

Throwing Instructions

by Chet Snouffer, World and National Champion

SAFETY-WARNING!

Like any thrown object boomerangs can cause painful, even serious injury if they hit you on return or someone else. Cuts, bruises and loss of an eye are just some of the dangers you or spectators may incur. Wear eye protection designed specifically for sport while throwing. Always throw on a large, grassy field, free of fences, paved areas, holes and obstructions. **DO NOT THROW IN WINDY WEATHER** (over 10 mph). You should have 100 yards clear space in all directions. Any spectators must be kept well away from your throwing area. Everyone should keep their eyes on a flying boomerang and turn their back to it if in danger of being hit. Exercise common sense and you will enjoy your boomerang for years to come!

Introduction

Look at your boomerang and you will see that it is a set of wings. The aerodynamic lift generated by these wings and the gyroscopic action of a spinning boomerang combine to cause it to fly full circle and return to you when thrown properly! As an airfoil, your boomerang will soar like a kite in windy weather, possibly out of control and out of your reach. The best wind for a boomerang is a light, steady breeze, 3-5 mph, but always under 10 mph. Mornings and evenings are often ideal times to throw, especially when learning.

Preparation

Use a wind streamer or toss a small amount of grass into the air to determine which way the wind is coming from. Face into the wind. Now, if you are throwing **right handed, turn 45-90° to the right.** If you are throwing **left handed, turn 45-90° to the left.**

Grip

Grip the boomerang by either end so that the flat side is in your palm. You should be looking at the painted top, curved side.

Pistol Grip: I grip my boomerang exactly as I hold a pencil, pinching it between my thumb and middle finger, with my index finger wrapped around the boomerang. This helps impart spin as the boomerang leaves my hand.

Pinch grip: With smaller boomerangs like Fast Catch, Road Runners, and MTA's, I use a pinch grip, pinching it between my thumb and index finger. **Spin** is the most important aspect to a good boomerang flight. Make sure you impart a nice snap to the wrist as you throw. If the boomerang runs out of spin as it flies, it will fail to turn in towards you and will falter to the ground. If this happens, try pinching tighter, throwing harder, or imagining a tomahawk throw, spinning end over end.

The Throw

NEVER throw a boomerang sidearm or back handed like a Frisbee®. Instead, think of how you would throw a tomahawk or cast a fishing line overhand. The throw is always straight out towards the horizon, overhand, and with lots of snap. The boomerang stays nearly vertical throughout the throw. A properly thrown boomerang will snap out of your hand and travel outward, spinning vertically. As it curves to the left (to the right, if you are throwing a lefty) it will rise gently and then level off as it returns with the wind in a horizontal hover near the thrower. Notice that the boomerang lays down in flight, and comes back to you slowly and hovering. This is due to gyroscopic precession and is good news! Without precession, the 'rang would just fly off diagonally across the field.

Fine tuning

A good flight path is nearly level the entire way around. Common errors include:

Boomerang swoops too high and dives back at you: You have thrown it too sidearm!

To correct, keep the boomerang more vertical, like Davey Crockett throwing a knife!

Boomerang dives into the ground: You have thrown it too vertically or too high in the air.

Every boomerang has an optimal angle of release, and experimentation will lead you to the best angle of tilt; usually like this: /

Angle into the wind:

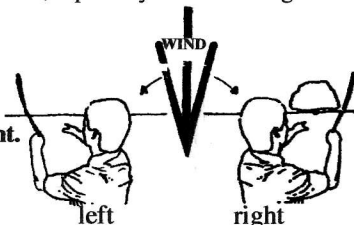
Assuming your throw is correct, the most important adjustment for accuracy, to get your boomerang right back to you without moving, is angle you throw into the wind. The diagram below shows you three angles into the wind and the resultant flight path. These are for right handed throwers. Here's a simple rule to help you remember and works the same for lefties or righties! If the 'rang lands to your left, turn more to the right. If it lands to your right, turn more to the left.



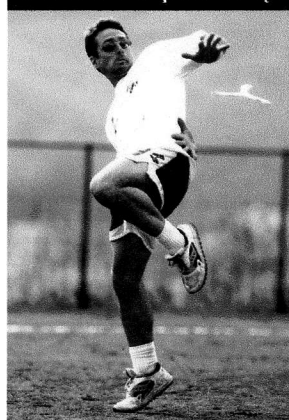
Catching

Catching makes for a perfect circle. **Only try and catch a boomerang which is hovering and not one which is diving towards you.** A two-handed catch is easiest. Place one hand palm-up and one palm-down and clamp the boomerang between your outstretched hands. One-handed grabs are possible by watching the window of light that appears in the center of a spinning two-blader, or the solid center dot that appears in the center of a spinning tri-blader. Quickly grasp the boomerang underhanded, coming up through the window or center dot.

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