

SentryNet

F.A.R.
FEDERAL AUTONOMOUS ROBOTICS



ALPHA ISSUE

FIELD OPERATIONS GUIDE

EVERY SECTOR. EVERY SECOND.

0.1.0-alpha.2 / PROJECT ZOMBOID 42.20.4

Cover: commissioned AI promotional artwork; not an in-game screenshot.

01 / COMMISSIONING

Bring the network online

One command center. A dedicated power bus. A perimeter you can control.

01

ENABLE THE MOD

Install **Contents/mods/SentryNet** in your active Zomboid user folder's **mods** directory. Enable **SentryNet** and the game's **3D ground items** graphics option. Target build: **42.20.4**.

02

LEARN AND ASSEMBLE

Read the individual device schematics, meet their Electricity and Mechanics requirements, and assemble the hardware in the B42 crafting interface. Keep assembled devices and service supplies in your **main inventory**.

03

INSTALL COMMAND HARDWARE

Stand within **3 squares** of a clear, reachable floor on your level. Right-click it and choose **F.A.R. / INSTALL AT THIS POSITION**. Install a PG-1 generator, CC-1 terminal and TX-1 antenna.

04

ESTABLISH POWER COVERAGE

Keep terminal-to-generator and antenna-to-terminal links within **12 squares**. Fuel the PG-1 with F.A.R. Power Cells. Link **at least two RX-1 receivers**, each within **220 squares** of the antenna.

05

ARM THE PERIMETER

Place turrets and bays within **55 squares** of a receiver. Load loose ammunition through the device's right-click menu. Store drones in matching bays and load each stored drone through **Service stored drones**.

06

TAKE COMMAND

Stand within **3 squares** of your powered terminal. Select **F.A.R. / ACCESS SENTRYNET**. Confirm the network is online, select a bay, and use **DEPLOY**. Select the deployed drone for rally or recall orders.

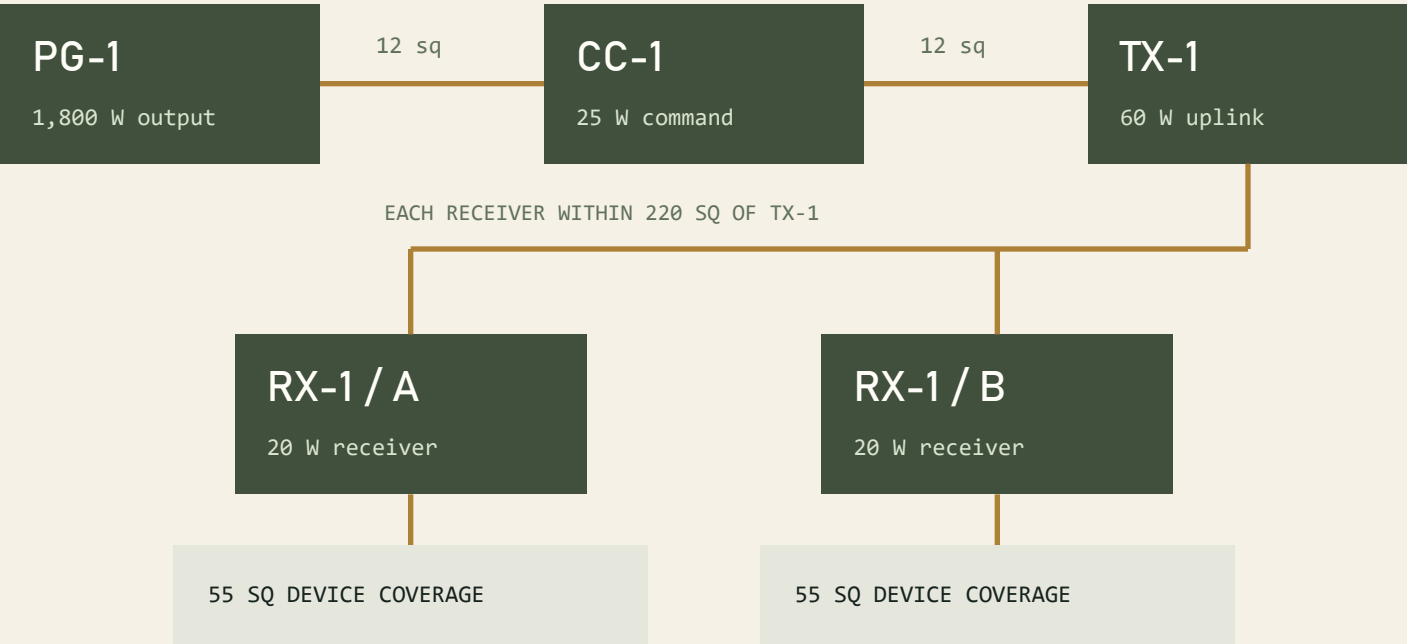
FIRST SESSION / USE A TEST WORLD

This is an **Alpha** release. Automated checks and native-engine startup support the build, while live multiplayer combat and large-area destruction still need acceptance testing. See page 13.

02 / POWER & COVERAGE

Build a connected perimeter

All links belong to the same owner. Vanilla generators and grid electricity do not supply F.A.R. devices.



Links use distance with **three meters per floor** of elevation. Receivers link directly to an antenna; preserve coverage along the entire drone route. Unloaded equipment is offline.

EXAMPLE / MODEST MIXED DEFENSE

LOAD GROUP	DRAW
Command core: CC-1 + TX-1 + two RX-1	125 W
Two SN-522 turrets + one BT-40 turret	300 W
One AB-4 bay + two deployed AD-4 drones	190 W
Total load / remaining reserve	615 W / 1,185 W

A PG-1 holds **1,000 charge**; one Power Cell adds **100**. Charge drains faster at higher load. Deployed drones add their full power draw, so leave reserve before launching. A power overload can leave individual devices offline.

Learn it. Build it. Field it.

Sixteen device schematics gate assembly. A separate rare contingency manual unlocks Broken Arrow crafting.

Search military storage, surplus and gun-store literature, electronics and tool-book loot pools. Read the correct schematic; skill alone does not unlock a device. All recipes use an intact screwdriver, retained after crafting.

DEVICE	ELEC / MECH	DEVICE	ELEC / MECH
CT-6 Cannon Tower	8 / 6	PG-1 generator	6 / 4
SN-522 Sentinel	6 / 4	CC-1 terminal	5 / 3
MS-12 Watchman	4 / 2	TX-1 antenna	5 / 3
BT-40 Bastion	9 / 7	RX-1 receiver	6 / 4
GD-8 Guardian	5 / 3	AB-4 air bay	5 / 3
AG-9 Autogun	7 / 5	GB-2 ground bay	5 / 3
RSD-1 ground drone	8 / 6	RK-700 air drone	7 / 5
AD-4 air drone	7 / 5	SD-2 air drone	5 / 3

REUSABLE PROGRESSION / COMPONENT RECIPES

COMPONENT	ELEC / MECH	CONSUMED INGREDIENTS
Logic Core	3 / 1	12 electronic scrap + 4 wire + 1 receiver
Servo Assembly	3 / 1	6 engine parts + 4 electronic scrap + 6 scrap metal
Power Cell	3 / 1	4 batteries + 6 electronic scrap + 2 wire
Field Service Kit	2 / 1	8 electronic scrap + 8 scrap metal + 8 screws

Device assembly also consumes electronic scrap, wire, sheet metal, screws and logic cores. Weapons add servos, motion sensors, pipes and a bulb; infrastructure adds engine or radio parts. The crafting interface provides the exact bill of materials.

Fixed positions. Moving aim.

All six platforms use native 3D models, fixed bases, continuous tracking and adaptive ammunition feeds.



ASSET RENDER / NOT GAMEPLAY

LONG REACH

CT-6 / CANNON TOWER

65 SQ 180 W 80 RDS

The longest engagement range and highest base hit strength. The upper assembly turns as a single unit; place it where long, clear sightlines justify its slower firing cycle.

2.50 s minimum shot interval / 1,000 integrity



ASSET RENDER / NOT GAMEPLAY

GENERAL PERIMETER

SN-522 / SENTINEL

38 SQ 70 W 400 RDS

A moderate-power general defender with a large feed. The base stays fixed while the monolithic upper assembly turns toward its target.

0.18 s minimum shot interval / 1,000 integrity



ASSET RENDER / NOT GAMEPLAY

COMPACT WATCH

MS-12 / WATCHMAN

26 SQ 45 W 240 RDS

The lowest-power turret and earliest schematic requirement. Fast traverse suits short approach lanes; the head turns and the barrel has its own pitch group.

0.24 s minimum shot interval / 1,000 integrity

Ranges are map squares. Shot intervals are code minimums; aiming, sight, target availability and simulation timing can lower the actual firing rate. Ammunition type modifies hit strength.

Fixed positions. Moving aim.

All six platforms use native 3D models, fixed bases, continuous tracking and adaptive ammunition feeds.



ASSET RENDER / NOT GAMEPLAY

HEAVY STRONGPOINT

BT-40 / BASTION

55 SQ 160 W 600 RDS

The toughest turret, with 2,200 integrity and a deep ammunition supply. Its heavy hit profile and long range suit a defended choke point; head and barrels articulate.

0.40 s minimum shot interval / 2,200 integrity



ASSET RENDER / NOT GAMEPLAY

BALANCED COVER

GD-8 / GUARDIAN

42 SQ 90 W 360 RDS

A balanced middle platform with more reach than Sentinel. Independent head and barrel transforms provide continuous tracking around its fixed base.

0.28 s minimum shot interval / 1,000 integrity



ASSET RENDER / NOT GAMEPLAY

HIGH VOLUME

AG-9 / AUTOGUN

36 SQ 100 W 800 RDS

The largest feed and shortest shot interval. Each hit has lower base strength, so maintain ammunition reserves. Its head and barrel group move independently.

0.12 s minimum shot interval / 1,000 integrity

Ranges are map squares. Shot intervals are code minimums; aiming, sight, target availability and simulation timing can lower the actual firing rate. Ammunition type modifies hit strength.

05 / DRONE CATALOGUE

Extend the perimeter

Four platforms, two bay classes. All begin with 1,000 integrity and fire from the same-floor engagement model.



GROUND / GB-2

RSD-1 / SUPPRESSION

32 SQ / 100 W / 500 RDS

1.8 sq/s / 0.24 s shot interval

Tracked hull with an independent turret. Uses walkable routes and replans around obstacles. Vulnerable to close infected attacks.



AIR / AB-4

AD-4 / ASSAULT

35 SQ / 80 W / 300 RDS

3.4 sq/s / 0.24 s shot interval

Four moving rotors and the longest air-drone reach. Requires open sky and continuous receiver coverage along its route.



AIR / AB-4

RK-700 / RECON HUNTER

28 SQ / 55 W / 200 RDS

4.0 sq/s / 0.20 s shot interval

The fastest drone in the fleet. Its four exposed rotors turn independently; the lighter feed favors shorter sorties.



AIR / AB-4

SD-2 / SECURITY

24 SQ / 40 W / 160 RDS

2.8 sq/s / 0.28 s shot interval

The lowest-power drone. A hovercraft silhouette without exposed rotors, suited to a modest local defense network.

Air units remain above the mod's melee attack reach. They are outdoor hovering entities; ground units follow bounded grid paths. Speed values are configured movement rates, not guaranteed travel times.

06 / DEPLOYMENT BAYS

A home for every drone

Drone kits travel in your main inventory. Persistent storage belongs in the matching F.A.R. bay.



AB-4 / AIR BAY

4 SLOTS / 30 W / 1,400 HP

AD-4, RK-700 and SD-2. Install outdoors: air deployment requires open sky.



GB-2 / GROUND BAY

2 SLOTS / 40 W / 1,800 HP

RSD-1 only. Leave the launch lane in front of the bay clear and walkable.

STANDARD SORTIE

STORE	Right-click the correct bay, choose Store [drone] , then Service stored drones to load it. Select manual bay mode first if you want to prevent automatic launch while servicing.
DEPLOY	At your powered terminal, select the bay and press DEPLOY . The first stored drone launches if it has ammunition, a clear exit and sufficient power reserve.
RECALL	Select the deployed drone and press RECALL . It also recalls when empty or below 20% integrity . Its home slot remains reserved throughout the sortie.
RECOVER	After docking, unload its ammunition in the bay service menu before choosing Pack drone for transport . Health persists when packed and stored again.

Bags, normal containers, vehicle storage, floor drops and manual world placement are restricted for drone kits. A disabled or unpowered unit stops; restore coverage and power before expecting recall to complete.

Your operating picture

Use F.A.R. / ACCESS SENTRYNET beside your own powered CC-1. Orders require the owner within 3 squares.



READ THE SELECTED DEVICE

The list identifies linked, offline and stowed hardware. Selecting a row reveals **hull integrity, ammunition, coordinates, state and reason**. Generator details include reservoir charge and live load; bays report stored slots.

The tactical plot shows **green devices, red infected, amber player contacts** and the **white operator**. Scroll to zoom, right-drag to pan, and use **CENTER MAP** to reset the view.

CONTROL	OPERATOR ACTION
ENABLE / DISABLE	Toggle the selected installed or deployed device. Disable a weapon to stop its activity.
SET MANUAL / AUTOMATIC	Toggle behavior. A manual bay waits for DEPLOY; automatic bays count hostiles and can launch at the threshold.
DEPLOY / RECALL	Select a bay to deploy its first stored drone. Select a deployed drone to recall it.
RALLY POINT	Select a deployed drone, press RALLY POINT, then click an empty plot position. This sets manual movement to a covered point on the drone's floor.
SET THRESHOLD	Automatic bay trigger: 1–100 hostiles. New bays default to 5; the trigger considers visible eligible threats.
SET RADIUS	Set the selected device's engagement search radius. The server clamps it between 5 squares and that model's maximum range.
REFRESH	Request a new snapshot. Check telemetry age and the result message at the bottom when a command seems unanswered.

Manual mode changes deployment or rally behavior; it does not make a turret cease fire. Use **DISABLE** when you need it stopped. Remote control is owner-bound, including in multiplayer.

Keep the system in service

All ten armed platforms use the same adaptive loose-ammunition rules. Each device holds one type at a time.

AMMUNITION / EXACT INVENTORY ACCOUNTING

Carry compatible **loose rounds in your main inventory**. Right-click the device and choose **Load compatible ammunition**. For a stored drone, open its entry under **Service stored drones**. Loading stops when the feed is full or your supply runs out.

Unpack boxes and unload magazines with the game's normal actions first. To change ammunition type, **Unload ammunition** before loading the replacement. Each round loaded is removed from inventory; each round unloaded is returned.

OPTIONAL WEAPON MODS

The catalogue contains **147 candidate loose-ammunition types**; only installed, enabled types are available. Runtime discovery can add more. Compatibility supplies an adaptive feed and bounded damage modifiers; it does not import another mod's incendiary, explosive or custom projectile behavior.

ROUTINE SERVICE

TASK	PROCEDURE
Power	Insert Power Cells into the PG-1: 100 charge each, 1,000 maximum. For recovery, disable the generator and select Recover power cells / drain reservoir. Whole cells return; residual charge is discharged.
Integrity	Carry a Field Service Kit and stand within 3 squares of your device. Repair restores up to 400 integrity. If the physical foundation is gone, pack and rebuild that installation.
Drone repair	Recall the drone. Right-click its bay > Service stored drones > select the drone > Repair with field service kit. One kit restores up to 400 drone integrity. Nearby deployed drones can also be serviced through their world menu.
Pack hardware	Unload ammunition and fuel first. Empty bays and recall their active drones before packing the bay. Packing preserves integrity; it does not restore a damaged device.

An ammunition-mod removal can strand a previously loaded type: the unit reports **AMMUNITION MOD MISSING**. Keep the ammunition provider enabled while unloading and migrating its stock.

09 / BROKEN ARROW

The final authorization

A fictional endgame area-destruction mechanic. The command terminal is always the strike origin.



SUPPLIED BOMB MODEL / ASSET RENDER

TWO AUTHORIZATION PATHS

Recovered code. Find an unused military authorization in army storage or tent rooms. Read its serial from the inventory menu. At most **10 codes are ever issued per save**, counting used, lost or destroyed codes.

Manufactured payload. Read the rare contingency schematic. Its four recipes require **Electricity 10 / Mechanics 8** and fictional Aegis Matrices, Null Phase Lattices and Containment Seals.

BEFORE LAUNCH / IRREVERSIBLE WORLD DAMAGE

Default exclusion: **1,500 squares north, south, east and west** from the terminal, a region about **3,000 × 3,000 squares**. The initial blast kills everyone inside, including vehicle occupants. Persistent radiation and terrain destruction survive saves. Test only in a disposable world.

VERIFY → COMMIT → IMPACT

1. Carry the unused code or complete payload in your main inventory. Stand at the powered, operational terminal. Open **BROKEN ARROW**, enter and **VERIFY CODE**, or choose **USE PAYLOAD**.
2. Verification opens a **30-second authorization window** bound to that player, terminal and physical item. **LAUNCH** consumes it and starts a **20-second irreversible countdown**. **ABORT** only closes the authorization panel; it cannot cancel a committed strike.
3. A recovered code calls down the bomb model; a manufactured payload detonates at the command center. The exclusion zone kills characters on foot and progressively damages vehicles. Terrain is cleared as affected squares are loaded.

Sandbox controls can disable Broken Arrow or set the half extent from **50 to 3,000**. The footprint is a configurable square, not Riverside's exact town boundary. Default-scale escape from the terminal is not feasible during 20 seconds; do not treat launch as a survivable normal sortie.

Read the fault. Restore the link.

Check state and ownership first, then power, coverage, ammunition and a clear path.

SYMPTOM	NEXT CHECK
Hardware is invisible	Enable 3D ground items. Confirm the correct SentryNet build is enabled and restart the session. Native model scale and occlusion still need live visual checks.
No install option / rejected placement	Move the assembled item into main inventory. Stand within 3 squares on the same floor; use a clear reachable square. Drone kits go into their matching bay.
NO F.A.R. GENERATOR	Check ownership, enabled state, charge and the 12-square terminal-to-generator distance.
NEED RECEIVERS / NO UPLINK	Use at least two enabled RX-1 receivers. Check terminal-to-antenna (12), antenna-to-receiver (220), and receiver-to-device (55) ranges.
POWER OVERLOAD / FUEL EMPTY	Disable nonessential loads, leave reserve for drone launches, or insert Power Cells. Check PG-1 charge and load at the terminal.
Drone will not launch	Check stored ammunition, reserved bay slots and spare power. Air bays require outdoors; the ground bay's front exit must be clear.
Drone stops / will not dock	Restore enabled state, continuous network coverage and loaded walkable routes. Confirm the home bay still exists. A unit with a lost home enters hold.
Weapon tracks but does not fire	Check ammunition and its provider mod. Targets must be eligible, in range and line of sight on the same floor; turning into aim also takes time.
A command is rejected	Stand within 3 squares of your own powered terminal. Read the result message. Physical service also requires ownership and nearby access.
Pack up fails	Unload ammunition, drain fuel, empty stored drones and recall deployed drones that reserve the bay. A drone itself is packed through its bay.

Player targeting defaults **off**. If enabled, eligible targets still depend on server PvP, player safety, faction membership, safehouses and non-PvP zones. These protections are separate from Broken Arrow's area destruction.

11 / RELEASE & ACCEPTANCE

Alpha, with explicit limits

Release 0.1.0-alpha.2. The implementation is substantial; full live-game acceptance is still outstanding.

WHAT HAS EVIDENCE

- **Live single-player commissioning:** the actual command network runs in a disposable B42.20.4 world. All four drone types deploy and follow rally orders. Native material lighting still needs visual acceptance.
- **Live Broken Arrow test / PASSED:** A real crafted-payload launch completed its 20-second countdown at a 50-square half extent. All 17 devices and the observer died; a permanent zone formed. Ash retained a solid floor, a loose item was removed, and the outside control stayed unchanged.
- **Native engine:** the installed B42.20.4 dedicated server starts with SentryNet. Its probe resolves 16 devices, 37 render-part items and crafting/ammunition registries.
- **Assets:** all 55 runtime model files pass the game's native importer. Source audits cover 17 assemblies, UVs and articulation; 24 camera/axis cases pass against the game's matrix library.
- **Automated behavior:** 19 core scenarios, 176 client checks and 11 Broken Arrow cases pass, alongside content, combat, storage and terrain suites. Behavioral tests use mocked engine interfaces.

COMPLETE THESE BEFORE CLAIMING FULLY PLAYTESTED

ACCEPTANCE AREA	REQUIRED OBSERVATION
Visual session	Check all models at actual scale, orientation, wall/character depth, articulation, effects, lighting and sound.
Combat + movement	Exercise turret fire, obstacle replanning, all four drone recalls and operation through power loss.
Save + multiplayer	Reload state, reconnect two clients, verify ownership, item conservation, damage/death synchronization and PvP protections.
Broken Arrow	Default-scale blast, found-code route, later radiation, vehicles, later chunk loads and post-strike save/reload. Multiplayer remains untested.

HOW TO READ THE IMAGES

Real game captures supplied with this guide are documented on the following capture pages. Each caption separates observed behavior from outcomes still untested. A screenshot alone cannot certify combat or multiplayer synchronization.

An auditable field manual

Operating values are drawn from this release's local source files; all illustrations disclose their origin.

Operational sources. Device statistics: **Definitions.lua**. Ownership, power, deployment and servicing: **Network.lua** and **Server.lua**. Controls: **Context.lua** and **Terminal.lua**. Recipes and progression: **SentryNet_Recipes.txt**, **SentryNet_Items.txt** and **Loot.lua**. Destruction: **BrokenArrow.lua**. Validation limits: **docs/validation.md**.

Image treatment. The cover reuses the project's commissioned AI artwork from **assets/art/poster.png**. Hardware plates reuse the project's rendered, olive-finished supplied meshes from **assets/reports/*_finished.png**. They show the asset designs, not their confirmed appearance inside Project Zomboid.

SUPPLIED MODEL ARCHIVE INVENTORY

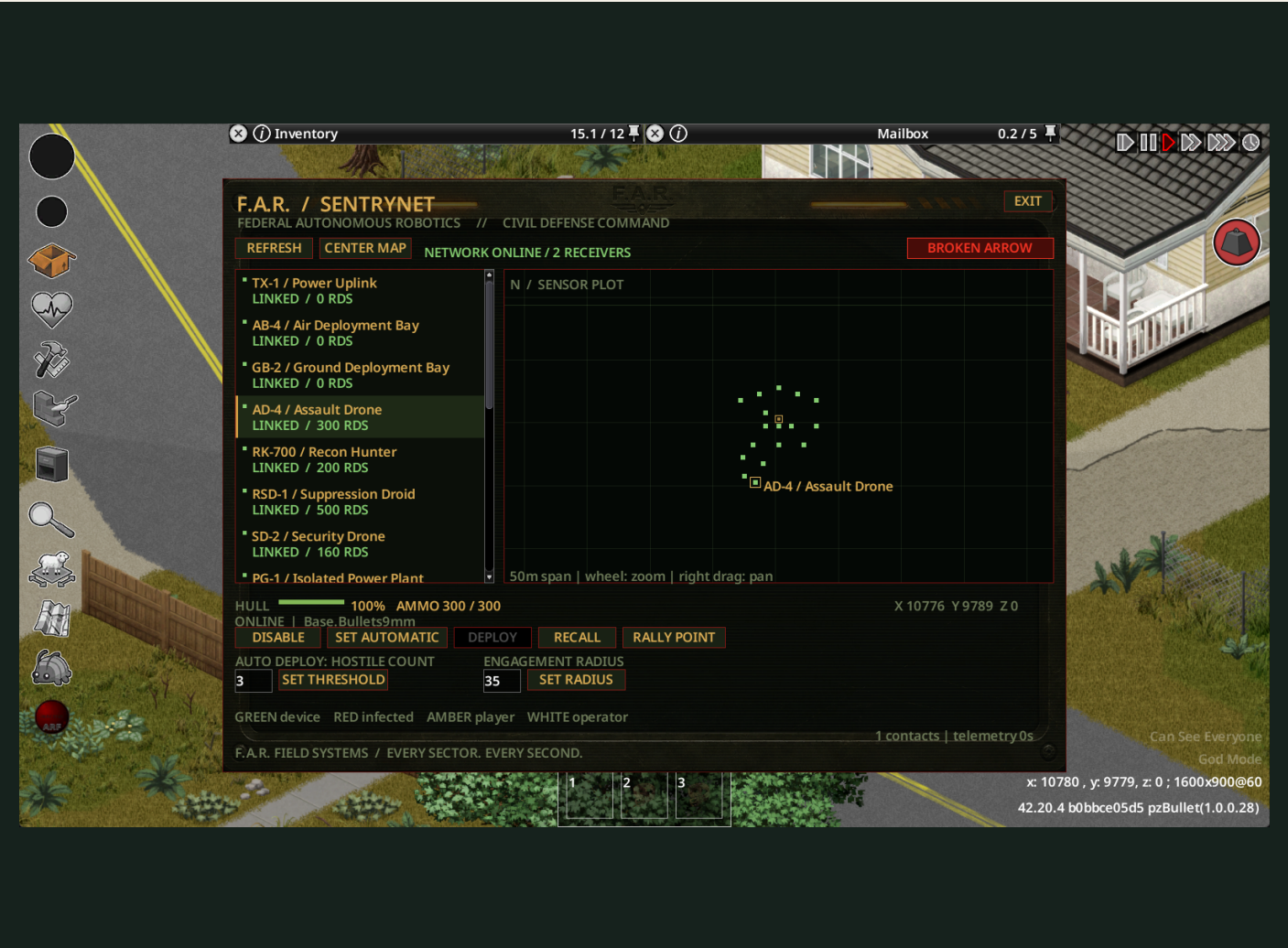
FIELD DESIGNATION	SOURCE ARCHIVE NAME (WITHOUT .ZIP)
CT-6 / SN-522 / MS-12	cannon-tower / model522just-reupload / motion-sensor-gun
BT-40 / GD-8 / AG-9	turel-warhammer40k / turret / auto-turret-machine-gun
RSD-1 / AD-4	military-suppression-drone-rsd-1-droid / assault-drone-concept
RK-700 / SD-2	drone-rk700 / security-drone
AB-4 / GB-2	scifi-crate-container / military-box
PG-1 / CC-1	generator / cockpit-pc
TX-1 / RX-1	antenna / network-tower
Broken Arrow model	nuke-bomb-rds-37-war-thunder-nuclear-thunder

The repository's source manifest records archive paths and SHA-256 hashes. Original creator credits and explicit redistribution permissions are not established in that manifest; this inventory is provenance, not a license grant. Establish attribution and redistribution rights before public Workshop publication.

VISUAL RECORD / 01

Command terminal / live network

Captured from the installed game. Read the scene qualification below before treating it as acceptance evidence.



CAPTURE NOTES

Actual Project Zomboid 42.20.4 single-player commissioning session in an isolated debug world. The command terminal reports two receivers online and all four deployed drones linked. The selected AD-4 shows full integrity and a 300-round feed; the tactical plot marks the connected hardware and the interface exposes deployment, recall, rally and autonomy controls. This is the real production interface receiving live device state.

VISUAL RECORD / 02

Installed turret range

Captured from the installed game. Read the scene qualification below before treating it as acceptance evidence.



CAPTURE NOTES

Actual engine capture of physically anchored SentryNet turrets and network equipment commissioned in a disposable debug world. Native materials remain dark in this scene; lighting and presentation still need acceptance testing.

VISUAL RECORD / 03

All four drones deployed

Captured from the installed game. Read the scene qualification below before treating it as acceptance evidence.



CAPTURE NOTES

Actual engine capture after real bay deployment and accepted rally commands. RSD-1 ground droid, AD-4 Assault Drone, RK-700 Recon Hunter and SD-2 Security Drone moved to separate positions. This is an isolated QA world with the interface hidden.

VISUAL RECORD / 04

Broken Arrow / unarmed payload

Captured from the installed game. Read the scene qualification below before treating it as acceptance evidence.



CAPTURE NOTES

Actual native in-game model of the SentryNet Broken Arrow Payload item placed in the disposable QA world. The payload is unarmed; this image does not show or validate a detonation.

VISUAL RECORD / 05

Broken Arrow / actual detonation

Captured from the installed game. Read the scene qualification below before treating it as acceptance evidence.



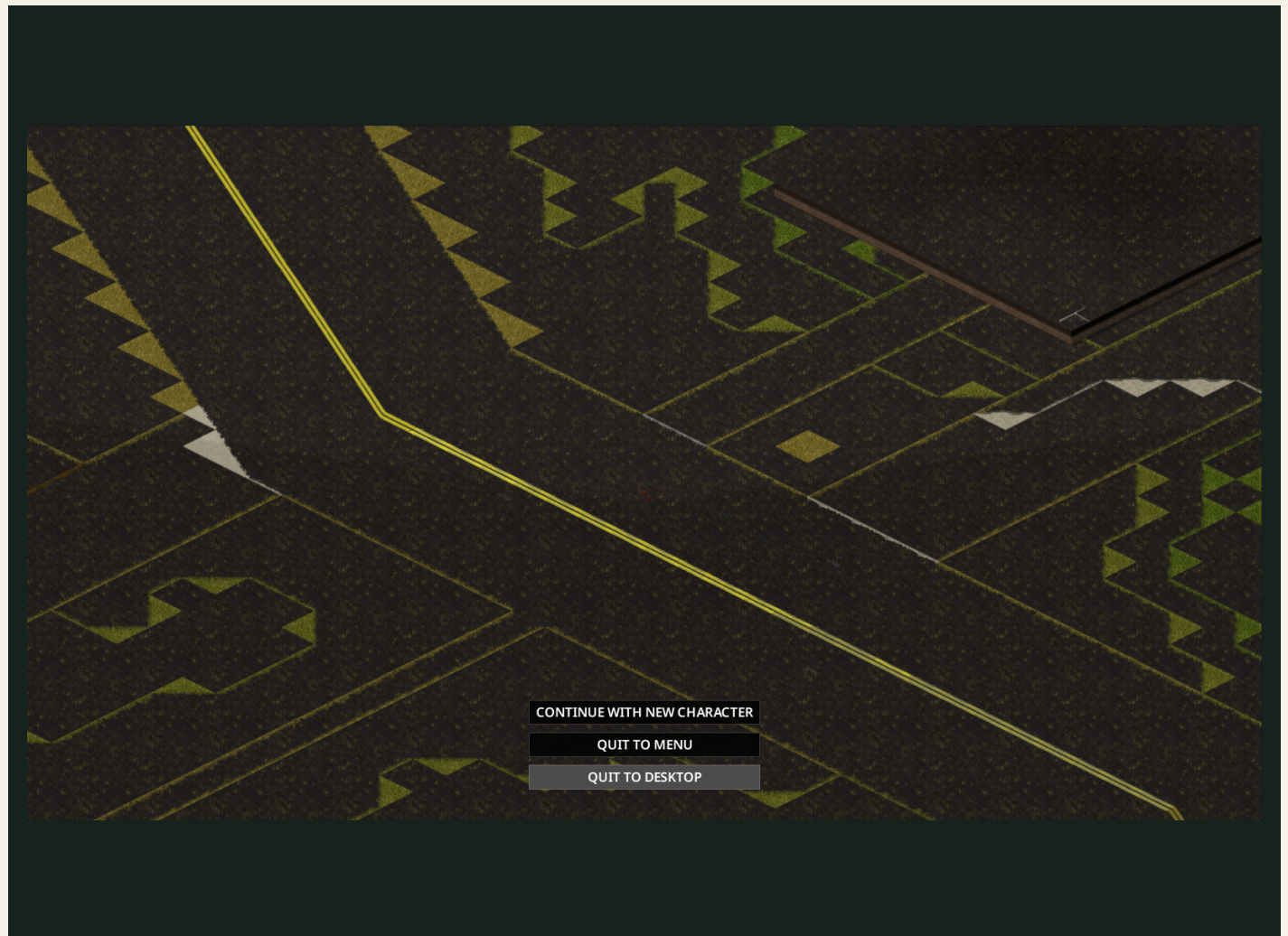
CAPTURE NOTES

Genuine Project Zomboid 42.20.4 capture of SentryNet 0.1.0-alpha.2. A physical crafted payload passed the normal authorization and launch commands and completed the native 20-second countdown at the minimum 50-square half-extent. No synthetic effects or immunity patches were used.

VISUAL RECORD / 06

Broken Arrow / validated aftermath

Captured from the installed game. Read the scene qualification below before treating it as acceptance evidence.



CAPTURE NOTES

After the actual alpha.2 strike: the observer died, all 17 devices reached zero health and were disabled, and destroyed device meshes disappeared. The sampled ash floor retained its native solid-floor properties; 169 discovered chunk scans completed. A sampled square 51 tiles from the center remained unchanged. This was one crafted-payload strike; full-scale performance, later radiation, vehicles, subsequent chunk loads and post-strike reload persistence remain untested. Native ash art retains visible seams and road markings.