

RCCA Limited B

Rules for Provisional Limited B Class

1. With the exception of the following requirements, all RCCA Open B class rules and scoring will be used.

2. **Airplanes:** Aircraft deemed ready for combat shall have an all up dry weight of no less than 3.25 pounds (52 ounces). There is no maximum weight restriction. All aircraft shall have a maximum wingspan of 64 inches, with no more than 600 square inches of wing area (a root/tip chord chart will be developed in order to expedite pre-contest inspections for the CD).

2.1 To encourage participation, aircraft meeting ALL requirements of the RCCA SSC or 2948 classes will be allowed to fly in Limited B. SSC must meet all SSC Requirements but are allowed a maximum RPM increase to 18500

3. Engines, Propellers and RPM.

3. 1 **Engine Displacement.** Maximum nominal displacement shall be .29cu. in. The engine must be complete with carburetor and muffler. The carburetor must be fully R/C functional as intended by the manufacturer and servo operated.

3. 2 Electric Motors.

The use of electric motors is acceptable as long as the aircraft meets the class weight with batteries in place and the RPM limits.

3. 3 Engine Shut Off.

The pilot must be able to shut off the model's engine by radio control with the plane in any position, (e.g., a servo dedicated to throttle control or a kill switch).

3.4 Propellers.

All aircraft shall use an unmodified APC 10x3, Kavan yellow 10x4 or MAS 10x4 propeller. The propeller may have coatings applied for balance purposes. At contest site elevations of 3500' MSL or higher, unmodified APC 9.3x3 propellers may be substituted.

3.5 Exhaust Systems.

Exhaust systems designed to increase performance through a "tuning" effect or use of an internal pipe or similar arrangement, are not allowed. Examples include, but are not limited to, tuned pipes and mousse cans. The front of the muffler must be closed and "flow through" mufflers are not allowed.

3.6 Maximum RPMs.

The maximum RPMs shall be *14,500* RPM, measured on the ground with the carburetor barrel and throttle stick full open. Pilots are expected to bring their planes to the meet ready to meet the RPM limits, and should provide their own tachometer. Pilots should tach their own aircraft at the contest prior to official RPM testing, and at other times during the contest to ensure conformance. It is the sole responsibility of the contestant to present an engine and aircraft that meet the specifications of the event.

The contest director will determine the frequency of RPM testing. The contest director may choose one or more of the following approaches to ensure engine RPM compliance at the contest:

i. The Contest Director or his/her designated technical inspector may test every contestant's engine

for maximum RPM compliance before the first round of the contest. In addition competitor's engines may be randomly tested during the contest. A competitor may be tested more than once during an event. If, in the opinion of the contest director, engine RPM testing is required more frequently to ensure that all participants are in compliance, the CD may choose to have each engine tested in any round by the pilot's judge.

ii. The contestant may choose to have technical inspector or judge adjust the engine's needle valve to achieve maximum RPM for the check, or may elect to have inspector "pinch" the fuel line to achieve peak RPM. If the contestant chooses the "pinch" check method the inspector will hold the tachometer on the engine and he/she will "pinch" the fuel line to peak the engine's RPM ability. If the engine exceeds the RPM limits the engine and airplane to which it is attached are declared ineligible for combat and may not be launched for combat.

iii. The contestant is allowed to make changes necessary to meet the specifications. The contestant may change fuels, make adjustments to the carburetor to limit its peak travel or utilize restrictions to the intake or exhaust system which limit the engines performance to that which is at or below the maximum allowable RPM specification. An ineligible engine and airplane may be tested after the pilot makes adjustments to his engine to bring it into RPM compliance. Testing may be conducted from "Start engines" through "End combat" of each round. If the contestant fails to achieve the RPM specifications the plane is ineligible from combat and may not be launched for combat.

iv. Any engine, which in the CD's opinion is running over the limit in any round, may be tested at the end of that round.

Electric motors shall be tested prior to flight by letting the motor run at full throttle for 10 seconds. The motor shall be tached and the ATV adjusted so that the maximum RPMs are not exceeded.