



Guidelines for MAAC Involvement at Full Scale Events & Facilities

Purpose of Paper

In recent years, it has become apparent that there is a desire if not a necessity for the Model Aeronautics Association of Canada to take advantage of every opportunity to promote safety oriented aeromodelling within Canada. Membership in our organization is stagnating. There are very real concerns regarding the unscrupulous and irresponsible use of unmanned aviation systems by persons who have not had the opportunity for qualified and safety conscious instruction on the appropriate principles and legislation. Education and positive public relations efforts can do much to counter these concerns.

It is therefore the purpose of this paper to explore the methods by which MAAC might take advantage of participation in full scale airshows and other similar events which are expected to attract the attention and attendance of many thousands of Canadians who already have an interest if not a fascination with aviation systems of all types.

Types of Events

At the time of writing (Jan'16) of this document, there were thirty-one airshows scheduled in Canada according to the International Council of Airshows. Sixteen of these shows will feature performances of the Canadian Snowbirds, perennial crowd-pleasers, and/or the CAF F-18 Demonstration Team. I believe we would be amiss in not taking advantage of these opportunities to promote aeromodelling in particular and general aviation as well.

An **airshow** is defined by Transport Canada as “an aerial display or demonstration before an invited assembly of persons by one or more aircraft.” Note that the definition doesn’t include the requirement that the “public” be invited to attend, nor that there should be a fee for attendance.

In addition to “airshows” there will be many and various “fly-in” type of events at smaller full scale airdromes, some registered and some not, many of which are classed as “non-certified”. A few Canadian airports are owned by Transport Canada, but most are either owned/administered by an “airport authority organization” or are privately owned and operated.

A **“fly-in”** is defined in the Canadian Aviation Regulations (CARs) as “a pre-arranged meeting of a number of aircraft at a specified aerodrome. Fly-ins involve an invited assembly of persons, but cannot include competitive flying or aerial demonstrations. If your event fits these criteria, there are no special requirements for pilots to meet-beyond normal aircraft operational rules”

The last type of flying activity which I think is worthy of mention **is not at a full-scale airshow or other event**, where modellers, either individually or as a group have been granted permission to undertake aeromodelling activity on a non-MAAC chartered facility which is primarily used as a full-scale airdrome, registered or not. Members have obtained “permission” to fly from such small airdromes, but I would guess that all have not ensured that what steps they have taken are in fact appropriate. This type of flying is not what we might call an “event” such as an air-show or competition, but could qualify for MAAC’s purposes as a Fun-Fly. Permission for such flying might be sought for only a day or two, but could also encompass an entire flying season. Further, the activity permitted could be for only a few members, or a larger group or perhaps even an entire club.

The final type of activity which might wish to obtain a MAAC sanction is that of a **non-flying static display** of model aircraft of all types and could also include the participation of simulators, video presentations, or lectures etc. Such displays are ideally held at full scale events and facilities in conjunction with an actual airshow or competition, whether or not models are actually being flown. The value of such displays is immense because the viewing public are made up of those that already have an interest in aviation, and their curiosity has been piqued by the flying displays, be they full scale or models. There are also the displays often called “mall shows” where a club displays various aeromodelling hardware at a venue where the general public normally attends. Facility owners often ask for those involved to have liability insurance, hence the request for a MAAC sanction on the activity.

Requirements for Sanction Approval

See MPPD #2 –

Paragraph 1) defines “Sanction” and describes the requirements for sanction issuance. I suggest that the board consider having a space or section added to the written and on-line sanction application forms referring to conditions in addition to the normal MAAC Safety Code and MPPDs which may be appropriate for a given event or facility. This could be as simple as the advice that an attached list or outline of such conditions is attached. The attachment of an additional list of items conditional to a sanction would negate the necessity of having a much-expanded form, which for most events wouldn’t be appropriate.

Paragraphs 6) & 7) describes the types of events where it is mandatory for a sanction to be issued in order for MAAC to approve activity, to clarify the types of situations where simple permission to use a facility might be interpreted as all that is needed. I suggest that a further sub-paragraph be added to paragraph 6 requiring sanction for any activity, single or continuing, that will occur on a full-scale airdrome where it is feasible that full scale traffic could be expected. This will give a ZD the opportunity to ensure that all appropriate safety considerations have been dealt with and conditions peculiar to the proposed event or activity have been added to sanction requirements. I fear that simple permission for facility use, even just verbal, may be interpreted as all that is required, when upon examination, further steps should have been taken.

The criteria which should be fulfilled in order to expect a zone director (ZD) to sanction an event, or to give a facility a standing MAAC registry as a club field will vary greatly. The most obvious

differences are apparent when comparing the intended activity involved when there is to be a model flying demonstration at or in conjunction with a full-scale airshow involving a very large audience and numerous parked full scale aircraft as opposed to a model event with or without the presence of non-member spectators or routine flying at a small municipal type airport.

The on-line or paper event sanction applications in use by MAAC at this time are, in my opinion, not even close to supplying sufficient information for a ZD to make an informed decision in regard to the type of events and activities subject of this paper. Failure to supply sufficient information will surely result in a time consuming and annoying amount of email or other correspondence looking for various items of clarification or just an outright denial of sanction. Members must remember that the ZD wants to promote the hobby where at all possible, but is also duty bound to take a common-sense approach to risk management by not leaving MAAC open to unnecessary liability issues or the creation of a negative public perception of aeromodelling.

Procedures & Planning Considerations

Full Scale Airshows & Recreational Events

Upon receipt of an invitation to participate, or when members knowing of a pending airshow or other full scale event in their area and hope to take part, the planning process to do so will be set in motion. A major point to remember is that Transport Canada (T/C) will be issuing a Special Flight Operations Certificate (SFOC) with respect to any airshows which will in no way include or deal with any aeromodelling activity. Transport Canada doesn't now, and will not in the future be so involved. See CARS 623 (Link below) for the items that T/C will be considering when processing an SFOC application. It then becomes obvious that they don't need anything else to be added to their list of responsibilities. The flying display involving models of any type must therefore be done before, at a break, or after, the full scale flying demonstrations covered by the SFOC. Our members will have to work with the show organizers and those operating the facility for their planning input. I have included here a list of items that may need consideration in the planning for such events.

- Distances: active flight line to spectators &/or property including parked aircraft. I suggest a minimum distance of 350 feet from the model flight line to any spectators or property, especially parked full scale aircraft. This gives a substantial safety cushion over what is a normal MAAC minimum distance from flight line to spectator/parking areas
- Type of Aircraft – I suggest models normally described as IMAC competitors- 30% or larger or giant scale. This is because the distances involved make it virtually impossible for spectator interest to be held on ordinary models seen at a typical flying field. Remember – this is a “show” and may not be representative of what is regularly seen at a typical MAAC field. At an airshow, spectators expect to see a show, not a skillful flying display. Smoke and noise are essential ingredients. Hopefully, a static display will be available so that spectators enthused by

the flying display, can explore the full gamut of aeromodelling hardware, while speaking with enthusiastic modellers

- “Air Boss” coordination of activity –this is a person designated and probably hired by the event organizer who has, in conjunction with persons in any air traffic control function, total authority as to what flies and when it does so. The airboss will be working for the event organizer and will need to know everything about the event and who is involved, even if he/she is not directly involved with any aeromodelling activity. This person can be a most valuable resource for those planning an event. The airboss, being in effect an employee of the organizer and paid by them, isn’t required to work with modellers so a diplomatic demeanor is required in order to build a relationship with him/her. It is imperative that we don’t make the job of the airboss any more complicated than it already is. There are a myriad of details which have to be considered during the planning function for aviation related events and the RC involvement is only one small part of the whole. The airboss may require a written “Operations Plan” showing exactly what the RC flight display will entail. This plan should include the type of flying to be done and where on the facility it will occur. Further, the plan should include the names and MAAC numbers of the participants and descriptions of the models to be used (size & type). These details are not unlike those that must be supplied by any full scale pilot who will participate in a show. The Air Boss will probably be required to make application to Transport Canada for a Special Flight Operations Certificate (SFOC), and Operations Plans by the participants will be included in this application. The suggested procedure was used at recent airshows and all went smoothly.
- Communication – It is essential that the airboss/and air traffic control(ATC) have immediate communication available with the person supervising the aeromodelling activity. It could become necessary to ground all models without warning, so such communication is essential. This will usually be done via hand-held radio between airboss/ATC and the model pilots supervisor/spotter. I suggest VHF hand-held radios.
- Control of Airspace -. Airboss direction must be followed to the letter to ensure control of airspace” – need guarantee that runway will be closed during aeromodelling display. Flying will be a “preamble or opening/closing act, or could occur during breaks in full-scale activity.
- Identity of event/show sponsor (proper legal name – required for insurance certificate issued by MAAC head office
- Show sponsor insurance? – Will there be any further insurance covering the activities of our members?
- Permission of sponsor or facility owner &/or request to participate in writing- required for sanction procedure
- NOTAM in place or needed? NavCanada will be issuing a NOTAM for anything that will be classed as an “airshow” (see definition below). A NOTAM may be appropriate for a fly-in depending on the nature of the activity expected and if normal field operations are to be interfered with. A ZD should satisfy himself that if the requirement is at all possible, the appropriate query has been done and direction received.
- Model pilot selection. Refer CARS, AMA & MAAC, ACE program at ICOA
This is most important. A small group of extremely competent persons is required. The group will include the pilots, persons acting as spotters/helpers/mechanics, commentators, and a mini air-boss who will direct the activities and be the liaison person between the model flying group

and the show organizer and the overall air boss. The same person could, of course, perform more than one of these functions, but it is most important that all involved know who is in charge of what.

I suggest that where at all possible a person experienced in performing at such airshows be included. Another source might be persons who have experience in major competitions giving them experience in performing planned maneuvers under pressure including a timeline. The maneuvers to be performed should consist of a pre-planned and practiced routine, so consideration should be given to pilots who have the opportunity to work together in practicing their routines, especially if any formation or coordinated flying is to be included.

Flying skill needs to be tempered with attitude toward putting on the best showing possible while at the same time remembering that absolute safety is the main guiding principle.

Someone competent from the presenting group must be appointed as a safety inspector whose function it is to ensure that all aircraft to be flown are and have proven to be in condition to fly. He must have the authority and willingness to deny even his best friend the right to fly if it is appropriate to do so.

See material from the AMA and ICOA (links below) which covers pilot selection in more detail. There is a lot of reading there, but the content could be of great assistance. Further, I refer you to an experienced show pilot, Lorne Loudon of Camrose, AB (Contact data below).

- Storage and security of all equipment (some events are two or more days – hence need for secure storage of aircraft, support equipment and battery charging facilities.
- Care & Feeding of all volunteers – It is possible that the pit, storage, and flying areas may be a considerable distance from commercial food outlets, and that said outlets may not have food & water of a quality conducive to keeping all involved healthy during the duration of the show. Toilet facilities could also be some distance away. Members must be prepared to deal with inclement weather and/or extreme temperatures.
- -Access to site, parking, overnight facility? Experience tells me that organizers may not be prepared to authorize an unlimited number of parking and access passes as there is fear that they will be abused resulting in loss of revenue. Effective advance planning is required.
Definition of commercial involvement – any moneys paid to participants?
Persons involved in flying, support work, or manning of static displays cannot be paid and expect to be deemed as involved in a recreational pursuit so that they can be covered by MAAC insurance. If a club were to bring in a sponsored “show pilot”, I would strongly suggest that enquiries be conducted with the Chair of the MAAC Insurance Advisory Group so that all involved are aware of their standing. In my opinion, MAAC or a MAAC club could only reimburse a participant for out-of-pocket expenses incurred in a promotional activity.
- Suggested time required to put all steps in place?? MAAC member involvement in a major airshow or even an event just requiring a NOTAM with minor activity could take some time. Be prepared to spend at least several months in locating and getting in contact with the required persons (TC, NavCanada, Air Boss companies, local airport authorities etc.)

- Board/Exec approval or just ZD? The granting of a sanction is the function of each individual ZD, but I would not be at all surprised if any one of them was to seek the advice or counsel of other ZDs, the Executive Committee, the board collectively or any of our various committees like Safety or Insurance. If the ZD has any doubts he will want to take steps to ensure that the proposed event will be positive for MAAC and at the same time will not expose the organization to undue adverse publicity or financial liability.
- Event Funding from PR or other source rather than zone promotional fund – major event could expose hobby to thousands of people, hence a major “bang for the buck”, but could seriously deplete an individual zone budget so that there is little left for “normal” zone promotions. If enough time is available to deal with such an issue, a formal application could perhaps be made for special event funding. Such an application would take considerable time and significant “salesmanship” on behalf of the applicant. I would suggest such an application be dealt with one year with the intention of event activity the next year to allow such funding to be included in the usual November budget considerations by the board.
- Interpretations & Definitions – see CARS 623 etc. – important for participants to be current because terms will be used by other participants, organizers, airboss and T/C reps.

Recreational Events – i.e. Fly-Ins

These events don’t qualify as airshows, and aren’t governed by all of the things included in CARS 623. The organizers of such events have been known to invite aeromodelers to put on displays, flying or static to show a different side of the aviation hobby. They are often held as a social and fundraising event for various flying clubs. (See fly-in definition on page 2)

It will be necessary for members to work with the owners of fields hosting such events and/or the event organizers to ascertain what, if any, permissions or authorizations may be needed. It is very possible that a “NOTAM” could be required to notify full scale pilots of unusual activity. These are issued by NavCanada. The first step is to ascertain from NavCanada the status of the facility, that is, is it a registered airdrome or not, as this will affect the level of permissions and flight control notices that may or may not be required.

Non-Event flying

If members wish to pursue a standing agreement for use of a small airdrome, they should seek the issuance from NavCanada of a “Pilot Supplement” or “Canada Flight Supplement” which will notify the flying public that aeromodelling activity could occur at any time specified in the supplement. I would not sanction flying at such a field unless the modellers undertake to prohibit flying without a spotter, and to always be in possession of a radio allowing monitoring of radio traffic concerning full scale traffic in and out of the airdrome. We have at least one field in Alberta using such a system and it works well.

The field status is important for this type of flying in a similar way as it is to recreational events as described above.

Static Displays

There are numerous small details that need to be considered for the presentation of an effective static display, whether or not the activity is to be held in conjunction with a full-scale airshow or other full scale event. Even without the involvement of model flying there are a number items that must still be satisfied in order to obtain the permission and blessing of show/event organizers. I have listed a number of these considerations below in no particular order. Each such display will of course have different needs, but the ZD must still be given all relevant information so that he can make an informed decision regarding sanction.

- Considerations:
 - o Tables – rented – owned – supplied by organizer
 - o Power – needed for lighting, simulators
 - o Tent - rented or owned by members/clubs
 - o Model storage/security – overnight?
 - o Parking – daily – RVs
 - o Access – number of passes – cost- time before and after public have access
 - o Space available
 - o Complimentary neighbours in display area such as commercial outlets (hobby stores), air cadets, full scale aircraft not involved in flying
 - o Hand-out material –MAAC (new MAAC Vision/Mission handout cards), Club promotional pamphlets appropriate to the area concerned.
 - o Volunteers – how many needed, personal needs, travel and food costs etc. Select workers based on knowledge of the hobby and most importantly, their ability to meet and talk modelling with the public.
 - o A team leader needs to be appointed who will be responsible for things such as worker scheduling, liaison with show organizers and persons making public address announcements –(ask that spectators be reminded of the presence of the display)

Human Resources Concerned

One of the first steps in the event planning process is to prepare a list of persons complete with contact data, with whom the applicant will have to create a good working relationship in order to make arrangements to conduct aeromodelling activities at any full-scale site, from major airshows to periodic access for flying at small full scale airdromes. Depending on the complexities of the proposed event or activity, the list may be large or small, but all involved need to know who is assigned to what because there will always be unforeseen questions to deal with. Planning meetings involving some or all of the persons on a particular event list will no doubt be necessary. Even though aeromodelling activity is not normally a recognized part of a major airshow, it is desirable for those involved in such activity to have created a rapport with the major planners so that they will hopefully accept a representative of the modellers to attend for observation any planning meetings in order to achieve awareness of the event operational planning details. The event organizers will be looking at a number of things which will have a direct influence on the planning done by the aeromodelling group – such as site access and passes, parking, electricity, parking and storage of models etc.

The following is a list of some of these people, but will not be all inclusive as only the actual event planners will be in a position to make final judgement as to their needs:

-Transport Canada person assigned to deal with the SFOC application for an airshow. There are four regional offices in Canada which when contacted should be able to provide the applicant with the name and location of a civil aviation inspector who will be assigned to any pending airshow (if not the person, at least contact data for the appropriate T/C office) – see T/C Regional Office Link data below.

-NavCanada – It will be necessary to identify the NavCanada representative who is responsible to make decisions or supply information regarding the status of given airdromes/facilities across the country. These people will be able to give advice as to the circumstances under which “NOTAMs”, or “Flight Supplements” should be sought. I strongly suggest that advice from these people should be obtained rather than just accepting permission or an invitation from the owner/operator of a small airdrome who may or may not be aware of legal requirements. Remember – there are no stupid questions, just foolish assumptions. I would suggest that a Zone Director processing a sanction request insist on being advised whether or not such advice or opinions have been obtained.

Link data to contact the corporation’s information office follows:

<http://www.navcanada.ca/en/Pages/contact-us.aspx>

Air Boss – See Procedures & Planning above.

Event Organizer – Usually a person or commercial entity responsible for all the administrative details regarding an event. They will be responsible for all the arrangements for the details as set out in the SFOC issued for the show. These are the people who will be making arrangements for the site access, parking, electricity, toilets, concessions, static display areas etc.

MAAC members to be involved (pilots, spotters, flight director, radio liaison person, static display workers,)

Equipment Providers – public address systems where appropriate, simulators, tents, display items, vehicles/trailers

Documentary References/Resources

I suggest that persons considering involvement with aeromodelling at airshows, fly-ins or other activity at full scale facilities read through the documents referred to in the links and titles below. There is a lot of information which will allow you to compile a complete list of what you need to do and even just should do to approach your task with objectivity. This material can also provide Zone Directors with information they may use to ensure that sanction applicants have covered all the appropriate items particular to any given application.

T/C Regional Offices:

<https://www.tc.gc.ca/eng/civilaviation/standards/general-ccarcs-regionaloffices-2056.htm>

- **CARS 623 – Part VI – Chap 1**

-T/C – CARS – 623 – Canadian Air Regulations – Airshow Requirements

http://www.tc.gc.ca/eng/civilaviation/regserv/cars/part6-standards-623d1-2449.htm#623d1_02

Navigation Canada - "NavCanada"

<http://www.navcanada.ca/en/Pages/contact-us.aspx>

<http://www.navcanada.ca/en/about-us/Pages/default.aspx>

<http://www.navcanada.ca/EN/media/Publications/NOTAM-Manual-EN.pdf>

Canada Flight Supplements

<http://products.navcanada.ca/Products/Canada-Flight-Supplement>

-AMA -

Academy of Model Aeronautics

Requirements for the Operation of Remote Control (RC) Aircraft at Full Scale Airshows:

<http-www.modelaircraft.org-files-requirementsforRCOperationatFullScaleAirshows.pdf.url>

AMA – Team AMA – Airshow Safety Program

<http://www.modelaircraft.org/files/718.pdf>

-ICOA – International Council of Airshows – "ACE" Program

ICOA currently concerned with creating some sort of air boss certification for Canada. - Pending

<https://www.airshows.aero/CMS/Mission#>

A document which can be used as a resource in vetting "show pilots". This is what is used by professionals to judge who will or will not be acceptable to fly at an airshow, and the requirements, in my opinion, are basically the same for an RC pilot where appropriate.

A personal reference:

Lorne Loudon, (contact information below) is experienced at performing and leading others in full scale airshow activity. He is willing to answer whatever questions anyone might have in order to promote such activities across Canada.

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Lorne Loudon, of Camrose, AB

780-878-3550, 780-910-6088

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Proprietor of Pro-RC at

<http://www.pro-rc.ca/>

NOTAM – Definition

English: A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations

Français NOTAM Normalisé Masculin

DÉFINITION : Avis diffusé par télécommunication et donnant, sur l'établissement, l'état ou la modification d'une installation, d'un service, d'une procédure aéronautique ou d'un danger pour la navigation aérienne, des renseignements qu'il est essentiel de communiquer à temps au personnel chargé des opérations aériennes.

Board Decision

The Board of Directors has approved this document as a guideline. I realize that there will be differences of opinion. I believe that involvement in such activities as discussed in this paper are too potentially valuable to MAAC and the hobby of aeromodelling to be ignored, hence the need for a good objective examination of the material and discussion of how best our organization can best take advantage of any opportunities that arise. Once a decision has been reached as to how best to go forward, it will be necessary to place a policy document on our website, and encourage each ZD to be prepared to receive and process applications to sanction these activities. I also expect that like other new ideas or policies, there will be a period of time where applicants and ZDs are learning what policy and procedure works best resulting in future amendments to make the procedure work smoothly and effectively. At the outset, it will be to everyone's advantage if all involved allow plenty of time to deal with the applications and familiarization with relevant material.

I am always available to discuss this subject with anyone who thinks I might be able to offer assistance.

Don McGowan, Chair, Ad-Hoc Committee

MAAC involvement at full-scale facilities/events

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