

NEWSLETTER

April 2016

Next Meeting

Alloa Public School 12287 Mississauga Road Friday, April 8th, 2016 7:30 to 10:00 PM

43.70056, -079.87472 or N43° 42' 2" W079° 52' 29

No outdoor footwear in the gym!

Informal meeting: financial & membership updates and indoor flying.

Type Trial: ultra light, fixed wing, electric models up to 36 inch wingspan may be flown indoors at Alloa School at the Safety Officer's discretion.



Scorpion - Peter Ayache

Meeting Report – 11 March 2016

Attendance: 15 members and 8 flew.

Carl advised the following:

- 57 Members + 6 Juniors have registered.
- Waiting list 11.
- 12 have not renewed. Only four of those have advised that they will renew. Deadline is next Tuesday, the ides of March.
- T-shirts (sizes Large to 3XL) and ball caps are available. Let Carl know if you want one.

• On the advice of their solicitor, the Sarasota club just made it compulsory to get the new FAA registration. The Sheriff helped the Executve with their decision. They will be doing the policing. They are on town land (from Paul Campbell in Florida).



FW190 - Don Kinch

Field

It will not be long now and the flying field will be open for the summer. This would be an excellent time to review the HHMFC Field Rules. They are contained in Article 10 of our Constitution and a copy is printed on Page 3 and 4 of this newsletter for your convenience. It may seem like a long list, but most address club responsibilities in the MAAC Policy & Procedures Document MPPD 7.

From the Executive meeting 27 October 2015:

Aerobatics over the runway or doing manoeuvres right after take-off will not be condoned for safety reasons. (MAAC MSD 6, Items 9 and 15 apply.) Members are reminded to perform any aerobatic manoeuvres past the end of the runway or north of the runway boundary.

Set-up

A few points that I follow when setting up a new model for flying:

Paint or varnish any bare wood to **fuelproof** or **waterproof** (if required). Do the firewall for sure and the wing saddle (any place that oil or water might seep into).

Make sure that the **wing** and tail are **straight** (no warps).

Check the **wing incidence** with the horizontal stabilizer level. Depending on the type of model, the incidence should lie between minus 1° (flat bottom aerofoil) and plus 2°. I usually use the Robart Incidence Meter for these measurements.

Control surfaces should be free and easy. Take the extra time to ensure pushrods are straight without binding. The gap at the hinge line should be as narrow as possible.

Measure the **Control throws** carefully at the TE (trailing edge) or with a template. If the recommended throws are not listed on the plan or instruction booklet, I would suggest 12° for the elevator, 15° for ailerons and 20° for the rudder to start with. Differential aileron (more up than down) is a good idea on slow flying models with flatbottomed airfoils (e.g. J3 Cub). To convert linear measurement into degrees, divide the distance travelled by the width of the control surface and multiply that by 60 (**1 in 60 rule**). Therefore, an elevator 2 inches wide, which moves up $\frac{1}{2}$ inch, will have moved 15 degrees ($\frac{1}{2}$ / 2 x 60 = 15). I also like to program some exponential into the controls if possible, say 25 to 30% for a start.

Balance as per plan. I never put the balance point further aft than 30% (nor further ahead than 25%) for the first flight. You can usually deal with some nose heaviness in the air, but the first flight of a model that is tail heavy is difficult at best and often catastrophic. Take the time (in your workshop, not at the field) to ensure that the C of G is accurately placed. The Great Planes "C.G. Machine" works well. You can also drill a hole through the model at the designated spot and hang it by a wire. Invert low wing models. Shift the battery or add weight to the nose or tail, so that the horizontal stabilizer is level.

Calculate the **wing area** (span times chord). I include the bit that is under or over the fuselage. For shapes other than a board wing, measure the chord midway out on each side, then join the 30% points with a line. Where it intersects the root chord is the balance point.

Weigh the model.

The weight of the model divided by the area of the wing will give you the **wing loading**. For up to .60 sized models I aim for a loading of 20 ounces per square foot or under if possible. This is a reasonable compromise and although heavier models can be steadier in gusty winds, I prefer the lower stall speeds and manoeuvrability that come with lighter loadings.

There are no guarantees. However, with careful preparation as outlined above, you should have a better than even chance of a successful first flight.

CwfG



Big Wing – Knox Hawkshaw

2016 Executive

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ARTICLE 10 - FIELD OPERATING RULES

- 10.1 Only club members and guests, accompanied by a member, are permitted to fly. Members will always have priority for airtime.
- 10.2 All members and guests must read, understand and comply with the Model Aeronautics Association of Canada (MAAC) Safety Code and the HHMFC Field Operating Rules. *MPPD 7.1*
- 10.3 All members must ensure that their guests have a current MAAC or AMA Membership Card available for inspection. *MPPD 7.3*
- 10.4 No class of RC aircraft will be banned from flying, regardless of size or function provided that they meet MAAC and Club rules. However, the field may be unsuitable or restrictive for some categories of RC models. Turbine operation may be curtailed because of the fire hazard when the surrounding field of grain ripens later in the summer. Pattern aerobatics are difficult because of the proximity of Winston Churchill Boulevard to the east. Because of our sensitive neighbours, all powered models must observe our noise limit. This may be difficult and/or expensive with motors of 50cc and over. MPPD 7.4
- 10.5 Executive members and designated club instructors have the authority to determine if and when Spotters (see MSD 7) are required for flight operations. *MPPD 7.5*
- 10.6 Frequency Board: a clothespin or similar (max. ½ by 3 inches), with your name and channel number thereon, must be in place before turning on your transmitter. If using a 2.4 GHz system, pins are not required. Pins with nil or conflicting information or documents attached are not acceptable. *MPPD 7.6*
- 10.7 The HHMFC flying field layout will be in accordance with the RC Flying Field Specifications for General Category RC Aircraft as per MAAC Policy and Procedures Document. MPPD 7.7 & 8
- 10.8 The runway at the HHMFC field is aligned east and west, specifically 080/260 degrees magnetic and measures 130 by 30 metres. The flying area is <u>north</u> of the flight line as defined in MPPD 8 and extends to the horizon to the west, but ends at Winston Churchill Boulevard to the east. The <u>northern</u> boundary of the "Flying Area" is the creek approximately 500 metres from and roughly parallel to the flight line. (Be aware that full sized aircraft operating under VFR rules can and do cross over our field as low as 500 feet above ground.) See MSD 3.9
- 10.9 Flight training for RC General Category will be carried out in accordance with the MAAC Basic RC Fixed Wing Flight Training Program (see MPPD 10). MPPD 7.8
- 10.10 A designated flight instructor of the club will conduct all introductory flights for prospective new club members. The flights will be in accordance with the MAAC Safety Code and a buddy box system will be used. Prospective new members who already know how to fly must demonstrate to an approved HHMFC Instructor that they can do so in a safe and competent manner. *MPPD 7.10*
- 10.11 Each club member is responsible to ensure that their guests can fly in a safe and competent manner and that they abide by the MAAC Safety Code and all HHMFC Field Operating Rules. *MPPD 7.9*
- 10.12 Model operation is permitted by an agreement with the owners of the field. Any conditions or restrictions imposed by the owners, Canadian Air Regulations or local by-laws must be observed. 7.11
- 10.13 All flying operations will cease when field maintenance is in progress. MPPD 7.13 +

- 10.14 The field is available seven days a week from 9:00 AM to dusk. Electric powered models may fly from 8:00 AM to dusk.
- 10.15 No alcoholic drink is permitted at the field. MSD 3.4 +
- 10.16 Total model aircraft noise must be 90 dB or less, measured on the ground at full power with the meter held at 7 metres (23 feet).
- 10.17 Bungee launch operations must have the consent of all model pilots at the field. All bungee launch apparatus must be set up north of the pilot fence. All bungee launch apparatus must be removed from the runway area (north of the flight line) as soon as possible after launch.
- 10.18 Jet turbine powered aircraft are exempt from the maximum noise requirement. However, all turbine starts and run-ups shall be carried out at the extreme eastern end of the pit area. All operators of turbine model aircraft at the HHMFC field must be in possession of a Turbine Operator's Certificate (TOC). (See MSD 10 and MAAC TOC.)
- 10.19 Models will not be taxied south of the pilot flight line fence and must be effectively restrained during pre-flight tests, start-up and ground running. Electric powered models must be effectively restrained when armed. MSD 6.6
- 10.20 Smoking is prohibited in the pit area.