

# 2019 TDM RULES



Changes from 2018 rules are noted in RED

The Tour d'Michigan is the collaborative effort of the West Michigan Smoke Rings, the Lansing Area Flying Aces, the Broome Park Circle Burners, and the Jackson Radio Control Club. The purpose is to have fun while promoting the hobby/sport of Control Line flying. The format offers a variety of events

## General Rules for All Events

- **All contestants must have current AMA card or be a guest flyer per AMA rules**
- Plane, control surfaces, and flight lines will be subjected to an inspection and pull test
- Control line length for 1/2A engines will be 35 feet +/- 6 inches
- Control line length for .15 to .19 engines will be 52 feet +/- 6 inches
- Control line length for .35 engines will be 60 feet +/- 6 inches Length is measured handle to aircraft centerline and is a MINIMUM LENGTH for all events except stunt
- Longer lines may be used but may not be compatible with the concrete circle at Kalamazoo
- Safety thong must be attached to flight handle and flier's wrist during flights except for racing events (to allow clearing tangled lines)
- Eye protection is STRONGLY ENCOURAGED at all events)
- Electric starters are permitted for all events
- 1st, 2nd, and 3rd places will be awarded for each event at each venue
- 1st, 2nd, and 3rd places will be awarded for Craftsmanship at each venue
- Pilots will have one minute to start engine after arrival in the circle or pilot is moved to end of event line
- **Pilot meeting at 0845, flying starts at 0900**

**NOTE: Not all events described below will be flown at each contest**

## Fun Stunt

- Fliers will be required to fly the complete stunt pattern in one flight
  - Take Off and Level Flight - 4 Laps (0 - 10 Points)
    - 2 Level Laps
  - Climb and Dive - 2 Consecutive (0 - 10 Points)
    - 2 Level Laps
  - Wingovers - 2 Consecutive (0 - 10 Points)
    - 2 Level Laps
  - High and Level - 4 Full Laps (0 - 10 Points)
    - 2 Level Laps
  - One Inside Loop (0 - 10 Points)
    - 2 Level Laps
  - Roller Coaster - 2 Laps (0 - 10 Points)
    - 2 Level Laps
  - Optional - Loop, Figure 8, or Inverted Flight (0 - 10 Points)
    - 2 Level Laps
  - Landing (0 - 10 Points)



### **35 Rat Race (Foxacoy racing)**

- Each flier will designate a person to time their run
- Pit crew allowed to start/re-start flier's engine
- All engines will be running and aircraft released simultaneously to begin each race
- Winner is the flier having the shortest time for flying 100 full laps
- In the event of a tie, a fly-off will be used to break the tie
- Races will consist of 2 to 3 aircraft depending on the number of entries - no solo flights
- Aircraft will maintain a racing altitude of 10 - 15 feet
- A temporary altitude of 25 feet is permitted for passing
- One warning will be given for the first altitude violation
- Second altitude violation will result in disqualification
- Aircraft can be hand launched or ROG
- Engines limited to STOCK Fox.35 Stunt or STOCK McCoy 35 Redhead
- Plain bearings
- UNMODIFIED except for any stock Fox or McCoy parts
- Suction fuel systems only
- Mufflers are optional but encouraged
- One pit stop is required per race
- Start window is 30 seconds ~ first horn begins prop flipping ~ second horn (30 seconds later) signals plane launch
- Late starters can still launch when engine fires
- Aircraft must have at least one wheel and wheel strut and be ROG capable
- Wing area must be 300 square inches minimum and 1 inch wing thickness
- Fuel must be 10% nitro ONLY
- Props – 9/6 or 9/7 commercially available wood or plastic –balancing is only allowable modification

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- Wing area must be 300 square inches minimum
- Fuel must be 10% nitro ONLY



## Balloon Bust

- Targets will consist of **5 balloons** (no replacements) supported on 1/4 inch square balsa sticks placed at equal intervals around the flight circle – helium inflation is optional
- No tower or other obstruction is used
- Points are awarded for broken balloons only. Cutting the balloon free from the supporting stick without breaking the balloon does not score any points
- Balloon must be broken by aircraft impact – ground pops do not count
- Fliers have three minutes to break as many balloons as possible. Aircraft can be re-fueled and re-launched within the 3-minute window.
- Timing stops when 5<sup>th</sup> balloon is busted. Pilot can terminate flight before the 3-minute time limit and without breaking all 5 balloons at his/her discretion
- 20 Points awarded for each balloon busted within 3 minute time limit
- 25-point bonus for cutting balloon free on first pass and then breaking it on the next pass (Pilot must remain in pilot's circle – no chasing! - helium balloons only)
- In the event of a tie, a fly-off will be used to break the tie
- Elapsed time for breaking all balloons (in seconds) subtracted from balloon points equals final score

## Counted Lap Event

- Any size plane allowed
- Club can designate any number of laps up to 50
- One point awarded for each lap up to designated lap number
- One point deducted for each lap over designated lap number
- Pit stops allowed but not required
- 5 minute maximum for pit stops
- Runs can only be terminated by running out of fuel (no dorking, no speed controls)
- Pilot can terminate run at any point within above rules without completing designated lap number
- Ex: A pilot can complete any number of laps with or without a pit stop if he thinks his points total will be the highest score)
- In the event of a tie, a fly-off will be required to break the tie

## Slalom

- Four upright poles, each with a three foot section painted with caution orange, will be located around the flight circle
- The poles will be placed outside the 60 foot flying circle
- The orange section on each pole will be at a different height
- A 1/4 inch breakable balsa stick will mark the upper and lower boundaries of the orange area and will extend toward the center of the circle.
- The sticks are a visual reference for the scorer at each pole to make sure the plane flies at the correct level (between the sticks)
- Each pilot is allowed two minutes to pass through as many gates as possible by flying between the balsa sticks marking the orange section of the pipe.
- **Gate points set at contest by CD**
- Hitting and breaking a stick eliminates that gate from the rest of the flight and will not longer score any points
- The challenge is the ability to precisely control your airplane in level flight – **NO LOOPS**



## .15 Racing - Speed Run Division

- **Awards:** Award will be presented for top speed
- **Event Purpose:** This event is a FUN event intended to encourage craftsmanship in the construction of, and airmanship in the piloting of the aircraft entered in this event. The skill requirements to participate are minimal and the intention is to increase each participant's skill
- **Aircraft Type:** Aircraft participating in this event must be representations of actual race planes (Goodyear, Formula 1, Thompson, Golden Age, etc.). Planes built from the Sig Buster or Shoestring kits or built to plans from those kits or provided by the organizers require no documentation. Planes built from other sources require documentation proving that the airplane is a model of an actual racer. The judge/ CD Must be able to recognize that the model looks like the full size airplane. A picture or a three-view would suffice for documentation
- **Construction:** Solid fuselage. Enclosed bellcrank allowed – wing must be all wood – not fabric, tissue, or shrink plastic covered. Cheek cowls, prototype paint schemes, and other scale enhancements are encouraged but not required
- **Landing Gear:** Two wheels 1 ½ to 2 inches diameter required - no position restriction
- **Engine:** Stock Fox .15 plain bearing engine. No XXX versions
- **Wing Span:** Between 24 - 29 inches (Tip to tip)
- **Fuselage Length:** Between 25 – 27 inches (Spinner to tail)
- **Wing Area:** 140 square inches minimum
- **Fuel:** Maximum 10% Nitro content
- **Fuel Tank:** No size restriction, but remember that runs over 3 minutes are disqualified!
- **Propeller:** No restriction
- **Lines:** Handle to aircraft midline 52.5 feet +/- 6 inches, any diameter
- **Speed Runs:** 16 laps from a running start. Pilot signals start of run. Two timers will time each run with the time/speed being the average of the two. Two attempts per plane per meet, on a rotating basis. Maximum run time is 3 minutes starting from initial release of aircraft. Runs over 3 minutes are disallowed. Lowest time / fastest speed wins
- **Safety:** Safety glasses are mandatory for all personnel starting engines and launching aircraft. Ear protection is optional but encouraged. The Contest Director may disqualify any contestant or aircraft representing a hazard to themselves or others
- **Dispute Resolution:** The Contest Director is the final judge for any and all disputes

## .15 Racing - Rat Race Division

- **Event Purpose:** This event is a FUN event intended to provide a step up for pilots who have mastered the Speed Run Division and demonstrate the skill to participate in multi-plane events
- **Aircraft Type:** Aircraft participating in this event must be representations of actual race planes (Goodyear, Formula 1, Thompson, Golden Age, etc.). Planes built from the Sig Buster or Shoestring kits or built to plans from those kits or provided by the organizers require no documentation. Planes built from other sources require documentation proving that the airplane is a model of an actual racer. The judge/ CD Must be able to recognize that the model looks like the full size airplane. A picture or a three-view would suffice for documentation



- **Construction:** Solid fuselage. Enclosed bellcrank allowed – wing must be all wood – not fabric, tissue, or shrink plastic covered. Cheek cowls, prototype paint schemes, and other scale enhancements are encouraged but not required
- **Landing Gear:** Two wheels 1 ½ to 2 inches diameter required - no restriction on position
- **Engine:** Stock Fox .15 plain bearing engine. No XXX versions
- **Wing Span:** Between 24 - 29 inches (Tip to tip)
- **Fuselage Length:** Between 25 – 27 inches (Spinner to tail)
- **Wing Area:** 140 square inches minimum
- **Fuel:** Maximum 10% Nitro content
- **Fuel Tank:** No size restriction
- **Propeller:** No restriction
- **Lines:** Handle to aircraft midline 52.5 feet +/- 6 inches, any diameter
- **Race procedure:** 2 to 3 flyers per race depending on number of entries. Heats consist of 40 laps with 1 required pit stop. Final consists of 80 laps with 2 required pit stops. First plane to complete the required laps and pit stops wins.
- **Altitude:** Aircraft will maintain a 12-15 foot altitude except for passing. Aircraft will return to 12-15 foot altitude immediately after pass. One warning will be given, DQ with second infraction.
- **Flying Technique:** No whipping or back stepping except briefly for aircraft control
- **Safety:** Safety glasses are mandatory for all personnel starting engines and launching aircraft. Ear protection is optional but encouraged. The Contest Director may disqualify any contestant or aircraft representing a hazard to themselves or others
- **Dispute Resolution:** The Contest Director is the final judge for any and all disputes

## Beginners Stunt

- The Stunt pattern will be that of the AMA Beginner Class. Please check the AMA rules (available at AMA or TDM web sites) for complete explanation.
  - Take off and level flight
  - Wingover (not reverse)
  - Three inside loops
  - Three outside loops
  - Two inside square loops
  - Two horizontal eights
  - Two overhead eights
  - Landing

## Northwest Sport 40 Carrier (Effective 13 January 2016)

- **Purpose:** It is the intent that this event will provide a simplified Navy carrier competition using a simple airplane and a standard engine.
- **Airplanes:** Any profile model of 300 or more square inches is allowed. There are no scale bonus points, but the model must display navy military markings of any nation. No method of changing leadout position in flight is allowed. Moveable control surfaces are allowed. Only single engine planes are allowed.
- **Engines;** Stock O.S. .40FP with stock muffler, or O.S. .35FP with muffler as supplied with the engine are the only engines allowed. Engines must use the carburetor that was manufactured with the engine, or an exact copy thereof.

- All AMA profile carrier rules, including scoring, apply except as noted above.

## **Judging**

- Judges will be designated by the CD at each event

## **Fees**

- \$20.00 per meet regardless of the number of events entered
- Junior flyers (<18 years of age) are free

## **Contact Person:**

- Al Rohrstaff - (269) 344-4571

Edited by: Rich Kacmarsky – April 2019