

# PATCH HIGHLIGHTS

The Summer Patch is themed around our first night map. Playing at night requires unique skills like better awareness and a different playstyle since sound plays a major role.

With this in mind, our focus for this smaller release has been to improve gadgets and features affecting night time play – and in extension stealth on the Battlefield in general.

# **NIGHT OPERATIONS**



The night version of Zavod 311 called Zavod: Graveyard Shift is added to the game. The map features a fog saturated outdoor experience contrasted by a dark indoor setting.

Also included in Battlefield 4 Night Operations is a multitude of new destructible lights and vehicle interior and exterior lights – try that transport helicopter gunner seat!

Zavod: Graveyard Shift supports the following game modes:

- Conquest Large/Small
- Rush
- Domination
- Obliteration
- Team Death Match
- Gun Master x2



The secondary Gun Master layout is shrouded in almost complete darkness.

To enable a stealthier playstyle we needed to address some issues with spotting mechanics. Our goal was to make flanking maneuvers a possible and viable tactic when closing in on an objective. These changes effect both night and day gameplay unless explicitly stated otherwise:

- Active spotting
   Changed to require greater accuracy when spotting enemies especially at range. Previously a single spotting action would spot a full squad of enemies at distance, now you will have to spot each member individually and more carefully choose who to target first.
- Max Distance limit
   We've also implemented a new max distance (200m) for active spotting the Graveyard Shift, just like the one used during the Gulf Of Oman 2014 sandstorm levolution event.

With Battlefield 4 Night Operations we also looked over our night optics to make them more effective at night, but still have their respective downsides. Flashlights, lasers, flares, flashbangs, incendiary grenades & tank IR smoke counter these sights, while smoke grenades, darkness and the usage of silencers will really help you be effective with the night optics. These changes also apply to the vehicle variants of the night optics.

### **AUDIO OBSTRUCTION**

Audio is a very important piece when adding tactical depth and enabling stealthier gameplay. In previous releases, we've made footsteps more audible, and with the Summer Patch we continue to improve the audio awareness aspects of the game through changes to the Audio Obstruction system.

Audio Obstruction is what we call the system that changes how something sounds based on their relation to where you are in the world. For example, an enemy running inside a building on the second story will sound different than one outside running behind you going for a knife kill.

These changes are pretty subtle, but once you learn to listen for the cues you can really turn careless enemy movements against them, outwit and outplay them!

For an example showing the system in action (with debug technology enabled) check this video out to see it in action: <a href="https://www.youtube.com/watch?v=6kaYec34gog">https://www.youtube.com/watch?v=6kaYec34gog</a>

### **NETCODE IMPROVEMENTS**

With this release, we continue our quest for the best "netcode" in a multiplayer game. Included are some pretty exciting changes, great improvements, and massive preparations for what is to come in the near future!

The focus this time around has been to improve player to player damage delays, and prepare for higher tickrate/simulation rate testing.

- Immediate Client Damage
   All damage is now sent immediately from the client based on framerate, not simulation rate (default 30hz). This significantly speeds up bullet & damage delay between players.
- "Damage Tunneling" implemented
   Server side incoming damage take highest priority for processing and distribution and also includes correct ordering. This ensures a killing blow stops a player from causing damage past his/her getting killed (on server). Significantly improves on trade kills and speeds up bullet & damage delays.
- Improved Bullet processing
   Bullet processing is now handled after the physics update on the client, this ensures more correct hit indication and less behind cover damage. Shaves off up to 33ms on latency in this regard.
- Variable tickrate support
   Game & engine now supports variable tickrates/simulation rates on both server and clients (with

### initial testing for PC rental servers).

Improved network communications suite
 Added client side warning icons to notify players of subpar and degrading network and gameplay conditions. Applies to PC first, but will be enabled on all platforms at a later date (a new patch won't be required).



Server performance, Packet loss, High latency, Latency Variation, Framerate and Screen update rate warning icons

#### **TEAM BALANCER**

The new team balancer is a start-of-round balancer. It is designed to balance lopsided servers by breaking up teams over several rounds. In our testing (several months of active play on the CTE), we've seen statistical differences in outcome of games, and we will closely monitor the impact this has in the retail game as well!

The team balancer works by:

- Taking both team sizes and skill into consideration
- · Rebuilding the teams based on skill after every round
- Keeping squads & friends together
- Preventing excessive team stacking
- Assigning joining players by skill during rounds
- Replacing players that previously left the game with new joiners
- Evaluating manual team switching on a case by case basis and refuse team switching which may ruin the balance of the server
- Attempting to prevent team stacking by being more restrictive of high skilled players trying to switch to the better team
- Freely allowing team switching when there are very few (less than 5v5) players on the server
- Being enabled in "bigger" team based game modes only

### **FULL PATCHNOTES**

Here is the detailed list of changes and improvements included in the Summer Patch. All changes apply to all platforms unless explicitly stated otherwise.

#### **GENERAL IMPROVEMENTS**

- · Fixed a number of known exploits in the game
- Added the Team balancer (featured) as a default server option for larger modes
- In Combat
  - o Fixed an issue where players were able to spawn on a squad mate under fire (in combat)
  - Removed suppression active check, now only looks at suppression increase as an in combat trigger
- Added the Zavod: Graveyard Shift map
- Added server preset (Standard, Classic, Hardcore) to the deploy screen
- Updated soldier animations to fix the issue where viewing players running backwards would cause leg popping when changing the movement direction slightly between back-left and backright.
- Added the ability for all unlocks to be used in unranked servers, this applies to weapons and attachments including all premium weapons.
- Soldier Movement: Slowed down side to side from 0.4 -> 0.35 on soldier sidestep to make that movement less jerky
- Fixed an issue with the pillbox featured in Zavod and other levels. Bipods can now be deployed on the window sills of these pillboxes
- Changed max default spotting distance to 200m on night maps
- Fixed an issue where players would randomly take damage and even die from walking on certain staircases or other slanting objects
- Fixed an issue where players took damage from vaulting over objects and landing "hard" incorrectly
- PS3: Various crash fixes based on memory optimization
- ALL CONSOLES: Allow players to leave a squad in game created through the Squad Join feature
- ALL CONSOLES: Added Night Operations Large, Night Operations and Night Operations Infantry quick match selections for the Zavod: Graveyard shift map

#### **NETWORKING**

Updated server stall detection to better track servers going bad

- Improved packet loss handling for clients
- Improved "rubber banding" handling on client and server
- Fixed an issue where the local player's health would be incorrect if they took damage while regenerating health
- Changed FrameHistoryTime variable to 1 to prevent dusting on fast moving vehicles (mainly jets)
- Updated server & client code to support variable tick/simulation rates (featured)
- Added indicators for current server "tick rate"/simulation rate on loading screen (>30hz only) and deploy screen
- Network status communications suite: Added HUD indicators & warnings for bad or mediocre network connections (featured)
- PC/PS4/XB1: Significantly Improved client to client damage delay by forcing all clients to send damage based on framerate instead of simulation rate

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• Enabled Audio obstruction (featured)

### **PERSISTENCE**

- Added Dog tag that will track players knife kills
- Fixed an issue where the incorrect numerical value is displayed on MBT dog tags, showing total medals earned instead of ribbons
- Fixed kill tracking on missing Mastery Dog Tags which were added in a previous patch. Progress will now reflect overall kills with those weapons

#### **VEHICLES**

- Vehicle turrets
  - Updated turret logic to allow variable simulation rates
  - o Added vehicle sensitivity slider for all input devices on all platforms
  - o Added new input curves for all vehicle turrets in the game
  - PC: Fixed an issue where turning fast with the mouse would sometimes snap the view in the opposite direction/edge
- Fixed an issue where free look cameras in vehicles were negatively affected by framerate dips causing slower than intended movement. Now mimics soldier look accurately.
- Jet changes
  - Reverted attack jet physics to original setup (313)
  - Fixed an issue where mobility hits would cause a un-salvageable stall

- o Fixed an issue where jets would flip upside down in a jittery fashion when mobility hit
- Aircraft interior glass got a pass for the Summer Patch. Reflection brightness, glass color and opacity have been unified across the board. Reflection brightness has been greatly reduced to improve visibility
- Fixed an issue where players were unable to cause damage to an enemy standing in an open seat on any vehicle with any type of missile
- Fixed the wake effect of jet skis for night vision
- Reduced brightness of tank FLIR/IRNV HUD from 2 to 0.45.
- Reduced bloom scale in vehicle FLIR.
- Increased PLD IRNV range from 300/45 vehicle/soldier to 375/100.
- All vehicles in Zavod: Graveyard shift now have headlights and interior lights
- Attack Helicopter Smart rockets
  - Reduced Rate Of Fire to 200 from 300
  - Reduced max turning angle from 30 to 10, tracking less powerful against moving targets
- Mobile Anti Air
  - Adjusted overheat ratios to be more balanced between 20mm and 30mm.
  - o 20 mm has better range and is easier to use thanks to faster bullets
  - o 30 mm has more consistent damage thanks to lower spread
- · Lock on missiles make counter measures more effective and consistent
  - o Turn rates reduced to stop missiles from doing instant 180s
  - Reduced time to activate guidance system in most missiles
  - Blast radii has been tweaked up to reduce "dusting"
  - Changed damage type from blast damage to impact damage for example using IR smoke in a tank causing a near miss will no longer damage your tank almost max damage from the blast of the near missed missile
- Hydra rockets, Smart & Zuni rockets now properly damage walls
- PS4: Fixed an issue where reinstalling the game caused corrupt vehicle customization
- PS3/PS4: Fixed an issue where vehicle customizations would revert to default after re-formatting the PS3/PS4.

## **WEAPONS**

- Fixed a long time issue where infantry weapons fail to reload properly (looked like they did, really didn't)
- Decreased tracer frequency for full auto weapons from every one to every third bullet shot
- Flashbangs
  - o Effective angle is now 145 degrees
  - o Flash duration reduced for friendlies to 0.6s
  - No longer blinds dead people

- o Increased the suppression effect from flashbang explosions
- Reduced number of default flashbangs from 3 to 2
- o Updated effect to work exactly the same in dark and light environments
- Shielded players in vehicles (ex: tank driver) no longer gets blinded open vehicle seats
   will however
- Reduced time to live from 10s to 1.5s. This prevents players from dropping flashbangs from tall buildings at enemies below
- o Improved target line of sight obstruction testing

#### TV Missiles

- Soldier damage multiplier is now .3 up from .1. This allows TV missiles to kill soldiers without the flak field upgrade outside of road kills.
- o Blast radius increased from 1.5m to 3m
- o Improved the responsiveness and steering slightly
- Fixed an issue where players would get stuck in mid-air when exiting an Attack Helicopter
   & Attack Boats after firing TV missile
- Increased SRAW range and top speed slightly
- Fixed an issue which would cause blue flashes when player fires anti-tank weapon at a bright white source, e.g. the sun
- · Tweaked and improved visibility of the night vision optics at night
- Fixed an issue where the HUD on the UCAV would blink intermittently
- Tracer polish. Lowered brightness, thickness and length.
- Reintroduced the AN94 bipod. It will be unlocked by default.
- Removed extended barrel when using Heavy Barrel on PDWs. Affects MX4, P90, UMP45, and UMP9.
- Added blinking red light to M15 AT mines to increase visibility in night map (and other dark areas)
- Renamed all the mentions for RPK-74M to RPK, and renamed L96A1 to L115
- Fixed an animation issue with the Mare's Leg in 3rd person
- Mare's Leg: Added heavy barrel option, which can lower the spread from .2 to .1
- M26 Dart: Increased pellet count to 19 from 12 to bring in-line with M26 MASS
- Decreased headshot multiplier for revolvers/slugs/Desert Eagle from 2.35 to 2.13. This prevents
  pump action slugs from being able to one hit kill at infinite range and keeps Mare's leg one hit kill
  headshot at ranges below 40m
- L86: reduced horizontal recoil from 0.185/0.185 to 0.16/0.16
- Zeroing fixes
  - o CS5 add 1.004 initial bullet speed (y axis). Change displayed Zero from 100m to 75m
  - AS Val 1.41929 initial bullet speed (y axis). Changes zero from 50m to 35m, consistent with other suppressed PDWs
  - Groza-4: 1.41929 initial bullet speed (y axis). Changes zero from 30m to 35m.
  - AK5C: unsuppressed bullet velocity reduced from 630 to 620. Changes zero from 61m to 60m. Consistent with other carbines

- "Head-glitch" fixes
  - o Added fix (spawn bullets from closer to barrel) on all four M26 variants.
- Added a new JDAM explosion effect

### **GAME MODES**

- Gun Master fixes
  - Fixed an issue where the tension music remains after a user that reached last level quits the session
  - o Fixed an issue where stats wouldn't get tracked properly
  - o Fixed an issue where using gun emplacements could cause a server crash
  - Added live scoreboard functionality
  - Updated Gun Master to display infinite magazines in the HUD

### **BATTLELOG**

 Removed requirement for Google Chrome plug-in support as Origin now provides that functionality. (You will be able to download and update your Battlefield 4 client now, but this feature will be activated at a later date.)

#### **MAPS**

## **ZAVOD: GRAVEYARD SHIFT**

Enabled ladders for all modes except Defuse and Gun Master

#### **ZAVOD: 311**

- · Fixed an exploit where players could leave the game world
- Enabled ladders for all modes except Defuse and Gun Master

## **OPERATION WHITEOUT**

• Optimized memory usage

#### **OPERATION LOCKER**

Xbox 360: Optimized memory usage

#### **GOLMUD RAILWAY**

• Fixed pink I beam on a collapsible building

