

Southern Slope Soarers RC Slope Glider Combat Competition Rules.

1. Objectives.

To facilitate arial combat between RC slope gliders in a safe competition that is challenging and enjoyable for contestants and interesting to spectators. To encourage and help foster the improvement of flying skills in a safe manner, particulary with regard to accurate recognition and manipulation of an RC aircraft's three dimensional positioning and development of quick reflex and appropriate strategies to safely recover from mid - air collision. To introduce new flyers to a sport that shows appropriate safety measures need to be implemented both for the benefit of flyers and spectators.

2. General.

All general MAAA regulations covering RC flyers , their model aircraft and equipment apply to this event unless otherwise stated.

3. Safety.

Consideration for the safety of spectators, contest officials, contestants is of the utmost importance when staging this event. Any conduct deemed by the CD, or his elected flight directors to be of a hazardous in nature beyond the grounds of this competition will be grounds for immediate disqualification from this event.

3.1 All aircraft flown must be inspected for safety by the CD or a safety judge designated by the CD prior to competition and may be inspected at any time during the event. The judgment of the safety matters by the CD cannot be protested.

3.2 Consumption of alcholic beverages, by participants will not be permitted during the official hours of competition and participants are not permitted to fly their aircraft while under the influence of alcohol or unprescribed drugs which may impare flying ability or judgement.

3.3 The site specifications and aircraft specifications listed below are essential to the safe conduct of this event.

4. Site Specifications.

The CD is responsible for selecting a site suitable for the safe conduct of the event. The site will have topography capable of generating sufficient slope lift for a RC model to sustain flight given the prevailing winds strength and direction , provide an area suitable for the safe landing and retrieval of downed aircraft and provide the safety of individuals or the public and property in the immediate flying vicinity.

4.1 The CD will establish boundaries of a **Safety Zone**. The only allowable people within the safety zone during competition rounds will be the contestants their assistants and contest officials. The safety zone must be clear of spectators , vehicles, buildings and public roadways.

4.2 The CD will establish a **Flying Zone** with the boundaries at least **30 mtrs** apart inside the boundaries of the safety zone. Flying outside the boundary zone is stricly prohibited.

4.3 The CD will establish boundaries of a **Combat Zone** within the flying zone. It will be of suitable size to ensure active engagement by all contestants during the competition and to help isolate the combat activity for safety considerations.

4.4 The CD will establish a **Flight Line** parallel to the crest of the slope. Pilots will stand at this flight line during the competition. Flying aircraft must be kept at a distance of at least **10 mtrs** from the line at all times.

4.5 The CD will establish a designated **Landing Area**. All contestants must endeavour to land within this area whenever possible.

4.6 The CD will establish a **Scorers Line** near there allocated pilots. An audible call shall be given to there designated pilot when a **2 point** score or a **3 point** score is made during their round. **Pilots may not influence their scorers count during their round.**

5. Aircraft Specifications.

5.1 With the exception of control surfaces, covering and structural reinforcements listed below, the aircraft must be constructed entirely of soft foam material such as **EPP, Polystyrene**.

5.2 The maximum allowable wing span shall be **1250mm**.

5.3 The maximum flying weight shall not exceed **1 kg**.

5.4 Wings shall have soft foam / balsa leading edge at least **40 mm** wide measured parallel to line of flight, the entire span of the wing.

5.5 The wings including there leading edge may only be covered with a flexible covering such as iron on films, packing tape, fiberglass reinforced strapping tape, a combination of these or similar soft plastic coverings. Covering with resin impregnated materials is not permitted.

5.6 Wing spars of any non mettalic material are permitted for structural stiffening provided they do not violate the provisions of section 5.4 Maximum total cross sectional areas for spars shall not exceed **450sq.mm**. Moveable control surfaces at the wing trailing edge ailerons , elevons will not be considered a part of the spar cross section.

5.7 The fuselage must have a soft foam nose at least **38 mm** in length that is of a blunt shape capable of absorbing impact forces.

5.8 The fuselage may have longerons for structural stiffening made of any non metallic material provided that their total cross sectional area does not exceed **350 sq mm** and that they do not extend closer than **38 mm** to the tip of the nose.

5.9 Flight control surfaces may be constructed of balsa wood , foam or corrugated plastic (eg Coreflute) material. Metal , solid plastic or resin impregnated fibre construction or covering material on the control surfaces is not permitted.

5.10. Any ballast added to the aircraft must be imbedded and secured internally within the aircraft structure and may not be attached externally.

5.11. The aircraft are not permitted to use any form of thrust power . Engines , electric motors , compressed gas or chemical propellants are prohibited. Aircraft converted from power use must have the motor , motor battery or fuel tank , propeller and any other hard surfaces hatches removed from the aircraft prior to competition.

5.11 There shall be no limitation on the number of controls and participants need not have built the model themselves.

6. Contest Structure.

The CD will define flight groups for each round of competition. The number of aircraft flown per group will be at the discretion of the CD based on the total number of entrants, the availability of non-conflicting radio frequencies, the desired number of rounds to be flown in the time available and the size of the flying area. Typically there will be more than 6 aircraft per group, the size of the group flown in a round will be equalized to the greatest extent possible.

6.1 Pilots must approach the **stand and fly line** when their round is called up. Pilots are allowed 5 minutes for repair once their name is called up to approach the stand and **fly line**. No pilot shall launch until all pilots are at the **stand and fly line**.

6.2 Pilots must wait until the launch signal is given by the CD or the designated flight director. Upon launching each pilot shall gain level flight and must not enter into combat until the order to **Engage** is given by the CD or flight director.

6.3 After each pilot has had the opportunity to compete in at least 4 non elimination rounds the scores will be tallied with the number of the highest scoring contestants determined by the CD advancing to the final round (s). The top score in the final round (s) are the winner and the runners up.

6.4 The amount of pilots to enter into the final shall be determined by the CD, usually the top 8 if there is 6 to a heat.

6.5 In case of a point tie, to determine which pilot (s) enter the final, the pilot with the highest point score in the previous heat (s) shall proceed to the final. If points are still tied after a countback those pilots affected by the countback score may have to engage in a fly-off, with the first contact by the affected pilots with additional aircraft elected by the CD or flight director entering into the final.

6.6 At the end of the final if 1st place is tied a fly-off may be required to determine the winner. The CD shall enter additional non scored aircraft in the final fly-off to increase the likelihood of points being scored. If in the event points are still tied, a fly-off to determine the winner will be staged with the first contact being the winner of the event.

6.7 Aircraft may only be launched by hand. Every contestant is allowed **1 helper** to assist in launching the aircraft. The helper may also retrieve downed aircraft but the aircraft must be relaunched at the **stand and fly line**. If relaunching is carried outside the boundary of the **flying zone or the stand and fly line** the 10 second penalty must be carried out when reentering the combat zone.

6.8 The CD shall determine and announce the duration of each combat round, typically this will be around 5 minutes. If a contestant crashes at any time during the round, an unlimited number of relaunches are allowed within the duration of the round, provided the aircraft is down in an area that allows safe retrieval and that the aircraft has not sustained damage that could cause its ability to be flown safely. If any repairs are required clearance must be obtained from the CD prior to the aircraft being relaunched.

6.9 During the competition round, no change of aircraft is permitted for any reason. The contestant may freely choose from any aircraft available prior to commencement of competition rounds.

6.10 The CD may inspect and remove any aircraft that is deemed unsafe for flight from damage sustained in an earlier round. The pilot or aircraft must remove themselves from the field to make further repairs. The aircraft must be resubmitted for inspection by the CD before commencement to any further rounds is allowed.

6.11 Contestants must keep their aircraft within the designated **Combat Zone** during competition rounds.

6.12 A pilot arriving late for the event may enter provided no more than 2 rounds have been flown. A 10 point negative penalty is imposed below the lowest competitors current score.

7 Scoring.

7.1 A kill is awarded **3 points** which consists of an aircraft making mid-air contact with another opponents aircraft causing it to strike the ground and cease flight. No matter who initiates the contact engagement, the aircraft that remains flying after such an event, and demonstrates flight control by performing the verification manoeuvre shall gain maximum points. No points are awarded to the aircraft striking the ground.

7.2 Only **1 point** will be awarded for a kill if an aircraft fails to complete the verification manoeuvre within 30 seconds.

7.3 A kill is only awarded **2 points** if the opponents aircraft strikes the ground but regains flight by its own power. No verification manoeuvre is required to claim the 2 points. No points are awarded to the aircraft that strikes the ground.

7.4 A verification manoeuvre shall consist of either a 360 roll or a 360 degree loop ending in level controlled flight. This must be done within the designated combat zone as near to the downed aircraft as possible.

7.5 Hits are awarded **1 point** to each pilot which will consist of 2 or more aircraft making mid air contact that does not result in any of the aircraft striking the ground. All aircraft involved in the mid air contact are awarded 1 point. No verification manoeuvre is required.

7.6 If all aircraft strike the ground after contact with no aircraft successfully performing a verification manoeuvre to claim a kill, then they each score 1 point for a hit.

7.7 Multiple kills or hits can be claimed if a single contact involves more than 2 aircraft. A separate verification manoeuvre must be performed by each aircraft for each kill claimed. Two or more aircraft may each claim the same kill if they each made contact with the aircraft within 1 second of each other. If contact is made more than 1 second apart then only the aircraft that made the initial contact can claim the kill. The second aircraft may only score 1 point for a hit.

7.8 The appointed scorer is responsible for ensuring aircraft stay within the designated Combat Zone and actively engage during combat rounds. It is the appointed scorers responsibility to verbally notify there designated pilot that they have left the combat zone and apply the 10 second count when they re-enter the combat zone.

7.9 No points will be available if aircraft actively engage outside the combat zone.

7.10 A pilot whose aircraft leaves and re-enters the combat zone during a combat round must sustain normal level flight (neither engage in combat or deliberately try to avoid contact) for a period of 10 seconds, points will not be awarded to this aircraft for any contact that does occur in this time. However other aircraft may attack and score the penalised aircraft while it serves its 10 second infringement.

7.11 A pilot whose model flies closer than the 10 mtr stand and fly line must also observe the 10 second infringement

8 Contest Officials.

8.1 There will be one judge assigned to each pilot being flown in a competition round. Fellow pilots may act as a judge and will be appointed by the CD. Judges should try not to judge the same pilot in further following rounds. Each judge will validate and keep track of points gained by the aircraft that they are responsible for and report the score to the contest central scorer. Judges must rotate so they do not score the same flyer in consecutive rounds.

8.2 There should be a designated central scorer appointed by the CD. Individual scorers must log all scores with after each round is flown. Not pilots.

8.3 Pilots must not converse with scorers while their scores are being logged to the central scorer.

8.4 The contest director will be responsible for all duties listed in previous sections and will tally the scores of each aircraft in the competition and determine the overall winner and subsequent places. Any disputes that may arise during the competition must be raised directly to the CD and his or her decision must be accepted.

9 Interruptions.

9.1 A round in progress may temporarily be interrupted if :

the wind force unintermittently is below 3m/sec or more than 25m/sec (6 - 35 mph).

9.2 The direction of the wind deviates more than 45 degrees from the line perpendicular to the main direction of the combat slope.

9.3 Weather conditions (heavy rain , electrical storms) affect the safe flying conditions of all competitors actively engaged in the event.

9.4 A round in progress will be cancelled if the interruption lasts longer than 40 minutes , fewer than 50 percent of competitors have been able to perform the task caused by the marginal conditions.

These rules were compiled as a result of the **Southern Slope Soarers** last two State Trail Events staged in January 2004 and January 2005 and at regular club days.

We Try To Endeavour To Please Everyone.

Glenn Twaddle Secretary Southern Slope Soarers.

