

## Lakehead Aeromodellers Lakehead Aeromodellers Main Site Rules 2025

#### MAAC Approved June 3, 2025

The following rules package must be available to all RPAS Pilots while operating RPAS at this site, either electronically or in print. Nothing in these rules relieves the RPAS pilot of their individual CAR compliance requirements.

#### **Administrative Rules**

Site Operator Name: Lakehead Aeromodellers (#174, Zone D)

Site Name: Lakehead Aeromodellers Main Flying Field

Site Owner: Lindsey David

Location: 100 McCluskey Drive Slate River Valley Ontario

Pilot Station Coordinates: 48°18′40″N ,89°28′30″W

Site Contact(s): Marco Grenon, MAAC #84558, President

gazoo.grenon@gmail.com 807-633-1761

Condition for Use - All persons using this modelling site must:

- 1. be MAAC members in good standing
- 2. be members of Lakehead Aeromodellers Club, or an invited guest of Lakehead Aeromodellers Club and
- 3. agree to follow the MAAC Safety code and all other site rules.

Any MAAC member attending an Event at this site must agree to attend any modeller briefing, or otherwise read and follow all site/Event rules. The Club or site operator is responsible to take reasonable steps to ensure a modeller briefing occurs for each modeller using the site.

#### **Site Administrative rules**

- 1. Club's guest qualified pilots are welcome to use the field as guest a maximum of (3) times in the calendar year. Guest flights are only allowed under the direct supervision of a qualified pilot member.
- 2. Upon arrival at the site, visiting pilots shall familiarize themselves with the site rules, which can be found in the impound building located mid field behind the main fence line. Attending members shall confirm with the visiting pilot before engaging in any flying activities.
- 3. Parking is only allowed is the area shown on the site layout map. Parking along the access road is strictly prohibited at ALL times.
- 4. Members, club's guests and spectators should avoid driving on the access road leading to the field if there is any sign of excess water or mud. This is especially true during the spring season.

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- 5. No member or club's guest shall operate any category of model while under the influence of alcohol / recreational drugs or other judgment impairing drugs.
- 6. All pets must be leashed, under control and remain in the parking / spectator area.
- 7. Everyone must remove their own garbage from the field at the end of their flying day. It is everyone's responsibility to keep their area clean and safe for all. A few garbage cans were strategically placed for your use.
- 8. A porta potty is available on site during active months for all members, guests and spectators.
- 9. Spectators are to remain behind the main fence line at all times. Absolutely no spectators are allowed in the Pit, Start-up, shutdown and pilot station areas.
- 10. The club executive shall review the club rules at least once a year prior to the Club AGM.

#### Site/event emergency response requirements

In the event of an emergency, call 9-1-1. The address to be provided to first responders is:

#### **100 McCluskey Drive, Slate River**

- 1. A fire extinguisher and sand bucket must be readily available for all powered and electric model operation. Those items are easily accessible in the impound building located mid field behind the main fence line.
- 2. First aid kits are also available on site. One is in the impound building and a second one is hung inside the kiosk building.
- 3. Members operating turbine models shall have a personal ABC fire extinguisher beside them when starting their models in the start-up area.
- 4. An air horn is readily accessible in the impound building in case of a full-size aircraft flies close to the field. The air horn is only to be used for that purpose.

#### **Modelling Rules**

#### **MAAC Approved Modelling Categories**

The following categories of MAAC modelling are approved at this site/event. In addition to the MAAC Safety Code, there may be site specific rules contained in this document.

Approved Category	Weight/Power Limits	Altitude/operating limits	
mRPAS	Less than 250 grams	400'AGL	
RPAS	25kg or less	400'AGL/ <mark>1100</mark> 'AGL	
Tethered (Control-Line)			
Free flight	NOT APPROVED		
Space Models			
Surface Vehicles			

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#### **MAAC Approved Site Add-ons**

The following "add-ons" have been approved at this site, provided all relevant MAAC rules, policy and SFOC conditions are adhered to by the site and its users.

Approved Add-on	Weight/Power Limits	Altitude/operating limits
RPAS Weight (25-35kg)	Not approved	
RPAS Altitude	Less than 25kg	1100'agl
RPAS Altitude and Weight >25kg	Not approved	
RPIC	See section below	1100'agl

#### RPAS/Model technical specifications or requirements or restriction

- 1. mRPAS requirements mRPAS cannot be registered with Transport Canada. mRPAS are however regulated under CAR900.06 and part VI of the CAR. Compliance with MAAC safety code meets those requirements. mRPAS at advertised events must comply with the MAAC Event SFOC.
- 2. RPAS CAR requirements All RPAS operated over 400'agl MUST conform to the MAAC Manufacturer Declaration/Safety Assurance provision.
- 3. Club/Site/Event requirements Mufflers are required on all engines over 0.156 cu. in displacement. No flow through mufflers are allowed.
- 4. MAAC Add-on requirements RPAS operated over 400'agl must comply with the MAAC/SFOC RPAS requirements listed in the add on section. All event visitors must be briefed to ensure compliance with these requirements.

#### **RPAS Pilot/operator qualifications or requirements**

- 1. mRPAS requirements mRPAS do not require an RPAS operators' certificate, however, are regulated under CAR900.06 and part VI of the CAR. Except for advertised events, there are no MAAC or CAR age restrictions on mRPAS flight.
- 2. RPAS Pilot CAR requirements. All RPAS pilots operating RPAS below 400'AGL must have BASIC RPAS certification.
- 3. Club/Site/Event requirements. This site recommends that all mRPAS/RPAS Pilots have MAAC Wings, however its use is not mandatory. There are no other qualification requirements for other modelling categories.
- 4. MAAC Add-on requirements RPAS Pilots operating over 400'agl must comply with the MAAC/SFOC pilot requirements listed in the add on section of this document

#### CREW qualifications or requirements.

- 1. mRPAS requirements mRPAS do not normally require crew under the CAR nonetheless members wishing to fly a mRPAS model in First Person View (FPV) shall use a spotter.
- 2. RPAS CAR requirements members wishing to fly a RPAS model in First Person View (FPV) shall use a spotter.
- 3. Club/Site/Event requirements –Spotters are highly recommended for all flights but it is up to the member to decide.
- 4. MAAC Add-on requirements RPAS Pilots operating over 400'agl must comply with the MAAC/SFOC pilot requirements listed in the add on section of this document

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#### **Crew Rules**

#### **Visual Observers**

- 1. Visual observers (VO) are mandatory for RPAS operations in controlled airspace, above 400'agl, RPAS events open to the public or where specified by MAAC. However, the use of visual observers to alert pilots to presence to full sized air traffic is strongly encouraged. When required at this site, no member shall operate an RPAS unless:
  - a. A visual observer(s) is present who has been briefed or trained on any site/event procedures upon spotting a potential conflict with full-scale aircraft.
  - b. A minimum of one visual observer per flight line is required.
  - c. VO must not watch the models their sole role is to scan the surrounding sky for approaching full-scale aircraft.
  - d. Position the VO where they have unobstructed sight lines sitting in the shade beside a camper/structure is not acceptable. Equally they must be situated to have a reasonable communication ability with all pilots/modellers.
  - e. Use visual aids as required sunglasses, wide brim hats, sunshades, binoculars or similar. If positioned far from pilot stations, provide suitable notification means such as air horns, lights, radios etc.
  - f. The VO or other responsible non-flying person **shall** monitor VHF aviation radio on 126.7 MHz. If radio monitoring is not possible, all flying above 400' shall cease until radio monitoring resumes.
- 2. Per CAR (901.23(vii)) each site must have rules to ensure a clear full-scale detection and avoidance command/response protocol is in place there is no time for debates or confusion. MAAC has adopted the following minimum:
  - a. MAAC models/RPA shall give way/get out of the way of full-scale aircraft in all circumstances no exceptions. There is never any onus on full-scale pilots to yield to models ever.
  - b. Upon spotting/hearing or being advised of any airplane that might pose a hazard with modeling activities, the VO or any other person on site, shall yell in a loud clear voice "AIRPLANE". **If in doubt, issue the warning.**
  - c. Upon hearing this command, all pilots shall descend to as low as altitude as safely possible, and if required land. The goal is to vacate the airspace vertically and then determine if RPA can continue to operate safely.
  - d. Lateral deconfliction maneuvers are prohibited above 60'AGL. Descending to 60'agl (tree top level) is the accepted Transport Canada initial response. Members operating near/off aerodromes have different specific response requirements.
  - e. Upon determining the full-scale aircraft is no longer a threat, the VO or other persons shall yell in a loud clear voice "ALL CLEAR".
  - f. If any "official person" such as a peace officer, ATC or their delegate, has given a stop flying order, guidance or similar, all model flying **shall** stop immediately and shall not resume until permission to do so is obtained from person or body that issued the stop flying order.
  - g. Thereafter modeling activities may resume as normal.

#### Program Director, Air Boss, ATC Coordinator

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This site is in uncontrolled airspace – a Program Director or an Air Boss is not required

#### **RPIC – RPAS Pilot in command**

These are the options for any MAAC member to provide RPAS Pilot in Command (RPIC) direct supervision to another person at this site. **THESE RULES ARE SPECIFIC TO THIS SITE.** 

- 1. **Basic RPAS Certificate Holder Direct Supervision options** any MAAC member with a current and valid Basic RPAS certificate may perform RPIC duties as follows:
  - a. supervise a single non-certificate holder at a Basic site
  - b. Shall not supervise a group of other people regardless of any certificates.
  - c. Shall not supervise any other member in any "advanced scenario".
- 2. Advanced RPAS Certificate Holder Direct Supervision options any MAAC member with a current and valid Advanced RPAS Certificate may perform RPIC duties as follows:
  - a. supervise a single non-certificate holder at any site or Basic scenario,
  - b. supervise up to 5 "Basic" Certificate holders in **uncontrolled airspace** advanced scenarios, as outlined in site rules.
- 3. **PPL+ with no RPAS Certificate Direct Supervision options** any MAAC member with a current or expired PPL, may perform RPIC duties as follows:
  - a. supervise a single non-certificate holder at any Basic site,
  - b. supervise up to 5 Basic Certificate holders in **uncontrolled airspace** advanced scenario, as outlined in site rules.

#### Notes:

- c. PPL+ only holders may not independently operate an RPAS in basic or advanced scenarios unless supervised by an appropriately rated RPAS Certificate holder. A PPL+ only holder cannot supervise another PPL+ only holder while in controlled airspace at least one person must have at least a valid basic RPAS operator's certificate. If the PPL+ has a valid and current RPAS operators' certificate, then the higher of either provision applies.
- 4. **RPAS Flight Reviewer Direct Supervision options** any MAAC member with a current and valid Flight reviewer Certification may perform all the duties of an Advanced RPAS Certificate holder. RPIC does not affect the Transport Canada flight reviewer program or CAR regulations associated with it.

**NOTE** - While able to provide direct supervision (only), RPIC members cannot operate an RPAS on their own, unless they meet the CAR RPAS Pilot certification level (Basic or Advanced). Meaning a member with a PPL **only** cannot legally fly an RPAS in Canada, unless supervised by a Basic or Advanced RPAS Certificate holder. Equally, two PPL holders do not equal one RPAS Certificate holder and cannot supervise one another – one of them must have a valid RPAS certificate for the airspace/scenario being conducted.

See RPIC Add-on Section below for rules, procedures and details

#### **Instructors/Demo flights**

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Instructors and their students always have priority over other member's flights so please give way.

When flight training is under way, the designated flying area becomes priority to student pilots. Open flying and flight training will be permitted concurrently with the approval of the instructor AND student.

#### **Spotters**

- 1. While spotters are not specifically required by the Lakehead Aeromodellers Club, their use is highly encouraged during events.
- 2. Spotters are recommended to monitor for vehicle or pedestrian traffic on Highway 130.
- 3. Maiden of a new or rebuilt Model requires a second qualified pilot to act as a spotter. This applies when other pilots or bystanders are present. Exclusive airspace is preferred, otherwise all active pilots at the pilot stations are to be notified prior to flight.

#### Airspace requirements or permissions

This site is located in uncontrolled Class G airspace.

The nearest controlled airspace vertically is Thunder Bay Class E TA at 2000'msl (1256'agl) and Class E airways at 2200agl.

The nearest controlled airspace laterally is is CYQT Class D control zone located 2.13nm northeast.

Site elevation is 744'msl.

#### Adjacent Aerodrome Procedures (within 3nm)

Thunder Bay Model Airplane Remote Control Club/Lakehead Aeromodellers main flying site operates within 3nm of an aerodrome as listed in the CFS or CWAS and is required to provide all members with the following information:

- 1. The aerodrome name is Thunder Bay (Martin's Landing) (CML5) and it is located 2.9 nautical miles west southwest of our modelling site.
- 2. The aerodrome has one grass runway (01/19) and is home to a private general aviation aircraft.
- 3. Our modeling site is well clear of the established aerodrome traffic pattern. Although the aerodrome is rarely used, there are possibilities where aircraft departing east from either runway could overfly our site. Normally, these aircraft will fly well above our site at 800 feet AGL or more. Additionally, aircraft may transit immediately north or south of our site while joining the circuit base leg to runway 01 or 19 at CML5.
- 4. CLM5 has currently no CFS RPA procedures and no other CFS PRO comments that affect our modelling site.
- 5. In the event of a "fly-away" towards CML5, you may call the aerodrome operator at 807-344-0071 and advise them of the issue.
- 6. The club executive has contacted the operator (OPR) of CML5, and they have expressed no issues with our RPAS site.

#### Normal mRPAS/RPAS/model operating procedures

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- 1. Prior to daily operations, an RPAS Wilco site survey shall be consulted. MAAC endorses the use of a single shared RPAS Wilco site survey provided:
  - a. A new site survey is conducted/checked at least once every 56 days (NAV CANADA schedule), and if there are changes the updated site survey is made available to all members.
  - b. All site survey information is readily available to all RPAS pilots on site (electronically or in print).
  - c. Prior to each flying session, members must check Aviation NOTAM for critical flight safety information, or changes to airspace or aerodromes. Members may share NOTAM information verbally or in print with other members at the site.
  - d. Members must confirm there are no changes to site layout affecting distances to unsheltered bystanders
  - e. Members must each visually confirm no changes to site obstructions, local obstacles and that weather conditions stipulated in any MAAC requirements are met.

NAV CANADA 56-Day Publication schedule - ensure you complete a new RPAS Wilco Site Survey on these dates:

2025	2026	2027	2028
20-Feb-25	22-Jan-26	18-Feb-27	20-Jan-28
17-Apr-25	19-Mar-26	15-Apr-27	16-Mar-28
12-Jun-25	14-May-26	10-Jun-27	11-May-28
07-Aug-25	09-Jul-26	05-Aug-27	06-Jul-28
02-Oct-25	03-Sep-26	30-Sep-27	31-Aug-28
27-Nov-25	29-Oct-26	25-Nov-27	26-Oct-28
	24-Dec-26		21-Dec-28

- 2. The MAAC mandated minimum weather conditions to commence or continue MAAC RPAS operations are:
  - a. no cloud ceiling (broken or overcast sky) estimated lower than 1000'AGL if the site approved altitude is less than 400', or no cloud ceiling estimated less than 1000' above any higher site approved altitude, and
  - b. the RPA will be able to remain 500' vertically and 1 sm (statute mile) horizontally clear of any cloud, and
  - c. an estimated horizontal visibility of 3sm (5km) or more around the flying area, and
  - d. no other obscuring conditions (fog, smoke, haze etc.) which could make spotting full-scale aircraft difficult.

NOTE – RPAS pilots may estimate cloud ceilings and visibility, provided they do so in good faith understanding the purpose of weather limits is to ensure we can see approaching full-scale aircraft.

- 3. Each RPAS pilot is responsible to ensure the following MAAC procedures and requirements have been met prior to commencement of any RPAS operation:
  - a. Any <u>required</u> MAAC manufacturer declaration provisions have been met, including all RPAS technical specifications verified, pilot and crew requirements, and
  - b. All RPA and required equipment have been maintained and all mandatory actions completed before the flight, in accordance with the manufacturer declaration and
  - c. all paperwork such as pilot declarations, required operating manuals or similar is present, and

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- d. That any required crew members are properly qualified, have made any required declarations and are briefed on the operation.
- 4. Members shall not operate an RPAS at night unless it is brightly lit, weighs less than 25kg, and remains below 400'agl. Members shall use the Weather Network for Thunder Bay to determine legal night.
- 5. Formation Flying is permitted. There is no maximum limit on the number of airborne RPAS or mRPAS permitted at this site, provided all pilots agree to any additional airborne RPAS that exceed available pilot stations, and those pilots stand near the pilots stations. Pilots may fly in formation provided they agree to do so. Clear and Concise communications are Key when several RPAS are flying at the same time.
- 6. Refer to the attached map for normal site set-up areas such as spectator areas, pit, or assembly areas, and start-up/run-up areas.
- 7. MAAC required buffer distances are variable and at this site are:
  - a. 7 meters from the flight line to the pilot stations, 10 meters from the flight line to the pits, and 30 meters from the flight line to spectator and parking areas
- 8. All models will be assembled in the pit or designated assembly area. Unpowered testing of controls and failsafe may occur here as well. All powered testing must occur in a start up area.
  - a. Members shall confirm that fail-safes are active before flying. If confirmation requires the motors, engines, or turbine to be armed or running, this test shall be performed in the start-up area.
- 9. All models, including electric powered models, will be restrained before being tested, armed or started in the designated startup areas
  - a. Range testing is only allowing in the start-up area.
  - b. Batteries shall not be connected to electric RPA in the Pit Area.
  - c. All RPAs, except turbine RPAs, must be facing the runway when in the start-up area. Turbine RPA should be positioned so that their exhaust is directed away from other RPAs and people.
  - d. Usage of a deflector during start-up is highly recommended for all turbine RPA.
  - e. Engine run-ups are only allowed in the start-up areas.
  - f. Once start-up or battery connection is completed, taxiing onto the active runway shall be made as safely as possible using the most direct route. Bear in mind that you might not be alone in the start-up area.
  - g. Starting of stalled Models on the active runway is prohibited. In these instances, the Models must be moved to the start-up or shutdown area for restart or returned to the pit area for adjustments.

#### Shutdown

10. Refer to the attached map for a depiction of the flying area, including any no-fly zones, a description or depiction of the flight line, safety line, runways, taxiways, and any other pertinent flying area demarcation

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- a. The Thunder Bay Model Airplane Remote Control Club/Lakehead Aeromodellers site flying area is a rectangular shape. The club flying area as measured from the centre of the pilot stations is extending 400m to the left, 400m to the right and 320m straight out.
- b. All flying must be performed within the defined Flying Area. All other areas are defined as No Fly Zone.
- c. No RPAS are permitted within 30m of any vehicle or pedestrian using Highway 130. Use caution when overflying the roadway.
- d. No flying permitted when grass cutting or field work is in progress within currently established leased land boundaries.
- 11. The following are the site take-off, approach, landing and recovery procedures:
  - a. Pilots or their spotter shall call out all model movements.
  - b. All Models take offs and landings are to be made from the active runway, as defined by the prevailing wind direction. Changes to the circuit direction will be made as required and shall be announced.
  - c. All Model flying, take offs and landings must be performed from the pilot stations. If required for training or for maiden of a new or repaired RPA, take off may be performed while standing behind the aircraft. Permission or approval must be obtained from all actively flying pilots prior to entering the runway.
  - d. Hand launching and bungee launching shall be done in agreement with any pilots flying normally off to one side of the pilot stations.
  - e. Low flying over the active runway "Low Pass" is allowed as long as the pilots at the pilot stations are made aware and see no objection.
  - f. 3D flying is allowed but the pilot flying those manoeuvres is required to call it out and make the other pilots aware before they commence.
  - g. Dead stick landings take priority Active pilots to be advised of dead stick landings via a "DEAD STICK" callout from the unlucky pilot.
  - h. No person shall proceed past abeam the pilot stations without permission of other pilots flying.
  - i. The recovery of downed RPAs in the flying area shall not be done without the agreement of all pilots flying. Thereafter no new RPAs may take-off until the downed RPA is recovered. No flying directly over the recovery crew.
  - j. Once flying is completed, shutdown or battery disconnection shall be performed in the shutdown area. The RPA can then be carried to the pit area via the start-up area. The shutdown areas are limited, so members should not stay longer than necessary.

#### **Emergency Procedures**

#### Fly-away or lost link.

RPAS pilots are required to know who to notify in the event of a RPAS fly-away outside our MAAC approved flying areas **which could reasonably enter** the nearest controlled airspace volume. Note this process is not required for temporary flight immediately outside the MAAC approved flying area, or for known crashes/off site "landing" outside the MAAC approved flying area.

1. If you experience a RPA fly-away, and in your judgement as the RPA pilot in command (including RPIC scenarios) the RPA has sufficient energy or capability to fly to and enter the identified controlled airspace volume (either laterally or vertically, or both), you are legally required to attempt contact with listed agencies below and advise them of the fly-away situation.

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#### 2. MAAC has assessed this site and determined the following:

This site is wholly in uncontrolled airspace. The nearest controlled airspace volume is

#### a. Laterally

Nearest Controlled Airspace – Fly-away - Laterally				
Altitude	Name, Class, Type		Altitude	Contact Info
		Direction		
Below 400'	CYQT Class D CZ	2.13nm NE	SFC – 4000'	CYQT ATC emerg only 807-
				473-5252
Above 400'	CYQT Class D CZ	2.13nm NE	SFC – 4000'	CYQT ATC emerg only 807-
				473-5252

#### b. Vertically

If you experience a fly away while operating at higher altitudes (above 400'), or if the model is climbing uncontrollably and in the pilot in command's judgement may enter overlying or adjacent controlled airspace, contact the listed agency as soon as possible.

Nearest Controlled Airspace – Fly-away - Vertically				
Location	Name, Class Type	Based at	Other	Contact Info
Over site	CYQT Class E TA	1200' AGL		Winnipeg Flight Information Region (204) 983-8338



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#### **Incident Accident**

- If there is any type of near miss or safety concern between a full-scale aircraft, bystander and our RPA/models, ALL FLYING/MODELLING SHALL cease immediately. The members involved should fill out a MAAC reportable occurrence report and submit that to MAAC and the Site/Event organizer and follow MAAC policy.
  - a. If the member(s) involved believe the risk was very minimal, they may complete their own self declaration or risk assessment using the MAAC form. Submit a copy of the form to the Site/Event organizers when able and recall if this involved RPAS you must keep this form for one year (CAR901.49 (2)). Resume flying/modelling when done.
  - b. If the member or Site/Event operators deems the event serious, flying/modeling will not resume until members are given permission by the Site/Event organizers in writing.
  - c. If there is physical contact between a full-scale aircraft, a by-stander, a spectator and a MAAC RPAS/model all flying/modelling will cease until MAAC confirms you may resume operations.
  - d. This process is for **your** protection.

#### **Transportation Safety Board (TSB) Protocols**

- 1. In addition to MAAC reporting requirements, according to TSB Regulations and policies, RPAS occurrences shall be reported to the TSB to 819-994-3741 or 1-800-387-3557 as soon as possible after the occurrence:
  - a. if an RPA with a MTOW (maximum take off weight) greater than 25 kg is involved in an accident as defined in 2(1)(a) of the TSB Regulation;
  - b. if a person is killed or sustains a serious injury as a result of coming into direct contact with any part of an RPA, including parts that have become detached from the RPA; and
  - c. if a collision occurs between any RPA and a traditional aircraft.

A full report shall be forwarded to the TSB within 30 days of the occurrence: https://www.tsb.gc.ca/eng/incidents-occurrence/aviation/index.html

#### Model damage/repair protocol

- 1. In the event of any normally expected modelling mishap which requires any degree of repair, the model may only be "field repaired" if all normal modelling supplies and tools are present and used in accordance with established modeling practices or manufacturer instructions.
  - a. Any repair other than minor (replacing broken propeller etc.) shall be treated as a maiden flight/operation. Ensure RPAS logbook entries are made.
  - b. Any repair that cannot be fixed at the field, shall only be repaired at the modellers/owners shop or other repair facility. Ensure RPAS logbook entries are made.

#### **Service Difficulties**

A service difficulty is defined as any condition that affects or that if not corrected, is likely to affect the safety of aircraft or any othe person. As MAAC has made a safety assurance declaration to Transport Canada that is used in many of our RPAS flying privileges, it is critical and a regulatory requirement MAAC is informed of any issues related to our safety assurance declaration. Bear in mind MAAC has fully adopted a Just Culture and will not penalize or discipline members for reporting safety concerns, not matter how large or small, when done in good faith.

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- 1. If a mRPAS or an RPAS is being operated under any manufacturer declaration (MAAC or other), the RPAS pilot shall ensure, without delay, a report is filed with the manufacturer if they encounter any of the following:
  - a. Any inability to meet the position determination standards (Standard 622) associated with the manufacturer declaration, related to equipment or the performance of equipment.
  - b. Any failure of a critical command and control component not attributable to normal wear and tear or obvious misuse (example dead/low battery), and
  - c. any other aspect of RPAS operation where the safety assurance declaration was not met.

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#### **MAAC Add-ons**

#### **RPAS Operations Above 400'AGL**

MAAC has conducted an airspace and site review per the SFOC SORA (specific operations risk assessment) and determined the following requirements for members to operate an RPAS above 400' at this site.

#### **Airspace Assessment**

There is one (1) controlled airspace volumes (based at the SFC or starting higher) within 2nm laterally of this site, the Thunderbay (CYQT) Class D Control zone (2.13nm NE of pilot stations).

Controlled airspace vertically over this site is based at 2000'MSL (Class E CYQT Transition Area (TA)).

- 1. To determine the maximum permissible RPAS altitude above ground level, subtract site elevation (744'ASL) from the base of controlled airspace (2000'MSL) (2000-744=1256) and round down. The base of controlled airspace over this site is 1200'AGL.
- RPA are required to remain 500' below the base of any overlying controlled airspace, and 2nm laterally clear of any controlled airspace volume. However, MAAC may authorize reductions in certain circumstances and in this case, MAAC can reduce to 1000' laterally from Class D CZ and 100' vertically from Class E TA. Therefore, the highest altitude MAAC can approve is 1100' AGL (above ground level).

#### **Sufficient Communication requirements**

There is one (1) aerodrome within 3nm of this site – Martin's Landing (CML5) 2.92nm West. There are no protected airspace volumes, depicted air routes, or commonly used tracks **over** this site that require communication capabilities. However, there are two VFR training areas, associated routes, and one IFR approach (ILS 07) that are near this site (+/- 3nm). Assessment of the normally expected traffic patterns yields the following:

- 1. Prior to commencing RPAS operations above 400'agl, the Visual observer or other non-flying responsible person shall monitor aircraft communications on VHF frequency 126.7, or any other frequency assigned to the VFR training areas.
- 2. While operating RPA above 400', if radio monitoring is not possible for any reason, all RPA shall descend below 400'AGL as soon as safely able, until radio monitoring resumes.

#### Visual Observer (VO) assessment

The location of the pilot stations, general assessment of the topography and direction of the flight line and flying area generate the following requirements for the VO:

- 1. At least one VO shall be positioned near the flight line, within earshot at normal conversational voice levels. If need be, equip the VO with a noise-making device to supplement any aircraft warnings.
- 2. The VO shall be equipped with any required aviation communication devices, such as VHF radios, or other devices.
- 3. The VO shall be briefed to be aware and watchful for VFR aircraft transiting to and from the traning areas as follows:
  - a. North of the site to/from Kakabeka Training area
  - b. South of the site to/from the South Training area, and
  - c. In both areas, VFR aircraft operating at altitudes which could be as low as 500'AGL.
- 4. The VO shall be equipped with any support equipment determined by the club to be relative to the duration of duties, such as water, a chair, or shade from the sun provided it does not interfere with VO duties.

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5. As the MAAC approved altitude flying area is within 2nm laterally or 500' vertically of adjacent controlled airspace, the VO cannot assume any other role.

#### The Club/site/event shall:

- 1. Ensure a copy of the MAAC SFOC #930433 and SFOC application form 26-0835 are present and available to all RPAS pilots when operations are occurring.
- 2. Ensure a copy of these rules, in their entirety are available to all RPAS pilots at the site.
- 3. Communicate to all Club members and mark this site as closed for RPA operations above 400'AGL, if there are any substantial changes to the site survey criteria (CAR901.27 a through h), unless or until MAAC has been advised, has conducted a new SORA, and issued new permission.

#### The RPA pilot shall:

- 1. **Only** operate an RPAS registered, declared and meeting the MAAC Manufacturer Declaration requirements. Other manufacturer's declarations are **not** transferable to this policy.
- 2. Not operate an RPAS above 400'agl unless in possession of a valid and current Advanced RPAS operators' certificate, or under the direct supervision of an RPIC in accordance with MAAC policy.
- 3. Ensure all RPAS pilot CAR and SFOC paperwork requirements have been met and are available,
  - a. Certificates of registration, pilot RPAS certification and recency proof,
  - b. Govt issued photo identification,
  - c. Manufacturer owner's declaration for each RPA,
  - d. An altitude determination declaration as appropriate (pilot or each RPA) and
  - e. RPAS Pilot has completed Crew training and fitness requirements and signed declaration.
- 4. Ensure a recent site survey and NOTAM check have been completed,
- 5. Ensure any crew declare themselves as properly trained in accordance MAAC policy. Verbal confirmation is sufficient.
- 6. Ensure the RPA meets the MAAC technical requirements, including the MAAC Manufacturer declaration, before flight commences, and terminate any flight if technical requirements are no longer met.
- 7. Ensure the RPA is operated VLOS only (no FPV permitted including with a spotter) and that it remains within the site approved flying area at all times.
- 8. Ensure the RPA does not carry "cargo" or any other items onboard that are not required for flight. On board cameras and associate gear are permitted provided all components are securely affixed to the airframe or housed in a compartment that cannot be easily opened in flight.

#### Any RPAS Crew shall:

- 1. Ensure all SFOC paperwork requirements have been met and are available (crew training declaration)
- 2. Comply with the instructions of the pilot in command
- 3. Perform their duties diligently and in accordance with MAAC policy and
- 4. Inform any person responsible of any issue that prevents them from meeting their obligations.

#### The RPA shall be equipped with

- 1. Functional "fail- safe" type device(s) or design per the MAAC manufacture declaration.
- 2. Anti-collision beacon/light(s) per MAAC policy,
- 3. Sufficient fuel/energy to complete the intended flight duration, plus 25% at the minimum throttle setting sufficient for controlled level flight and includes a MAAC required minimum reserve to enable one balked landing/missed approach and circuit back to a successful landing. Fuel/energy spent taxiing to the pits or any shut down procedures thereafter does not count in these calculations.

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Non-powered RPA (gliders) must have sufficient receiver battery power for the flight plus reserves as noted above, excluding a balked landing attempt.

MAAC Declared minimum fuel/energy guidelines 25%			
Intended flight duration	Required reserve (@25%)	Total Fuel/energy required	
15 mins	3.75 mins	18.75 mins	
10 mins	2.5 mins	12.5 mins	
6 mins	1.5 mins	7.5 mins	
5 mins	1.25 mins	6.25 mins	
3 mins	45 seconds	3 mins 45 seconds	

#### RPAS Operations Above 25kg - Not approved

#### RPAS Operations Above 400'AGL and Above 25kg - Not approved

#### **RPAS Pilot In Command**

#### General site rules - More than one-to-one Direct Supervision

This site is in **uncontrolled airspace.** MAAC allows more than one-on-one direct supervision provided the terms of this program are met. RPIC in this regard is not to be considered RPA instruction or how to fly – it's intended to be supervised flying of **competent students** who do not possess the correct ratings or paperwork. The following constitutes the MAAC program under the MAAC Manufacturer declaration instruction provisions:

- 1. The primary role of the RPIC is to provide airspace regulatory compliance, safety, and situational awareness. In one to five scenarios, the RPIC is not expected to provide hands-on "instruction" to each student, which is why each student must possess at least a Basic RPAS operator certificate and competent RPA piloting experience.
- 2. In all cases, the RPIC is the "control station" and while RPIC is being provided their decisions, directions, and commands on the flight line are final and definitive as follows:
  - a. No other person, including Club or event officials, shall attempt to override or countermand a RPIC command related to the provision of the RPIC program.
  - b. The RPIC, however, shall obey all cease flying orders based on decisions or directions of Site, Club or event officials.
  - c. The RPIC shall obey any flight safety directions issued by other members, such as detect and avoid call outs "Airplane" and shall direct an appropriate response to all students without reservations or delay.
- 3. All students shall be briefed and agree the RPIC is in charge and all his decisions, commands and instructions are final and shall be complied with immediately, including up to potential destruction of the RPA (intentional crashing in a safe location/manner).
  - a. Students shall not start or arm or otherwise make an RPA ready for flight unless directed by the RPIC.
  - b. No student shall move an RPA from any designated start up area until directed to by the RPIC. The intent being an orderly "launching" of all models under the RPIC control.
  - c. No student shall take off or launch an RPIC unless permitted by the RPIC. Such permissions may be issued to all students/pilots or given individually.

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- d. Thereafter, once their RPA is airborne, the students shall operate their RPA independently, but under the general direction of the RPIC.
  - i. RPA to RPA traffic patterns, collision avoidance and similar remain the domain of the students, unless spotters or other parties intercede.
  - ii. Any commands an RPIC issue to an individual RPA shall be acknowledged by the individual pilot (student)
  - iii. Any group RPIC commands shall be acknowledged by all students.
- e. Students, upon hearing any flight safety directions such as "airplane" are free to comply with stipulated site responses without waiting for the RPIC to issue the command. They shall, however, confirm any such action with the RPIC as soon as possible thereafter.
- f. Any student experiencing a dead stick or urgent landing situation is permitted to take whatever actions they deem appropriate to ensure the safety of their model, and the site occupants.
- g. In the event of a disagreement between RPIC and students, other site officials or members, the student shall follow the RPIC directions or commands.
- 4. The maximum number of students to one RPIC ratio is five,
  - a. all students shall possess a "Basic" RPAS operators' certificate and be able to independently operate their RPA.
  - b. The RPIC shall have a valid advanced/flight reviewer RPAS certificate or PPL+
  - c. The type of "instructional control" system is irrelevant (buddy-box or voice command)
- 5. The RPIC shall be positioned and remain within earshot, at a normal conversational level, of all students while any RPA is airborne.
  - a. Conversely, regardless of physical pilot stations arrangements, RPIC shall not occur unless all students are within earshot of the RPIC.
  - b. Where this is not possible, additional RPIC shall be utilized or limitations placed on the number of students to remain within earshot.
- 6. The site shall ban or otherwise prohibit all extraneous noise to ensure a solid verbal communication ability between RPIC and students.
- 7. The site rules shall contain provisions mandating the operating conditions for all other categories of models.

#### Rules for other attendees/pilots at a site where multiple students are receiving RPIC

- 8. IF forming part of an RPA flight line (at the pilot stations) that includes one of the maximum allotted "student" spaces (up to 5), and where there is more than one-on-one RPIC supervision be provided,
  - a. Other RPA pilots agree they shall follow all RPIC commands related to RPA operation as if they
    were a student receiving direct supervision. If they do not agree, either suspend RPIC
    operations or do not permit individuals to operate with other RPA during the time RPIC is active
     this is a site responsibility.
  - b. The RPIC direction will most commonly be associated with commands to descend, land or otherwise cease RPA operations because of aviation safety concerns.
    - i. This rule is intended to ensure there is ultimately no confusion about who is doing what. All other active modellers must comply, so the RPIC knows the scenario is safely under control.
    - ii. Other pilots may still exercise independent control authority for landings etc., provided they inform the RPIC of their intentions.
- 9. NO other RPA pilot may join an already active multi-student RPIC session without the permission of the RPIC.

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a. Thereafter they agree to follow the same RPIC rules as if they were there at the start of the session.

#### **Event Approval**

- 1. ALL MAAC events that require approval or want MAAC insurance must occur at SOC sites and be approved by MAAC. All outdoor events with operable RPAS must be approved by MAAC.
- 2. Outdoor events that are clearly listed as "member-only" events (regardless of reason such as competitions, fun-fly's, fly-in's, airshows, air racing, demonstrations or any other organized gatherings) do not require MAAC Event SFOC compliance. All advertising/notice including internal to MAAC must include the following phrase:

This event is closed to the public - only MAAC members and crew may attend. Invited guest(s) of a MAAC member are permitted provided they are supervised.

3. "Advertised events" - regardless of what you "named" your event, if your outdoor event includes operable (flying) RPAS and is open/advertised to the general public in any fashion, must meet the MAAC SFOC requirements. All advertising/notice, including internal to MAAC must include the following phrase:

This event is open to the public and all MAAC members, crew, and their invited guests. MAAC Event SFOC compliance is required.

#### Foreign RPAS Pilots (US or other)

MAAC has already obtained Transport Canada approval for foreign RPAS pilots to operate RPAS at our MAAC sites and events (Policy approved July 2023). Foreign pilots must join MAAC and follow the provisions of MAAC policy (on the website). Also see the RPAS Wilco NOTAM (2024-02).

Events with RPAS operations above 400'agl and more than 25kg - not approved

The following are the normally expected process and rules for an event.

- 1. The club/event organizers shall:
  - a. Prior to submitting an event approval application, ensure they have read all MAAC policy and have submitted an event package indicating they have complied as best as possible.
  - b. Ensure the site meets all MAAC event organizational and logistic requirements such as signage, parking control, spectator safety barriers, washroom and food provisions, and fire/medical safety requirements commensurate with the expected attendance.
  - c. Ensure the event complies with MAAC event policy and any CAR or SFOC requirements.
  - d. Ensure all attending modellers/RPAS pilot are current MAAC members.
  - e. Take reasonable steps to ensure all attending modellers pilots <u>receive a briefing</u> on site or event rules using the MAAC minimum checklist (attached).
- 2. In addition to all the above and the club rules, at any event where the public is in attendance under the MAAC SFOC, the event organizers are responsible to ensure:
  - a. MAAC warning signs are posted at all public entry points.
  - b. A copy of the MAAC SFOC and application are on site and available to all RPAS pilots.

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- c. All RPAS pilots sign the Transport Canada sign in sheet.
- d. All RPAS pilots receive a briefing on site rules using the MAAC minimum checklist (attached).
- e. A visual observer is always present when RPAS are flying.
- f. Ensure all follow up actions are completed after the event, most notably any Transport Canada paperwork.
- 3. Any member attending an event shall
  - a. Comply with all CAR, SFOC, MAAC and club/event rules as required.
  - b. Not operate a model or RPAS unless they attend or obtain a pilot briefing.
  - c. Pay the adverstized landing fee if flying at the event

#### **Diagrams/maps**

#### **Diagrams and Maps**

Site Layout



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#### Flying Area



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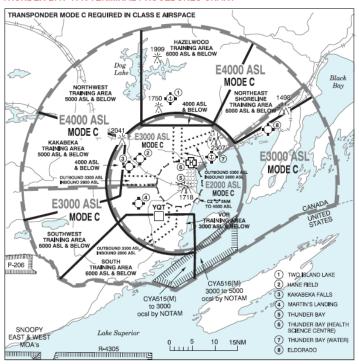
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CANADA FLIGHT SUPPLEMENT / GPH 205 Effective 0901Z 17 April 2025 to 0901Z 12 June 2025

**ONTARIO** 

AERODROME/FACILITY DIRECTORY

#### THUNDER BAY VFR TERMINAL PROCEDURES CHART



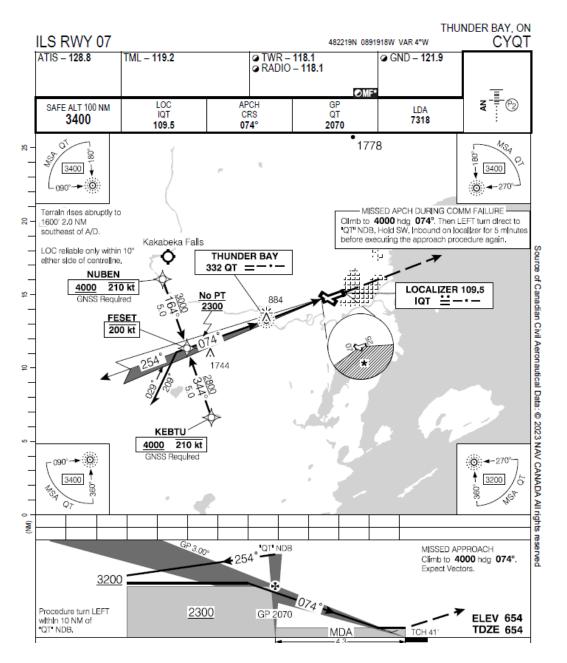
#### ARRIVALS

- Join arrival route as close as possible to starting point.
- Fly the route on the depicted track and altitude until advised by Thunder Bay Tower.

- Join departure route as close as possible to starting point.
   Fly the route on the depicted track and altitude.



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THUNDER B	AY (MARTIN'S LANDING) ON	CML5
REF	N48 17 37 W89 32 36 14WSW 3°W (2016) UTC-5(4) Elev 1114' A5001 A5008	t t t t t t
OPR	Richard A. Martin 807-344-0071 Reg PPR	t Q t Q t t t
FLT PLN FIC	Pilots to open/close VFR flt plan with London rdo, FISE or by phone London 866-WXBRIEF (Toll free within Canada) or 866-541-4104 (Toll free within Canada & USA)	
SERVICES OIL S	20W50, 80, 100 1,4,5,6,7	
RWY DATA	Rwy 01(010°)/19(190°) 2090x80 GRASS/SNOW Opr Rwy soft when wet	t.
COMM	tfc 122.8 3NM 3200 ASL	
PRO	Rgt hand circuits Rwy 01 (CAR 602.96), Circuit hgt 2100 ASL all runways.	
CAUTION	Trees 50 AGL N & S of rwy	

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## WARNING!



## AEROMODELING MAY CAUSE SERIOUS INJURY!

# PROCEED AT YOUR OWN RISK!

### **AVERTISSEMENT!**

## L'AÉROMODÉLISME PEUT CAUSER DES BLESSURES GRAVES!

# PROCÉDEZ À VOS PROPRES RISQUES!

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