

AIM WORKOUT ROUTINES WITH KOVAAK'S FPS AIM TRAINER

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What's the purpose of this guide? To help people of low, moderate, and advanced skill level to improve their aiming skills. More precisely, since aim trainers are becoming trendy (and in particular KovaaK's one, which is the one I'm going to use), to give some useful, simple and bullshit-free aim workout routines for them. To be a bit more blunt, I am tired (and so are many good players) of seeing newbies wasting their time on garbage scenarios such as Tile Frenzy and Ascended Tracking V57, expecting their aim to improve after 3 consecutive days of training to then realize that it did not (no shit?). This guide will (I hope) solve this problem, at least for now.

Why should we trust you rather than some Fortnite pro with no aim? I mean, just read my twitch bio there?

How to use this guide? The introduction is very general and motivates the use of daily workout routines in aim trainers so as to improve your aiming-skills. I suggest you read it, even if you're already convinced that aim-trainers are good tools for this purpose. The second part explains good training habits while the third one deals with the routines themselves. In the fourth and last part, I made some compilation of good scores for the most popular scenarios involved in the routines. This should help newcomers to see how to play them, and the skill level they could expect to reach with enough time and training.

1. INTRODUCTION

Thanks to Overwatch and Fortnite¹, the First-Person Shooter (FPS) genre has recently seen an increase in popularity. While the genre is more than 20 years old, it is still quite

¹TPS but whatever, shooters are generally labelled as FPS

young compared to games like chess or go. Still, 20 years is more than enough for veterans like myself to establish (some) theories and good practices to follow in order to get good at them.

The first thing to understand is that being good at a FPS is **not** the same as having good aim. An important distinction has to be made between the *mechanics* (aiming skills, movement skills, dodging skills, ...) and the *game-sense* skills (decision making, positioning, what to do when, ...). Of course, this distinction between mechanics and game-sense skills should not be taken too strictly: in order to have good aim in a FPS, one has to understand positioning, when to engage or when to disengage, weapons selection, or more simply to know the position of the opponent so as to not be surprised and to maximize damage output.

This above distinction should not be taken too laxly either: some FPS players are recognized for their amazing mechanics, and are able to do things others can't. Good mechanics allows to do more things, and can turn bad decisions into good ones, thus giving more freedom in playstyles. Playing fast and aggressively efficiently requires great mechanics, while defensive and passive play is more game-sense-oriented.

Now, is it better to train your mechanics more than your game-sense skills in order to win at a FPS game? There is no universal answer for that. On the one hand, most popular games and rule-sets (like duel in quake or Overwatch 6v6) seem to minimize the impact of mechanics at high skill level: it is better to invest your time in game-sense skills rather than trying to be the god of aim in order to win. Fortnite seems to value building and editing skills more than aiming skills too, but in all of these cases, having a better aim than your opponent increases (from slightly to moderately) your chance of winning. On the other hand, aiming skills are like any other mechanical skills. They are universal and therefore translate from games to games, or can be trained and pushed for their own sake (like sprinting, weight-lifting, ...). Becoming better mechanically can therefore be a good investment if you expect future games to be mechanics-heavy, or if you enjoy the improvement process itself.

As we pointed out, mechanics and especially aiming skills² are universal parts of all FPS. That is, they translate from games to games and it therefore makes sense to explain how to improve at them generally. How to train your aiming skills? Until recently, people were **forced** to play their respective game to do so. Let us list some advantages and drawbacks of this method before we continue. For the advantages of playing your game in order to improve your aiming skills, we can think of this non-exhaustive list:

- the **movements** (speed and acceleration) are the good ones,
- the resolution, the field of view (fov), and other **graphic settings** are the good ones,
- the **mouse input** is the one you care about. It's indeed pathetic, but not all games have raw input,
- the **maps** and their associated strong and weak positions are the ones you care about,
- the weapon models, enemy models, sounds, and all the **psychological effects** associated to them are the good ones,
- by playing a game, you increase your **reading** skills in it and can therefore take better decisions involving your aiming skills,
- **everything comes at once** which forces your aiming skills to be efficient by taking into account the decision making part of the game, the movement (your and enemy's one), and the map geometry. We call those aiming skills *effective*.

For the drawbacks:

- lots of **down-time**: not all games have good rule-sets (or mods) allowing for an efficient aim training. When you don't aim, you don't train.
- **no isolation** possible: you cannot simulate the scenarios that would be the most beneficial for you and hence hardly improve on your weaknesses.
- **everything comes at once**: you have to handle decision making, movement (your and enemy's one), and aiming skills all at the same time. This is hard, and will often make you adopt a play-style that avoids your mechanical weaknesses rather than one

²in plural because there is not one type of aim but many

which eventually makes you improve at them. We call the skill associated to the isolation of mouse-motion from everything else the *mouse-control*. The latter is **not** the same as effective aiming skills, but is nonetheless an important component of them.

Thanks to the emergence of aim-trainers (aim-hero, aimlab, aimtastic, KovaaK's, ...), the problems of down-time and isolation are semi-solved. They are only "semi-solved" because aim-trainers are so far mostly helping with the mouse-control part of aiming skills. The best aim trainer on the market is KovaaK's FPS aim trainer because it runs smoothly, it offers a variety of customization for the graphic settings, and it allows its users to create their own scenarios (correct movement values, good weapons, ...) and even to build maps to isolate specific mouse-control weaknesses. Using aim trainers as a way to train your aiming skills is for sure useful, but to what extent?

What aim trainers do for sure. : No down-time because all you do is shooting bots, which can be done whenever you want to. It also removes the fear or the frustration of losing while training your aim (hence preserving your ego if you care about that). Isolation of mouse-control is supposedly perfect if you don't move while practicing and are able to create any kind of scenarios. In practice, you don't have infinite freedom in the movement patterns of the bots: the relative motion of a dodging guy from the perspective of a dodging player is hard to simulate while standing still. Isolation can be pushed so far that you might even create scenarios that are much harder than any situations you would encounter in practice³. Your progress over time is measured thanks to statistics and scoring systems⁴. The latter come naturally with leaderboards too, which makes your training competitive and will certainly motivate some people to train more.

What aim trainer might do. : As just stated, you usually stand still in aim trainers. As a result, not every relative motion (from "real" games) is easily simulated. If you're really serious about your aiming skills, you can always force yourself to move in a given scenario. By doing so, you're going to reduce your score, and it might not be easy to stay motivated over long periods of time without the competitive aspect. Finding good scoring systems that give a strong incentive to *move properly*⁵ against a given dodge pattern is not easy. We can still expect some aspects of the interaction between movement and aim to be incorporated nicely (just give it time).

What aim trainer won't do. : They are not going to teach you dodging skills. They are not going to teach you all the game-sense skills associated with effective aiming skills. They are not going to teach you how to win at your "real" game.

I hope that this (necessary) part is enough to convince people that aim trainers are actually useful to improve their aiming skills. I would like to add a final remark to it: in any competitive field (let it be a sport, a game, or a science), the skill level increases over long period of time. That is, the younger generations are better than the older ones. This is trivial, considering that the field is usually known and understood better, and this is shared to new generations. The understanding of the training methods themselves plays a significant part to this process. Aim trainers are new tools that FPS veterans didn't have back then, and as a result they couldn't isolate some of their weaknesses and improve them. It is now possible to do it in a relatively straightforward way, and even to do more than necessary. I therefore expect the best aimer of all times to be a young motivated talented aim trainer player that also trains his aim in "real" games (which is still necessary to have great effective aiming skills). It might be you, so what are you waiting to train?

³this is a good point, he who can do more can do less

⁴only for long periods of time. Locally, this is completely wrong and I'll explain why in the next part

⁵you can always mirror the bot movement, which contributes to zero to your mouse-control

2. HOW TO TRAIN PROPERLY?

The goal of this section is to explain how to train properly. I'm just going to give well established facts, so you either believe me or not.

To begin, the total number of hours is not a good measure of mechanics training. The latter will *saturate* (due to exhaustion) after a certain number of hours during the same day. As an example, it might be useful to train 2 or 3 hours a day⁶, but adding hours to this scheme wouldn't be very productive if not counter productive (you might burn out over long timescales, or get injured, especially if you play another "real" game in parallel). As a result, being consistent and playing every day of the week is more rewarding than playing 10 hours today and none for the next 3, that is, the number of *consecutive days* is a better measure of training than the number of hours⁷.

Improvement happens on a daily basis and during **sleep**. It is therefore very important, especially for aiming skills that rely on your reaction time and awareness, to sleep well. If you're a try hard, you should *split* your mechanics training: play 1 hour now, and 1 hour later in the day. If you're even more of a try hard, you can take naps between training sessions if you feel the need to. You shouldn't neglect physical activity either, the latter makes you more alert and improves reaction time. I have no theory about nutrition and aiming skills, but some do, so feel free to ask on KovaaK's discord. Stimulants like coffee, energy drinks, or drugs will of course improve your aiming skills and allow you to train more, but I wouldn't recommend using them.

Do not overtrain. You should be able to differentiate between a sane muscle pain (development of fine motor muscles) from others type of pain (tendon pain, ...). If you start experiencing a suspicious pain, train less and take some rest. You don't want to get RSI. Again, the number of consecutive days of training is what matters for improvement: you won't improve if you can't play because you're injured, so try to avoid it.

If you feel tired of training your mechanics every day, you can take one or two weeks break. You can improve after such a break because your fine motor muscles are still developing while not training actively. Moreover, you will come back with a fresh mind and will be more motivated.

Aim trainers have scoring systems and high-scores based leaderboards. Do **not** judge your daily (nor weekly) improvement by them. The latter are strongly influenced by luck (your own variability, the randomness of the bot patterns, respawns,...). Average performance is a better indicator of improvement than high-scores. The best indicator of daily or weekly improvement is by the *mouse-feel*: your mouse motion is becoming more *solid* (straight and clean movements are easier), smoother⁸ (no ugly and unwanted discontinuities), and feels more *reactive* because your nervous system is becoming faster at making your mouse move when you decide to (as if your arm or wrist had less "input lag")⁹.

Now, suppose that you want to improve your aiming skills in order to be a better Overwatch or Fortnite player. Assuming your settings (fov, sensitivity, resolution, ...) are good for the game you care about, you should **stick to them** while playing an aim trainer. Do not *cheese*, that is, do not change your settings to increase your score in an aim trainer, it does not make you better. More generally, good settings are hard to be good with but have a much better return on invest than bad settings which are instantly rewarding, especially if you are not very skilled. Just be confident in the time invested into training and do not assist your lack of skill with bad settings, there is a price to pay for that once you become good enough.

Do not hesitate to complement your aim trainer workout with a "real" game one. Some hard situations you encounter in real games are complementary to situations you encounter in aim trainers. As funny as it sounds, the other way around works too: if your main game

⁶know yourself and experiment, it might be 1h30 or 4h00 for you

⁷even if you only play 30 min one day, which is barely enough for you to not lose skill when you're good

⁸smoothness is synonymous of skill for tracking skills

⁹a theory I have is that some bad days are a consequence of your lack of control over your newly gained physical abilities. As in, you have better muscles, better reactivity, but you don't know yet how to use them properly. That is, it is perfectly normal to fluctuate from good to bad periods during improvement.

is an aim trainer and your will is to be the best at it, do not hesitate to play a game like Overwatch (on hitscan heroes in ladder or ffa, ...) or Quake (lg duel, ffa, ...) to complement your aim trainer skills.

As a last remark, let me recall some triviality: not everyone can be great. Aiming is no different than any other field (sports, sciences, or anything really), your genetics matters at the end of the skill distribution. Fortunately for you, most people are not trying to be great, so even with an average genetics¹⁰, training hard will pay off.

Don't hesitate to join KovaaK's discord to discuss about more specific training methods (changing sensitivity, holding, ...) with experienced players.

3. AIM WORKOUT ROUTINES IN KOVAAK'S FPS AIM TRAINER FOR EVERYONE

If the last parts convinced you that aim trainers are useful to train your aiming skills, then you must now wonder how to do it concretely. This is exactly the goal of this section to present some aim workout routines for all skill level. KovaaK's FPS aim trainer being the best aim trainer on the market, all routines will use it.

Up to this day (12/01/19¹¹), there exists more than 400 scenarios in KovaaK. **A considerable amount of them**, while fun or perfectly fine to play if your main game is an aim trainer, **won't help your effective aiming skills in "real" games**. Note that the game is growing, and new and better scenarios are being created every day. As a result, **the aim workout routines are going to be updated and complemented** in the future.

For each skill level, routines will be decomposed into three classes:

- *tracking dominated routines*: if you care more about tracking than "clicking heads", then you should play this one. In particular, the best sensitivity range for tracking is 20 to 25cm/360°, and micro-corrections are made easier with hard and low friction mouse-pads.
- *click-timing dominated routines*: if you care more about "clicking heads" rather than tracking you should play this one. This routine is **not** called a flick routine because flicking is a small part of this type of aim. If someone tells you that he has a flick aiming style, then he is definitely a retard and you should ignore him¹². In particular, the best sensitivity range for click-timing aim is above 30cm/360°. Flicks are easier with cloth and high friction mouse-pads because it is easier to stop your mouse where you want to.
- *complete routines*: it contains both tracking and click-timing aiming styles, for complete players. Good sensitivity range for versatility is from 21 to 27cm/360° for modern games.

To make the reading of the routines easier, a color-code will be used: **tracking** scenarios will be written in blue, **click-timing** ones in red and **target-switching** ones in purple because they contain both a flick and tracking part. For try harders that want to train more, a star will be added in front of scenarios, say, **★Ground Plaza**. The starred scenarios are therefore not mandatory. Some scenarios can be entirely replaced or complemented by similar ones that are put in parenthesis. We encourage everyone to explore different scenarios than the ones presented in the routines. The more situations you encounter, the better you will be.

As an example, an aim workout routine is looking like this:

- **Air** (ground plaza, plaza high ground, plaza low ground) **15 min.** good to train vertical angles and offers a variety of different dodge patterns at both close and mid range,

¹⁰which you can't really know until you really try anyway

¹¹French format, who cares about non-users of the international system of units?

¹²The average accuracy of flicks is lower than anything else. It can of course be useful to switch (or lock a) target, which means that after the first flick your crosshair is supposedly close to the target. At this point, it is almost always better to micro-correct slowly and to time your shots to boost your accuracy rather than doing some idiotic flick to show off

- **Tile Frenzy 180 Strafing 200%** *15 min.* 180° with moving targets of decent speed,
- ***PatTargetSwitch** *10 min.* train your flick to track aiming skills.

In this case, you can play Air for 15 minutes, or replace it with either ground plaza, plaza high ground, or plaza low ground. Feel free to split the 15 minutes into a combination of all of those too (for example playing 4 minutes of each ones). Do not hesitate to check the last part of this PDF, I selected some videos of top scores of the scenarios of the routines.

3.1. For complete beginners. If your mechanics are bottom 50%, you should consider yourself a complete beginner. It doesn't hurt to start here, even with some FPS experience. Moreover, because complete beginners are bad at almost everything, there isn't a lot of difference between the tracking dominated routine and the click-timing one.

Before starting your workout journey, play **Cata IC Long Strafes** for 5 minutes (**do not move while aiming**). You can consider yourself an intermediate beginner after 10 to 15 days of consecutive training of the next routine.

Tracking dominated routine:

- **Close Long Strafes** *15 min.* the invincible version is a better alternative for better players,
- **FuglaaXYLongStrafe** *10 min.* harder to hit so good for precision, and introduces a little verticality,
- **Vertical Long Strafes** *15 min.* isolate simple vertical tracking perfectly,
- **1wall6targets TE** *10 min.* a classic one,
- **Tile Frenzy - Strafing - 01** *10 min.* effective click timing is only useful if targets are moving,
- ***LG Pin Practice 360** *10 min.* maybe too hard but you're a try harder, right?

Click-timing dominated routine:

- **1wall6targets TE** *15 min.* a classic one,
- **Tile Frenzy - Strafing - 01** *10 min.* effective click timing is only useful if targets are moving,
- **1wall 1target** *15 min.* this is a completely useless scenario at high skill because it only test visual reaction time, very good for you right now still,
- **Close Long Strafes** *10 min.* the invincible version is a better alternative for better players,
- **Vertical Long Strafes** *10 min.* isolate simple vertical tracking perfectly,
- ***Tile Frenzy - Strafing - 02** *10 min.* a more precise version of the above one.

Complete routine:

- **Close Long Strafes** *10 min.* the invincible version is a better alternative for better players,
- **1wall6targets TE** *10 min.* a classic one,
- **FuglaaXYLongStrafe** *10 min.* harder to hit so good for precision, and introduces a little verticality,
- **Tile Frenzy - Strafing - 01** *10 min.* effective click timing is only useful if targets are moving,
- **Vertical Long Strafes** *10 min.* isolate simple vertical tracking perfectly,
- **1wall 1target** *10 min.* this is a completely useless scenario at high skill because it only test visual reaction time, very good for you right now still.

3.2. For intermediate beginners. Before starting your intermediate beginner journey, reserve one day of training to have fun with other scenarios and to set a high score in **Cata IC Long Strafes** (without moving, again) and **1wall6target TE**. If you did the

complete beginner routine, enjoy the improvement. You can consider yourself an advanced beginner after 10 to 15 days of the following program.

Tracking dominated routine:

- **Close Long Strafes Invincible** 15 min. a classic,
- **Thin Aiming Long Invincible** 10 min. very good for precision, try to be as smooth as you can,
- **Vertical Long Strafes** 15 min. isolate simple vertical tracking perfectly,
- **1wall9000targets** 10 min. this one is pure click-timing and will also improve your tracking. Do **not** reposition your mouse once,
- **Tile Frenzy - Strafing - 02** 10 min. a more precise version of the 01 one,
- ***RexStrafesCata** 10 min. this one will prepare you for fast strafes scenarios, you might struggle. The bot shots at you with knockback but you want to aim at it without moving, so press forward + right strafe during all the scenario.

Click-timing dominated routine:

- **1wall 6targets small** 15 min. working on your precision,
- **Tile Frenzy - Strafing - 02** 10 min. effective click timing is only useful if targets are moving,
- **Tile Frenzy 180** 15 min. will improve your large angle flicks,
- **Thin Aiming Long Invincible** 10 min. very good for precision, try to be as smooth as you can,
- **Vertical Long Strafes** 10 min. isolate simple vertical tracking perfectly,
- ***Tile Frenzy - Strafing - 03** 10 min. a yet again more precise version of the 02 one.

Complete routine:

- **Close Long Strafes Invincible** 10 min. a classic,
- **1wall 6targets small** 10 min. working on your precision,
- **Thin Aiming Long Invincible** 10 min. very good for precision, try to be as smooth as you can,
- **1wall9000targets** 10 min. this one is pure click-timing and will also improve your tracking. Do **not** reposition your mouse once,
- **Vertical Long Strafes** 10 min. isolate simple vertical tracking perfectly,
- **Tile Frenzy 180** 10 min. will improve your large angle flicks,

3.3. **For advanced beginners.** As before, take one day to have fun with other scenarios and to set a high score in **Cata IC Long Strafes** and **1wall6target TE**. Until now, everything you did was easy and straightforward. It's time to make you understand how bad you are: play one run of **Close Fast Strafes** even if you're a click-timing player. You should experience two problems:

- you're completely flooded by the bot movement: you don't understand where the bot is with respect to your crosshair. You therefore can't correct because you don't know what to do. Your *reading skills* are bad and it'll be long for them to get good.
- you're very slow at reacting to change of direction and at aiming properly then. Your *reactivity* (a form of continuous reaction time related to reading skills) is bad. We call *reaction part* the time between a failure of proper tracking and the very beginning of a correction (say, when the bot changed direction). It can be improved and is probably related to your (discrete) reaction time too. We call *correcting part* the time it takes for you to track the bot properly after you just started to move the mouse in order to correct. The correcting part is related to your flick to track skills: ideally, you should flick instantly toward the bot so your reactivity is exactly your continuous reaction time. The thing is, the faster the correcting flick, the harder it is to track properly

then. At your skill level you **don't want to flick fast**, try to have a smooth aim even if you're losing time during the correcting part (say, when the bot changes directions).

Note that even if you're a click-timing player, you have to be able to read this kind of movement properly to hit it. You will therefore have to play some tracking scenarios still because it seems to be the most efficient way to improve reading skills. As an example, I never train projectiles and I have the world record on Cata Orb Fast Strafes (12500+) because I can read the movement better than projectile only players. Let me now present a theory that seems true, but I suggest that you check it for yourself too.

Theory: *Aiming by focusing directly at the target (the bot in our case) increases your reading skills, and therefore improves reactivity. Aiming by focusing at the crosshair makes you smoother, more precise, and more aware of your crosshair position with respect to the target.*

If we believe this theory, then focusing at the enemy model is better for close-range situations and against (good) dodgers. Focusing on the crosshair is better at long-range situations, against bad dodgers, and will increase your click-timing accuracy¹³ because you're more aware of the exact crosshair position. Feel free to experiment, and to try to adapt your aiming-style (model-focused against crosshair-focused) depending on the scenarios.

It's now time to give the routines. Note that you can consider yourself a sub-intermediate after three to five weeks of consecutive training. At this point, you should not hesitate to play the weekly competition (just search for "week").

Tracking dominated routine:

- **RexStrafesCata** (fuglaaXYShortStrafes) **15 min.** two classic to choose from,
- **Close Long Strafes Invincible** (Thin Aiming Long Invincible) **10 min.** I suggest that you train both but not the same day,
- **LG Pin Practice 360** **15 min.** your first target switch scenario, a very good and simple one with verticality,
- **1wall6Targets TE** (1wall9000targets) **10 min.** play 1wall6Targets TE a bit more. Do **not** reposition your mouse,
- **1wall 6targets small** **10 min.** work on your precision,
- ***Vertical Long Strafes** **10 min.** it never hurts to play this old friend,
- ***Ground Plaza Easy** **1 or 2 runs** have fun,

Click-timing dominated routine:

- **1wall6Targets TE** (1wall9000targets) **15 min.** play 1wall6Targets TE twice more. Do **not** reposition your mouse,
- **1wall 6targets small** (Pokeball Frenzy Auto Small, 1wall2targets_small_flicks) **10 min.** work on your precision and speed,
- **LG Pin Practice 360** **15 min.** your first target switch scenario, a very good and simple one with verticality,
- **Tile Frenzy 180 Strafing** a very good 180° scenario. Focus on what you lack the most between speed and accuracy. The minimum accuracy to achieve is 85%, the maximum before you have to improve on speed is 95%,
- **RexStrafesCata** (fuglaaXYShortStrafes) **10 min.** two classic to choose from,
- ***1wall5targets_pasu** **10 min.** much better than the 1w6t ones but much harder too,
- ***Ground Plaza Easy** **1 or 2 runs** have fun,

Complete routine:

- **RexStrafesCata** (fuglaaXYShortStrafes) **10 min.** two classic to choose from,
- **1wall6Targets TE** (1wall9000targets) **10 min.** play 1wall6Targets a bit more. Do **not** reposition your mouse,

¹³but not necessarily flicks because it's slow to "check" that your crosshair is, or will be soon, on the target

- **LG Pin Practice 360** *10 min.* your first target switch scenario, a very good and simple one with verticality,
- **Tile Frenzy 180 Strafing** a very good 180° scenario. Focus on what you lack the most between speed and accuracy. The minimum accuracy to achieve is 85%, the maximum before you have to improve on speed is 95%,
- **Close Long Strafes Invincible** (Thin Aiming Long Invincible) *10 min.* I suggest that you train both but not the same day,
- **1wall 6targets small** (Pokeball Frenzy Auto Small, 1wall2targets_small_flicks) *10 min.* work on your precision and speed,
- ***Vertical Long Strafes** *10 min.* it never hurts to play this old friend,
- ***1wall5targets pasu** *10 min.* much better than the 1w6t ones but much harder too,
- ***Ground Plaza Easy** *1 or 2 runs* have fun,

3.4. **For sub-intermediate players.** The serious things are starting, and this is only the beginning. Do this for at least 3 to 5 consecutive weeks, then try the intermediate routine. If the latter feels too hard and counter-productive, do **not** insist.

Tracking dominated routine:

- **RexStrafesCata** (fuglaaXYShortStrafes) *15 min.* two classic to choose from,
- **Close Fast Strafes Easy** (Cata IC FastStrafes) *10 min.* I suggest that you train both but not the same day,
- **Vertical Long Strafes** (Close Long Strafes Invincible) *10 min.* two old friends that will follow you all of your life-time,
- **Tile Frenzy 180 Strafing Tracking** (LG Pin Practice 360, Target Switching 360) *10 min.* play all of them equally,
- **Bounce 180 Tracking** *10 min.* a very good target switch scenario that will work on your precision,
- **Ground Plaza Easy** *1 or 2 runs* have fun,
- ***Vertical Fast Strafes** *15 min.* this one is hard for everyone but is a necessary evil, so better start early,
- ***1wall5targets pasu** *10 min.* much better than the 1w6t ones but much harder too,

Click-timing dominated routine:

- **Bounce 180** *15 min.* a very good scenario you want to play, as usual, 85% accuracy is the worst you are allowed to have (reduce speed if it's lower) and 95% the maximum one (increase speed if it's higher),
- **1wall 6targets small** (Pokeball Frenzy Auto Small, 1wall2targets_small_flicks, 1wall 1target) *10 min.* work on your precision and speed,
- **1wall5targets pasu** *10 min.* much better than the 1w6t ones but much harder too,
- **RexStrafesCata** (fuglaaXYShortStrafes) *10 min.* two classic to choose from,
- **Tile Frenzy 180 Strafing 200%** a very good 180° scenario. Focus on what you lack the most between speed and accuracy. The minimum accuracy to achieve is 85%, the maximum before you have to improve on speed is 95%,
- **Ground Plaza Easy** *1 or 2 runs* have fun,
- ***Close Fast Strafes Easy** (Cata IC FastStrafes) *10 min.* I suggest that you train both but not the same day. As I said before, even if you're a click-timing player, you need to work on your reading skills, so don't hesitate to play those if you have time.

Complete routine:

- **RexStrafesCata** (fuglaaXYShortStrafes) *10 min.* two classic to choose from,

- **Close Fast Strafes Easy** (Cata IC FastStrafes) **10 min.** I suggest that you train both but not the same day,
- **Bounce 180** or **Bounce 180 Tracking** **10 min.** play both equally,
- **1wall5targets_pasu** **10 min.** much better than the 1w6t ones but much harder too,
- **Tile Frenzy 180 Strafing Tracking** (LG Pin Practice 360, Target Switching 360) **10 min.** play all of them equally,
- **Ground Plaza Easy** **1 or 2 runs** have fun,
- **Vertical Long Strafes** **10 min.** it never hurts to play this old friend,

3.5. **For intermediate players.** You're going to play this a lot, and it might therefore be interesting to give you some score to achieve before starting the advanced routine.

Tracking dominated routine:

- **Close Fast Strafes Invincible** (Cata IC FastStrafes, RexStrafesCata, fuglaaXYShortStrafes) **15 min.** you're not a child anymore, so I'll let you decide what to play when,
- **Vertical Fast Strafes** (Vertical Long Strafes) **15 min.** to train the reactivity and the smoothness of your vertical angles,
- **Tile Frenzy 180 Strafing 200% Tracking** (PatTargetSwitch, Bounce 180 Tracking) **10 min.** the three best target switch scenarios,
- **1wall5targets_pasu** **10 min.** try to aim at the targets directly, do not wait for them to pass over your crosshair,
- **Ground Plaza Easy** **2 to 3 complete runs** to prepare yourself for Air,
- **Air** **1 to 3 complete runs** you have the right to abandon a run if the bot is stuck at 90° above you for too long. Enjoy the ufo,
- ***Ground Plaza** (Plaza High Ground Easy, Plaza Low Ground Easy) **2 to 3 complete runs** enjoy the two ufos.

Some good goals to achieve for this skill-level are the following (you don't need to achieve all of them before going to the next level):

- get a couple of 42%+ average accuracy at **Close Fast Strafe Invincible** without accu-whoring, that is, while shooting for the whole scenario duration,
- Get 38% to 40% average accuracy at **Vertical Fast Strafes** without accu-whoring,
- get 99820+ as highscore at **Air**,
- Get 6500+ as highscore at **PatTargetSwitch**, and 75+ as highscore at **Bounce 180 Tracking**,

Click-timing dominated routine:

- **1wall5targets_pasu** (1wall5targets_pasu_small) **10 min.** try to aim at the targets directly, do not wait for them to pass over your crosshair,
- **Pressure Aiming - 7 targets** (Pressure Aiming - 10 targets, 1wall6Targets TE, 1wall 6targets small) **10 min.** you're not a child anymore, so I'll let you decide what to play when,
- **Target Acquisition Flick Easy** **10 min.** to begin your journey with useful flicks,
- **Close Fast Strafes Invincible** (Cata IC FastStrafes, RexStrafesCata, fuglaaXYShortStrafes) **10 min.** a necessary evil for you,
- **Tile Frenzy 180 Strafing 200%** (Bounce 180) **10 min.** the two classic that you already know,
-
- **Vertical Hand Warmup** **10 min.** very good scenario to train your vertical click-timing, made by the famous scenario creator of KovaaKs social skills trainer,
- ***Ground Plaza Easy** **2 to 3 complete runs** to prepare yourself for Ground Plaza in your case,
- ***Target Acquisition Flick** **10 min.** the adult version of the above one.

Some good goals to achieve for this skill-level are the following (you don't need to achieve all of them before going to the next level):

- get 1100+ as highscore at **1wall 6targets small**, 12000+ at **Pressure Aiming - 7 targets** and 165+ at **1wall6Targets TE**,
- get 80+ as highscore at **1wall5targets_pasu**
- get a couple of 38%+ average accuracy at **Close Fast Strafe Invincible** without accu-whoring, that is, while shooting for the whole scenario duration,
- get 70+ as highscore at **Bounce 180**.

Complete routine:

- **Close Fast Strafes Invincible** (Cata IC FastStrafes, RexStrafesCata, fuglaaXYShortStrafes) **10 min.** you're not a child anymore, so I'll let you decide what to play when,
- **Vertical Fast Strafes** (Vertical Long Strafes) **10 min.** to train the reactivity and the smoothness of your vertical angles,
- **Tile Frenzy 180 Strafing 200% Tracking** (PatTargetSwitch, Bounce 180 Tracking) **10 min.** the three best target switch scenarios,
- **1wall5targets_pasu** (1wall5targets_pasu-small) **10 min.** try to aim at the targets directly, do not wait for them to pass over your crosshair,
- **Ground Plaza Easy** **2 to 3 complete runs** to prepare yourself for Air,
- **Vertical Hand Warmup** (Bounce 180) **10 min.** very good scenario to train your vertical click-timing, made by the famous scenario creator of KovaaKs social skills trainer,
- **Target Acquisition Flick Easy** **10 min.** to begin your journey with useful flicks,
- ***Ground Plaza** (Plaza High Ground Easy, Plaza Low Ground Easy) **2 to 3 complete runs** enjoy the two ufos.
- ***Air** **2 to 3 complete runs** you have the right to abandon a run if the bot is stuck at 90° above you for too long. Enjoy the ufo,

Some good goals to achieve for this skill-level are the following (you don't need to achieve all of them before going to the next level):

- get a couple of 40%+ average accuracy at **Close Fast Strafe Invincible** without accu-whoring, that is, while shooting for the whole scenario duration,
- get 38%+ average accuracy at **Vertical Fast Strafes** without accu-whoring,
- get 6500+ as highscore at **PatTargetSwitch**, and 70+ as highscore at **Bounce 180 Tracking**,
- get 75+ as highscore at **1wall5targets_pasu**

3.6. For advanced players. This is the level that discriminates amateurs from serious players. You might improve very slowly by now, but don't get discouraged. Recall that improvement is **not** judged by scores but by the **mouse-feel**. There is therefore no reason to panic if your scores hit a plateau but you are improving (by the mouse-feel). At this point, you can replace one or two (at most) scenarios of the routines by the ones of your will. You know better than me what you care about and are now good enough to decide what you want to improve at. There is no indication of time in these routines: you might want to play one or two scenarios per session (or even for an entire week) and rotate them the next.

Tracking dominated routine:

- **Close Fast Strafes Invincible** (Vertical Fast Strafes) very important to play a bit of both, do not drop those,
- **Air** the famous one, no right to drop it,
- **Ground Plaza** (Plaza High Ground Easy, Plaza Low Ground Easy) I suggest that you do 3 full runs of each,

- **PatTargetSwitch** (Bounce 180 Tracking, Target Switching 360, Target Switching 360 Thin, LG Pin Practice 360) you can ignore the Target Switching 360 ones if you dislike them unless you're a Tracer player,
- **1wall5targets_pasu** (Tile Frenzy 180 Strafing 200%, Vertical Hand Warmup, Bounce 180) try to aim at the targets directly, do not wait for them to pass over your crosshair,
- *** T1 Drop Punish 1 Side** (Catalyst IC) you have to move to dodge the rockets in both of these scenarios,
- *** Thin Long Strafe Invincible** any thin variation really.

You can considered an accomplished advanced KovaaK-tracking player if you manage to get the following highscores:

- 11000+ at **Close Fast Strafes Invincible** and 10500+ at **Vertical Fast Strafes**,
- 99875+ at **Ground Plaza**, 99835+ at **Air**,
- 7200+ at **PatTargetSwitch**, 85+ at **Bounce 180 Tracking**, 16000+ at **Target Switching 360**, 3700+ at **LG Pin Practice 360**,
- 90+ at **1wall5targets_pasu**, 80+ at **Bounce 180**,
- 8000+ at **T1 Drop Punish 1 Side**,
- 5800+ at **Thin Long Strafe Invincible**, 3300 at **Thin Aiming Long Invincible**.

Click-timing dominated routine:

- **POPCORN** (McCoy 1v1, Close Fast Strafes Shotgun) the infamous yet mandatory POP-CORN scenario, along with McCoy 1v1 to check if you're now good at "clicking heads". Are your reading skills good enough to make a good score at Close Fast Strafes Shotgun? No right to drop those,
- **1wall5targets_pasu** (Tile Frenzy 180 Strafing 200%, Vertical Hand Warmup, Bounce 180) try to be as fast as possible,
- **Ground Plaza Easy** (Plaza High Ground Easy, Plaza Low Ground Easy) *3 run of each* Are you struggling on these easy scenarios?
- **Target Acquisition Flick** (1wall2targets_small_flicks) some flicks for you,
- **PatTargetSwitch** (Bounce 180 Tracking, Target Switching 360, Target Switching 360 Thin, LG Pin Practice 360) *10 min.* do you think you can do better than tracking dominant players? You have to try, at the very least,
- **1wall9000targets** (1wall6targets TE, 1wall 6targets small) these old friends are always good to train, even if the targets are not moving,
- *** Vertical Fast Strafes** (Vertical Long Strafes) to work on your vertical angles reactivity and smoothness,

You can considered an accomplished advanced KovaaK-click-timing player if you manage to get the following highscores:

- 1500+ at **POPCORN**, 3300+ at **McCoy 1v1**,
- 90+ at **Target Acquisition Flick**, 5000+ at **1wall2targets_small_flicks**,
- 90+ at **1wall5targets_pasu**, 5k+ at **Vertical Hand Warmup**, 80+ at **Bounce 180**,
- 895+ at **Ground Plaza Easy**,
- 7200+ at **PatTargetSwitch**, 85+ at **Bounce 180**, 16000+ at **Target Switching 360**, 3700+ at **LG Pin Practice 360**,
- 250+ at **1wall9000targets**, 185+ at **1wall6targets TE**, 1200+ at **1wall 6targets smalls**.

Complete routine:

- **Close Fast Strafes Invincible** (Vertical Fast Strafes) very important to play a bit of both, do not drop those,
- **Air** the famous one, no right to drop it,

- **POPCORN** (McCoy 1v1, Close Fast Strafes Shotgun) the infamous yet mandatory POPCORN scenario, along with McCoy 1v1 to check if you're now good at "clicking heads". Are your reading skills good enough to make a good score at Close Fast Strafes Shotgun? No right to drop those,
- **1wall5targets_pasu** (Tile Frenzy 180 Strafing 200%, Vertical Hand Warmup, Bounce 180) try to be as fast as possible,
- **PatTargetSwitch** (Bounce 180 Tracking, Target Switching 360, Target Switching 360 Thin, LG Pin Practice 360) as a complete player, you should do better than tracking and click-timing dominant players, right? You would be a failure if not,
- **1wall9000targets** (1wall6targets TE, 1wall 6targets small) these old friends are always good to train, even if the targets are not moving,

You can considered an accomplished advanced KovaaK-complete player if you manage to get the following highscores:

- 10700+ at **Close Fast Strafes Invincible** and 10000+ at **Vertical Fast Strafes**,
- 99832+ at **Air**,
- 1300+ at **POPCORN**, 3200+ at **McCoy 1v1**,
- 85+ at **1wall5targets_pasu**, 4k5+ at **Vertical Hand Warmup**, 75+ at **Bounce 180**,
- 7200+ at **PatTargetSwitch**, 85+ at **Bounce 180**, 16000+ at **Target Switching 360**, 3700+ at **LG Pin Practice 360**,
- 240+ at **1wall9000targets**, 180+ at **1wall6targets TE**, 1150+ at **1wall 6targets smalls**.

3.7. **Sub aim beasts.** At this skill level, you have to decide which direction to take so I won't give any routines. I can still help by giving you good scenarios to train and highscores¹⁴ to aim for.

All around tracking scenarios:

- **Air**: a good score to aim at is 99845+. This scenario is one of the most popular one, and has lots of variation (Air Precise, Air 10x UFO, ...) so feel free to check for them,
- **Ground Plaza**: 99883+ is starting to be very good,
- **Plaza High Ground**: 880+ is hard and a good goal to aim at,
- **Plaza Low Ground**: 880+ too,
- **FuglaaXYShortStrafes**: not really an all-around one, but it helps for Air and Ground Plaza. 425+ is a good score to aim at,

Close-range tracking scenarios:

- **Close Long Strafes Invincible**: 18000+ is good, which is like 78% average accuracy. Feel free to check for all other variations of this one (thin, HS, ...),
- **Close Fast Strafes Invincible**: 12000+ is good, which is like 50% average accuracy. Again, feel free to check for other variations,
- **Closerange Tracking Training**: you have to move. I don't know what would be a good score but it's definitely a good scenario,

Vertical angles tracking scenarios:

- **T1 Drop Punish 1 Side**: this one is very good to work on your precision and smoothness. Aim for 10000+,
- **Vertical Fast Strafes**: if you can get 55% consistently, you're probably a god. Check for the variations too,
- **Stralroom Fast Strafes**: not super good but better than nothing, aim for 6000+,

Long-range tracking scenarios:

- None so far, so go play Soldier in Overwatch,

Target switch scenarios

¹⁴they depend heavily on fov. The base fov I'm taking for these scores is 103 Overwatch

- **PatTargetSwitch**: this is probably the best of all, try to get 7500+ consistently,
- **Bounce 180 Tracking**: very good for precision, aim for 90+,
- **Target Switching 360**: if you're a Tracer player, you should aim for 16000+ consistently, and 17000+ highscore,
- **Tile Frenzy 180 Strafing 300% Tracking**: no idea about what a good score is, but nice scenario for sure. The 400% one is good too, and I encourage people to make vertical alternatives of those,

Click-timing on fixed targets

- **1wall6Targets TE**: 200+ or nothing,
- **1wall 6Targets small**: 1300+ is hard, but a good goal to set,
- **1wall9000Targets**: 275+ should be possible,

Flicks on fixed targets

- **1wall2targets_small flicks**: aim for 8000+. This will work your stamina and your consistency,
- **Target Acquisition Flick**: 100+,

Click-timing on moving targets

- **POPCORN**: 2000+ with tracking-style and fast-approach style,
- **McCoy 1v1**: if you can click heads, get 3600+,
- **Bounce 180**: aim at 95+, and why not going for 100+ then?
- **1wall5targets_pasu**: 105+, feel free to play the small alternative too,
- **Vertical Hand Warmup**: 7000+,
- **Tile Frenzy 180 Strafing**: all of the alternatives too, the non-180 ones too. No idea what a good score would be as of today,

4. SOME VIDEOS OF SCENARIOS

Just a section to show (and maybe give some motivation) how to play some scenarios. There are hyperlinks in this PDF, so you just need to click on the scenario name to open a youtube page with the video of the score.

| Scenario | Score | Accuracy | Player |
|--------------------------------------|---------|----------|--------|
| Close Long Strafes Invincible | 18500 | 78.79% | rammy |
| 1wall6targets TE | 195.2 | 96.65% | Zeeq |
| 1wall 6targets small | 1201.9 | 96.15% | Zeeq |
| 1wall9000targets | 257.9 | 92.11% | AIMER7 |
| Tile Frenzy 180 Flick | 711 | 90.92% | Zeeq |
| Tile Frenzy - Strafing 01 | 120.9 | 92.25% | AIMER7 |
| fuglaaXYShortStrafes | 469 | 76.89% | nick |
| Air | 99850+ | 76.89% | ryan |
| POPCORN | 1810 | 68.57% | apa3 |
| PatTargetSwitch | 7570 | 74.07% | AIMER7 |
| Bounce 180 Tracking | 93 | 67.10% | AIMER7 |
| T1 Drop Punish 1 Side | 10645.7 | 73.47% | nick |
| 1wall5targets_pasu | 112.7 | 81.66% | DAY |

TABLE 1. Some good scores