Thunder Bay Model Airplane Remote Control Club
Lakehead Aeromodellers Main Field Rules
Elevation: 765' MSL

The following rules package must be available to all RPAS Pilots while operating RPAS at this site, either electronically or in print. Members can find a hard copy of these rules in the impound building mid field. Nothing in these rules relieves the RPAS pilot of their individual CAR compliance requirements.

ADMINISTRATIVE RULES

General

Club: LAKEHEAD AEROMODELLERS (#174, Zone D)
Field Name: LAKEHEAD AEROMODELLERS MAIN FLYING FIELD
Field Owner: Lindsey David
Location: 100 McCluskey Drive
Slate River Valley
Ontario, Canada
P7J 0B1

Pilot Station Coordinates: N48°18'40"- W089°28'30"
Contact(s): Marco Grenon, MAAC #84558, President
gazoo.grenon@gmail.com
807-633-1761

Condition for Use

All persons using this modelling site must:

- be MAAC members in good standing
- be members of Lakehead Aeromodellers Club, or an invited guest of Lakehead Aeromodellers Club and
- 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.

Proof of current year MAAC membership must be made available, if requested by any member of the club executive.

Thunder Bay Model Airplane Remote Control Club / Lakehead Aeromodellers field rules and MAAC Safety Code must be observed at all times.

Club's guest

Club's guests qualified pilots are welcome to use the field a maximum of (3) times in the calendar year. They must also hold a current year MAAC membership.
Club's guest flights are only allowed under the direct supervision of a qualified pilot member.

Access Road & Parking
Parking is only allowed is the area shown in appendix E.
Parking along the access road is strictly prohibited at ALL times.
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.

Alcohol / Drugs
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.

Pets
All pets must be leashed, under control and remain in the parking / spectator area. (See appendix E)

Garbage / Cleanliness
Everyone must remove their own garbage from the field at the end of their flying day.
It is everyone's repsonsability to keep their area clean and safe for all. A few garbage cans were strategically placed for your use.
A porta potty is available on site during active months for all members, guests and spectators.

Spectators
Spectators are to remain behind the main fence line at all times. (see appendix E)
Absolutely no spectators are allowed in the Pit, Start-up, shutdown and pilot station areas.

Review
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
Ontario, Canada
P7J 0B1

General
Members are required to report all incidents or accidents between Club models and other aircraft or persons on the ground, that are not members of MAAC, to a member of the club executive or the Zone D, Zone Director.

Safety equipment:
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.

First aid kits are also available on site. One is located in the impound building and a second one is hung inside the kiosk building.

Members operating turbine models shall have a personal ABC fire extinguisher beside them when starting their models in the start-up area.

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	Rules
mRPAS	Less than 250g	400'AGL	Site Rules
RPAS	250g to 25kg	400'AGL/700'AGL***	Site Rules
Tethered (Ctrl-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. The rules are explained in each sub-section of this document.

Approved Add-on	Weight/Power Limits	Altitude/operating limits
RPAS Weight	**Not approved**	
RPAS Altitude	250g to 25kg	700'AGL
RPAS Altitude and Weight	**Not approved**	
Permanent Event Approval		
RPIC		

RPAS/Model Technical Specifications or Requirements or Restrictions

- 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.
- RPAS CAR requirements - There are no special CAR restrictions on RPAS for below 400' operations.
- Club/Site/Event requirements - Mufflers are required on all engines over 0.156 cu. in displacement. No flow through mufflers are allowed.
- 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

- mRPAS requirements – 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.
- RPAS Pilot CAR requirements. All RPAS pilots operating RPAS below 400'AGL must have BASIC RPAS certification.
- Club/Site/Event requirements. This site recommends all mRPAS/RPAS Pilots have MAAC Wings, however its use is not mandatory. There are no other qualification requirements for other modelling categories.
- 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

- 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 visual observer (VO).
- RPAS CAR requirements – members wishing to fly a RPAS model in First Person View (FPV) shall use a visual observer (VO).
- Club/Site/Event requirements – **FOR EVENTS ONLY, Visual Observers are mandatory where the public is in attendance.** Spotters are highly recommended for all flights but it is up to the member to decide.
- MAAC Add-on requirements – RPAS pilots operating over 400'AGL must comply with the MAAC/SFOC CREW requirements listed in the add on section of this document.

CREW RULES

Visual Observers (VO)

Definition: Visual Observer – is a trained crew member who assists the modeller/pilot in ensuring the safe conduct of a flight under MAAC VLOS. They are assigned the role of scanning the sky in all directions for approaching full-scale aircraft and providing timely warnings or advisories to any other modellers (Detect and Avoid responsibilities (DAA)). RPAS VO must be trained or briefed to the standard listed in the SOC or site rules.

Visual Observers **are required** for ALL FPV flights regardless of weight and size of the model.
Visual Observers **are required** for ALL RPAS flight above 400'AGL.
Visual Observers **are required** at all events where the public is in attendance.

When required at this site, no member shall operate an RPAS unless:

- 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.
- A minimum of one visual observer per flight line is required.
- VO must not watch the models – their sole role is to scan the surrounding sky for approaching full-scale aircraft.
- Positioning the VO where they have unobstructed sight lines is important – 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.

- 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.
- The VO shall be assigned VHF radio monitoring when required.

Whenever a VO is required, all other club members present must keep unnecessary noise to a minimum. No engine tuning or prolonged run-ups allowed.

Full-Scale traffic avoidance and reporting

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.

The following are the club procedures for ensuring full scale aviation safety:

- When any member, VO or other person spots or hears a full-scale airplane that might come near the site, they are to yell out "AIRPLANE" three times in a loud voice or use the airhorn located in the impound building. **If in doubt, issue the warning.**
- IF anyone is advised by ATC to stop or lower the altitude of operations, or hears any full scale pilot make a broadcast that indicates their aircraft may pose a risk, the person hearing the broadast (normally the VO) shall call out "AIRPLANE" as above.
- 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.
- **Lateral deconfliction maneuvers are prohibited above 60'AGL.** Descending to 60'AGL (tree top level) is the accepted Transport Canada initial response.
- IF ATC has issued the stop/lower altitude command/advice, no flying will resume until ATC provides information or clarification on resumption.
- When the full-scale airplane is no longer a threat, the person who gave the warning shall yell out "ALL CLEAR" three times.
- 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

RPIC is not authorized at this site.

Instructors/Demo flights

Instructors and their students always have priority over other member's flights. This goes also for frequency allocation of the 72MHz transmitters.

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

Definition: Spotters - is a person assigned the role of coordinating model movements with other modellers, for member and model safety. Normally a single spotter is assigned to each modeller, however a single spotter per flight line or modelling station is acceptable. The spotter watches the models and cannot normally be assigned the role of Visual Observer (VO). A spotter **can** be assigned the role of watching for approaching bystanders.

No specific spotters requirement is needed for the Lakehead Aeromodellers Club but highly encouraged during events.

Airspace requirements or permissions

There are no airspace permission requirements for this site, regardless of alitude.

Adjacent Aerodrome Procedures (within 3nm)

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

- The aerodrome name is Thunder Bay (Martin's Landing) (CML5) and it is located 2.9 nautical miles west southwest of our modelling site. (See Appendix F)
- The aerodrome has one grass runway (01/19) and is home to a private general aviation aircraft.
- 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 aircrafts 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.
- CLM5 has currently no CFS RPA procedures and no other CFS PRO comments that affect our modelling site. (See appendix H)
- 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. Our site is in uncontrolled airspace so there is no requirement to notify ATC.
- 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

NOTAM

Prior to daily operations, at least one member shall verify the Aviation NOTAM for Thunder Bay (Martin's Landing) (CML5) and Thunder Bay Airport (CYQT) using either the lakeheadrc.ca website, NAVCANADA website or the RPAS Wilco application on your device. 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.

Weather

The MAAC mandated minimum weather conditions to commence or continue MAAC RPAS operations are:

- No cloud ceiling (BKN or OVC) estimated at 1000'AGL if the site approved altitude is less than 400'AGL, or for RPAS pilots operating above 400'AGL, no ceiling at less than 1700'AGL, and

- 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
- No other obscuring conditions (fog, smoke, haze etc.) which could make spotting full-scale aircraft difficult.

NOTE – there is no aviation weather available for Thunder Bay (Martin's Landing) (CML5) 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.

Site Survey

MAAC endorses the use of a single shared RPAS Wilco site survey provided:

- 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.
- All site survey information is readily available to all RPAS pilots on site (electronically or in print). You can find the latest site survey on the lakeheadrc.ca website under the Site Survey section.
- Prior to each flying session, members must verify 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.
- Members must each visually confirm no changes to site obstructions, local obstacles and that weather conditions stipulated in any MAAC requirements are met.

Night Flying

- Night flying is only permitted if the mRPAS or RPAs are equipped with position lights sufficient to allow the aircraft to be visible to the pilot and any visual observer and those lights are turned on.
- Unless your model is properly equipped as per above, no flying will commence until sunrise and will end at sunset.
- Sunset and Sunset may be determine by using the Weather Network App and selecting the City of Thunder Bay or by consulting the lakeheadrc.ca website on under the site survey section.
- RPA operation above 400'AGL are NOT authorized at night.

Formation Flying

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.

Field Layout

You will find the LAM main flying site layouts at appendix E of this document. The main areas are:

- Runway
- Pilot Stations
- Pit Area
- Start up Areas
- Shutdown Areas
- Spectators / Parking Areas

Pre-Flight Assembly And Daily Testing Requirements

- Model assembly and setup shall be completed in the designated pit area.
- Range testing is only allowing in the start-up area.
- Batteries shall not be connected to electric RPA in the Pit Area.
- 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.

Start-Up Area

- All RPAs, including electric powered RPAs, must be restrained before being armed or started in the designated start-up areas.
- 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.
- Usage of a deflector during start-up is highly recommended for all turbine RPA.
- Engine run-ups are only allowed in the start-up areas.
- 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.
- 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 Area

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.

Flying Area / No Fly Zones (400'AGL and below)

A visual description of these areas is located in Appendices A and E of this document.
NOTE: The flying area for above 400'AGL operations is not the same as for below. (See Appendix D)

- The pilot stations are located at the following latitude and longitude: N48°18'40"/ W89°28'30".
- 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.
- All flying must be performed within the defined Flying Area. All other areas are defined as No Fly Zone.
- No flying permitted for any Models behind the Flight Line.
- **No RPAS are permitted within 30m of any vehicle or pedestrian using Highway 130. Use caution when overflying the roadway.**
- No flying permitted when grass cutting or field work is in progress within currently established leased land boundaries. (See appendix L)

Take-Off, Approach, Landing And Recovery Procedures

- 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.
- 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.

- 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.
- Hand launching and bungee launching shall be done in agreement with any pilots flying – normally off to one side of the pilot stations.
- All landings and take offs shall be "Called" to notify active pilots of intentions.
- 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.
- 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.
- Dead stick landings take priority – Active pilots to be advised of dead stick landings via a "DEAD STICK" callout from the unlucky pilot.
- No person shall proceed past abeam the pilot stations without permission of other pilots flying.

Maiden

Maiden of a new or rebuilt Model requires a second qualified pilot to act as a spotter. This applies when other pilots or spectators are present. Exclusive airspace is preferred, otherwise all active pilots at the pilot stations are to be notified prior to flight.

EMERGENCY PROCEDURES

Fly-Away Or Lost Link

This site is wholly in uncontrolled airspace and does not require specific fly-away procedures, except as follows:

- Regardless of operating altitude, if you have a fly-away NorthEast towards the CYQT Class D Control Zone airspace, and **if** you think the RPA has sufficient ability to fly the 2nm to penetrate the airspace, you should call the CYQT ATC Tower on their **emergency phone number 807-473-5252.**
- **For RPAS operations above 400'AGL,** if you have a vertical fly-away and the RPA will exceed 700'AGL, phone the **Winnipeg Shift Manager at 204-983-8338** and advise them of the situation.

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 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.
- 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.
- 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.
- This process is for **your** protection.

Model damage/repair protocol

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.

- Any repair other than minor (replacing broken propeller etc.) shall be treated as a maiden flight/operation. Ensure RPAS logbook entries are made.

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'AGL at this site.

Airspace Assessment

There is one controlled airspace volume (based at the SFC or starting higher) within 2nm laterally of this site, the Thunder Bay CYQT Class D Control Zone – 1.95nm Northeast of the eastern edge of the normal flying area. Controlled airspace over the site begins at 2000'MSL (CYQT Class E Transition Area). The site elevation as provided by the Club (using Garmin GPSmap76 using WGS 84 map datum) results in the base of controlled airspace being 734.1'AGL.

- The flying area for above 400' operations must be amended to remain clear of the buffer zone as depicted below.
- MAAC RPA are required to remain 500' below the base of any overlying controlled airspace, therefore **the highest altitude MAAC can approve is 700'AGL.**

Sufficient Communication requirements

There is one aerodrome within 3nm of this site, Martin's Landing CML5 2.92nm west. That uncontrolled aerodrome is of very low traffic density, although the circuit for RWY01 is right-handed placing it in proximity to the modelling site.

There are two IFR approaches for CYQT that pass near the site. (Appendices J & K) The RNP Y RWY 07 has two fixes near the site, one is almost directly over the site (DUNPO – crossing altitude 2100'MSL). Assessment of the normally expected traffic patterns yields the following:

- Prior to commencing RPAS operations above 400'AGL, the club shall contact the OPR of CML5 and advise of the intended high-altitude operations. Inability to establish contact with OPR shall not preclude RPAS operations.
- While operating RPA above 400'AGL, the VO **shall** monitor CYQT TWR Frequency 118.1 for indications IFR Aircraft are using either the RNP RWY 07 or the slightly less critical ILS or RNAV RWY 07 approaches. The lack of a radio shall not preclude operations. The VO shall be briefed to pay particular attention to IFR aircraft potential use of the RNP 07 approach (based on winds/weather of the day) and shall scan that area with extra vigilance if RWY 07 is active at CYQT.

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:

- 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.
- The VO shall be equipped with any required aviation communication devices, such as VHF radios per the above.

- 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.
- Non-essential ambient noise shall be kept to an absolute minimum (generators, music, etc.)

The Club/site/event shall:

- Ensure a copy of the MAAC SFOC #930344 and SFOC application form 26-0835 are present and available to all RPAS pilots when operations are occurring.
- Ensure all RPAS pilots intending to operate above 400'AGL are aware of the modified flying area.
- Ensure a copy of these rules, in their entirety are available to all RPAS pilots at the site.
- 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:

- Comply with MAAC policy
- 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.
- Ensure they abide by the modified flying area for operations above 400'AGL.
- Ensure all RPAS pilot CAR and SFOC paperwork requirements have been met and are available:
    - Certificates of registration, pilot RPAS certification and recency proof,
    - Govt issued photo identification,
    - Manufacturer owner's declaration for each RPA,
    - An altitude determination declaration as appropriate (pilot or each RPA) and
    - RPAS Pilot has completed Crew training and fitness requirements and signed declaration.
- Ensure a recent site survey and NOTAM check have been completed,
- Ensure any crew declare themselves as properly trained in accordance MAAC policy. Verbal confirmation is sufficient.
- 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.
- 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.
- 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:

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

The RPA shall be equipped with

- Functional “fail- safe” type device(s) or design per the MAAC manufacturer declaration
- Anti-collision beacon/light(s) per MAAC policy
- 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

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.

- 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.

- **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. "

- **"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

MAAC is aware of which clubs/sites qualify for above 400'agl and will soon begin to issue approvals site by site, with conditions specified in the rule's packages. Where there are events requesting over 400' or over 25kg, the Event SFOC rules listed above also apply, as well as the "higher and heavier" SFOC requirements.

Event Rules

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

- The club/event organizers shall:
  - 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.
  - 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.
  - Ensure the event complies with MAAC event policy and any CAR or SFOC requirements.
  - Ensure the MAAC events warning sign is posted for the event.
  - Ensure all attending modellers/RPAS pilot are **current MAAC members**.
  - Take reasonable steps to ensure all attending modellers/RPAS pilots **receive a briefing** on

site or event rules using the MAAC minimum checklist (attached).
    - Ensure all follow up actions are completed after the event, most notably any Transport Canada paperwork.

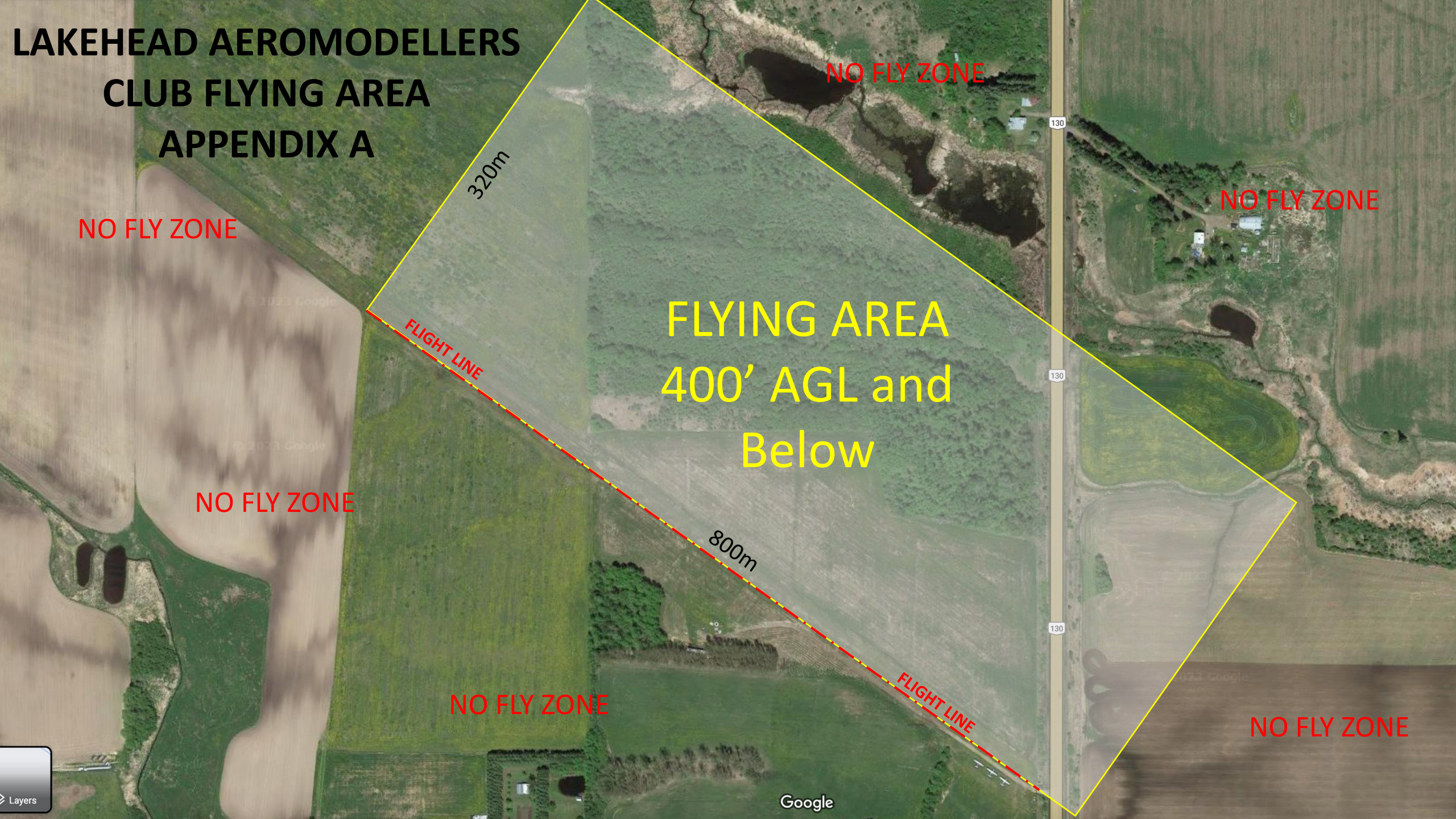
- In addition to all the above and the club rules, at any event where the public is in attendance under the MAAC SFOC, the event organizers are responsible to ensure:
    - MAAC warning signs are posted at all public entry points.
    - A copy of the MAAC SFOC and application are on site and available to all RPAS pilots.
    - All RPAS pilots sign the Transport Canada sign in sheet.
    - All RPAS pilots receive a briefing on site rules and
    - A visual observer is always present RPAS are flying.

- Any member attending an event shall

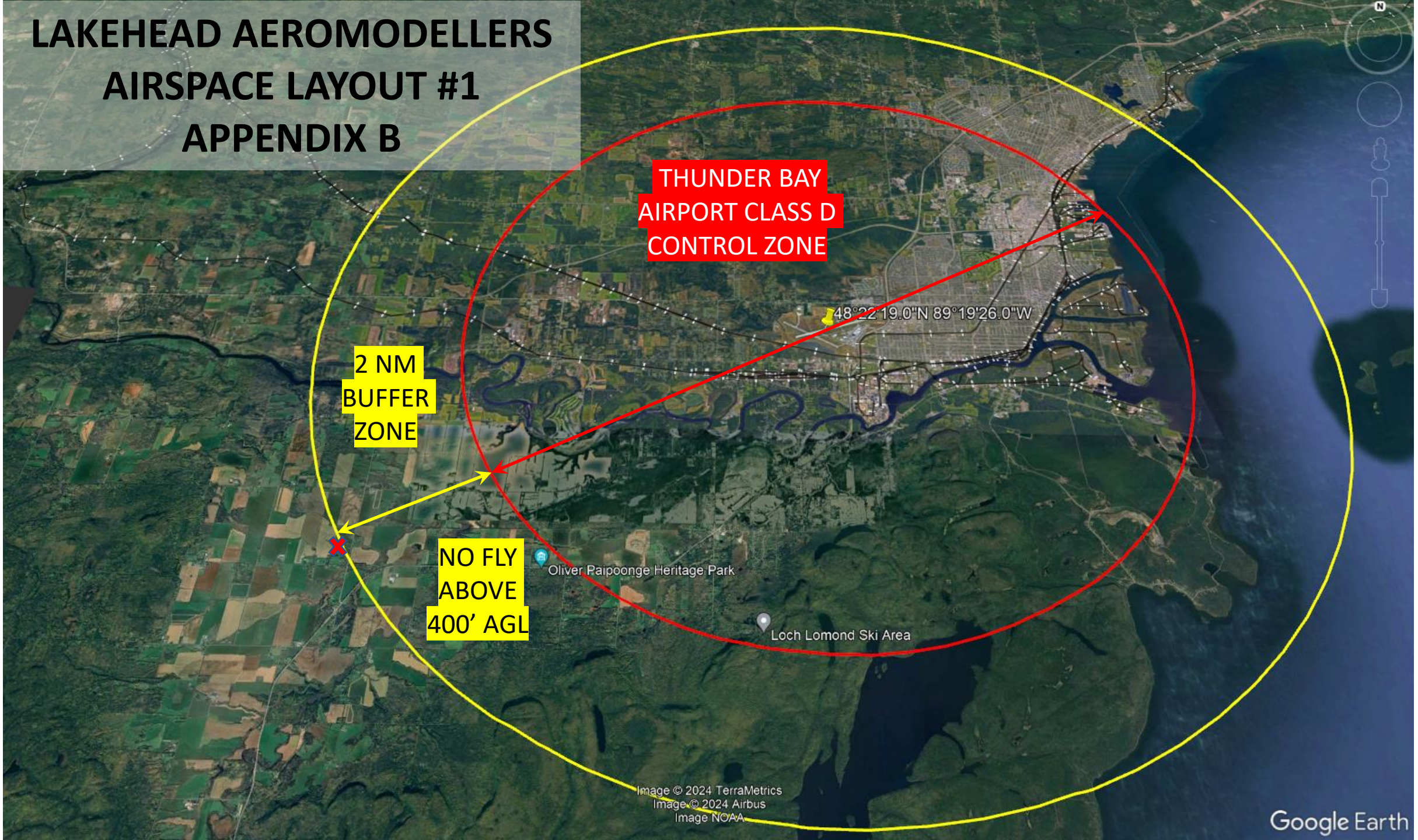
    - Comply with all CAR, SFOC, MAAC and club/event rules as required.
    - Not operate a model or RPAS unless they attend or obtain a pilot briefing.
    - Pay the adverstized landing fee if flying at the event.

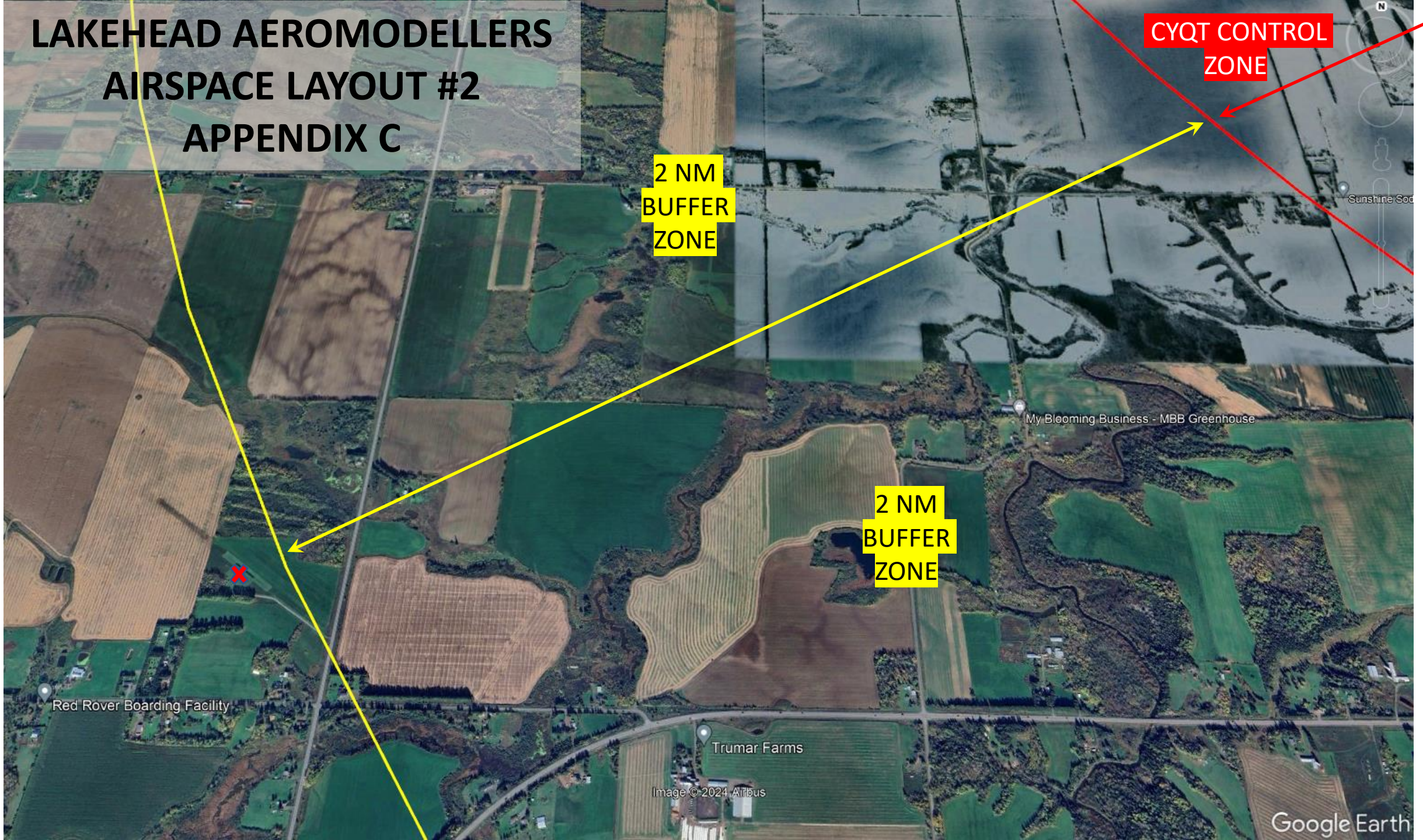
Diagrams and Maps

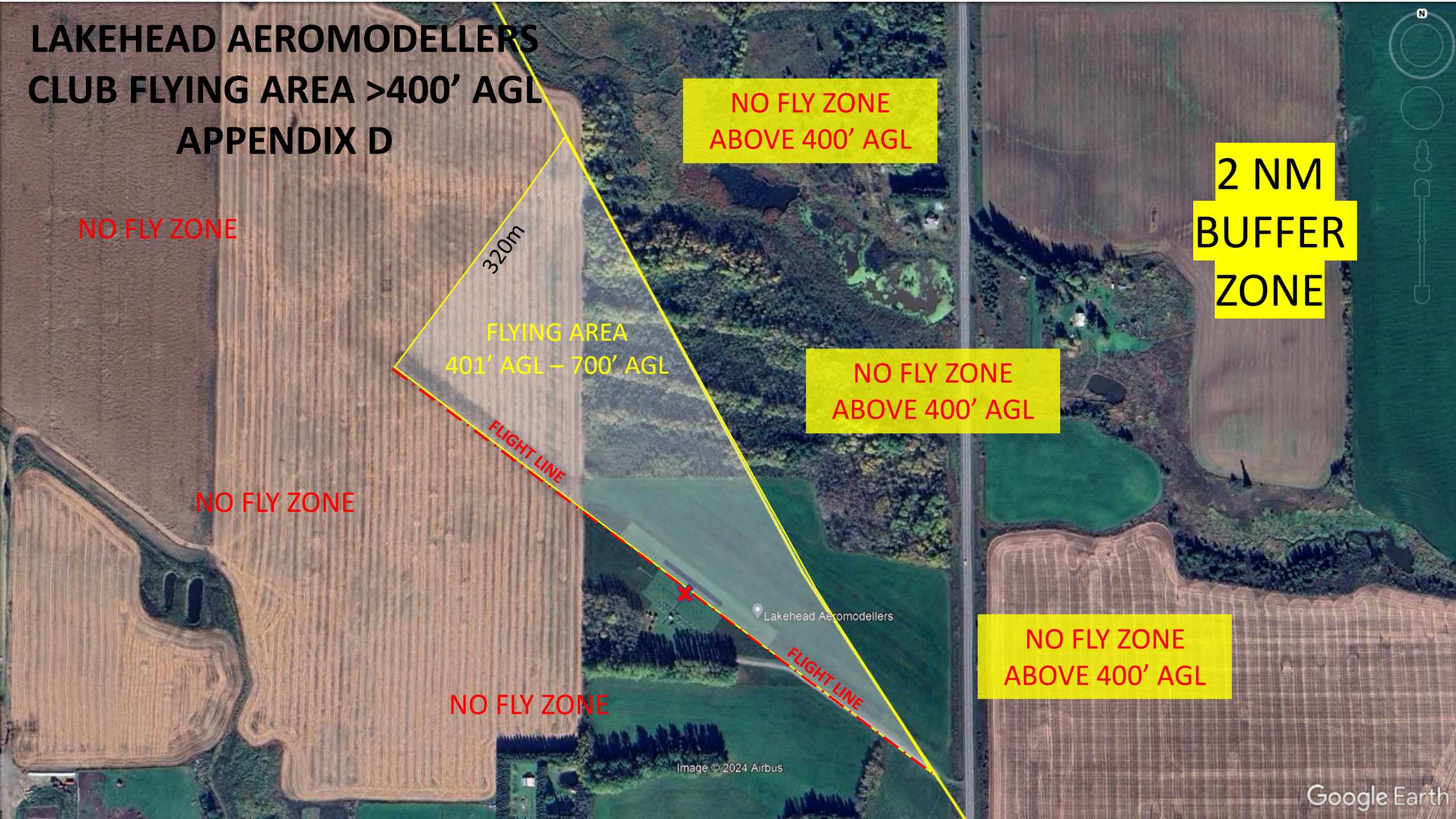
Appendix A – LAM Main Field Flying area – up to 400'AGL operations.
Appendix B – Thunder Bay – Control Zone and 2NM Buffer layout #1
Appendix C – Thunder Bay – Control Zone and 2NM Buffer layout #2
Appendix D – LAM Main Field Flying area – above 400'AGL operations.
Appendix E – LAM Main Field Layout
Appendix F – Near aerodrome and controlled airspace
Appendix G – Airspace MAP – including NAV DRONE Viewer Grid altitudes or lack thereof
Appendix H – Thunder Bay (Martin's Landing) - CLM5 – Canada Flight Supplement
Appendix I – Thunder Bay – CYQT – VTPC & VNC
Appendix J – IFR Approach of concern for above 400'AGL operations – RNAV (RNP) Y RWY 07
Appendix K – IFR Approach of concern for above 400'AGL operations – RNAV (GNSS) Z RWY 07
Appendix L – LAM Club Lease agreement map

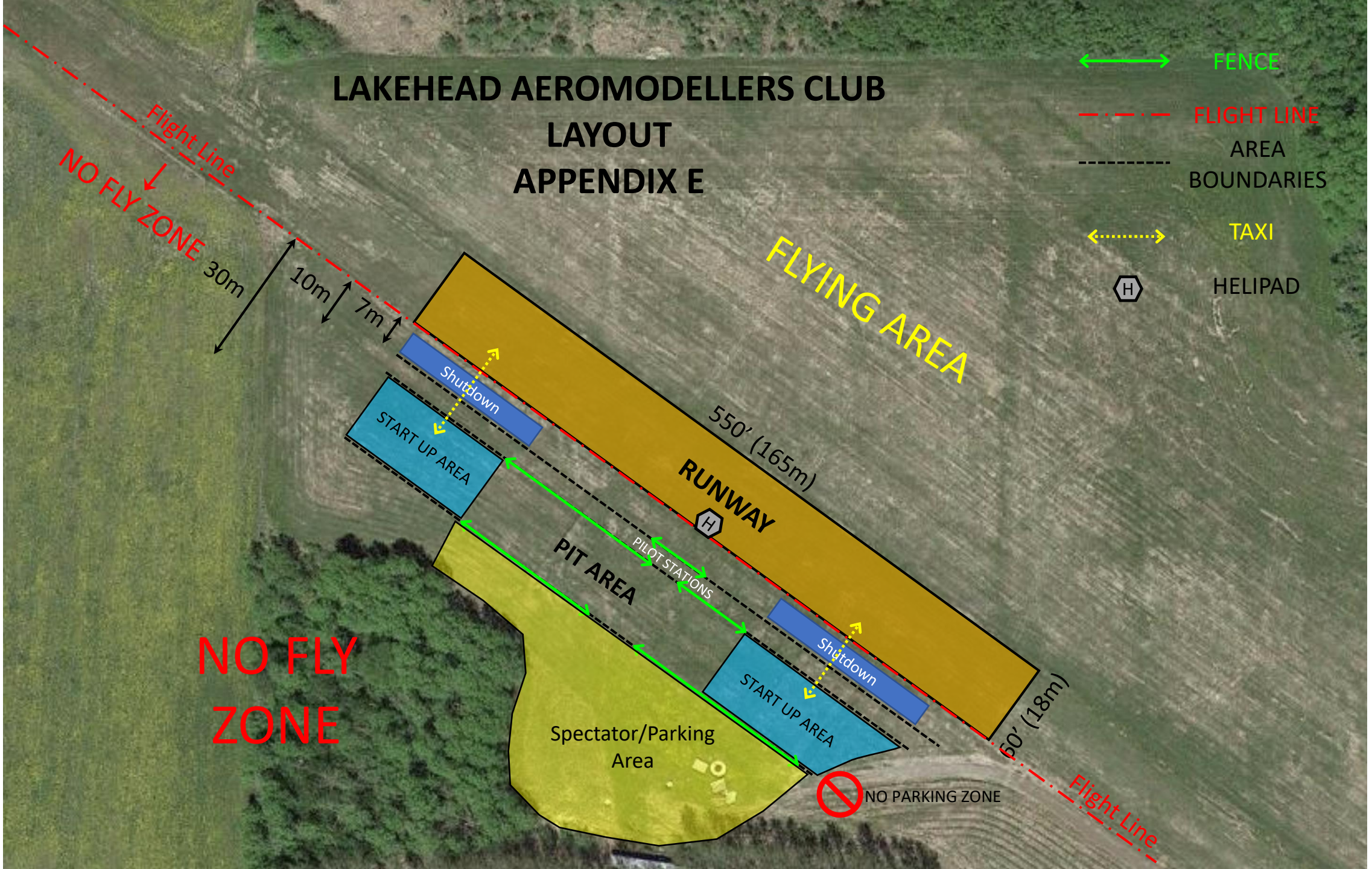

LAKEHEAD AEROMODELLERS
CLUB FLYING AREA
APPENDIX A
NO FLY ZONE
NO FLY ZONE
NO FLY ZONE
NO FLY ZONE
NO FLY ZONE
320m
FLIGHT LINE
FLYING AREA
400’ AGL and
Below
800m
FLIGHT LINE
130
130
130
Google
Layers

LAKEHEAD AEROMODELLERS
AIRSPACE LAYOUT #1
APPENDIX B

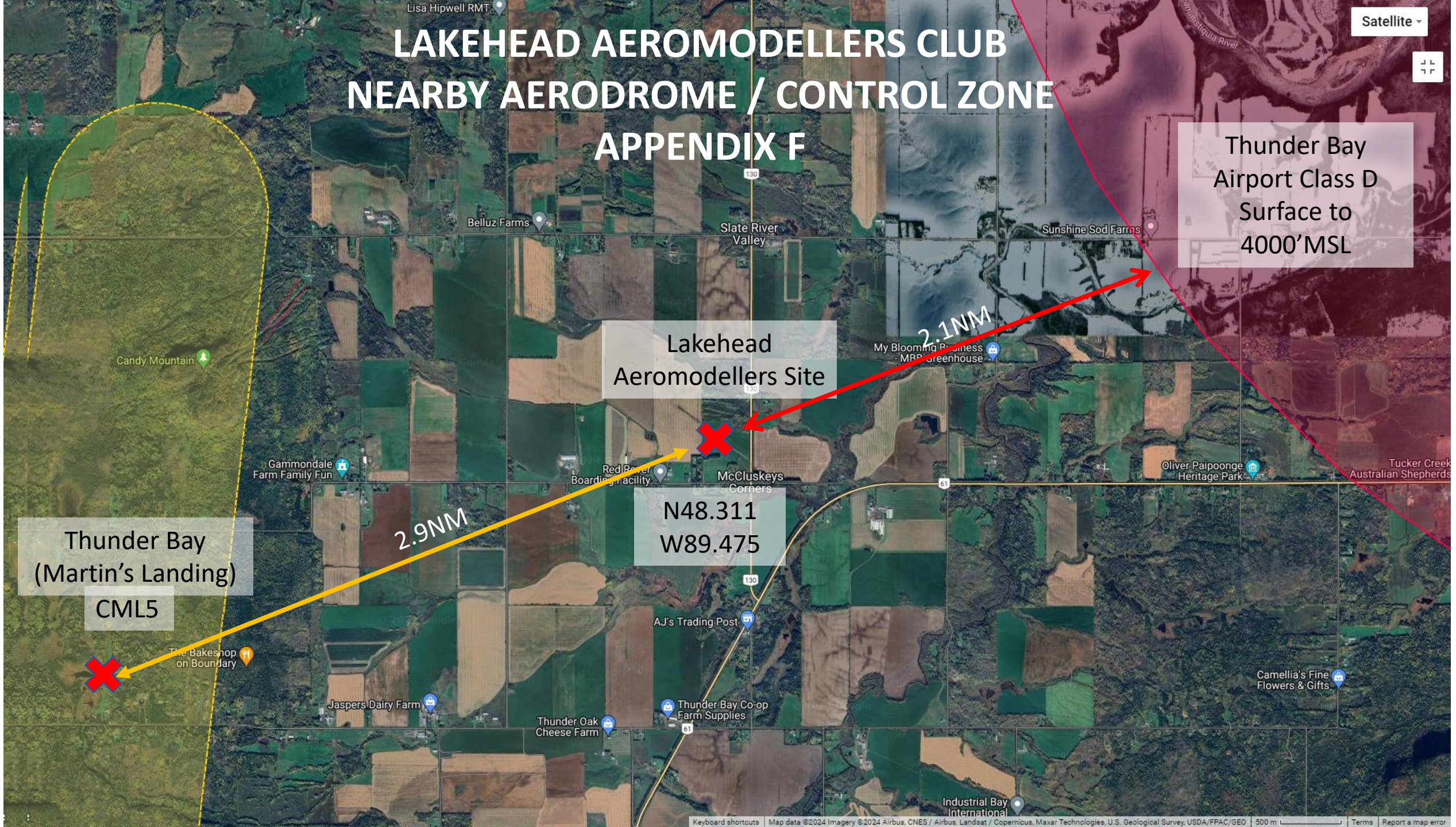



LAKEHEAD AEROMODELLERS
AIRSPACE LAYOUT #2
APPENDIX C
CYQT CONTROL ZONE
2 NM BUFFER ZONE
2 NM BUFFER ZONE
My Blooming Business - MBB Greenhouse
Red Rover Boarding Facility
Trumar Farms
Image © 2024 Airbus
Google Earth


LAKEHEAD AEROMODELLERS
CLUB FLYING AREA >400’ AGL
APPENDIX D
NO FLY ZONE
ABOVE 400’ AGL
2 NM
BUFFER
ZONE
NO FLY ZONE
320m
FLYING AREA
401’ AGL – 700’ AGL
NO FLY ZONE
ABOVE 400’ AGL
FLIGHT LINE
NO FLY ZONE
Lakehead Aeromodellers
NO FLY ZONE
ABOVE 400’ AGL
FLIGHT LINE
NO FLY ZONE
Image © 2024 Airbus
Google Earth


LAKEHEAD AEROMODELLERS CLUB
LAYOUT
APPENDIX E
FENCE
FLIGHT LINE
AREA BOUNDARIES
TAXI
HELIPAD
Flight Line
NO FLY ZONE
30m
10m
7m
FLYING AREA
Shutdown
START UP AREA
550' (165m)
RUNWAY
PIT AREA
PILOT STATIONS
Shutdown
START UP AREA
60' (18m)
NO FLY ZONE
Spectator/Parking Area
NO PARKING ZONE
Flight Line

LAKEHEAD AEROMODELLERS CLUB
NEARBY AERODROME / CONTROL ZONE
APPENDIX F



APPENDIX G

Overlying Airspaces

Class	Name	Floor	Ceiling
E	T675 Airway	2200AGL	12500MSL
B	T675 Airway	12500MSL	18000MSL
E	Thunder Bay, ON TA XPNDR MANDTRY	2000MSL	12500MSL
E	V13 Airway	2200AGL	12500MSL
B	V13 Airway	12500MSL	18000MSL
E	V300 Airway	2200AGL	12500MSL
E	V133 Airway	2200AGL	12500MSL
B	V133 Airway	12500MSL	18000MSL
B	V300 Airway	12500MSL	18000MSL
B	T702 Airway	12500MSL	18000MSL
E	T702 Airway	2200AGL	12500MSL
B	Thunder Bay, ON CAE XPNDR MANDTRY	12500MSL	18000MSL

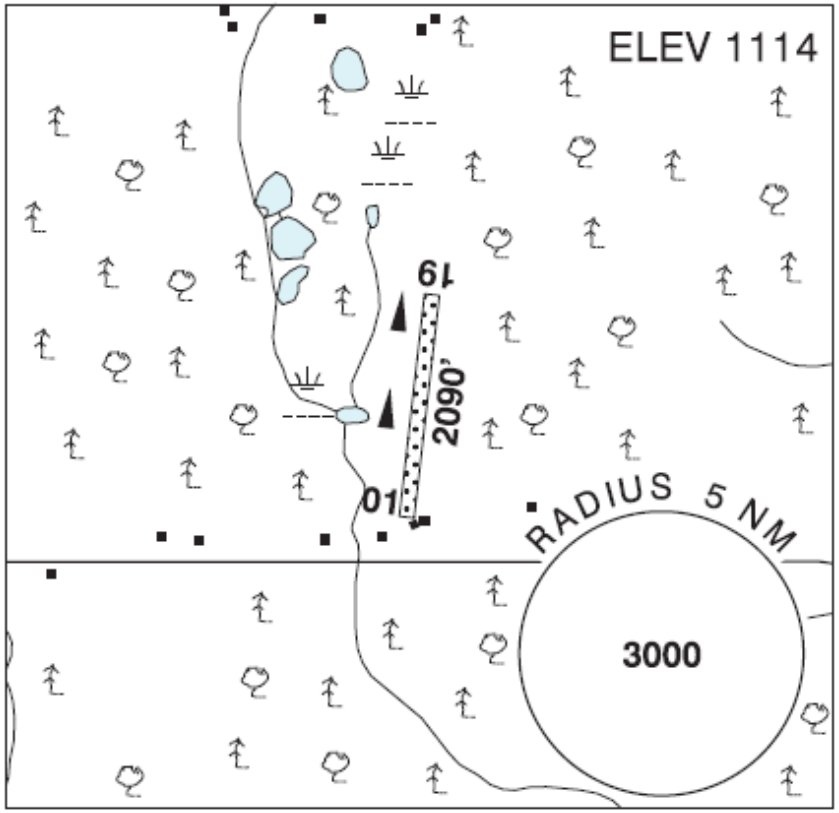
Nearest Aerodromes & Distance from Operation

MARTIN'S LANDING (CML5 - AERODROME - Reg)	Lat: 48.293	Long: -89.543	5.511 KM	2.98 NM
THUNDER BAY (CYQT - AERODROME - Cert)	Lat: 48.372	Long: -89.322	13.086 KM	7.07 NM
KAKABEKA FALLS (CKG8 - AERODROME - Reg)	Lat: 48.418	Long: -89.602	15.152 KM	8.18 NM
THUNDER BAY (HEALTH SCIENCE CENTRE) (CTB2 - HELIPORT - Cert)	Lat: 48.423	Long: -89.27	19.505 KM	10.53 NM

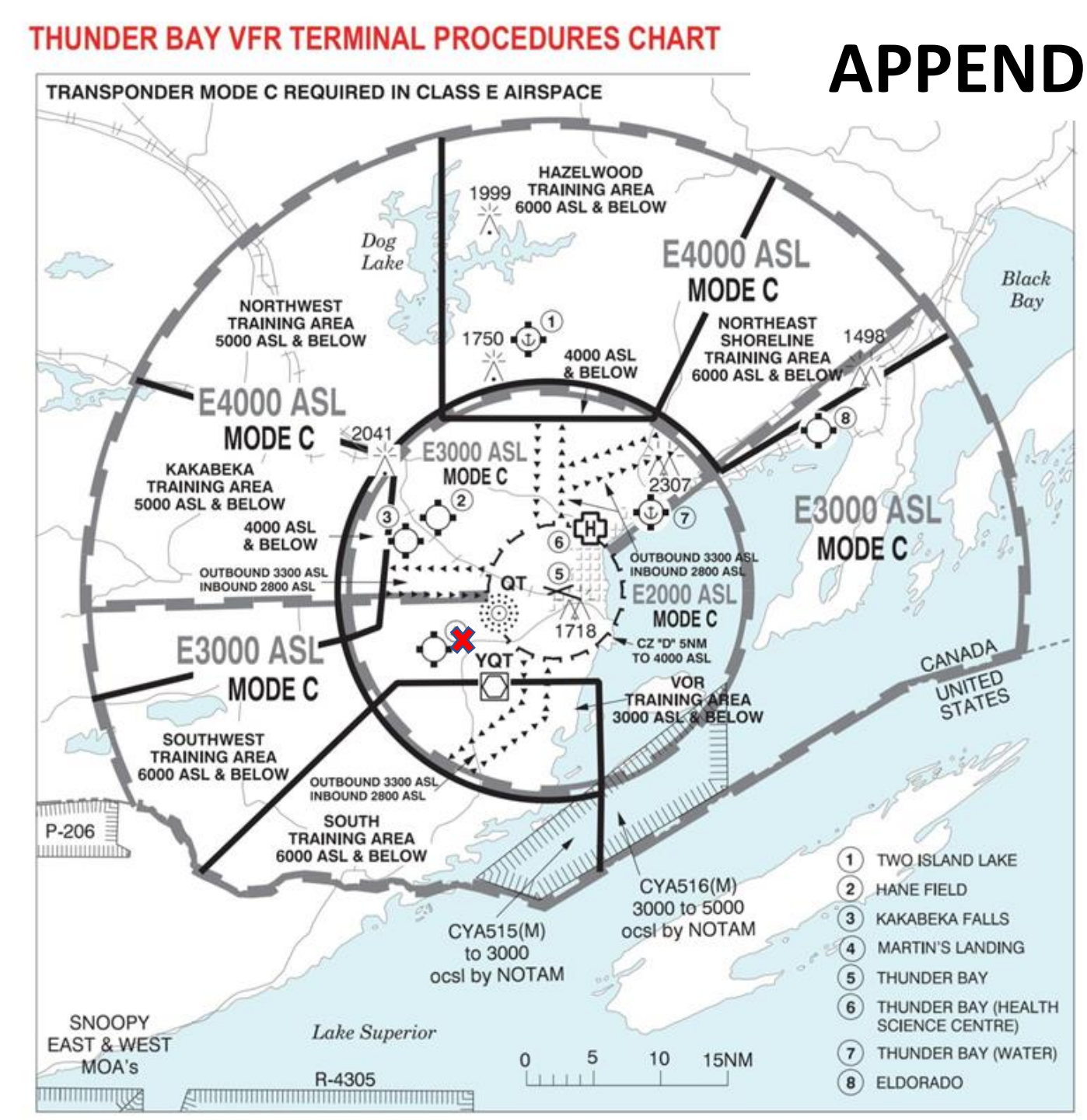
APPENDIX H

THUNDER BAY (MARTIN'S LANDING) ON — CML5

REF	N48 17 37 W89 32 36 14WSW 3°W (2016) UTC-5(4) Elev 1114' A5001 A5008
OPR	Richard A. Martin 807-344-0071 Reg PPR
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 **RCR**	Rwy 01(010°)/19(190°) 2090x80 GRASS/SNOW Opr Rwy soft when wet
COMM **ATF**	 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



APPENDIX I


THUNDER BAY VFR TERMINAL PROCEDURES CHART
TRANSPONDER MODE C REQUIRED IN CLASS E AIRSPACE
HAZELWOOD TRAINING AREA 6000 ASL & BELOW
1999
Dog Lake
E4000 ASL MODE C
NORTHWEST TRAINING AREA 5000 ASL & BELOW
1750
4000 ASL & BELOW
NORTHEAST SHORELINE TRAINING AREA 6000 ASL & BELOW
1498
Black Bay
E4000 ASL MODE C
2041
E3000 ASL MODE C
KAKABEKA TRAINING AREA 5000 ASL & BELOW
4000 ASL & BELOW
2307
E3000 ASL MODE C
OUTBOUND 3300 ASL INBOUND 2800 ASL
QT
1718
E2000 ASL MODE C
CZ "D" 5NM TO 4000 ASL
YQT
VOR TRAINING AREA 3000 ASL & BELOW
CANADA
UNITED STATES
E3000 ASL MODE C
SOUTHWEST TRAINING AREA 6000 ASL & BELOW
OUTBOUND 3300 ASL INBOUND 2800 ASL
SOUTH TRAINING AREA 6000 ASL & BELOW
P-206
CYA515(M) to 3000 ocsl by NOTAM
CYA516(M) 3000 to 5000 ocsl by NOTAM
1 TWO ISLAND LAKE
2 HANE FIELD
3 KAKABEKA FALLS
4 MARTIN'S LANDING
5 THUNDER BAY
6 THUNDER BAY (HEALTH SCIENCE CENTRE)
7 THUNDER BAY (WATER)
8 ELDORADO
SNOOPY EAST & WEST MOA's
Lake Superior
R-4305
0 5 10 15NM


Kaministiquia
Toimela
Kivikoski
HANE FIELD
Intola
Mokomon
Neebing R
Baird
Murillo
Thunder Bay
Kakabeka Falls
O'Connor
Harstone
Stanley
Whitefish R
THUNDER BAY ATIS
654
TWR 118.1 ltd hrs O/T
Hymers
MARTIN'S LANDING (R)
21A122.8
Slate River Valley
McCluskeys Corners
CZ "D" 4000/3300
Moose Hill
Loch Lomond
Oliver L
E2000 ASL MODE C
South Gillies
Russell Pt
Flatland
122.375
THUNDER BAY
114.1 YQT
DME Ch 88
LONDON
126.7 (bcst)
Sturgeon Pt
Jarvis River
Cloud L
Pardee
Cloud Lake
Cloud Bay
Crooks
Victoria I
McKellar Pt
Crystal L
Big Trout B
Thompson I
Spar I
REC
00:00

APPENDIX J

CYQT-IAP-3B

THUNDER BAY CY

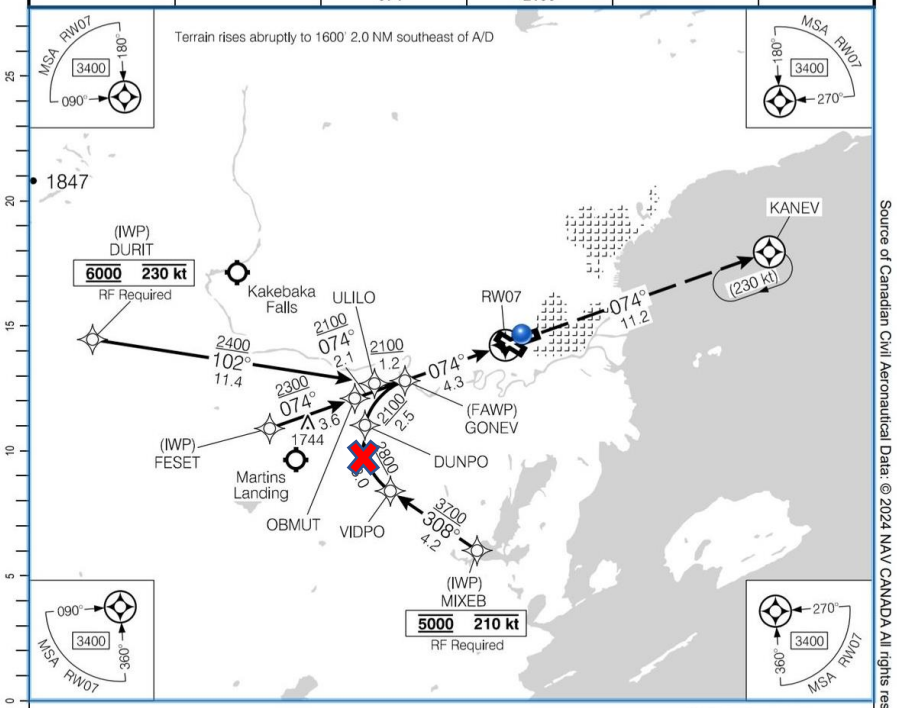
RNAV (RNP) Y RWY 07

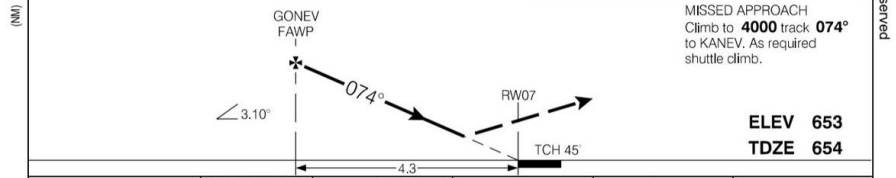
482219N 0891918W VAR 4°W

ATIS – 128.8	TML – 119.2	TWR – 118.1 RADIO – 118.1	GND – 121.9

MF*

SAFE ALT 100 NM		APCH CRS	MIN ALT GONEV	LDA
3500	RNAV	074°	2100	7318





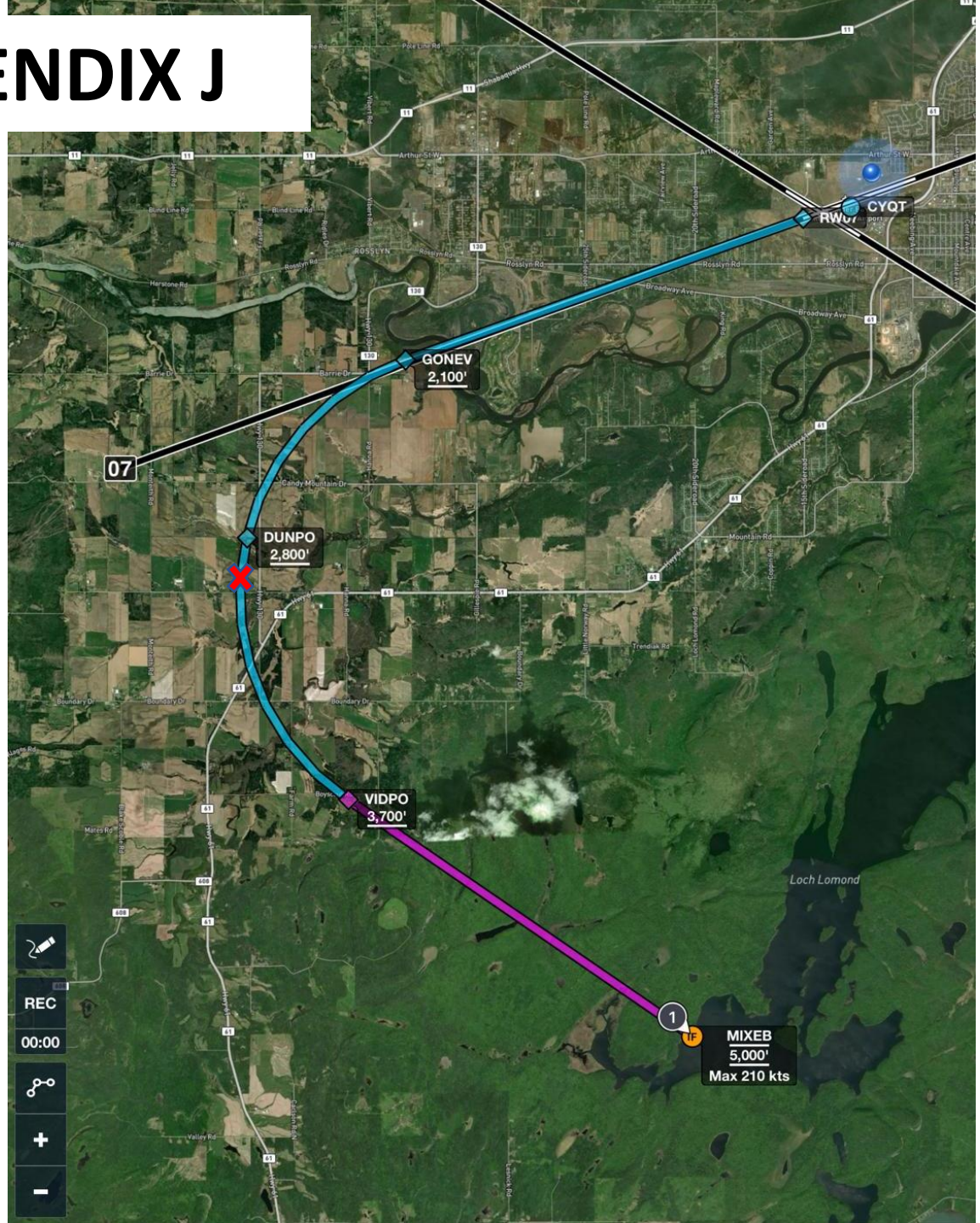
	CATEGORY	A	B	C	D
	RNP 0.15	1049	(396)	1 RVR 50	
AUTHORIZATION REQUIRED (min. -25° C) (max. 54° C)	RNP 0.30	1141	(487)	1¼	

RNAV (RNP) Y RWY 07 CYQT

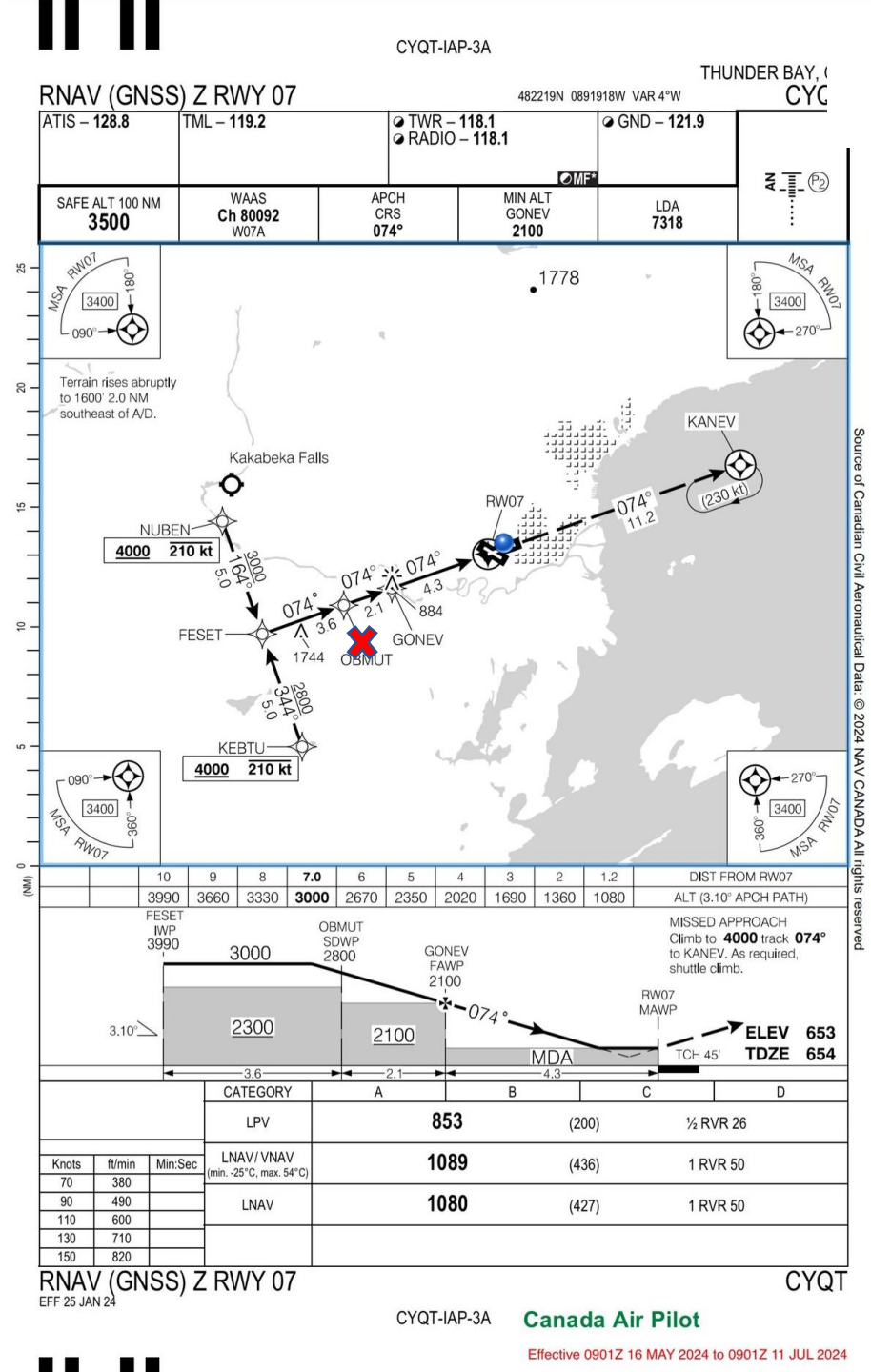
EFF 25 JAN 24

CYQT-IAP-3B Canada Air Pilot

Effective 0901Z 16 MAY 2024 to 0901Z 11 JUL 2024



APPENDIX K


CYQT-IAP-3A
THUNDER BAY,
RNAV (GNSS) Z RWY 07
482219N 0891918W VAR 4°W
CYQ
ATIS – 128.8
TML – 119.2
TWR – 118.1
RADIO – 118.1
GND – 121.9
SAFE ALT 100 NM
3500
WAAS
Ch 80092
W07A
APCH
CRS
074°
MIN ALT
GONEV
2100
LDA
7318
Terrain rises abruptly to 1600' 2.0 NM southeast of A/D.
Kakabeka Falls
NUBEN
4000 210 kt
FESET
KEBTU
4000 210 kt
GONEV
OBMUT
KANEV
(230 kt)
RW07
1778
074°
11.2
DIST FROM RW07
ALT (3.10° APCH PATH)
FESET IWP 3990
OBMUT SDWP 2800
GONEV FAWP 2100
RW07 MAWP
MISSED APPROACH
Climb to 4000 track 074° to KANEV. As required, shuttle climb.
ELEV 653
TDZE 654
TCH 45'
MDA
3.10°
CATEGORY
LPV
LNAV/ VNAV
LNAV
853
1089
1080
(200)
(436)
(427)
½ RVR 26
1 RVR 50
1 RVR 50
Knots
ft/min
Min:Sec
RNAV (GNSS) Z RWY 07
CYQT
EFF 25 JAN 24
CYQT-IAP-3A
Canada Air Pilot
Effective 0901Z 16 MAY 2024 to 0901Z 11 JUL 2024
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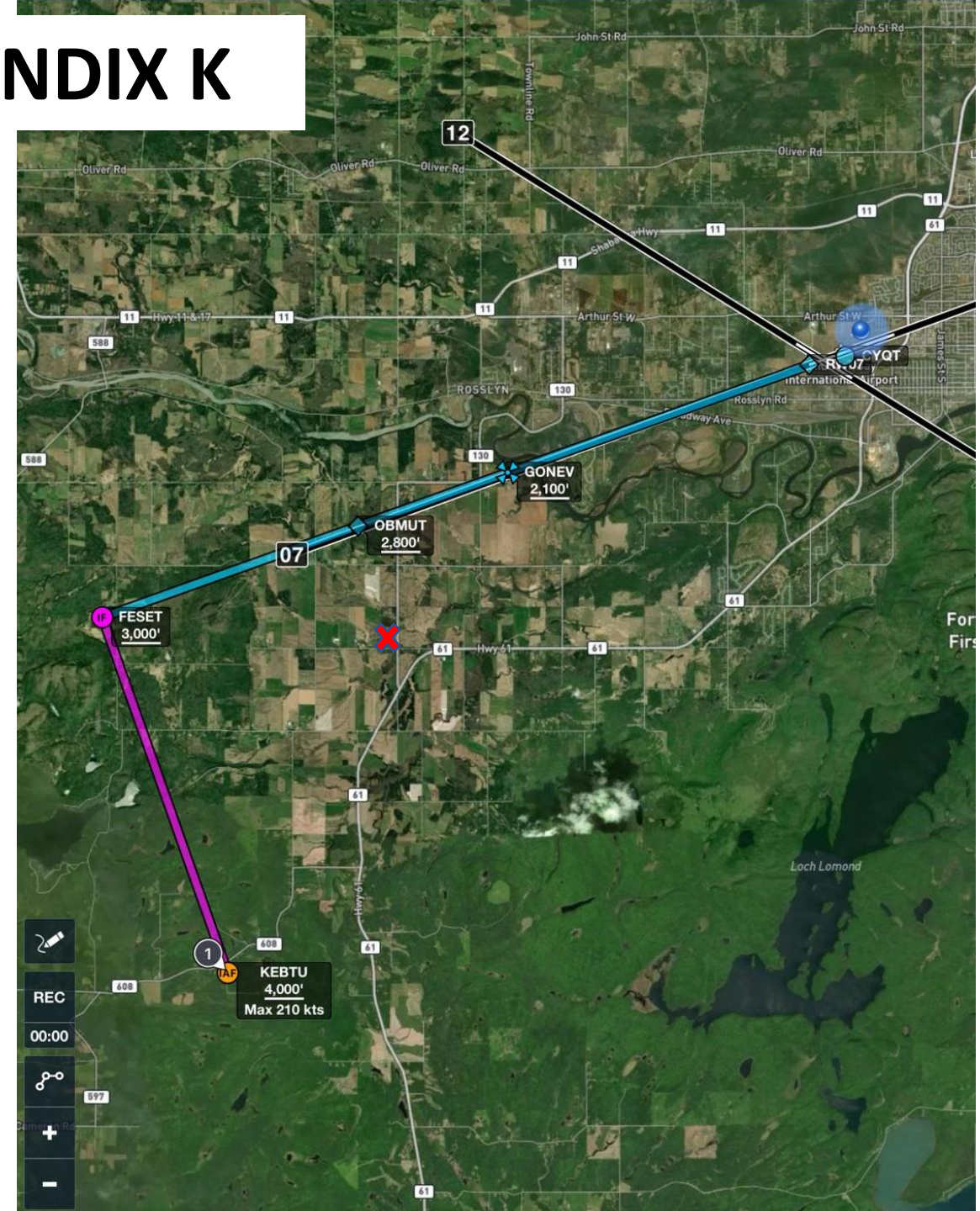
12
07
GONEV
2,100'
OBMUT
2,800'
FESET
3,000'
KEBTU
4,000'
Max 210 kts
REC
00:00
CYQT
ROSSLYN
Loch Lomond
John St Rd
Oliver Rd
Arthur St W
Rosslyn Rd
Hwy 61

LAKEHEAD AEROMODELLERS
CLUB LEASED AREA
APPENDIX L