
Subject: Public announcement: Points Bug Fix
Posted by [Crimson](#) on Mon, 24 Sep 2007 03:53:55 GMT
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I am presenting this in two versions. The short version for those of you with ADD, and the long version for those of you who want to debate about the subject and/or know all the gory details.

SHORT VERSION

BlackIntel discovered a bug in the points calculation code while doing research for BIATCH. Fixing this bug results in a better-balanced gameplay by (most noticeably) removing the disproportionate point gains you would get from doing negligible damage to heavy-armored units.

This points fix has been running on a few servers, such as Jelly (AOW1), n00bstories, SpookyServ, and BlackIntel for roughly 2 months. The Ladder Team is confident that this fix provides a more balanced and more fun game experience for the majority of players. We also feel that this is a crucial component to balancing the ladder calculations and will therefore be requiring the use of this fix for servers that wish to participate in the ladder.

LONG VERSION (under spoiler)

(if you wish to debate this subject, we INSIST that you become familiar with these facts and figures)

Click here to read the LONG VERSION

StealthEye of BlackIntel (emphasis added)It definitely is a bug, notice how it behaves differently on health than on armor as well. (You don't get many points for shooting health with those weapons). The bug affects all damage on armor with a warhead multiplier of != 1, because it is the warhead multiplier that is missing.

Actually, it calculates points like this:

$\text{vehicledamagemultiplier} * \text{rawdamage} * \text{warheadmultiplier} / \text{warheadmultiplier}$

It should be:

$\text{vehicledamagemultiplier} * \text{rawdamage} * \text{warheadmultiplier}$

Because the warheadmultiplier is low for ramjets, and rawdamage (see the tables on <http://www.blackintel.org/?page=projects/biatch/weaponinfo>) is high, the effect of the missing multiplier is highest. Repair guns have a warheadmultiplier of 1, so those are not affected. C4 2 -> will do half of the points it should do. All other weapons are <1, therefore all those will give more points than they were supposed to. Because the multipliers are closer to 1 it will be less visible though.

With the bug fixed, you always get half of the points for repairing than for damaging a vehicle, and you always (regardless of the weapon you used) get the same amount for damaging or killing a vehicle (assuming it was not repaired ofcourse).

Without the bugfix, it mostly depends on the weapon you use to damage something with. More than it matters which thing you are damaging or the amount of damage you actually do.

Spoony has made the following observations:

Letting the WF die isn't valid anymore. On some maps - notably Field, but to a lesser extent Walls Flying and Islands, GDI could turn a losing situation into an advantage by purposely letting their Weapons Factory die. It then became an uphill struggle for Nod, to the point where Nod would still lose despite having a better team. The only reason this worked at all was the points ramjets gained against tanks, something which has always been a bug and something nobody has been able to logically justify why it should happen at all.

The points fix means that letting certain buildings die is no longer the clear advantage it used to be, which helps balance these maps. Gaining an advantage by letting buildings die is clearly wrong, and the fact it only worked because of a bug Westwood didn't intend goes to show it's better off fixed.

One person in a vehicle isn't teamhampering. Often, many players would dissuade their teammates from using tanks because they'd feed huge points to enemy ramjets (again, something that shouldn't happen). The points fix wipes this problem clean - one new player buying a mammoth or stank or flame tank is no longer a hindrance to their team, even if they don't achieve much with it.

People have to use ramjets for stuff they're meant to do (light vehicles and infantry) instead of getting massive points doing something they're meant to use for.

More aggressive play is generally more beneficial. For example, on Field, tanks can attack enemy tanks from relative safety close to their base entrance, as opposed to moving all the way up to attack enemy buildings. Taking this higher risk is now worth relatively higher rewards.

Spoony has noted no detrimental effects whatsoever to clan games or 1v1's.

On the following chart, "Previous points per shot" value is based on shots on the armour with a PIC/Rave/havoc/sakura. "Current points per shot" is based on PIC/RAVE doing 80 real damage on a vehicle. For vehicles with light armour it might deal more damage and thus get more points.

Object name	Damage points	Previous points per shot	Current points per shot
CnC_GDI_Mammoth_Tank	0.06	12	4.8
CnC_Nod_Harvester	0.04	8	3.2
CnC_GDI_Harvester	0.04	8	3.2
CnC_Nod_Apache	0.15	30	12
CnC_GDI_Orca	0.15	30	12
CnC_Nod_Stealth_Tank	0.11	22	8.8
CnC_GDI_Medium_Tank	0.05	10	4
CnC_Nod_Flame_Tank	0.05	10	4
CnC_Nod_Transport	0.09	18	7.2
CnC_GDI_Transport	0.09	18	7.2
CnC_Nod_Light_Tank	0.05	10	4
CnC_Nod_APC	0.04	8	3.2
CnC_GDI_APC	0.04	8	3.2
CnC_GDI_MRLS	0.06	12	4.8
CnC_Nod_Mobile_Artillery	0.06	12	4.8
CnC_GDI_Humm-vee	0.06	12	4.8
CnC_Nod_Buggy	0.06	12	4.8

The following chart details "Damage points" (point gain per 1 damage dealt), "Death points" (bonus for causing the final death), "Total death points" (points gained for causing damage from start to finish):

Object name	Damage points	Death points	Total death points
CnC_GDI_Mammoth_Tank	0.06	75	147
CnC_Nod_Harvester	0.04	50	98
CnC_GDI_Harvester	0.04	50	98
CnC_Nod_Apache	0.15	45	90
CnC_GDI_Orca	0.15	45	90
CnC_Nod_Stealth_Tank	0.11	45	89
CnC_GDI_Medium_Tank	0.05	40	80
CnC_Nod_Flame_Tank	0.05	40	80
CnC_Nod_Transport	0.09	35	71
CnC_GDI_Transport	0.09	35	71
CnC_Nod_Light_Tank	0.05	30	60
CnC_Nod_APC	0.04	25	49
CnC_GDI_APC	0.04	25	49
CnC_GDI_MRLS	0.06	23	46.5
CnC_Nod_Mobile_Artillery	0.06	23	46.5
CnC_GDI_Humm-vee	0.06	18	35.5
CnC_Nod_Buggy	0.06	15	30

Some people will come back and say that you get "no points" for shooting tanks. These charts prove that is NOT the case.

Spoony has also discovered that if you look at the "Total Death Points" for vehicles and round them to the nearest multiple of 5, then compare them to the cost of the vehicle, you get this:

Quote:syntax: vehicle/total points/cost

Mammoth Tank: 150/1500

Harvester: 100/not applicable

Apache/Orca: 90/900

Stealth Tank: 90/900

Medium Tank: 80/800

Flame Tank: 80/800

Chinook: 70/700

Light Tank: 60/600

APC: 50/500

MRLS: 45/450

Artillery: 45/450

Hummvee: 35/350

Buggy: 30/300

Many people are already aware that for infantry, the total points gained for start-to-finish death is 10% of the cost of the unit. (exception: free infantry = 3 points) This also proves that the previous point calculation was definitely a bug.

What happens on a server with the fix installed?

Actual damage is not affected at all. What changes is points.

Points gained by attacking green-health vehicles are calculated the way Westwood intended them to be, the way they currently are against yellow/red health vehicles. Therefore, all weapons gain points which are directly proportional to the amount of damage they're doing.

Examples of how this will fix the game:

Ramjets, 500 snipers, Auto rifles, shotguns and pistols will get practically nothing for attacking vehicles they don't damage (i.e. heavy armoured tanks)

Ramjets, 500 snipers, Auto rifles, shotguns, pistols, APCs, humvees/buggies, and orca/apache machineguns get the right points for attacking light armoured vehicles - in other words, the same points a tank would get for doing the same amount of damage

APCs, humvees/buggies, and orca/apache machineguns get the right points for attacking heavy armoured vehicles - in other words, an apache or an APC gets the same points for killing a harvester that a tank would get for killing a harvester

C4 gets somewhat more points for attacking vehicles than they do now, roughly double.

Tanks get somewhat less points for attacking green-health vehicles than they do now - they get what they're supposed to get, which is what they currently get against yellow/red health vehicles.

In a nutshell, it no longer matters what weapon is used to kill, for example, a harvester - the total points gain is constant whether it is destroyed by infantry C4, a tank, an APC or an Apache.

Other observations seen:

A team who loses the field early has a much better chance of getting it back, whereas before the team who took the field early almost always held it. Also, in most cases, the points difference is not as vast as it was before, meaning the team that got the field back has a real chance of coming back to win.

Mammoths are actually worth 1500 points and people who are new to the game can buy one without hurting their team as much

Failed Stealth Tank rushes don't give GDI nearly as many points as it used to. The result of this is that you aren't stuck trying these rushes all game because you are so behind on points that base destruction is your only chance to win.

Closer scores overall make for more exciting and fun games rather than 30+ minutes of domination and boredom for the losing team.

New players will find that:

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[*]If they save up for a mammoth, stank, or flamer thinking they'll devastate the enemy team single-handedly, or if they fix the Weapons Factory in the belief that keeping it alive will help the team, they don't get barraged with insults by their teammates anymore.

[*]They're no longer fooled by the points bug into thinking that shooting heavy tanks with an automatic rifle is helping their team's situation

[/spoiler]

Remember, POINTS, NOT DAMAGE, are the only thing affected by this fix!
