

**Kitchener Waterloo Flying Dutchmen
Waterloo Rod & Gun
Site Rules
2025**

MAAC Approved June 25, 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

Club: Kitchener Waterloo Flying Dutchman RC Club (#171, Zone E)

Location: Waterloo Rod and Gun Club
1090 BoDe Lane, St. Jacobs ON

Pilot Station Coordinates: 43°31'50.4"N 80°34'38.5"W

Contacts: Adam Picard 77310
adam_picard@hotmail.com 226-868-2620

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

1. be MAAC members in good standing.
2. be members of Kitchner Waterloo Flying Dutchmen RC Club, or an invited guest 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.

1. Spectators are the responsibility of all members. Spectators are not allowed past the "deadline" (*no taxi line*) unless accompanied by a club member
2. Restricted Hours:
 - a. Internal combustion engines and electric aircraft with loud prop noise shall not be operated prior to 9am.
 - b. No flying of any kind is permitted between 11pm and 5am
3. Please place all garbage into designated containers.
4. Club security is the responsibility of all members. The last member out is responsible to make sure the sheds and clubhouse are locked and secure
5. On Site Battery Charging.
 - a. If batteries are being charged in the vicinity of the clubhouse or sheds, they must be placed inside a closed, vented and fireproof charging container or bag.
 - b. The KWFD recommends the use of "Lipo-Bags" and have 10 available for use free of charge.
 - c. Battery charging at the club house is not available to visiting pilots during the events

6. Visiting Pilots from other clubs are permitted to fly at the KWFD Field as long as:
 - a. They have Valid MAAC membership (Must be presented)
 - b. It is less than 3 times per calendar year.
 - c. They must be aware of and adhere to all CAR, MAAC and Club rules
 - d. Are a guest of a current KWFD member
7. Dogs are welcome but must be kept under control or on a leash in the pits area.
8. Please place all garbage into designated containers.
9. These rules will be reviewed annually by the club executive. A complete list of all rules is posted on the clubhouse exterior wall.

Site/event emergency response requirements

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

1090 BoDe Lane, St. Jacobs ON
Lower grounds Waterloo Road and Gun Club

1. A fire extinguisher and first aid kit is available in the club house.
2. First aid kit and AED are located inside the club house.
3. During events fire extinguishers are located at the starting boxes.

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/ 600'agl
Tethered (Control-Line)	Not approved	
Free flight	Less than 3.1kg	1700'agl
Space Models	Ex - <1.5kg/F engines	1700'agl
Surface Vehicles	Not approved	

MAAC Approved Site Add-ons

Approved Add-on	Weight/Power Limits	Altitude/operating limits
RPAS Weight (25-35kg)	Not approved	
RPAS Altitude	Less than 25kg	600'agl
RPAS Altitude and Weight >25kg	Not approved	
RPIC	See section below	600'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 Template
2. RPAS CAR requirements - There are no CAR restrictions on RPAS models operated below 400'. To operate above 400', all RPAS must conform to the MAAC Manufacturer Declaration/Safety Assurance provisions.
3. Club/Site/Event requirements - The Maximum sound level allowed for all craft at KWFD Field is 96dBa.
 - For propeller powered aircraft, the sound measurement shall be taken on the grass with a sound meter set placed downwind, twenty-five feet from the model centerline, line with the prop arc at twenty-four inches in height. The sound meter shall be pointed directly at the model and perpendicular to the fuselage. The model being measured shall have its engine run at full power for the sound test.
 - For craft with no propellers, the measurement is taken perpendicular to the model centreline using the same criteria.
4. MAAC Add-on requirements – MAAC will specify as required. – 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 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 using this site must have a Basic RPAS certification for operation below 400'.
3. Club/Site/Event requirements. All pilots must have MAAC wings. Student pilots must be accompanied by a Pilot or Instructor until they have successfully passed the wings test.
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.
2. RPAS CAR requirements - This site does not require visual observers (VO) for RPAS operations below 400'agl operations.
3. Club/Site/Event requirements - Spotters shall be used at any time there are 3 or more pilots stations in operation. Spotters are mandatory during any hosted club events no matter how many pilots are flying.
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 Rules

Visual Observers

1. Visual observers (VO) **are mandatory for RPAS operations above 400'agl, RPAS events open to the public or where specified by MAAC.** When required at this site, no member shall operate an RPAS unless:
 - a. A visual observer(s) must be 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. The VO is positioned 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. **For any Free flight and any rocket launches expected to operate over 400',** members should employ a VO the same as for RPAS.
 - g. For RPAS operations over 400', the visual observer shall be briefed on the ST JACOBS VFR reporting point as follows (refer to attached diagrams):
 - i. ST JACOBS is a Kitchener Waterloo airport (CYKF) mandatory departure route reporting point. VFR aircraft departing CYKF will be at lower altitudes over this point (1000' AGL) proceeding northbound.
 - ii. The VO should keep an active visual scan for aircraft approaching from the south and
 - iii. VO, or other responsible persons, **may** monitor CYKF Tower frequency on 126.0 or the Common Traffic Area Frequency (CTA) of 123.025. If you hear aircraft reporting near or over ST JACOBS, perform additional visual scans and be mindful of the reported altitude.
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 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.
 - 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. Thereafter modeling activities may resume as normal.

Program Director, Air Boss, ATC Coordinator

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 (above 400’), 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 (above 400’), 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 operators' 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

The KWFD provides a dedicated training night for new pilots to learn in a controlled environment. Please consult our club website for dates and times.

Students who have not passed the mandatory “wings” test cannot fly unsupervised. They must fly within physical reach of:

- A KWFD Instructor who is instructing the student
- A pilot with at least 2 years of experience who agrees to supervise and assist.
- Wings tests are available at the discretion of the instructor and not of the student
- A Student must pass a “wings” test before they are permitted to fly un-accompanied. The wings test must be witnessed by an instructor and one additional pilot.

Spotters

Spotters are required when 3 or more flight stations are in use. (Hosted events require mandatory spotter to fly).

- Spotter may stand where the Pilot deems safe for them to operate the RPAS safely
- Spotters job is to monitor other aircraft and airspace to aid the Pilot.
- Spotter notifies the Pilot of possible actions required for proper avoidance and safe operation of RPAS

Airspace requirements or permissions

This site is located in uncontrolled class G airspace.

1. RPAS CAR requirements - The nearest controlled airspace vertically starts at 700’agl (Class E TA) and laterally is 4.7nm southwest (CYKF Class C CZ). RPAS operations above 600’agl are not permitted.

Adjacent Aerodrome Procedures (within 3nm)

There are no aerodromes within 3nm of this site, therefore MAAC see and avoid procedures are deemed adequate for aviation safety.

Normal mRPAS/RPAS/model operating procedures

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 (BKN or OVC) present less than 1000' above the 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. a horizontal visibility of 3sm (5km) or more around the flying area exists, and
 - d. no other local obscuring conditions (fog, smoke, haze etc.) exist 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 required 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
 - 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 Kitchener weather channel time to determine legal night.
5. There is no maximum limit on the number of airborne RPAS permitted, provided all pilots agree to any additional airborne RPAS that exceed available pilot stations, and those pilots stand near the pilot's stations. Pilots may fly in formation provided they agree to do so.
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.

- a. All airborne activities (Flying, Gliding, hovering etc.) must be done 7 meters in front of the flight stations
 - b. Heli hovering is permitted off to the side of the field away from the pit area when no people are in the vicinity and the flight line is occupied.
 - c. No flying is permitted over the river to the right, the back side of the hill to the left and the far bush directly across the field.
 - d. When taxing back to the pit area, all engines/ motors must be rendered inactive before crossing the “deadline”
 - e. See Event rules section for Scale Air show layout.
7. MAAC required buffer distances are variable and at this site are:
 - a. 7m from flight line to pilot stations, 10m from flight line to pits, and 30m from flight line to spectator and parking.
 - b. Free flight and rockets are not allowed during RPAS operation.
 - c. No flying during grass cutting and field maintenance.
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 startup area.
 - a. No cases or boxes of any kind are permitted on any portion of the runway. They must remain behind the flight line.
 - b. If tools are required to repair an aircraft, please remove the aircraft from the runway and repair in the pits area.
 - c. Daily range checks and failsafe checks shall be done in the pit area.
9. All models, including electric powered models, will be restrained before being armed or started in the designated startup areas.
 - a. RPAS must be restrained and pointed away from spectators/bystanders in case the restraint fails.
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.
 - a. Internal combustion engines and electric aircraft with loud prop noise shall not be operated prior to 9am.
 - b. No flying of any kind is permitted between 11pm and 5am
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. Hand launching and bungee launching shall be done in agreement with any pilots flying – normally off to one side of the pilot stations.
 - c. Pilots shall take off into the prevailing winds, or otherwise in agreement with all pilots flying.
 - d. No person shall proceed past abeam the pilot stations without permission of other pilots flying.
 - e. The recovery of downed models in the flying area shall not be done without the agreement of all pilots flying. Thereafter no new models may take-off until the downed model is recovered. No flying directly over the recovery crew.

Non-RPAS Normal Modeling procedures

An RC tank club located on the grounds in the parking lot is NOT part of the KWFD and has a separate agreement with the landlord.

Free Flight model operations

Aviation safety

1. No member shall launch a free flight model aircraft if a full-scale human carrying aircraft is in the immediate vicinity of the launch site.
 - a. There are no aerodromes within 3 nm of this site.
 - b. Prior to launching/releasing any model, the modeler or their spotter shall scan the sky in a full 360 degrees for any approaching full-scale aircraft. The flight shall not occur until all involved are satisfied that there is a safe launch window.
2. No free flying model aircraft operations will occur below the site's mandated weather minimum. Members may determine the weather themselves with direct observation or use any other source:
 - a. If cloud is present below 1000' above the model flying area (**above max free flight expected altitude**)
 - b. a horizontal visibility requirement of less than 3sm around the modeling area, and
 - c. if there are other obscuring conditions (fog, smoke, haze etc.) which could make spotting full-scale aircraft **or bystanders difficult**.

Public safety

1. All members shall ensure that the launching area is clear of all obstructions and persons except for mechanics and/or officials.
2. MAAC "spotters" are optional at this site. The following are site procedures for ensuring by-stander safety:
 - a. When any member or other person spots a by-stander approaching the launch or recovery area that might present a safety concern, they are to yell out "BY-STANDER" in a loud voice.
 - b. ALL members must immediately stop any launch preparations and disarm the power/launch system.
 - c. If a model has already been launched, the spotter or modeler should endeavor to warn the bystander to remain clear of the launch/recovery area and outside the safety buffer distance. Yelling in a firm loud voice "STOP - stay back" and waving your arm(s) is suggested.

Member safety

Pilots shall take turns flying when different types of models are in use. Pilots will agree with each other when they are planning to switch model types.

It is up to the pilot's discretion if they wish to allow a different model type to fly while they are flying. RPAS operation is not allowed when FF models are being flown.

Spectator safety

FF aircraft must be launched 40m downwind from any spectators. No further restrictions are required unless the site requires it.

Space model operations (Rocketry)

1. No space model launches will occur below the site mandated weather minimum. Members may determine the weather themselves with direct observation or use any other source:
 - a. If cloud is present below 1000' above the model flying area (**above max rocket expected altitude**)
 - b. a horizontal visibility requirement of less than 3sm around the modeling area, and
 - c. if there are other obscuring conditions (fog, smoke, haze etc.) which could make spotting full-scale aircraft **or bystanders** difficult.
2. No member may launch a rocket unless 10 seconds before launch and again immediately before ignition they conduct a 360-degree scan of the sky for any full-scale aircraft which may enter the rocket flight envelope during ascent or descent.
 - a. If prior to launch, any member spots an approaching full-scale airplane they are to yell out "AIRPLANE" in a loud clear voice.
 - b. Upon hearing this, any persons controlling the launch shall immediately render the launch system inoperative (remove launch key, remove power etc.) and stop all launch activities.
 - c. The involved members shall then monitor the full-scale aircraft and not resume launch activities until they are assured there is no safety risk.

Public safety

1. All members shall ensure that the launching area is clear of all obstructions and persons except for mechanics and/or officials.
2. MAAC "spotters" are mandatory at this site. The following are site procedures for ensuring bystander safety:
 - a. When any member or other person spots a by-stander approaching the launch or recovery area that might present a safety concern, they are to yell out "BY-STANDER" in a loud voice.
 - b. ALL members must immediately stop any launch preparations and disarm the power/launch system.
 - c. If a model has already been launched, the spotter or modeler should endeavor to warn the bystander to remain clear of the launch/recovery area and outside the safety buffer distance. Yelling in a firm loud voice "STOP - stay back" and waving your arm(s) is suggested.

Member safety

Launch sites must be roped off with hi visibility tape and/or marker pylons and rope to restrict access into the launch area and keep guests and spectators a safe distance back from the launch site.

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.

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	Distance and Direction	Altitude	Contact Info
Below 400'	CYKF Class C CZ	4.58nm SE	SFC to 2900'AGL	Toronto Flight Information Region (905) 676-4509
Above 400'	Same			

b. Vertically

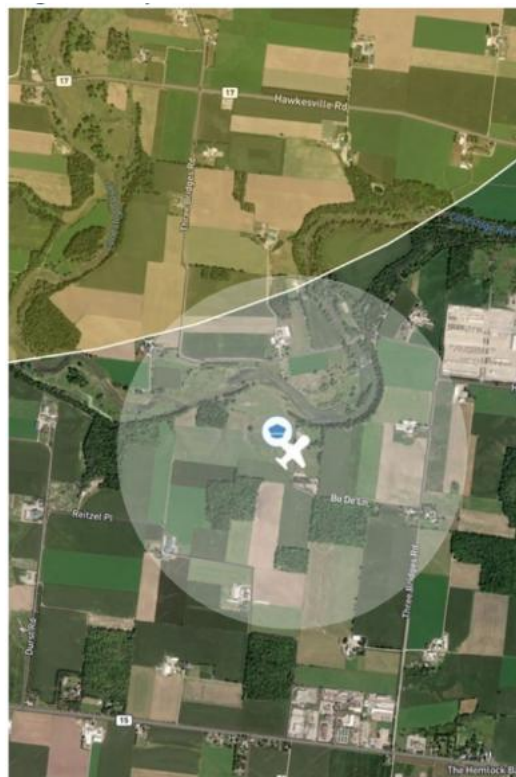
If you experience a fly away while operating at higher altitudes (above 400'), or if the model is climbing uncontrollably and in the pilot in command's judgement may enter overlying or adjacent controlled airspace, contact the listed agency as soon as possible.

Nearest Controlled Airspace – Fly-away - Vertically				
Location	Name, Class Type	Based at	Other	Contact Info
Over site	CYKF Class E TA	700'AGL		Toronto Flight Information Region (905) 676-4509

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.

- If the member(s) involved believe the risk was very minimal, they may complete their own self declaration or risk assessment using the MAAC/TC form. Submit a copy of the form to the Site/Event organizers when able and recall that if this involves RPAS you must keep this form for one year (CAR901.49 (2)). Resume flying/modelling when done.
- If the member or Site/Event operators deem 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 bystander, 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

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/owner's 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 other 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.

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.

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 are no controlled airspace volumes (based at the SFC or starting higher) within 2nm laterally of this site. The nearest controlled airspace laterally is Kitchner Waterloo Regional Airport (CYKF) Class C Control Zone airspace located 4.58 SW. Controlled airspace vertically over this site is based at 700'AGL (CYKF Class E TA).

1. 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 of 100' below class E TA airspace, therefore **the highest altitude MAAC can approve is 600' AGL (above ground level).**

Sufficient Communication requirements

There are no aerodromes within 3nm of this site. There are no protected airspace volumes, depicted air routes, however there is a published VFR reporting point and aircraft flight paths near this site that require communication capabilities. Assessment of the normally expected traffic patterns yields the following:

1. The VO **shall** be briefed on the existence and purpose of the ST JACOBS VFR reporting point and to be vigilant watching for VFR aircraft departing CYKF over this point – at low altitudes.
2. While operating RPA above 400', the VO or other responsible person may monitor aviation communications as follows:
 - a. Kitcher Waterloo ATC Tower on 126.0, or
 - b. Kitchner Waterloo Common Frequency Area (CFA) frequency 123.025)
 - c. Frequency monitoring is 100% optional.

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 needed, equip the VO with a noise making device to supplement any aircraft warnings.
2. The VO shall be briefed on the ST JACOB VFR reporting point and route, and to be vigilant watching for VFR aircraft departing CYKF over this point – at low altitudes.
3. The VO may be equipped with VHF radios.
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.
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. 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 (RPIC)

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

Event Rules and 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, you **must** meet the MAAC SFOC requirements (the SAG will work with clubs on the rules required). 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 (MPPD14 approved July 2023). Foreign pilots simply join MAAC and follow the provisions of MPPD14 (on the website). Also see the RPAS Wilco NOTAM (2024-02).

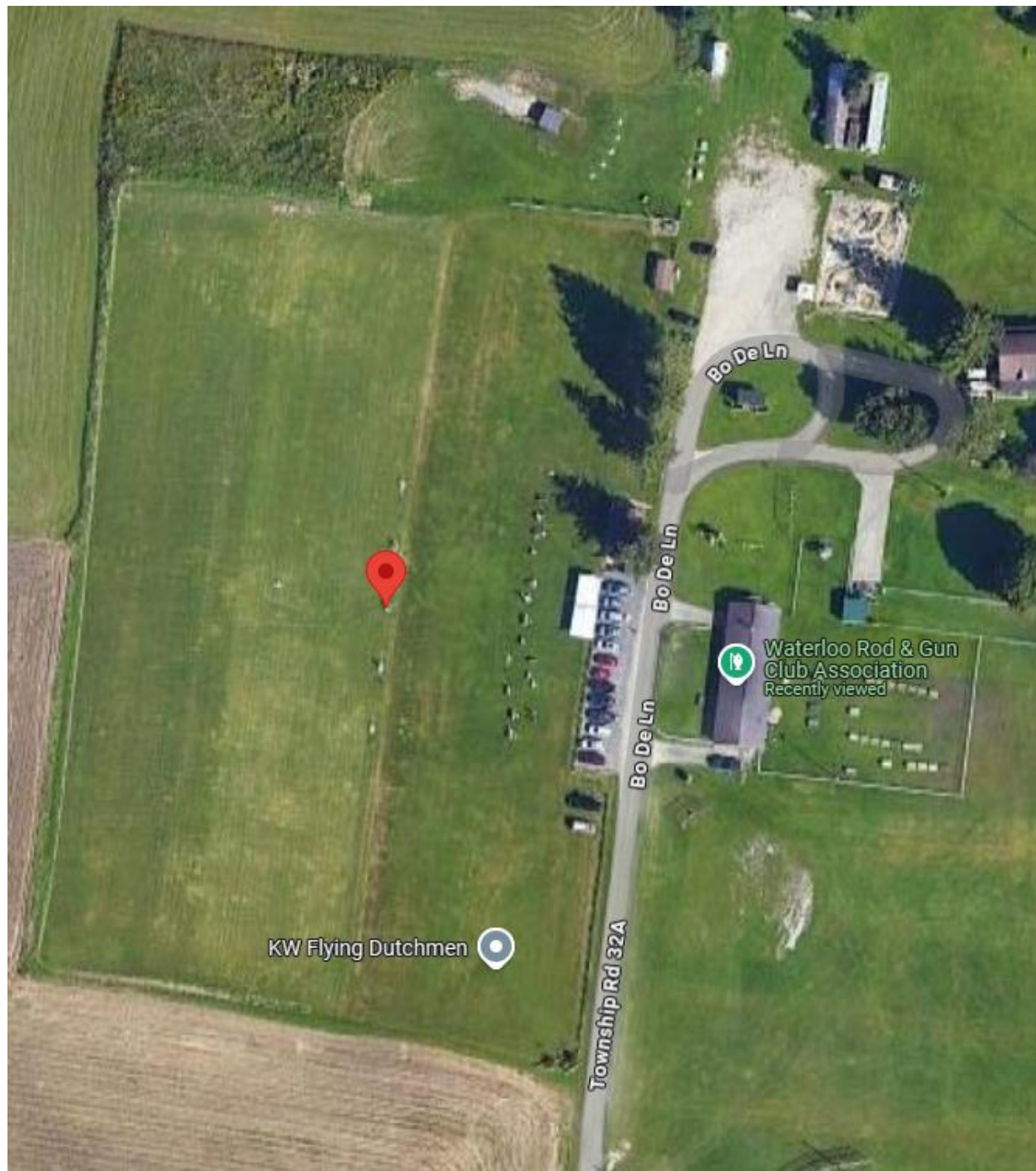
Over 400'agl and above 25kg - Not approved

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 the MAAC events warning sign is posted for the event.
 - e. Ensure all attending modellers/RPAS pilot are **current MAAC members**.
 - f. Take reasonable steps to ensure all attending modellers/RPAS pilots **receive a briefing** on site or event rules using the MAAC minimum checklist.
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.
 - c. All RPAS pilots sign the Transport Canada sign in sheet.
 - d. All RPAS pilots receive a briefing on site rules and

- e. A visual observer is always present 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.

Diagrams/maps



AERODROME/FACILITY DIRECTORY

TRANSPONDER MODE C REQUIRED IN CLASS E AIRSPACE WITHIN 65NM OF YYZ VOR ABV 6500 ASL

ELMIRA EAST
WOODS FIELD
ST. JACOBS
Kitchener-Waterloo
NOISE SENSITIVE AREA
SUNRISE CENTRE HWY 7/8
CONESTOGA COLLEGE
CYR 533 To 1500 cont

MARYHILL
WATERLOO
DUMFRIES
NOISE SENSITIVE AREA

Guelph
NOISE SENSITIVE AREA
AUTOMALL
REID'S FIELD
HWY 401 / PUSLINCH LAKE
ROCKTON

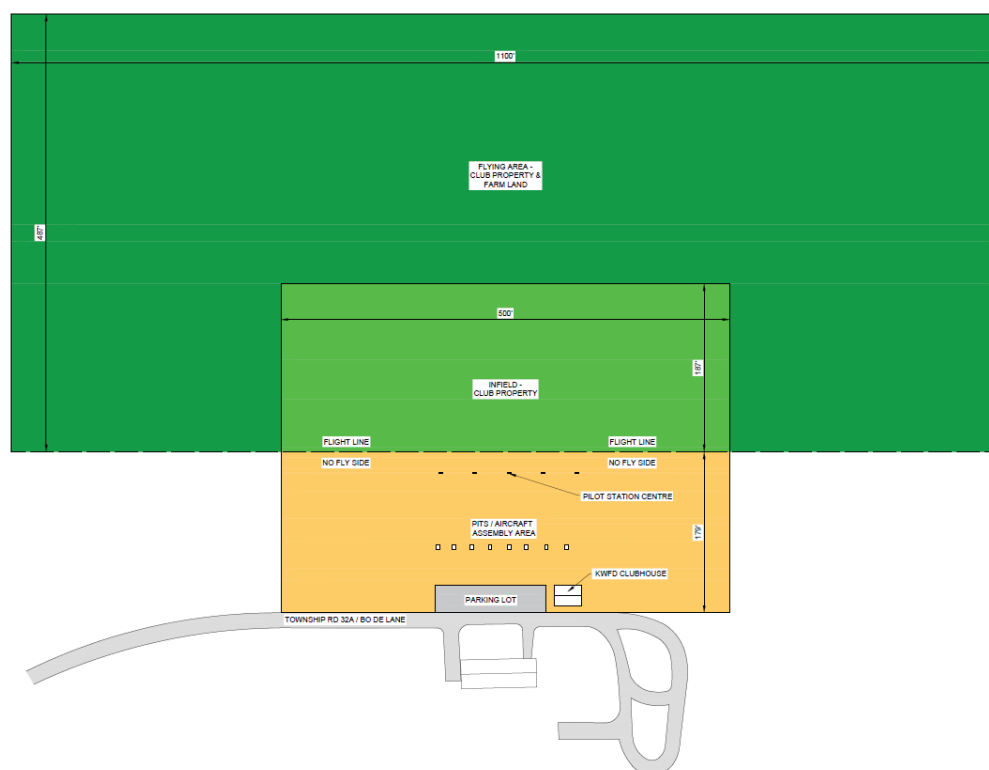
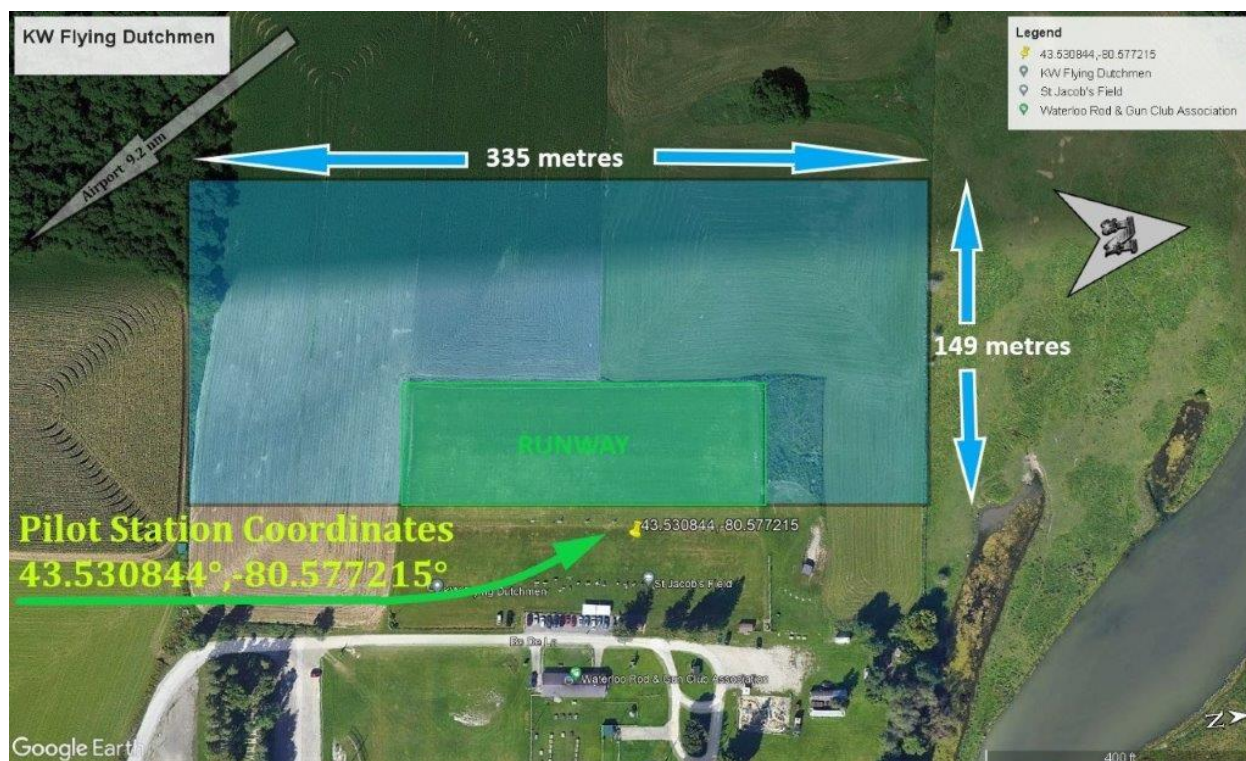
LIBIL
TML 119.3 C
ABV 45
NO CONTACT E
7 AGL

CAUTION (APR-NOV) GLIDER ACTIVITY WITHIN 5NM ROCKTON AERODROME & ON CROSS COUNTRY ROUTES RUNNING NORTH BETWEEN CYKF CONTROL ZONE & GUELPH AERODROME NOTAM ISSUED FOR SIGNIFICANT ACTIVITY

SEE BACK OF VTA AND CFS PLANNING SECTION FOR INFORMATION ON TORONTO COMMON FREQUENCY AREAS (CFA) AND VFR TRANSIT ROUTES.

0 5NM





WARNING!



**AEROMODELING
MAY CAUSE
SERIOUS INJURY!**

**PROCEED AT
YOUR OWN RISK!**

AVERTISSEMENT!

**L'AÉROMODÉLISME
PEUT CAUSER
DES BLESSURES GRAVES!**

**PROCÉDEZ À VOS PROPRES
RISQUES!**