



Irene Radio Flyers: Operating Procedures & Safety Policy

Introduction

This document is compiled to assist in ensuring the safety of both yourself and those around you when flying at Irene Radio Flyers (IRF). The flying of model aircraft brings with it the inherent safety risks that should be minimised at all times.

Safety is the responsibility of all personnel flying at Irene Radio Flyers. Please keep your eyes and ears open to ensure that we can share and enjoy our hobby in a safe environment.

All pilots shall make themselves familiar with all the Flying Field Rules and Regulations, the Safety Rules and any other special rules. They shall abide by these Rules. Failure to obey the Rules and Regulations will lead to disciplinary action by the club, and possible reporting to the SAMAA.

All pilots shall not wilfully or deliberately fly their model aircraft in a careless, reckless and/or dangerous manner.

Membership / Insurance

Any pilot who wishes to operate a model aircraft at IRF shall, at a minimum, be a fully paid up member of the South African Model Aircraft Association (SAMAA). Membership to SAMAA provides insurance coverage for those flying at an approved flying field.

Visitors to IRF

Visitors, on arrival at the club, are to introduce themselves to the duty officer. If they wish to fly they must arrange this with the duty officer, who will, once he is satisfied with their flying ability and SAMAA membership status, delegate a suitably qualified club member to stay with them while they are flying. Regular club members are requested to direct visitors to the duty officer and make them feel welcome at IRF.

- Visitors must be accompanied by a suitably qualified club member or a club instructor, and be briefed on Club Rules and Regulations and abide by such.
- Overseas visitors (casual) will generally be treated in the same way as local visitors. They will be accompanied by a local club flyer when flying and the local club flyers SAMAA insurance will cover their activities.



General

All vehicles are to be parked in the designated parking areas only

All garbage is to be taken home for disposal. In other words, if you bring it to the field, take it back with you. This includes broken aircraft parts and elastics. Do not leave any food waste at the field.

Spectators, children and pets

Spectators, children, animals and pets shall remain outside the pit and runway areas and away from the frequency control board at all times unless accompanied by a member or official.

Please note that that damage or interference caused by members' children or pets to model aircraft will be the responsibility of that member and he will be liable for all the costs of replacement or repair.

Proficiencies

Only pilots with a recognised "SOLO" rating (i.e. SAMAA solo) and higher, will be allowed to fly a model aircraft at the flying field unsupervised and in the presence of other pilots or spectators. Take note unsupervised does not mean alone. Refer to section "Aircraft flying"

In order to fly aircraft powered by engines larger than 16cc (0.91cu") and electric equivalent size, with an all up weight up to but not exceeding 10Kg, a minimum rating of Bronze is required to fly unsupervised

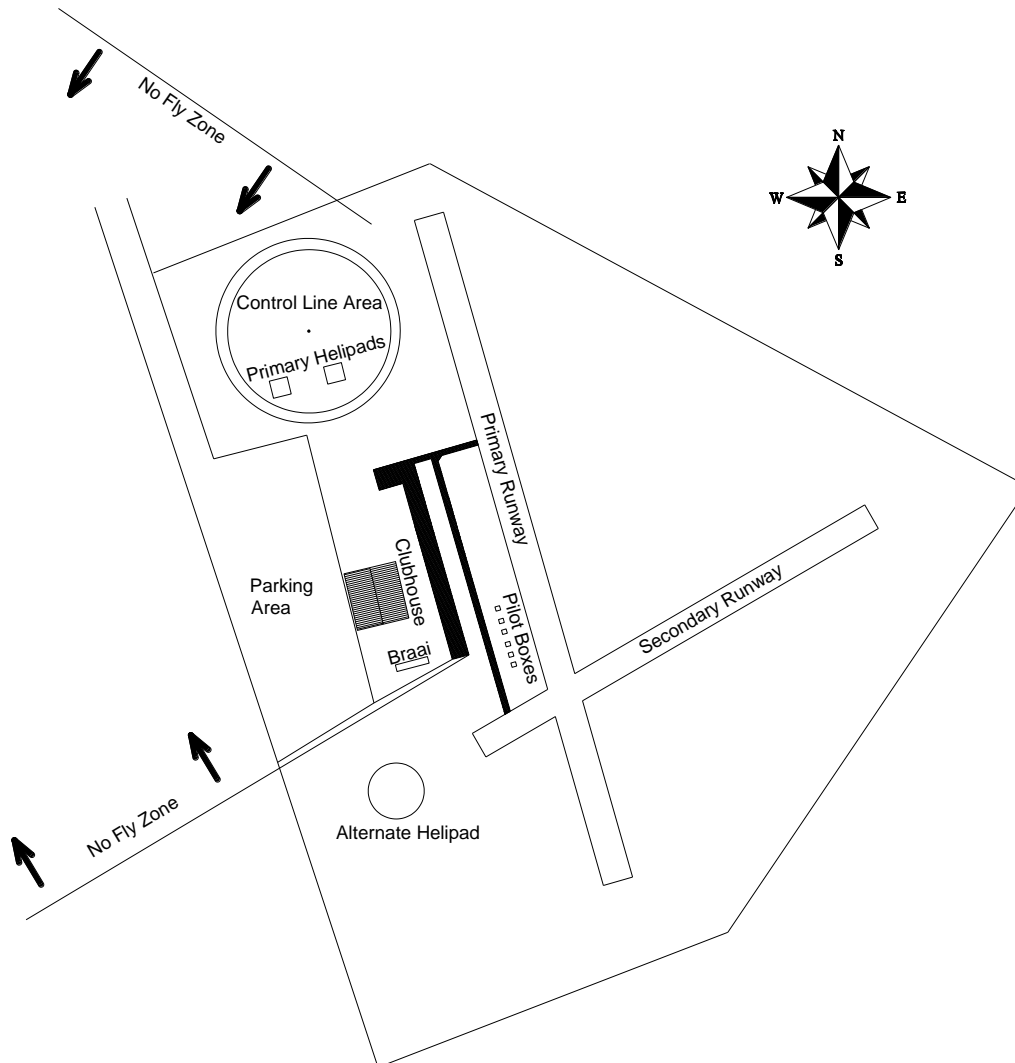
In order to fly large aircraft with an all up weight of more than 10kg, a minimum proficiency of Silver is required to fly unsupervised.

Only Pilots with a Gold and higher proficiency with a Jet solo rating, may fly Gas turbine powered planes unsupervised.

All unqualified or Student Pilots must be accompanied by a suitably qualified instructor or pilot when flying, until such time as they have obtained their "solo" rating.



Airfield Diagram



Frequency Control (35MHz systems)

Peg on Board, use your SAAMA and IRF membership card as “peg” to indicate that you are flying. All transmitters when not in use, will be placed in the transmitter control area and the relevant cards or markers removed from the frequency control board.

No transmitter may be switched on until the pilot/member has reserved his frequency spot on the frequency board, by placing his marker on the frequency spot to be used.

No pilot should hog or occupy the frequency spot for more than 20 minutes for testing or flying, unless arrangements have been made with other pilots waiting for that frequency spot.



Engine Run-Ups / Power Checks

- No starting of aircraft whether Gas, Glow or Electric in the club house, veranda, in front of the club house steps or pit area.
- All aircraft to be started on the designated starting areas to left and right sides of the pit area. Behind the yellow line
- Aircraft may only be re-started on the runway if safe to do so.
- All aircraft to be restrained during starting and running. Restraints have been provided for your convenience in the starting areas
- No taxiing of aircraft in the pits area. Use the taxiway and switch off before coming back to the pit area. Take note of painted arrows indication the direction in which you may taxi.
- Batteries of electric airplanes, including small park fliers, are to be connected on the arming tables provided, in the start-up area or on the flight line.
- No electric powered aircraft are to be left unattended with the ESC (electronic speed control) armed.
- Electric aircraft have to be disarmed (main Battery disconnected) before re-entering the pit area after flying. This is to be done on the arming tables, the flight line or taxi strip.
- Engine Tuning **SHALL ONLY** be performed in the designated start-up area not in use. Area in use depends on wind direction IE, if wind from the North then the Southern start-up area will be used for main activities and vice versa.
- Always perform an engine run-up / power check prior to getting airborne.
- Always stand behind your aircraft when performing engine run-ups. This ensures that should a failure occur, the debris from a flying propeller will move away from you.

Failsafe's

In order to improve the safety of our sport, and following a number of accidents over the years, the following is required:

- All PCM and 2.4GHz receivers shall have their failsafe's set to reduce the throttle to idle at a minimum. It is recommended to programme the failsafe for the other channels to "hold".
- Ad-Hoc failsafe checks will be performed at the field to ensure that this is complied with. Those aircraft not meeting the requirement will be grounded until their failsafe's are shown to be correctly set.

Pre-Flight and Range Checks

In accordance with good Airmanship principles all aircraft shall at a minimum prior to the first flight of the day:

- Be properly pre-flighted to check the airworthiness of the aircraft. Special attention should be paid to the radio, engines, propellers, control linkages, control surface slack, and direction of stick and control surface movements.
- Perform a range check to ensure proper functioning of the radio system. Models being range checked should be restrained, if the engine is running or electric motor power is connected.



Aircraft Taxiing

- Aircraft are to be taxed only on the taxiways and the runways.
- **Taxiing of aircraft in the pit area is not permitted.** A slip of the throttle could result in damage to both your own and other people's property.

Aircraft Flying

The following is relevant with regard to the flying of model aircraft in the circuit.

- Pilots shall fly with a "Spotter" at all times.
- All pilots shall fly from the designated pilot boxes for the runway in use.
- Pilots may move nearer the runway for take-offs and landings.
- Practicing take offs and landings may be done with the agreement of other pilots flying, and only after the pilot has announced their intentions.
- Shoot-ups or over flying the runway, may only be done into the wind, any downwind pass will be done at least 10 meters on the far side of the runway, and again only after the pilot has announced their intentions.
- Crossing the runway in use, to retrieve a model aircraft will only be done after informing all the pilots flying at the time of the intention. Even after the pilots have been informed, crossing the flight line is done solely at the downed pilot's or his assistant's risk. The pilots flying will neither be held responsible nor liable should an accident or injury occur to a person or persons who are on the flying side of field.
- At all times pilots are to communicate their intentions with those around them by calling out in the following manner:
 - "Runway" – when taking to the runway / crossing the runway to retrieve an aircraft.
 - "Take-Off"
 - "Touch and Go"
 - "Landing"
 - "Dead Stick"

It is considered good airmanship to inform the other pilots flying of the location of your model from time to time, especially when positioning for a touch and go or landing. Make use of the normal aeronautical terms such as *crosswind*, *downwind* and *base-leg*.

- Dead Stick aircraft always have right of way.
- Landing aircraft have right of way over those taking off

Fixed Wing Model Aircraft Fixed wing model aircraft shall not exceed the following general specifications:

- a. Maximum flying weight with fuel 25kg
- b. Maximum wingspan (powered) 5m
- c. Maximum wingspan (unpowered) 6m
- d. Maximum surface area 5m²
- e. Maximum wing load 15kg/m²



- f. Maximum swept volume of piston motor(s) 250 cc
- g. Electric motors, maximum no load voltage 72 volts
- h. Maximum thrust of turbine 25Kgs (250 Newtons)



Helicopter Flying

The following is relevant to helicopter flying at IRF.

- There are 3 helipads for use by club members:
 - 2 x Primary Helipads to the North of the clubhouse for normal use if the control line area is not being used.
 - 1 Alternate Helipad to the South of the clubhouse, to be used only when the primary helipads are not available.
- Helicopter flying at the helipads North of the clubhouse may occur simultaneously with that of the fixed wing flying
- **The helicopters are to be kept clear of the active runway and fixed wing flying area at all times.**
- It has been agreed that every hour on the hour, a period of 10 minutes will be provided for the helicopters to make use of the main runway. It is the responsibility of the helicopter pilots to request that they be able to make use of the runway. Such time is normally made with the call "Chopper Time"

Model Helicopters Model helicopters shall not exceed the following general specifications:

- a. Maximum weight (with fuel) (with batteries) 6,5 kgs
- b. Maximum swept area of lifting rotor(s) counting only once any superimposed areas 2,5m² (Provided that in the case of co-axial model helicopters whose rotors are further than one rotor diameter apart, the area of both rotors is counted, and may not exceed 2,5m²) The tail rotor must be driven by the main rotor and must not be driven by a separate engine/motor. SAMAA PO 18 DEFINITION AND SPECIFICATION OF MODEL AIRCRAFT
- c. Piston motor swept volume 2cycle maximum 15 cc
- d. Piston motor swept volume 4 cycle maximum 20 cc
- e. Piston motor swept volume gasoline maximum 25 cc
- f. Electric motors, maximum no load voltage 51 volts
- g. Gyros, the use of automatic stabilisation devices that utilise external references is forbidden. The use of pre-programmed flight manoeuvres is forbidden. The use of an electric rate sensor is limited to rotation about the yaw axis.
- h. Rotor Blades, all metal main or tail rotor blades are prohibited.

Airspace Use and Limitations

Irene Radio Flyers is situated within the Air Force Base Waterkloof Control Zone (CTR).

- No reckless or dangerous flying shall be permitted.
- Pilots of model aircraft shall keep their model aircraft clear of full size aircraft in flight at all times, irrespective of whether they believe the full size aircraft is in at fault or not. IRF is



situated just to the North of “The Pinedene Route” and the possibility of full sized aircraft coming in close proximity to the field is high.

- Only one runway at a time is to be used, this runway will be the one most directly into wind and will be selected by the pilots or safety officer.
 - All take-offs will be into the wind and the turnout at the end of the take-off run will be away from the pits or clubhouse, this turnout will also define the direction of the circuits to be flown.
 - A change in wind direction may require the selection of another runway, all pilots present will agree to the change, and change to the runway selected. Should a change be required with aircraft in the air, those flying will reposition their aircraft to make use of the new runway direction.
- Take offs from the taxiways is prohibited.
- It is recommended that a maximum of six model aircraft be in the air at any one time. Even with this number of model aircraft it is advisable that the pilots agree on their circuits, flight lines or the area of sky in which they intend to fly.
- No hovering is allowed in front of pilot stations that are occupied by other pilots.
- The maximum permissible height allowed is 400ft (122m) as per Civil Aviation Regulations.



Alcohol or other intoxicating substances

- 1) **The flying of a model aircraft within 6 hours of consuming alcohol is strictly prohibited.**
- 2) Pilots may not partake of alcoholic beverages or performance affecting substances until after their flying session has ended.
- 3) Pilots suspected of having recently consuming alcohol, performance affecting medication or intoxicating substances shall not be allowed to fly.
- 4) Please note that the consumption of alcohol or intoxicating substances may invalidate a claim against the SAMAA insurance policy.
- 5) Members using drugs or medication which affects their judgement shall not fly. Members must use their own judgement in this regard.

Smoking

- Smoking is not recommended in the pit area due to the proximity of fuel and the possibility of damaging aircraft covering as a result of hot ash falling on a model.
- Smoking while flying a model aircraft is prohibited.

Medical Assistance

It is recommended that all members carry a basic first aid kit in their vehicles. IRF does not currently have a qualified paramedic on duty. Member to render assistance in the event of an accident, even if to call an ambulance should it be deemed necessary.

Cellular telephones

Due to the possibility of radio interference, no Cellular telephone shall be allowed within five (5) metres of a pilot operating a model aircraft.

Buddy box and teaching.

A buddy box should be used as a teaching tool, whenever possible. A competent flyer (preferably with a minimum of a club instructor rating) will be in charge of the master transmitter during the instruction period. Teaching the Student Pilot to fly, by other methods is not recommended.

- The instructor is responsible to ensure that the Student Pilots' transmitter frequency has been reserved in the normal manner and that all the SAMAA and club rules and regulations are obeyed.
- The Instructor shall carry no liability, should the Student Pilot pilots model crash, during the teaching session. (the above statement may not apply, if the Student Pilot is paying for lessons)
- The Student Pilot, a SAMAA Member, the owner of the model, shall be the responsible person, and shall use their SAMAA insurance cover, should there be an accident.



Conservation & Noise

- The intentional chasing of birds and wild animal life is forbidden.
- Members and persons, including visitors, wilfully abusing or contravening the Nature Conservation act of 1983, will in terms of the club constitution, club rules and regulations and appendices be subjected to disciplinary action.
- No member may create a noise which exceeds 96 decibels at 3 metres. This applies to any device, a radio, a loudspeaker, or a model aircraft which exceeds this noise level. Should a member when requested not take the appropriate action to reduce the noise, a written warning will be issued by the duty officer.
- Pilots running excessively noisy engines in the pit area may, depending on the circumstances, be requested to “switch off” by the duty officer.
- The owner of a model that has an excessively noisy engine(s) may, and if at least 3 Members present agree, be given a written warning, stating the actions he must take, by the duty officer.
- Should a pilot dispute the warning, the warning may be rescinded on his producing (at his own cost) a certificate from the CSIR or other similar approved body confirming that his engine or aircraft conforms to the permitted noise limitations.

Accidents and Incidents

All model aircraft involved in incidents and non-insurance related accidents shall be reported to the duty officer or his delegate present. The Pilot involved in the accident will complete the required forms and submit a written report on the circumstances of the incident to the safety officer or a Committee Member.

The following information is required;

- The names of the member or members involved their club numbers and their SAMAA card numbers.
- A brief report on the type of accident or incident and the reasons for its occurrence.
- An estimate of the cost of the damage.
- If the accident involves a third party or the SAMAA insurance, the procedure covered under insurance in the SAMAA operations Manual, Procedure PR 01 and PR 14 will be used.

Mid-Air Collisions

These will occur on odd occasions, and to date (last 30 years or so) the agreement has been that as long as both aircraft are flying in the approved flying area, neither party will be responsible for collision, and each pilot will carry his own costs should a collision occur.



Duties and Responsibilities of the Safety / Duty Officer

Since the dangers of a flying accident are ever-present at a flying field, all members and pilots are considered as safety officers, and are authorised to Warn or speak to any pilot who is flying or behaving irresponsibly.

The safety officer appointed by the club must have assistants. These assistants, often called duty officers, when in control at the field, automatically assume both the responsibility and authority of the safety officer.

The Safety / Duty Officer shall have the authority to stop any pilot from flying if:

- The pilot is not a club or SAMAA member
- In their view the pilot is not fit or qualified to fly
- The model aircraft a pilot intends to fly does not comply with CAA requirements or the SAMAA Operations Manual.
- In their view the model aircraft is not airworthy.

The duties of the Safety Officer or his duly appointed Duty Officer are as follows:

- 1) Check the wind direction, and nominate the most suitable runway. This runway may be changed if the wind changes, but all pilots are to be informed of the change
- 2) Ensure that all 35MHz transmitters not in use are in the transmitter pound area.
- 3) Ensure that the pilot boxes are used. The duty officer may relax these rules at his discretion on a once-off basis, under special circumstances such as, sun, wind and runway direction and clear line-of-sight problems.
- 4) Ensure that all pilots flying at the field adhere to the club rules and regulations and safety rules.
- 5) Advise, help and attend to visitors, and if required, settle minor disputes.
- 6) Hand over his responsibilities to the duty officer who relieves him.
- 7) Ensure that pilots flying at the field are fully informed of any special precautions being enforced on that day.
- 8) Ensure that any visitors that wish to fly are accompanied and attended to by a suitably qualified club pilot.
- 9) No visitors are allowed to fly unattended at a club field. A visitor who wishes to fly must introduce himself to the duty/safety officer. The duty/safety officer must ensure that the visitor:
 - a) has a valid SAMAA membership
 - b) that he know the club rules and regulations
 - c) that he is a competent flyer
 - d) that when flying he is attended by a qualified pilot
- 10) That the use of radios on illegal frequencies (i.e. frequencies not displayed on the frequency board) is prohibited without exception.



- 11) The safety or duty officer should have available copies of:
 - a) the warning notices
 - b) the incident reports
 - c) the daily duty officer report
- 12) Ensure that there are standing instructions on the club notice board as to how and when the relevant forms are to be completed.