**Project: Field Warning**

**Design Document**

**Setting & Scale:**

*Near-Future (2040s/2050s)*

* Creative freedom and ability to introduce units/mechanics that benefit gameplay
* Easier to balance, solves many issues of the modern/cold-war setting (push-button warfare)
* Familiar enough with the current setting without going into sci-fi territory
* Avoid having to pay license fees for using real-life models
* Scalability; easier to scale backwards when making mods

Realistic scale and ranges offset by map design, pacing more similar to European Escalation.

Art direction (examples):

<https://www.artstation.com/artwork/vK0wx>

<https://www.artstation.com/artwork/bNV6r>

<https://www.artstation.com/artwork/4BzQY>

<https://www.artstation.com/artwork/9r6rO>

<https://www.artstation.com/artwork/3qlLv>

<https://www.artstation.com/artwork/4qnv4>

**Mechanics & Unit Types**:

**Unit Weapons**:

* More than 3 weapon slots (exact number to be decided)
* Separate ammo counts for HE/AP/Cluster/Smoke shells

**NLOS Weapons**:

* Units with this ability can fire over cover without direct LOS to the target
* Requires recon unit to “paint” the target before firing

**Types of Guidance**:

* F&F
* Laser Guided

**APS and Point Defense Systems**:

* Ability to intercept incoming missiles, infantry-carried AT, artillery shells
* Some units have these systems onboard (they consume supplies like regular ammunition)
* Dedicated vehicles and some AA have this ability

**Infantry and Urban Combat**:

* More refined infantry combat mechanics
* Infantry generally more survivable but also less availability compared to RD
* Directional “armor” for infantry so that flanking infantry becomes a viable tactic
* Stressed infantry harder to kill but also less accurate
* Infantry ATGMs and MANPADs require set-up and pack-up times
* Urban combat functions more like forest fighting (European Escalation), once in a town/city infantry gets damage and LOS reduction
* Less transports per card than infantry to promote the use of transports rather than being one-way taxis (also solves suicide scouting)
* Infantry moves at a more realistic speed to promote the use of transports

**Artillery**:

* Requires setting-up before being able to fire
* Requires packing-up before being able to move after firing
* Pre-aim ability
* “High-end” artillery (ex: Smerch) moved to off-map support
* Does not get revealed when firing

**Air Defense Networks**:

* Radar unit deployed independently
* Command unit required to set up ADN
* BUK and Patriot-like systems removed
* SHORAD systems remain unchanged

**Gunships**:

* Improved flight mechanics
* Seamless transition between flight modes (high, low altitude)
* NOE flight model (if possible)
* VTOL gunships that can change modes (similar to ones in BF2142)

**Planes:**

* Moved to off-map support
* Generally way more powerful and rare

**Building Fortrifications**:

* Dedicated engineer units can place basic fortrifications like foxholes, MG nests, etc
* Require a supply unit nearby

**Logistics**:

* Keep current supply system
* Add the option to be able to refill FOBs using “reinforcement” points
* FOBs come with AA/Point Defense Systems
* Add bridge layer units and the ability to construct/repair a bridge on suitable locations

**Damage and Repairs**:

* Crits can only be repaired by bringing a supply unit nearby
* Certain crits can be repaired on the field (ex: track broken)
* Certain crits are permanent and can’t be repaired at all (ex: main gun destroyed) and the unit has to be “recalled”
* Mix of health and module-based damage system (see: Heliborne)
* Once damaged, a unit can’t be repaired back to 100% health (maybe 70% max?)

**Routing and Morale**:

* Units without a commander nearby suffer significant morale penalties
* Stressed units become less accurate
* Units value their own life a little more by retreating when panicked
* Player is still given control over a routing unit in order to be able to sensibly retreat it and avoid the AI making dumb decisions on the player’s part

**Recalling Units and Transports**:

* Add the option to “recall” units back to base and refund the player a portion of their points worth
* Transports ignore this rule and are instead added back to the infantry card to be able to bring in more to the battle
* Certain transports able to carry multiple squads

**Recon**:

* Recon units able to “paint” opposing units for NLOS targeting
* Increased accuracy for friendly units when firing on “painted” units (?)

**Rules of Engagement**:

* Hold fire toggle
* Return fire toggle
* Ignore certain unit types (ex: transports) toggle
* Certain weapons (ATGMs) don’t fire automatically by default

**Veterancy**:

* Keep current system

**Command Units**:

* Command units relegated to communication/morale roles
* Command unit necessary when setting up SAM battery network
* Command unit necessary for relaying information from scouts to NLOS carriers
* Command unit necessary for operating unmanned vehicles
* “Frontline” commanders (similar to SD) as part of every platoon, boosts morale and accuracy of nearby friendly units

**Unmanned Vehicles**:

* New unit type, cheaper(?) but has massive drawback (see: Electronic Warfare)
* Unmanned aerial scouts
* Unmanned weaponized drones (and dedicated drone-carrier APCs that can swarm targets)
* Unmanned gunships
* Unmanned tanks/ifvs
* Require a command unit in order to operate
* Not impacted by veterancy or morale

**Electronic Warfare**:

* *Jammer units*
  + Capable of disabling guided projectiles
  + Temporarily shut down unmanned vehicles (in the case of unmanned aircraft they crash them if airborne)
  + Accuracy penalties for opposing (and friendly?) manned units
  + Disables ECM and APS modules on opposing vehicles
  + Disables opposing ground radars and recon units from “painting” targets
  + Uses “energy” to operate and needs to be resupplied like regular ammunition
  + Emits a signal when active
* *Ground radars*
  + 2 types; small radars mounted on tanks/ifvs/gunships, and a larger dedicated vehicle
  + When activated it scans a small area (larger for dedicated version) around the unit and “pings” enemy ground units nearby
  + Dedicated version reveals firing artillery
  + Emits a signal when active
* *Signal interceptors*
  + 2 types; an “eavesdropping” unarmed unit, and an armed “interceptor”
  + Both variants pick up emitted signals
  + Armed variant able to fire on signal location
  + Unarmed variant able to send fake signals to opposing ground radars (fake units like RUSE), emits a signal when doing so
  + Unarmed variant able to intercept opposing player orders from nearby command units (similar to RUSE)
  + Unarmed variant able to emit fake orders to confuse opposing interceptors, emits a signal when doing so
  + Uses “energy” to operate and needs to be resupplied like regular ammunition
* *SEAD*
  + 2 types; armed and unarmed
  + ARMs function as they already do
  + Dedicated jamming aircraft capable of disabling air radars and incoming AA missiles
* *EMP* (?)
  + Can be fired by artillery/planes
  + Shuts down vehicles until a supply unit is brought nearby

**Stealth**:

* Certain air and ground units fitted with stealth that significantly reduces the range at which they are “pinged” by radars

**ECM and Smoke Launchers**:

* Aircraft and some ground vehicles fitted with ECM that has a % chance of disabling incoming missiles
* Thermally-opaque smoke fitted on ground vehicles

**Thermals and Camo**:

* Thermal sights
* Thermally-opaque camouflage for certain vehicles

**Prototype Laser Systems**:

* Expensive and rare
* Act as very precise AA/Point Defense
* Not influenced by flares, APS or ECM
* Doesn’t work in certain weather conditions
* Uses “energy” to operate and needs to be resupplied like regular ammunition

**Cover/Terrain Types**:

* Open terrain; slight visual cover for infantry(abstracts microterrain), vehicles unchanged
* Light forest; infantry and vehicles can pass through, visual cover and damage reduction for infantry, vehicles remain unchanged
* Medium forest; infantry and heavier vehicles can pass through, visual cover and damage reduction for infantry, visual cover for vehicles
* Heavy forest; only infantry can pass through, visual cover and damage reduction
* Swamp/marsh; Heavier vehicles can pass, lighter vehicles get severe movement crits
* Medium and Heavy forest are destructible (brings them down to light forest)

**Weather Conditions**:

* Can be set in game lobby or randomized
* Clear; no stat changes
* Rain/Fog; Accuracy and LOS reduced (except for units with thermals)
* Snow; Accuracy and LOS reduced (except for units with thermals), movement crits for all vehicles and infantry
* Night; Accuracy and LOS reduced (except for units with thermals)

**Other**:

* More compressed unit trees (power increments between upgrades within a unit tree aren’t as drastic)
* “Loadouts” for certain unit types

**Victory Conditions & Game Modes:**

Games ranging from 1v1 up to 4v4. 10v10 if possible.

**Classic**:

Objective-oriented mode where players fight to secure pre-determined objectives(towns, bridges, crossroads, power plants, etc) (similar to CoH, WiC). Command units do not capture objectives. Whichever player has more units or has killed all of the opposing units within an area surrounding the objective captures that objective. There are multiple objectives on the map. Once captured, the player wins by (pick one):

1. Accumulating points over time (Conquest in W:RD)
2. A timer starts once captured, and the enemy needs to recapture (Breakthrough in SD)
3. A “tug-of-war” bar fills up the longer the player holds it, if recaptured it pushes in the other direction. Whoever fills it first wins (WiC).
4. Whoever holds the most objectives at the end of the match (problematic)

**Attack/Defend**:

One side needs to capture a series of objectives while the other tries to hold them as long as possible. Attacker starts with more deployment points. Defender tries to hold as many within the time limit. Once the time limit is reached, the players swap roles. The winner is determined by who captured more objectives or whoever did it faster (WiC).

**Search & Destroy**:

The attacker must search the map and destroy the targets of interest. Attacker starts with more deployment points. Defender tries to hold as many within the time limit. Once the time limit is reached, the players swap roles. The winner is determined by who destroyed more objectives or whoever did it faster.

**Map Design & Philosophy:**

Map design must be centered on the victory conditions in mind. When making maps, it should be first decided:

* Where the players will start
* Where the objectives will be placed
* How accessible the objectives are from both sides
* How accessible cover is for both sides around an objective
* The time it takes for both sides to reach a central objective

Once the basic design is laid out, the map maker can then start placing assets and aesthetics.

If possible, experiment with Gronank’s procedural map generation. A common problem in RTS/RTT is overly meta-gaming the maps, leading to repetitive and unrealistic gameplay. However, this should not act as a replacement for the map creation process, but rather as an alternative. The main problems in developing this algorithm are the same that apply to the handcrafted method.

**Deck System:**

\*To be developed\*

Split into two sections, platoons and off-map support.

Adding platoons functions the same way it does now (Activation Points).

Off-map support does not cost activation points. There are a few off-map slots (exact number tbd) that can be filled with either planes or heavy artillery.

**Deployment & Reinforcing:**

Each side controls a part of the map where they can deploy (similar to SD).

Reinforcements come in “waves” after every n minutes. The player must call-in the entire platoon when calling for reinforcements. Point system to be discussed/decided.

**Off-Map Support:**

**Artillery:**

* Has a cooldown timer before firing based on its lethality
* Rockets/shells countered by Point Defense Systems
* Must have a recon unit with direct LOS

**Planes**:

* Not controlled by the player
* Few strikes in a “package” (exact number to be decided)
* Starts with a cooldown timer
* The player chooses an entry point, target area, and exit point
* Must have a recon unit with direct LOS
* Unmanned planes not affected by ground jammers

**Other:**

Map and Scenario editor.

Skirmish AI.