
Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, technical proofs (TP), and all of my past articles can be accessed and viewed online at billiards.colostate.edu. The reference numbers used in the articles help you locate the resources on the website. If you have a slow or inconvenient Internet connection, you might want to view the resources from a CD-ROM or DVD. Details can be found online at: dr-dave-billiards.com.

This is the tenth article in a series based on the “[The Video Encyclopedia of Pool Practice \(VEPP\)](#),” a five-disc instructional-DVD collection I recently created with fellow BD columnist Bob Jewett. VEPP is an organized and methodical training program and pool workout. It teaches you how to develop, assess, and track progress of skills for all facets of your game. An outline of the entire VEPP series along with video excerpts from each DVD can be viewed online at: dr-dave-billiards.com/vepp. In the last few months, we’ve looked at position play and safety drills from Disc III: “[VEPP III – Patterns and Safety Play](#).” Over the next few months, we’ll look at some aiming systems and drills from Disc IV: “[VEPP IV- Banks, Kicks, and Advanced Shots](#).”

Diagram 1 shows one of the most useful and simple systems available for aiming one-rail kick shots. This system works well for slow-rolling kicks where the object ball (OB) is fairly close to a rail. The cue ball (CB) location isn’t as important as long as it isn’t coming into the rail at too steep of an angle (e.g., greater than about 45°). The first step in aiming the kick is to use your cue or hand to measure the distance from the desired OB contact point (CP) to the nose of the cushion (see the orange double arrow on the left in the diagram). If you want to see a demonstration, check out videos **NV B.83** and **NV C.13** on my website. The next step is to find the mirror image of the CP relative to the nose of the cushion by doubling the measured distance, which can easily be accomplished by shifting your cue or hand from the CP to the cushion nose. With the CB aimed directly at this mirrored point, the system predicts that you should pocket the ball. This same aim point will work for a wide range of CB positions, as illustrated in the diagram. It is very important that the CB be rolling with slow speed. It is also important that the CB not have any English, intentional or otherwise, so be sure to contact the CB along its vertical centerline. This is particularly important with steeper angles relative to the rail, where English has a larger effect on the CB rebound angle.

The system works best when the OB is a ball off the cushion, as shown in Diagram 1. The system is still useful when the OB is closer or farther from the rail, but the aim point will need to be adjusted slightly for different OB distances. Also, at very shallow CB angles into the rail (e.g., from CB position C-2), you need to aim a little farther up the rail or use a little more speed; otherwise, the CB won’t rebound off the cushion enough causing you to undercut the shot.

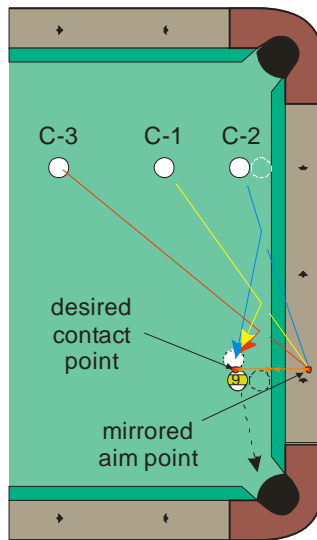


Diagram 1 Shallow-angle, rolling CB, contact-point mirror kick system

Diagram 2 shows how to adjust when the OB is closer to the cushion. In this example, the OB is only a half ball away. With the OB close to the cushion, the CB tends to not roll and curve forward enough. This would cause you to overcut the shot if you used the ideal mirrored aim point. To compensate, you need to move the mirrored aim point down the rail a little, as shown in the diagram. The amount you need to shift depends on conditions and shot speed. When the CB is close to the rail (e.g., in position C-1), creating a shallow angle, you don't need to adjust the aim point as much and the aim will be a little closer to the ideal mirrored point. You could also just use more speed instead, with the same adjusted aim point as other shots. The only way to develop a feel for how much to adjust with different conditions and for different speeds is to practice. We have a collection of drills on VEPP to help with this. Some of them are demonstrated in **NV C.13**.

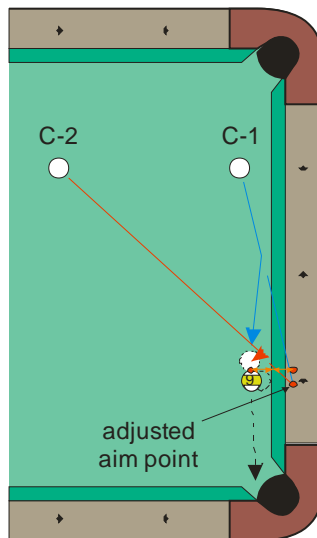


Diagram 2 Adjusting the aim down rail when the OB is closer than one ball to the cushion

Diagram 3 shows how to adjust when the OB is farther than one ball from the cushion. In this example, the OB is a ball and a half away. With the OB farther from the cushion, the CB tends to roll forward a little too soon. This would cause you to undercut the OB if you used the ideal mirrored aim point. To compensate,

you need to adjust the mirrored aim point up the rail a little. Again, the amount you need to shift depends on conditions and shot speed. As before, you need to adjust differently when the CB is close to the rail at a shallow angle (e.g., at CB position C-1). In this case, the adjusted aim point needs to be even farther from the ideal mirrored point, or you can just use more speed. You will also find that you need to adjust differently as the incoming CB angle gets steep (e.g., at CB position C-2). At steeper angles, the aim needs to be a little closer to the mirrored point than with modest CB angles.

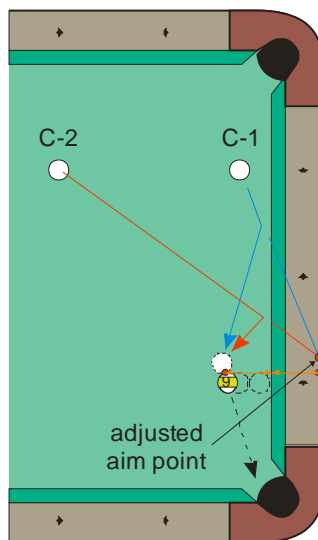


Diagram 3 Adjusting the aim up rail when the OB is farther than one ball from the cushion

It is important to remember that all shots in this article require a rolling CB at fairly slow speed. The speed needs to be a little faster with the shallow-angle shots (if using the same aim point), but faster speeds will make the CB go short of the target causing you to overcut the OB.

To be able to judge how much you need to adjust for conditions, shot speed, and CB angle, you need to practice. That's why we have a collection of drills on VEPP covering this and other kick and bank shot aiming systems. The systems are not much use if you don't practice with them and develop the "feel" necessary to apply them successfully.

I hope you are enjoying and benefiting from my series of articles featuring drills from the "[Video Encyclopedia of Pool Practice \(VEPP\)](#)." Example clips from Disc IV can be viewed on the [VEPP website](#) or at [billiards.colostate.edu](#) under **NV C.13** through **NV C.16**. Next month, we'll look at some useful bank shot drills, also from the 4th DVD.

Good luck with your game,
Dr. Dave



NV B.83 – Shallow-angle contact-point-mirror-image kick-shot aiming system, from VEPS IV

NV C.13 – Shallow-angle one-rail kick drills, from VEPP IV

NV C.14 – Bank shot cut-angle-effects drills, from VEPP IV

NV C.15 – Bank-to-all-pockets challenge drill, from VEPP IV

NV C.16 – Jump shot drills, from VEPP IV

PS:

- I know other authors and I tend to use lots of terminology, and I know not all readers are totally familiar with these terms. If you ever come across a word or phrase you don't fully understand, please refer to the [online glossary](#) on my website.

Dr. Dave is author of the book, DVD, and CD-ROM: “[The Illustrated Principles of Pool and Billiards](#),” and co-author of the DVD Series: “[Video Encyclopedia of Pool Shots \(VEPS\)](#)” and “[Video Encyclopedia of Pool Practice \(VEPP\)](#).”