

SAMPE: COMPETITION RULES FOR RC MODEL SKYDIVERS (2017)

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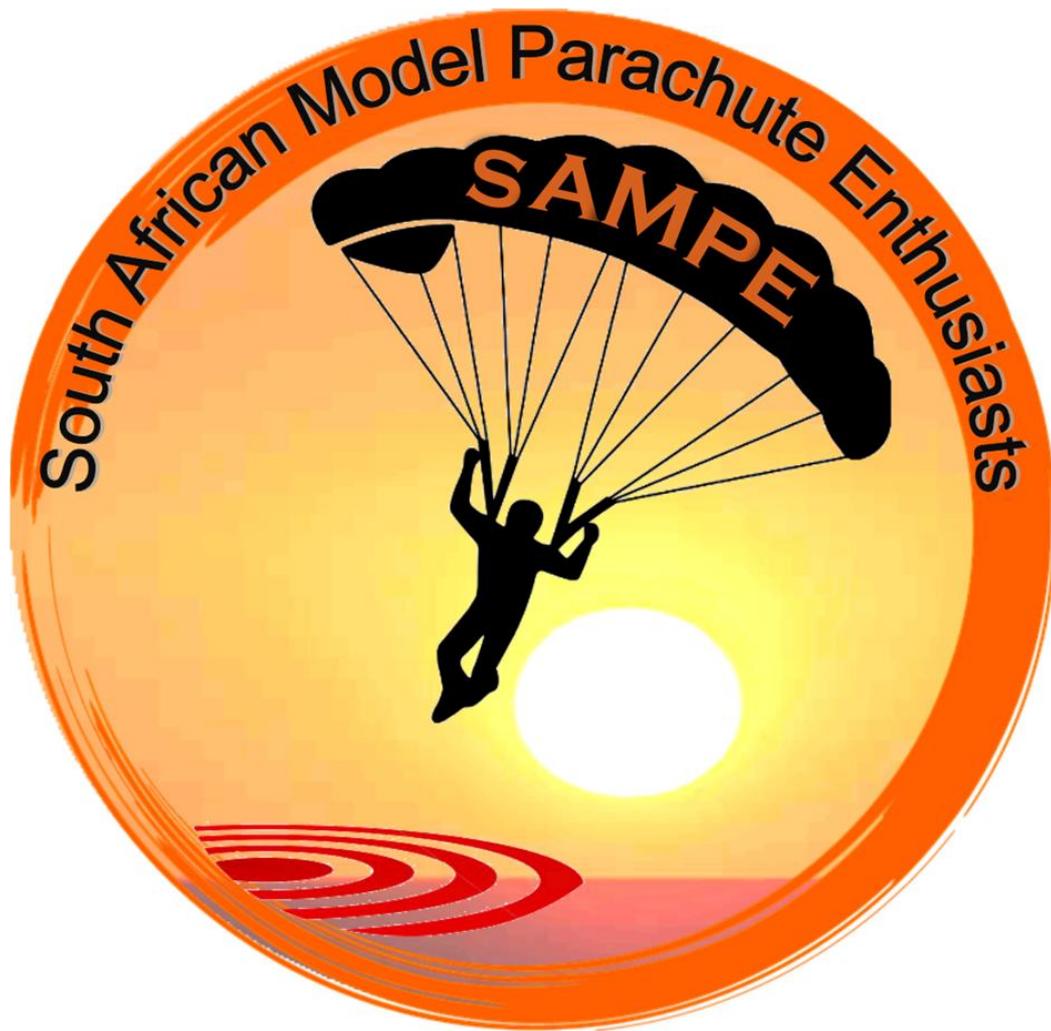




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1 Definitions

1.1 Definition of a RC Skydiver.

1.1.1 The skydiver is a radio controlled object with the appearance of a human skydiver.

For example:

- The head is a human like head.
- Helmet is optional.
- The skydiver's clothing (or paint job) must resemble a jump suit, flight suit or overall.
- The skydiver must have a parachute harness. It may be sewn on, strapped on or painted on.

1.1.2 Skydiver and parachute is seen as one unit.

1.2 Definition of an official jump:

1.2.1 The RC Skydiver after the start of a round of jumping, is brought with a Drop Plane to the Skydiver Pilot's proposed area and height (with due regard to local rules and restrictions).

1.2.2 When the drop plane has reached the proposed area and height, the Jumper Pilot will communicate readiness for the jump to the Drop Plane Pilot. The Drop Plane Pilot will initiate run in by announcing "RUN IN" indicating readiness for jump.

1.2.3 Following the Skydiver Pilot's call of "release NOW", the Drop Plane Pilot will throttle back and after 2 seconds release the skydiver from the Drop Plane. When the skydiver is confirmed to be clearly visibly released from the Drop Plane, the judging for the jump begins.

1.2.4 The RC Skydiver must be landed within the allocated time slot permitted per round.

1.3 Definition of an invalid jump:

1.3.1 Any jump that does not encompass point 1.2 is declared an invalid jump.

1.3.2 The intervention of a 2nd person in the management of the skydiver is not allowed.

1.4 Definition Drop Zone. (See ANNEX A)

1.4.1 The drop zone is an area consisting of a circular or 8-angular range of at least 25 meters radius; the center is positioned within the target circle.

1.4.2 The Competition leaders may, for safety reasons, decide to determine the performance area to be smaller, provided that the limit of the zone is at least 5 meters from the edge of the target-circle.

1.4.3 The target-circle is the circle that serves as a target. The target-circle has a diameter of 10 meters. The center is marked as a 30cm diameter dot. From the center of the dot, every meter radius is marked with a 5cm wide line.

1.4.4 The wind sector is indicated with a 90-degree angle to show the wind direction. This wind sector is indicated by barrier tape or candy tape in the target-circle. The circle referee(s) or the measurement team will ensure that the wind sector is adapted to the prevailing wind direction. The wind sector can only be changed when there are no RC Skydivers in the air and position change must be clearly communicated to competitors.

1.4.5 By *rapidly rotating wind* or for any reason at the discretion of Event Leaders, there could be a sector of 360 degrees set. This must be decided before commencement of a round and cannot be changed half way during the round. If it is deemed that the wind direction becomes too erratic during the round, the round will be restarted or scratched from the event to allow consistency for all participants.



1.5 Definition of an Event.

- 1.5.1 An event is made up of 4-6 jumping rounds with a pause in-between each round. Number of rounds to be decided by Event Leader before the start of the event.
- 1.5.2 A round is classified as one cycle in an event not separated by a pause. A jumping round takes up to 30 minutes. All participants / or predefined group of participants will have one Jump in each round. The Competition leaders may deviate from this time provided that it is applicable for all participants and made known to them.
- 1.5.3 A jumping round is the number of flights that is necessary in order to allow all participants or group to make at least one jump.
- 1.5.4 There must be at least one full round completed with all participants making at least one jump to result as valid event.
- 1.5.5 The Competition leaders determine beforehand on the basis of the number of participants the amount of jump rounds to be done.
- 1.5.6 To make a valid jump, we rely on a competitor to be available for 30 minutes from the moment of the beginning of the jump round when announced by the Competition leaders and must be available up until round is completed. (1.5.1)
- 1.5.7 The start sequence can be determined at equal frequencies by the Event Leader, taking into account the available radio frequencies.
- 1.5.8 A participant may enter a round once.
- 1.5.9 Before the start of each event, 4 test jumps are carried out to determine where the optimal release area for the skydivers would be, taking into account local conditions and rules.
- 1.5.10 The skydiver must be brought up to height with available drop plane. The participant can be paired to a specific drop plane to be dictated by the Competition leaders.
- 1.5.11 A participant may be accompanied by one person to the jump circle. Thereafter, the helper must leave the drop-zone area.
- 1.5.12 Unless the starting order is determined by the Event leader, the participant determines when he is within a jump round and takes his jump leap with the understanding that he can only start as soon as a jump judge is available.
- 1.5.13 There can be multiple participants simultaneously making a jump, provided there is a jump judge available per jumper pilot.
- 1.5.14 A jump judge must be available for the duration of the jump until the skydiver lands.
- 1.5.15 The free fall begins when the skydiver is clearly visibly released from the plane and continues until the moment when the parachute leaves the backpack.
- 1.5.16 The landing happens into the wind direction. In addition, the parachute should be facing turned in against the wind. The skydiver clearly visible with the feet touching the ground first.
- 1.5.17 In the case of a technical failure at the *transmitter* and / or *receiver* and / or *mechanism* of the skydiver, there is no retry of the jump.
- 1.5.18 The organizer is obliged to make adequate drop planes and drop pilots available to ensure the event runs smoothly.
- 1.5.19 The noise of the internal combustion engines used by the towing aircraft shall not exceed the club prevailing noise standard.
- 1.5.20 Joker rule. The participant may only use a wild card/Joker once during the event.
The use of the Joker means that the jump may be repeated, if the below conditions have been met;
 - Skydiver is unhooked from the aircraft
 - The main parachute left the backpack



- The skydiver is not controllable

The participant must indicate to the jump referee that he wants to use the Joker, after the opening of the parachute. Once the participant decides to use the Joker, the jump will not be judged. It is not possible to withdraw the Joker.



2 Technical conditions for RC skydiver.

- 2.1 Skydiver and parachute count as one unit.
- 2.2 The absolute maximum weight for a skydiver is 1,7 kg.
- 2.3 The Skydiver must be rigged with a **safety mechanism** to prevent the uncontrolled opening of the parachute. If there is *no security present, the skydiver will be excluded* from participation. Before the start of the event, the skydiver's deployment operation must be displayed to the Competition leaders and on request of the drop pilot before it is hung under the tow aircraft. **See Appendix B.**
- 2.4 When a safety line is deployed, it may not be longer than 30cm. It must be established that these safety lines work under an angle of 20 to 90 degrees and in a circle of 360 degrees.
- 2.5 The RC Skydiver should do a clear free fall. The free fall is controllable and meets the minimum requirements set out in these rules.
- 2.6 The use of an acoustic signal / "**lost model alarm**" in or on the skydiver for the recovery in the event of a drift away parachutist is allowed.
- 2.7 Ribbons and flags fitted to the skydiver or parachute during the game are not allowed.
- 2.8 The following frequencies are available exclusively for use by the drop pilots and therefore not to be used for RC skydivers:
In the 35 MHz band Spot 61 (35.010), 63 (35.030), 65 (35.050), 76 (35.160), 78 (35.180), 80 (35.200) en 82 (35.220).
- 2.9 The participant may, with the exception of the parachute, replace defective parts of the RC skydiver provided that the RC skydiver remains and meets the technical requirements.
- 2.10 Each participant, excluding **2.4 GHz**, are required to have a second pair of quartz crystals at his disposal at the event, at the request of the Competition leaders, frequency change on his parachutist must be executed.
- 2.11 Before and / or during the event, the skydiver could be inspected by the Competition leaders to ensure that the jumper conforms to the requirements specified in the rules. If requirements during the competition are not met, disqualification follows.
- 2.12 FPV (First Person View) used during the event is not allowed.

3 Event Jury

- 3.1 The organizer shall, before the start of the event, make an event jury known. This consists of a Jump Judge, a Circle Judge and a Measuring Team, preferably not participants in the competition, and may not be the Competition leaders.
- 3.2 The Jump Judge evaluates the overall lead of the participant. There is one Jump Judge per participant responsible for assessing the jump.
- 3.3 The Target-Circle Judge evaluates the final phase of the jump (landing with feet first, proper approach direction into wind and first ground contact).
- 3.4 The Measure Team supports the team Circle Judge in assessing the first ground contact and measure the distance to the center.

4 The Event Scheme.

- 4.1 The target circle may only be entered by the *Circle Judge* and the *Measurement Team*.



- 4.2 Only the participants in the competition round and the judges are allowed to be present in the performance area (drop-zone). Helpers are allowed only for the guidance of the participant to the target circle. Thereafter they should remove themselves from the drop zone. They are also subject to the instructions of the Competition leaders.
- 4.3 While in the inner zone, the participant should be allowed freedom of movement and sight. If a participant is hindered, he must alert the Jump Judge.
- 4.4 Drop planes may only be started from the so marked area.
- 4.5 At the start of the round of jumping, the RC skydiver is brought by a drop plane to the participants' desired height and direction (according to local rules and restrictions).
- 4.6 When the skydiver is confirmed to be clearly visibly released from the Drop Plane, then the free fall starts and judging for the jump begins.
- 4.7 After a successful jump, one of the dedicated persons (Circle judge / Measurement Team) will collect the RC Skydiver from the target-circle judge. The pilot may only enter the target circle after the express command to enter the circle.
- 4.8 The competitor decides when his jump is performed, unless the game leader determined a starting sequence. A skydiver should be landed in the period of the jump time available. If this is not the case, the jump is deemed as invalid.

5 Review/ Judging Guide

(Refer to Annex C)

5.1 The skydiver is a radio controlled object with the appearance of a human skydiver.

For example:

- 5.1.1 The head looks like a human head. (150)
- 5.1.2 The skydiver wears an overall/flight suit. (150)
- 5.1.3 The skydiver is wearing a parachute harness. It may be sewn on. (150)
Note: **150 penalty points per part** in the final rating is applicable. A total of **450 penalty points** in the final grade.
- 5.1.4 The participant is clearly visible outside the target- circle. If the participant touches the target-circle while jumping, then there is **penalty of 100 points**.
- 5.1.5 An official jump is valued at **0 points**. (Refer to 1.2)
A no-jump started valued at **2,500 points**.
- 5.1.6 The free fall begins when the skydiver is clearly visible off the plane and continues until the moment when the parachute leaves the backpack. The free fall is confirmed by the jump judge.
- 5.1.7 It is valued at **0 points**.
If it is not the case then it is valued by **500 points**. (In other words the parachute opens under 3 seconds or immediately after the drop from the plane)
- 5.1.8 The full opening of the parachute is valued at **0 points**.
The parachute does not fully open, it is valued at **1,800 points**.(E.g, Roman candle)
- 5.1.9 The landing occurs against the wind direction. Thereby the parachute is turned into the wind on landing. It is scored with **0 points**.
Is it not the case then it is valued at **150 points**.
- 5.1.10 The skydiver lands clearly visible with the feet first on the ground. It is valued at **0 points**.
Is it not the case then it is valued at **150 points**.



- 5.1.11 Landing outer zone (Set by Event Leaders) valued at **1200 points**.
- 5.1.12 Landing inner zone (Drop Zone 25m) valued at **700 points**.
- 5.1.13 Landing inner circle (10 m) - 1 point for every centimeter away from center dot **1 point per cm**.
- 5.1.14 Landing on the wooden disc (32 cm) valued at **0 points**.
- 5.1.15 Intervention of outsider in charge of skydiver:
The intervention of a 2nd person in the management of the skydiver is not allowed and will be valued at **1800 points**.
- 5.1.16 **Number of flights:** An event is classified into at least 4 jumping rounds (possible 6) or the number of that is determined before the start by the Competition leaders. The duration of a jumping round is 30 minutes. The result of the worst jump round will not count.
- 5.1.17 **Number of helpers:** Each participant may be / have a helper in the drop-zone.
Helpers are only allowed to lead the skydiver pilot to the edge of the target-circle. The helper will move outside the drop-zone to clear away from the pilot immediately. Physical contact between helper and skydiver pilot at the target-circle is prohibited and will be penalized with **1800 points**.
- 5.1.18 **Winner of the competition:** Each participant is subject to the results of all jump rounds. Winner is the one who obtained the least number of points with all jump rounds counted. In case that only one jump round is completed per event, the result of that jumping round count as a result. If there is a tie, there will be a contest jump. The outcome of this jump will determine the final outcome.
- 5.1.19 For the evaluation of the games that count for the South African championship, the following schedule and scoring is handled:**

Instruction		Yes	No
1.	Minimum requirements in all passes a) Does the parachutist seem like a human skydiver and the head human-like? b) Is the parachutist's overall present? c) Is parachute's harness present?	0 points 0 points 0 points	150 points 150 points 150 points
2.	Jump started	0 points	2500 points
3.	Clear visible freefall	0 points	500 points
4.	Parachute opened	0 points	1800 points
5.	Landing outer zone (A)	1200 points	0 points
6.	Landing inner zone (Drop Zone) (P)	700 points	0 points
7.	Landing inner circle (10 m) - 1 point for every centimeter away from center dot 1 point per cm	1 point per cm	
8.	Landing on the wooden disc (32 cm)	0 points	
9.	Only if a wind sector has been established: Landing clearly visible against the wind (only at 7. or 8. not at 5. and 6.)	0 points	150 points
10.	Landing clearly visible with the feet first (only at 6., 7. or 8. - not at 5.)	0 points	150 points
11.	Target circle entered	100 points	0 points
12.	Intervention by outsider	1800 points	0 points
Measuring point is the point where the first contact with the ground is.			



6 ANNEX A: Event zone/Drop zone and Target Circle.

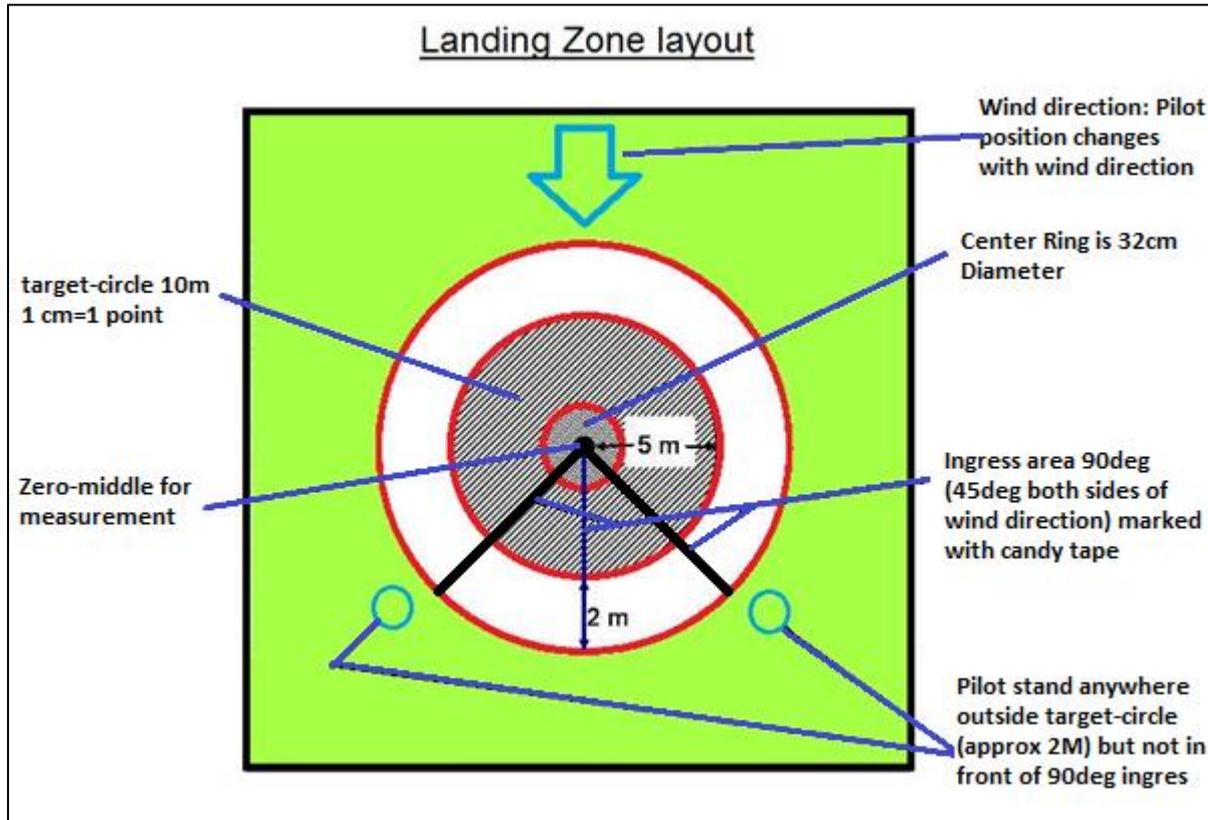


FIG. A Drop Zone and Wind Direction

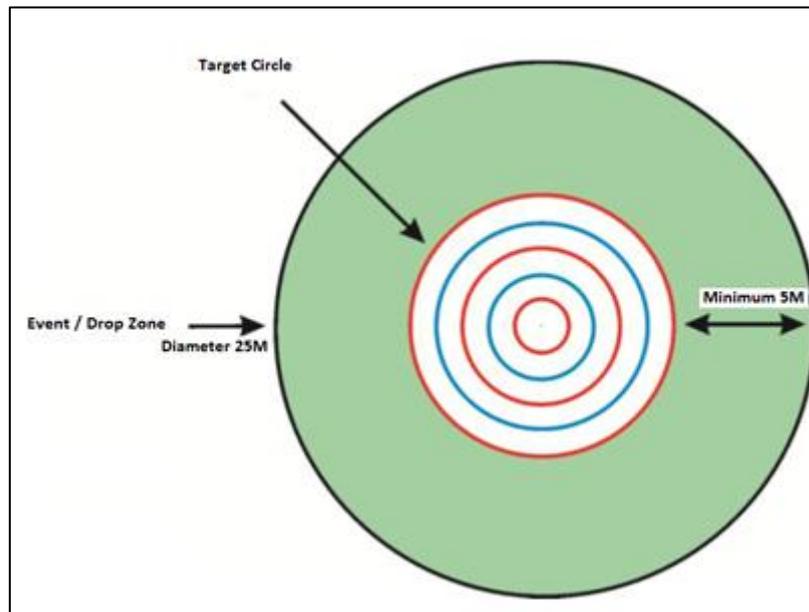


FIG. B - Drop Zone and Target Circle OPTION 1

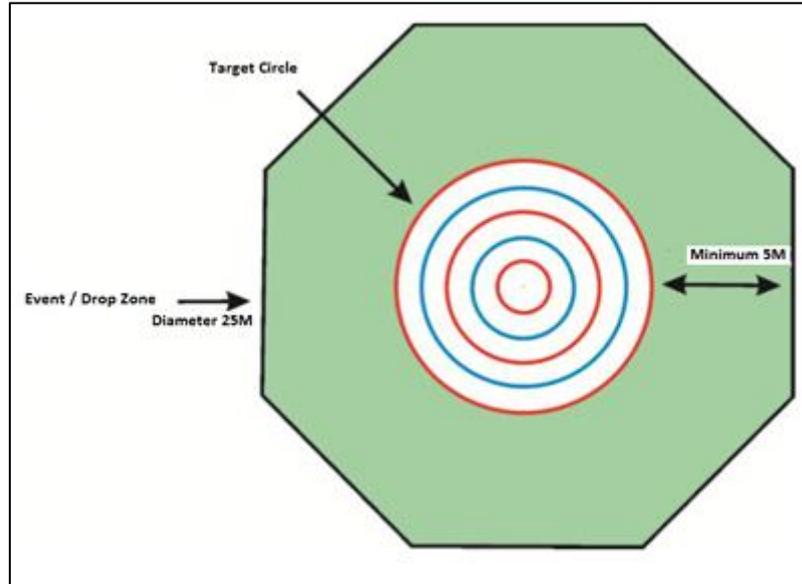


FIG. C - Drop Zone and Target Circle OPTION 2

- The Event/Drop zone is a circular or 8-angular range of at least 25 meters, in which a target circle is positioned. The Drop zone must be as round as possible, provided that the outside of the zone around is the same distance but never less than 5 meters from the edge of the game circle. The Drop zone is not necessarily in the model flying site.
- The contest leader can, for safety reasons, decide to make the contest zone smaller, provided that the limits of the zone lie at least 5 meters from the edge of the event circle.

7 ANNEX B: Safety

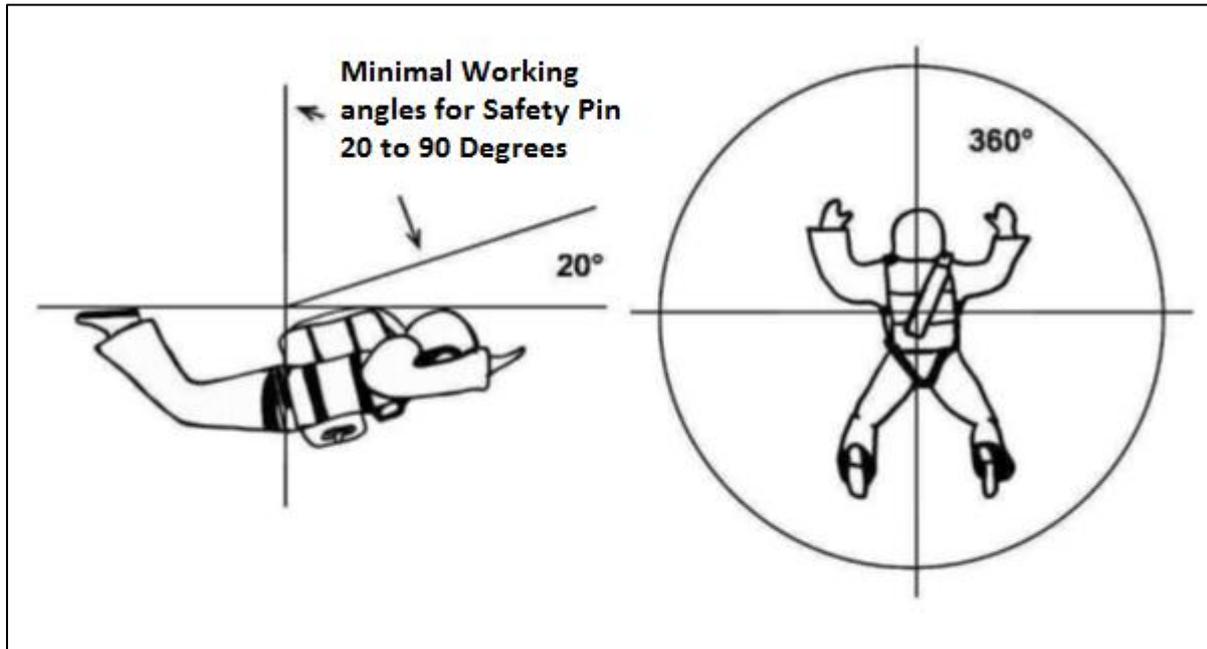


FIG. D – Safety Pin - Minimum angle of operation.

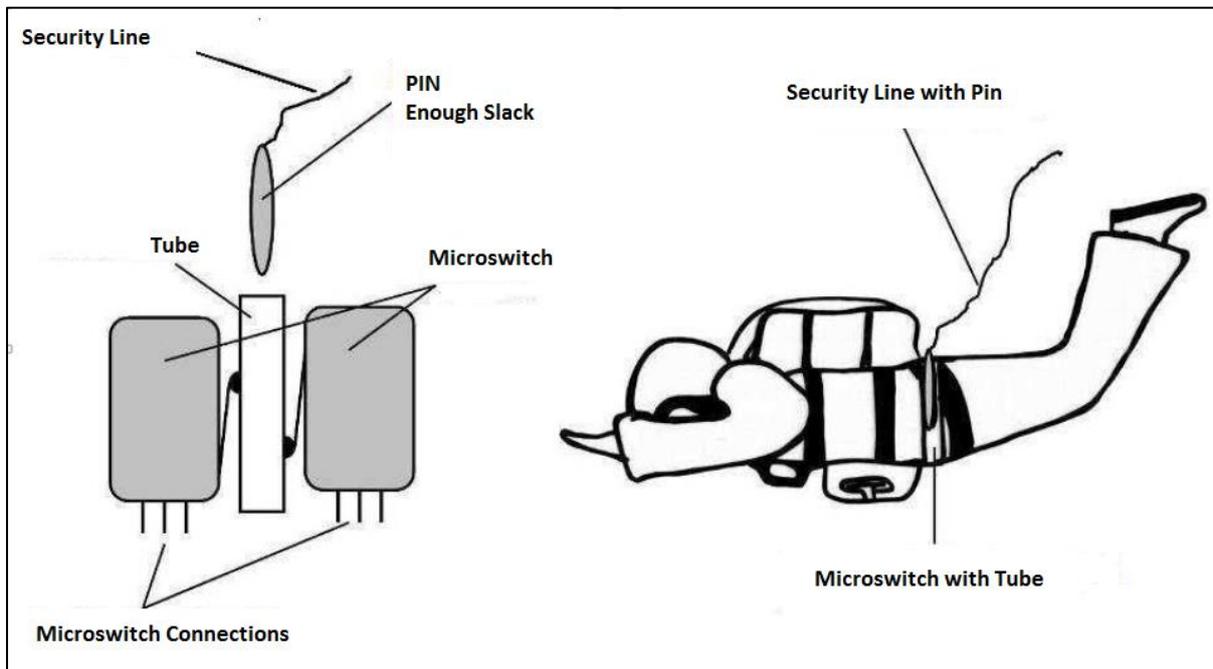


FIG. E – Security Mechanism – OPTION 1.

The security line pull a security pin out of a tube equipped with micro switches. The skydiver (Rx) is first turned on after leaving the drop box. The sender (Tx) can remain switched on during the drag/tug.

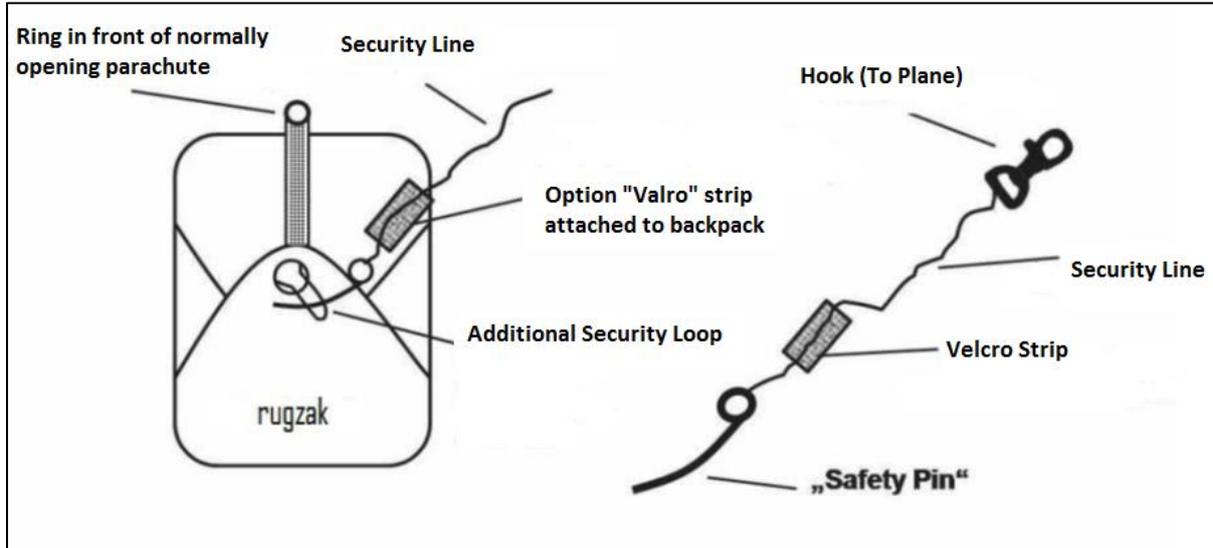


FIG. F – Security Mechanism – OPTION 2.

The safety line with a safety pin connected.

Normal opening parachute is prevented by the safety pin through the extra eye on the backpack. The parachute can even open at the time that the safety pin is pulled by the safety line. During the drag/tug the skydiver and transmitter are both enabled. The security line is behind the safety pin secured through a piece of Velcro.



8 ANNEX C – Jump Schedule

