Yet in this storm, a paradox resides: The same rain that destroys can cleanse the earth, And hearts, like steel, tempered by the blows, are courage forged in struggle and rebirth.

So let the cannons roar, the heavens weep, For in this steel rain's dance, our stories seep.



The Team

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Additional Thanks: [Thanks and Credits](#)



We are recruiting!

1. Reforger scripting (or C/C++ coding) experience
2. Modelling and asset creation experience

Subscribe to our  [Development Thread](#) for live progress updates.

Current Iteration

- First air units
- Assets for gear/units
- Pre-base building planning

See More: [Roadmap](#)

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Main Links

-  [Steel Rain Discord](#) **[NEW]**
-  [Development Thread](#)
- [Master Idea/Feature List](#)
- [Public Github Repo](#)
- [Discussion Area](#)

Supporting Documents

 [Steel Rain - Asset List](#)

 [Steel Rain - Dev](#)

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Introduction

Steel Rain is a work in progress total conversion mod for ARMA Reforger.

Steel Rain borrows strong gameplay elements and direction from the top down MMO Foxhole, but retools them for the first person perspective and the strengths, scope and scale of Reforger/ARMA 4.

The strategic direction of gameplay will be that of high intensity FPS with strong social elements and in depth base building, artillery use, logistics, and mass infantry tactics. Fighting will be based on “tug of war” style base/area capture, over a persistent world, over multiple servers, with thousands of players.

We are leveraging the strengths of ARMA - its realism, scope, scale and diversity, while trying to focus the intensity of play. We want to build on the amount of “just barely survived”, fights against all odds, races against time and “how am I still alive” moments - that make FPS gaming uniquely powerful and captivating.

Infantry combat and individual skill will always be the focus in *Steel Rain*. Vehicles will be balanced as specialist trump cards, with roles to play that force a shift in play. Rather than vehicles being a primary focus of play, with infantry just being around for vehicles to have something to shoot at.

Weapons will be lethal and survivability will boil down to personal skill and not being seen. We want to avoid the end game mechanic of supply driven games where infantry combat gets replaced by late game super weapon combat.

We want to promote the communal effort that is required to move a front, while still allowing for folk heroes, dedicated players and elite players to feel like they are turning the tides with individual skill and effort. Without adopting artificial “hero units” or “hero vehicles”.

Game design takes inspiration from:

- [Foxhole](#) - logistics, radar, building, combat stress, mass infantry play and community
- **Red Orchestra 2** - lethality and intensity, tug of war
- **Rainbow Six 3** - weapon handling, weapon balance, lethality and intensity
- **Rainbow Six Vegas, Vietcong 2** - pop-out cover system, unit “flair” customization
- **ARMA 3** - historical understanding; what is expected, scope, how maps/games play out
- [WW2OL](#) - town assaults, logistics, scope, community and strategic map
- **BF1942** and **BF2** - mass infantry play, simplistic mechanics

Project Roadmap

We are currently at the **Pre-Alpha -> Logistics** stage

Pre-Alpha: Resources -> Logistics (Pallets) (Refinery) (Factory) (Cranes/Flatbed) (Storage) -> Placeholder Props, Vechs, Weapons -> Basic Base Building -> Basic world buildings -> Multiplayer game mode code logic -> Multiplayer code fixes -> Basic side content

Pre-Beta: Private play testing

A realtime list of work per stage can be seen [here](#).

Current Iteration

- First air units
 - Tri/Biplane props
- Assets for gear/units
 - Bayo's
 - Rifles
 - Pistols
- Pre-base building planning
 - Snapping and design
 - Features we want

Milestones

- Official Start: July 17th 2024
- Pre-Alpha
 - Resource spawn, Refinery UI/System: August 2024
 - Base logi elements and assets: September 2024
 - First clothing asset: [Sov helmet](#): Sep 19, 2024
 - Transfer to Github completed: Oct 09, 2024
 - First Side Uniform: Oct 17, 2024
 - 100th commit: Nov 22nd
 - First Weapon: Patriot Pistol: Nov 24th

Key Systems and Gameplay

Gameplay Introduction

The gameplay objective is to create a very large scale, high intensity, attritional, multi server, persistent player driven war; that has a heavy focus on: logistics, human wave infantry tactics (and countering them) and strategic and tactical base building and supply.

The gameplay aims to put the focus on teamwork, endurance, timing, siege warfare, intricate base design and mass infantry-based combat/tactics. While maintaining social elements and non-frontline roles and tactics.

Attritional combat favors the best supplied and coordinated. Timing and exploitation will be the key to success. Steel Rain's features will add depth, style and polish to combat, facilitating a tug of war that will be VR ready and ready to capitalize on mods and features added to the engine.

Gameplay is built around providing a delta between bases under attack and bases in the clear. Giving operational and strategic advantage to bases operating in the clear at closest to the front. This component is critical to gameplay advancement, and providing clear reasoning to attack and defend and rewarding those that operate in higher risk, higher intensity, higher effort

Overview

- Large unit combat
 - Which is 64 v 64 (128) until hard limits are removed
- Focused, funneled, forward facing combat
- Multi-server, seamless, shared world experience
- Full spectrum warfare with air, sea and ground usage
 - Close combat infantry warfare with rush/push/overrun/defend, tug-of-war style combat
 - Spotting and verticality complexity minimized whenever possible
 - High Lethality (1-3 shot kills)
 - Medical focus
 - Spawn in combat
- Non enforced role based gameplay
 - Social and non combat roles
 - Specialized tactical and strategic combat roles
- Gameplay designed for VR via mod or eventual game feature
- Logistics
 - Resource creation
 - Mining, Refineries, Factories
 - Pallets, shipping containers, stockpiles
 - Depots

- Sea shipping
 - Ship defense and boarding, piracy
- Helicopter logistics
 - Boats, shipping containers, people and vehicles
- Truck logistics
 - Shipping containers, trailers, towing
- Artillery
 - Majority of deaths will be from some form of fragmentation or spray bullet
 - Not being seen and launching quick overwhelming attacks will be a key tactic
 - Most attacks will require sustained bombardment, attrition, smoke or overrunning the enemy (timed overwhelming attack)
- Modular base building
 - For combat, defense, for logistics support and supply
 - 2 types of base construction
 - Base connected
 - Field construction
- Drone integration

Style

Art Style



Pictures are provided for style reference. [This artwork](#) is not property of this project.

Current style is to aim for an "Alt-WW2", diesel punk, interwar period fantasy style, between two unique non-earth factions, but keeping with the flavors of current earth nationalities (for roleplaying and engagement).

The fantasy element allows for more stylized content that focuses on gameplay and visual feedback - over the raw reality of things being built and shaped for maximum battlefield effectiveness and real life arms sales. Shape, contrast, volume and texture should be exploited whenever possible to convey the emotion and atmosphere we are looking for.

Text style

Currently matching reforgers look and feel (to save on development debt). Printed text should make use of typewriter, code like font. That which is sent over "wire" or digitally, chevrons, // ===

and other graphical markers to provide an ascii/tech flair to the “transmission”. Tone to match military terse/short form messaging where appropriate.

```
> 2024.26.08
===== INCOMING TRANSMISSION =====
HIGH COMMAND TO ASSET FIELD COMMANDERS // REFORGER SECTOR

BASED ON LATEST RECONNAISSANCE AND FRONT ADVANCEMENTS THE FOLLOWING
ASSETS ARE REQUESTED TO BE BROUGHT TO BARE.

ORDER AT COMMANDER'S DISCRETION.
```

Sound Style

Modern, aggressive, high tempo, heavy use of percussion and cinematic horns - with string elements. The soundscape should paint, alarm, impetus and warrior spirit, while hinting on the setting of wars years past through the use of horns and more period instruments. Without going too much into sounding like the 1800s, medieval or earlier periods. Since this is fantasy, engaging modern elements can be adopted, but will need careful use not to overpower the theme.

Example: [Battlefield 4 Remix Rihanna Run this Town](#)

Alternative Theme: [Rainbow Six 3 Ravenshield Soundtrack \(Theme\)](#)

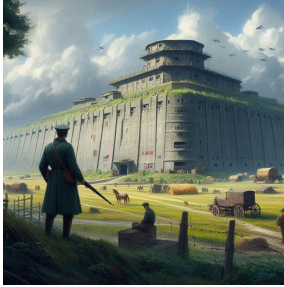
OFP Remix/A3 Theme: [This Is War \(Main Theme\)](#)

We only need intro music for promotion and setting the sound signature with some in game elements, at this time.

Scale



Keeping with ARMA's base proportions we are using a proportion system referred to as “units”. A unit is the width of a playable character in a-pose squared.



Aesthetic style currently is grounded in semi-reality, but we plan on introducing oversized, semi impractical/super massive objects to give a sense of fantasy, grandeur and impressive scale.

Terminology

While not a perfect system of verbiage, this is the standard we attempt to adhere to.

Adjectives in relation to size:

- Very small 0.25 units ($\frac{1}{4}$)
- Small 0.5 units ($\frac{1}{2}$)
- Regular 1 unit
- Large 2-4 units
- Very large 4-8 units
- Massive 8+ units

Examples:

- Large pallet 2x2
- Large crate 1x2
- Regular pallet 1x1
- Regular crate 0.5x1

Lore

Factions

Name	Nicknames	Enemy Nicknames	Colours
The Phoenix Sovereignty	Sovereigns	Blueberries	Red, Gold
The Coalition	Coalies, BLUEFOR	Reds, Sovs, SOVFOR	Blue



The Coalition is composed of industrialized, militarized peasantry, current NATO like diversity and the supporting nations from the middle east, africa and island nations opposing real life China and Russia.



The Phoenix Sovereignty is composed of “Imperial” China/Russia like units, and the supporting nations from the middle east, africa and island nations favorable to real life China and Russia.

Asset: Sovereignty helmet, with helmet badge test



Flags



Balance & Style

Style will be used to drive the lore of the side, flair, side loyalty/attachment and bring uniqueness to the gamemode. The sides pitted against each other will be slightly asymmetrical, and have diversity built into the units and weaponry that flavors the side.

Backstories and The Road to War

Current backstories and the road leading to war can be read [here](#).

General World Story Elements

History

- There was a previous war (the old war) 20 years in the past
 - Shown in scrapyards, tech drops and reinforced with lowest tech vehicles, old structures and weapons
- Kelvak is arms company that produces goods for (and profits on) both sides of the conflict
 - Shown on large crates
 - Producer of generic logi elements

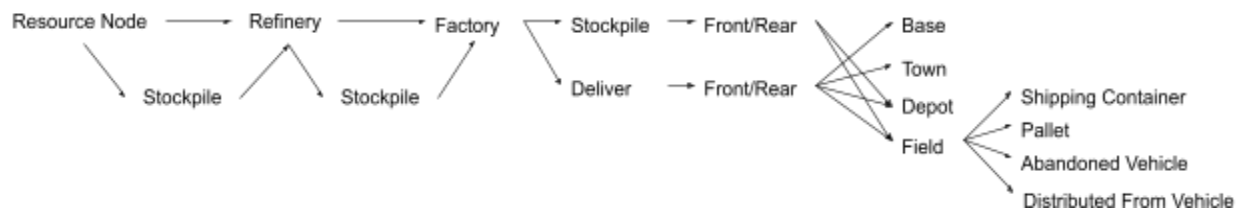
Technology Materials

- Alloy is world special material, similar to titanium
- Allsteel is an alloy based fibrous ceramic that is formed in bricks, leading to the blocky look of armour

Gear

- The reason the SOV helmets are a golden beige colour is to match the sandbags behind them, to make it difficult for snipers

Logistics



Logistics is a core mechanic and is what provides balance and macro control over the overall game pace and intensity. Gameplay is ultimately driven by the speed at which resources are mined, modified by game balance controls.

From the player's perspective, the speed at which all legs of the logistic chain are completed, alongside combat skill, dictates the success and ultimate victory.

When and where those resources are ultimately delivered too, controls the strategic outcome of combat, and the difficulty and stress placed on attackers and defenders engaged in tactical and strategic combat.

Players will have to mine resources, refine resources and take them to factories to produce usable goods consumed by the front line.

Players will have to decide where on the front line to apply resources, or when and where to store them strategically for counter-attacks or future attack and defense elsewhere.

The application of logistics is as critical to the outcome of the war as individual combat. As running out of bullets, shells and respawns will be a constant problem for areas engaged in heavy fighting. The design of the logistics system, and the game, will aim to have the majority of battles be won by exhausting the logistics of the opposing side.

Logistics additionally provides an alternative playing style for those that don't like, or need a break from, the intensity of combat. Although partisan risk increases as their side is losing or proximity to the front, it still allows for players to enjoy the social element of video games, with limited stress and focus.

Production Chain

Resources are the first step in the production/logistic chain. Resources are created by player interaction with resource nodes, which are spawned dynamically within a resource area.


Resource Areas

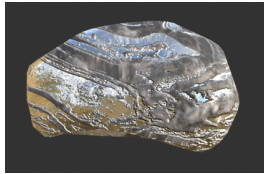
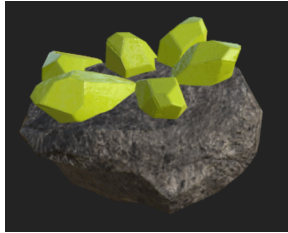


Resource node showing the dynamic spawning of scrap and alloy nodes.

Raw Resources

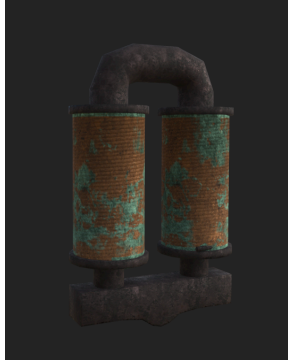
Raw resources come in the following types:

Type	Name	Represented by	Render
Basic	Scrap	Junk, Scrap, War Relics	

Advanced	Alloy	Ore veins and rock nodes	
HE	Sulphur	Yellow rocks	
Fuel	Oil	Oil patches	Reforger's Oil Drum

Special Resources

Special resources are not mined or refined and are spawned into the world via “drops” that coincide with regular resource mining. This mechanic provides the pathway for a tightly controlled, enabling property, to control a game element, while providing users with additional reward stimulation.

Type	Name, Role	Represented by	Render
Tech	Tech Resource, enables and controls research advancement speed.	Old crude specialized electronics, Old electromagnets	

Refineries



Pre-alpha Refinery

Refineries are the second step in the logistical chain. They process raw resources into refined resources. Refineries represent the first concentrate and timer stage of the logistic chain. Turning large amounts of raw resources into valuable and value dense (reduced volume and weight, compared to equivalency in raw resources) materials.

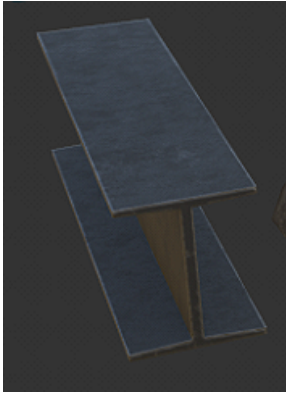
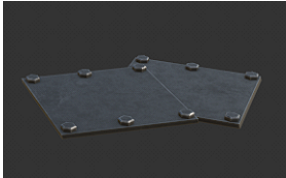


Refined Resources / Materials



Refinery Menu

Refined resources are produced via the refinery.
Refined resources come in the following types:

Type	Name	Represented by	Render
------	------	----------------	--------

Basic	Basic Materials	Iron I beam	
Advanced	Advanced Materials	Alloy plates	
HE	Light Explosives Heavy Explosives	Black powder Explosive brick	 
Fuel	Fuel	Reforger's Jerrycan	Reforger's Jerrycan

Item creation

The third step in the production/logistical chain is the creation of items in the game world through the use of factories, and other specialized buildings.

Basic materials have the special property of being used for physical world construction. Alloys can be diverted to garages to build single instances of advanced vehicles,

Factories



Pre-alpha Factory

Factories take in refined resources and produce important game assets like ammunition, rifles and respawn tickets. Factories take a bit of time to produce materials, and represent the longest logistical timer.

Mass Production Factories



Pre-alpha Mass Production Factory

Mass production factories are similar to regular factories but they produce products at a discount and in a more concentrated or “greater per time amount”.

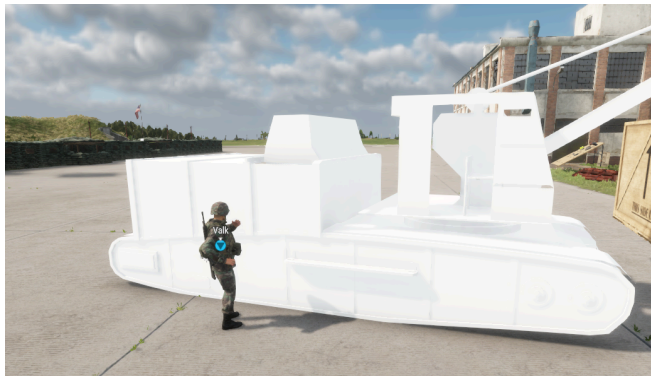
*Garages and dockyards details can be seen in the vehicle section.
Greater detail of the above production buildings in the core section.*

Shipping & Storage

Cranes



A static industrial crane. Common to major logistical and construction buildings.



The mobile crane; built at town halls and garages.

Cranes are used to load and unload pallets, shipping containers and shipping crates, which are far too heavy to be moved by hand.

Shipping Choices



By gameplay design all primary logistics is unarmoured and lacks weaponry.

Depending on gameplay testing, we might add self defense weapons. This would give passengers/logi support teams something to do and would help curb partisans from being extremely bold (fearlessly standing in the middle of the road with an automatic weapon), plus when the target shoots back it adds more thrill and skill to gameplay. Consider “battle trucks/war wagons” from vietnam. Regardless, gameplay wise we want logi to remain very vulnerable.

From order of most effective to least:

Sea, Air, Flatbed Truck, Truck, Wagon, Ad-Hoc, Hand Carry, Backpack

Shipping modes

- Trailers
- Towing
- Air sling
- Sea transport
- Flatbed truck
- Covered truck
 - Ambulance
 - Fuel truck
- Ad-hoc
 - Engineering vehicle
- Wagon
- Heavy carry
- Backpack

Ad Hoc

- Using small storage of other vehicles to move small crated goods
- Not very time/effort effective
- Useful during sieges to break through and bring limited game changing resupply
- Only logistics that is armoured

Wagon



- Human powered
- Built near base/town hall
- Holds:
 - One 1x1 Pallet
 - 2 crates fast movement
 - 4 crates walking speed
 - One large object. Fast movement
 - *Two corpses - this might become a specialized variant*

Heavy carry

- Physical hand carry
- Limited to 1 regular crate or container at regular encumbrance determined by contents
- One large object or 1 person carry at walking speed

Crates





- Crates are made in factories and refineries, and stored and retrieved from depots
- Crates come packed/sealed providing a weight and volume reduction
- Once unpacked/unsealed, they deploy a quantity of resources to the crate or inventory
- Crates cannot be repacked, but can be placed unpacked on pallets to regain some weight and volume bonuses
- Crates auto delete when emptied

Sizing

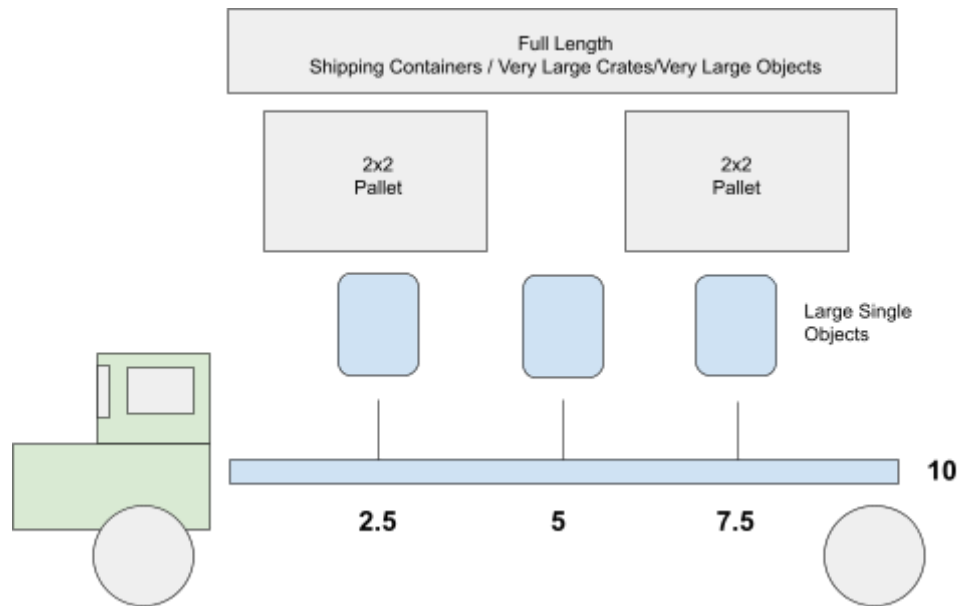
Crates come in three sizes: regular, large, very large.

- Regular (0.5 x 1)
 - Can be transported by cargo, flatbed or truck or “heavy carried” by hand
 - Stockpiled or transported on any sized pallet
 - Unpackable anywhere
- Large (1 x 2)
 - Can only be transported by flatbed and crane
 - Stockpiled or transported on 2x2 sized pallets
 - Currently only unpacked at depots, bases, town halls
 - Items are too heavy to carry

- Very Large “Shipping Crate” (2 x 4)
 - Non buildable, produced as output from factories
 - Can only be transported by flatbed and crane
 - Cannot be stockpiled, but like shipping containers can be left in the field
 - Currently only unpacked at depots

Regular	Large
 <p>A photograph of a regular shipping crate, which is a dark-colored metal box with a handle. A soldier in camouflage gear is standing next to it on a gravel surface, providing a sense of scale. The crate has some text on it, including "AUG 2011" and "V. 1.0".</p>	 <p>A photograph of a large shipping crate, which is a dark-colored metal box with a red stripe. It has a handle and some text on it, including "KELVAK 13-5" and "DECX 162341".</p>
Very large “Shipping Crate”	
 <p>A photograph of a very large shipping crate, which is a wooden box with a blue arrow pointing up and the text "THIS SIDE UP". It also has some text on it, including "MFG: 10FOT ARM", "PRO: 31451", and "TV: 21:52:16".</p>	 <p>A photograph of a very large shipping crate being lifted by a crane. The crate is a wooden box with a blue arrow pointing up and the text "THIS SIDE UP". The crane is a large metal structure with a hook and cables.</p>

Flatbed Shipping



The flatbed system is currently being balanced, but as it stands, a flatbed can carry the following “shippable objects”

- Shipping containers (2x4)
 - These hold up to 64 small crates
- 2x2 pallets
 - These hold up to 32 small crates
- Large objects
 - Very heavy shells
- Single objects of stockpile quality
 - Wire spool
 - Hedgehog Beams
 - Sandbags
 - Prepared weapon stockpiles
- 1x1 pallets
 - These hold up to 8 regular crates
- Regular crates (0.5x1)
 - Crates on pallets for receive weight and volume productions
 - Can be placed in vehicle storages with room
 - These are multi-packs of factory produced goods
 - Eg: 10 grenades, 2 rockets, 5 light machine guns
- Large crates (1x2)
 - Same as regular crates but with lifting restrictions and the need for a 2x2 pallet

- Shipping Crates (2x4)
 - This are single or multi packs of large vehicles/objects
 - Currently must be unloaded at a depot or seaport
- Single unpacked vehicles (of medium or smaller size)
- Single unpacked emplacements
- Single Very large object/part
 - Super weapon parts (*future*)

Pallets



Pallets are a “build anywhere” structure that then allows a stockpile to be formed. This stockpile will take the shape of the first item provided which can be:

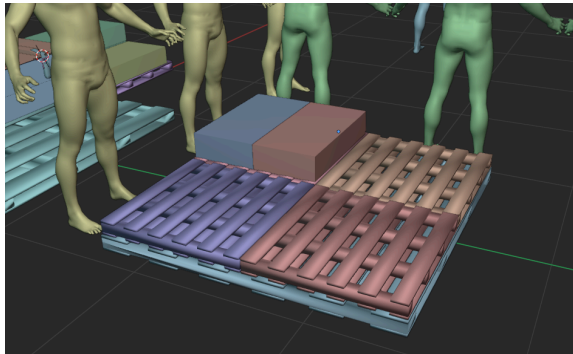
- Stacked crates of various contents
- Stacked items of a single type of “large objects”
 - Very large shells
- Stacked items of a single type of “stockpile”
 - Like shell ammunition, wire, sandbags, and building materials

Pallets, from a gameplay perspective are, fundamental, non-walled half sized (2x2) and quarter sized (1x1) shipping containers, that allow the fast transportation, stockpiling and organization of goods.

Pallets can be slowly loaded and unloaded by hand by transferring the subcrates, but a crane is recommended for speed.

1x1 pallets and wagons provide the low tech means to continue effort efficient logistics when trucks and support is destroyed, missing or attrited.

The storage size division system



Everything is based on a subdivision of two. Pictured is a single 2x2 pallet (underneath), 4x 1x1 pallets on top and 2x regular crates (0.5x1) on one of the 1x1 pallets in the corner.

Shipping containers

Shipping containers only hold small crates and single items (loose items) and can't stack or contain large items.

Shipping containers act as a large inventory much like ARMA's current container inventory system. They hold two times what a 2x2 pallet can hold, and occupy two times the space.

They can only be transported by boat, sling, flatbed truck, trailer or crane (driving while holding it). Containers require a crane to load and unload.

The internal contents can be transferred by hand but it's a very long process. Shipping containers make excellent field storage and useful ad hoc barriers against small arms, vehicles, and anyone not armed with explosives.

The advantage of shipping containers is:

- Speed of loading and unloading (twice as fast)
- Concealment of goods
 - The status of shipping containers cannot be observed
 - If they are empty, full or however much filled visually
- Protection of goods
 - Shipping containers can be locked
 - Shipping containers protect against small arms and artillery fragmentation
 - Which protects against resource loss
 - Damage to crates/containers results in material loss

Field Containers



Field containers are boxes/containers/crates that can be placed anywhere on the battlefield to hold scavenged equipment or supplies needed for combat or support.

- They act as a common ARMA inventory container of a small size/volume
- They can be heavy carried and stacked on pallets
- They preserve contents from being “decayed” / picked up by the asset garbage collector
- Unlike crates, field containers will not self delete when empty
 - Will decay over time if not interacted with
 - This accelerates if they are empty (debate this)
 - Active boxes will persist indefinitely

Depots and Sea Ports

Depots (inland) and sea ports (coastal) are the primary storage buildings for produced factory and refinery goods.

- They help shape the logistical strong points
- They are the only place where you can have private storage
- They allow you to store goods publicly or privately, for later distribution to bases and the front line
- They allow you to keep your goods in “crated format” for ease of loading to shipping containers or pallets.
- For gameplay reasons, depots and seaports do not require manual hand loading of containers into shipping containers or trucks - it is done via menu at an accelerated speed.

Partisans



Partisans are people that go behind enemy lines to strike at logistics, stockpiles, radar, steal resources and vehicles, seize undefended territory, scout and destroy poorly defended bases ahead of the main attack.

Partisan action on the simplest level is traveling behind enemy lines to attempt to harass undefended enemy logistics, ambush builders and workers. On a higher level it is a full time strategic role that focuses on blinding the enemy through the constant destruction of their radar,

harassment that impedes freedom of the movement, probing weakness in defensive lines and pulling off daring heists or bold sabotage raids.

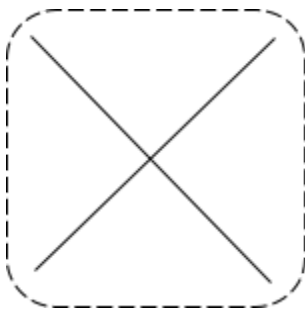
Partisan play provides flavor to the small coordinated squad (2-5 crowd) that wants a break from the large-scale battle of the frontline. It can become a role some groups/clans wholly specialize in.

Specialized weapons and vehicles will be created to facilitate partisan operations and increase their survivability.

The defense against partisans is:

- Full radar coverage
- Distance from the frontlines
- Near full coverage of road routes with automated defenses
- Quick reaction forces (QRF)
- Active builders

Quick Reaction Forces



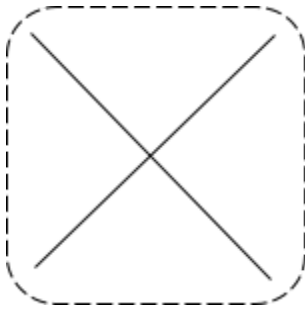
Quick reaction forces is a term to describe players that respond to partisan attack and infiltration. This role is critical as partisans if left unchecked will destroy large swaths of radar coverage, bases, discover and report back weaknesses and paralyze logistics.

QRF generally is done by ad-hoc groups of regular players spawning and depawning where they are most needed in the world map at the base(s) closest to respond to the attack or infiltration.

Much like Partisans, dedicated groups often choose to specialize in QRF by operating out of major bases where they have stored the resources to effectively hunt and overpower partisan attacks - ideally with fast moving vehicles.

QRF is time consuming and takes players away from whatever activity they were doing. As such it's often seen as tedious, as partisans are often relentless in their constant damage and probing attacks. This strain provides an edge to partisans and serves as punishment to the side that is slow to respond, or refuses to respond, to partisan activity.

Radar



Radar is the means for sides to illuminate parts of the map and see friendly and hostile units in realtime.

Understanding where your allies and your enemies are is critical to know where the spawn and critical to understanding the ebb and flow of battle.

Since extremely high level coordination is difficult to achieve in a public servers/video games, radar allows for individuals, and those groups that are coordinating, to be able to glance at how the game is progressing, what needs correcting and where to apply their efforts.

Radar is critical to base defense and logistic route protection. In areas that are secured, radar coverage can be built to full map coverage. In areas of conflict, radars will be destroyed and it will be a constant back and forth to establish radar coverage near the frontline. This is important as the lack of enemy radar is key to building and large-scale troop movements to be done without anticipation or ambush by the enemy.

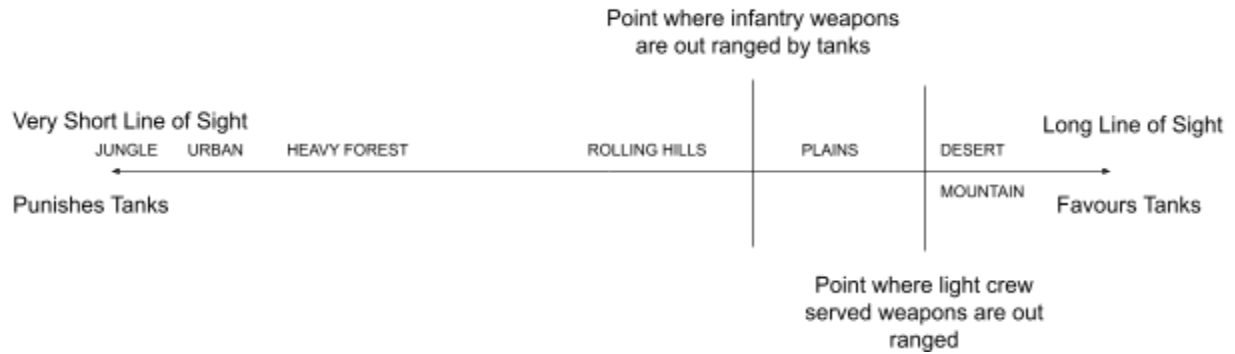
Friendly radar coverage is critical to speedy logistics. Without it light vehicle usage is extremely susceptible to ambush. As well, radar coverage is the only way a side can be sure that the enemy does not have hidden radar coverage which is spying on all that side's activities.

Radar, while not realistic, provides a way to focus combat by removing the need to patrol remote forests and provide at a glance the state of what needs to be done. This keeps the gameplay straightforward and focused to the player, at a glance.

Vehicles



Picture is provided for style reference. This artwork is not property of this project.



Vehicles are player created in garages and range from non armoured supply trucks and jeeps, to heavily armoured siege breaking tanks.

Armored vehicles provide additional force multiplication. Primarily of importance to the attacking side. Vehicles if unopposed can rapidly steamroll bases and clear large chunks of land of fortifications.

When in the hands of defenders, vehicles can impede large groups of infantry and it forces them to equip heavy, rare and expensive weaponry to attempt to deal with the vehicles.

In Steel Rain the vehicles are classified into the following categories:

- **Lowest tier** vehicles which are susceptible all gunfire
- **Low tier** vehicles which are susceptible to heavy machine gun fire, AT rifles and basic base defenses
- **Medium tier** vehicles require basic anti-tank weaponry, explosives and anti tank base defenses
- **High tier** vehicles require other vehicles or a lot of anti-tank weaponry or defenses to stop them
- **Highest tier** can only be stopped by dedicated infantry coordination, explosives and other vehicles
- **Special vehicles**, which provide specialized roles and are made for base destruction, infantry support, defense, dedicated anti tank, artillery or troop survivability

Vehicles are slow to build and aim to be fairly rare on the battlefield. Their destruction is critical to halting attacks. Their protection, supply and repair is critical to the attack.

Stockpiling and timing the use of vehicles for key moments in the war is a critical tactic. Burning the enemy's vehicles through attrition and clever base design, then counter-attacking with your vehicles is a successful tactic. Using vehicles too early, in too small of numbers, or poorly, generally results in losses which can't be replaced rapidly, which during this time gives the advantage to the enemy.

This style of gameplay is excellent for clans. It allows for “event days” where resources are stockpiled for a weekend or weeks, then dropped with overwhelming supply to the frontline. If the opposing force has been wasteful, it can be hours, or even fatal days, before they can stem the tide.

Vehicles will be feared and must be responded to with rapid response and full team effort. This means bases near the front line must be supplied with constant anti-tank weaponry, enough ammunition to outlast an combined arms attack and there must be dedicated anti-tank vehicles/players in the sector to respond to organized heavy and specialized vehicle attacks/reports.

Vehicle spawn areas

Vehicles are created in specialized areas. This controls the point of entry of new equipment.

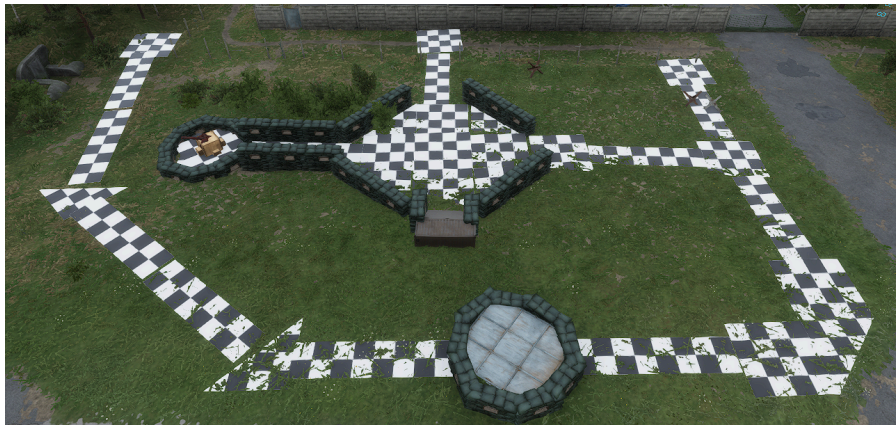
Single creation

- Garages provide a point of entry for single vehicle creation
- Dockyards provide a point of entry for single boat/ship creation
- Construction yards provide a point of entry for static emplacements, supply and support equipment

Multi creation

- Mass production factory provides discounted creation costs on orders of 2 and more.
 - Allows the creation of all shippable objects
 - Creates unique concentrated large crates (multi-packs)

Base Building



Pre-Alpha dev tool templated mock base

Base building provides the mechanics to slow the clear sweep of land and provides the primary challenge for attackers to overcome in order to advance in a sector.

The base's primary role is the storage of resources, protection from bombardment and the respawning of units.

Fortification Gameplay



Bases provide the staging ground from which an attack is started or sustained. Attacks without a nearby base cannot sustain the tempo needed to overrun or outlast the defenders.

Base destruction and design will be an artform driven by player ingenuity and the terrain they are working in. As well maintaining the constant supply needed to attack or defend.

Bases can also be used to push towards the enemy location in relative cover. This is preferred to as build pushing.

Bases maintain nearby player built fortifications against decay.

Bases provide the framework to supply and utilize powerful crew served emplacement weapons.

Ultimately any base will fall if not properly supplied or defended. Players are required to keep demolition charges off structures, repair/rebuild or out-repair during artillery barrages, protect ammunition storage, patrol and maintain fencing and keep vehicles from destroying structures at range.

Non frontline bases are also critical for logistics to protect the rear lines from partisans. They provide a place for people to spawn to hunt them, provide safe havens for trucking to repair and to hide/wait, moving between logistical points, and most importantly, a pre-built defensive fallback position if the front line crumbles.

Base Design

Note: All placeable structures and development is above ground until the engine can support underground/ground penetration.

Tiers

Bases come in three tiers:

- Wood
- Reinforced (metal and wood)
- Concrete

The first two tiers can be built back to back, given enough time and resources. The third tier requires a technological unlock, and the concrete has a 3-day drying time.

Concrete (Tier-3)

Concrete gains a considerable increase to hitpoints and becomes resistant to all but the heaviest artillery, direct fire, siege weapons or sustained attacks.

Concrete structures will be structured to force infantry combat back to the forefront, forcing CQB bunker warfare to seize rather than destroy the base. If destruction is required, then formulating raids with heavy demolition charges, brought up by infantry or logistics will be required. Most vehicle weapons will be unable to effectively damage concrete.

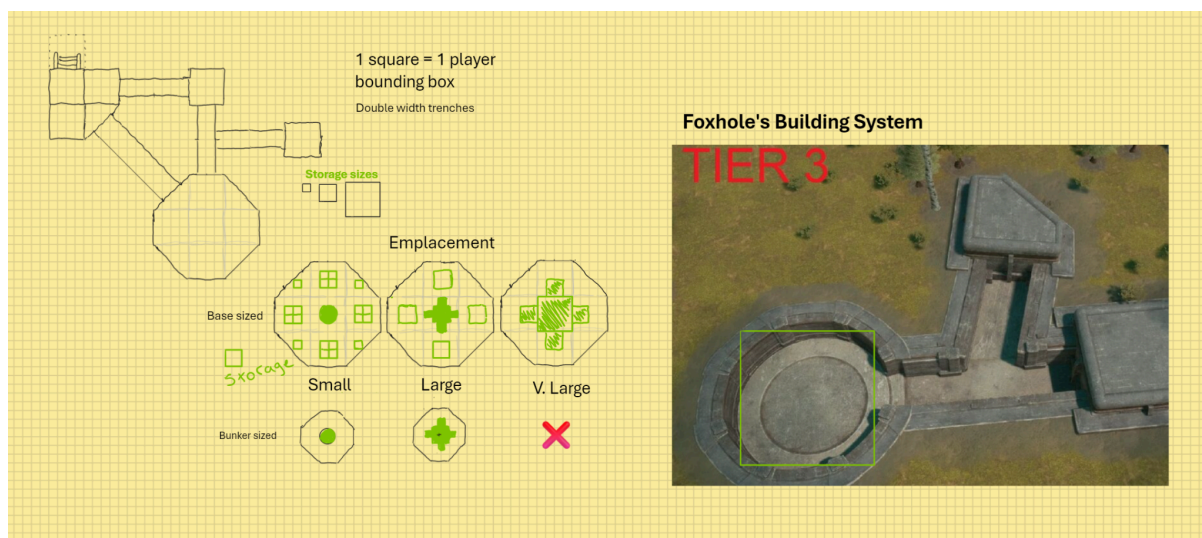
The concrete drying time also creates the dynamic, that if a tier 3 structure is destroyed it cannot be repaired during the battle, back to its difficult strength. This provides the attacker with a 3 day window to re-attack after breaking off/losing the engagement.

This is very much like castle siege warfare of old; forces defenders to protect the “breach” in the fortifications, and for the attackers to exploit the hard earned weakness.

Automated Base Defenses

Automated base defenses are unique structures that are unavailable to towns or camps. Base defenses also provide the strongest non-human way to defend territory. AI provides an ever vigilant early warning system, and it's excellent for stalling against major sneak attacks. Defenses buy precious time for people to respawn and reinforce and vehicles to be mobilized.

Grid System



Keeping with ARMA's base proportions we are using an invisible proportion system referred to as “units”. A unit is the width of a playable character in t-pose squared.

Coupled with this is an invisible grid system that allows for unified and simplified base construction that lines up with little effort. In the drawing above you can see a sample base constructed by square and corner (half) bunkers and linear trenches.

Some sample sizes:

- Bunkers are 4 units by 4 units
- Trenches are 2 units by 8 units
- Bunker-sized emplacements are slightly enlarged octagonal radius around a 4 units by 4 units bunker



Pre-Alpha Placeholder Pillbox and Hobo Emplacement

See: [Base Structures](#) in buildings for a more complete list

Connections

Trenches connect to the midpoint of a 4x4 Square or corner, or the end or midpoint of another trench.

Trenches are two people wide to facilitate wagons and heavy carry. We are considering double wide trenches (four people wide) for the main arteries of large bases, internal roads and logistics access to underground.

Ammunition storage



Moderate amount of ammunition will be able to be stored in any bunker in either the four corners or in the central part of a bunker.

Special large ammunition and resource storages called stockpiles (4x4) can be created in special rooms.

Scavenging

Due to the nature of how the battles are structured to force large attritional infantry fights, casualties are extremely high on both sides. Resources are quickly depleted, be it rifles, bullets or respawn tickets.

As a result scavenging will be an important role, where players attempt to reclaim what they lost on their dead body - especially if the weapons lost are rare or expensive, as well as scavenging unretrievable corpses, for any additional ammo and gear that they never expended.

Going into combat with the bare minimum required to fight is a necessary skill set, but impossible to enforce on public servers. A scavenging mechanic helps repair the damage done by those that are greatly over equipped.

Medical

Medical, and by extension medics, play an absolutely critical role to maintaining pressure and minimizing losses.

All units are capable of stopping bleeding and carrying the wounded, but we will restrict restoring health and reviving the incapacitated to "medics". Medics are anyone carrying a heavy trauma bag. Which the volume will impede them carrying much of anything else.

Combat medics will have to carry less supplies to stay mobile, or can overload if providing static services.

Ambulance will allow for more supply carry, allowing teams to be lighter and faster. As well as transporting 4 dead or incapacitated bodies back to base, at speed, rather than one at a time, carried.

Because conflicts will be that of attrition, preserving life is vitally important in protecting supply usage, as well as delaying the enemy for as long as possible.

See: [Hospitals](#) in Buildings

Map Layout and Features

Region

A region holds zones. There is one region per server. Region are connected together via the edge of the playable map.

Zone

A zone is a logical grouping of sectors. There may be one to many of them.

Sectors

Sectors are areas that have a town and other points of interest. They are the main point of capture. A player does not capture land directly, but becomes the owner of land once the town/sector is captured. They represent the area/land controlled by a town.

Towns

Towns are the primary objectives within a sector. They provide a radius to which items can be built without proximity to a player-made base. Towns provide the starting area/focus for defense, attack and capture, at the beginning of a new war. They may contain a depot, resource areas, factories, refineries or a sea port.

Bridges

Water is impassable terrain without a boat. Bridges are designed as choke points that, if properly opposed, create a kill zone that is extremely difficult to cross. Bridges favor the defender on both sides of the bridges and are almost guaranteed to be fortified, where possible on either side.

Bridges can be destroyed and they become impassable to vehicles until repaired. Repairing is lengthy and is designed to be nearly impossible to do, if the bridge is under observation or attack.

This feature makes blowing bridges critical to stalling advances of successfully advancing armies, at the cost of ending a (or the) logistic supply route to the defense on the other side of the bridge.

River Ways

Water is impassable terrain unless there's a boat or a bridge. Riverways provide a highway for the mass transportation of goods via cargo ships and shipping containers, as well as strategically defining sectors and zones.

Most riverways are narrow and can be defended from the shore, making them a high risk for ships if areas are not secured.

Riverways also provide tactical entry points for partisans and small assaults. As whole lengths of rivers and larger riverways can't be fully defended by base defenses.

Unique Buildings/Zones

Overview

Storage	Resources	Construction	Spawn/Bases	Special
Depot	Resource Area	Factory	Town Square	Hospital
Sea Port	Refinery	Building Yard	Camps	
		Garage	Bases	
		Dockyard		
		Mass Production Factory		

Base Structures

Structures that must be directly connected though base construction.

Primary	Walls	Bunker Upgrades	Trench upgrades	Auto emplacements	Special
Trench	Wall	Storage Shelf	Roof	Rifle	Base Radar
Bunker/Room	Half length wall	Firing ports/adds bipod slot (wall with weapon slot)	Underground	Machine gun	Heavy Cannon
Emplacement (open air octagon or square)	Half height wall	Stairs/ramp	End piece stairs/ramp	Anti-tank	(Consider Sub spawn point)

Underground emplacement	Half length and height	Upgrade to L2 / L3	Blocking sandbag wall (allows for standing in the trench)	AA
	Wall with door	Turn into automated emplacement	Anti jump in wire (blocks side entry and exit to the trench)	Artillery
	Wall with entryway	4x Pallet storage	Crouch firing stands	
	Wall with window	Climb out ladder	Cutaway slots (artillery, grenade, size of an ammo box, hiding/cover)	
	Wall with weapon slot	Service elevator (look into multi-level)		

Free Build Structures

Storage	Defense	AI/Player occupied	AI only	Special
Storage Box	Chain fence (damaged by weapons), wall, concrete wall	(Sandbag prone wall), Foxhole, Reinforced roof	Anti Tank Cannon	Sign

Pallet (Stockpile)	Sandbag prone wall, half wall, full wall	Sandbag circle, Pillbox, reinforced Pillbox	Small Radar (Guard tower)
	Sandbag curve half wall, full wall		Gate
	Razor fire fence (undamaged by weapons)		
	Anti-tank hedgehogs		

✓ Mesh Colour Dye/Tint and icons for containers, signs (Checked: Tint is built into the engine)

Town Square

These are the master objective areas, akin to HQ's in Reforger's conflict gamemode or "the flag" in any common capture game mode.

Features:

- They do not self defend
- Are capturable through first destruction and reconstruction.

Gameplay:

- Gives focus and objectives to the global conflict
- Promotes tug of war fighting over the ruins, compared to the sneak attack capture/quick capture that is common with flag based systems.
- Deters partisans destroying the structure with ease
- Takes time and effort for people to destroy the structure, allowing reinforcement and defense

Resource Areas

These are the resource/supply generating areas. The start/input of the logistical supply chain. People go here to "mine" resources of different types to gain raw resources to take to a refinery.

Features:

- Small field of destructible prefabs that provide supply when hit with a tool
- Self respawn on a set speed.
 - Speed is modified based on how much the side is winning or losing.
- Drops research materials at rare rate based on how far ahead or behind a side is with unlocking the tech tree

Gameplay:

- Provides areas to fight over and secure.
- Access to resources close to refineries provides tactical advantage
- Provides flavor and direction to the map.
 - Defines/creates trucking routes
 - Defines/creates partisan attack areas
- Provides a starting point for the logistical chain
- Provides gameplay for social players/those that avoid combat
- Provides a weak point for partisan attacks
- Provides a weak point for builders to defend

Refineries

Refineries provide the first past the resource area building, that “refines” unusable ore into concentrated (and thus valuable) supply material that provides the basics for world object creation. Factories take the supply material and provide the mechanism to create world objects.

Refinery output is the third “timer”/leg in the logistics chain. The first being the mining speed of resources and transport time to the refinery

Factories

There are two types of factories. Regular and a mass production. Regular factories produce world content, but not vehicles. Mass production creates a larger spectrum of content, provides discounts and produces unique concentrated shipping crates.

Factories take in refined resources and output crates of products. Crates allow for a greater amount of product to be moved, by occupying less volume and less weight, then scavenged or pulled (singles taken from inventory) items/materials.

Garage and Building Yards

Depots and Sea Ports

Hospitals

There are two kinds of hospitals. Field hospitals which are structures that can be built within the radius of a base, town or camp, and a civilian hospital which are a unique building in some major cities where the game design expects heavy fighting.

Hospitals facilitate the conversion of dead bodies (friendly or enemy) into respawn tickets/soldier supplies, also known as shirts. The gameplay mechanic is to provide a way of trickling back respawn losses to the side that's best capable of collecting the dead. This usually benefits the defender, during low intensity attritional combat, where they suffer the majority of their losses within bases by artillery.

Currently the conversion ratio is every dead body is worth three respawns. 5 at a civilian hospital. Civilian hospitals also operate at a higher conversion speed, to make up for the travel time from the front line.

Field hospitals can be built directly on the front line, although it's advantageous that they are out of the range of artillery as they can become damaged easily.

Forward Operating Base and Camps

Forward operating bases are created by the game when an enemy force enters an area from another zone (edge of the map) controlled by friendly forces. FOBs provide a spawn point and starting resources to help facilitate the attack by small groups, or to provide a starting point by large groups for the public to respawn and participate.

Camps are similar buildings without starting resources that can be quickly built anywhere (excluding minimum distances from enemy bases, towns) that facilitate respawn, enables/extends AI coverage and item storage. Level 1 camps are quick to build but are fragile. Over time they can be upgraded to fortified structures. They differ from bases as they have no attached trench work, no special structures and greatly reduced HP.

Camps are best used as a tactical spawn point built as close to the objective as possible, to quickly overwhelm the enemy and keep pressure on the enemy with quick respawns (less walking). They are best lightly stocked, as artillery or coordinated push will generally leave them destroyed. They are designed not to stand up to any armored attack, as they lack the heavy anti tank structures of a base, and rely on light AI defenses and infantry tactics to repel attacks.

Design Elements

Game Mode

Game Mode defines the essence of a match within the framework of Reforger + Enfusion. For the purposes of Steel Rain, this has been modified to perform the following:

- Persistent world/match
 - Rather than a traditional world map that is fought over for a series of hours. Steel Rain maps only reset/end when the global end match is called, and all the sub servers restart

- Player spawns may not exist if the side holds no territory on a server/zone/map

Research / Tech Unlocks

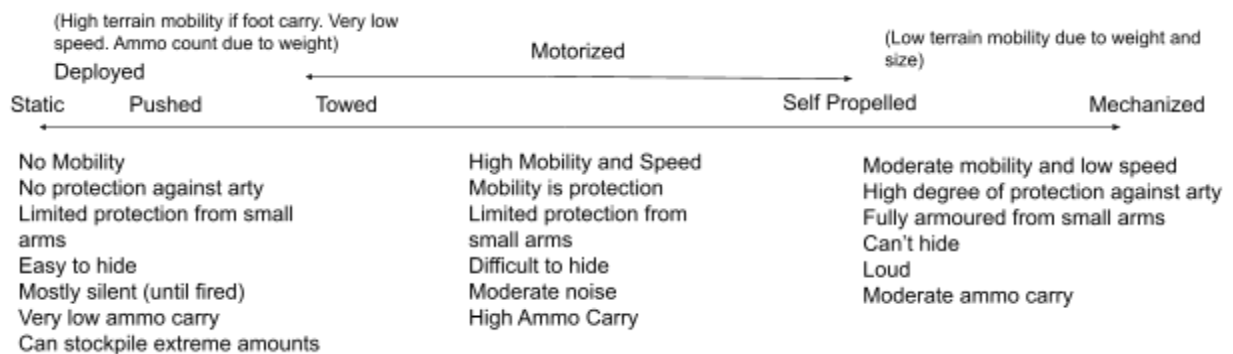
Controlled by tech resource drops that increase and decrease based on the lead one side has on the other.

Full writeup coming soon.

Evolution of Equipment

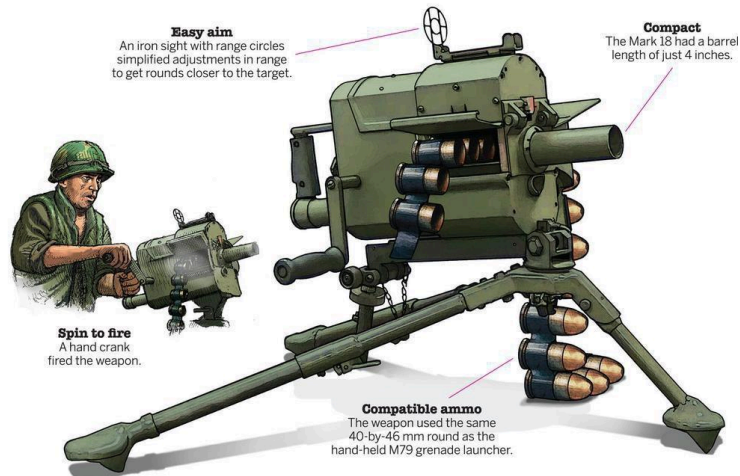
[An overview of the unlocking and evolution of weapons, vehicles and gear throughout the war period. Deeper detail in each section]

Weapon Balance



The main classes of combat

- Foot/Human Powered
- Motorized/Unarmoured
- Armored/Mechanized



Each grouping has advantages and disadvantages but is largely controlled by:

- Speed
- Survivability against:
 - Small, Medium arms
 - Medium arms with AP/Heavy arms without AP
 - Heavy arms with AP
 - AT Weapons
 - Fragmentation
 - Blast

Dev Note: This controls “ambushability” and at “what range”

- Noise
- Concealment
- Ammo carry ability
- Teamwork/Logistics/Manpower needed to operate
 - Note: Crew Served Weapons will require a team, on top of additional logistical requirements.
 - Statics
 - Requiring the least, as everything in in the base/location
 - Foot
 - Requiring the most manpower due to ammo and part carry
 - Self propelled (motorized and mechanized)’
 - Self contained but needs rearming, protection and repair
 - Towed (Motorized)
 - Self contained but needs deployment and is easily destroyed by small arms
 - Ammo and crew carry might require separate vehicles

Calibers



World Map Layout

Foxhole has excellent detailed map design, but it's limited/built around its POV and height restrictions. It has moderate cities, but most of the world is road and elevate terrain blocks to channel forces. It focuses on a cold north vs a grassland south with island coasts.

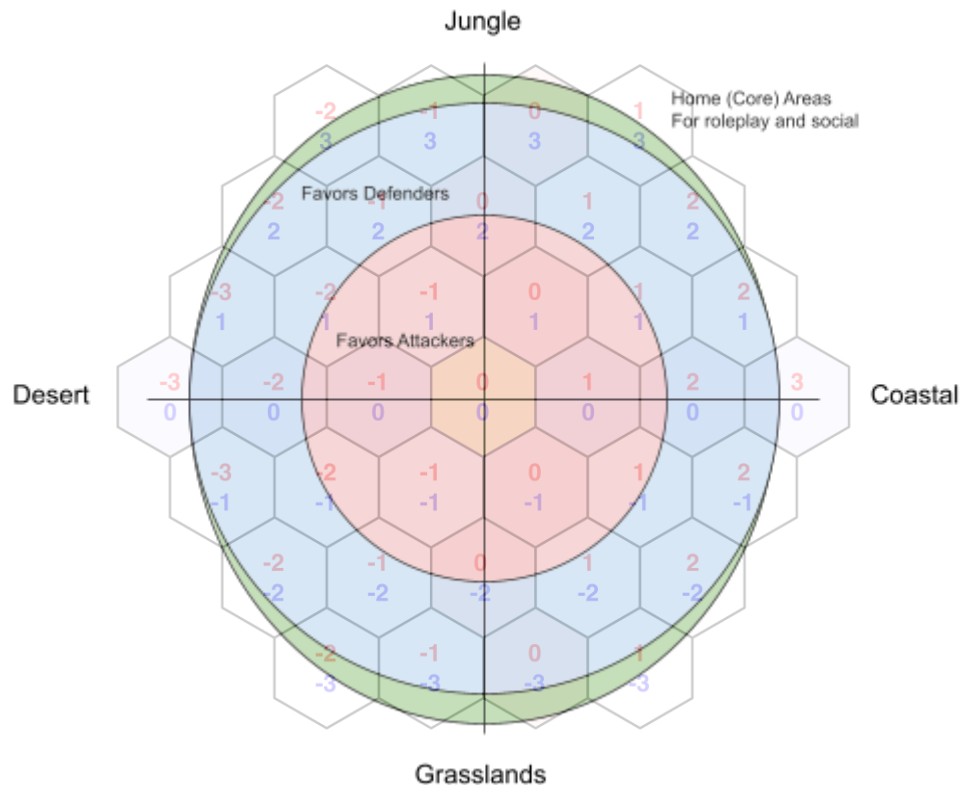
ARMA players have experienced everything from the desert and hills of afghanistan, to deep jungles, african/caribbean/islander style islands, coasts and cities to deep urban warfare of Iraq, to eastern european cities and villages, and summer, fall and winter climes in various world places.

Having a diverse world map is expected and it makes sense to include it. It showcases the features and benefits that the engine can provide, while providing gameplay changes, lore and game interest.

That said, having asymmetrical terrain comes with problems, as seen with foxholes "winter" and "rain" dynamics. People will choose sides because they tire of spawning in some areas, or people quit fighting when the combat gets to some areas out of dislike.

The key to success here is to make sure the game ends without having to fight for every last bit of land. Allowing players to avoid painful areas, if they so choose, but if the war gets there, to make it memorable and historic (and favoring the defenders, who are generally screwed by that point). This results in a noteworthy successful "last stands", or an "against the odds" successful assault - A key element we want in the gameplay.

Strategic World Design



The strategic world is planned for multi-server multi-map (zones), similar to most MMO's. A feature not currently enabled by ARMA, so the game mode is being built for a "single map" and this area benched until it is possible.

World Design Ideas

- Provide all the uniqueness ARMA has to offer
 - Capitalize on the unique features of each terrain to define the playstyles for the zones
 - Keep the overall playstyle in mind and not disrupt it too much in each zone
 - Areas should amplify and degrade playstyle elements, but not remove them completely
- Example:
- Jungles increase partisan, infantry and anti air attack and base defense, but weaken logistics, vehicle offense and airpower.
 - Grasslands the inverse is true.
 - Deserts make vehicle usage hazardous and airpower king.
 - Coastal increases vehicle usage with building cover and rolling hills, also while blocking air's line of sight
- We could look to HOI4 as inspiration for "balance" over terrains.
 - Foxhole lacks any advanced terrain types like major swamps, light or dense forests, mountains or jungles

Place/Style/Biome Ideas

- Jungle
 - ARMA 3 Tanoa
 - Caribbean standalone island(s)
 - Cookstown/Northern Australia
 - Yunnan China (Mountainous/Impassable Jungle)
 - Tropical China
 - SEA Islands
 - Papua New Guinea. Rolling steep hill jungle
 - Japan themed assets? Win the Japan audience? 😊
- Desert / Savanna
 - Badlands Australia
 - North Africa
- Grasslands
 - Ontario, Canada Farmlands
- Alamo, Verdun, star forts, pirates cove, trainyards
- “Monastery” a mountain pass with high verticality and narrow roads to a top city
- “Kellingrad” a great city battleground
 - Maybe on a smaller km map to allow full wall to wall urbanization. Breaking it up over maps to allow the engine maximum. Will have to be explored
 - Landmark to Landmark, street to street, fighting would be an excellent engine showcase
 - Radar and buildings are distorted in urban areas, artillery and bombing mostly blocked. So it would be a combined arms/logistical slugfest for control.
 - Maybe the heart of the map. Consider Salt, Jade and Deadlands in Foxhole - with so much fighting over a very small amount of buildings, area.

See: [Loose Ideas Places](#) for more thoughts

Gameplay Mechanics X Terrain

Here is a sample list of gameplay mechanics that are modified or built around terrain.

- Sea shipping
 - People will need to bring manpads, AT and HMG's to defend against pirates as there will be no radar or air coverage outside of major ports and coastline watch towers
 - Air support launched from air bases can do naval cover/patrol
 - Attackers will have to choose between sinking the logi (much easier) and stealing the logi (a bit harder)
 - Ship boarding
 - Fixed spawn deathmatch. Boarding party vs Bridge crew.
 - QRF can be flown in to defend or recapture

- Additional hostile boats could swarm or air power fly in, once the human anti-air threat is knocked out or overwhelmed
- Air lifted boats and vehicles
 - Air is super prone to being blown out of the sky and will be extremely expensive
 - As such, dropping things and people off, far from the objective will be commonplace.
 - Air is the fastest, but highest risk.(unless SAM suppressed and avoid MANPAD proximity)
 - Foot is the slowest, but lowest risk (unless artillery)
 - Armour trades flexibility, for protection/HP/artillery defense - but is a missile magnet
- Fighting to get heavy artillery in range of SAM sites to break them
 - Regular artillery will be everywhere
 - Base damaging artillery will require a base. Giving a large advantage to the defenders and whomever has the largest stockpile of resources
 - Building sneaky bases will be important, but that will require patrols to knock out radar/establish radar coverage.
 - Bases as they are being built will be QRF and later assault magnets - but if they are built at the point of attack, and outside the range of bombardment. They will likely survive.
 - Overlapping bases so other bases bombard captured bases, is a valid tactic, but expensive one
 - Sneaking guns into range with logi support will be important
 - SPA will be late war versions of this
 - Expensive and easy to kill - with large amount of resources loss vs a ground cannon
 - Logi tradeoff for speed
- Truck -> Heavy Truck logistics
 - Need to remain on roads to maintain speed
 - Slown and impeded by terrain
- Logi depots
 - Improvised and structured construction to support logistical distribution and protection
- Helicopter logi and depot areas
 - Using hills and low flying to dodge AA and long range base SAMS
 - AA ambushing logi with MANPADS and AA/AAA
 - In safe/controlled areas helicopter logi is fastest
 - In unsafe/contested areas helicopter logi is most risky
- Drone concept
 - Easy to kill/crash. 1 shot rifle or fragmentation
 - No radar warning. Mostly blind.
 - Launched from bases (long range)
 - Launched from units (short range)
 - Launched from command trucks (medium range)

- High skill, ultra low flying
- Will be excellent when VR is enabled
- Large Drones will be SAM magnets
- Med drones will be MANPAD'ed
- Small drones will be limited functionality, and highest skill, but weak
 - Flying in supplies through a window
 - FPV attack/Ambush
- Jamming and AA/AAA would be required as a counter.
 - FPV attacks would be similar to guided missile attacks
 - Protection would be ensuring the route is clear/radar coverage
- Drones would be cheap helios
 - Countered by low carry ability
 - Countered by better low terrain flying and faster reflexes
 - In high contest areas, foot transport then drone transport will be effective
 - Drones are nearly invincible to dumbfire missiles, unlike transports
 - Drones are susceptible to automatic fire.
 - Small drones are hidden to long range SAMs
 - Small drones will be destroyed by short range base air defense (AA/AAA)
 - This makes getting automated defenses online important, to stop FPV attacks in an area
 - This makes sneaking an AA/AAA site as close to the frontlines as possible, an important task
 - Artillery will want to bombard AA/AAA sites
 - Infantry will need to find them, and call fire on them
 - Static AA will be prone to destruction, but cheap
 - Motorized AA will be more survivable via mobility
 - Armored AA will be much more immune to shelling
- SAM sites having very long range and high success rates
- Jungle warfare.
 - CQB
 - Point blank ambushes
 - Jungle sweeping
 - Perhaps degraded radar coverage or “spotty coverage” that randomizes position or only shows them some of the times
 - This would keep radar coverage protecting you from sneak attacks
 - We want to avoid needing to have patrols and people cover every square inch
 - It would allow attacks though the jungle to be harder to counter and stop people from camping the radar
 - Would make fire support harder. More coordination needed
 - Could introduce “harder to see” jungle troops/gear for roleplay
- Urban warfare with grandeur, heavy armoured troops and heavy verticality
 - Focused and funneled combat
 - Maximum amount of people on the frontlines

- We don't want 2/3's of the server lost in the woods looking for a handful of people or sitting at a base that won't be attacked
- We should help the players find and engage each other and access the tactical picture, without losing the elements of combat (surprise, speed, firepower)
- Frontlines are simple and forward facing
- Flanking is possible, but only continuous pressure breaks lines that are defended
- We want to avoid mass helicopter flanking or partisan activities
 - SAM's and deadly AA will solve that
 - if there's an opening, it should be exploitable
 - Mass attacks are super popular and engaging
- Bridge fights are a hallmark feature of Foxhole, a point of tedium for some, and formally a major strategic gameplay element.
 - Focused fights over long spanning bridges would capture some of the most important maps in gaming history
 - America's Army Bridge
 - Unreal 2k4 Twin Towers
 - It provides a clean and clear strategic conflict area

Acronyms and Terms

AA/AAA	Anti Aircraft (Generally Bullets) Anti Aircraft Artillery (Gen. Cannon)
AB	Anti-Building/Structure
AP	Armour Piercing Anti-Personnel
AT	Anti-Tank
ATK	Attack/Attacker/Attacking
Clogged/Packed	A queue is filled and won't continue till cleared
Contested	Not controlled. High likelihood of attack(s)
Controlled	Safe and fully defended area
DEF	Defend/Defense/Defender/Defending
Drain	To remove/empty in large quantities or at speed
Ex	Explosives

Heli/Helo/Heilo	Helicopter
HEx	High Explosive
HLD	Hold
Hv	Heavy
HvEx	Heavy Explosive
LEx	Light Explosive
Logi	Logistics
Lt	Light Lieutenant
MANPAD	Man Portable Air Defence
OF	Offense
Owned	Side “ownership” (but may not be fully controlled)
Pull	To take from storage
Reg	Regular
RK	Rocket
Safe	Low likelihood of attack
SAM	Surface to Air Missile (AA Missile)
Shirts	Soldier Supply / Respawn tickets
SHORAD	Short Ranged Air Defence
Side	Player’s chosen team (side)
Stockpile	To place supply in a area using containers
Unpack	Unpack a crate (generally into storage)
Vech	Vehicle

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