



THE VMAA TROPHY

June 25th & 26th 2022

To be held at Burley Field, Cardinia
Host Club – P&DARCS



The aim of this event is to encourage VMAA Affiliated Clubs to have a go as a team over two days. The emphasis is on fair play, friendly competition and maximum fun!

Events are conducted to **'VMAA Trophy Rules'** that makes it fair for the smaller Clubs to **have a go** with a good chance of doing well against the bigger Clubs. **There is a total of 9 events.** Clubs are encouraged to participate in all events. **But only your best six events will count towards your final score.**

A Club pilot can fly in a maximum of two events, but can 'assist' other pilots/team members in other events. All Clubs are required to provide assistance in regards to judges, time-keepers or other officials for events held. If a shortfall exists for whatever reason, a team may request a pilot to fly a third event as long as all teams agree. The Event CD will inform all team captains before the event.

The Ring-In Pilot

A competing Club can have one pilot from another VMAA Club join their team. The intent is to increase team size and allow those pilots that do not have a full team, to compete and be part of the trophy weekend. The conditions for the Ring-In pilots are as follows:

1. Only one Ring-In for each team;
2. Can fly in two events only;
3. Can assist any other pilot in any event; and
4. Must be clearly recorded on the entry form as the Ring-In

The VMAA Composite Team (3rd year held. Final year to determine if condition is to continue)

A Composite team allows small clubs to band together to form a single team (for situations where a single ring-in pilot will still not result in a full team. Composite teams will compete for a separate trophy. The VMAA Trophy will be awarded to the winning "single club" team (including teams with a single "ring-in" pilot) as normal. This will allow pilots from various Clubs to participate and compete within the competition. A Composite Team Trophy will be presented at the conclusion of competition.

Rules and Conditions for Composite Teams are as follows:

1. Pilots will compete in the same events currently set by the VMAA Trophy weekend;
2. Scoring will be the same and awarded accordingly;
3. Each Pilot can only compete in a maximum of 2 events;
4. Juniors can participate as per the VMAA Trophy rules & conditions; and
5. Medallions will be awarded to pilots that achieve 1st, 2nd or 3rd places for individuals' events.

Changes/review to the above conditions may take place to ensure the best outcome is achieved for the team/competition.

Radio Frequencies

Time restrictions may make it necessary to **have no frequency clashes** where two events may be conducted at the same time, or in events where aircraft fly at the same time, or there are multiple heats within rounds. These events are identified below. Frequencies will be **'locked-in'** on a **first-to-enter basis**. *Enter early to avoid frequency change!*

Conduct of Events

More events will be conducted on the Saturday (**seven events**) with Sunday completing the final events (**four events**). All events will be attempted if possible so a result can be achieved for each event. This may be reduced based on weather conditions or entries for an event. Pilots for each event must be available when the event has been scheduled. **No pilot will be allowed to take part in the event if they are not present at the event CD's pilot brief.**

Event Time Keepers

Time keepers allocated to each pilot to record the time for that heat only. At the conclusion of each heat, time keepers will change with another time keeper. Changing of time keepers will occur for all events. Stopwatches allocated to each time keeper before each event.

SATURDAY'S EVENTS, (Not necessarily in this order as it depends on weather conditions).

Combat

The task is to be airborne for three minutes of actual “**Combat Time**” with the intent to cut a competitor’s streamer as many times as possible.

Conditions are as follows:

1. Each round will be of a 3-minute duration;
2. One point will be awarded for each second of flight
3. One hundred points awarded for each streamer-cut the model makes to another competitor during the Combat Time;
4. Models involved in a mid-air collision receive 50 points each and are to disengage and land immediately. An assessment of the damage aircraft will take place on landing and cleared to continue;
5. Aircraft type - Minimum is a .46 size, any type (Eclectic or IC);

Rules are as follows:

1. The models will be flown in a ‘cube’ of sky in front of the pilots, with a ‘disqualification line’ (***no closer or zero points will be allocated with the pilot ordered to land***) that is at a safe distance away. At its’ closest ***expect 40 to 60 metres***;
2. In each round, the aim is for everyone to go up together. If there are too many entries, heats will be run to complete a round;
3. Rounds flown will cover a period of one hour; and
4. A signal (via sound) will indicate the **start and finish** of Combat Time.

Engine Start and Preparation Time:

There will be an up-to two minute ‘window’ to start engines and get airborne before the signal for Combat Time.

Up to five minutes will be allowed to retrieve/prepare etc before the start of the next round. The event CD can bring this forward if all teams are ready. ***Spare models may be used after any heat, providing there is no frequency clash and meet the criteria above.***

Teams shall use the streamers supplied by the VMAA event CD. (approx. five metres of crêpe-paper tape at the end of an approximately three metre string). Teams shall provide a pilot, a caller, and a launcher. ‘**VMAA observers**’ will record each team’s air-time and streamer-cuts. **Other observers/officials will “manage” the no-closer line.**

Scale Aerobatics. VMAA Trophy Rules apply.

This event is open to any model that is based on full-size, single engine aerobatic aircraft.

This will include many models that are regularly flown at most Clubs, such as the Giles 202, Staudacher, Cap 232, Extra 300, Ultimate Biplane, Citabria, Sukhoi, Pitts Special Biplane etc. **Maximum engine capacity shall be 120 cc / 7.3 cu in (or equivalent if electric powered).**

Note: IC motors may be noise tested. DB level must not be higher than 110 db. Testing will occur before the event. Models that do not meet this criterion will not be permitted to fly.

Rules and conditions are as follows:

1. There will be two flights as detailed below;
2. One flight of each to be flown, with both flights scored;
3. Clubs may be asked to provide a judge, and we expect the person ‘offered’ has at least a basic knowledge of judging aerobatics.
 - a. **Flight One** will be a ‘**Known**’ schedule of nine manoeuvres. The execution is achievable.
 - b. Judging criteria for the ‘known’ flight only will be as per F3A judging guidelines, in this order of importance:
 - i. Precision of the maneuver;
 - ii. Smoothness and gracefulness;
 - iii. Positioning;
 - iv. Size of the maneuver, (relative to the maneuvering area and other maneuvers in the flight).
 - c. **Flight Two** - Same conditions as flight one except the flight manoeuvres are from sequence two.
 - i. Sequence two is a ‘**Known**’ schedule of eight manoeuvres presented by the VMAA.
 - ii. The sequence two list will be made available as soon as possible and posted on the VMAA website;
 - iii. The manoeuvres presented are followed in sequence;
 - iv. Sequence two will be provided to the judges prior to the start of the round; and
 - v. Judging criteria as per flight one

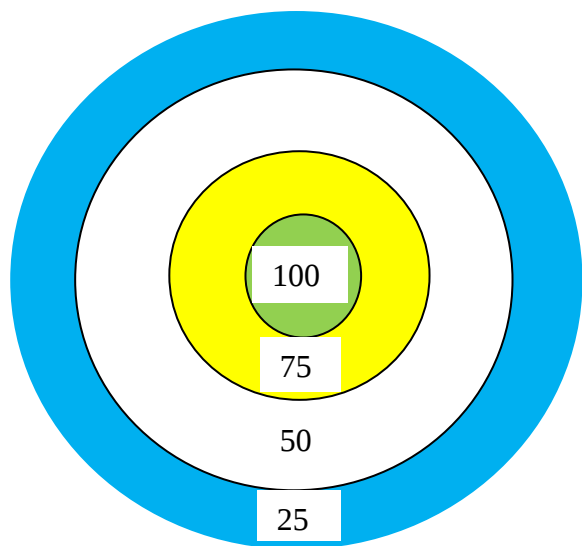
Bomb Drop. VMAA Trophy Rules apply

The intent of the event is to have the pilot to drop a bomb (perforated Golf Ball) onto the scoring circles on the ground. The manner on how the bomb is secured and released from the model is up to the Club team. **Only one ball is to be carried at any time.** The pilot's assistant will reload their model once it has landed and come to a stop.

Rules and conditions are as follows:

1. No drones, helicopters or GPS/Gyro type of equipment is to be used;
2. Aircraft type - .46 high or low wing;
3. **Power** - IC or Electric is acceptable;
4. The bomb will be a coloured golf ball, supplied by the VMAA CD;
5. **Target** – will be 4 circles on the ground with nominated values (*see diagram*)
6. The height of the Sports Limbo stands is the minimum height for each pass;
7. All pilots will ROG and will be called in by the CD to enter the target area;
8. **Where the golf ball rolls to a stop; is the recorded spot;**
9. Once their bomb is away, they are to gain height and remain airborne until called in to land;
10. Each pilot will have a caller to assist, reload and retrieve the bomb from the target area; and
11. CD will record each score on the target with the highest score winning the event.

Bomb Target Size and Values



Size of bomb circles from centre:

100 points = 4 meters;

75 points = 6 meters

50 points = 8 meters

25 points = 10 meters

**Circle sizes maybe reviewed*

Thermal Glider. (No Winches to be used) VMAA Trophy Rules apply.

Any kind of glider can be used such as a radian or other foam model. Any type of controls is fine.

Conditions are as follows:

1. No gliders with fully moulded composite wings or composite D-Box.
2. Any electric glider with wingspan up to 2.54 meters (100 inches).
3. Flaps and/or spoilers are allowed.
4. Total time allowed for the event is approximately one hour

Rules are as follows:

1. A single motor run per flight only;
2. Gliders to be fitted with Altitude limiter motor cut off system set to 200 meters, or 30 second motor run whichever comes first.
3. Cut off device can be an on-board height limiter or telemetry-based system used;
4. The TX must not have a “vario” or height display or any other way of indicating height or lift to the pilot.
5. Models must not zoom through the height limit at high vertical speed.
6. A simultaneous test launch of all models will be conducted at the start of the competition to check settings. There is only one flight per heat for all participants. The next heat will start when pilots are ready or when the event CD calls pilots to their start positions. Each heat is recorded

Flight Timings

1. Time starts when the model leaves the hand.
2. Each Team will need two reliable stop-watches; one for the flight time, and one for motor run time;
3. Time stops when the model first touches the ground.

4. Scoring is at the rate of one point per second, so the highest total score wins.
5. Clock counts backwards if the model flies over time.

Landing Scores

1. A landing bonus of 20 points is awarded if the nose of the model comes to rest within 15 meters of a landing spot.
2. A landing penalty of 30% of the model flight time will be deducted if the model lands outside a large designated landing area (eg 50 X 100 meters box).

Flight Task

1. One hour is allocated to completed 4 flights of 8-minute tasks. Additional time/flights may be allocated.
2. 200-meter height limit set for each flight (*suitability of height to be discussed*); and
3. Scores for each round normalised to 1000 points.

Fun Scale VMAA Trophy Rules apply.

Rules and conditions are as follows:

1. **Flying only** will be judged over two flights. While there is no static judging at all, aircraft should be of reasonably scale appearance (*so ARF's are OK, but no profile models, or sticks with Maltese crosses please!*).
 - a. Flight schedule is:
 1. Take Off,
 2. Flight in a Straight Line at constant height at max 6 metres,
 3. Plus, four manoeuvres of your choice from the provided list of manoeuvres, and
 4. Landing (final manoeuvre).
2. Each Team must provide a list of the four additional manoeuvres (for both flights) at the morning's pilot briefing at 8.45 am.
3. Clubs may be asked to provide a judge, and it is expected the Club Member **'offered'** has at least a basic knowledge of what to look for, regarding what manoeuvres (and their shapes, speed, etc) are applicable to the aircraft type.
4. *Realism in Flight' is the aim, and will be given a substantially higher 'weighting' in the scores.*

SUNDAY'S EVENTS, but not necessarily in this order (depends on weather):

Electric Glider. (2.4 GHz radios if available for a 'no frequency clashes' event). VMAA Trophy Rules apply

Models like the multitude of electric gliders seen at typical Club days are encouraged to be used (not the highly specialised, expensive models seen at "Formula 1 level")

Batter Types to be used:

NiCd and NiMh packs may be up to 7 cells of any capacity.

LiPo packs: See the table below. The result of multiplying the Milliamp Hour (mah) rating of the cells by the number of cells in the battery pack shall not **exceed the number 6,600**. Another way of expressing this is to divide the number 6,600 by the number of cells in the battery pack to give the maximum capacity in Milliamp Hours.

e.g.	If you want to use a 3S (3 cell) pack:	$6,600 \div 3 = 2,200.$	You can have up to a 2,200 mah pack.
	If you want to use a 2S (2 cell) pack:	$6,600 \div 2 = 3,300.$	You can have up to a 3,300 mah pack.
	If you want to use a 5S (5 cell) pack:	$6,600 \div 5 = 1,320.$	You can have up to a 1,320 mah pack.

Rules and conditions are as follows:

1. Any kind of electric motor, with or without gearbox;
2. Any kind of electric glider up to 2 metres wingspan with **no operable** airbrake, spoiler, flaps or 'crow' capability (ailerons are OK);
3. Each Team will need two reliable stop-watches; one for the flight time, and one for motor run time;
4. **Batteries shall be made available for inspection by the CD before the event starts, and at any later time;**
5. The aim is for an exact **300 second (five-minute)** flight, plus landing bonus. From 300, deduct the seconds of flight time either side of 5 min. Then deduct the motor run time in seconds to get the net flight time. All heat scores will be normalised using 1000 points.
6. As many rounds as can be flown in the time available;
7. The worst round will be discarded for each competitor.

Fun Fly. (Loop & rolls – **Reintroduced 3rd year**)

VMAA Trophy Rules apply. Rounds will alternate between **Task A and Task B**. The same model is to be used for all flights. **For each team, the best two out of three rounds to count (or 3 out of 4 if time permits).**

Conditions are as follows:

1. Aircraft type - High wing, .46 type trainer low or high wing (any type) with a non-symmetrical wing (symmetrical top, semi symmetrical bottom);
2. Engine is a .46 or electric equivalent only; and
3. No oversize surfaces allowed.

Rules are as follows:

1. The CD/Official will announce “**Permission to Start**” your engine;
2. Up to two minutes will be allowed for the model to ROG and attain ‘**working**’ altitude;
3. **Timing commences** when the **PILOT** clearly announces “**NOW!**” to the event’s CD during the two minutes.
4. **Timing stops** when the aircraft stops moving after landing, or five minutes after “**Permission to Start**”, whichever is first.
5. Ten seconds will be added to the flight time if the pilot does not commence from level flight; any loop or roll not completed;
6. Ten seconds will be added on touchdown and/or coming to rest with any wheel not on the mown runway.
7. To discourage crashing, if a model is considered suspect after a flight (propeller excepted), up to five minutes will be allowed for the team to work on the model and then demonstrate that it still flies safely (after the last flier in the round has finished) or two-minutes will be added to that round’s flight time, and it will be a counted round.

Tasks to be completed (Tasks to be reviewed at the completion of the embargo period)

- **Task A flights:** ROG, climb to a ‘**working altitude**’ of the pilot’s choice, and then *beginning from level flight in a continuous sequence of:*
 - do a roll; then a loop; then a roll;
 - followed by **a sequence of** two rolls, two loops, two rolls;
 - followed by **a sequence of** three rolls, three loops, three rolls.
 - Then land on the runway, in the shortest possible time.
- **Task B flights:** ROG, climb to a ‘**working altitude**’ of the pilot’s choice, and then *beginning from level flight in a continuous sequence of:*
 - do a roll; then a Cuban Eight; then a roll;
 - followed by **a sequence of** two rolls, two Cuban Eights, two rolls,
 - followed by **a sequence of** followed by a sequence of three rolls, three Cuban Eights, followed by 3 rolls.
 - Then land on the runway, in the shortest possible time.

Sports Limbo: VMAA Trophy Rules apply.

The idea is for each pilot to pass under the streamer of the Limbo obstacle as many times as possible within a set time limit and without hitting the supports or streamer.

Conditions are as follows:

1. The limbo obstacle will be made up of two vertical poles tethered to the ground 20 m apart;
2. A streamer will be anchored to the height adjusters on the poles and set initially to a pre-defined height and reduced each round;
3. Only a top streamer will be used;
4. Aircraft Type - .46 type trainer, high or low wing. (No Symmetrical wings to be used. Symmetrical top, semi Symmetrical bottom);
5. If the model touches the ground while executing each pass, the pilot will be disqualified from the round flown only.
6. Each successful pass will be recorded that enters and exist the gates.
7. No flying wing, helicopter, ducted fan or quad copters to be used.
8. No GPS/gyros type of equipment is to be used

Rules are as follows:

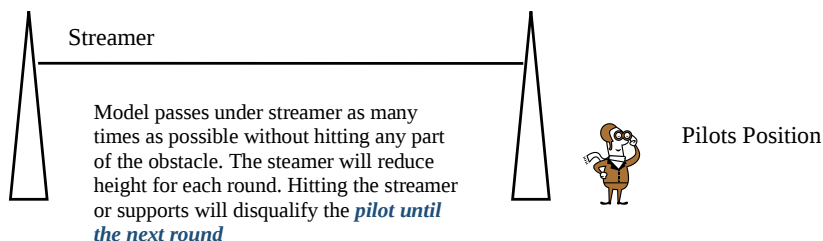
1. There will be only one model in the air at any one time unless specified otherwise.
2. Pilot’s position will be on the side of the Limbo obstacle (refer to diagram).
3. Pilot may have a caller to assist him during his flight.
4. Once the pilot is in the air, the CD will signal to start,
5. Time (stopwatch) will start when the entry gate keeper signals the pilot has entered the circuit.
6. Official “**Gate Keepers**” will be position at the entry and exist gates with hand held counters. Each pass will be recorded by the gate keepers and CD. At the conclusion of the pilot’s round, officials/CD will conclude how may passes have been successfully completed, then recorded and scored.
7. At the completion of the round, the streamer will be lowered approximately 50cm intervals (or as appropriate based on whether).
8. If the model is damaged, the pilot has until the next round to repair and be ready.
9. ***Each pilot will have 2 minutes in duration from the start of the stopwatch, to pass as many times under the top streamer without touching the ground.***

Scoring:

1. Pilots will be awarded 20 points for each successful pass under the streamer;
2. Total Score will be number of successful passes;
3. Pilot with the most points wins. In the case of a tie, another round between the pilots will be conducted, if time permits; and

4. **Successful inverted passes under the streamer will be awarded double points.**

Limbo Obstacle:



Musical Landings. (2.4 GHz radios if available for a ‘no frequency clashes’ event). VMAA Trophy Rules apply. Fairness to all competitors and safety will be high priorities in this event.

This is an ‘**elimination/Cut Throat**’ event. Upon a clear signal, the music will start. The models “**Rise Off Ground**” (ROG) and fly in the required circuit at the required altitude until the music stops playing. The models are then landed in the required area and from the required direction in the shortest time possible. The idea is to fly fast with skill and land with no damage to the model.

Conditions are as follows:

1. Models **shall have** a minimum wingspan of **forty-eight inches, and minimum flying weight of 4.5 pounds or 2.0 kg.**
2. Any type of fixed-wing model; any type of power (that complies with MAAA safety rules!)
3. The circuit and landing direction will be made known before each heat. Pilots attempting to circuit or land ‘against the flow’ will earn for their team an equal-last place for that round (one point).
4. In each heat, one warning only will be given for models being flown too low in the circuit or hugging the favoured end etc. before being ‘**grounded**’ and banished to equal-last place for that round.
5. All flyers competing in a heat must land their model within a total designated landing zone (Runway).
6. Pilots landing outside the designated area will score equal-last and not fly again in that round.
7. No collapsing or folding undercarriage is to be used;
8. Models are to land with no damage to the model itself. If a propeller is broken then the team is allowed to replace the propeller during preparation time for the next round. If a wheel falls off or a nut or bolt is needed, then this is considered as maintenance and allowed

Rules are as follows:

1. In each heat, models shall not be retrieved after landing until a clear signal is given to do so.
2. Any aircraft lands outside the designated area, are eliminated for the heat and allocated equal last points;
3. From that signal, up to three minutes of carefully monitored ‘**working time**’ will be allowed for refuelling and preparing the model, and ROG to the circuit as soon as desired.
4. Any model that is deemed unsafe to fly or not ready (by the CD or CD’s officials) by the end of the three minutes,’ ‘**preparation time**’ will not be permitted to ROG. The team will score equal-last place (One point).
5. In each heat, last model to stop moving forward is eliminated, and does not fly again in the round. The rest go on to the next heat, and so on until there is a winner for the round.
6. If all the eligible models are ready and, in the air, the signal to start the music may be given before the three minutes is up.
7. A clear signal will be given when the three minutes is up.
8. If a model has not ROG within 15 seconds after the signal is given, it shall remain on the ground and be given equal last place for that heat.
9. If a model cannot safely ROG within the three minutes allowed, then the ‘last-down’ team is deemed ‘**not out**’ (saved!) and may ROG at the end of the three minutes. **Stay ready!**

Use of a Spare Model:

Teams may use one spare model with a non-clashing frequency in a subsequent round.

Within a round, a back-up model on the same frequency may only be used where a team’s model does not start within the allocated three minutes. There will be a minimum of two rounds,, possibly three, until the top 3 places are identified. Each pilot will gain points based on their placing.

Scoring:

1. In each round, 1st place gets a number of points equal to the number of entries;
2. 2nd place gets one point less, etc.
3. Highest accumulated points will win; and
4. There will be a fly-off to break any ties for 1st and 2nd place.

Simplified Musical Landings Rules...*To do well, models must ROG on time, no damaged, land in the right place, and be no worse than second-last down every time!*

VMAA Trophy & Composite Team Scoring:

VMAA POINTS are awarded for placing in each event in the following way:

1st = 6 points	2nd = 5 points	3rd = 4 points
4th = 3 points	5th = 2 points	6th = 1 point
	7th onwards = 1 point	

JUNIORS will receive extra VMAA points (per attempted event) on the placing of the junior.
i.e. 1st place = 1.5 points, 2nd place = 1 point and 3rd place = 0.5 points.

These extra points will only be added to the overall team score. Not added to the event score.

Your six highest-scored events will be counted... you don't have to enter all ten events!

IMPORTANT INFORMATION

ENTRIES CLOSE: midnight, Saturday 18th June 2022

CHANGES TO ENTRIES AFTER THIS DATE MAYBE CONSIDERED

THERE IS NO ENTRY FEE FOR THIS COMPETITION!

The venue will be at Burley Field, P&DARCS, Cardinia.

Catering for the event is yet to be advised. Camping on-site is available.

If you need further information:

Please contact the VMAA Contest Director:

**Keith Quigg
Mobile: 0448 749 865**

contestdirector@vmaa.com.au