

Achievement Badges

1. Achievement badges are awarded to pilots who complete the stipulated tasks discussed below. At present there are three types of badges available from the MGA, namely:-
 - a. **Eagles** - Thermal.
 - b. **Gulls** – Slope.
 - c. **Falcons** - Electric
2. All models must comply with current FAI limits:-
 - a. Maximum flying area 150dm²
 - b. Maximum mass 5 kg
 - c. Wing loading 12-75 g/dm²
3. Launching for the Eagle Badges must be by one of the following:-
 - a. 150 meter bungee (unstretched – not more than 30 meters elastic)
 - b. 175 meter hand tow line
 - c. 200 meter winch – measured turnabout to tow-ring.
4. The same aircraft must be used for all tasks for any one grade, but ballast may be changed. The “same aircraft” includes aircraft rebuilt after a crash as well as a new aircraft built to the same plan and with all essentials unaltered. We may require confirmation of the validity of a new or rebuilt model.
5. All tasks for any one grade must be completed before any tasks may be recorded for the next grade.
6. Not more than one task may be recorded from any one flight.
7. The goal for all cross-country or goal-and-return flights must be nominated before the flight, with reference to a suitable, accurate map. Odometer readings are not acceptable. Distance must be measured along the shortest distance between launch point, designated turn points and goal. All cross-country flights must pass outside the turn points and over fly the nominated goal for straight line flights, or over fly the launch point at the start, pass outside the turn points and over fly the launch point at the finish of goal-and-return flights.
8. Any system which feeds information back from the aircraft to pilot is not permitted.
9. It is the responsibility of pilots to ensure that they are adequately covered by insurance, especially when attempting cross-country flights.
10. Tasks for Diamond Eagle and above must be witnessed by at least one competent glider flyer, and a report must be submitted with the claim. This is intended more to ensure literary input for possible publication than as a form of check.
11. The badges are provided free of charge to SAMAA members and while SAMAA membership is not strictly required, it is in fact a moral obligation if you are going to accept these badges. Non SAMAA members are required to pay for the badges. Additional badges will also be charged for. The present costs are:-
Bronze Eagle R30.00
Scrolls R15.00
12. As safety is of paramount importance only flights from SAMAA registered flying sights will be recognised.
13. On completion of the required tasks, application for a badge must be made in writing on the official form, stipulating the following information:
 - a. Name of pilot.
 - b. SAMAA Number. Non-SAMAA members to include SAMAA subscription.
 - c. Club. (SAMAA registered)
 - d. Date.
 - e. Badge required.
 - f. Model.
 - g. Witness names and signatures.
 - h. Report and details of attempt accompanied by photographs of pilot, helpers and model.
14. Application for badges must be addressed to the badge coordinator. (See address in appendix E)

There is an official form available on the MGA Blog or the SAMAA web sites or from the MGA badge coordinator.

Addresses	Badge coordinator:-	Evan Shaw P.O. Box 277 Rant-en-Dal 1751 e-mail: evanevshaw@gmail.com	Fax No.: 086 511 0835
	SAMAA:-	http://www.samaa.org.za	
	MGA Blog:-	http://mgasa.blogspot.com	

THE EAGLE THERMAL SOARING GRADES (2005)

BRONZE EAGLE

- a. Two 6-minute flights, ending not more than 20m from spot.
- b. Five landings not more than 10m from spot. (NB. Hand launches are not permitted!)

SILVER EAGLE

- a. Two 10-minute flights, ending not more than 10m from spot.
- b. Five consecutive landings not more than 10m from spot. (NB. Hand launches are not permitted!)

GOLDEN EAGLE

- a. Two 20-minute flights, ending not more than 10m from spot.
- b. Five consecutive landings not more than 5m from spot. (NB. Hand launches are not permitted!)
- c. A cross-country flight of not less than 2km.

DIAMOND EAGLE

- a. Two 30-minute flights, ending not more than 10m from spot.
- b. Five consecutive landings not more than 2m from spot. (NB. Hand launches are not permitted!)
- c. A 2km goal-and-return flight or a 5km cross-country flight.
- d. Two F3B speedruns in not more than 30 seconds each.
("F3B speedrun" means four 150m legs of a course A-B-A-B-A).

DIAMOND `A` EAGLE

- a. Three 30-minute flights OR two 45-minute flights, ending not more than 10m from spot.
- b. Five consecutive landings not more than 1m from spot. (NB. Hand launches are not permitted!)
- c. A 5km goal-and-return OR a 10km cross-country flight.
- d. Two F3B speedruns in not more than 23 seconds each.
- e. An F3B distance task of 15 laps.
- f. A place in a recognised competition, either in the first three in an entry of not less than 15,
OR in the first two in an entry of not less than 10.

DIAMOND `B` EAGLE

- a. Three 45-minute flights OR two 60-minute flights, ending not more than 5m from spot.
- b. A 7km goal-and-return flight OR a 15km cross-country flight.
- c. Three F3B speedruns in not more than 20 seconds each.
- d. An F3B distance task of 20 laps.
- e. Place in the top three in a National Championship.

DIAMOND `C` EAGLE

- a. Three 60-minute flights ending not more than 5m from spot.
- b. A 10km goal-and-return flight OR a 20km cross-country flight.
- c. Three F3B speedruns in not more than 18 seconds each.
- d. An F3B distance task of 25 laps.
- e. Win a National Championship.
- f. Establish or improve a South African Gliding Record.

THE GULL SLOPE AEROBATIC GRADES

Conditions

15. Pilots must perform the schedule of maneuvers in the order listed, to be judged by at least one higher Gull holder or by at least two competent judges, who will score each maneuver out of 10.
16. To pass a grade, an overall average of 5 per maneuver must be achieved, subject to a minimum of 3 on any one maneuver.
17. As many attempts may be made on any one outing as the pilot wishes and/or his judges will allow, but the schedule must be completed in the correct, unbroken sequence.
18. The Diamond `A' grade must be achieved flying an aircraft designed and built by the pilot, flying the Diamond schedule but he must score an average of 6 per maneuver with a sub-minimum of 4 for any one maneuver. He must also submit a written article on his aircraft's design and development and must place in the first three in the Expert Class in a National Slope Aerobatic Championship.
19. All maneuvers are described in the Aerobatic Contest Rules, with the exception of the inverted rectangle, which is the same as the landing pattern but starts and ends with half-rolls, which are part of the maneuver, and without the loss of height.

BRONZE GULL

- a. One large circle (left or right . . . not less than 100m diameter)
- b. Two consecutive loops
- c. 10 seconds straight & level across wind
- d. One roll
- e. Landing pattern

SILVER GULL

- a. Overhead eight
- b. Stall turn
- c. Three consecutive loops
- d. Immelman turn
- e. Two consecutive rolls
- f. 5 seconds inverted flight
- g. Landing pattern

GOLDEN GULL

- a. Double Immelman
- b. Inverted rectangle
- c. Three consecutive rolls
- d. Vertical eight
- e. Three consecutive loops
- f. Cuban eight
- g. Three turn spin
- h. Landing pattern

DIAMOND GULL

- a. Slow roll
- b. Vertical eight
- c. Six turn spin
- d. Inverted eight
- e. Four-point roll
- f. Four consecutive loops
- g. Figure-M
- h. Landing pattern
- i. Horizontal eight
- j. Place in `Expert' in a Championships.

THE FALCON ELECTRIC GLIDING GRADES (2006)

- Launching for the Falcon Badges must be undertaken by the pilot
- Each flight has a thermal duration task of 10 minutes for which one point per second is scored. Flight times less than, or greater than, 10 minutes will have one point per second subtracted
- Landing points are awarded based on the distance the model comes to rest from a designated spot and are measured from the closest point on the model to the designated spot. Maximum landing points are 30 for a landing within 1m of the spot. Thereafter 3 points are subtracted for each meter beyond the designated spot. Landings further than 10m from the spot score zero landing points
- Motor run time is unlimited but subtracted from the overall flight time. Any form of electric motor is permissible as a handicap system is used. The handicaps are brushless = 95%, brushed Cobalt = 75%, Ferrite = 40% and Speed 400 = 30%
- Any type of battery and battery configuration is permitted
- An independent timer is required for each flight. Timers require two stopwatches. One for overall flight time and one for motor run time. Pilots and timers must agree on a signal to denote motor on and motor off. Pilots must show their timers which transmitter control is used to activate and deactivate the motor. Transmitter timers are not permitted
- Flight and motor run timing begins when the model leaves the pilot's hand on launch. Flight time stops when the model comes to rest after landing
- Batteries may be recharged between flights

BRONZE FALCON

Two flights which scores 500 points or more using the parameters above.

SILVER FALCON

Two consecutive flights scoring a total of 1100 points or more, using the parameters above.

GOLD FALCON

Three consecutive flights scoring a total of 1725 points or more, using the parameters above.

A goal and return flight of 3km where the handicapped net motor run time is less than 15 seconds

DIAMOND FALCON (Future proposals)

Four consecutive flights scoring a total of 2350 points or more, using the parameters above.

A goal and return flight of 6km where the handicapped net motor run time is less than 10 seconds