



Freefly Ground Briefing

The Freefly Ground Briefing is designed to give new freeflyers the knowledge required to participate in freefly jumps safely. This will help new freeflyers understand the differences when flying in a non-belly-to-earth orientation.

This Freefly Ground Briefing is to be administered by a Coach 2 (preferably with freefly experience) or a Coach 3 - Freefly. The briefing is a ground briefing and it must be administered as part of the B CoP application requirements.

In this document, you will find the freefly safety topics to be discussed during this ground briefing, as well as a detailed explanation of each one:

- 1) Equipment
- 2) Exit order
- 3) Freefall
- 4) Break-off, track & opening

Introduction

Freefly is an advanced method of flying, which involves a variety of vertical body positions which are different than belly-to-earth (back-fly, head-up, head-down, angle, etc.). Before you attempt your first freefly jump, it is vital that you understand the extra safety precautions that will be required. A vertical flying orientation and the higher speeds involved in freefly means that your equipment, aircraft exit order, flight plan, instruments, clothing—and even your mindset—must all be freefly focused.

The following is an explanation of the basic information required to safely begin your path towards freefly in the sky. This document does not replace instruction from a qualified freefly sky coach. In fact, coaching is very important and strongly recommended.

1. Equipment Safety

As you begin to fly in orientations other than belly-to-earth, you need to take into consideration how that affects your gear and how your gear needs to perform to keep you safe. Have a qualified freefly coach evaluate your gear before your first freefly jump. In a freefly orientation, we change two important factors from a belly flying position:

- 1) increased freefall speed; and
- 2) where the air is contacting our body and gear.

Have a qualified freefly coach evaluate your gear before your first freefly jump, looking for the following:

- Harness:
 - Fits properly (no shoulder slip)
 - Properly closing riser cover tabs and pin cover flaps (no Velcro)
- Premature openings at freefly speeds can kill you, therefore:
 - no exposed bridle whatsoever
 - tight closing loop

- well maintained / tight BOC
- properly stowed pilot chute & handle (preferably with freefly tuck tab)
- Properly installed bungee cord between leg straps (eliminates slippage towards knees which could create a potential flying obstacle and more importantly, issues at parachute opening)
- Properly tightened leg straps with the excess stowed securely
- Properly fastened, hard shell helmet and tightly secured goggles / glasses, or a full face with a good visor that will remain closed in freefall
- Jumpsuit—t-shirts can and will get entangled with your handles
- Tighten your chest strap, without exaggerating (and tie your shoe laces properly!)
- Have at least one audible altimeter, in addition to your visual altimeter, as initially your mental freefall clock will need to adjust to the shorter freefall times and also, you may not have the stability to continuously check altitude from your wrist mount (having two audible altimeters plus a visual is even better).
- No camera! Leave the GoPro behind until you have freefly experience (a camera can be an enormous distraction when first learning to freefly). Note: 200 jumps and a B CoP are required prior to any jump with any type of camera.

2. Exit Order Safety

As with all skydives, the order in which groups exit the aircraft is an important safety factor. The more time we spend in freefall, the farther we can drift horizontally. So, to prevent groups from drifting into each other on typical upwind jump runs, it is best to have slower fallers (i.e. belly to earth) exit before the faster fallers (i.e. freefly).

The following is a common best practice exit order:

- Belly flyers, larger group to smaller group
- Back flyers, larger group to smaller group
- MFS (mixed formation skydiving), larger group to smaller group
- Freeflyers (head up and head down), larger group to smaller group
- High pullers (including students and tandems) and wingsuiters are last.

Notes:

- Always double-check with each DZ's exit order policies
- Always confirm your exit order with others prior to boarding (preferably with an experienced instructor/Load Organizer on the load)
- When first trying to freefly, you must take into account that your 'neutral' / recovery position will be either belly or back, which makes you a slow faller and in turn, affects your exit order positioning
- Angle flying groups can be interspersed within the exit order, depending on the DZ's policy and the skills of the angle flying group. Only attempt angle flying with an experienced angle flying group leader to ensure that proper flight lines and opening quadrants are selected. Also, make sure to honestly inform your experienced angle flying group leader of your true levels of skill and experience.
- The best exit order will vary depending on the dropzone's geography, jump run constraints and aircraft time, but the principal of slower fallers before faster fallers, and larger groups before smaller groups, almost always works. See PIM 2B Section 4.2 for more information.

3. Freefall Safety

Heading control:

- Freely speeds can easily lead to considerable horizontal movement, so you **must keep a heading that is perpendicular to jump run** to ensure that you do not drift up or down the jump run line and into groups that exit the aircraft before or after you. It is very likely you are not falling straight down even if you think you are.
- Know what jump run will be and plan your heading ahead of time. Plan to turn 90 degrees from jump run as soon after exit as possible.
- Maintain the proper heading throughout your freefall. If you are trying to freely without a coach as your point of reference, do not sacrifice your heading while struggling with a new vertical body position for an extended period of time. Instead, get stable in your neutral / fallback position, re-gain your safe and proper heading, and then try again.
- **Always find your heading before initiating each skill attempt** in order to maintain heading during entire flight.

Being 'cork-proof':

- Suddenly changing from a freely fall-rate (~160MPH) to a belly fall-rate (~120MPH) is called corking (like a champagne bottle cork).
- The speed difference between belly and freely is approx. 30-40MPH, so any contact with another skydiver at this rate of closing speed can seriously injure, and even kill.
- Until you can fully control a freely body flying position and maintain a freely fall-rate throughout an entire freely jump, you **must** limit yourself to freely solos or 2-ways with a qualified freely coach. Being cork-proof means that you do not revert to a slower / belly-to-earth body position when things go wrong or you feel unstable. If your recovery position is slower than the fallrate of the planned dive, you are not ready to fly with the group.

Freely is a fun and exciting form of flying our bodies in the sky, but it can be time consuming to learn. A wind tunnel may be a useful part of your freely training progression. This coaching safety approach applies at each stage of your freely development, for continued safety while learning new flying skills.

4. Break-off, Track & Opening Safety

- You must always allow at least 1,000 feet of altitude to slow down your fall-rate in order to safely deploy your main parachute in a belly-to-earth orientation. Plan your break-off accordingly for safe opening altitudes! This slow-down time is needed even on a solo jump.
- When flying in groups, plan to break off and give yourself at least 1,500 feet to track away from each other, to allow time to transition into a stable belly-to-earth orientation and proper parachute deployment fall-rate.
- Be cork-proof before flying with others, including at break-off & track:
 - You **must** maintain freely speed / fall-rate when in proximity to others until sufficient horizontal separation has been achieved. Then you **must** create sufficient horizontal separation to other flyers **before** transitioning to your slower belly flying / deployment orientation.
- Until you can progressively transition into a track to create horizontal separation (without changing your freely fall-rate near other flyers), you **must** only do 2-ways with an experienced freely flyer (preferably with a qualified freely coach).
- **Proximity and levels** are crucial at break-off to ensure that each flyer in a group can **be seen** by everyone before tracking.
 - Flyers who do not yet have the skills to maintain proximity and levels with the group until breakoff **must not** participate in freely group flying.

It is highly recommended that you receive proper coaching in freely break-off and tracking procedures before attempting in a group setting.