

FOUNDATIONS OF FLIGHT | ANGLE FLYING FEET FIRST ON BACK

Brought to you by Niklas Daniel and Brienne 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.



Angle flying blurs the lines between horizontal and vertical flying. To excel at this flying method, you first have to understand your direction of travel, which comes with gaining spatial awareness. You can do this best by first getting proficient at flying a flat track on both your belly and your back. Steer clear of the line of the aircraft's course by planning a flight trajectory that is perpendicular to that of the aircraft. Confirm your drop zone's angle-flying policies, especially exit order, before attempting this.

Performance Objectives

- Increase awareness and control of body pitch
- Influence your level and horizontal speed using body pitch
- Ability to chase and fly with other angle flyers

Prerequisites

- Proficiency at back flying, specifically backward drive (see "Foundations of Flight—Backward Movement, Back

Flying," September 2017 *Parachutist*) and level control (see "Foundations of Flight—Level Changes While Back Flying," August 2015 *Parachutist*)

- Ability to perform back-to-sit transition (see "Foundations of Flight—Backfly to Sitfly Transition," June 2013 *Parachutist*)
- Proficiency flying head up, specifically forward drive (see "Foundations of Flight—Forward Movement in a Sit," October 2015 *Parachutist*)
- Balance and range of motion in a stand (see "Foundations of Flight—Head-Up Variations," December 2012 *Parachutist* and "Foundations of Flight—Head-Up Range of Motion Drills," March 2015 *Parachutist*)

Execution

You may experience some disorientation when flying at steep angles due to the unfamiliar sight pictures and control inputs. Steep angles have a rapid descent rate (similar to that of a freefly jump). Stay altitude aware and use an audible altimeter. When angle flying head-up on your

back toward your feet, you are engaged in a continuous forward drive while upright when the angle is steep. And you are in a backfly backward drive when the angle is shallow. The primary flight surface is the back of the body.

You can attack this skill in two ways:

1) Horizontal method

Start the move on your back facing 90 degrees off the line of flight, and face opposite the direction you wish to travel. Initiate a strong backward drive toward your legs by stretching your arms out above your head and expanding your chest. Drive your heels down while keeping your legs bent at the knees. Your body should tilt head high, allowing you to see in the direction of your flight path through your knees. (Look through your cheekbones to prevent your chin from moving toward your chest.)

If you lose heading control, stop, re-establish your desired heading and continue. Engage your abdominal muscles as you stand up and straighten your legs.

2) Vertical method

Start the move in the head-up orientation, facing 90 degrees off the line of flight facing in the direction you wish to travel. Initiate a strong forward drive by pushing your pelvis forward (squeezing your glutes) and leaning your torso backward. Straighten your legs and keep your feet close together, pressing your heels into the relative wind. Keep your head level and continue to look toward the horizon in front of you.

If you lose your balance, you will most likely fall to your back, which will result in a rapid fall-rate change. If this occurs, transition back to your feet, re-establish your desired heading and continue.

Helpful Hints

Explore the wide range of possible angles, as these will give you the ability to fly relative to other flyers more effectively.

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