

Sections and Phases

“During this phase, the Speed Stat does not affect target speed and Power affects **Lane Change Speed**.”

Power affecting lane movement speed is not phase-specific, so this placement could be understood to imply that this effect is not present in other phases. I'd suggest removing it from this section entirely, merging <https://uma.guide/guides/stats> and <https://uma.guide/guides/race-mechanics> and starting the mechanics explanation off with the introduction to stats and mentioning its effect on lane movement there. Both pages also contain the aptitude tables since they cover similar material in two different places on the website, so merging it would make it more concise.

“**Middle Leg (Phase 1)**: Sections 5 to 16. Umas are affected by Position Keep.”

This is just inaccurate, because position keep is active from sections 1 to 10 so it's not even active for half of the middle leg despite being mentioned only here. Probably shouldn't be here at all since there is a dedicated position keep section where this is correctly mentioned.

“The Speed Stat still does not affect target Speed.”

Technically correct but having to note this is also a consequence of this page not beginning with the introduction to stats, which would let you establish this without needing to bring it up for each phase.

“If the Uma has enough HP remaining to finish the race at top Speed, she begins the “**Last Spurt**” acceleration immediately upon entering this phase.”

This should be framed as a target speed increase, currently it sounds like something special happens with an uma's acceleration compared to any other change in target speed in the game, not to mention you typically also accelerate a little even on a delayed spurt because the base target speed of phase 2 already includes the speed term even without entering the last spurt state.

This section would be a great place to introduce base speed since it uses phase-based coefficients, and for some reason you bring up base speed in multiple other sections of this page without once explaining it.

Start Dash

How do we have an entire section on start dash and not once mention its acceleration value

“**Late Start**: If the number is more than 0.066 seconds, your Uma gets stuck in the gate for a moment. This is bad because they lose the initial Speed boost.”

You always get stuck in the gate for a moment, that's exactly what the start delay does. What having a start delay longer than 0.066 costs you is the first frame of acceleration. Every uma starts the race with a speed of 3m/s, if your start delay exceeds 0.066s you do not accelerate

whatsoever for the first frame of the race (i.e. 1/15 seconds). Here are some example values to demonstrate this, taken from actual races, this is all the same uma in different races.

startdelay	frame0Vel	frame1Vel	frame2Vel	frame3Vel	frame1Dist	frame2Dist	frame3Dist
0.007486976683	300	462	624	786	0.273226887	0.6890918612	1.21298933
0.02281893231	300	462	624	786	0.2023609132	0.6182258725	1.142123342
0.06126406789	300	462	624	786	0.02466327325	0.4405282438	0.964425683
0.07715184987	300	300	462	624	0	0.2590607107	0.6749256849
0.08694943041	300	300	462	624	0	0.2137752175	0.6296402216
0.09154355526	300	300	462	624	0	0.1925406754	0.6084056497

All start delays under 0.066 receive the full benefits of acceleration and receive updated speed values on the next race frame, all longer delays do not. This section should also mention that late starts ingame only receive a notification when the delay is at least 0.08, so values between 0.066 and 0.08 lose the accel frame but you aren't notified of it while watching the race.

Position Keep

Lacks numbers for the effect of different position keep modes (i.e. 1.04x for speed up mode, etc), lacks numbers for probability of position keep modes based on wit.

"Pace Down: If an Uma gets too close to the Pacemaker, the game forces them to slow down. The mode is exited once the Uma is a randomly rolled Distance away from the Pacemaker."
Lacks mention of velocity skills breaking pdm, as well as pdm lasting a maximum of 1 section.

Something I also noticed reading this section is that the entire /race-mechanics page could use some cleanup when it comes to the terms velocity, target speed and speed. They're interchangeably used across the entire page, when 95% of the time target speed is correct.

Rushed / Rushing

"During Position Keep"

Should specify that it's section 2 to 9, this makes it sound like it could happen anywhere from section 1 to 10.

"The Uma speeds up, ignoring their previous Style-based Position Keep rules."

Front runners are in speed up mode for the duration of rushed, other modes get position keep thresholds of another running style (see mechanics doc) and always succeed in the pace up wit rolls. Just saying they ignore the rules does not tell me that.

"Additionally, a Rushed Uma ignores their Running Style. They will try to take a more forward position, which can sometimes be beneficial for Backliners if they can live the additional HP drain."

The running style is only changed for the purposes of position keep, this makes it sound like rushed would affect stuff like phase coefficients. The backliner specific callout is weird here

because front runners also enjoy a free period of being in speed up mode if they can tank the HP loss.

“High Wit reduces the probability of Rushing.”

Add formula

"Lucky Pacemaker"

Could use a mention of how gate position affects this. When there are no fronts, the uma in the innermost gate out of the umas in the most forward style available starts in normal mode, while everyone else starts in pdm (as opposed to front runner lobbies where all non-fronts start in pdm). This is a large advantage for getting promoted, but can be overcome especially if that particular uma has a late start, or others activate skills as mentioned in the current section.

See

<https://discord.com/channels/1372239539233488947/1458697895774650378/1460803132635353273>

Uphill and Downhill

Add power uphill formula and downhill mode speed increase. The track viewer on <https://uma.guide/cm-schedule/> should probably have a feature added to see the SlopePer of each downhill, or you can't actually use the downhill formula.

Ground Conditions

Fine

HP

Throw this entire section (HP/stamina/gus/wit) into the stats explanation, add HP conversion formulas and stuff

Guts

“Guts serves the following functions: [,,]”

Also increases min speed, not mentioned

Why is the last spurt formula in the guts section of all places lmao

Add dueling/spot struggle numbers

Random Section Speed Target

Add formula

Target Speed

Why is there a separate target speed page and it randomly has like half the formulas that I was complaining about being missing in their own sections, most the stuff here should just be in the relevant section on the race mechanics page

“MoveLaneMod - If an Uma has changed lanes in the past frame, they will increase their Target Speed based on Power.”

Only during lane movement skills, this is why dodging danger front stuff is a thing. Should probably also be reworded to just requiring any sideways movement instead of a full lane change. This is also the only mention of frames across the entirety of the race mechanics/target speed pages without introducing the concept of race frames anywhere.

“In the Final Leg (Phase 2) and Homestretch (Phase 3)”

Inconsistent name for phase 3, in /race-mechanics it was “Last Spurt (Phase 3)”.

The “IsLastSpurt” condition in the base target speed formula is a bit misleading because you only need to be in phase2/3 for that speed term on base speed to kick in, even if your last spurt has been delayed for HP reasons.

Distance Proficiency

The table should probably just say “DistanceProf” instead of “Modifier to Speed” because S aptitude is neither a 1.05 modifier to your speed stat nor to your target speed so calling it a modifier to speed just invites misinterpretations (looking at you, every single uma youtuber).

“Activating a recovery skill will cause the HP interaction to recalculate, while debuffs do not.” Just call it recalculating last spurt speed, “HP interaction” is a bit unclear.

Move Lane/Slopes(Uphill)/Slopes(Downhill)

The formulas shown have “PowerStat” for one formula and “EffectivePower” for the other, while at no point clarifying what the difference is.

Minimum Speed

“When an Uma runs out of HP (i.e. $HP = 0$), she will slow down to the Minimum Speed.”

This is not only a HP related mechanic. Run styles with poor early-race phase modifiers actually run at min speed while in pace down mode, because the pace down modifier is so harsh it tries to slow them down to below min speed.

Blocking

“When an Uma is blocked, she can run no faster than the Uma blocking her, regardless of her Target Speed.”

Should probably add the formula from the Front Blocking section in the mechanics doc.

After this detour to the target speed page, we now continue back on race mechanics.

Style (Running Strategy)/Accel Zones

This section struggles a bit with staying on topic for race mechanics and dipping into character building considerations. If I was in charge this entire section is getting deleted, whether lates and ends should bring pump is not a basic game mechanic and the spot struggle stuff should be fully explained in its existing section, and HP conversion should be part of an explanation of how stats work in general.

Distance, Surface, and Style Aptitudes

“Aptitudes act as multipliers to certain Stats.”

I'd avoid putting it like this because we already have enough people who think S aptitude is 1.05x speed stat. The table's column headers of “Target Speed Multiplier” and “Acceleration Multiplier” also invite misinterpretations, since S aptitude also isn't a 1.05 target speed multiplier.

“Because Distance S is a modifier to Target Speed, the 5% increase is effectively a 10% increase to Speed”

It's a modifier to specifically the speed term, i.e $\sqrt{500 \cdot \text{speed}} \cdot \text{DistanceProf}$. The 10% value is also incorrect, since if you want to calculate the speed you'd need to match having Distance S instead of A, it's $\sqrt{500 \cdot \text{speed} \cdot 1.05^2}$, i.e. a 10.25% multiplier, not 10%.

“On short Tracks or Tracks with short final Straights, Surface S makes a meaningful difference in time taken to reach Top Speed. Consequently, Surface S is generally prioritized over Distance S on Sprint Tracks.”

Once again, I'd save gameplay advice for stuff like CM guide pages. This describes emergent player behavior, not a game mechanic.

"While Front Runners benefit the most from Style S, it is still the least desired S aptitude."

Same thing here