Reading Ice - Believe What You See

By Jon Mielke

Anyone who golfs, or who has ever watched golf, knows that players squat behind their ball on the green and look toward the cup before they putt. They are trying to figure out which way the green is sloped and how the putt will roll as it travels toward the cup. If only curling ice was as easy to read.

Curling ice is a lot like golf greens, except the slope is invisible. Some ice is flat, but often times it is not. It is up to the skip to figure out not only how much the ice is curling for various kinds of shots (draws, regular hits, hack weight shots, etc.), but also to determine if different parts of the sheet act differently because of imperfections such as ridges, runs, falls, etc. These determinations are made by watching every rock that is thrown by both teams on various parts of the sheet. Only by paying attention to how rocks make their way down the sheet can a skip figure out the topography of the ice.

There are many reasons why sheets of curling ice develop unique profiles. Even perfectly flat sheets of ice will change over time. Contributing factors include things such as pebbling and scraping patterns, air and ice temperatures, air flows within the building, and humidity levels. These factors are accentuated in clubs that do not have full-time icemakers and depend on a variety of volunteers who take turns preparing the ice. (If this applies to your club, try to educate everyone involved concerning proper pebbling and scraping techniques in order to minimize practices that contribute to worsening playing conditions). And in arena clubs, Zamboni patterns can create ice profiles that resemble all the directional changes of a bobsled run.

The following diagram illustrates some common ice profiles:

(insert ice profiles chart)

"Flat" ice is easy to read. Rocks curl equally left to right and right to left all the way across the sheet. Unfortunately, flat ice can also be a rare commodity.

"Dished" ice will curl hard toward the center of the sheet but less as you move farther toward the outside edges of the 12 foot. Conversely, a bowed sheet will curl hard going away from the center line, but there will be less curl moving from the outside toward the center.

On a sheet with a "ridge" or a "run", rocks will curl normally on the flat portions of the sheet, but the ridge or run will prevent them from getting over the hump or though the trough - they just stay on that line.

A "fall" means that the sheet is sloped in one direction. A fall can go all across a sheet or it may just cover a part of the playing area. If the slope is slight, rocks will simply curl more one way than the other. If the slope is severe, skips may be forced to play negative ice. In a negative ice situation, all rocks will move sideways in the same direction, regardless of which turn is applied.

Skips must, therefore, put the broom on the upside of the desired target. On a sheet that is sloped to the left, all shots will move to the left, regardless of which turn is applied. A clockwise turn with the broom on the right side of target area will, however, curl less than a shot with a counterclockwise turn. Sweeping, regardless of the turn, will make the rock "fall" more.

So, why is it important to read ice and to know a sheet's unique characteristics? First of all, getting to know the ice helps a skip decide where to put the broom. For example, if a sheet is slightly sloped to one side and curls more one way than the other, the skip needs to adjust the broom for shots down one side vs. the other. It may also influence if the skip calls for an in-turn or an out-turn. If the sheet is bowed, shots being played toward the center line need less ice than shots that are moving toward the outside of the sheet. Just the opposite is true if the sheet is dished.

Becoming aware of a sheet's characteristics can also impact a team's strategy. If the opposing skip does not pick up on a sheet's profile, or if opposing players have difficulty throwing certain types of shots, try to force play to a portion of the sheet that will make life miserable for them. Misses by them should lead to more points for you.

During last year's Scots Tour, I remember a particular piece of arena ice where we noticed a major fall. We were playing a takeout and took about a foot of negative ice - the rock fell into a well-struck hit. The opposing skip was not paying attention to our shot and put down the broom for a takeout of his own, but he took ice as if he was playing on a sheet of normal ice. Even though he hit the broom, his takeout attempt missed by at least two feet.

Being a good skip is a full-time job. Not only are skips responsible for strategy, shot-making, and watching for the other team's tendencies and deficiencies, they also have to watch every rock that is thrown by both teams in an attempt to learn the ice and all its idiosyncrasies. Other players on the team need to know that they make a skip's job much easier if they hit the broom and have a clean release on every shot. Every poorly thrown stone is a lost opportunity to learn how rocks react as they travel down a particular section of the ice. It is also hard to call sweeping if a rock is not thrown cleanly.

Not all ice sheets are perfect and some are far less perfect than others. Good skips pay attention to how rocks travel down various parts of the ice. They trust their eyes and remember what they see. Skips - learn to read the ice and use what you learn to your advantage. It is part of the intrigue of our sport and it will help you and your team make more shots and win more games.

Until next time – happy reading and good curling!

(The author appreciates insights provided by Dave Staveteig, USA Curling's Head Ice Technician, and Matt Mielke, former junior national champion. All of the author's previous training articles are available on line at: USA Curling – Inside the USCA – CNews Columnists – Columns by Jon Mielke).