

FREESTYLE SKYDIVING, SKYSURFING & FREEFLYING 2008

ADDENDUM B BASIC ORIENTATIONS AND BODY POSITIONS

A. BODY POSITION

The body positions define the relationship of the limbs to the torso. This includes the angle of the legs relative to the torso and the amount of bend at the hips and waist, knees and ankles. The arms are left free to control the position. For description purposes on heading, torso means the front of the torso.

A-1. Layout Position

- The torso is straight; with no bend at the waist (a slight arch is possible).
- The legs are together.
- The legs are straight, and in line with the torso.
- The head is in line with the torso.

A-2. Stag Position

- The torso is straight, with no bend at the waist.
- One leg is straight and in line with the torso.
- The other leg is bent forward at the hip and the knee is bent back to place the toe beside the knee of the straight leg. The bent leg is bent at least 90° at the knee.
- The head is in line with the torso.

A-3. Straddle Position

- The torso is straight, with no bend at the waist.
- The legs are split apart, from side to side, with at least a 90° angle between them.
- The legs are straight.
- The head is in line with the torso.

A-4. Pike Position

- The torso is bent forward at waist such that the angle between the torso and thighs is less than 90°.
- The legs are together.
- The legs are straight.

A-5. Straddle Pike Position

- The torso is bent forward at the waist such that the angle between the torso and the thighs is less than 90°.
- The legs are split apart, from side to side (in a Straddle), with at least a 90° angle between them.
- The legs are straight.

A-6. Split Position

- The torso is straight, with no bend at the waist.
- The legs split apart from front and back, with at least a 90° angle between them.
- The front leg is straight, the back leg as straight as possible.
- The head is in line with the torso.

A-7. Tuck Position

- The torso is bent forward at waist such that the angle between the torso and thighs is less than 90°.
- The legs are bent at the knees, such that the angle between the upper and lower leg is less than 90°. The knees are not necessarily all the way up against the chest.
- The legs are together.

A-8. Tee Position

- The torso is straight, with no bend at the waist
- One leg is extended in front of the torso, at 90° to the torso.
- The other legs is straight in line with the torso.
- The legs are straight.

A-9. Sit Position (skysurfing)

- The torso is bent forward at the waist such that the angle between the torso and thighs is about 90°.
- The torso shall be at about a 135° angle with the surfboard.
- The Performer must be sitting on the surfboard.

A-10. Sit Position (freestyle skydiving and freeflying)

- The torso must be straight.
- Both legs are bent at the hips and at the knees, at an angle of about 45°.
- The lower legs must be parallel to the Torso.
- The toes are pointed. (freestyle skydiving only)

A-11. Compass position

- Torso must be vertical and straight, with no bend at the waist.
- One leg must be straight down.
- The other leg is bent forward 90° at the hip, with the leg straight
- Either leg may be the forward leg.

B. ORIENTATIONS

There are five (5) different basic orientations which a body can have to the relative wind or ground. These define which way the torso is oriented, and the orientation is the first way to categorise the poses.

B-1. Flat Orientation

The torso is horizontal, on its front, facing down towards the ground.

B-2. Back-down Orientation

The torso is horizontal, on its back, facing up towards the sky.

B-3. Sideways Orientation

The torso is horizontal, on its side, with either side facing towards the ground. The chest is facing the horizon.

B-4. Head-up Orientation

The torso is vertical with the head up, towards the sky.

B-5. Head-Down Orientation

The torso is vertical with the head down, towards the ground.

B-6. Diagonal Orientation

Diagonal flying is any angle between 1° and 89°. For description purposes, the diagonal orientations are described in reference to the ground only when at terminal velocity. The angles can be classified into three (3) major groups:

- "Tracking" is horizontal movement with the torso predominantly horizontal with respect to the ground.
- "Flock" is horizontal movement with the torso predominantly vertical with respect to the ground.
- "Atmonauti" is horizontal movement with the torso at an angle between a "Track" and a "Flock", but preferred to be close to 45° with respect to the ground.

C. ROTATION AXES

Most moves involve some sort of rotational motion of the body. A total of five (5) axes are required and sufficient to describe all possible rotational motions.

C-1. Earth/Wind Axes

There are two inertial axes which stay fixed with respect to the relative wind (or ground when at terminal velocity).

Vertical Axis

The vertical axis remains parallel to the relative wind, (pointing from the sky to the ground when at terminal velocity).

Horizontal Axis

The horizontal axis is any axis perpendicular (90°) to the relative wind, (pointing to the horizon when at terminal velocity). It may have any heading (pointing towards any desired point on the horizon).

C-2. Body Axes

There are three (3) body axes which stay fixed with respect to the Performer's body.

Body Head-Toe Axis

The body head-toe axis is oriented lengthwise through the Performer's torso, pointing from head to toe.

Body Front-Back Axis

The body front-back axis is oriented forwards and backwards through the Performer's belly, pointing from front to back.

Body Left-Right Axis

The body left-right axis is oriented sideways through the Performer's hips, pointing from left to right.

D. BASIC ROTATIONAL ACTIONS

There are four (4) basic rotational actions which form the basis for most moves.

D-1. Turns

Turns in general involve a rotation about the vertical axis such that the heading is changing. The body can be in any orientation while performing a turn.

D-2 Rolls

A roll is a rotation about the body head-toe axis when that axis is aligned with the horizontal axis.

D-3. Loops

A loop is a head-over-heels rotation around the horizontal axis, initiated about either the body left-right axis or the body front-back axis, when either of these axes are aligned with the horizontal axis. The body goes through a head-up position and a head-down position during the course of the loop. A loop is considered complete when the head has travelled 360° around the horizontal axis from the point at which it started. A loop can start from any orientation. There are three (3) kind of loops. Note that loops are referred to by the direction in which the loop is initiated, since in the case of twisting loops, the direction in which the loop completes may be different from the direction at the start.

Back Loop

A back loop is a loop where the rotation is initiated about the body left-right axis with the torso rotating backwards.

Front Loop

A front loop is a loop where the rotation is initiated about the body left-right axis with the torso rotating forwards.

Side Loop

A side loop is a loop where the rotation is initiated about the body front-back axis with the torso rotating sideways.

D-4. Twist

A twist is a rotation about the body head-toe axis when combined with a loop. A single or full twist is defined to be a 360° rotation about the body head-toe axis. The amount of twist contained within a loop is the amount of twisting rotation completed after a 360° looping rotation has been performed, when measured from the point in the loop at which the twist was first initiated. Twists may be initiated at any position in the loop and in any direction.