Garth,

The following is a set of balance changes that Kong has collectively designed in the hopes of better balancing the game. While not all Kong members will have agreed to each individual change, as a whole they should make the game a bit better for everyone. These should not be considered hard and fast fixes, but rather a starting point for balance adjustments.

Some things may need to be scaled up, and others scaled back, but hopefully your team will take the time to roll these further changes out a bit at a time similar to the LBX-10 buffs, rather than taking the PPC buff progression route ("thanks!" -> "ok this is even better" -> "no really, I'm fine" -> "stop" -> "PLEASE STOP"). It's something that should be tacked onto the weekly patches for sales, rather than every other Tuesday - these more rapid changes would allow the game to be balanced quicker instead of leaving things in limbo for months at a time while waiting for content patches.

Without further ado, please see the following five main points for our balance recommendations. A raw set of notes describing each of our personal recommendations can be found here, courtesy of myself, CocaineSamurai, Huge, Lyteros, Rhenis, Rather Dashing, Tabrias, and Shumabot. I highly recommend reading these notes in addition to this document, as they will give a significant amount more detail and insight into why we've made each recommendation.

- Valkyrie

Hardpoint sizes

First and foremost is the need for new hardpoint sizes. One thing I learned from old school TT BattleTech players is that if someone is bringing custom 'Mechs to a game, they typically find themselves without people to play with due to the way each chassis of a particular weight is effectively the same - each one is little more than a "gunbag." This issue is even more problematic in MWO, where hardpoint positions and 3D profiles come into play. The current hardpoint system differentiates the various variants of each chassis, but it doesn't do nearly enough considering some chassis such as the JagerMech and Stalker can be used with near-identical loadouts with little difference between them.

While there are a few different ways to go about it, instituting a size or type system for hardpoints will not only alleviate this issue, but also help bring "poor" variants into the

metagame by giving them specific niches. Instituting a “heavy” or “large” hardpoint system would be ideal - you can place non-heavy weapons of the same type in these slots, but certain weapons such as gauss rifles and PPCs will require heavy hardpoints. This can effectively kill the 4PPC Stalker and 3PPC/Gauss Highlander issue while bringing back other variants of ‘Mechs with particular uses in the canon, such as the HBK-4G (now the only AC/20-capable HBK) and the Awesome (now the only ‘Mech capable of bringing 4 PPCs in the current lineup). An additional “heavy weapon limit” across the chassis (i.e. Awesome has a 3 heavy weapon limit, while the Stalker can only carry two of any type), similar to the varied module slot numbers, may also quickly resolve this issue as either a standalone fix or one integrated with the prior hardpoint suggestion.

Alpha strikes

MWO’s current alpha-based gameplay is another factor that is currently killing ‘Mech diversity and has effectively killed the use of Medium ‘Mechs in high Elo play. The proposed heat scaling is a novel idea, but will ultimately not help much in the long run, as it only affects energy weapons and simply delays the “complete” strike by a half second. In addition to the hardpoint system, here are three potential ways to make using an Alpha Strike a calculated risk rather than the order of the day:

- Heat Threshold system revision - ‘Mechs designed to be heavily energy-dependent can be revised to have a higher threshold to help them effectively boat energy weapons. Taking away the threshold bonus from additional heatsinks and instead making them a pure dissipation bonus will further balance high-alpha energy ‘Mechs. For example, an Awesome with a native heat threshold of 30 heat would be effectively able to fight with 3 PPCs, but other chassis would not, instead having heat thresholds designed around their primary armament (ex.: Catapult K2s with a 20-25 threshold, and 10-15 on LRM-based Catapults). This effectively makes single-shot alphas viable, but pairing off shots or selectively firing weapons is better for your DPS.
- High-drain weaponry - similar to the “heavy hardpoint” system, this would effectively make it so that large weapons like gauss rifles and PPCs cannot be fired simultaneously due to the associated power drain on the reactor. This concept has basis in the BT universe’s fiction (see note document). Restricting simultaneous PPC use to 2 PPCs at once or single gauss rifles and possibly the AC/20 with a .5 - 1 second cooldown between shots of ANY high-drain weapon system would take the currently proposed heat scaling system and refine it, while additionally avoiding the “3PPC+Gauss” workaround that was immediately

thought up. Chassis-specific tweaks should also be made to this system to allow ‘Mechs designed around multiple high-drain weapons use like the Awesome avoid the issue entirely.

- Overheat damage - currently, the overheat system does not penalize users regardless of their total heat level unless a shutdown override is initiated, which causes randomized damage. This allows players to drop a 4PPC alpha strike at 97% heat with no ill effects. Alpha strikes can be made more risky by making heatsinks take damage over time for every second the ‘Mech is overheated above 100% heat, regardless of whether or not the ‘Mech is shut down. This means one high-heat alpha is doable at the expense of reduced heat dissipation for the rest of the match, and multiple high-heat alpha strikes can destroy your ‘Mech from internal damage.

Ferro-Fibrous Armor

In it’s current incarnation, Ferro-Fibrous armor is nearly useless. This can be corrected by increasing damage resistance over standard armor slightly as well as lighter total weight. This will make it an ideal option for Light and Medium ‘Mechs, further increasing their survivability. As it is, the current choice is effectively “less weight (FF armor) or way less weight (Endo Steel)”, with most users opting for the latter and then filling in the unused weight accordingly with both the extra armor FF would have allowed them to take as well as more weapons systems and components.

Individual weapon changes

Due to MWO’s extensive number of weapons systems, it is hard to summarize the various balance suggestions that are possible. A short version is below, but I highly recommend reading the notes we compiled for details.

- Put SSRMs on a slight “arcing” trajectory to prevent them from firing at ‘Mechs directly to the rear. Additionally, a slightly slower turn rate will allow ‘Mechs to quickly take cover.
- Reduce AC/2 heat
- Increase AC/10 range and projectile speed. AC/10s are currently extremely unviable compared to the UAC/5 and AC/20.
- Increase SRM damage. While previously SRMs were extremely lethal, they are exceptionally poor in their current state rather than being a major part of any brawling ‘Mech loadout as they should be.
- Increase AC/20 cooldown to bring it in line with the DPS of other ballistic weapons
- Increase Small Laser range to 120m

- Increase Medium Pulse/Large Pulse range to 210m/360m, respectively
- Make Pulse Lasers a “constant stream” weapon similar to MGs, with adjusted heat and damage values to make them a higher DPS weapon at the expense of range, heat, and weight
- Change Flamers to offset heat dissipation on the TARGET ‘Mech at a higher rate than generated from the firing ‘Mech. Low damage is fine, though crit bonuses are possible.
- Increase ammo/ton for autocannons, making them more viable for lighter ‘Mechs like the Blackjack
- Introduce a “cone of fire” for Ultra Autocannons that grows the more it is fired in Ultra mode. This will prevent boating of UAC/20s upon the arrival of the Clans. Additionally, add a toggleable “standard/Ultra mode” setting.
- Introduce slug rounds for the LBX Autocannons, but give them reduced range to keep standard autocannons relevant
- Change up Gauss/PPC projectile speed to “decouple” them as well as reduce the effectiveness of PPCs in close range combat. 2000m/s for gauss rounds and 1200m/s for PPC shots will make Gauss rifles a strong sniping weapon, while PPCs require leading at long range and are thus more ideal for mid-range combat as intended.
- Increase NARC transmit time and make tagged ‘Mech targetable/shown on map for all teammates. Increase NARC ammo/ton.

Matchmaking

Again, tweaking the matchmaking system is exceptionally complex and is best served by referring to our recommendation notes, but I will summarize the main points here.

- Currently, the metagame strongly encourages the use of Heavy/Assault ‘Mechs and occasionally Light ‘Mechs. The result is a dearth of Mediums and many Lights - ‘Mechs that should make up the bulk of the armed forces of the Inner Sphere. Adjusting the matchmaker to prioritize weight balancing will make it less risky to bring a Medium ‘Mech to the field.
    - Match ‘Mechs on a per-’Mech tonnage basis, with fallbacks to matching class, then total drop weight, with a maximum 10% total drop weight deviation between both teams. This will prevent two players from gimping a team by bringing Mediums when all other players are bringing Heavy or Assault ‘Mechs.
    - Trial ‘Mechs should be individually matched to another Trial of the same type on the other team, with fallbacks to a different Trial ‘Mech of the closest weight class (i.e., Heavy Trial matched to Medium or Assault Trial),

then matched via weight against player-purchased ‘Mechs.

- Introduce a Battle Value (BV) system based on ‘Mech components (ECM, double heatsinks, potential DPS, speed, armor, pilot skills purchased, etc.). This can be paired with tonnage-based matchmaking to further refine balance and prevent a stock ‘Mech from facing off against a min-maxed build on the same chassis.
    - Maps should also be taken into account if balancing by Elo. For example, LRM-heavy ‘Mechs and high-speed scouts should have higher BV on large maps such as Alpine Peaks. Likewise, a low heat efficiency ‘Mech would have a lower BV on maps like Caustic Valley than on Forest Colony Snow.
- Elo should be calculated with a weighted system. Match results should only impact Elo by 50% of it’s current weighting, while the other 50% is adjusted according to personal performance. This can help prevent highly skilled players from staying in lower Elo ranks too long, and keep poor players who are carried by their team from being left in a player range where they are hopelessly outclassed due to simple bad luck.

Mech Scaling

This is pretty self explanatory. The latest victim? THE QUICKDRAW THE SIZE OF THE HIGHLANDER. With frontal profile being the most relevant part of a ‘Mech’s shape given the way the game plays, it severely hurts Trebuchets and Centurions when they’re as wide and tall as Awesomes even if they’re less bulky from the side.