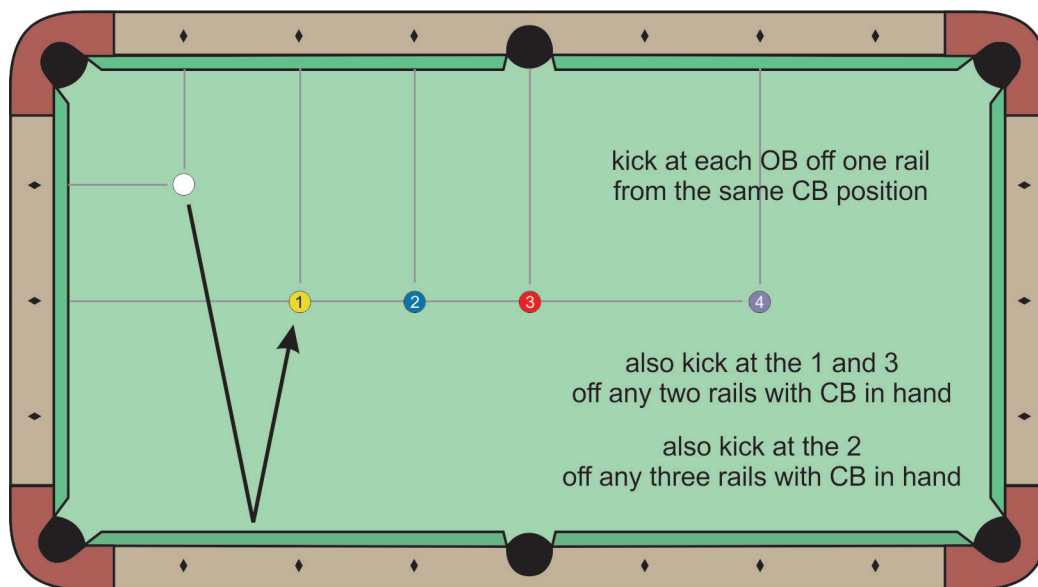*Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, technical proofs (TP), and all of my past articles can be accessed and viewed online at billiards.colostate.edu. The reference numbers used in the articles help you locate the resources on the website. If you have a slow or 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 ninth in a series of articles dealing with the Billiard University (BU). The mission of the BU is to provide assessment tools, a rating system, and learning resources to help pool players strive for and achieve excellence, and to officially acknowledge excellence through the awarding of diplomas (Bachelors, Masters, or Doctorate of Pool). Canadian instructor Randy Russell and I cofounded the BU with support from the following "dream team" of well-known and respected instructors: Jerry Briesath, Mark Finkelstein, Randy Goettlicher, Bob Jewett, Mike Page, Tom Simpson, and Mark Wilson. Online videos **NV D.1-D.6** explain every step of the BU process and demonstrate the BU playing-ability exams, which are available for free on the BU website: *BilliardUniversity.org*. **NV D.7-D.14** include excerpts from the 3-DVD BU Instructional Series that provides advice for improving your fundamentals, teaches useful aiming systems for various types of shots, and offers "hot tips" for how to do well on the exams. This month we'll cover the kick shot drill (S6) from the Skills Exam (Exam II) along with some basic kick-shot aiming systems that you might find useful.
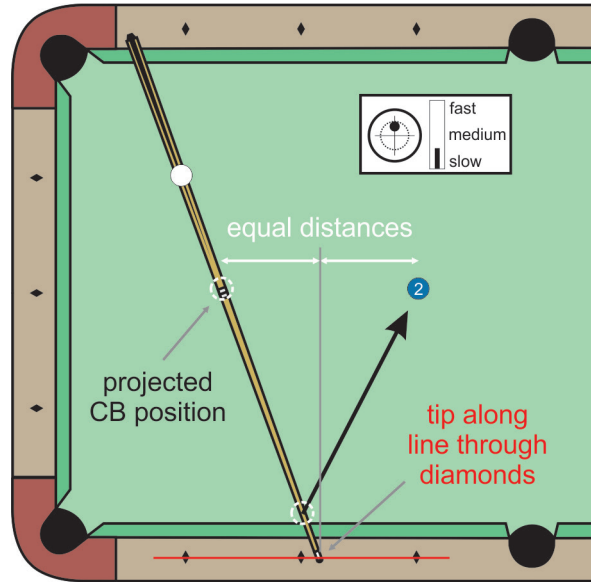
**Diagram 1** shows the setup for Drill S6 in the Doctorate level of Exam II. There are 7 shots total. The first four are one-rail kicks at each of the four object balls (OBs). You get a point for each successful kick, and you get only a single attempt at each ball. With the first four shots, the cue ball (CB) is in the same fixed position, a diamond off each rail. You get "ball in hand" for the remaining shots. For a kick to be legal and count, a ball must hit a cushion after CB-OB contact, unless the OB is pocketed which is also okay. A scratch is not allowed.



kick at each OB off one rail
from the same CB position

also kick at the 1 and 3
off any two rails with CB in hand

also kick at the 2
off any three rails with CB in hand
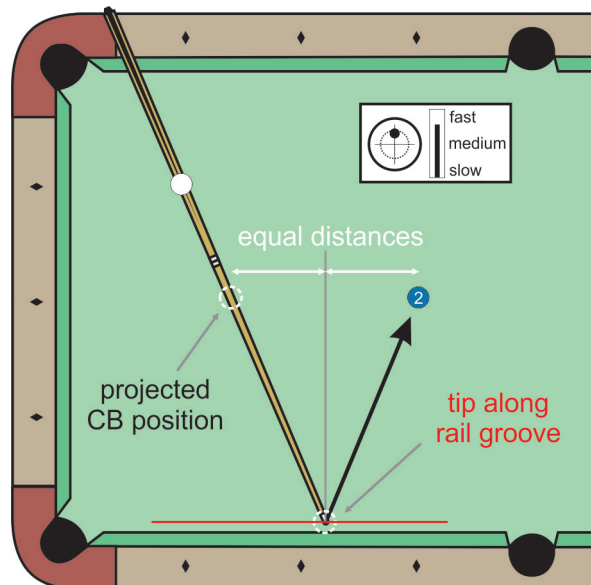
**Diagram 1  S6 – Kick Shot Drill**

Experienced players aim kick shots by "feel" using their experience-based intuition. Luckily, for the mere mortals among us for whom kick-shot aiming does not come "naturally," there are some effective and easy-to-use aiming systems that can help. For a slow-speed, rolling-CB shot, you can use the through-diamond, equal-distance system illustrated in **Diagram 2**. To use this system, move your tip along a line through the diamonds on the kicking rail, with the cue over the CB, until the tip is halfway between the OB and the projected CB position. As demonstrated in **NV D.13**, you can use your spare-hand finger at the midpoint to help visualize and check the equal distances. Once you have your line of aim, just use slow to medium speed with a rolling CB (with no

sidespin) and you'll get an accurate hit on the OB.  Notice how the CB actually contacts the cushion in front of the midpoint.  This is necessary because the CB curves forward slightly after rebound, making it go a little longer than the angle of approach.  Aiming with the tip along the diamonds accounts for this effect.  For more info, see **NV B.81**.



**Diagram 2**  **Rolling-CB, through-diamond, equal-distance system**

In some game situations, a kick shot will require faster speed.  For example, you might want to create separation between the CB and OB after the hit, maybe as part of a safety play.  **Diagram 3** shows how the equal-distance system is modified to aim fast-speed kicks.  Instead of placing the tip along the diamond line, it is placed along the rail "groove" or "gutter."  The "groove" is the imaginary line in front of the rail where balls sit when frozen to the cushion.  On an old and worn cloth, the rail-groove line is usually visible on the cloth due to wear.  As with the previous system, make sure the CB is rolling with no sidespin.  Here, the fast speed limits and delays the curve of the CB forward after rebound causing it to go shorter, closer to the true equal-angle direction.  With either approach, if the distances aren't equal when you first line up the cue, adjust the angle as necessary.  While adjusting, keep the cue over the CB while moving the tip along the diamond or rail-groove line until the distances are the same.  Again, **NV D.13** demonstrates how the systems are applied at the table.

**Diagram 3  Fast-speed, rail-groove, equal-distance system**

The fourth and fifth shots in the drill require you to kick off two rails at the 1 and 3 balls.  **Diagram 4** illustrates an aiming system you can use for shots like these.  It is called the midpoint-parallel-shift aiming system.  Start by aiming the cue at the center of the corner pocket through the midpoint between the CB and OB.  Then parallel-shift the cue until it is over the CB.  Then make a small aiming adjustment toward the pocket since the CB will typically go longer than predicted by a true parallel shift.  The amount you need to shift will depend on table conditions, shot speed, the amount of english, and the angle of the shot.  (FYI, details concerning how to apply this method effectively in different situations can be found on Disc IV of the "Video Encyclopedia of Pool Shots" (VEPS).)  As with most multi-rail kick-shot aiming systems, use running english with a rolling CB for the best consistency.  Again, **NV D.13** demonstrates the aiming system along with how to apply it to the shots in the drill.
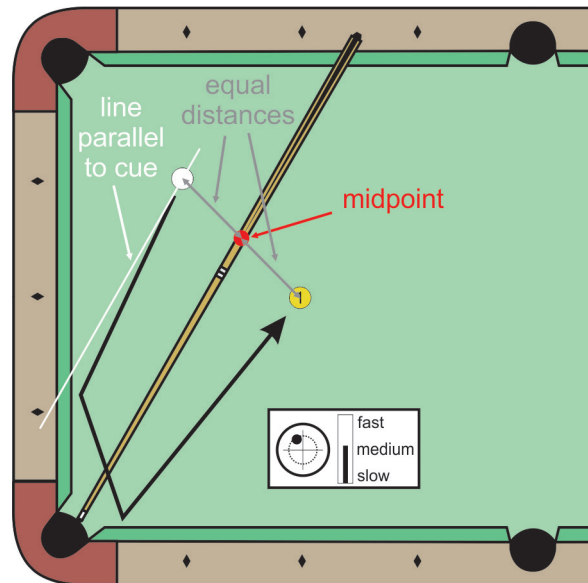
**Diagram 4  Two-rail kick midpoint parallel-shift aiming system**

The seventh and last shot of the drill requires you to kick off any three rails at the 2 ball, with ball in hand.  A useful system for aiming this sort of shot is the Corner-5 System.  This system was explained in detail in my November '10 through January '11 articles, which are available at *billiards.colostate.edu*.  It is also demonstrated, with many examples, in **NV B.85**.  **NV D.13** explains how the system is applied to the last shot in the BU Exam II drill.

You should try different options for the two- and three-rail kicks to determine which might be more reliable and consistent for you.  If you haven't taken the BU playing-ability and rating exams yet, give them a try.  They provide a fun, challenging, and efficient pool workout to help you develop and improve the full range of pool skills necessary to be a good player.  Everything you need to prepare for and take the exams is available for free at *BilliardUniversity.org*.  It's time to see where you rank so you can set a goal to graduate your game to the next level.

Good luck with your game,
Dean Dave

**NV B.81** – Bank and kick shot terminology and basics, from VEPS IV
**NV B.85** – Corner-Five System for aiming three-rail kick shots, from VEPS IV
**NV D.1** – BU - Part 1: Introduction - overview of the BU process for earning a pool diploma
**NV D.2** – BU - Part 2: Table Setup - preparing to practice and take the BU exams
**NV D.3** – BU - Part 3: Video Recording - recording official exam runs for online submittal
**NV D.4** – BU - Part 4: Exam I Overview - demonstrations and scoring of the Fundamentals Exam
**NV D.5** – BU - Part 5: Exam II Overview - demonstrations and scoring of the Skills Exam
**NV D.6** – BU - Part 6: Submittal and Wrap Up - applying for a BU diploma online
**NV D.7** – Pool Fundamentals - The Stance - from Vol-I of the BU instructional DVD series
**NV D.8** – Stun Shot Drill - from Vol-II of the Billiard University instructional DVD series
**NV D.9** – How to Aim Pool Shots - from Vol-II of the BU instructional DVD series
**NV D.10** – Draw Shot Trisect Aiming System - from Vol-II of the BU instructional DVD series
**NV D.11** – Cue Ball Control Target Pool Drill - from Vol-II of the BU instructional DVD series
**NV D.12** – Safety Drill - from Vol-III of the BU instructional DVD series
**NV D.13** – Kick Shot Aiming Systems - from Vol-III of the BU instructional DVD series
**NV D.14** – Pool Break Technique Advice - from Vol-III of the BU instructional DVD series

normal video

PS:

- If you are a pool instructor and are interested in becoming involved with the BU, check out the "Instructor How-To Guide" in the instructor section at *BilliardUniversity.org*.

- Every July, we hold a BU Summer School Boot Camp in Colorado.  If you want to raise your game to the next level, consider attending.  Details are available at *BilliardUniversity.org*.  I hope to see you there.

- 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 at *billiards.colostate.edu*.

*Dr. Dave is author of "The Illustrated Principles of Pool and Billiards" book and DVD, and co-author of the "Video Encyclopedia of Pool Shots (VEPS)," "Video Encyclopedia of Pool Practice (VEPP)," and "Billiard University (BU)" instructional DVD series.*