

■ FOUNDATIONS OF FLIGHT | BACK-FLY FORWARD DRIVE

Brought to you by Niklas Daniel and Brianne Thompson of AXIS Flight School at Skydive Arizona in Eloy. Photos by David Cherry. Information about AXIS' coaching and instructional services is available at axisflightschool.com.



Goals

- Increase mobility
- Open a gateway to back tracking and angle flying

Prerequisites

Before attempting horizontal movement while back flying, you should first be proficient at the basic back-fly neutral position (see "Foundations of Flight—Basic Back-Fly Position," July 2012 *Parachutist*).

Orient yourself perpendicularly to the aircraft's line of flight as soon as possible after exiting and before engaging in any horizontal movement. You can accomplish this by looking back up at the airplane immediately after exit to use it as a reference. Since you will not be able to use any landmarks on the ground to maintain your heading, align yourself with the airplane so that your body is parallel to its wings. Check your altimeter frequently, as it is easy to lose altitude awareness while working on a new skill set, particularly

one in which you are facing the sky and don't have a ground reference. Use a wrist-mounted altimeter, since a chest-mounted altimeter is unlikely to read correctly while you are on your back, and wear an audible altimeter as an additional reminder.

Execution

Exit either on your belly and use a half barrel roll to get to your back (see "Foundations of Flight—The Barrel Roll," April 2011 *Parachutist*) or use the back-fly floater exit ("Foundations of Flight—Back-Fly Floater Exit," April 2015 *Parachutist*) to get started. Once you have gotten your bearings and established your flight path perpendicular to the line of flight, initiate a small drive forward (in the direction of your head) by using only your arms. Rotate your arms so that your palms and forearms contact the relative wind and bend your elbows about 90 degrees. Keep your forearms at around 45 degrees relative to the wind by keeping your hands above your torso.

Once you've effectively created forward drive using only your arms, then move on to using only your legs. With your arms in a neutral posture, extend your legs so that you push your heels firmly into the wind and raise your hips slightly. It is important that you learn this part well, as too much input can result in a steep dive or even a backflip. The goal is to fly forward at a constant descent rate.

Helpful Hints

Once you've mastered the individual components and various body configurations that allow you to move in the direction of your head, you can start exploring back tracking, diving and angle flying by implementing a whole-body approach.

The authors intend this article to be an educational guideline. It is not a substitute for professional instruction.