



FORMATION SKYDIVING COACH MANUAL

THE INTERNATIONAL BODYFLIGHT ASSOCIATION



PART 1



Published by International Bodyflight Association
 6034 West Courtyard Drive, Suite 135
 Austin, TX, 78730
www.tunnelflight.com
 Copyright © 2004-2017 by International Bodyflight Association,
 Austin, TX
 Manufactured in the United States of America.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as permitted under Sections 107 or 108 of the 1976 United States Copyright Act, without the prior written permission of the Publisher. Requests to the Publisher for permission should be addressed to the Copyright Department, International Bodyflight Association, 6034 West Courtyard Drive, Suite 135, Austin, TX, 78730, (512) 674-9200, E-mail: info@tunnelflight.com.

DISCLAIMER OF WARRANTY: While the publisher and authors have used their best efforts in preparing this manual, they make no representations or warranties with respect to the accuracy or completeness of its contents and specifically disclaim any implied warranties of merchantability or suitability for a particular purpose. No warranty may be created or extended by sales representatives or written sales materials. The advice and strategies contained herein may not be suitable for your particular situation; you should consult with a professional where appropriate.

ASSUMPTION OF RISK: By using this manual you agree that you are voluntarily participating in the activities describe herein, including but not limited to, the use of the equipment, facilities, and premises. You are assuming, on behalf of yourself, all risk of personal injury, death or disability to you that might result from said participation. You also understand that free fall simulators have inherent risks.

RELEASE OF LIABILITY: By using this manual you agree on behalf of yourself and your personal representatives, successors, heirs, and assigns to hold the International Bodyflight Association and its affiliates, instructors, officers, directors, agents, employees, and members, as well as the property

owner and tenants of the wind tunnel property and the owners, manufacturers and installers of the equipment comprising the wind tunnel (collectively, the "Releasees") harmless from any and all claims or causes of action arising out of my activities in the wind tunnel.

By using this manual you expressly release and discharge Releasees from any and all liability, claims, demands or causes of action whatsoever arising out of any damage, loss, personal injury or death to you while participating in any of the activities, including without limitation, use of the vertical wind tunnel, receiving instruction, strenuous bodily movement, and exposure to extreme wind conditions.

This release is valid and effective whether the damage, loss or death is a result of any act or omission on the part of any of Releasees or from any other cause. This Waiver and Release of all liability includes, without limitation, injuries, illness, or accidents, which may occur as a result of (a) use of the facility or its improper maintenance, (b) use of any equipment which may malfunction or break, (c) improper maintenance of any equipment, (d) instruction or supervision, or (e) slipping and falling while in the facility or on the surrounding premises.

Trademarks: International Bodyflight Association, the International Bodyflight Association logo, and related trade dress are trademarks or registered trademarks of International Bodyflight Association, in the United States and other countries, and may not be used without written permission. All other trademarks are the property of their respective owners.



is a trademark of
 International Bodyflight
 Association.

FOREWARD

Welcome to the *IBA Formation Skydiving Coach Manual*. This is your reference guide to not only help you qualify as an IBA coach, but also to support you throughout your coaching career in the safe delivery of the flight skills contained within the IBA Flight Progression Chart. It includes most of the tools that you need to develop your coaching skills, including a comprehensive list of lesson plans that will help you to deliver meaningful and safe coaching sessions.

While it is comprehensive, it is not exhaustive, and as a part of our continuous improvement policy we are committed to improving this product. Therefore, we welcome any feedback that could usefully be incorporated into this manual. If you have something to add, please get in touch.

Enjoy your coaching and be safe.

Rusty Lewis
Director of Safety & Training
International Bodyflight Association
2017

CREDITS

Project Coordinators

Rusty Lewis
Wayne Loxton

Content Development Team

Rusty Lewis
Wayne Loxton
Chris Dixon
Aaron Necessary
Kris Reynolds
Nate Roth
Luca Montagnese

Photographers

Randy Ashley
Nate Roth

INTRODUCTION

The IBA Coach

As an IBA coach, you fulfill an extremely important role within the sport of indoor skydiving (also known as bodyflight) and you may coach a variety of disciplines ranging from the development of basic flight skills to full competition flying. As such, you are able to contribute to the IBA vision by providing a safe coaching environment and by demonstrating a genuine culture of excellence and safety within the community of IBA flyers and coaches.

You will be routinely working with return flyers and professional flyers at all levels. Therefore, you have a high level of responsibility for leading by example and for consistently operating safely in accordance with your level of qualification and the recognized, published flight procedures of the tunnel(s) in which you operate. Within this context, you have a specific responsibility to act as part of the overall safety team and to support the on-duty IBA instructor. This is particularly important if you are already a highly-experienced coach and you are operating alongside newly-qualified IBA instructors; be a part of the team.

In addition, as an IBA coach you will be expected to enthusiastically motivate your flyers and encourage them to continue with the sport by joining the IBA. It is therefore important that you have an in-depth knowledge of the IBA Flyer Progression system and the skills that flyers require to progress within the sport of indoor skydiving.

The IBA coach rating (all levels) may be awarded by an IBA Trainer Level 4 and qualification will be conducted through a physical coaching assessment that requires you to demonstrate a satisfactory level of safety knowledge, briefing/debriefing skills, coaching skills, and flight skills relevant to the specific coach rating level. In addition, prior to the formal assessment, you will be required

to complete the "Tunnel Coach Ready" assessment, which is a written confirmation of your understanding of the IBA Fundamentals of Coaching Guide. Upon successful completion of the assessment, you will be awarded an IBA coaching qualification for a specific flying discipline. Your achievement will be displayed on your personal IBA flyer rating chart on the IBA website.

In the unlikely event of any reported or observed breach of the endorsed IBA flight safety, training or operating procedures, your ratings may be suspended or revoked at the discretion of an IBA Trainer Level 4. Suspension or revocation can be appealed to the IBA Director of Safety and Training whose decision is final.

As an IBA coach you may or may not be employed by the tunnel within which you operate and the exact conditions of your authority to operate within the tunnel will be a local tunnel operator decision. However, in order to hold and retain any of the IBA coach ratings there is an expectation from the IBA that you will maintain certain standards. These will vary depending upon the qualification, but as a minimum should include:

- Holding an active IBA coach account on www.tunnelflight.com
- Regularly coaching all aspects of flight appropriate to your level of qualification
- Complying with host tunnel policies and procedures
- While you will always be encouraged to demonstrate personality and technique, you should have knowledge of the IBA Flyer Progression Program and know how to use it appropriately
- Contributing to the wider indoor skydiving community by engaging with your customers to promote the sport and to encourage membership in the IBA

CONTENTS

Part 1	2
Foreward	4
Credits	4
Introduction	5
Contents	6
Assessment Strategy	7
Assessment Template	8
Part 2	9
General Information	10
Tunnel Operations	10
How a wind tunnel works	10
Facility Layout	11
Safety	11
Working with the Tunnel Instructor	11
Flight Equipment	11
Emergency Procedures	11
Flight Chamber Emergency Exit Procedures	12
Part 3	13
Coaching Skills	14
Warm Up and Stretching	14
Delivering a Pre-Flight Safety Briefing	14
Delivering a Debriefing	15
Hand Signals & Communication	15
Communicating with the Airflow Controller	18
Part 4	19
Coaching Lesson Plans	20
Level 1 Flight Skills	20
Level 1 Coach Lesson Plans	20
Formation Skydiving Skills	44
Formation Skydiving Lesson Plans	44

ASSESSMENT STRATEGY

To qualify as an IBA coach you will be assessed by a qualified IBA trainer to ensure that you meet the training objectives detailed in the *IBA Coach Curriculum*. All of the training material required to support your assessment is contained within this manual, the supporting *IBA Fundamentals of Coaching Guide* and the IBA Flight Tutorials. When assessing, the IBA trainer has been directed to use the following strategy that details the minimum standards required to achieve an IBA coach rating. It is generic by design, and it can be applied to each rating. Where required, additional assessment criteria have been detailed within the relevant coach rating.

TRAINING OBJECTIVE <i>What is to be learned?</i>	DESIRED OUTCOME <i>What are the expected, measurable outcomes?</i>	TEACHING <i>What methods should be employed to achieve the desired outcomes?</i>	ASSESSMENT <i>What tool will be used to assess the activity and measure the desired outcome?</i>
Demonstrate personal flight skills and knowledge relevant to the Coach rating.	Able to perform the flight skills detailed within the IBA Flyer Progression System accurately, demonstrating full control throughout, including the ability to anticipate and avoid collisions while flying with a student.	This is assumed knowledge and the coach candidate should already be at this level of competence. If additional coaching or teaching is required, it should be delivered in accordance with the relevant IBA flight tutorials and training manual.	Direct assessment by observing personal flight skills. In addition, the trainer will conduct an oral check of understanding of the coach's role within the tunnel.
Deliver a pre-flight safety briefing relevant to the activity that is being coached.	Demonstrate a clear understanding of the safety issues relating to the activity that is being conducted and delivery in a clear and accurate manner, without confusion, noting any local operating procedures relevant to the activity.	This is assumed knowledge and the coach candidate should already be at this level of competence. If additional teaching is required, then this should be conducted within a classroom environment with the trainer clearly demonstrating the delivery of a pre-flight safety briefing.	Direct assessment by observing a pre-flight safety briefing which may be delivered to a student flyer (preferable) or the trainer.
Deliver a pre-flight activity briefing. Demonstrate and coach the relevant flight skills. Deliver a post-flight performance debriefing.	Conduct a full coaching session relating to skills detailed within the IBA Flyer Progression System, safely and accurately without confusion, noting any local operating procedures relevant to the activity.	This is assumed knowledge and the coach candidate should already be at this level of competence. If additional teaching is required, then this should be conducted within a classroom and tunnel environment with the trainer clearly demonstrating the delivery of a full coaching session. If the candidate is not at this level of competence, then the trainer is to deliver the appropriate training required to meet this standard.	Direct assessment by observing at least one complete coaching session. This should be successfully completed to the required standard and may be repeated if necessary. The trainer will be unable to assess every flight skill within this category, so should choose a relevant skill (or a group of skills) based upon their judgment and, if appropriate, the student need.

ASSESSMENT TEMPLATE

This is a generic template that can be used to assess all IBA coach ratings. The trainer should enter the required training objective (TO) in the appropriate column and sign off each TO as it is achieved. This is particularly useful if the assessment is delivered over multiple sessions or the candidate is unsuccessful in any area. A copy should be given to the candidate. The following is an example:

COACH RATING ASSESSMENT			
Coach Rating:	IBA Formation Skydiving Coach (for example)		
Candidate:	Nikola Tesla		
Trainer:	Leo Davinci		
Pre-Requisites Confirmed:	Leo Davinci		
Training Objective	Date of Assessment	Standard Achieved	Signature
TO 1	July 12, 2016	Yes	Leo Davinci
TO 2	July 12, 2016	Yes	Leo Davinci
TO 3 - First Observation	July 12, 2016	No	Leo Davinci
TO 3 - Repeat observation (if required)	July 16, 2016	Yes	Leo Davinci
TO 4 - where applicable	July 16, 2016	Yes	Leo Davinci
Development Comments	The trainer should write a short narrative on the overall performance and key point to work on for the coach to improve as he/she gains more experience, particularly if any TOs were repeated.		
Date of Award	Signature		
July 16, 2016	Leo Davinci		

PART 2



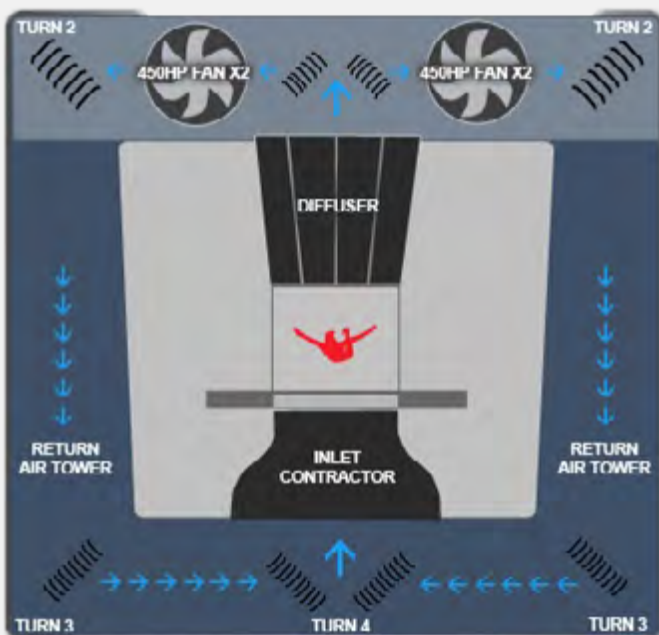
GENERAL INFORMATION

Tunnel Operations

How a wind tunnel works

As a coach, you may need to explain to your flyers how a vertical wind tunnel works. You will not need to go into great technical detail, but you should be able to describe the basic operations. The following notes will support your knowledge in this area.

The fans at the top of the flight chamber draw air up from the bottom through the inlet, which accelerates the air to free fall speeds. In a recirculating tunnel, the air transitions through a series of ducts to be redirected in a closed loop. The airflow controller at the control station can alter the fan controls to increase or decrease the tunnel wind speed.



The fans are located at the top of the tunnel, so that the turbulence they create does not enter the flight chamber. Turbulence may also be caused by inconsistencies in the air drawn into the inlet. Because of this, flow straighteners are used to improve the consistency of the air in the flight chamber. The acceleration of the air causes a drop

in pressure and temperature. This drop in pressure creates a marginal pressure difference between the air in the flight chamber and the air outside of the tunnel. In some facilities, this pressure difference is the reason for the pressure door system between the outside air and the flight chamber. Therefore, in some cases the tunnel instructor is required to ensure that the pressure doors are closed and sealed before any tunnel operation. You as a coach can assist in ensuring the facility is ready for operation by being an additional set of eyes for the tunnel staff in observing if anything looks out of the ordinary.

In newer facilities that incorporate a high-pressure design, the pressure difference is dispersed through the airflow path. At these facilities, it is possible to operate the staging area doors during flight operations. However, it is important that you support the tunnel instructor and check that any operable doors located next to the flight chamber doorway are not used during flight operations.

A small number of wind tunnel facilities do not recirculate the airflow, but rather, are open-flow tunnels. At these locations, the drop in temperature can, under certain conditions, cause moisture to condense in the flight chamber on the net and on the walls. Moisture on the walls degrades the professional appearance of the tunnel and affects the experience of the observers and flyers. Moisture on the net and walls can also make those surfaces slippery, affecting safety. You should be aware of wet conditions and exercise caution when anyone is walking on the net or using their feet on the walls.

In recirculating tunnels, redirecting the air through ducts and turning vanes inevitably causes some amount of drag. This drag

ultimately manifests itself as heat. This in turn raises the temperature in the flight chamber. To compensate for this, some recirculating tunnels have louvers in the return air tower(s) that allow for the exchange of heat and air with the outside, while other recirculating tunnels use a water chiller to control the temperature.

Facility Layout

Most facilities comprise a guest check-in area, a gear-up area, the flight chamber and staging area, the control room, an observation area, a classroom/party/conference room, and restrooms. In normal operations, a designated classroom area is assigned for the safety briefing, discussion of flying techniques, and gear-up before proceeding to the staging area and flight chamber. The layout of each facility will vary slightly but in most cases the classroom and gear-up areas are on the flight deck level surrounding the flight chamber.

Safety

Working with the Tunnel Instructor

The primary role of the on-duty IBA instructor is to prevent injury to any flyer (coach or student) and to maintain safe practices throughout each flight session. These instructors have a wealth of knowledge, not only of the facility and operations, but also of teaching flying skills, and can be an extremely useful resource especially during your early years as a coach.

If you are unsure about a specific technique or drill that you are planning to use during a coaching session, discuss it with the instructor first and seek their advice. Even if you are an extremely competent and (more) experienced coach, it is important to note that the roles of spotting and the maintenance of safety lies with the local IBA instructor. Be sure to understand your role as a coach and the instructor's qualifications, which may limit what activity can be conducted within the tunnel. Respect this fact and work together.

If during a tunnel coaching session there is the requirement for the instructor to enter the airflow to assist your student, you will need to understand your role in supporting him/her, and if you are flying, you are to position yourself on the net ready to support as required.

Flight Equipment

The proper flight equipment is essential to safe and successful performance in the wind tunnel. The flight gear that is used must be selected for comfort and fit and must be worn correctly. This gear is comprised of a flight suit, soft-soled shoes (closed around the toe and heel), a helmet (open or full faced), goggles (where applicable), and ear protection.

As a coach, you will be required to assist the on-duty instructor to ensure that your students are correctly prepared for each tunnel session and for each flight. Any equipment that is showing signs of excessive wear should be changed. For example, an open jumpsuit can balloon apart, sending the flyer up in the column of air and/or making the flyer unstable and preventing a descent. Both situations are unnecessary hazards during a student's flight. You are to be vigilant during tunnel sessions to ensure that your flyers do not alter or remove pieces of equipment, such as their helmet, or unfasten their jumpsuit without your supervision, particularly during short debriefs. If they do, ensure that they correctly refasten their suit and correctly close their helmet visors prior to their next entrance in to the airflow.

Emergency Procedures

Although not common, emergencies may occur at any time. While it is the responsibility of the facility staff to respond to any emergency in the most appropriate and timely manner, the standard procedures will vary depending on the facility, so you as a coach should be aware of these in case you are called upon to support the tunnel staff to ensure the

safety of the tunnel and its occupants. There are a number of different emergency scenarios that you should be aware of:

- **Injured Flyer.** If a flyer sustains an injury during flight, the on-duty instructor must be granted uninterrupted access to control the flyer in order to prevent any further injuries from occurring. During this situation, as a coach, you are to position yourself inside the tunnel in such a way as to allow the instructor direct access to spot or rescue the student. Even though your role does not directly involve spotting your students, your actions and how you coach can ultimately prevent an emergency situation from occurring. Therefore, understand the needs and limitations of your students and their ability to progress safely; avoid the spot in the first place! The instructor will, when appropriate, communicate with the airflow controller to shut down the tunnel by performing the emergency stop procedure and then call for assistance. The flyer should not be moved until the emergency services arrive and take full control and responsibility of the situation.
- **Violent Flyer.** In the rare case that a flyer turns violent at any time during a session, the instructor may call upon you to provide assistance. At no time should you become physical with the flyer to resolve the situation and if the flyer is attempting to harm you, you should move away and not retaliate. Flyers may be subject to unknown problems and require help and you should never provoke or fuel the violence. Other flyers should be removed from the area to ensure separation and to enable the tunnel to resume normal operations as soon as possible. After the situation is under control, any flyer who has been violent will probably be asked to leave the property immediately, and if they refuse to comply, the authorities will be notified.
- **Injured Instructor.** If you notice that the tunnel instructor sustains an injury during

a session, you are to ensure that you and your student fly down to the net to allow the airflow controller to initiate the emergency stop procedure. If needed, emergency services should be called; flyers should be led out of the chamber and the injured instructor assisted as necessary. The instructor should not be moved until emergency services arrive and take full control and responsibility of the situation.



Flight Chamber Emergency Exit Procedures

In the event that fire or smoke is detected inside the flight chamber, either by visual means or by other senses, or by electronic means with an indication on the airflow controller's display panel, the following actions will be taken:

- If the wind tunnel does not automatically reduce speed and display an alarm message on the flight chamber display (depending on the facility) screen, the airflow controller will reduce the speed of the wind to lower all flyers down toward the net
- Flyers will be guided toward the exit doorway.
- The controller will immediately complete a full shut down.
- If there is still electrical power to the flight chamber, the staging area doors will be opened using the appropriate switch.

All employees and customers will be asked to remain outside the building at a rendezvous point until emergency services are on site and clear the building for entrance.

PART 3



COACHING SKILLS

Warm Up and Stretching

Indoor skydiving is a physically demanding and intensive form of activity. Consequently, you and your flyers need to have an appropriate level of physical conditioning. As with any other physical sport, a correct warm up and appropriate preparation prior to commencing the activity is important to reduce the risk of injury and to optimize performance. This can be achieved through regular workout and fitness routines that exercise and strengthen the key muscle groups.

Depending on the specific activity, indoor skydiving requires you to use every muscle in your body, so we recommend that you and your students perform a proper warm-up lasting at least 10-15 minutes before entering the chamber. Your stretching routine should include all areas of the body: the neck, back, front, arms, legs, hips and shoulders. The IBA, in association with the muscle-performance training group, Axis Performance, has created an example warm up and work out plan that can be viewed and downloaded [here](#).

Delivering a Pre-Flight Safety Briefing

The points covered here are the baseline for your safety briefing and are consistent no matter the skill(s) you are intending to coach.



As an IBA coach, you have a high level of responsibility for leading by example and by consistently operating safely in accordance with your level of qualification and the recognized and published flight operating procedures. In particular, you have a specific responsibility to support the local tunnel instructor to maintain safety within the tunnel.

If at any time you feel a tunnel session is becoming unsafe, it is important that you immediately adjust the activity and avoid any unsafe practices. You are part of the overall safety team and you will be expected to adhere to the local safety policies and procedures, so you need to know them.

Be sure to communicate any concerns or questions with a member of facility's staff in order to be clear on their expectations. If you are unfamiliar with a new facility or the specific team member that you are paired with for a flight session, be sure to spend some time setting the expectations and understanding the boundaries. It will be an easier and more comfortable session for you and your student if you have taken the time to understand what is expected of you each time you enter the tunnel.

Prior to any coaching session, the tunnel instructor will need specific pieces of information so that he/she is aware of what to expect from you and your group. The information that the instructor will need is:

- Number of flyers/students
- The specific skills being coached to each student -- to ensure that the instructor is rated to spot the activity
- Any known wind speeds
- Time of each flight rotation
- Any individual or special assistance needed for any student

In addition, at the beginning of each session it is important to ensure that your student(s) also understand each element of their flight and the related safety issues. Adequate time must be allocated prior to each flight session to allow you as the coach, or the on-duty tunnel instructor, to cover this important information. At a minimum, the initial safety briefing must include the following:

- Pockets empty, loose articles (jewelry etc.) removed
- Flight equipment: One-piece jump suit – fully fastened, footwear (running shoes or similar, no open toe/heel shoes), gloves (optional), full face or open-face hard helmet with goggles, noting that helmets must be approved by the facility – fully fastened
- Entrance and exit procedures
- Understanding of the wind speed and demonstrating stability: What to expect when on the net, what to expect when high in the flight chamber
- Maintaining a stable body position: Remain in the briefed flying orientation, explaining that while you as the coach may stand, the student should not copy you unless briefed and specifically instructed to do so
- How to react if contact with the wall is made: Strong body position not allowing the walls to change your body shape or cause instability
- The role of the tunnel instructor: Where they may assist and what to expect during each flight, spotting and communication from the instructor

Any additional coaching points relevant to the skills you teach will be covered within the appropriate sections of this manual. Earlier sessions with novice students may require a longer safety briefing than those who have more experience. A flight session should not begin unless your student(s) are fully aware of these safety points.

Delivering a Debriefing

Once a flight session has been completed, you should always perform a debriefing as soon as time allows. This will give both you and your student the opportunity to more easily recall the session and any specific areas that need to be discussed. Find a quiet area that is free from external distraction to conduct the debriefing, ideally one that has the ability to display the session's video.

Start the debriefing by giving your student the opportunity to talk through the session. Find out whether they thought the set goals were met, what they think they can change to improve in any areas, and if there is a specific movement they need to do differently to create a different outcome.

Once this process is complete, you should use the video to highlight specific areas that were covered in the initial discussion as well as areas that may not have been covered. The outcome of the session will determine the next steps.

If the student has achieved his/her goal successfully and is proficient at flying the specific skills set, then you should consult with the IBA instructor and request that the skills be approved and displayed on his/her personal flight chart.

Hand Signals & Communication

It is often necessary for those working within the chamber to give direction, feedback, and commands in order to maintain a safe learning environment for the flyers. Due to the level of noise as well as the separation between the airflow controller, the coach and the instructor, non-verbal techniques are the primary means of communication while inside the tunnel. Therefore, a pre-briefing of the signals that may be used is vital to avoid any confusion. You will use a limited number of signals with inexperienced flyers and the most often used signals will be the ones used to get them into

a relaxed, neutral body position. You must adequately plan your session to include pre-briefing time prior to each flight session. This will avoid confusion and lead to more desirable results.

Your interaction with more experienced flyers might include a broader range of signals that are designed to teach more advanced techniques, or prohibit unsafe behavior. When you are working with these types of flyers, you will find that they are able to assimilate more information during their pre-briefs.

Also, they are usually more relaxed and aware during their flight allowing the use of a greater number of signals. They may also be able to better understand gestures that were not specifically addressed before their flight. The placement of your hand signals is important so as to provide the flyer with the best chance of understanding what your specific requests are. During your briefing, you should explain what they can expect from you once inside the chamber, and where they can expect you to position the signals to which they should respond.

Clear and visible signals will encourage a better response from the person receiving the signal. Giving fast, unclear and imprecise signals can confuse students, which can often lead to incorrect responses.

Flyer Hand Signals



Start (ok to go)



Relax



Bend your legs



Straighten your legs



Chin up



Stop



Belly fly



Go up



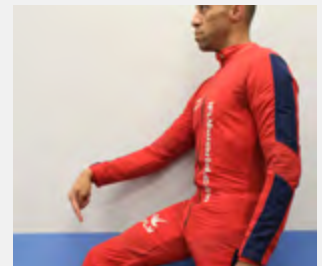
Come down



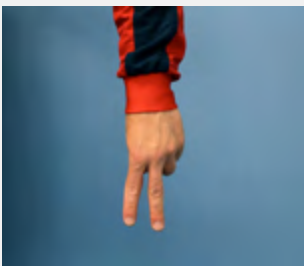
Back fly



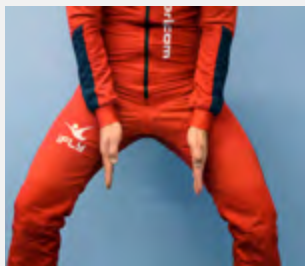
Knees/legs up



Knees/legs down



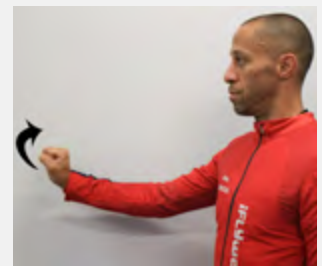
Stand up



Wider legs



Move slower



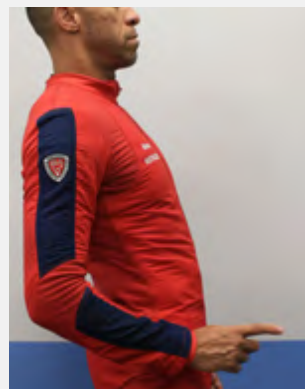
Move faster



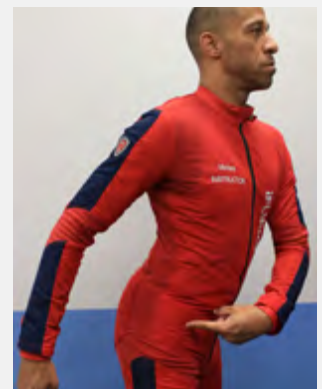
Straight body position



Face this way



Hips forward



Hips back

Communicating with the Airflow Controller

Instructors, coaches and airflow controllers must be able to communicate with each other for a number of reasons, including the use of media to record the session, the timing of customer flights, managing difficult flyers, unsafe tunnel conditions, and most importantly, achieving the desired wind speed.

Although experienced airflow controllers can predict what airspeed an instructor and coach might want for their students, the instructor inside the tunnel will make the final decision on the actual wind speed. As a coach, you must always ensure that any wind speed adjustments, especially when increasing the speed, is agreed to by the on-duty tunnel instructor prior to the specific request being made to the airflow controller. The on-duty instructor is ultimately responsible for the safety of each tunnel session and increasing

wind speed in some circumstances may increase the possibility of an undesirable situation. Verifying speed changes with the instructor will ensure that he/she is poised and ready to respond if the need arises.

In order for the operation to run as successfully as possible, the instructor, coach and airflow controller must act as a team to ensure flyers have a safe and enjoyable experience in the tunnel. As a coach, you may also encounter flyers who require a greater amount of support and this could mean the on-duty instructor may need to be more hands-on with the flyer in order to maintain control. In this case you may be required to provide the appropriate hand signals to aid in correcting the body position.



Bring the wind up



Bring the wind down



Emergency stop

PART 4



COACHING LESSON PLANS

Level 1 Flight Skills

Irrespective of the specific coach pathway that you decide to take, you will be required to coach basic Level 1 Belly-Flying skills. These are fundamental flying skills and they are the foundation of every flyers' progression through all flying disciplines.

The following lesson plans provide you with the information needed to coach these skills. While they are sequenced in a way that supports a logical and safe good progression, the exact order is not prescriptive (unless specified in the pre-requisite skills) and you

should exercise good judgment in your delivery based upon the student needs and capabilities. The plans are supported by the IBA Flight Tutorials that may be found within the relevant pages of www.tunnelflight.com and the *IBA Fundamentals of Coaching Guide*.

Throughout your coaching you should ensure that each session has a SMARTER goal that is agreed upon and clearly understood, and that the session is clearly briefed and debriefed.

Level 1 Coach Lesson Plans

IBA LEVEL 1 – BELLY-FLY LESSON PLAN # 1

Flying Skill	Neutral & Stable Belly-Flying Position
Desired Outcome	At a neutral wind speed setting, flies with full control in a neutral belly-fly position, without excessive movement or rotation in any direction
Pre-Requisites	Signed-off as safe to progress through IBA Flyer Progression by an IBA instructor
Reference Material	Flight Tutorial # 1 Hand Signals <ul style="list-style-type: none"> • Straighten Your Legs • Bend Your Legs • Relax • Chin Up • Go Up/Come Down • Move Slower/Move Faster • Stop

Key Points (flyer)	<p>Basic Position</p> <ul style="list-style-type: none"> • Your student's position should be arched, symmetrical, with head raised & legs shoulder-width apart • Arms bent at a 90° angle with elbows at approximately eye level • Toes pointed with knees slightly higher than hips • Eye contact not necessary--it is more important to be looking straight ahead <p>Advanced Position</p> <ul style="list-style-type: none"> • Arched shape similar to the basic position • Legs/feet similar to the basic position • Elbows pushed down, hands closer together and chest raised • Symmetrical position still necessary
Key Points (coach)	<ul style="list-style-type: none"> • On-duty instructor is briefed on the activity • Student is fully briefed on key points and safety factors • Appropriate wind speed setting is agreed to with the instructor and the method of communicating adjustments during the session is understood • Provide heading and reference point to complete the skills briefed • Do not face your student directly toward or away from the doorway • Enter the flight chamber only when given the "OK" by the instructor • Prior to transitioning from your feet to flying with your student, be sure to confirm your actions with the instructor • Avoid placing yourself between the instructor and your student in case the instructor needs to provide immediate assistance • Always fly within your skill level to avoid any unnecessary risk to yourself or your student • Avoid overloading your students with too much information during their early development and learning of basic skills • The altitude at which you and your students fly should not exceed the students level of ability
Student Debriefing	<ul style="list-style-type: none"> • Goals versus outcome of the session • Highlight areas that were positive • Highlight areas of improvement pertinent to the skill being learned • Goal setting for the next session



THE INTERNATIONAL BODYFLIGHT ASSOCIATION TUNNELFLIGHT.COM

01 Belly-Flying Neutral Body Position

Pre-requisites

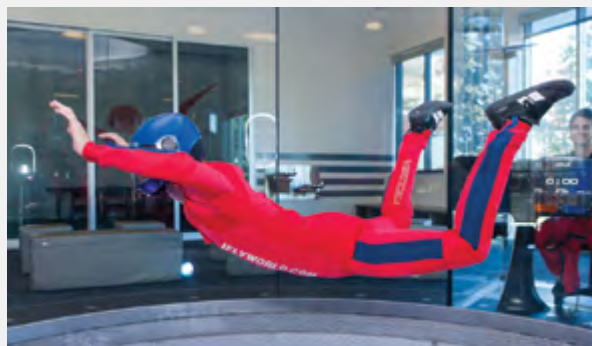
The belly-flying neutral body position is the first position you'll learn as your introduction into the world of body flying. First, your instructor will give you a briefing that will cover all the safety aspects of the tunnel, along with the basic information for beginning the neutral belly-fly position. This will include information on how to assume the correct position from the entrance and how the instructor will assist you in exiting once each flight is complete.

Objectives

The primary objective is to be able to safely and successfully demonstrate a neutral belly-fly position while staying in the center of tunnel. You will need to maintain this position before you learn how to maneuver yourself around the tunnel; this includes learning to turn left and right, and flying up and down.

Preparation

You will begin in the center of the wind tunnel. Depending on how stable you are, you may require the help of the instructor who will hold you to keep you stable while giving you specific hand signals to help you correct your position. When you are stable, the instructor will release you. At this point, you will aim to hold your position in the center of the flight chamber by making minor corrections as necessary.



Basic - off the net

Technique and Drills

Keep these key elements in mind

Basic (on or off the net)

- Your body should have a generally arched shape with your head raised so that your eyes are looking forward
- For the arched position, your hips should be positioned so that they are lower than your shoulders and knees
- Your position should be symmetrical
- Arms should be bent at 90° with your elbows spread at about eye level
- Your knees should be shoulder-width apart for stability and slightly bent with your toes pointed

Advanced "Mantis" (off the net)

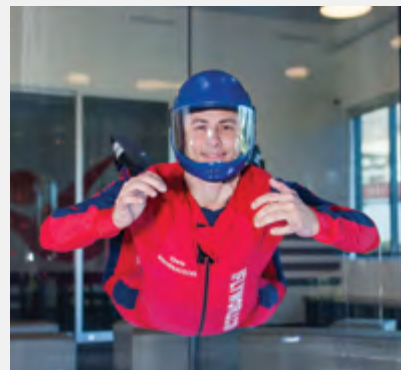
- Most of what you learn during the basic neutral flying position will carry over to learning the advanced "mantis" position
- Maintain the generally arched shape similar to the basic position
- Arms will transition from being at eye level to a more elbows-down, slightly below the shoulders position
- Elbows will be bent more, which will position your hands close together
- With the change of arm position, your chest will need to be higher with your head up to reduce drag around your upper body area
- Your legs will be positioned similar to the basic position: knees shoulder width apart, slightly bent and toes pointed

Belly-Flying Neutral Body Position

01 Belly-Flying Neutral Body Position



Mantis - off the net



Mantis - off the net

Post-Flight Questions / Suggestions

- How did your performance match the initial objectives?
- Were you able to maintain stability throughout while holding the neutral position? Both basic and advanced position?
- What techniques did you feel comfortable with and what can you improve on next?

What Skill Level Is Next?

Once you are stable in a neutral belly-flying position, the next step is to learn how to turn left and right, beginning with using just your upper body and then progressing on to learning how to turn using a more advanced technique of using your upper and lower body together to start and stop turns.



Belly-Flying Neutral Body Position

**IBA LEVEL 1 – BELLY-FLY
LESSON PLAN # 2**

Flying Skill	Belly-Fly Forward & Backward
Desired Outcome	Successfully moves forward and backward using the correct upper and lower body inputs and stops between movements. Able to maintain altitude, stability and control throughout
Pre-Requisites	Neutral & Stable Belly-Flying Position (on or off the net)
Reference Material	Flight Tutorial # 2 Hand Signals <ul style="list-style-type: none"> ● Straighten Your Legs ● Bend Your Legs ● Relax ● Chin Up ● Go Up/Come Down ● Move Slower/Move Faster ● Stop
Key Points (flyer)	<p>Basic Move</p> <ul style="list-style-type: none"> ● Extend and retract arms or legs to start and stop the movements ● Be aware of the speed of movement and when to initiate the correct input to stop the movement ● Maintain a symmetrical and arched shape for stability ● Heading management using small upper body adjustments ● Emphasize the act of stopping and returning to a neutral position prior to initiating a new move ● Eye contact not necessary; it is more important to be looking forward (to distance) for reference <p>Advanced Move</p> <ul style="list-style-type: none"> ● Introduce combined upper and lower body input and how to balance both movements to ensure smooth flying ● Knees wide during forward movement and narrow for backward movement to accelerate the movement ● Understand the effect of additional speed and emphasis on stopping and maintaining good body position ● Maintain a symmetrical position throughout

Key Points (coach)	<ul style="list-style-type: none"> • On-duty instructor is briefed on the activity • Student is fully briefed on key points and safety factors • Appropriate wind speed setting is agreed to with the instructor and the method of communicating adjustments during the session is understood • Provide heading and reference point to complete the skills briefed • Avoid facing your student directly toward or away from the door-way • Enter the flight chamber only when given the "OK" by the instructor • Prior to transitioning from your feet to flying with your student, be sure to confirm your actions with the instructor • Avoid placing yourself between the instructor and your student in case the instructor needs to provide immediate assistance • Always fly within your skill level to avoid any unnecessary risk to yourself or your student • Avoid overloading your students with too much information during their early development and learning of basic skills • The altitude at which you and your students fly should not exceed the students level of ability
Student Debriefing	<ul style="list-style-type: none"> • Goals versus outcome of the session • Highlight areas that were positive • Highlight areas of improvement pertinent to the skill being learned • Goal setting for the next session



THE INTERNATIONAL BODYFLIGHT ASSOCIATION TUNNELFLIGHT.COM

02 Belly-Flying Forward and Backward

Pre-requisites

To learn forward and backward movement while belly-flying, you first need to be able to belly-fly in a neutral body position and hold that position stable and under control throughout.

Objectives

The primary objective is to be able to safely and successfully demonstrate forward and backward movements while belly-flying, remaining stable and on heading throughout.

Preparation

You will start in the center of the wind tunnel, off the net, facing in a direction that does not point you toward a doorway or have a doorway behind you; this will prevent you from hitting the doors during the maneuver. Before beginning one of these movements, make sure that you are stable and under control so that you get the correct results during the maneuver. When signaled by your coach, you'll begin either a forward or a backward move until you approach the tunnel wall, where you will stop, return to a neutral body position and then begin a movement in the opposite direction.



Basic - forward movement



Advanced - backward movement

Technique and Drills

Keep these key elements in mind

Forward and Backward (Basic)

- Slightly extend your legs in order to create lift at your lower body, which will give your shoulders the low body pitch required to generate the forward drive.
- For the backwards movement, you will need to bend your legs in order to reduce the lift at your lower body. This will give your shoulders the high body pitch required to generate a backwards drive.
- Manage your heading by making slight upper body inputs to counteract any unwanted heading changes during the maneuver.

Forward and Backward (Basic) cont.

- To stop a forward movement, you will need to bend your legs past your neutral position to almost initiating a backwards movement position. This will adjust your body pitch to engage the stopping motion. The opposite is true for stopping a backwards movement. Once you have stopped you will need to return your position to neutral in order to remain in place.

Belly-Flying Forward and Backward

02 Belly-Flying Forward and Backward

Forward and Backward (Advanced)

- Continue using the skills you learned from the basic technique
- When moving forward, you can increase the rate of movement by bending your arms and tucking your elbows toward your sides.
- Extending your legs more toward straight and widening your legs will help to create more body pitch to increase the rate of forward movement.
- When moving backward, you can increase the rate of movement by extending your arms out in front of you.

Forward and Backward (Advanced) cont.

- With your legs bent, narrow your knees until they are close to touching and also “drop” your knees down to help create a larger body pitch, giving you more speed.
- Stopping these movements will require you to reverse your movements like you did for the basic technique.



Forward Movement (adv.)



Backward Movement (adv.)

Post-Flight Questions / Suggestions

- How did your performance match the initial objectives?
- Were you able to maintain stability throughout while moving forward and backward? Both basic and advanced techniques?
- What techniques did you feel comfortable with and what can you improve on next?

What Skill Level Is Next?

Once you can successfully move forward and backward in either position, then you should begin to learn belly-flying up and down. Continue to improve your forward and backward skill up to advanced while learning the next skill.



Belly-Flying Forward and Backward

IBA LEVEL 1 – BELLY-FLY LESSON PLAN # 3

Flying Skill	Belly-Fly Left & Right Turns
Desired Outcome	From a neutral belly-flying position, successfully completes turns in both directions, under control, using upper and lower body inputs in a balanced and controlled manner. Turns should be started and finished on a pre-determined heading for accuracy
Pre-Requisites	Belly-Fly Forward & Backward (on or off the net)
Reference Material	Flight Tutorial # 3 Hand Signals <ul style="list-style-type: none"> • Straighten Your Legs • Bend Your Legs • Relax • Chin Up • Go Up/Come Down • Move Slower/Move Faster • Stop
Key Points (flyer)	<p>Basic Turns</p> <ul style="list-style-type: none"> • All turns should begin and end in the neutral position • Initiate by first looking slightly in the direction of the desired turn and then bank the shoulders • Lowest shoulder is the direction of the turn • Arch maintained throughout for stability • Opposite input to stop turn <p>Advanced Turns</p> <ul style="list-style-type: none"> • Simultaneous upper and lower body input in order to rotate around center point • Upper body will work the same as for a basic turn. Lower body input is based upon the turn direction and the lowest shoulder • For a right turn, the right shoulder will be lower and the unleveling of the knees will place the left knee lower than the right • Use of opposite input to stop the turn

Key Points (coach)	<ul style="list-style-type: none"> • On-duty instructor is briefed on the activity • Student is fully briefed on key points and safety factors • Appropriate wind speed setting is agreed to with the instructor and method of communicating adjustments during the session is understood • Provide heading and reference point to begin and end the turns • Avoid facing your student directly toward or away from the door-way • Enter the flight chamber only when given the "OK" by the instructor • Prior to transitioning from your feet to flying with your student, be sure to confirm your actions with the instructor • Avoid placing yourself between the instructor and your student in case the instructor needs to provide immediate assistance • Always fly within your skill level to avoid any unnecessary risk to yourself or your student • Avoid overloading your students with too much information during their early development and learning of basic skills • The altitude at which you and your students fly should not exceed the students level of ability
Student Debriefing	<ul style="list-style-type: none"> • Goals versus outcome of the session • Highlight areas that were positive • Highlight areas of improvement pertinent to the skill being learned • Goal setting for the next session



THE INTERNATIONAL BODYFLIGHT ASSOCIATION TUNNELFLIGHT.COM

03 Belly-Flying Turning

Pre-requisites

To learn how to turn left and right while belly-flying, you first need to be able to belly-fly in a neutral body position, hold that position stable, and control any unwanted forward or backward movement.

Objectives

The primary objective is to be able to safely and successfully demonstrate a left and a right turn while belly-flying, aiming to remain in control, stable and in the center of the wind tunnel throughout.

Preparation

You will start in the center of the wind tunnel, off the net, facing your coach. Your coach will give you a signal to turn either left or right. You should plan the timing of your stop based on what turn you are doing (90°, 180°, 270° or 360°) and how fast or slow you are turning. Obviously, the faster you are going, the sooner you will need to begin your movements to stop. Once you have stopped, you can then start a turn in the opposite direction.

You should be stable and under control throughout all of your turns, using the skills you already learned to stay in the center of the wind tunnel.

Technique and Drills

Keep these key elements in mind

Turning (Basic)

- Beginning in your neutral position, you will first learn to turn only using your upper body.
- Bank your shoulders, allowing the airflow to be deflected, creating the power to turn
- As you bank your shoulders, make sure that your spine continues to remain straight at all times and avoid bending your spine to one side or the other.
- Maintain your arch position throughout the turn.
- Manage the position of your legs during your turns to prevent any unwanted forward or backward drive during your turns.
- To stop the turn, you will need to reverse your movements and start a turn in the opposite direction. Doing this will allow you to stop the turn fairly quickly.

Turning (Basic) cont.

- If you over-turn or under-turn, you'll need to adjust the point at which you started your movement to stop. For example, start slightly sooner if you over-turned or slightly later if you under-turned.
- Once you've stopped the turn, return to your neutral position.

Belly-Flying Turning

03 Belly-Flying Turning

Turning (Advanced)

- You will begin these turns in your neutral body position.
- For the advanced turns, you'll move your upper body and your lower body simultaneously.
- The goal will be to rotate around your center point. To do this, you'll move your upper body and lower body in opposite directions at the same time.
- Your upper body position for this turn will be the same as for the basic technique.
- Deciding which shoulder will be the lower shoulder will depend on which knee is the lowest knee. For example, for a left turn, your left shoulder will be lowered and your right knee will be lowered.
- As you lower the knee down in to the airflow, angle your lower leg placing the inside of your lower leg in to the airflow. Doing this will create a rudder effect that will help create more power for your turn.

Turning (Advanced) cont.

- Balancing your upper body and lower body movements is important in order to create an even rotation. Typically, you will require slightly more movement for your lower body than your upper body as there is more mass in this area to move.
- When you make any movements for your turns, whether you are starting or stopping, both movements should be introduced together at the same time, even though one is slightly more powerful than the other.
- The technique to stop your turns is similar to your basic method with regard to switching from one to the other and also with regard to over-turning or under-turning.
- Once you've stopped the turn, return to your neutral position.

Post-Flight Questions / Suggestions

- How did your performance match the initial objectives?
- Were you stable throughout your turns?
- Were you able to stop at any pre-determined point?
- What did you feel comfortable with and what can you improve on during the next session?
- Were you able to control turns using both the basic and advanced methods?

What Skill Level Is Next?

Once you can successfully turn left and right with control and stop correctly on any pre-determined heading, then you should begin to learn belly-flying up and down (slow and fast fall rate). Continue to improve your turning skills. Work on the advanced method. Make your turns a little faster each time you fly, while staying in control at all times and keeping all of your inputs, starts and stops as smooth as possible.



Belly-Flying Turning

**IBA LEVEL 1 – BELLY-FLY
LESSON PLAN # 4**

Flying Skill	Belly-Fly Up & Down (Fall Rate Control)
Desired Outcome	From a neutral belly-flying position, move upward, stop and then move downward within the column of air in a controlled manner. Each movement up and down must be completed without moving forward, backward or turning
Pre-Requisites	Belly-Fly Left/Right Turns and Forward/Backward Movement
Reference Material	Flight Tutorial # 4 Hand Signals <ul style="list-style-type: none"> ● Straighten Your Legs ● Bend Your Legs ● Relax ● Chin Up ● Go Up/Come Down ● Move Slower/Move Faster ● Stop
Key Points (flyer)	<p>Upward Movement (slow fall rate)</p> <ul style="list-style-type: none"> ● Begin in a neutral position in the center of the tunnel ● Initiate the movement by flattening the torso ● Once movement begins, add balanced arm and leg extension to increase drag to continue to fly up ● Continuously manage heading with small upper body input changes ● Neutral belly-flying position to stop the movement <p>Downward Movement (fast fall rate)</p> <ul style="list-style-type: none"> ● Start in either a neutral belly-flying position or from the slow fall rate position ● Initiate by arching the torso and then reduce drag by bending arms to bring wrists close to the head and bending legs ● Balance the movements of the arms and legs to avoid unwanted drive ● Chin Up

Key Points (coach)	<ul style="list-style-type: none"> • On-duty instructor is briefed on the activity • Student is fully briefed on key points and safety factors including the stopping points for upward movement and speed management • Appropriate wind speed setting is agreed to with the instructor and the method of communicating adjustments during the session is understood • Provide heading and reference point to complete the skills • Take action to avoid student drift from the center tunnel position • Avoid facing your student directly toward or away from the door-way • Enter the flight chamber only when given the "OK" by the instructor • Prior to transitioning from your feet to flying with your student, be sure to confirm your actions with the instructor • Avoid placing yourself between the instructor and your student in case the instructor needs to provide immediate assistance • Always fly within your skill level to avoid any unnecessary risk to yourself or your student • Avoid overloading your students with too much information during their early development and learning of basic skills • The altitude at which you and your students fly should not exceed the students level of ability • This skill requires students to fly up the center of the flight chamber, so extreme caution should be exercised in height management. • Start with small adjustments and work up after consistency is demonstrated
Student Debriefing	<ul style="list-style-type: none"> • Goals versus outcome of the session • Highlight areas that were positive • Highlight areas of improvement pertinent to the skill being learned • Goal setting for the next session



THE INTERNATIONAL BODYFLIGHT ASSOCIATION TUNNELFLIGHT.COM

04 Belly-Flying Up and Down (Fall Rate)

Pre-requisites

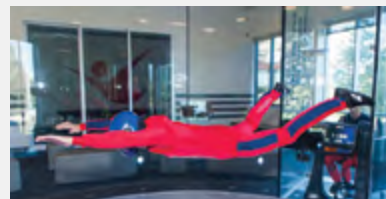
In order to learn upward and downward movement while belly-flying, you first need to be able to belly-fly in a neutral body position, hold that position stable, remain on heading, and control any unwanted forward or backward movement.

Objectives

The primary objective is to be able to safely and successfully demonstrate upward and downward movements (slow fall rate and fast fall rate) while belly-flying, remaining stable, on heading and in the center of the wind tunnel throughout.

Preparation

You will start in the center of the wind tunnel, off the net, facing in a direction that does not point you toward a doorway or put a doorway behind you; this will keep you from hitting the doors during this maneuver. When signaled by your coach, you'll first begin an upward movement. As you gain altitude in the flight chamber the speed of the airflow will gradually decrease at a specific height. Once you reach the peak of the upward movement where you can no longer gain more altitude, you will then start a downward movement and return to the initial altitude where you started. You should be stable and under control throughout both of these movements. Make sure that you use the skills you've already learned to maintain the correct heading and avoid flying yourself forward or backward toward the tunnel wall.



Basic - upward movement



Basic - downward movement

Technique and Drills

Keep these key elements in mind

Upward (Slow Fall)

- Beginning in your neutral position, first flatten out your torso so that from your shoulders through your hips to your knees is flat.
- As your torso is adjusting and creating lift, you will need to extend your arms away from your torso, keeping them flat and avoiding the tendency to press down on to the airflow.
- Slightly extending your legs to balance out the lift between your upper and lower body will help your upward movement and will also help manage any unwanted backward movement. Note – extending your legs too much will mostly create a forward movement toward the wall. A delicate balance of leg movement is required.
- Manage your heading by making slight upper body movements to counteract any unwanted heading changes during the maneuver.
- To stop upward movement, you can return to a neutral belly-flying position, or if necessary, you can adjust to a downward (fast falling) position to help you stop the movement faster.

Belly-Flying Up and Down (Fall Rate)

04 Belly-Flying Up and Down (Fall Rate)

Upward (Slow Fall) Cont.

If you are performing this maneuver using the “Mantis” belly-flying position, the elements above will work very similarly except for the following: as you flatten out your torso, you will need to spread your elbows wide, placing your arms flat to the airflow before you extend your arms.

Downward (Fast Fall)

- You may start this maneuver from either a neutral position or from your upward movement position.
- First, your torso will need to be arched, slightly more than what is required for your neutral position.
- It's important when arching your body that your hips are the lowest point of your position.
- Your arms, if extended, will bend past the neutral position bringing your wrists closer to your shoulders, lowering your elbows down reducing the surface area presented to the wind.
- Your legs will bend either back to neutral or slightly more depending on what is necessary to avoid moving forward or backward.
- Make sure you keep your chin up for this skill, which will help to reduce your surface area, helping the downward movement.
- When you have reached your desired altitude inside the tunnel, you can return to a neutral belly-flying position, or if necessary, you can adjust to an upward (slow falling) position to help you stop the movement faster.



Basic - slow fall



Basic - fast fall

Post-Flight Questions / Suggestions

- How did your performance match the initial objectives?
- Were you able to maintain stability throughout while moving up and down?
- What did you feel comfortable with and what can you improve on during the next session?
- Were you able to move and stop at a predetermined altitude consistently?

What Skill Level Is Next?

Once you can successfully move up and down with control, then you should begin to learn belly-flying side slides. Continue to advance your up and down skills so that you can move to any altitude and stop and remain at that altitude. You may want to consider flying together with your coach; you can practice by trying to match your coach's rate and movement as he or she moves up and down.



**IBA LEVEL 1 – BELLY-FLY
LESSON PLAN # 5**

Flying Skill	Belly-Fly Side-Sliding
Desired Outcome	From a neutral belly-flying position, uses balanced and controlled inputs with entire body to shift sideways from one side of the tunnel to the other and stop, in both directions. Side-slides should be accomplished on heading without gaining or losing any altitude
Pre-Requisites	Belly-Fly Up & Down
Reference Material	<p>Flight Tutorial # 5 Hand Signals</p> <ul style="list-style-type: none"> ● Straighten Your Legs ● Bend Your Legs ● Relax ● Chin Up ● Go Up/Come Down ● Move Slower/Move Faster ● Stop
Key Points (flyer)	<p>Basic movement</p> <ul style="list-style-type: none"> ● Begin in a neutral position, either in the center of the tunnel or to one side ● Initiate the movement with balanced upper and lower body inputs ● Slight lower leading side elbow, shoulder and knee to begin directing airflow ● Extend the trailing arm ● Manage heading by adjusting each input ● Stop side-slide with opposing input <p>Advanced movement</p> <ul style="list-style-type: none"> ● Begin in a neutral position either in the center of the tunnel or to one side ● Using the same initial input as the basic method, increase the pitch of your body and apply entire torso pitch to accelerate the direction of travel ● With the additional speed, ensure your input to stop the side-slide is initiated sooner

Key Points (coach)	<ul style="list-style-type: none"> • On-duty instructor is briefed on the activity • Student is fully briefed on key points and safety factors including the stopping points for upward movement and speed management • Appropriate wind speed setting is agreed to with the instructor and the method of communicating adjustments during the session is understood • Provide heading and reference point to complete the skill • Avoid facing your student directly toward or away from the door-way • Enter the flight chamber only when given the "OK" by the instructor • Prior to transitioning from your feet to flying with your student, be sure to confirm your actions with the instructor • Avoid placing yourself between the instructor and your student in case the instructor needs to provide immediate assistance • Always fly within your skill level to avoid any unnecessary risk to yourself or your student • Avoid overloading your students with too much information during their early development and learning of basic skills • The altitude at which you and your students fly should not exceed the students level of ability • This skill requires students to fly up the center of the flight chamber, so extreme caution should be exercised in height management. • Start with small adjustments and work up after consistency is demonstrated
Student Debriefing	<ul style="list-style-type: none"> • Goals versus outcome of the session • Highlight areas that were positive • Highlight areas of improvement pertinent to the skill being learned • Goal setting for the next session



THE INTERNATIONAL BODYFLIGHT ASSOCIATION TUNNELFLIGHT.COM

05 Belly-Flying Side Sliding

Pre-requisites

Learning side slides is the final part of learning the eight points of motion for the belly-fly orientation. There are, however, other skills to learn utilizing these eight points of motion that you will get to later in your progression. Prior to learning belly-flying side slides, you will need to have a fair amount of control in your neutral belly-flying position, moving forward, backward, up, down and controlling turns with ease. By knowing these moves you will have already had exposure to using more than one part of your body for control, driving and stopping. This will be a key element for learning side slides.

Objectives

The primary objective for this skill is to be able to safely control your body while side sliding from one side of the tunnel to the other and back again. Ultimately you will aim to complete this maneuver without coming into contact with the tunnel wall, while maintaining a constant heading and altitude throughout. Once you can complete this skill successfully, you can start combining your eight points of motion for other skills, such as super positioning.

Learning side slides will be one of the key belly-flying elements when it is time for you to fly with another person.

Preparation

To begin this maneuver, it is best to position yourself toward one side of the tunnel, ideally away from any of the tunnel doorways, as these can create an obstacle for you. You will also want to be at approximately waist level above the net and on a heading that will allow you to see your instructor for guidance. The size of the tunnel you are flying in will affect how much energy or speed you will be able to create before having to stop prior to contacting the wall on the opposite side.



Basic - side sliding

Technique and Drills

Keep these key elements in mind

Basic

- Initiate the slide using both your upper and lower body so that you can maintain a constant heading when you move. Using only one input can typically cause a turn.
- For a slide to the left, your left knee and your left elbow will be lowered down into the airflow to create the body pitch which will cause the drive. The opposite is true for a slide to the right.

Basic cont.

- Usually you will use slightly more knee input as the lower body is typically heavier than the upper body, so it will require slightly more drive.
- Once you reach the half-way point in the tunnel, return to a neutral position and prepare to stop.
- To stop the slide, simply lower the opposite knee and elbow (like starting a slide in the opposite direction). Once you stop, then you can return to a neutral position and set up for a slide in the opposite direction.
- Constantly manage your arched position at your torso to maintain the desired altitude; try to avoid any altitude changes.

Belly-Flying Side Sliding

05 Belly-Flying Side Sliding

Advanced

- Once you feel comfortable with basic side slides, you will want to introduce more of your body to the airflow which will ultimately give you more power or drive.
- For the slide to the left, you can lower your left knee and elbow slightly more, and raise your right elbow and right knee.
- When you un-level your elbows and knees more, you will expose more of your torso which will create more driving surface.
- Be aware that creating more drive can quickly increase the speed of the side slide (which is the goal), so you will need to be prepared for when to stop.
- Similar to how you stop the basic slide, you will need to oppose the entire input that you are creating to stop your side slide. Again, keep in mind that the faster you are traveling, the sooner you will need to apply the stopping input so that you can stop prior to contacting the wall.



Advanced - side sliding



Advanced - side sliding

Post-Flight Questions / Suggestions

- How did your performance match the initial objectives?
- Were you able to maintain stability throughout while holding a constant speed, heading, and altitude?
- What techniques did you feel comfortable with and what can you improve on during the next session?

What Skill Level Is Next?

The eight points of motion on your belly are the foundation of solid technique and are the key skills required for flying with others. Once you have mastered these, then you are in a position to begin learning 2-way skills and the 2-way formations that will prepare you for competition flying. It is at this point that your flying "career" begins!

If at this point you have not mastered entering the wind tunnel and exiting with little to no assistance from the tunnel instructor, then this will need to be your next goal.



**IBA LEVEL 1 – BELLY-FLY
LESSON PLAN # 6**

Flying Skill	Belly-Fly Entrances & Exits
Desired Outcome	Safely enters the flight chamber in to a neutral belly-flying body position with minimal assistance from the tunnel instructor. Approach the doorway safely and in control at the optimal altitude and exit the tunnel with minimal assistance

Pre-Requisites	Belly-Fly Skills: Left/Right Turns, Forward/Backwards, and Up/Down Movement
-----------------------	---

Reference Material	<p>Flight Tutorial # 6 & 7 Hand Signals</p> <ul style="list-style-type: none"> ● Straighten Your Legs ● Bend Your Legs ● Relax ● Chin Up ● Go Up/Come Down ● Move Slower/Move Faster ● Stop
---------------------------	--

Key Points (flyer)	<p>Entrance</p> <ul style="list-style-type: none"> ● Begin with a stable stance in the staging area at the end of the doorway ● Chin up and enter in to the airflow hips low toward the center of the tunnel ● Counteract forward movement using arms forward and legs bent technique ● Use upper body input to maintain the correct heading to enter straight <p>Exit</p> <ul style="list-style-type: none"> ● Start in a neutral belly-flying position, facing the door way at approximately 5 feet above the net ● Initiate a slow forward movement to the door, avoid reaching for the door frame ● Stop at the door, grasp the frame, bend knees down to stand and step out
---------------------------	---

Key Points (coach)	<ul style="list-style-type: none"> • On-duty instructor is briefed on the activity • Student is fully briefed on key points and safety factors including the stopping points for upward movement and speed management • Appropriate wind speed setting is agreed to with the instructor and the method of communicating adjustments during the session is understood • Provide heading and reference point to complete the skills • Avoid facing your student directly toward or away from the door-way • Enter the flight chamber only when given the "OK" by the instructor • Prior to transitioning from your feet to flying with your student, be sure to confirm your actions with the instructor • Avoid placing yourself between the instructor and your student in case the instructor needs to provide immediate assistance • Always fly within your skill level to avoid any unnecessary risk to yourself or your student • Avoid overloading your students with too much information during their early development and learning of basic skills • The altitude at which you and your students fly should not exceed the students level of ability • This skill requires students to fly up the center of the flight chamber, so extreme caution should be exercised in height management. • Start with small adjustments and work up after consistency is demonstrated
Student Debriefing	<ul style="list-style-type: none"> • Goals versus outcome of the session • Highlight areas that were positive • Highlight areas of improvement pertinent to the skill being learned • Goal setting for the next session



THE INTERNATIONAL BODYFLIGHT ASSOCIATION TUNNELFLIGHT.COM

06 Belly-Flying Entrances

Pre-requisites

Learning to enter the wind tunnel without the physical assistance of the wind tunnel instructor is one of the building blocks of solo belly-flight. You will need to have at least a stable belly-flying body position prior to being able to learn this skill because once you enter the flight chamber, you need to be comfortable in the position you assume. It is likely that you will have completed other belly-flying skills prior to learning the “un-assisted” entrance, but they are not required to do first.

Objectives

The primary goal of this skill is to be able to set up in the tunnel staging area low and balanced on your feet and then safely enter the flight chamber into your neutral belly-flying body position, controlling your position so that you maintain approximately a waist-high altitude, and stopping any unwanted forward movement. In order to successfully complete this skill, you will want to aim to maintain control throughout so that the wind tunnel instructor does not need apply any assistance.

Preparation

You will begin in the staging area, on your feet, in a low, squatting stance. Face the doorway approximately 1-2 feet back from the edge, with your arms out and ready to engage in the neutral belly flying position.

You can utilize one or more flight rotations to practice an entrance followed immediately by an exit and repeat until you feel comfortable.

Technique and Drills

Keep these key elements in mind

Basic

- Set up so that you're squatting low and enter the airflow low.
- For balance, have one foot slightly in front of the other.
- Keep your chin up and prepare to thrust your hips forwards as you pass the threshold of the door.
- Your arms should be out so they catch airflow once you begin the entrance; this will help with control and better stopping power once you are in.
- Enter the airflow slowly so you don't generate too much speed.
- As your feet leave the floor plate, be aware of stopping any unwanted forward drive by bending your legs and slightly extending your arms forward.
- Remain arched throughout the entrance so that you maintain a low altitude.



Basic entrance set-up

Belly-Flying Entrances

06 Belly-Flying Entrances



Basic entrance



Completed belly entrance

Post-Flight Questions / Suggestions

- How did your performance match the initial objectives?
- Were you able to maintain stability throughout?
- Did the entrance feel smooth throughout?
- Were you able to control any unwanted movements?
- What can you work on during the next session to improve your entrances?

What Skill Level Is Next?

While you are learning belly-flying entrances, you will also learn belly-flying exits. Every time you plan to fly on your belly, you will have the opportunity to work on getting better at both of these skills. Once you feel comfortable entering forward on your belly, ask your instructor about how to enter backwards or side-ways on to your belly. Other skills to work on next are 2-way belly-flying and super positioning.



Formation Skydiving Skills

As an IBA Formation Skydiving (FS) coach you will also coach the skills associated with all aspects of FS flying through to FS Flyer Level Pro as detailed within the IBA Flight Progression Chart. In order to commence coaching, your student must have been signed off as an IBA Level 1 Flyer by an IBA instructor. At this stage, in addition to more advanced FS with multiple flyers, you may also be involved with relatively inexperienced flyers and your coaching may be focused on specific individual aspects of belly-flying, so you should have a firm grasp of the basic flying principles.

The following Lesson Plans and the IBA Flight Tutorials will support you in the delivery of your coaching sessions. They are not necessarily prescriptive but you should be viewed as a minimum requirement. The plans are supported by the IBA Flight Tutorials that may be found within the relevant pages of www.tunnelflight.com and the *IBA Fundamentals of Coaching Guide*

Throughout your coaching you should ensure that each session has a SMARTER goal that is agreed and clearly understood, and that the session is clearly briefed and debriefed.

Formation Skydiving Lesson Plans

IBA LEVEL 2 – FORMATION SKYDIVING LESSON PLAN # 7

Flying Skill	Super Positioning
Desired Outcome	Demonstrates controlled and coordinated use of the upper and lower body in combining multiple skills. An example is a side slide and a turn or an upward movement and a side slide. The student must maintain stability throughout
Pre-Requisites	Belly-Flying Up & Down
Reference Material	Flight Tutorial # 11 Hand Signals <ul style="list-style-type: none"> • Straighten Your Legs • Bend Your Legs • Relax • Chin Up • Go Up/Come Down • Move Slower/Move Faster • Stop

Key Points (flyer)	<p>Moves remaining on level</p> <ul style="list-style-type: none"> • Initiate the lateral move prior to any rotational move • Once the movement starts, begin the desired rotation • Maintain eye contact throughout the maneuver • Continue to manage body position to maintain altitude • Use visual references to understand where to stop <p>Moves with altitude adjustments</p> <ul style="list-style-type: none"> • Initiate lateral movement and altitude adjustment simultaneously • Once these movements begin, initiate any desired rotation • Maintain eye contact and manage body position to manage altitude adjustments • Coordinated use of the entire body to achieve the desired results and to stop in the correct position
Key Points (coach)	<ul style="list-style-type: none"> • On-duty instructor is briefed on the activity • Student is fully briefed on key points and safety factors including the stopping points for upward movement and speed management • Appropriate wind speed setting is agreed to with the instructor and the method of communicating adjustments during the session is understood • Provide heading, altitude and reference points to complete the skills briefed • Avoid facing your student directly toward or away from the door-way • Enter the flight chamber only when given the "OK" by the instructor • Prior to transitioning from your feet to flying with your student, be sure to confirm your actions with the instructor • Avoid placing yourself between the instructor and your student in case the instructor needs to provide immediate assistance • Always fly within your skill level to avoid any unnecessary risk to yourself or your student • Avoid overloading your students with too much information during their early development and learning of basic skills • The altitude at which you and your students fly should not exceed the students level of ability
Student Debriefing	<ul style="list-style-type: none"> • Goals versus outcome of the session • Highlight areas that were positive • Highlight areas of improvement pertinent to the skill being learned • Goal setting for the next session



THE INTERNATIONAL BODYFLIGHT ASSOCIATION TUNNELFLIGHT.COM

11 Belly-Flying Super Positioning

Pre-requisites

Super-positioning can be considered a dynamic belly-flying skill. The mixing together of multiple movements similar to belly-flying verticals adds to the complexity of belly-flight, yet ultimately produces a more capable and well-rounded flyer. Prior to learning super-positioning moves, you will need to be comfortable flying all of the eight points of motion on your belly. You should also be familiar with flying with another person as super-positioning usually requires you to have a second flyer in the tunnel with you for reference and to pick up grips.

Objectives

The primary objective is to be able to safely and successfully perform some of the several different super-positioning moves, which consist of multiple inputs (for example, side-sliding and turning), moving a specified distance from start to finish, and rotating a specified number of degrees. The ultimate goal is to be able to perform these moves without hesitation, in any direction, with any other flyer without any issues.

Preparation

How you set up will depend on which type of super-positioning skill you are preparing to complete. If you are performing a skill that requires a side-slide or forward / backward movement, usually you will begin on one side of the tunnel so that you have enough space to be able to make a large enough move to get the truest feel of how it should be flown. If you are performing a move that requires an altitude change, then you will want to set up so that you are either low enough or high enough to leave enough workable room to travel in the direction you wish.

Other items to consider are:

- When you are “building” a specific formation to begin and you are making a move to finish in a different formation with your partner, aim to set up so that you are at the correct level and that the “look” of the formation is correct and not built at an awkward or incorrect angle or shape.
- Ensuring that each formation is built as exact as possible not only ensures proper training but it also ensures that the move you are about to make is as perfect-looking as possible.

Technique and Drills

Keep these key elements in mind when learning each of these skills:

Side-Slides & Turning (360°)

- Begin on one side of the tunnel on a determined heading
- First, initiate the side-slide to get moving
- As the side-slide starts, begin a 360° turn
- Ideally, once you are halfway across the tunnel, you should have completed half of your turn
- Aim to keep visual contact with a reference point or another flyer if you have one flying with you.
- Once you are halfway across the tunnel and halfway around your turn, you will “head switch” so that as you continue the movement you can continue to keep visual contact with your reference.
- As you approach the opposite side of the tunnel, you should also be completing your turn
- Use the basic methods to stop the turn and the side-slide. You should finish on the opposite side of the tunnel that you started from, and should be facing the same direction
- Continuously manage your body position so that you can maintain a constant altitude the entire time
- Now practice going in the opposite direction

Belly-Flying Super-Positioning

11 Belly-Flying Super Positioning

Technique and Drills cont.

Side-Slides & Turning (360°)

- Begin on one side of the tunnel on a determined heading and low to the net
- Begin with a side-slide toward the center of the tunnel
- As you start moving, flatten your body position to begin an upward movement while still continuing to slide
- Hold the two inputs until you pass halfway across the tunnel
- As you approach the opposite side of the tunnel, you will need to stop your side-slide and maintain your arched position to maintain the altitude you finish at
- This is a dynamic skill to learn as there are numerous variations with sliding left and raising up or sliding left and descending down. Try to learn all of the combinations and become familiar with all of them

Post-Flight Questions / Suggestions

- How did your performance match the initial objectives?
- Were you able to maintain stability throughout each of the super-positioning moves?
- Did you have a preferred skill or preferred direction to perform a certain skill?
- What techniques did you feel comfortable with and what can you improve on during the next session?
- How can you build on what you learned and practice some more difficult super-positioning moves?

What Skill Level Is Next?

Once you have completed some of the basic super-positioning moves, you will want to discuss and prepare with your coach some more technical moves. Becoming familiar and comfortable with these maneuvers will help you with your 3-way and 4-way flying, as some parts of the respective dive pools will require you to make moves very similar to those practiced. Where you are in your progression will ultimately determine what skills you will learn after super-positioning. 3-way and 4-way flying will typically be the next items on your agenda.



IBA LEVEL 2 – FORMATION SKYDIVING LESSON PLAN # 8

Flying Skill	2-Way Flying/Formations/Verticals/Entrances
Desired Outcome	Demonstrates control while flying with another person, using correct techniques to complete pre-determined formations, vertical movement exercises and entering the wind tunnel as a linked group. This may be completed as an individual with a coach/instructor or another competent flyer who is also a competent Level 1 flyer.
Pre-Requisites	Super Positioning
Reference Material	<p>Flight Tutorial # 8, 9 & 10 IBA Dive Pool Videos</p> <ul style="list-style-type: none"> • 2 - Way Flying • 2- Way Formations • 2- Way Verticals • 2- Way Entrances <p>Hand Signals</p> <ul style="list-style-type: none"> • Straighten Your Legs • Bend Your Legs • Relax • Chin Up • Go Up/Come Down • Move Slower/Move Faster • Stop
Key Points (flyer)	<ul style="list-style-type: none"> • Recognize where the other flyer is at all times and maintaining visual contact • Begin with basic skills, one flyer stationary and the other performing skills and then switching • Increase the complexity when the flyers demonstrate proficiency • Understanding the timing of vertical drills and appropriate movements and speeds • Emphasize the act of stopping and returning to a neutral position prior to initiating a new move • For entrances, both flyers are responsible for stopping movement and maintaining a low altitude • If at any time a flyer becomes unstable, they should wait for instructor assistance • The stable flyer should fly low to the net and away from the situation.

Key Points (coach)	<ul style="list-style-type: none"> • On-duty instructor is briefed on the activity • Student is fully briefed on key points and safety factors including the stopping points for upward movement and speed management • Appropriate wind speed setting is agreed to with the instructor and the method of communicating adjustments during the session is understood • Provide heading, altitude and reference points to complete the skills briefed • Avoid facing your student directly toward or away from the door-way • Enter the flight chamber only when given the "OK" by the instructor • Prior to transitioning from your feet to flying with your student, be sure to confirm your actions with the instructor • Avoid placing yourself between the instructor and your student in case the instructor needs to provide immediate assistance • Always fly within your skill level to avoid any unnecessary risk to yourself or your student • Avoid overloading your students with too much information during their early development and learning of basic skills • The altitude at which you and your students fly should not exceed the students level of ability • If you plan to fly in place of a second flyer, prior to transitioning from your feet to flying with your student, be sure to confirm with the instructor • Remind students of the importance of allowing the on-duty instructor unobstructed access to each flyer • Flyers should fly what has been briefed and to their skill level • Brief your student on preferred grip taking techniques, avoiding reaching and using the grips for stability or control • Explain the importance of visual/eye contact throughout each maneuver and references to the center of the formation • Practice routines outside of the flight chamber environment to prepare them for each session and also begin a routine of "dirt diving" to ensure clarity of each flight • Once your student demonstrates the capability to, you may wish to introduce them to 2-way piece flying
Student Debriefing	<ul style="list-style-type: none"> • Goals versus outcome of the session • Highlight areas that were positive • Highlight areas of improvement pertinent to the skill being learned • Goal setting for the next session



THE INTERNATIONAL BODYFLIGHT ASSOCIATION TUNNELFLIGHT.COM

08 Belly-Flying 2-Way

Pre-requisites

Before the tunnel instructor will allow you to fly with another flyer, you will need to demonstrate proficiency at certain skills. These skills are:

- Stable, neutral belly-flying position
- Heading control (left/right turns)
- Up and down control
- Forward and backward control
- Side-sliding
- Entering and exiting with minimal instructor assistance

Being proficient at these skills is important because when you are flying with another person, you will obviously have less space in which to maneuver and you must be able to control your body in that smaller amount of space.

Other than the personal flying skills, your instructor will also look to see that you and your chosen flying partner are suitably matched to fly together so that the wind speed required is close to the same. Additional equipment such as weight belts may be required to assist in equalizing flying speeds.

Objectives

The primary objective is to be able to safely and successfully belly-fly with another flyer at the same time, with each flyer maintaining control throughout the entire flight rotation. Both flyers should be able to remain in visual contact the whole time and maintain the same altitude, avoiding any situations where one flyer is above another, which could cause unwanted collisions.

Preparation

Both flyers will begin in the staging area. You will discuss with your instructor the most appropriate order for entering the chamber and then each flyer will enter, one at a time. After the first flyer has entered, you will need to make sure there is enough free space for the second to enter also.

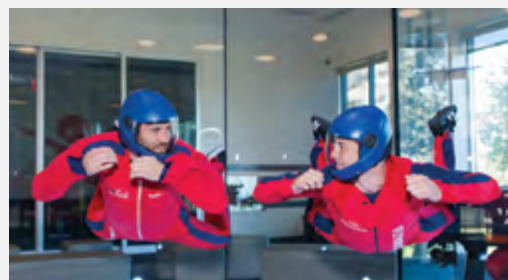
Once both flyers have successfully entered the air flow, you will begin your 2-way flight low to the net, on the same level, before rising to your desired flying altitude.

Technique and Drills

Keep these key elements in mind

Basic

- Begin on-level with your partner
- Fly facing each other and aim to maintain flying in the same airspace without moving
- Both flyers should turn so that you are side by side, facing the same direction and again maintaining your airspace
- Play a slow follow-the-leader drill where one person adjusts heading or altitude and the other person matches
- Maintain eye contact throughout



Basic 2-Way side by side

Belly-Flying 2-Way

08 Belly-Flying 2-Way

Next Level

- Try some 360° turns having one person fly static while the other turns and then switch roles
- Once you become comfortable, build simple formations
- Before you pick up any grips on your flying partner, be sure that you are both on the same level
- After you adjust heading to build different formations, be sure that you stop any movement prior to picking up any grips on your partner



B - Star



D - Sidebody



04 - Opposed stair-step

*IBA video Skill 09 2-way FS Dive Pool

Post-Flight Questions / Suggestions

- How did your performance match the initial objectives?
- Were you able to maintain the same level and visual contact for the whole flight without losing control?
- Are you ready to begin learning formations for the next session?
- What movements did you practice that we can improve on to make the entire 2-way experience more precise?

What Skill Level Is Next?

Once you have demonstrated control learning basic 2-way flying and movements, the next skills that you are ready to learn are the 2-way formation skydiving (FS) dive pool and belly-flying 2-way verticals. You are almost ready to begin competing!





THE INTERNATIONAL BODYFLIGHT ASSOCIATION TUNNELFLIGHT.COM

09 Belly-Flying Verticals

Pre-requisites

Belly-flying vertical moves is a great introduction in to the dynamic aspects of belly flight. Being comfortable flying in this “burbled” or disturbed airflow will allow you to be able to transition from one side of a formation to another without having to make room and pass side-by-side. Doing a movement vertically makes moves much faster and it’s extremely fun to learn!

Before learning belly-flying vertical movements, you will need to be comfortable with many of the belly-flying skills. These include the eight points of motion--specifically up, down and the side-sliding movements. You should also be comfortable flying with another flyer and should have had some practice building a few basic 2-way formations.

Objectives

The primary objective is to be able to safely and successfully:

- Begin side-by-side, facing the same direction
- Switch places by passing one over and one under with each other
- Repeat the process in the opposing role

Preparation

Prior to entering the flight chamber to begin this skill, it is important that you discuss with your flying partner a specific plan for once you are inside. Decide which direction each of you will face, which direction you plan to rotate each vertical, and who will transition over the other flyer first. Discuss how you plan to communicate so that you are both on the same page when you are in the airflow. Signals to start and stop are very helpful.

Once you are inside, you will need to face the same direction so that neither flyer runs the risk of having a doorway as an obstacle at any time. Begin at about chest level, above the net.



Belly flying verticals

Technique and Drills

Keep these key elements in mind

- Begin facing the same direction
- One flyer ascends and the other flyer descends slightly to create the off-set, leaving only 1-2 feet vertically between you
- On the signal, both flyers side-slide to the opposite side of the tunnel and stop
- Be sure to begin the side slide at the same time so the higher flyer does not get caught above the lower flyer

Belly-Flying Verticals

09 Belly-Flying Verticals

Technique and Drills cont.

- The flyer who passes over the top into the “burble” should expect to feel the decrease in airflow and should avoid reaching or making too large a change in body position
- Both flyers should continue to keep visual contact with each other throughout
Once both flyers have switched sides, return to the same altitude
- Repeat the above steps, reversing the roles so each flyer can experience the “burbled” airflow

Post-Flight Questions / Suggestions

- How did your performance match the initial objectives?
- Were you able to maintain stability when you were the higher flyer going over the top?
- Were you able to maintain eye contact and control your side slides without contacting the wall?
- What techniques did you feel comfortable with and what can you improve on during the next session?
- Did you have a preferred direction to travel when you were going over the top? What can you do differently to be proficient going both ways?

What Skill Level Is Next?

At this point in your progression you have many options for what skill to learn next. Depending on what skills you have already shown proficiency at, you will now progress on to either 2-way entrances, super positioning or 3-way flying. A recommendation is to continue becoming familiar and faster at the 2-way dive pool and becoming comfortable flying with other people that maybe you haven't flown with yet. You can also look into entering a competition if there is one in your local area.





THE INTERNATIONAL BODYFLIGHT ASSOCIATION TUNNELFLIGHT.COM

10 2-Way Belly-Flying Entrances

Pre-requisites

Many flyers will want to learn entering the tunnel in a 2-way formation mainly for the enjoyment and added challenge that it presents but also for skydivers wishing to imitate the exit portion of a skydive. Before you will be able to learn entering the wind tunnel while holding or being held by another in a 2-way formation, you will need to demonstrate that you are able to enter the airflow solo, fly a neutral body position, along with the eight points of motion, without any considerable issues.

If you plan to be the flyer who enters other than forwards during the 2-way entrance, you will need to practice that move solo prior to adding the second flyer.

Objectives

The primary objective is to be able to safely and successfully begin in the staging area of the tunnel, build the anticipated 2-way formation while standing at the entrance doorway, enter the wind tunnel keeping the formation intact, and finish in the center of the wind tunnel with both flyers stable, on the same level and without any movement.

Preparation

You and your flying partner will discuss with your instructor which entrances are the safest and most successful to try. Build the formation while standing in the tunnel staging area. The first flyer to enter the airflow should be as close to the edge of the door as possible, using the doorframe for added support and stability. At the same time, the second flyer should be positioned as close to the first flyer as possible to allow the pair to enter as a “chunk” with little space in between them. Both flyers will want to squat slightly to allow themselves to enter low. Both flyers should use the bend in their legs to help provide the power to move away from the door toward the center of the tunnel.

Technique and Drills

Keep these key elements in mind

Side Body Entrance:

- The first flyer will stand at the edge of the door, sideways to the airflow. The flyer can lift the foot closest to the wind up off the floor and balance on one foot. This helps with leading with that raised foot and can help with initiating stability
- The second (inside) flyer will pick up an arm and a leg grip (side body formation), standing close to the first flyer
- Both flyers should squat slightly and look at each other for the correct timing
- Either flyer can time the entrance with designated “ready... set... go!” count
- On the “go” command, the first flyer pushes sideways into the wind, quickly raising their grounded foot and begin belly-flying toward the center of the wind tunnel, providing space for the second flyer to enter



2-Way Sidebody Entrance

2-Way Belly-Flying Entrances

10 2-Way Belly-Flying Entrances

Technique and Drills Cont.

Keep these key elements in mind

Side Body Entrance:

- The second flyer will remain close to the first flyer, pushing forward into the wind, matching the speed and altitude of the first flyer
- Once both flyers reach the center of the tunnel, you should both aid the stopping of movement by opposing any drive that you have.

2-Way Star Entrance:

- The first flyer stands at the edge of the door, with his/her back to the airflow. One foot can be lifted off the floor and balance on one foot. This helps with leading with that raised foot and can help with initiating stability
- The second (inside) flyer picks up both wrists of the first flyer (star formation), standing close to the first flyer
- Both flyers should squat slightly and look at each other for the correct timing
- Either flyer can time the entrance with designated "ready... set... go!" count
- On the "go" command, the first flyer will push backwards into the wind, quickly raising their grounded foot and begin belly-fly toward the center of the wind tunnel, providing space for the second flyer to enter
- The second flyer will remain close to the first flyer, pushing forward into the wind, matching the speed and altitude of the first flyer. It is important not to get ahead of the first flyer as this can cause the first flyer to fall backward onto the wind before they are able to raise their feet off the floor
- Once you reach the center of the tunnel, both flyers should aid the stopping of movement by opposing any drive that you have.



2-Way Sidebody Entrance



2-Way Sidebody Entrance

Post-Flight Questions / Suggestions

- How did your performance match the initial objectives?
 - Were you able to enter the tunnel and maintain stability throughout?
 - Was the entrance timing correct and did the entrances feel smooth?
- What techniques did you feel comfortable with and what can you improve on during the next session?

What Skill is Next?

The skills you have completed prior to learning 2-way entrances determines what skill you will learn next. At this point you should be comfortable flying with a partner, maybe many different partners. It's in your best interest to broaden the range of people you fly with (lighter or heavier) as this can improve your overall ability to be able to fly with anybody. You will want to become proficient at knowing the 2-way dive pool with as many different partners as you can. If you haven't already begun to do so, you could possibly learn super positioning next, or maybe you are ready to begin 3-way flying!



2-Way Belly-Flying Entrances

IBA LEVEL 3 – FORMATION SKYDIVING LESSON PLAN # 9

Flying Skill	3-Way Flying & 3-Way Dive Pool
Desired Outcome	Demonstrates control while flying with two other people, using correct techniques for all of the movements in completing pre-determined formations and selections from the IBA 3-Way Dive Pool. These skills can be completed either by combining three students that have demonstrated the ability to fly correctly during the 2-way skills or one or a combinations of students, coaches and other competent belly-flyers.
Pre-Requisites	2-Way Flying
Reference Material	<p>Flight Tutorial # 12</p> <p>IBA Dive Pool Videos</p> <ul style="list-style-type: none"> • 3 - Way Flying • 3 - Way Dive Pool <p>Hand Signals</p> <ul style="list-style-type: none"> • Straighten Your Legs • Bend Your Legs • Relax • Chin Up • Go Up/Come Down • Move Slower/Move Faster • Stop
Key Points (flyer)	<ul style="list-style-type: none"> • Recognize where the other flyers are at all times and maintaining visual contact • Begin with basic skills, small movements for each flyer and easy transition between each point • Increase the complexity when the flyers demonstrate proficiency • Understand the timing of any vertical drills and appropriate movements and speeds and visual references between the flyer group • Emphasize the act of stopping and returning to a neutral position prior to initiating a new move • For entering, each flyer will enter to a specific slot inside the flight chamber and ensure visual contact with others entering • If at any time a flyer becomes unstable, they should wait for instructor assistance • The stable flyer(s) should fly low to the net and away from the situation

Key Points (coach)	<ul style="list-style-type: none"> • On-duty instructor is briefed on the activity • Student is fully briefed on key points and safety factors including the stopping points for upward movement and speed management • Appropriate wind speed setting is agreed to with the instructor and the method of communicating adjustments during the session is understood • Provide heading and reference point to complete the skills briefed • Avoid facing your student directly toward or away from the door-way • Enter the flight chamber only when given the "OK" by the instructor • Prior to transitioning from your feet to flying with your student, be sure to confirm your actions with the instructor • Avoid placing yourself between the instructor and your student in case the instructor needs to provide immediate assistance • Always fly within your skill level to avoid any unnecessary risk to yourself or your student • Avoid overloading your students with too much information during their early development and learning of basic skills • If you plan to fly in place of another flyer, prior to transitioning from your feet to flying with your student, be sure to confirm with the instructor • Remind students of the importance of allowing the on-duty instructor unobstructed access to each flyer. • Flyers should fly what has been briefed and to their skill level • Remind students of the importance of allowing the on-duty instructor unobstructed access to each flyer. • Flyers should fly what has been briefed and to their skill level • Cover preferred grip taking techniques, avoiding reaching and using the grips for stability or control • Direct attention to eye contact and where during each maneuver it plays an important role • Continue to use "dirt diving" of routines outside of the flight chamber as a key part of preparation • When it is appropriate, allow your students to fly in different "slots" in order to learn a broader scope of the dive pools
Student Debriefing	<ul style="list-style-type: none"> • Goals versus outcome of the session • Highlight areas that were positive • Highlight areas of improvement pertinent to the skill being learned • Goal setting for the next session



THE INTERNATIONAL BODYFLIGHT ASSOCIATION TUNNELFLIGHT.COM

12 Belly-Flying 3-Way

Pre-requisites

Before the tunnel instructor will allow you to fly with two other flyers, you will need to demonstrate that:

- You are proficient at flying with one other flyer
- You have demonstrated that you have flown with a range of other flyers and are able to match different levels at different wind speeds
- You are capable of entering the wind tunnel into a smaller space and don't require the whole chamber to control yourself during the entrance. When you fly with two other people you won't have the luxury of having the entire width of the flight chamber to gain stability and control.

Similar to when you started flying 2-way, your tunnel instructor will need to ensure that the people you have chosen to fly with are suitably matched based upon equal skill level and fall rate. Additional equipment such as weight belts may be required to assist in equalizing flying speeds.

Objectives

The primary objective is to be able to safely and successfully belly-fly with two other flyers at the same time, with all flyers maintaining control throughout the entire flight rotation. All three flyers should be able to remain in visual contact the whole time and maintain the same altitude, avoiding any situations where one flyer is above or below the rest of the group, which could cause unwanted collisions

Preparation

All flyers will begin in the staging area. You will discuss with your instructor the most appropriate order for entering the chamber and then each flyer will enter, one at a time. After the first flyer has entered, he or she will need to make sure there is enough free space for the second to enter, and so on.

Once all three flyers have successfully entered the air flow, you will begin your 3-way flight low to the net, on the same level, before rising to your desired flying altitude and picking up grips.

Technique and Drills

Keep these key elements in mind when learning this skill:

- Begin on-level with your partners
- Once everyone is on the same level, begin to build a formation
- Depending on the formations you plan on building, aim to maintain visual contact with each other the entire time
- Unless a specific vertical type formation has been pre-determined, aim to maintain the same flight level throughout
- Plan to build 3-4 different formations and continue to repeat the same sequence until your time is complete.

Belly-Flying 3-Way

12 Belly-Flying 3-Way

Post-Flight Questions / Suggestions

- How did your performance match the initial objectives?
 - Were you able to maintain the same level and visual contact for the whole flight without losing control?
 - Are you ready to begin learning more difficult formations for the next session?
 - What movements did you practice that you can improve on to make the entire 3-way experience more precise?
 - Are you ready to compete?
-

What Skill Level Is Next?

Once you have demonstrated control learning basic 3-way flying and movements, have your instructor/coach demonstrate the more difficult formations and blocks and try to formulate a mix of different routines to practice and become great at! Once you feel you are ready, add a fourth member and begin learning 4-way random formations and block routines.



IBA LEVEL 3 – FORMATION SKYDIVING LESSON PLAN # 10

Flying Skill	4-Way Random Dive Pool
Desired Outcome	Demonstrates control while flying with three other people, using correct techniques for all of the movements in completing pre-determined formations and selections from the IBA 4-Way Random Dive Pool. This skill can be completed either by combining four students that have demonstrated the ability to fly correctly during the 3-way skills or a combination of students, coaches and other competent belly-flyers
Pre-Requisites	3-Way Flying
Reference Material	<p>IBA Dive Pool Video</p> <ul style="list-style-type: none"> • 4 - Way Random Dive Pool <p>Hand Signals</p> <ul style="list-style-type: none"> • Straighten Your Legs • Bend Your Legs • Relax • Chin Up • Go Up/Come Down • Move Slower/Move Faster • Stop
Key Points (flyer)	<ul style="list-style-type: none"> • Recognize where the other flyers are at all times and maintaining visual contact • Begin with basic skills, small movements for each flyer and easy transition between each point • Increase the complexity when the flyers demonstrate proficiency • Understand the timing of any vertical drills and appropriate movements and speeds and visual references between the flyer group • Emphasize the act of stopping and returning to a neutral position prior to initiating a new move • For entering, each flyer will enter to a specific slot inside the flight chamber and ensure visual contact with others entering • If at any time a flyer becomes unstable, they should wait for instructor assistance • The stable flyer(s) should fly low to the net and away from the situation

Key Points (coach)	<ul style="list-style-type: none"> • On-duty instructor is briefed on the activity • Student is fully briefed on key points and safety factors including the stopping points for upward movement and speed management • Appropriate wind speed setting is agreed to with the instructor and the method of communicating adjustments during the session is understood • Provide heading and reference point to complete the skills briefed • Avoid facing your student directly toward or away from the door-way • Enter the flight chamber only when given the "OK" by the instructor • Prior to transitioning from your feet to flying with your student, be sure to confirm your actions with the instructor • Avoid placing yourself between the instructor and your student in case the instructor needs to provide immediate assistance • Always fly within your skill level to avoid any unnecessary risk to yourself or your student • Avoid overloading your students with too much information during their early development and learning of basic skills • The altitude at which you and your students fly should not exceed the students level of ability • Remind students of the importance of allowing the on-duty instructor unobstructed access to each flyer • Flyers should fly what has been briefed and to their skill level • Cover preferred grip taking techniques, avoiding reaching and using the grips for stability or control • Direct attention to eye contact and where during each maneuver it plays an important role • Continue to use "dirt diving" of routines outside of the flight chamber as a key part of preparation • When it is appropriate, allow your students to fly in different "slots" in order to learn a broader scope of the dive pools • Explain the importance of smooth transitions between each point, all movements happening at the same time and stopping prior to taking grips and finally building level formations
Student Debriefing	<ul style="list-style-type: none"> • Goals versus outcome of the session • Highlight areas that were positive • Highlight areas of improvement pertinent to the skill being learned • Goal setting for the next session

IBA LEVEL 4 – FORMATION SKYDIVING LESSON PLAN # 11

Flying Skill	4-Way A/AA/AAA Class Dive Pools
Desired Outcome	Demonstrates the ability to correctly fly selected sequences from each of the relevant dive pools beginning at A class and working through to AAA class. By using the IBA Draw Generator, specific sequences may be drawn for each tunnel flight and each flight must be flown with flyers demonstrating control and stability throughout. Although it is not necessary to compete to gain this flyer rating, it is highly recommended as it provides flyers with a deeper knowledge of the discipline
Pre-Requisites	3-Way Flying
Reference Material	<p>IBA Dive Pool Videos</p> <ul style="list-style-type: none"> • 4 - Way A Class • AA Class • AAA Class <p>Hand Signals</p> <ul style="list-style-type: none"> • Straighten Your Legs • Bend Your Legs • Relax • Chin Up • Go Up/Come Down • Move Slower/Move Faster • Stop
Key Points (flyer)	<ul style="list-style-type: none"> • Recognize where the other flyers are at all times and maintaining visual contact • Begin with basic skills, small movements for each flyer and easy transition between each point • Increase the complexity when the flyers demonstrate proficiency • Understanding the timing of any vertical drills and appropriate movements and speeds and visual references between the flyer group • Emphasize the act of stopping and returning to a neutral position prior to initiating a new move • For entering, each flyer will enter to a specific slot inside the flight chamber and ensure visual contact with others entering • If at any time a flyer becomes unstable, they should wait for instructor assistance • The stable flyer(s) should fly low to the net and away from the situation

Key Points (coach)	<ul style="list-style-type: none"> • On-duty instructor is briefed on the activity • Student is fully briefed on key points and safety factors including the stopping points for upward movement and speed management • Appropriate wind speed setting is agreed to with the instructor and the method of communicating adjustments during the session is understood • Provide heading and reference point to complete the skills briefed • Avoid facing your student directly toward or away from the door-way • Enter the flight chamber only when given the "OK" by the instructor • Prior to transitioning from your feet to flying with your student, be sure to confirm your actions with the instructor • Avoid placing yourself between the instructor and your student in case the instructor needs to provide immediate assistance • Always fly within your skill level to avoid any unnecessary risk to yourself or your student • Avoid overloading your students with too much information during their early development and learning of basic skills • The altitude at which you and your students fly should not exceed the students level of ability • Remind students of the importance of allowing the on-duty instructor unobstructed access to each flyer • Flyers should fly what has been briefed and to their skill level • Cover preferred grip taking techniques, avoiding reaching and using the grips for stability or control • Direct attention to eye contact and where during each maneuver it plays an important role • Continue to use "dirt diving" of routines outside of the flight chamber as a key part of preparation • When it is appropriate, allow your students to fly in different "slots" in order to learn a broader scope of the dive pools • Where applicable, begin to increase temp/speed of random sequences to increase overall performance of the group • Explain the importance of "block" techniques, timing, smooth movements and stopping
Student Debriefing	<ul style="list-style-type: none"> • Goals versus outcome of the session • Highlight areas that were positive • Highlight areas of improvement pertinent to the skill being learned • Goal setting for the next session