

**Keswick Model Club
Main Field
Rules (2024)**

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: Keswick Model Club Inc (#333, Zone L)

Field Name: MAIN FIELD

Location: 565 Varney Rd, Keswick, Ontario, L4P 3G1

Pilot Station Coordinates: 44° 16' 36.3"N, 79° 28' 28.4"W

Contact(s): Karl Goinarov, 11254L, President,
(905) 251-5521 karlofkeswick@rogers.com

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

1. be MAAC members in good standing.
2. be members of Keswick Model Club Inc, or an invited guest of Keswick Model Club Inc 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. Visitors should be made to feel welcome but should be reminded to keep their children or pets under control and away from the pits and flight line.
2. A member may bring a guest who may fly in the presence of the member. The guest flyer must be able to show proof of MAAC membership. The host member shall be held responsible to ensure the competence of the guest and that the field rules are maintained. The number of visits by a guest shall be limited to three.
3. Members may only fly models between 8:00AM and 9:00PM.
 - a. Properly equipped Night Flying electrics are permitted after dark.
 - b. No flying internal combustion powered models before 10:00am.
 - c. No activity of any kind is permitted at the field when there are funeral services being conducted at the adjacent field. See additional rules for above 400'agl operators.
4. Obnoxious behaviour and foul language are not permitted
5. Smoking is allowed in the designated area only. Alcohol is not permitted anywhere on the property
6. All Vehicles must be parked in the parking area or if the parking area is full, in the field at 537 Varney Rd., maintaining minimum distances from the flight line
7. All Members must prominently display a copy of their current MAAC and Club membership cards while at the field. Cards may be displayed on Flight box, Flight Bench or on the person.

8. Trash must not be left on the field. Please pick up your own and any other trash you may find and take it home. Even the smallest pieces of trash (rubber bands, prop blades, etc) should not be left on the ground.
9. For Events – All Pilots will attend a mandatory pilots briefing prior to the start of flight operations, covering all rules and procedures for the event. Members are responsible for briefing their guests on the rules prior to their guests flying at the site
10. The rules will be reviewed annually and updated as required by the Club President or a duly designated Club Executive member.

Site/event emergency response requirements

In the event of an emergency, call (9-1-1) - the site address to be provided to first responders is : 565 Varney Rd, Keswick, Ontario, L4P 3G1. Enter from the cemetery and proceed to the back of the lot.

1. Fire Extinguishers will be provided by contest director at the flight line.
2. A First Aid Kit is located in the club trailer.

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	Less than 25kg	400'agl/ 1100'agl***
Tethered (Control-Line)	Not approved	
Free flight		
Space Models		
Surface Vehicles		

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	Not approved	
RPAS Altitude	Less than 25kg	1100'agl***
RPAS Altitude and Weight	Not approved	
Permanent Event Approval		
RPIC		

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.
2. RPAS CAR requirements – There are no special CAR restrictions on RPAS models operating under 400'agl.
3. Club/Site/Event requirements
 - Wide band radio equipment on 72MHz may not be used at Keswick Model Aircraft Club fields
 - Operating any mobile device while operating an RPA is prohibited, unless that mobile device is uniquely in communication with the RPA for the expressed purpose of providing telemetry data and/or streaming video feed from the RPA to the mobile device directly related to the purpose of that flight (e.g. first person view goggles, wifi streaming video, flight monitoring data, etc)
 - Engines larger than .09cid must be equipped with an effective muffler. All engines must not exceed noise levels as follows: All engines must not exceed a noise level of 90 dB. The noise level is defined as the average of four readings (front, rear, left, and right) measured with “A” weighting, 3 ft (1m) above the ground and a distance of 10 ft (3m) from the model
4. MAAC Add-on requirements – RPAS Pilots operating 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 must be flown at the field according to flightline rules at the field. mRPAS do not require an RPAS operators' certificate however are regulated under CAR900.06 and part VI of the CAR. **There are no MAAC or CAR age restrictions on mRPAS flight.** Compliance with MAAC safety code meets all requirements.
2. RPAS Pilot CAR requirements - All RPAS pilots using this site operating under 400'agl must have BASIC RPAS certification.
3. Club/Site/Event requirements - This site requires:
 - a. any RPAS pilot have issued a Wings designation to the pilot, or MAAC Wings. Non-wings pilots must operate under the supervision of a club instructor.
 - b. Guest pilots must fly in the presence of the member who invited them.
 - c. A student flyer must fly with a club instructor by their side until they are competent and authorized to fly solo (per Log Book signoff).
 - d. All pilots should fly within their own ability, and get help if they are in doubt
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
1. RPAS CAR requirements - Visual Observers are optional for flying below 400'
2. Club/Site/Event requirements – None
3. MAAC Add-on requirements - RPAS crew supporting 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 operation over 400'agl or events open to the public**. 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. The VO shall be briefed on the requirements related to memorial services at either Keswick Cemetery or Ash park, and the no-fly requirements from vehicles operating on “The Queensway N”. These duties may be assigned to another responsible person, or spotter(s).
 - e. 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.
 - f. 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.

2. These rules ensure a clear 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 (by any person in attendance) 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.

Air Boss – ATC Coordinator

This site is in uncontrolled airspace – an Air Boss is not required

RPIC – RPAS Pilot in command

Not approved

Instructors/Demo flights

A club instructor may give introductory flights to visitors as part of promotion of the hobby, the club and MAAC.

Instruction and demonstrations are prohibited above 400’agl.

Spotters

Are not required, but may be used to monitor by-stander use of Keswick Cemetery or for vehicle traffic on “The Queensway N”, as appropriate.

Airspace requirements or permissions

This site is in uncontrolled Class G airspace - airspace permission is not required.

The nearest controlled airspace vertically is Class E (Southern Ontario Low Level Control Area (CAE) at 2500' msl (1680' agl). Site elevation is 820' asl.

Laterally the nearest controlled airspace is Borden Class E Control Zone 18.nm West.

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, at least one member shall check the Aviation NOTAM for Gilford Aerodrome (CGF6) using either the NAV CANADA website or RPAS Wilco. They may share the results with other site users either verbally, electronically or in print. Every member is still responsible to ensure they have the latest NOTAM information in some fashion.
2. The MAAC mandated minimum weather conditions to commence or continue MAAC RPAS operations are:
 - a. no cloud ceiling (BKN or OVC) **estimated** at 1000' agl if operating at an altitude less than 400', or less than 2100' if operating above 400', and
 - b. the RPA will be able to remain 500' vertically and 1 sm (statute mile) horizontally clear of any cloud, and an **estimated** horizontal visibility of 3sm (5km) or more around the flying area, and
 - c. no other obscuring conditions (fog, smoke, haze etc.) which could make spotting full-scale aircraft difficult.

NOTE – there is no aviation weather available for this site so 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. 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 each visually confirm no changes to site obstructions, local obstacles and that weather conditions stipulated in any MAAC requirements are met.

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 Uxbridge weather channel time to determine legal night. Only properly equipped Night Flying Electrics are permitted.
5. Pilots may fly in formation provided they agree to do so.
6. Normal site set-up areas such as parking, spectator areas, pit, or assembly areas, and start-up/run-up areas including confirmation of the MAAC required buffer distances are as follows:
 - a. The MAAC minimums should normally be respected – 7m flight line to pilot stations, 10m to pits, 30m to spectator and parking.
 - b. Please see the published Field Layout diagrams for specific layout details.
 - c. A transmitter on 72MHz must not be turned on unless a pin has been placed on the appropriate place on the frequency board. The pin should only cover one position and be labeled with the flyer's name and channel number. It is the flyer's responsibility to remove the pin from the board when not flying or using the transmitter.
7. Pre-flight assembly and daily testing requirements.
 - a. For any operation relying on the MAAC manufacturer declaration (SFOC), RPA fail safe setting must be active and must be confirmed.
 - b. All aircraft equipped with a RPA failsafe system must have said system tested for expected behaviour prior to first operation
 - c. A range check should be performed prior to first operation
 - d. Aircraft must be restrained in the pits when performing a failsafe test and/or range check
8. All models, including electric powered models, will be restrained before being armed or started in the designated startup areas.
 - a. Taxiing is not permitted behind pilot stations or anywhere in the pits
 - b. Gas/glow/turbine models must be restrained and started in the start-up stands or similar located in the start-up area. Do not conduct prolonged tuning if other pilots are flying.
 - c. Batteries shall not be connected to electric-powered models unless the model is restrained in the start-up area – no exceptions.
 - d. Rotating propellers are dangerous. Before starting the engine, move field boxes, fuelling lines, starter cables, etc. well away from the arc of the propeller. Warn others not to stand in the line of the propeller and be sure that the propeller blast is not going to affect any RPA or equipment parked next to you. If you need to run an engine for an extended period, please take it to a remote location
9. Please see the published Field Layout diagrams for specific layout details 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. Below 400'agl, pilots should refrain from flying loud models when any persons are at the Keswick Cemetery or Ash Garden.
 - b. **All operations are prohibited while either site is being used for any type of memorial service.**
10. The following are the site take-off, approach, landing and recovery procedures:

- a. Pilots must loudly announce their intentions (“take off”, “landing”, “entering the field”, etc) to other pilots. Other pilots should acknowledge the announcements
- b. All flying is done from a pilot station. Pilots may enter the runway during takeoff or landing, but must return to their pilot station immediately after the maneuver is complete
- c. Hand launching and bungee launching shall be done in agreement with any pilots flying – normally off to one side of the pilot stations/dock.
- d. Pilots shall take off into the prevailing winds, or otherwise in agreement with all pilots flying.
- e. After takeoff the pilot shall make the first turn in a direction away from the flight line
- f. No person shall proceed past abeam the pilot stations without permission of other pilots flying.
- g. 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.
- h. Deadstick and gliders take landing priority over other RPA
- i. If this is the maiden flight of the RPA, or the first flight after major repair, please warn other pilots, who should give the maiden flight clear airspace.

Emergency procedures

Fly-away or lost link.

This site is wholly in uncontrolled airspace. Regardless of altitude there are no specific fly-away notification requirements.

Incident Accident

1. 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.

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.

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 10+nm east (CFB Borden Class D CZ).

Controlled airspace vertically over top this site starts at 2500'msl (Southern Ontario CAE Class E).

1. To determine the maximum permissible RPAS altitude above ground level, subtract the site elevation in MSL from the base of controlled airspace in MSL (2500 – 820 = 1680'msl).
2. MAAC RPA are required to remain 500' below the base of any over lying controlled airspace, therefore **the highest altitude MAAC can approve is 1100' 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, or commonly used tracks near this site that require communication capabilities. Assessment of the normally expected traffic patterns yields the following:

1. There are no aviation communication requirements.

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 position 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 briefed to ensure vehicle traffic on **"The Queensway N"** is monitored and that pilots are advised to not overfly the road when vehicles are present. Monitoring the road may be assigned to any responsible person, provided any notification rules and process is clearly explained to all involved.
3. **Keswick cemetery and Ash Garden** are behind the flights lines which must be strictly enforced. No flying shall occur if there are any type of memorial services being conducted. The VO or designate shall monitor for these events.
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. Non-essential ambient noise shall be kept to an absolute minimum (generators, music, etc) when operations above 400' are occurring.

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. Comply with MAAC 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 supervisions 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 responsible persons 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 bailed 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 bailed 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

Event Approval (Permanent or individual)

This site has not been approved for permanent event approval – all events must be processed per below. If you have any doubts about your event, contact your Zone Director or the SAG directly.

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).

Event Rules

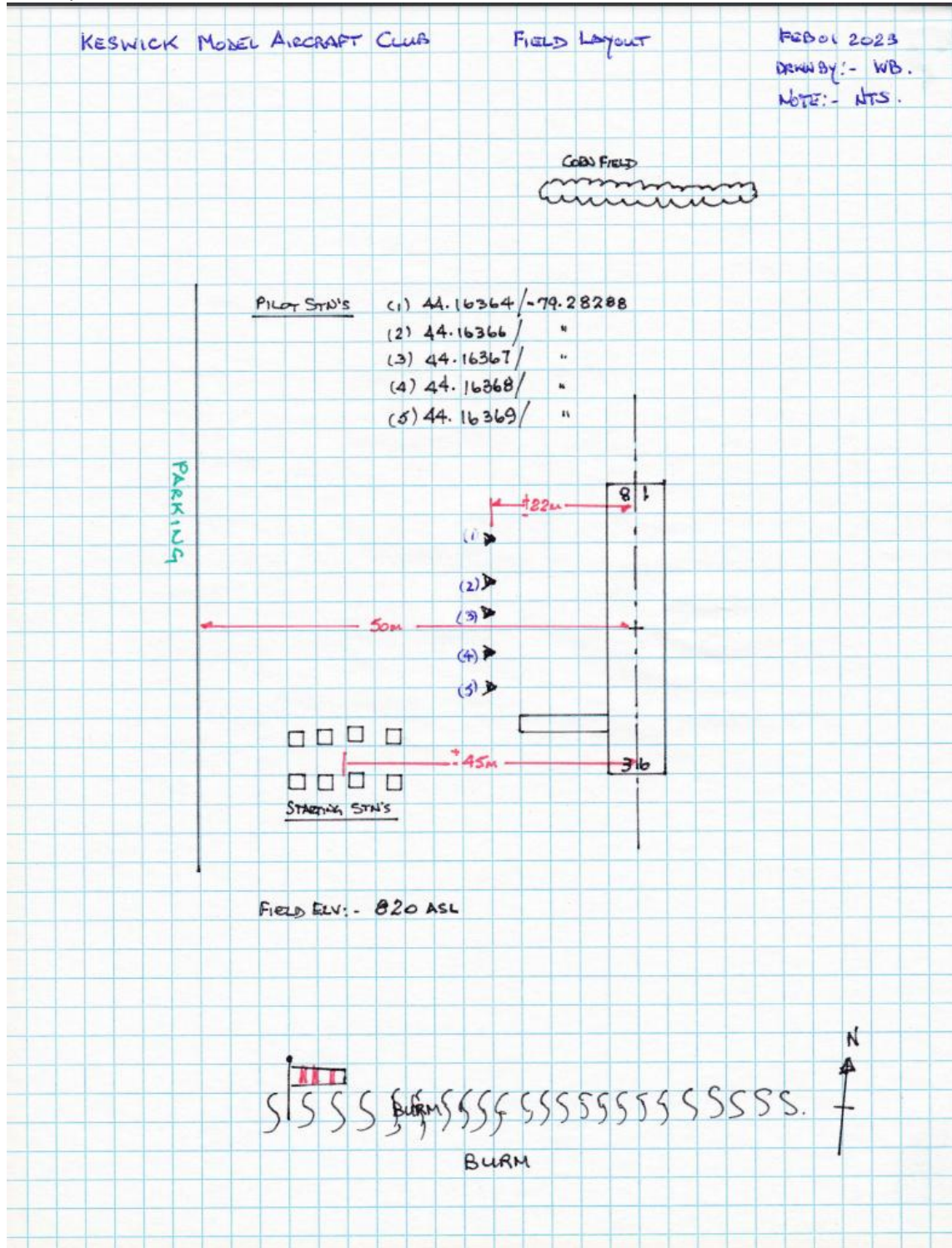
The following are the normally expected process and rules for an event.

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 (attached).
 - g) Ensure all follow up actions are completed after the event, most notably any Transport Canada paperwork.
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.
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.

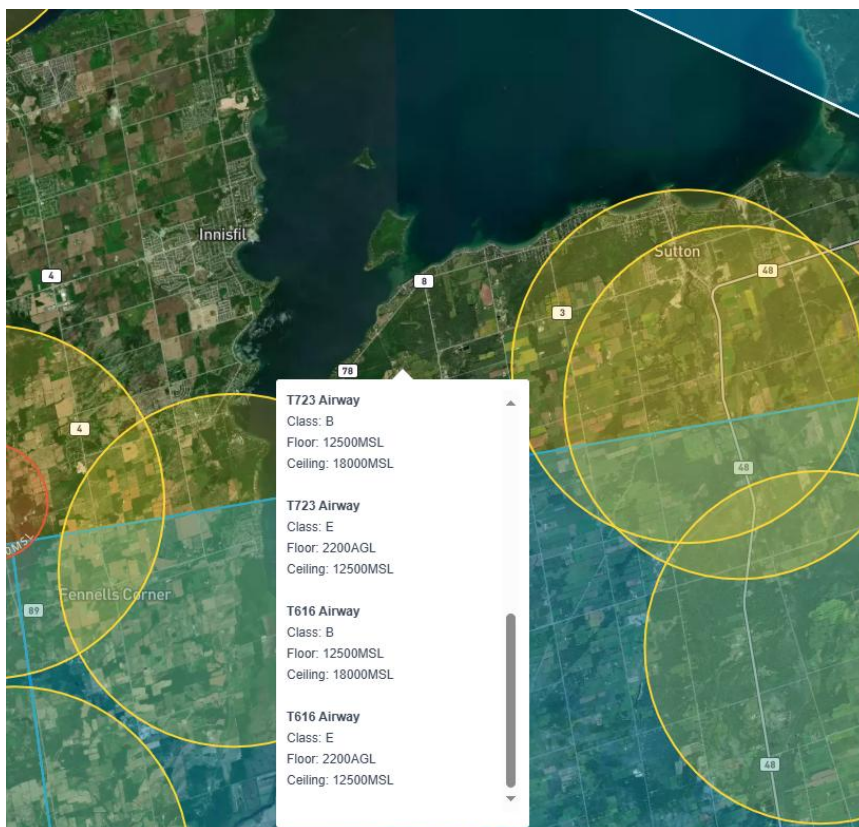
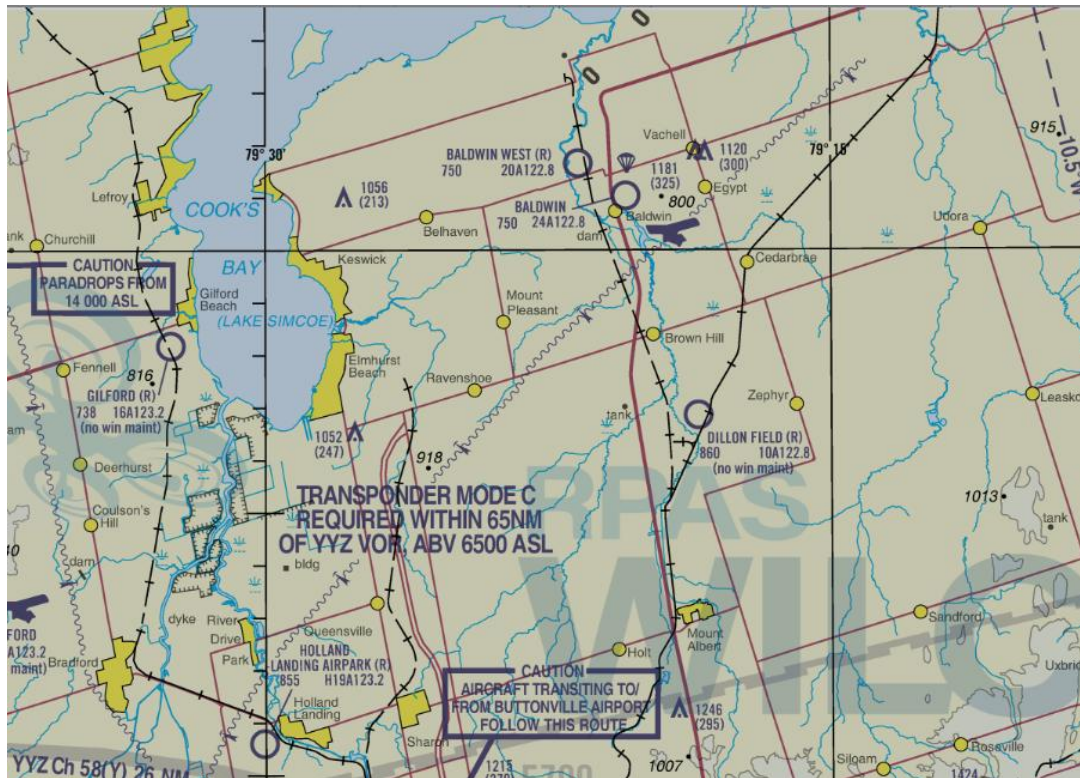
Diagrams/maps

Site Layout



Flying Area





WARNING!



**AEROMODELING
MAY CAUSE
SERIOUS INJURY!**

**PROCEED AT
YOUR OWN RISK!**

AVERTISSEMENT!

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

**PROCÉDEZ À VOS PROPRES
RISQUES!**