



This Policy and Procedure Document describes official MAAC policy for a given subject and provides direction to the membership on recommended procedures to be followed in compliance with stated policy. To ensure that you have the latest version always check the MAAC [Web Site](#).

1.0 Title. MPPD 15 – MAAC Maximum Altitude Policy.

2.0 Purpose. To ensure uniform compliance with the Canadian Aviation Regulations, the MAAC Special Flight Operations Certificate (SFOC) and MAAC Safety Code.

3.0 Definitions Glossary of Terms.

Anti-collision lighting - typically an omnidirectional rotating or flashing red beacon of sufficient intensity(brightness) to be seen by approaching full-scale pilots in daylight conditions. This light can be affixed to either the top or bottom of the aircraft. Additional position lights and markers are optional.

Crew – in general terms is any person, whether a MAAC member or not, who is involved in the modelling activity of their own free will. The crew can include non-modelling/flying/operational support staff such as ground/event/parking staff, family/friends as “helpers/spotters”, emergency/first aid providers or food vendors provided they are briefed on and aware of the modeling or RPAS activities occurring.

Spotter – 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.

Visual Observer (VO) – 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. In some instances, a VO must be a MAAC member with RPAS Certification. A VO may also be assigned the role of RPIC for a flight line, Air Boss or other communication duties with ATC but cannot be assigned any other roles if RPAS are airborne.

Direct supervision – means an interaction between a MAAC member with full authority and legal responsibility for the overall operation of a model, and another person, usually a student, who is manipulating the controls of the model. This may be accomplished in

any number of means such as a “buddy-box” or otherwise, provided in all cases the person providing direct supervision can assume control or authority for the safe operation of the model with no delay.

RPIC – RPAS Pilot In Command – is a MAAC member, who agrees to provide direct supervision only, to “students” in accordance with MAAC policy and who possesses:

1. A valid RPAS Advanced pilot certificate **or**
2. A valid or previously issued Canadian Private pilot license (PPL) or higher (RPL, GPL, ATC and AME are not acceptable) **and**
3. If required in the Site Operation Certificate or Site rules, an aeronautical radio Restricted Operator Certificate – aeronautical issued by ISED (ROC-A).

Student – is any person who is not directly responsible for the overall operation of the model, including any person who does not have the appropriate rating/certification for the type or location of model operation. Generally, this person is manipulating the controls of a model in varying degrees of competency under the direct supervision of another member (example instructor, flight reviewer, RPIC) who assumes all responsibility for safety and any regulatory compliance items.

4.0 Statement of MAAC Policy.

- 4.1 MAAC has implemented a **nationwide policy requiring all MAAC outdoor model aircraft operation remain below the lower of any altitude limits as follows:**
 - a) **Any controlling agency stipulated altitude limit, or**
 - b) **400’ above ground level (AGL), or**
 - c) **Any other altitude limit approved by MAAC.**
- 4.2 No member shall operate a model above 400’AGL, or above the maximum altitude specified in the SOC, unless done in accordance with the procedures contained in this policy and any conditions specified in the SOC.
- 4.3 Regardless of altitude, no member shall operate an RPAS at a MAAC site in **controlled airspace** under the direct supervision of a RPIC, unless at least one member on site has a current advanced RPAS operators’ certificate.
- 4.4 Members who have obtained any type of individual altitude SFOC from Transport Canada must comply with all MAAC requirements to operate RPAS at MAAC SOC sites.
- 4.5 This national altitude policy does not assure safety – Clubs or individuals are still fully responsible to ensure they conduct their operations at altitudes and manners that assure safety for full-scale aircraft operations. Lower altitude limits/procedures may remain or be required in some circumstances.
- 4.6 MAAC has been given permission by Transport Canada to operate “traditional model aircraft” in accordance with the MAAC Manufacturer Declaration at approved MAAC SOC sites in controlled airspace. Altitude limits at these sites are subject to agreement

between MAAC and the respective controlling agencies, in accordance with the terms of this policy and the MAAC altitude SFOC (AC903-001-Appendix D -STSC-003). The MAAC manufacturer policy stipulates no members shall contact NAV CANADA of the DND seeking individual or new altitude permission – that policy remains in force.

4.7 In all circumstances, **the maximum altitude permitted by MAAC is 1700’AGL.**

5.0 Process and Procedures

- 5.1 A Club or member must submit a request for higher altitude permission to their Zone Director. Permission is site specific and is not issued to a specific member.
- 5.2 MAAC will process requests using airspace and other criteria at their sole discretion. Any denials will clearly list the reasons in writing. In addition to all other MAAC SOC processes, MAAC will modify an existing SOC, or issue a new SOC provided the Site/Club/Event rules contain the following rules, processes, or information pertaining to operations above 400’AGL:
- a. **Operations are restricted to Advanced RPAS Certificate holders or under direct supervision of an RPIC.**
 - b. RPAS pilots and any crew must meet the MAAC crew training and fitness requirements (see appendix A).
 - c. Only RPA capable of descending from the maximum approved altitude, to 400’AGL in one minute or less, and thereafter to 60’AGL at a rate of 700feet per minute are permitted.
 - d. RPA must be equipped with a MAAC approved altitude determination device **or** RPAS pilot/crew self-declaration for altitude determination (see appendix B).
 - e. A visual observer meeting the SOC requirements is mandatory (see appendix C).
 - f. RPA operation is restricted to MAAC stipulated weather minimums, and daylight hours only.
 - g. The MAAC Manufacturer Declaration (CAR standard 922.04) requirements must be met (see appendix D).
 - h. The RPA must be equipped with anti-collision lights (see appendix E)
 - i. The RPAS pilot in command, or their delegate, must ensure sufficient communication equipment exists in accordance with the terms in the SOC, to contact other airspace users and the appropriate air traffic control unit. (see appendix F)
 - j. Each RPAS pilot has all required declarations readily available while operating the RPAS.

Additionally:

- 5.3 If the site is within **uncontrolled airspace**:
- a. The requested altitude cap/limit must be 500’ or more below the base of any overlying controlled airspace volume.
 - b. the site flying area boundary must be a minimum of 2nm horizontally from the edge of any controlled airspace volume, otherwise the altitude request will be treated as if wholly inside controlled airspace. (Distance from aerodromes is not a factor).

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- c. Clubs requesting MAAC SFOC provisions for RPA weights above 25kg must stipulate the required additional provisions.

5.4 If the site is laterally **within controlled airspace**:

- a. MAAC SFOC provisions for RPA weights above 25kg shall **not** be applied above the SOC approved altitude, or above 400'agl, whichever is lower.
- b. At least one VO must qualify as an RPIC.

6.0 Version

Version 1.1. Approved by the Board of Directors, April 11, 2022

Version 2. Approved by the Board of Directors, May 6, 2024

Version 2.1 – Modified anti-collision light requirements.

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Appendix A – MAAC Crew Training and Fitness Requirements – ops above 400’AGL

MAAC has an agreement with [RPAS Center](#) to utilize their advanced ground school program free of charge. Any members who have taken their course have met the MAAC “crew training” requirements to operate an RPAS above 400’AGL. Those who did not take the RPAS Center course, must read the applicable MAAC Safety Documents (MSD) or MAAC Policy and Procedures Document (MPPD) and TC AIM material on these topics.

All members must complete the self-declaration of understanding below. This form once completed must be readily accessible during any RPAS operations above 400’AGL.

For the purposes of this policy, crew is defined as the RPIC, RPAS pilot, spotter, or visual observer(s) (VO) as appropriate. All MAAC crew involved in RPAS operations above 400’AGL shall be trained to MAAC standards in the following topics per AC 900-001 1.1(3)(a)(ix)(A) as contained in various MAAC policy:

- a) Application of operational procedures (normal, contingency, and emergency procedures, flight planning, pre-flight and post-flight inspections)
- b) Communication
- c) RPA flight path management, automation
- d) Leadership, teamwork, and self-management
- e) Problem solving and decision-making.
- f) Situational awareness
- g) Workload management
- h) Coordination and handover
- i) CRM (Crew Resource Management)
- j) Crew fitness policy and requirements.

I hereby declare that, for the operation described in the MAAC SOC:

- All RPAS crew members have been trained on the topics identified in AC 903-001 Appendix C, Section 1.1(3)(a)(ix)(A).
- A crew fitness policy is in place, and each RPAS crew member self-declares their fitness prior to acting as a member of the flight crew.
- Any external systems or services in use are adequate for the operation.
- The environmental limits in use for the proposed operation are adequate to ensure safe operation of the RPAS(s).

Name of Responsible Person:

Signature:

Date:

You are required to keep this declaration at the site while operating the RPAS.

Appendix B – MAAC RPA Altitude Devices or Pilot/crew Training – ops above 400’AGL

Transport Canada 922.04 standards for position determination requires additional mitigations for our operations above 400’AGL. Any of the below approaches are acceptable, provided all relevant requirements or restrictions are met in accordance with any SOC conditions.

On board Altitude Devices

A MAAC member may operate an RPAS above 400’AGL provided one of the following is onboard the RPA and operating correctly. Any of the following onboard devices may be used to the **maximum altitude of 1700’AGL**.

1. **Real-time Altitude Telemetry** – any commercially available or homemade real-time altitude telemetry devices are acceptable provided they provide altitude indications to the RPAS pilot **or spotter** while operating the RPA. The availability or use of preset alarms or warnings is desirable but not mandatory. **No testing or declaration is required for commercially available telemetry devices**. Any homemade device must be tested against commercially available real-time telemetry for accuracy +/- 50’ **and declared as satisfactory**.
2. **Onboard Altitude warning devices** – any commercially available device on the RPA that gives a visual, aural or other warning of significant intensity to be easily noticed by the pilot **or spotter**, of the RPA approaching a preset maximum altitude value. Any homemade device must be tested against commercially available real-time telemetry for accuracy +/- 50’ **and declared as satisfactory**.
3. **Onboard Altitude limiting devices** - any commercially available or homemade device on the RPA that limits the achievable altitude to a preset value. This may be done via reducing power/throttle settings, or control deflections that make flight above the preset altitude value improbable. Any homemade device must be tested against commercially available real-time telemetry for accuracy +/- 50’ **and declared as satisfactory**.

Pilot/crew visual altitude determination training

Any MAAC member may make a MAAC approved written self-declaration they have undertaken training to visually determine the altitude of an RPAS as follows:

1. Visual altitude determination is limited to a **maximum altitude of:**
 - a) **700’AGL for sailplanes, gliders, or other prolonged flight**
 - b) **1200’AGL for short duration operations such as aerobatic maneuvers** (top of loops, turn arounds, zoom climb/turn etc.).
2. Any RPAS used for this training is of a similar size, shape, and performance capability as that intended to be subsequently flown above 400’AGL.
3. They have flown or observed a series of flights with an RPAS equipped with real-time altitude telemetry, and have observed the RPA at 100’ increments up to the maximum permitted altitude, and

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4. They have subsequently flown or observed a series of flights with an RPAS equipped with real-time altitude telemetry, where they have visually estimated the RPA altitude at the maximum intended altitude and were correct to within +/- 50' of the telemetry altitude value.
5. They keep and can produce this MAAC approved written self-declaration while operating or acting as crew for any RPA above 400'.

I hereby declare that the RPAS(s) listed below have been developed, constructed, and verified to meet the following technical requirement:

- The RPAS information and control interfaces are clearly and succinctly presented and do not confuse, cause unreasonable fatigue, or contribute to RPAS crew error that could adversely affect the safety of the operation.
- No single failure of the RPAS or any external system supporting the operation will lead to operation outside of the operational volume.
- Any failure of a system or subsystem whose operation is required to meet the above requirement is detectable by the operator.
- I have equipped the RPA with a suitable altitude determination device, or undertaken a series of testing, or training flights to determine or limit the altitude of the RPA and I can do so consistently to within +/- 50' of the maximum intended altitude.

Make	Model	Comments

Name of Responsible Person:

Signature:

Date:

You are required to keep this declaration at the site while operating the RPAS.

Appendix C – MAAC RPAS Visual Observer and Spotter Requirements – ops above 400’AGL

A MAAC **Visual Observer** (VO) is mandatory for all RPA operations **occurring above 400’AGL** and shall be trained/briefed follows:

1. The VO should be a MAAC member with RPAS pilot certification, however this is not always mandatory provided they have received all training listed in this policy.
 - a. For operations in **controlled airspace**, at least one VO on site must meet Advanced/RPIC qualification requirements.
2. The VO shall be responsible to actively scan the sky and surroundings as necessary, in 360 degrees for approaching full-scale aircraft that might pose a safety concern.
 - a. The VO may also be assigned responsibility for ATC communications (Air boss etc.).
 - b. The VO shall **not** be assigned any other duties such as spotter or altitude monitoring – see spotter roles below.
3. There shall be a minimum of **one VO per flight line**. Additional VO may be required where obstructions, sightlines or other site-specific issues exist.
4. The VO shall be positioned:
 - a. Such that they have an unobstructed view of the sky in all directions, and
 - b. If using aural or visual warning, in proximity to any RPAS pilot such that any warnings can be easily determined. Sites shall limit all unnecessary ambient noise while operations are occurring.
 - c. If the VO is positioned away from the pilot stations, procedures for the use of remote warning devices such as hand-held radios (non-aviation) must be in place.
5. The VO shall be equipped with whatever additional “tools” or aids as are required to ensure they can spot any approaching full-scale aircraft, such as wide brim hats, sunglasses, binoculars etc.
6. When any VO, or other person spots a full-scale aircraft that might come near the site, they are to yell out “AIRPLANE” in a loud voice or use any other agreed upon notification tool (bells, airhorns, radio calls etc.).
7. If a VO or other person receives any type of notification (verbal, visual or otherwise) from any full-scale aviation asset (pilots, ATC/FSS etc.) of any full-scale aviation safety concern, they shall relay that verbatim to all RPA pilots flying, or equally state “AIRPLANE” in a loud clear voice for all to hear.
8. Upon receiving any safety concern notification or “AIRPLANE” notice, all Pilots **must** immediately descend to as low an altitude as possible, but in all cases to below 400’ AGL to assess the situation. If deemed necessary by anyone involved, all RPA should be landed as soon as safely able.

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9. When the full-scale aircraft is no longer a threat, or the VO/person who gave the warning determines it safe, they shall yell “ALL CLEAR”, and resume flying above 400’AGL.
10. IF ATC/FSS has given any type of cease/lower operation notice, operations will not resume until permission is received from ATC/FSS.

A MAAC **Spotter** is optional however can be used to augment the RPAS pilot(s) in visual altitude determination as follows:

1. If using visual altitude determinations, a **single trained spotter is permitted** per flight line to monitor RPA altitudes to ensure altitude limits are respected for all RPA in the air.
2. The spotter will call out to any RPA Pilot whose RPA they believe is approaching the altitude limits with a clear verbal “ALTITUDE” warning.
3. Upon receiving any altitude warning, the RPA pilot shall stop any climb, or otherwise lower the altitude of the RPA to an altitude deemed acceptable to the Spotter.

If the site is in uncontrolled airspace, a spotter may perform traditional “one on one spotter” duties below 400’AGL, and then **transition to the VO role as the (first) RPA passes through 400’**. The intent being there does not necessarily need to be 2 extra people acting as crew for every single RPAS. However, if the Club or site rules require one spotter per pilot for model-to-model safety above 400’, then an extra dedicated person is required for the VO role.

Appendix D – MAAC Manufacturer Declaration

Please refer to the full policy for additional information. The following are the core requirements of the policy that enables MAAC operation in controlled airspace. The technical requirements apply equally to MAAC SFOC operations above 400’agl.

To be eligible to be classified as meeting the “MAAC RPAS Manufacturer Declaration”, **the RPAS** must meet the following technical requirements:

- a) **CONTROLLED AIRSPACE ONLY** - The RPA must **not** weigh more than 25kg ready to fly.
- b) The RPA must be of a type, quality and construction or assembly method consistent with the commonly accepted definition of “model aircraft” in North America, wherein the MAAC member, using the MAAC safety code and processes, is responsible for any portion of construction or final flight ready assembly. See MAAC policy for a detailed description of the types of acceptable MAAC RPAS/model aircraft and their classifications.
- c) The control system and components must be of a type, and quality meeting Industry Canada approval and otherwise meet MAAC Safety Code and commonly accepted modeling and model industry standards for radio control installation and operation.
- d) The RPAS must not contain any type of “Human-on-the-loop” or other computer control in the control system. For clarity, deactivation, or temporary disabling of any such system is not acceptable – these types of control systems must not be present in the system.
- e) RPA operating in controlled airspace up to 400’AGL, MAAC VLOS meets CAR922.04 requirements provided the RPAS pilot operates in accordance with MAAC VLOS.
- f) **The RPA must have performance capability to descend from the maximum altitude approved by the controlling agency to 400’AGL in one minute or less and thereafter to 60’AGL at a rate of 700 feet per minute or greater.**
- g) The RPA or RPAS must have an operable “flight termination” system or design criteria that can be reasonably expected to terminate the flight with minimal delay in the event of a control link failure.
- h) If intended to be flown at night, or if required by the controlling agency during the day, the RPA must have a functioning lighting system to ensure MAAC VLOS requirements are met or to provide enhanced visual detection for full-scale pilots.

Prior to RPAS operation under the “MAAC RPAS Manufacturer Declaration”, the **RPAS pilot shall ensure the RPAS owner** has documentation available at the site/event for each RPA which contains the following information. This may be in electronic or printed format however MAAC highly recommends this information be included in the RPA logbook, either as a separate page entry, an addendum, or as a package of information.

- a) RPA Make or manufacturer name,
- b) Model – the specific RPA model designation including the bound/used transmitter.
- c) The RPA category (MAAC Model Aircraft, MAAC Rotary Wing, MAAC Hybrid)
- d) The RPA maintenance program that includes:
 - i. instructions related to servicing and maintaining the RPA and control system,
 - ii. An inspection program to maintain system readiness.
- e) Any weight limits or center of gravity concerns or related special requirements.
- f) Any RPA design features such as limitations on speed, altitude, or operational restrictions,
- g) Any foreseeable weather conditions or limitations affecting RPAS operation,
- h) Any special or unique features of the system that could result in severe injury to crew members during operation.

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- i) Any special or unique design features of the system, and the operating procedures, that are intended to protect against injury any person not involved in the operation,
- j) Any warning information provided to the pilot notifying any degraded system performance,
- k) Any special or procedures for operating in normal or emergency conditions,
- l) Any special assembly, adjustment, or post flight inspection requirements, and
- m) Any available manuals or component operating instructions.
- n) The above records shall be kept by the owner, and any subsequent MAAC owner for the life of the RPAS, or until two years after the RPAS is withdrawn from service and de-registered.

To operate a RPAS under the “MAAC RPAS Manufacturer Declaration”, the **RPAS pilot shall** ensure the following requirements are met:

- a) All other relevant sections of the CAR are met,
- b) The RPAS is operated in compliance with the MAAC Safety Code and any category specific rules or requirements.
- c) The RPAS meets the technical requirements of MAAC policy,
- d) The RPAS shall not be operated in any mode other than “direct manual control.”
- e) The pilot shall not operate more than one RPAS at a time.
- f) The pilot shall not operate the RPA unless any equipped onboard flight termination system is operable,
- g) The RPA shall not be operated within 30 meters of any bystander or spectator, under any circumstances and **regardless of altitude**.
- h) The pilot shall not operate an RPAS unless at least one visual observer is present.

Note - unless required by the controlling agency or stipulated in the site SOC, mRPAS do not require a visual observer.

- a) The RPAS shall not be operated in any weather condition, near terrain or any other condition which could:
 - i. reduce or negate visual detection of approaching full scale aircraft or bystanders,
 - ii. interfere with radio control link range or clarity of reception or
 - iii. negatively affect the performance of the RPA or the control system where safety of operation could be compromised.
- b) The pilot shall only operate a RPA of a type, size or performance capability that can realistically be expected to maintain controlled flight within the lateral and vertical flying area confines specified in the SOC or by the controlling agency,
- c) The RPAS pilot shall report to MAAC without delay any defect, flaw or equipment performance issue that negatively affected meeting any of the technical or operational requirements of this policy.
 - i. The RPAS **shall not** be operated again under this declaration until both MAAC and the RPAS pilot/owner have investigated and agree the noted deficiency has been rectified.
 - ii. Members shall use the MAAC Reportable Occurrence form and MAAC shall respond in writing. Any such record shall be kept for two years from the date of the agreement to cause and remedy.
 - iii. The above records shall be kept by the owner, and any subsequent MAAC owner for the life of the RPAS, or until two years after the RPAS is withdrawn from service and de-registered.

MAAC RPAS Manufacturers Declaration – Owners Declaration

Owner Name and MAAC # _____

Date of initial declaration _____

RPA Make or manufacturer name _____

RPA Model _____ Transmitter _____

RPA category MAAC Model Aircraft (Fixed wing) MAAC Rotorcraft MAAC Hybrid

List any instructions related to servicing and maintaining the RPA and control system.

List any inspection program to maintain system readiness.

List any weight limits or center of gravity concerns or related special requirements.

List RPA design features such as limitations on speed, altitude, or operational restrictions

Specify Weather conditions or limitations affecting RPAS operation,

List Special or unique features of the system that could result in severe injury to crew members during operation.

List Special or unique design features of the system, and the operating procedures, that are intended to protect against injury any person not involved in the operation,

Specify Warning information notifying any degraded system performance,

List Special or procedures for operating in normal or emergency conditions,

List Special assembly, adjustment, or post flight inspection requirements.

Describe availability of manuals or component operating instructions.

Owner Name

Signature

Date

Appendix E - Anti-collision lights

The SFOC requires RPA operating above 400'AGL to be equipped with “*anti-collision lights*” and that they are turned on. There is a SFOC provision for turning the lights off at night, however MAAC is not permitting RPA operation above 400'AGL at night so that is not pertinent. Further, the regulations are mostly silent on RPA lighting requirements save 901.39 which applies to generic RPA lighting and RPA pilot VLOS requirements at night below 400' operations.

After researching the CAR, TC-AIM and industry norms with a view towards ensuring full-scale aviation safety, MAAC had adopted the following **minimum** standard for equipping MAAC RPA with “anti-collision lights”:

1. There shall be **at least one omni-directional rotating or flashing red** or **white beacon** (light) affixed to either the top or bottom (or both) of the RPA, provided it is visible in all directions.
 - a. Where you estimate a significant portion (>10%) of the airframe obstructs beacon visibility in a given direction, an additional rotating or flashing red/white beacon shall be affixed to address any blind spots.
 - b. Beacons can be of any light type, construction, power/source voltage levels or attachment method (permanent or removable).
 - c. Any beacon(s) used shall be of sufficient brightness to be visible to the naked eye in the sky conditions on the day of flight, at the maximum altitude intended to be flown (i.e. if operating at 900'agl on a bright sunny day, the light must be visible to at least 900' in bright sunlight).
 - d. The beacon(s) must be operating anytime RPA flight is conducted under the SFOC provisions. Failure of the beacon(s) during flight must result in descent to below 400' without delay or if necessary, flight termination. The beacon(s) may be turned off before takeoff if causing a visual distraction/safety concern for the pilot.
2. Members who wish to affix additional lights, such as for scale effects, must ensure that any additional lights conform to aviation norms as follows:
 - a. The left side/wingtip shall display a steady RED position light, normally visible starting from dead ahead to 110 degrees left.
 - b. The right side/wingtip shall display a steady GREEN position light, normally visible starting from dead ahead to 110 degrees right.
 - c. The furthest rearward portion of the airframe shall display a steady WHITE position light, visible from 30 degrees above and below the horizontal plane of the aircraft.
 - d. Steady white “landing lights” may be affixed to the airframe facing forward, provided they are only activated or illuminated when the aircraft is on the landing approach, or below 400'agl.
 - e. Flashing white “landing lights” may be affixed to the airframe facing forward, and activated at any time provided there are at least two lights, and the flashing sequence alternates between landing lights.
 - f. White strobe lights may be affixed to either wingtip or side of the RPA airframe next to the red/green position lights. Members should exercise caution if using actual high intensity/voltage Xenon-type strobe bulbs/systems and guard against any radio frequency interference issues.

Appendix F - Sufficient communication equipment

The SFOC requires any RPA operating above 400'agl to have “*sufficient communication equipment for the pilot to contact other airspace users and the appropriate air traffic control unit.*”. The CAR and TC-AIM are silent on what they deem to be “*sufficient communication*” therefore MAAC, taking a view of aviation safety, has adopted the following mandatory requirements and optional guidelines:

Mandatory Site requirements.

Unless otherwise specified in a written agreement between MAAC and an Air Navigation Service Provider, MAAC sites located as below shall not permit RPA operations above 400'agl unless the SOC approved communication capabilities exist and are operable:

- Sites on any type of aerodrome,
- Sites within 3nm of an aerodrome listed in the CFS/CWAS and,
- Sites within the “protected airspace” of any low-level airway, air route or commonly used track which are displayed on an aeronautical chart or map.

Mandatory SOC communication capabilities.

Each MAAC site will be assigned specific communication requirements and capabilities depending on site specifics. However, the following apply to all sites:

- Aviation radio operation is defined as the ability or requirement to make broadcasts. In all instances the MAAC member operating an aviation radio must possess a ROC-A.
- Aviation radio monitoring is defined as listening, but not making broadcasts. An ROC-A is optional in these instances.
- Alternate aviation communications may be via telephone (cell or land line) or via visual means such as signal lights, flares, flashing of runway lights, or full-scale pilot actions (rocking wings, flashing landing lights).
- No MAAC RPAS pilot shall operate an aviation radio while also operating an RPA under the MAAC manufacturer declaration. They may monitor aviation frequencies, however.
- Where aviation radio operation is specified, a crew member shall be present, briefed or trained on the requirements and must be positioned to be able to relay any aviation communications directly between MAAC RPAS pilots and the aviation station.
- No MAAC member shall issue advice, instructions or any other information to full scale aviation stations that could be construed as anything other than information.
- ALL MAAC members shall:
 - Comply with instructions received from any Air Navigation Service Provider or their agent (ATC, FSS or similar) whether those services are provided on site or remotely, and
 - Request clarification to any information they do not understand, and
 - comply with any advice, suggestions or other information provided by full-scale aviation stations without delay, or
 - cease all RPAS operations above 400'agl if:
 - they do not understand the information provided, or
 - if they think they have lost situational awareness, or
 - if any communication requirements are no longer met.