

Winnipeg Headingley Aero Modellers

Pilot's Guide

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Forward

The Winnipeg Headingley Aero Modellers (WHAM) club was constituted in 1995 and, shortly thereafter, became a chartered member of the Model Aeronautics Association of Canada (MAAC). Utilizing the MAAC Safety Code as a basis, the Club's document, "Flying Etiquette" was revised and named the "Safety Code".

Along the way, it became apparent a flying training plan was needed to assist instructor and student pilots in the process of learning the craft of flying radio controlled model airplanes. A plan was put together, loosely based upon MAAC's former Wings Program and many ideas from other clubs and instructor pilots. Though the plan existed, it was not utilized to any great extent as the influx of people aspiring to become model airplane pilots was not all that great.

However, in recent times, the Club has seen an increase in members seeking pilot training, resulting in several deficiencies being found within the existing training plan and the "Safety Code". It was decided to revise the "Safety Code" in order to better meet the needs of the Club's general membership, and is now entitled "**Pilot's Guide**". It describes the Club's airfield and the manner in which it is expected to be used.

To meet the training needs of the Club, two companion documents have been created. "**Things About Airplanes ...**" is intended to provide basic aeronautical information, as it applies to radio controlled model airplanes, for those of the Club's membership who may be interested in learning more about model airplanes and how they work and fly.

"**Now ... How Do I Do This?**" is intended to provide guidance and reference material for the Club's Instructor Pilot's in presenting flying training to both ab initio students and to those qualified pilots who may be interested in the more advanced flying techniques.

This "**Pilot's Guide**" is not meant to be a rigid, inflexible document, but is a compilation of material gleaned from proven and safe practices in radio controlled flying activities. Where no guidance exists, common sense should prevail. In all cases, the over-riding principle is to ensure flying activities are conducted with the safety of people, property and the environment as primary considerations.

Happy and Safe Flying!

General Information

WHAM's Airfield

The Club's airfield is located approximately 5 km. west of the Perimeter Hwy on Saskatchewan Avenue, in the RM of Headingley. The entrance to the airfield, on the South side of the road, is marked by a sign. The airfield can also be accessed by traveling North from the Trans Canada Hwy on Dodd's Road, in the village of Headingley. At the junction with Saskatchewan Avenue, travel East for approximately 2 km.

This 15 acre leased site, as shown in Figure 1., includes 2 grass runways oriented North-to-South and Southwest-to-Northeast. The pit areas are located on the Southeast and Northwest sides of the runway system.



Figure 1. WHAM's Airfield

The Club owns grass cutting equipment and members are expected to assist in airfield maintenance activities.

Members are also expected to keep the airfield neat and clean by using the garbage cans provided or by removing their garbage when leaving the airfield.

Airfield Use

The airfield is for the use of Club members and invited guests only. The insurance carried by the Club is provided through the Model Aeronautics Association of Canada (MAAC). In order to be covered, persons using the Club's facility must be members of both WHAM and MAAC, with the following exceptions:

- Invited guests do not have to be members of the Club, but must be current MAAC members and must have a Club sponsor at the field during flying. This provision is solely to allow visitors the opportunity to try the Club facilities and is not meant to allow use on a regular basis. Persons interested in using the airfield regularly must join the Club.
- During open events non-Club members who have a current MAAC membership do not require a Club sponsor as they are considered as guests of the Club.
- For the purpose of introducing someone to the sport of Radio Controlled (R/C) flying, members (preferably Flying Instructors) may conduct flights with non-members using a "Buddy Box". In effect, this makes the person using the live transmitter the "Pilot-in-Command" and responsible for the flights.

Proof of membership in the Club and MAAC must be carried while actively on the airfield. Members are encouraged to ask to see proof of membership from unfamiliar persons using the airfield.

Courtesy

The use of the Club's airfield is a privilege and all members should conduct themselves accordingly. It is natural that model airplane flying attracts an audience and members should treat onlookers in a courteous manner. As it is not always readily apparent to whom one is talking, everyone should be treated as if the continued use of the airfield depends upon their goodwill. Yelling at spectators because they may be encroaching on some activity is a certain way to attract negative and unwanted attention.

"Off-Airfield" Landing Recovery

"Off-Airfield" landings can happen even to the most experienced of pilots, and on many occasions the airplane ends up some distance outside of the

confines of the airfield. Members are reminded that the airfield is located on leased property within an area zoned and used for agriculture. It is being actively farmed and a herd of “first responders” can cause considerable crop damage. In the event of an “Off-Airfield” landing, the following action is recommended:

- a. attempt to clearly locate the landing site by identifying some readily visible landmark,
- b. have someone assist by staying on the airfield and providing guidance to the landing site,
- c. limit the number of persons going to the landing site,
- d. avoid damage to crops by moving carefully through the field and following rows or moving plants aside rather than stepping on them, and,
- e. recover ALL of the airplane (this may have been a case for a green bag).

Members are individually responsible for any crop damage claims which may arise from the recovery operation.

Should injuries or damage to property be incurred during the “Off-Airfield” landing the following action is to be taken:

- a. if possible, provide assistance to the injured,
- b. if necessary, send for help (the RCMP are located on Lyons Road at the TransCanada highway, just East of the traffic lights and can be reached at **831 - 5929** on a cellphone if one is available), and,
- c. cooperate with the people involved by exchanging names, addresses and telephone numbers. DO NOT comment on liability. This is not meant to hide the truth; the determination of the cause of the accident and resultant liability is the responsibility of the insurance company.

Members of MAAC are insured, and as long as flying activities are conducted in accordance with safe practices, insurance coverage exists. If it is expected that a claim will be made as a result of an accident at the airfield, the Club President must be contacted as soon as possible and briefed on the situation.

Airmanship

Flight Operations

Airfield Pit Areas

The 2 pit areas are not to be active simultaneously. In order to maintain the sun to the rear of the pilot stations, the SouthEast pit is active during the mornings and early afternoons, and, from 4 PM to sundown, the NorthWest pit is active. The pit areas are intended for the assembly, servicing, starting and parking of airplanes not engaged in flight. The areas also contain a windsock, the radio channel control boards and barrels for garbage.

When setting out airplanes and support gear in the active pit area, pilots should ensure there is sufficient space between airplanes and that exhaust and propeller wash will not be a problem to other members. Engine run-ups should be conducted in an area as far as practical from other airplanes and equipment, especially when the pit area is congested.

As airplanes and equipment represent a significant investment, are easily damaged and their operation presents some safety risks, it is recommended that only Club members who are engaged in flying activities be permitted in the pit area. Spectators (adults, children and pets) should remain in the area between the active pit area and the related vehicle parking area.

Active Runway Selection

The selection of the active runway depends upon the local wind and should be the one most closely aligned with the wind. All active pilots on site should agree on the runway selected.

In calm conditions, any runway can be selected and agreed to by all active pilots on site.

All pilots should use the concrete flight-line pads appropriate to the selected active runway.

Use of the taxiways for take-offs out of the pit area is strongly discouraged. It is not only discourteous, but is distracting and hazardous to other pilots engaged in flying on the flight line.

Radio Channel Control

Simultaneous use of radios on the same frequencies is disastrous. Mutual interference renders the systems involved totally useless, and, most importantly,

if one of the systems involved is airborne at the time, control of the airplane is lost. As a result, it is incumbent upon all members to be "frequency vigilant" at all times. Only Narrow Band radio systems are to be used.

To assist in preventing simultaneous use of individual frequencies, the Club uses a Channel Control Board. On it are displayed all of the individual channels available for use with model airplanes, upon which Channel Tags can be attached. Each member of the Club is expected to have a Channel Tag, indicating the Channel and Members Name, for each radio being used.

Before switching on a radio transmitter, the Channel Tag for that radio must be attached to the radio channel displayed on the Channel Board. If another tag is already on the desired channel, the radio is not to be activated, as the tag indicates that another radio on the desired channel is in use. When a member is finished using a radio (at the end of a flight and the engine is shut down), the Channel Tag for that radio is to be removed from the Channel Board, enabling another radio on that channel to be used. In this manner, radio channels can be shared by any number of members.

Airplane Preflight and Engine Start

All airplanes should be carefully preflight-checked before each flight, especially prior to the first flight of the day. Use of a check-list is encouraged, particularly for the casual, infrequent pilot.

A radio range check, in accordance with the recommendations of the manufacturer, must be conducted prior to the first flight of the day.

Prior to starting, the airplane should be moved forward from the pit line to the start line and restrained by the use of chocks, tie downs, a crew member or other restraining device in such a manner that it cannot move should the throttle be advanced with the engine running. The airplane should be oriented so that propeller wash and exhaust do not bother other members working in the pit area and, in the event it becomes unrestrained, it will not run into anyone. Except when required to start the engine, no one should stand in line with or forward of the propeller.

Particular attention should be given to the preflight check prior to a test flight of a new airplane or one with which the pilot is unfamiliar. Double checking of all connectors and fittings is extremely important. Having another pilot double check the preflight is recommended. After engine start for a first time flight, a radio range check should be conducted with the engine running at full throttle.

All airplanes equipped with engines larger than .15 cubic inches in displacement must be fitted with mufflers.

Moving to the Flight Line and Taking Off

After engine start, the airplane can be moved from the pit area to the active runway by taxiing or being carried by a crew member. Before attempting to take off, the active runway should be clear of other airplanes either approaching to land or landing, and other pilots clearly informed of the intention to take off.

Pilots should space themselves a minimum of 15' apart on the flight line to prevent any interference between radios. It is important that all pilots have a clear view of the approach and landing areas. Use of the concrete pads or pilot stations on the flight line is encouraged to aid in maintaining pilot separation while flying.

Take-offs and landings should be conducted using the selected active runway. It is understood that less skilled pilots, rudder-only airplanes, etc., may require a take off roll directly into wind. In this situation, communication of intentions to the other pilots on the flight line is essential.

Number of Airplanes in Operation

Experience has shown that the airfield can comfortably and safely handle 4 airplanes in flight at one time.

Airplanes undergoing test flights can have unexpected flight characteristics and they may need to be landed quickly without regard to circuit and wind directions. Other pilots should be informed that a test flight is being conducted and the other members should cooperate by allowing solo access to the airfield.

Helicopters change direction quickly and often fly close to the ground where they can be a hazard to other pilots focussed on their airplanes. Therefore, helicopter pilots should be allowed solo use of the airfield. As there is a small number of helicopters in the Club, this should not unduly restrict the flying operations of other members.

Student and new pilot skills are usually less than the more experienced members. They may require more airspace, longer approaches to landings and may experience control problems. Cooperation among all pilots is important to ensure that the less experienced members can enjoy unobstructed airspace commensurate with their skill levels. Inexperienced or less skillful pilots should honestly identify their skill level and airspace needs to the other active pilots.

Large scale and aerobatic airplanes may also have different airspace needs. Cooperation among the active pilots at the time is the key to safe and enjoyable operations.

Communication and Airspace Usage

Safe use of the airfield is dependent upon clear communication of intentions among the members actively flying. Pilots tend to be focussed on the airspace surrounding their own airplane and may be unaware of what is going on elsewhere around them. Stating intentions loudly enough to be clearly heard by other pilots and receiving an acknowledgment from them before proceeding is recommended.

Some terms generally used and accepted are:

- **“Coming Out”**..... Ready to taxi out on to the active runway for take off
- **“Taking Off”**..... On the active runway and about to take off
- **“Circuits”**..... It is intended to conduct a number of touch and go landings
- **“Landing”**..... It is intended to land and leave the runway
- **“On Final”**..... The airplane is on final approach, near touch down
- **“Clear of the Active”**.. The airplane has been landed and taxied clear of the runway
- **“Going Around”**..... A missed approach is being conducted
- **“Dead Stick”**..... An engine failure has been suffered and the airplane is making a priority approach to landing. Other pilots should leave the circuit or otherwise yield to the stricken airplane.
- **“Out of Control”**..... The airplane has suffered a partial or complete control failure. Other pilots should yield to the stricken airplane.
- **“Down”**..... The stricken airplane is on the ground and no longer a hazard to others.

When not flying in the circuit, a pilot should select and remain in a part of the airspace away from others. When pilots wish to perform maneuvers over the active runway, this intention must be clearly stated to the other pilots and conflicts must be avoided, even if it means flying at a later time. Avoiding other airplanes is everyone’s responsibility.

Airplanes shall not be intentionally flown over the pit, spectator or parking areas. All flights should be conducted so that these areas are avoided at all times.

All pilots shall avoid flying near or over the residential home located to the NorthEast of the airfield.

Until approved for solo flight, all flying carried out at the Club airfield by new and student pilots must be under the supervision of Club designated check or instructor pilots.

Children, Pets and Spectators

Members are requested to keep small children and pets under active supervision while on the Club's airfield. The hazards to all concerned are obvious and can be lethal.

All members are encouraged to participate in the policing of spectators who may be unfamiliar with the operations being conducted. Courtesy in providing direction and answering questions go a long way in maintaining good relations with spectators and residents in the area.

The MAAC Safety Code

Each individual member of MAAC receives a copy of the MAAC Safety Code at the time of initial membership and with every subsequent annual renewal.

The Safety Code should be reviewed frequently by all members as it provides the basis upon which insurance coverage is determined.