



BASIC BODY FLIGHT

Session Guide

Level One

This document is the product of many years of experience and dedication to “improving the quality of skydiving for everyone”.

Developed and written by Robert Laidlaw with further editing from Danny Page and Jim Graham and the help of coaches around the world who contributed their suggestions and ideas.

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About this Manual

This Sessions Guide is designed to allow you to effectively and easily train the Skydive University Basic Body Flight Program. It is essential that you train the program correctly because it will be the evidence of your success as a coach.

Each module is to be taught in the order presented and the exercises are arranged in the correct progression.

All exercises are in italics and bordered. If “Demonstration” is in the box, it indicates that the exercises must be demonstrated first. Simply move from section to bordered section to follow the exercises format.

A reminder about the exercises:

Static refers to an exercise that is stationary and does not involve movement over a distance. Kinesthetic refers to feeling. During these exercises, have the client concentrate on the FEEL of the muscles and their positioning. Isometrics address muscle identification and usage. Isometrics involve resistance. Perceptual drills are conducted to create a visual or sensory perception of what we will see or experience in the air and involve movement.

The exercises are ordered with the isometric first, then the kinesthetic. This is important because it allows the client to first identify the correct muscle usage and then concentrate on the feeling of correct usage while in a more relaxed position.

Where noted that “client controls the exercise”, this means that the coach should only respond to the client’s inputs and allow the speed and direction of the exercise to be produced by the coach moving properly to the body position offered by the client. These exercises should be started by the coach saying “whenever you are ready” and then offering resistance to execute the movement. For example, in the perceptual drill for forward movement, the creeper should be placed about 15 feet from the target and the client urged to initiate the movement to the target by sticking out his legs. The coach will be silent as the client rolls toward the target allowing them to comprehend the perception and mechanics of SCS.

Be creative! There are no limits to the ways that people learn. Invent more effective training aids, develop new cue words, utilize the tools that you have and ask other coaches what they do to handle challenging clients.

A dive flow for the entire course is presented in Appendix A. When setting team goals for the next dive, know what comes next.

Remember the keys to successful coaching:

Attention to detail, flexibility of your approach, developing trust, positive attitude and delivery, and making it FUN!

As always, if you have questions or suggestions please call or e-mail us and we will do our best to help you.

SAFETY SCREENING

Client's Responsibility

Training method: Question and Answer, some lecture

Question to Client:

"Who is responsible for altitude awareness and initiating the break-off during the skydives?"

SAFETY OVERVIEW

Conduct a safety overview of the client's prior training by discussing the following topics:

- Aircraft safety
- Planned landing areas
- Off-drop zone alternate landing areas
- Caution areas to avoid
- Alternate to main landing area for traffic congestion
- Door handling and exit cautions (grip and no grip exits)
- Review malfunction responses:
 - Cutaway procedures
 - Hard pull / no pull situations
 - Two canopies out
- Low break-off procedures
- Canopy control techniques, traffic pattern, set-up points, the wind
- What to do if confused (i.e. downwind, wind change on final, etc.)
- Landing safety
- Drop zone rules

MODULE 1 & 2 BOX, FORWARD and BACKWARD MOVEMENT

OBJECTIVES

Freefall

- Neutral Box
- Forward Movement
- Backward Movement
- Grip Taking
- Start, Coast, Stop (SCS) forward movement
- Forward movement with heading control

Safety

- Track
- Break-off procedure
- Altitude awareness
- Collision avoidance on deployment

Exit

- Elements and principles
- Rear float exit

GROUND PREPARATION

FREEFALL

NEUTRAL BOX

Key teaching / observation points:

- Relaxed with hands limp
- Slight arch through torso
- Lift head / chin as high as possible
- Knees at shoulder width or slightly wider
- Feet slightly extended from 90°
- Elbows equal with shoulders

Demonstration

Kinesthetic: on creeper, 5 eyes open / 5 eyes closed, hold 10 seconds / rest 10 seconds

Cycle: Box – Relax

Suggested cue words: box, neutral

The torso arch is only a slight arch up to the shoulder blades. The arch from the shoulder blades to the head should be increased as far as comfortable lifting the head up high. Encourage relaxation during the training. Allow the lower arms to drop down with the hands limp. The elbows should only be lifted equal to the shoulder height and no higher. The client should remain loose enough through the shoulders that the coach can move the arms easily at any time. The lower legs should only be slightly extended regardless of what jumpsuit is being worn. The forward movement skill will teach them to trim or equipment adjustments will have to be made (booties, weights). Be very specific on the box positioning as the success with center turns starts with the “neutral” position.

FORWARD MOVEMENT

Key teaching / observation points:

- Start from the box
- Only the lower legs move
- The knees must remain at their original box width
- Extend legs to full range of motion locking knees

Demonstration

Kinesthetic: on creeper, 5 eyes open / 5 eyes closed, hold 10 seconds / rest 10 seconds

Cycle: Box – Forward – Box – Relax Suggested cue words: legs or forward

**** Explain that full extension may not be needed to perform a final approach but how much extension varies from person to person. ****

The legs should be extended and retracted smoothly. During forward movement leg extension, the knees remain the same width as in the box; the wider the spread, the better the directional control. Ensure independent movement of the arms and the legs (i.e. no arm movement when legs are extended).

BACKWARD MOVEMENT

Key teaching / observation points:

- Start from the box
- Initiate backward movement in a two stage fashion
- First, extend arms straight out keeping hands at original box width
- Second, roll shoulders down cupping upper body
- Lower arms should be angled upward at about 45

Demonstration

Kinesthetic: on creeper, 5 eyes open / 5 eyes closed, hold 10 seconds / rest 10 seconds

Cycle: Box – Back – Box – Relax Suggested cue words: arms or backward

As with forward movement, this is the full range of motion and probably will not be needed to affect a backwards movement, but varies with our individual balance. Ensure that the legs remain in the box position. When returning back to the box, ensure that the elbows are equal with the shoulders. The legs remain in neutral.

GRIP TAKING

Key teaching / observation points:

- Start by taking the grip, thumb under, fingers over
- Check elbows back to neutral
- Extend feet into wind slightly
- Open hands or “palm” when inward pressure felt

Demonstration

Standing: 5 reps no specific hold times

Client verbalizes “Grips – Elbows – Feet – Palms” as they execute grip taking

Demonstration

Isometric: on creeper, 5 reps, no specific hold times.

Client on creeper in neutral position with toes against a wall. Coach moves forward and client executes grip taking while verbalizing “Grips – Elbows – Feet – Palms”.

Once the grips are taken, it is important to ensure a neutral position, falling straight down while docked. Depending on the approach and whether we applied a backwards or flare move, we may be arriving on grips in a position other than the box. Cue words **“grips, elbows, feet, palm”**.

On the isometric training, place the client’s feet against a firm surface (such as a wall). Then, move forward and present wrist grips to the client. Allow the client to take correct grips by applying the “grip, elbow, feet, palm” principles. During the “feet” phase of the exercise, have the client gently push their feet against the wall. This effort will create positive pressure on the grips. (Note: the coach should be braced in position so the client’s pressure does not move the coach.)

START, COAST, STOP (SCS) Forward Movement

Key teaching / observation points:

- Explain each phase of SCS
- Explain the coast phase as the assessment time
- Perform static first to confirm correct body positions
- Provide correct responses (force) to their inputs
- Watch timing of moving through box to stopping
- Explain that a well timed coast may not require a stop action

Demonstration

Static: on creeper, 5 reps, holding each position for 3 seconds, 10 seconds rest

Cycle: Box – Forward – Box – Backward – Box – Rest

Suggested cue words: start, cost, stop or forward, box, back

Isometric / perceptual: on creeper, 5 reps or more as necessary, until client displays smoothness and anticipation. Only respond to client’s actions. Roll the client to a target (wall) as they provide the legs out input for forward into coach’s hands. Notice all three body positions. Roll fast enough to actually create a coast on the creeper.

Give instruction as necessary until the client can judge their own approach speed. A good approach speed is similar to the speed of a relaxed walking pace. Include picking up the grips as the client touches the wall. Be aware of both the upper and lower body while pushing them to the target. Roll client from under the ankles to provide sensation of pressing down into the air.

HEADING CONTROL

Key teaching / observation points:

- Use legs to correct heading
- Can extend or retract leg (from forward initiation) to make head change

Demonstrate

Static: on creeper, 5 reps correcting heading with creeper stationary (no forward movement). Turn the creeper no more than 45° and have client correct heading with leg input only. Be aware to provide pressure and move client in the appropriate direction for the leg input applied.

Perceptual: on creeper, 5 reps or more as necessary. Client controls exercise same as the previous SCS drills except coach will apply small off heading adjustments during the roll to the target.

Directional control is best maintained through having a wide leg stance. If a change in heading is necessary, we use the legs as a rudder to steer back onto heading. This leaves the upper body free to control levels or glide angle. Once the client has demonstrated the corrective inputs during a static drill, include SCS while pushing the client off heading during an approach to a target. Roll client from under the ankles to provide sensation of pressing down into the air. Minimize the use of verbal directions (i.e. “left” or “right”) when introducing this activity. Heading control can also be achieved by a leg lay over. Depending on ability or previous experiences, the client may prefer this. Center turns will develop this ability, so “Keep it Simple” at this stage.

SAFETY

TRACK

Key teaching / observation points:

- Extend legs fully
- Knees remain in box width
- Flatten torso to slight de-arch
- De-arch lower back, roll pelvis into thighs
- Roll shoulders down into cup
- Sweep arms out to 90° and no further back than 45°
- Press hand down below hips

Demonstration

*Isometric: on belly on mat, 5 reps, eyes open, hold for 5 seconds / 10 seconds rest
Face down on the floor de-arching and pressing from the toes and the shoulders.
Cycle: Box – Track – Box*

Emphasize that the number one priority when learning to track is directional control. Acknowledge altitude awareness is always foremost. The flare should be used from the track in order to slow the forward speed and fall rate prior to deployment. The width of the legs is used to maintain directional control while the upper body is used to control

the pitch angle. This position is an introductory position. The student will progress to a narrower streamlined position when confidence is gained while flying in a de-arched position.

Demonstration

*Isometric: on back on mat, 5 reps, eyes open, hold for 5 seconds / 10 seconds rest
Roll shoulders and lift legs.*

On back drill: have client lay on floor facing upwards. Have them lift themselves into the track de-arch against gravity's pull. This helps get the feeling of the amount of muscle strength required from the quadriceps.

Demonstration

*Kinesthetic: beanbag or creeper w/cushions, 5 reps eyes closed, hold for 10 sec / 10 sec rest
Cycle: Box – Track – Box*

BREAK – OFF SEQUENCE

Key teaching / observation points:

- One way to signal leaving, larger group = larger wave
- Turn 180° from center point of formation
- Track
- Flare, looking up as you do so
- One deliberate wave
- Pull

Demonstration

*Walk through: 5 reps, or as many more as needed (approx 8 seconds)
Cycle: Box – Wave – Turn – Track – Flare – Wave – Look – Pull*

Have the client walk through the entire break-off sequence while you silently count to yourself. Repeat the exercise until main activation is performed consistently between 7 and 8 seconds after break-off. When the novice is pulling higher than 3,000 feet, break-off should be 1,500 feet higher than the pull altitude. Encourage the client to lower the pull altitude to at least 3,000 as they progress through the training program. Emphasize maximum tracking time by having the client perform only one wave when signaling the break-off and only one wave prior to deployment.

ALTITUDE AWARENESS

Altimeter:

Key teaching / observation points:

- Client is responsible for altitude awareness
- Altimeter should be checked between moves as skill is being developed

Eyeballing:

Key teaching / observation points:

- Altitude can be visually judged, backup to altimeter

- If picture looks familiar, check altimeter; instinct probably correct
- Study altitude between 2,000 and 4,000 feet regularly
- High and low are easy to identify if center is known
- If terrain is different, retraining will be necessary; use altimeter

Time sense:

Key teaching / observation points:

- A time sense is developed when jumping from consistent altitude
- The need for constant altimeter checks will become less
- If it feels like break-off time, check altimeter; trust feeling
- If altitude changes, perform constant altimeter checks
- Participating in other disciplines such as freeflying will drastically affect the accuracy of the time sense.

If there is a change in terrain or altitude, the accuracy of your sense must not be trusted. Execute routine altimeter checks during your jump.

COLLISION AVOIDANCE ON DEPLOYMENT

Key teaching / observation points:

- Use rear riser for evasive action
- If straight on, "Right of Way" rules apply
- Practice and test amount of pull required
- Practice right turns first to develop "Right of Way" instinct
- When changing canopies, test amount of pull over again

Discuss post-deployment collision avoidance practices, including the importance of a good 180° turn from the center point of the formation and a five second track. Also explain the necessity of rear riser control inputs during the canopy deployment to avoid collisions. Advise the client to look in the direction of the turn prior to turning when practicing rear riser turns.

EXIT

Phases:

Key teaching / observation points:

- "Set up" is climb out to the "ready" position
- "Launch" is the action to turn and present to aircraft heading
- "Flyaway" is the resultant body position to be attained

Principles:

Key teaching / observation points:

- "Balanced" is your balance in the door (affects stability)
- "Tight" refers to closeness in door (affects separation)
- "Timing" is the precise timing of "go" as a group (affects separation)
- "Presentation" is the action to place the body into the airflow (affects stability)

REAR FLOAT EXIT

Key teaching / observation points:

- Climb outside plane to rear portion of door
- Turn torso to present directly to line of flight
- Trail forward leg
- Crouch as low as possible without compromising balance
- Place forward hand on coaches shoulder (no grip)
- Drop down on launch
- Box is flyaway position

Exit priorities:

Key teaching / observation points:

- Aircraft heading
- Box
- Relax
- Identify coach

Break the exit down into its subparts and practice each element separately (the set up, the launch, the flyaway).

Demonstration

Mock up practice: 5 reps as needed

Suggested cue words: Ready – Set – Drop – Aircraft heading – Box – Relax

FREEFALL EXERCISES

FREEFALL DRILLS

Box drill (optional)

1. Pin practice
2. Pin practice with SCS
3. Backwards movements

During all the freefall exercises, the following preparation and in-flight activities must be completed to ensure the jump is complete and safe:

Preparation:

- Include the exit, break-off procedure, and any new canopy tasks
- Perform final walk through at the aircraft mockup
- Perform equipment check, have client identify wind direction
- Review landing approach

In-flight:

- Perform mental rehearsals, verbal review, relaxation techniques
- Before exit, perform a verbal review of key exit points
- Prior to exit, perform an in-flight equipment handles check
- Provide positive reinforcement: “Have a great skydive”, “Yahoo!”

Exercise: The Box (optional)

This exercise may be used as an assessment of the jumper's skills if there is a question as to their ability to meet the prerequisites for the Basic Body Flight Course. In this exercise, the client will exit from the middle float position; the coach will exit from the front float or diving position. The coach will give the count. Once established in freefall, signal the client to start the freefall tasks. Break-off should be at or above 4,000 feet. The freefall tasks suggested are all prerequisite tasks that should have been performed for an instructor prior to starting the training program.

Dive Sequence

- Client attain the box body position
- Respond to corrective signals from the coach
- Coach signals back loop
- Return to the box and reestablishes heading if necessary
- Check altimeter
- Respond to signal to front loop
- Return to the box and reestablishes heading if necessary
- Check altimeter
- Respond to signal to barrel roll
- Return to the box and reestablishes heading if necessary
- Check altimeter
- Wave off at 5,000 feet and pull by 3,500

Comments:

This first exercise is a solo drill. It is important that the coach remain close enough to have an accurate view (15-20 feet) and be able to convey corrective signals clearly (if necessary). Pay attention to the client's body position, their ability to return to the neutral position, altitude awareness, and pull procedures. Watch the altitude to ensure that the client waves off at 4,500 feet or above.

Progression criteria:

The client should maintain stability and heading control during the exit. They should complete the entire sequence at least once from 9,500 feet, return to the correct box body position on 80% of the maneuvers, wave off at 5,000 feet, and create adequate separation by tracking with directional control to pull.

Exercise # 1: Pin practice

The client will exit from the rear float position. The coach should exit from the middle float position. The coach will give the count. The client will practice moving forward six to ten feet (6'-10') while maintaining heading control and picking up grips. The proximity control drill (palming) should be performed on every dock.

Dive Sequence

- Attain the box body position
- Turn to coach
- Respond to corrective signals from the coach
- Initiate forward movement to the dock
- Take presented grips and palm
- Checks altitude
- Sit still while coach backs up six to ten feet (6'-10')
- Repeat the exercise as altitude permits
- Initiate the break-off at 5,000 feet and pull by 3,500
- Turn 180° from center, tracks, flares, and pulls
- Perform a 90° rear riser turn after deployment

Comments:

The coach must fall straight down to provide a good base and resist the temptation to close any distance for the client. The coach should bring the forearms forward and inward to present grips for the client. In the event that a major heading change (45°+) takes place during an approach, the coach may have to adjust the heading to face the client in order to keep the learning happening. Over compensating complicates the task for the client due to a non-stationary target.

Progression criteria:

The client should maintain stability and heading control during the exit. The client should complete 4 docks from 9,500 feet or 7 from 12,500 feet with directional control at least 75% of the time, break-off at 5,000 feet, and create adequate separation by tracking with directional control to pull.

Exercise #2: Pin practice with SCS

As in exercise 1, the client will exit from the rear float position, and the coach exits from the middle float position. The coach will give the count. The client will practice moving forward 15-20 feet while maintaining heading control and picking up grips. The greater distance will allow the client to apply the SCS principles. Also, the proximity control drill (palming) should be performed on every dock.

Dive Sequence

- Attain the box body position
- Turn to coach
- Respond to corrective signals from the coach
- Initiate forward movement to the dock
- Take presented grips and palm
- Check altitude
- Sit still while coach backs up 15-20 feet
- Respond to signal
- Repeat the exercise as altitude permits
- Initiate the break-off at 5,000 feet and pull by 3,500
- Turn 180° from center, tracks, flares, and pulls
- Perform a 90° rear riser turn after deployment

Comments:

Continue to adjust fall rate to suit client. The longer distance may create greater fall rate differences. The coach is to do their best to match the student's fall rate.

Progression criteria:

The client should maintain stability and heading control during the exit, complete 4 docks from 9,500 feet or 7 from 12,500 feet with directional control 80% of the time, break-off at 5,000 feet, and create adequate separation by tracking with directional control to pull.

Exercise #3: Backward movement

As in exercise 2, the client will exit from the rear float position. The coach should exit from the middle float position and give the count. The client will practice moving forward and backward six to ten feet (6'-10') while maintaining heading control and picking up grips. The backward movement will increase coordination of the upper and lower body and help the client develop confidence in their air skills.

Dive Sequence

- Attain the box body position
- Turn to coach
- Initiate forward movement to the dock
- Take presented grips and palm
- Check altitude
- Backs up six to ten feet (6'-10') and stops
- Initiate forward movement to the dock
- Take grips, elbows, feet, palm
- Check altitude
- Repeat the exercise as altitude permits
- Initiate the break-off at 5,000 feet and pull by 3,500
- Turn 180° from center, tracks, flares, and pulls

Comments:

Watch fall rate on backward movement. Excess leg action could cause sinking out. Once again, the coach is to match the client's fall rate.

Progression criteria:

The client should maintain stability and heading control and remain within fifteen feet (15') of the coach during the exit. The client should complete 3 docks from 9,500 feet or 5 from 12,500 feet with directional control 90% of the time forward and at least 75% backward, break-off at 5,000 feet, and create adequate separation by tracking with directional control to pull.

NOTES:

MODULE 3: UPWARD and DOWNWARD MOVEMENT

OBJECTIVES

Freefall

- Downward Movement
- Upward Movement
- Start, Coast, Stop (SCS)
- Upward movement with proximity control
- Final Approach Zone (FAZ)

Safety

- Freefall traffic

Exit

- Front float exit

GROUND PREPARATION

FREEFALL

DOWNWARD MOVEMENT

Key teaching / observation points:

- Push hips forward
- Begin from basic box stance
- RELAX back into arch
- Apply breathing

Demonstration

*Kinesthetic: kneeling on mat, 5 eyes open / 5 eyes closed, hold **ONLY** 5 sec / 10 sec rest*

Cycle: Box – Down – Box – Relax Suggested cue words: hips, arch, down

Have the client practice the spill body position while kneeling. The coach should brace the client's lower back for support. Kneel behind or place a hand in the client's lower back and have them lean back against the support while relaxing into a full arch. Encourage the client to look backwards identifying some reference point to gauge their success. The more the client trusts the coach, the more relaxed they will be (relaxation is the key to improving the arch). Pulsing is a sign that the client needs to relax or "let go" more allowing the coach to completely take their weight. Hold times for both eyes open and closed should not exceed 5 seconds.

Review the SCS principles with the client. During the static drill, have client move from one position to the next (hold for 3 seconds) allowing you to confirm each body position is correct.

Demonstration

Perceptual: on table, 5 reps smooth slow pace

Cycle: Box – Up – Box – Down – Relax Suggested cue words: spine, cup, up

Respond to client's movements

Perform the table drill by placing your hands as far above your head as possible. Train a signal to have student hold position until you are ready. When the student begins the up move, bring your hands down slowly (as if you are really 10 feet above). Look for all three body positions during the drill taking close notice to the stop or spill timing. The arch should occur exactly at your eye level. Continue to watch for the proper body position during the drill. The drill should be done from about 15 feet (15') back to simulate the freefall providing ease of seeing the coach.

UPWARD WITH PROXIMITY CONTROL

Key teaching / observation points:

- Objective is to trim cup position
- Student is to remain at the same (15 foot) distance from you
- If backsliding, apply legs out to stop
- If advancing, apply arms forward (check legs) to stop
- Practice SCS with drill

Perceptual: on table, 5 reps smooth slow pace. Same as previous drill including slow proximity changes. Client is to trim and stop horizontal motion only. No horizontal correction necessary. Respond to client's movement.

Cycle: Box – Up – Box – Down – Relax Suggested cue words: spine, cup, up

Proximity problems should be given immediately during the cup initiations. The coach should move either backward or forward with the client responding accordingly with leg / arm inputs. Continue with this problem solving drill until the client can respond automatically and smoothly. The coach is responsible for conducting the exercise at the appropriate pace.

FINAL APPROACH ZONE (FAZ)

Key teaching / observation points:

- To be exactly on level prior to docking
- Distance ranges outward from just outside of grips to 20 feet
- Allows docking at a matched fall rate
- Enables you to dock in box
- Easy to trim dock tension free
- Formation takes a momentum dock better horizontally

Relate the application of SCS in the drills as training for the FAZ.

SAFETY

FREEFALL TRAFFIC

Key teaching / observation points:

Skydive in control

- Maintain eye contact
- Maintain quadrant control
- Use the SCS principle
- Dock on level (FAZ)
- Right of Way; head on veer right
- Lower person has the right of way

Collision procedures

- Flare
- Deflect off the other person with the arms
- If stuck on top, use the hands to slide off back into the box
- Check to see other skydiver is OK

EXIT

FRONT FLOAT EXIT

Key teaching / observation points:

- Client counts
- Launch is more dynamic
- Launch is up and away from fuselage
- Reference engine (if a twin engine aircraft)
- Apply exit priorities: A/C heading, box, relax, look for coach

FREEFALL EXERCISES

FREEFALL DRILLS

1. Vertical control
2. Vertical control with docking
3. Vertical control during forward approach

Exercise #1: Vertical control

In this exercise, the client will give the count and dock once and then perform cupping and spilling only. The client is to match the coach's level after the coach has either moved up or down. The client should work at maintaining a constant proximity. The coach should initially set up fifteen to twenty feet (15'-20') back and then move six to ten feet (6'-10') down.

Dive Sequence

- Apply exit priorities and relaxes into the box body position
- Turn to coach and closes to dock
- Coach keys the break
- Sit still while coach backs up 15-20 feet and down 6-10 feet
- Wait for coach's signal
- Initiate a fast fall position to move down (6'-10')
- Stop on level while maintaining proximity
- Sit still while coach moves up (6'-10')
- Wait for coach's signal
- Initiate a slow fall position to move up (6'-10')
- Stop on level while maintaining proximity
- Repeat the exercise as altitude permits
- Initiate the break-off at or above 4,500 feet
- Turn 180° from center, tracks, flares, and pulls
- Grasp rear risers while checking for canopy traffic

Comments:

The set up distance of 15-20 feet is important and should not be any less. The coach should minimize compensating for any vertical or horizontal movement during this exercise. However, if proximity does get out of control, the coach should make the necessary adjustment to continue the learning. The coach should fall at a rate which allows the client to go up and down fairly easily. Ensure that you return to the box position after the upward moves.

Progression criteria:

Maintain stability, heading control and proximity (within 15 of the coach) during exit phase. Complete 2 cycles from 9,500 feet or 3 from 12,500 feet with directional control at least 75% of the time, maintain between 10 and 20 feet of proximity control, break-off at 4,500 feet and create adequate separation.

Exercise #2: Vertical control with docking

In this exercise, the client will give the count and perform the cup and spill positions with docking between the vertical moves.

Dive Sequence

- Apply exit priorities and relaxes into the box body position
- Turn to coach and closes to dock
- Coach keys the break
- Sit still while coach backs up 15-20 feet and down 6-10 feet
- Wait for coach's signal
- Initiate a fast fall position to move down (6'-10')
- Initiate forward movement with level control to dock
- Coach keys the break
- Sit still while coach backs up 15-20 feet and moves up 6-10 feet
- Wait for coach's signal
- Initiate a slow fall position to move up (6'-10')
- Stop on level
- Initiate forward movement with level control to dock
- Repeat the exercise as altitude permits
- Initiate the break-off at or above 4,500 feet
- Turn 180° from center, tracks, flares, and pulls
- Grasp rear risers while checking for canopy traffic

Comments:

This exercise is the same as exercise 1 with the addition of forward movement to the dock using the FAZ principles. The coach should be aware of any proximity changes during the transitions and the approach. Note: being too close can create a problem with eye contact for the client.

Progression criteria:

Maintain stability, heading control and proximity (within 15 feet of the coach) during exit phase. The first dock should be within 10 seconds of exit. Complete 4 docks from 9,500 feet or 6 from 12,500 feet with directional control 80% of the time, 75% of the docks should be on level with minimal momentum, break-off at 4,500 feet and create adequate separation.

Exercise #3: Vertical control during forward approach

During this exercise, the client will give the exit count and perform both the cupping and spilling positions combined with forward movement to dock in the final approach zone (FAZ). The client should complete the dock.

Dive Sequence

- Apply exit priorities and relaxes into the box body position
- Turn to coach and closes to dock
- Coach keys the break
- Sit still while coach backs up 15-20 feet and down 6-10 feet
- Wait for coach's signal
- Initiate downward and forward movement to dock
- Coach keys the break
- Sit still while coach backs up 15-20 feet and moves up 6-10 feet
- Coach signals approach
- Initiate upward and forward movement to dock
- Repeat the exercise as altitude permits
- Initiate the break-off at or above 4,500 feet
- Turn 180° from center, tracks, flares, and pulls
- Grasp rear risers while checking for canopy traffic

Comments:

It is very important to use the correct set up distances. The coach may need to adjust proximity if a client is going to go over or under the coach. The coach should be prepared to take evasive action, hold position and present grips while maintaining heading during the approach to dock. Watch for eye contact during the upward movements and the client's anticipation to stop on level. The docks should be on level, and the final approach should be from the "final approach zone".

Progression criteria:

Maintain stability, heading control and proximity (within 10 feet of the coach) during exit phase. The first dock should be within 10 seconds of exit. Complete 4 docks from 9,500 feet or 6 from 12,500 feet with directional control 80% of the time, 80% of the docks should be on level with minimal momentum, break-off at 4,500 feet and create adequate separation.

NOTES:

MODULE 4: SWOOPING

OBJECTIVES

Freefall

- Delta
- Low recovery
- Dive angle control
- RW stable
- Flaring and relative wind
- Stairstep approach
- Glide angle
- Quadrants
- Flare test
- Swoop

Safety

- Accidental deployments

Exit

- Diving exit

GROUND PREPARATION

FREEFALL

DELTA

Key teaching / observation points:

- Legs fully extended
- Knees at box width
- Head up
- Body arched
- Arms swept to 45°
- Hands above hips

Demonstration

Kinesthetic: on creeper, 5 eyes open / 5 eyes closed, 10 sec hold / 10 sec rest

Cycle: Box – Delta – Box – Relax Suggested cue words: forward, delta

The legs should lead the arms. The legs are used to maintain directional control while the upper body is used to control the pitch angle of the approach. Recommend a smooth sweeping motion into the position. Controlled inputs aid with assessment of approach angles and speeds.

LOW RECOVERY

Key teaching / observation points:

- Cup if going low
- Turn 90° turning head to side 90°, if going lower than 2 feet
- Trim body out wider applying proximity control
- Hold until reaching formation level or higher
- Turn 90° and dock

Demonstration

Sequence: on creeper, 10 sequence cycles, no specific hold time

Cycle: Box – Cup – Turn 90° - Trim – Box – Turn – Box - Relax

DIVE ANGLE CONTROL

Key teaching / observation points:

- Move from track to delta and back
- If approach angle is flat or steep, transition by arch-dearching
- Can perform the box (coast) between if preferred

Demonstration: Track – Delta transition

Kinesthetic: on creeper, cycle through 3-5 reps

Cycle: Box – Track – Delta – Box – Relax

Explain that the primary difference between a flat track and a delta is the de-arch of the upper body during the track. Watch for smoothness of initiation and transition into and out of the track.

RW STABLE

Key teaching / observation points:

- Similar to downward move
- Narrow knees
- Roll lowers arms up out of the wind (over head), or collapse arms to chest
- Head high
- Relax into maximum arch

Demonstration

Kinesthetic: kneeling on mat, 3 reps, 5 sec hold / 10 sec rest

Cycle: Box – RW Stable – Box – Relax

Kneel behind or place a hand in the client's lower back and have them lean back against the support while relaxing into a full arch.

FLARING and RELATIVE WIND

Key teaching / observation points:

- Combination of cupping and backwards
- Must relax and feel perpendicular presentation to wind
- Use more coast if approaching on level
- Emphasize SCS

Review the concept of relative wind. Determine that the client understands that the angle of the flare must be perpendicular to the relative wind for the flare to be effective. Explain the full range of flare body positions (i.e. from full de-arch [used to stop downward movement] to full backward [used to stop forward movement]). Emphasize that relaxation and feeling the relative wind are the keys to a good flare. Advise the client that a longer coast and less aggressive stop will ensure the maintenance of levels during the approach.

STAIRSTEP APPROACH

Key teaching / observation points:

- Review SCS, emphasize coast as assessment phase
- Stairstep is a **series of starts and coasts**
- Priority is level before proximity

Explain that the stairstep approach is used to maintain control while driving to the formation. This can also be explained as start-assess-start-assess, etc.

GLIDE ANGLE

Key teaching / observation points:

- RW stable is when too steep to apply level over proximity
- Delta is for forward and downward
- Track is for flat or below
- Low recovery is when too low to apply level over proximity

The body positions for these approaches vary depending on a personal fall rate and / or the formation's fall rate. It is possible to see a light person in a delta approaching from below a formation or a heavier person in a track approaching from above formation level. Your eyes will provide the information necessary to make these adjustments. Working the arch / de-arch is the most important skills required for making consistent approaches. The choice to apply either the RW stable or low recovery is made at the time that they cannot adjust their level as fast as they are moving forward; levels prior to proximity.

QUADRANTS

Key teaching / observation points:

- Review quadrant definition
- The larger the formation, the smaller your working quadrant
- Ability to apply directional control, sink down, float up, in quadrant
- Proper goal setting and discipline now reaps rewards later on

Explain traffic flow and controlled flight by defining the quadrant system and how the system applies to freefall traffic and approach control. Explain the importance of remaining in the correct quadrant or traffic lane during the skydive.

FLARE TEST

Key teaching / observation points:

- Develops perception and anticipation of stopping on level
- **Stop 10-15 feet above formation level**
- If stopped, excellent anticipation; if not, be stopped at formation level

Explain that one of the advantages of the flare test is to help teach anticipation of the fall rate of a formation without going low. Discuss using the flare test as a strategy to stop and match fall rate about 10 feet above a formation (this is not to be confused with the final approach zone). Additionally, it can be used as a fall rate test that can be applied at any time during the approach when the client is doubtful of the formation's rate of fall. As experience increases, the client will develop the ability to recognize a difference in fall rate of formations which will allow the client additional time and altitude to compensate for and match a formation's rate of fall.

SWOOP

Key teaching / observation points:

- Mix up scenarios of approaches and approach problems
- Only provide one problem at a time (up, down, fast, slow, heading)
- Watch leg usage closely

Demonstration

Perceptual: on table, 5 reps or more as needed, real time

Cycle: Box – Dive – Box – Stop – Grips – Relax

The client should be on a table or platform that is about three feet (3') above the ground. Start the SCS drills from about thirty feet (30') away from the client. Give an exit count and drop the hands to the ground or floor. As the client initiates the dive, one at a time, present all the different scenarios. SCS, stair-stepping, directional control problems, fast approaches, becoming too steep, going low, etc. The coach should move backward, forward, to side, or up and down with the client responding accordingly with full body articulation. Continue this problem solving drill until the client can respond

automatically and smoothly. Ensure that this exercise is completed at a reasonable pace. Watch all of the client's body positions during the drill.

SAFETY

ACCIDENTAL DEPLOYMENTS

Key teaching / observation points:

Apply preventative practices

- Maintain gear
- Choose gear with adequate protection (flaps, housing, bridle, etc.)
- Know / check aircraft
- Practice exits on ground
- Pin checks both on the ground and in-flight prior to exit

Accidental activation

- If on aircraft, get off as soon as possible
- If in air, back away from individual
- If you suspect in air problem, follow normal deployment procedures

EXIT

DIVING EXIT

Key teaching / observation points:

Set up

- Left door, left foot forward to edge
- Crouched down over foot
- Left elbow dropped to left knee
- Right elbow / arm raised up above head
- Chest turned sideways to line of flight or relative wind
- Right leg back and poised for balance

Launch

- Drop down over the left foot
- Keep chest presented square to the relative wind
- Lift right leg up bringing foot up into the box, as you pass through the door
- **Turn hips square to relative wind**
- Bring left leg to box as you roll over it
- Exit is passive just dropping through the door

The exit priorities are presentation perpendicular to the relative wind in a neutral body position.

Demonstration (whole-part-whole)

Set up: at mock up, 5 reps, no specific timing

Launch: practice timing and the proper "step/drop" through the door

Flyaway: neutral box, review with kinesthetic drill if necessary

Cycle: set-count and launch-neutral-relax

DIVE OUT BODY POSITION

(If diving from further back from the door edge or recovery from an improper presentation.)

Key teaching / observation points:

- Arms extended into a backwards initiation
- Upper body de-arched
- Lower body arched, knees above hips
- Feet in neutral box
- Head up

Pitch control is maintained with the upper body.

Demonstration

Kinesthetic: review backward, 5 eyes open / 5 eyes closed, 10 sec hold / 10 sec rest

FREEFALL EXERCISES

FREEFALL DRILLS

1. Short swoop
2. Recovery
3. Quadrants

Exercise #1: Short Swoop

During this exercise, the coach and client will both give the exit count. The client will do a diving exit. The client will wait in the airplane about one (1) second after the coach has exited. The client will practice short swoops to docking. Emphasis should be placed on starting, coasting and stopping the swoop. After the dock, the coach will drop down and backwards about twenty feet (20').

Dive Sequence

- Coach gives the count, coach leaves on “set”
- After exit priorities are completed, client establishes heading
- Initiate dive and applies swoop techniques
- Close distance to the final approach zone (FAZ) using SCS
- Remain on level and docks neutral from six feet (6') out
- Coach keys the break
- Coach drops down and back about twenty feet (20') [45° angle]
- Close distance to the final approach zone (FAZ) using SCS
- Repeat the exercise as altitude permits
- Initiate the break-off at 4,000 feet
- Turn 180° from center, tracks, flares, and pulls

Comments:

During the exit, note if the client presented correctly prior to establishing eye contact. Plan for evasive action in the event the client approaches too fast or without control.

Progression criteria:

Maintain stability with heading control during the diving exit. Complete 3 swoops to the dock from 9,500 feet or 5 from 12,500 feet with 90% angle control, level maintenance, and approach speed that was no faster than a walking pace in the final approach zone, break-off at 4,000 feet and create adequate separation. Demonstrated correct canopy control from the pull until landing.

Exercise #2: Medium Swoop with Low Recovery

During this exercise, the coach and client will both give the exit count. The client will do a diving exit. The client will wait in the airplane about one and a half (1.5) seconds after the coach has exited. The client will practice a medium swoop to dock. Emphasis should be placed on starting, coasting and stopping the swoop. After the dock, the coach will float up and back about twenty feet (20') [45°angle] and the client will practice a low recovery.

Dive Sequence

- Coach gives the count, coach leaves on “set”
- After exit priorities are completed, client establishes heading
- Initiate dive and applies swoop techniques
- Close distance to the final approach zone (FAZ) using SCS
- Remain on level and docks neutral from six feet (6') out
- Ensure to start with a good fall rate
- Coach keys the break
- Coach floats up and back about twenty feet (20') [45°angle]
- Initiate recovery techniques to the final approach zone (FAZ)
- Repeat the exercise as altitude permits
- Initiate the break-off at 4,000 feet
- Turn 180° from center, tracks, flares, and pulls

Comments:

The coach will be required to establish a reasonable fall rate and good base. During the recovery sequence, upon reaching the twenty foot (20') point, reestablish a good fall rate. Watch for and pay attention to the recovery body position, the time taken to recover, and the relative heading during the recover. Plan for an evasive action in case the client approaches too fast or without control.

Progression criteria:

Maintain stability with heading control during the diving exit. Complete 3 recoveries to the dock from 9,500 feet or 5 from 12,500 feet with 80% angle control, level maintenance, and an approach speed that was no faster than a walking pace in the final approach zone, during the recovery phase, eye contact must have been maintained, break-off at 4,000 feet with adequate separation. Demonstrated correct canopy control from the pull until landing.

Exercise #3: Long Swoop with Quadrant Control

During this exercise, the coach and client will both give the exit count. The client will do a diving exit. The client will wait in the airplane about two (2) seconds after the coach has exited. The client will practice a long swoop to dock. Emphasis should be placed on starting and stopping the swoop. After the dock, the coach will drop down and backwards about twenty feet (20') [45°angle]. The client will then practice making approaches from the right and left quadrants.

Dive Sequence

- Coach gives the count, coach leaves on “set”
- After exit priorities are completed, client establishes heading
- Initiate dive and applies swoop techniques
- Close distance to the final approach zone (FAZ) using SCS
- Remain on level and docks neutral from six feet (6') out
- Coach keys the break
- Coach sinks down and back about twenty feet (20') [45°angle]
- Fly to the right or left quadrant (90°to the coach)
- Approach in the final approach zone (FAZ) from about 20 feet (20')
- Repeat the exercise as altitude permits
- Initiate the break-off at 4,000 feet
- Turn 180°from center, tracks, flares, and pulls

Comments:

During the quadrant shift, watch for quadrant control, set up and approach angle. During the approach, watch for the 90°in-line set up to the no-momentum dock.

Progression criteria:

Maintain stability with heading control during the diving exit. Complete 3 swoops to the dock from 9,500 feet or 5 from 12,500 feet; during the quadrant shift, stayed within the quadrant parameters and made a straight-on approach from the side, break-off at 4,000 feet with adequate separation. Demonstrated correct canopy control from the pull until landing.

NOTES:

APPENDIX

A

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FREEFALL EXERCISES

During all the freefall exercises, the following preparation and in-flight activities must be completed to ensure the jump is complete and safe:

Preparation:

- Include the exit, break-off procedure, and any new canopy tasks
- Perform final walk through at the aircraft mockup
- Perform equipment check, have client identify wind direction
- Review landing approach

In-flight:

- Perform mental rehearsals, verbal review, relaxation techniques
- Before exit, perform a verbal review of key exit points
- Prior to exit, perform an in-flight equipment handles check
- Provide positive reinforcement: "Have a great skydive", "Yahoo!"

MODULE 1 & 2 BOX, FORWARD and BACKWARD MOVEMENT

Box drill (optional)

4. Pin practice
5. Pin practice with SCS
6. Backwards movements

MODULE 3: UPWARD and DOWNWARD MOVEMENT

4. Vertical control
5. Vertical control with docking
6. Vertical control during forward approach

MODULE 4: SWOOPING

4. Short swoop
5. Recovery
6. Quadrants

Exercise: The Box (optional)

This exercise may be used as an assessment of the jumper's skills if there is a question as to their ability to meet the prerequisites for the Basic Body Flight Course. In this exercise, the client will exit from the middle float position; the coach will exit from the front float or diving position. The coach will give the count. Once established in freefall, signal the client to start the freefall tasks. Break-off should be at or above 4,000 feet. The freefall tasks suggested are all prerequisite tasks that should have been performed for an instructor prior to starting the training program.

Dive Sequence

- Client attain the box body position
- Respond to corrective signals from the coach
- Coach signals back loop
- Return to the box and reestablishes heading if necessary
- Check altimeter
- Respond to signal to front loop
- Return to the box and reestablishes heading if necessary
- Check altimeter
- Respond to signal to barrel roll
- Return to the box and reestablishes heading if necessary
- Check altimeter
- Wave off at 5,000 feet and pull by 3,500

Comments:

This first exercise is a solo drill. It is important that the coach remain close enough to have an accurate view (15-20 feet) and be able to convey corrective signals clearly (if necessary). Pay attention to the client's body position, their ability to return to the neutral position, altitude awareness, and pull procedures. Watch the altitude to ensure that the client waves off at 4,500 feet or above.

Progression criteria:

The client should maintain stability and heading control during the exit. They should complete the entire sequence at least once from 9,500 feet, return to the correct box body position on 80% of the maneuvers, wave off at 5,000 feet, and create adequate separation by tracking with directional control to pull.

Exercise # 1: Pin practice

The client will exit from the rear float position. The coach should exit from the middle float position. The coach will give the count. The client will practice moving forward six to ten feet (6'-10') while maintaining heading control and picking up grips. The proximity control drill (palming) should be performed on every dock.

Dive Sequence

- Attain the box body position
- Turn to coach
- Respond to corrective signals from the coach
- Initiate forward movement to the dock
- Take presented grips and palm
- Checks altitude
- Sit still while coach backs up six to ten feet (6'-10')
- Repeat the exercise as altitude permits
- Initiate the break-off at 5,000 feet and pull by 3,500
- Turn 180° from center, tracks, flares, and pulls
- Perform a 90° rear riser turn after deployment

Comments:

The coach must fall straight down to provide a good base and resist the temptation to close any distance for the client. The coach should bring the forearms forward and inward to present grips for the client. In the event that a major heading change (45°+) takes place during an approach, the coach may have to adjust the heading to face the client in order to keep the learning happening. Over compensating complicates the task for the client due to a non-stationary target.

Progression criteria:

The client should maintain stability and heading control during the exit. The client should complete 4 docks from 9,500 feet or 7 from 12,500 feet with directional control at least 75% of the time, break-off at 5,000 feet, and create adequate separation by tracking with directional control to pull.

Exercise #2: Pin practice with SCS

As in exercise 1, the client will exit from the rear float position, and the coach exits from the middle float position. The coach will give the count. The client will practice moving forward 15-20 feet while maintaining heading control and picking up grips. The greater distance will allow the client to apply the SCS principles. Also, the proximity control drill (palming) should be performed on every dock.

Dive Sequence

- Attain the box body position
- Turn to coach
- Respond to corrective signals from the coach
- Initiate forward movement to the dock
- Take presented grips and palm
- Check altitude
- Sit still while coach backs up 15-20 feet
- Respond to signal
- Repeat the exercise as altitude permits
- Initiate the break-off at 5,000 feet and pull by 3,500
- Turn 180° from center, tracks, flares, and pulls
- Perform a 90° rear riser turn after deployment

Comments:

Continue to adjust fall rate to suit client. The longer distance may create greater fall rate differences. The coach is to do their best to match the student's fall rate.

Progression criteria:

The client should maintain stability and heading control during the exit, complete 4 docks from 9,500 feet or 7 from 12,500 feet with directional control 80% of the time, break-off at 5,000 feet, and create adequate separation by tracking with directional control to pull.

Exercise #3: Backward movement

As in exercise 2, the client will exit from the rear float position. The coach should exit from the middle float position and give the count. The client will practice moving forward and backward six to ten feet (6'-10') while maintaining heading control and picking up grips. The backward movement will increase coordination of the upper and lower body and help the client develop confidence in their air skills.

Dive Sequence

- Attain the box body position
- Turn to coach
- Initiate forward movement to the dock
- Take presented grips and palm
- Check altitude
- Backs up six to ten feet (6'-10') and stops
- Initiate forward movement to the dock
- Take grips, elbows, feet, palm
- Check altitude
- Repeat the exercise as altitude permits
- Initiate the break-off at 5,000 feet and pull by 3,500
- Turn 180° from center, tracks, flares, and pulls

Comments:

Watch fall rate on backward movement. Excess leg action could cause sinking out. Once again, the coach is to match the client's fall rate.

Progression criteria:

The client should maintain stability and heading control and remain within fifteen feet (15') of the coach during the exit. The client should complete 3 docks from 9,500 feet or 5 from 12,500 feet with directional control 90% of the time forward and at least 75% backward, break-off at 5,000 feet, and create adequate separation by tracking with directional control to pull.

Exercise #1: Vertical control

In this exercise, the client will give the count and dock once and then perform cupping and spilling only. The client is to match the coach's level after the coach has either moved up or down. The client should work at maintaining a constant proximity. The coach should initially set up fifteen to twenty feet (15'-20') back and then move six to ten feet (6'-10') down.

Dive Sequence

- Apply exit priorities and relaxes into the box body position
- Turn to coach and closes to dock
- Coach keys the break
- Sit still while coach backs up 15-20 feet and down 6-10 feet
- Wait for coach's signal
- Initiate a fast fall position to move down (6'-10')
- Stop on level while maintaining proximity
- Sit still while coach moves up (6'-10')
- Wait for coach's signal
- Initiate a slow fall position to move up (6'-10')
- Stop on level while maintaining proximity
- Repeat the exercise as altitude permits
- Initiate the break-off at or above 4,500 feet
- Turn 180° from center, tracks, flares, and pulls
- Grasp rear risers while checking for canopy traffic

Comments:

The set up distance of 15-20 feet is important and should not be any less. The coach should minimize compensating for any vertical or horizontal movement during this exercise. However, if proximity does get out of control, the coach should make the necessary adjustment to continue the learning. The coach should fall at a rate which allows the client to go up and down fairly easily. Ensure that you return to the box position after the upward moves.

Progression criteria:

Maintain stability, heading control and proximity (within 15 of the coach) during exit phase. Complete 2 cycles from 9,500 feet or 3 from 12,500 feet with directional control at least 75% of the time, maintain between 10 and 20 feet of proximity control, break-off at 4,500 feet and create adequate separation.

Exercise #2: Vertical control with docking

In this exercise, the client will give the count and perform the cup and spill positions with docking between the vertical moves.

Dive Sequence

- Apply exit priorities and relaxes into the box body position
- Turn to coach and closes to dock
- Coach keys the break
- Sit still while coach backs up 15-20 feet and down 6-10 feet
- Wait for coach's signal
- Initiate a fast fall position to move down (6'-10')
- Initiate forward movement with level control to dock
- Coach keys the break
- Sit still while coach backs up 15-20 feet and moves up 6-10 feet
- Wait for coach's signal
- Initiate a slow fall position to move up (6'-10')
- Stop on level
- Initiate forward movement with level control to dock
- Repeat the exercise as altitude permits
- Initiate the break-off at or above 4,500 feet
- Turn 180° from center, tracks, flares, and pulls
- Grasp rear risers while checking for canopy traffic

Comments:

This exercise is the same as exercise 1 with the addition of forward movement to the dock using the FAZ principles. The coach should be aware of any proximity changes during the transitions and the approach. Note: being too close can create a problem with eye contact for the client.

Progression criteria:

Maintain stability, heading control and proximity (within 15 feet of the coach) during exit phase. The first dock should be within 10 seconds of exit. Complete 4 docks from 9,500 feet or 6 from 12,500 feet with directional control 80% of the time, 75% of the docks should be on level with minimal momentum, break-off at 4,500 feet and create adequate separation.

Exercise #3: Vertical control during forward approach

During this exercise, the client will give the exit count and perform both the cupping and spilling positions combined with forward movement to dock in the final approach zone (FAZ). The client should complete the dock.

Dive Sequence

- Apply exit priorities and relaxes into the box body position
- Turn to coach and closes to dock
- Coach keys the break
- Sit still while coach backs up 15-20 feet and down 6-10 feet
- Wait for coach's signal
- Initiate downward and forward movement to dock
- Coach keys the break
- Sit still while coach backs up 15-20 feet and moves up 6-10 feet
- Coach signals approach
- Initiate upward and forward movement to dock
- Repeat the exercise as altitude permits
- Initiate the break-off at or above 4,500 feet
- Turn 180° from center, tracks, flares, and pulls
- Grasp rear risers while checking for canopy traffic

Comments:

It is very important to use the correct set up distances. The coach may need to adjust proximity if a client is going to go over or under the coach. The coach should be prepared to take evasive action, hold position and present grips while maintaining heading during the approach to dock. Watch for eye contact during the upward movements and the client's anticipation to stop on level. The docks should be on level, and the final approach should be from the "final approach zone".

Progression criteria:

Maintain stability, heading control and proximity (within 10 feet of the coach) during exit phase. The first dock should be within 10 seconds of exit. Complete 4 docks from 9,500 feet or 6 from 12,500 feet with directional control 80% of the time, 80% of the docks should be on level with minimal momentum, break-off at 4,500 feet and create adequate separation.

Exercise #1: Short Swoop

During this exercise, the coach and client will both give the exit count. The client will do a diving exit. The client will wait in the airplane about one (1) second after the coach has exited. The client will practice short swoops to docking. Emphasis should be placed on starting, coasting and stopping the swoop. After the dock, the coach will drop down and backwards about twenty feet (20').

Dive Sequence

- Coach gives the count, coach leaves on "set"
- After exit priorities are completed, client establishes heading
- Initiate dive and applies swoop techniques
- Close distance to the final approach zone (FAZ) using SCS
- Remain on level and docks neutral from six feet (6') out
- Coach keys the break
- Coach drops down and back about twenty feet (20') [45° angle]
- Close distance to the final approach zone (FAZ) using SCS
- Repeat the exercise as altitude permits
- Initiate the break-off at 4,000 feet
- Turn 180° from center, tracks, flares, and pulls

Comments:

During the exit, note if the client presented correctly prior to establishing eye contact. Plan for evasive action in the event the client approaches too fast or without control.

Progression criteria:

Maintain stability with heading control during the diving exit. Complete 3 swoops to the dock from 9,500 feet or 5 from 12,500 feet with 90% angle control, level maintenance, and approach speed that was no faster than a walking pace in the final approach zone, break-off at 4,000 feet and create adequate separation. Demonstrated correct canopy control from the pull until landing.

Exercise #2: Medium Swoop with Low Recovery

During this exercise, the coach and client will both give the exit count. The client will do a diving exit. The client will wait in the airplane about one and a half (1.5) seconds after the coach has exited. The client will practice a medium swoop to dock. Emphasis should be placed on starting, coasting and stopping the swoop. After the dock, the coach will float up and back about twenty feet (20') [45°angle] and the client will practice a low recovery.

Dive Sequence

- Coach gives the count, coach leaves on “set”
- After exit priorities are completed, client establishes heading
- Initiate dive and applies swoop techniques
- Close distance to the final approach zone (FAZ) using SCS
- Remain on level and docks neutral from six feet (6') out
- Ensure to start with a good fall rate
- Coach keys the break
- Coach floats up and back about twenty feet (20') [45° angle]
- Initiate recovery techniques to the final approach zone (FAZ)
- Repeat the exercise as altitude permits
- Initiate the break-off at 4,000 feet
- Turn 180° from center, tracks, flares, and pulls

Comments:

The coach will be required to establish a reasonable fall rate and good base. During the recovery sequence, upon reaching the twenty foot (20') point, reestablish a good fall rate. Watch for and pay attention to the recovery body position, the time taken to recover, and the relative heading during the recover. Plan for an evasive action in case the client approaches too fast or without control.

Progression criteria:

Maintain stability with heading control during the diving exit. Complete 3 recoveries to the dock from 9,500 feet or 5 from 12,500 feet with 80% angle control, level maintenance, and an approach speed that was no faster than a walking pace in the final approach zone, during the recovery phase, eye contact must have been maintained, break-off at 4,000 feet with adequate separation. Demonstrated correct canopy control from the pull until landing.

Exercise #3: Long Swoop with Quadrant Control

During this exercise, the coach and client will both give the exit count. The client will do a diving exit. The client will wait in the airplane about two (2) seconds after the coach has exited. The client will practice a long swoop to dock. Emphasis should be placed on starting and stopping the swoop. After the dock, the coach will drop down and backwards about twenty feet (20') [45°angle]. The client will then practice making approaches from the right and left quadrants.

Dive Sequence

- Coach gives the count, coach leaves on “set”
- After exit priorities are completed, client establishes heading
- Initiate dive and applies swoop techniques
- Close distance to the final approach zone (FAZ) using SCS
- Remain on level and docks neutral from six feet (6') out
- Coach keys the break
- Coach sinks down and back about twenty feet (20') [45°angle]
- Fly to the right or left quadrant (90°to the coach)
- Approach in the final approach zone (FAZ) from about 20 feet (20')
- Repeat the exercise as altitude permits
- Initiate the break-off at 4,000 feet
- Turn 180°from center, tracks, flares, and pulls

Comments:

During the quadrant shift, watch for quadrant control, set up and approach angle. During the approach, watch for the 90°in-line set up to the no-momentum dock.

Progression criteria:

Maintain stability with heading control during the diving exit. Complete 3 swoops to the dock from 9,500 feet or 5 from 12,500 feet; during the quadrant shift, stayed within the quadrant parameters and made a straight-on approach from the side, break-off at 4,000 feet with adequate separation. Demonstrated correct canopy control from the pull until landing.