



CLUB RULES AND OPERATING GUIDELINES

Doncaster Aeromodellers' Club (DAC) takes safety very seriously.

Safe aero modeling practice is critical to the protection of people (DAC members and others in the local environment), property and modeling equipment. DAC must also comply with insurance and regulatory requirements, and meet obligations to Manningham City Council and the Model Aeronautical Association of Australia (MAAA).

The Club's Rules and Operating Guidelines are based on a single underlying set of standards that aim to promote safe flying and minimize risk of any damage to people or property.

It is a condition of Club membership that all members read, understand, and comply with both the:

- **Club Rules:** These cover the mandatory requirements to allow safe and sustained operation of our Club and its facilities at Bulleen.
- **Operating Guidelines:** These set the expectation for all members to use consistently high quality operational disciplines.

Failure to comply the Club Rules and Operating Guidelines will be sanctioned in line with the powers vested in the Club Committee. These powers include:

- Temporary bans from flying;
- Expulsion from the Club.

All members flying at the DAC Field are also bound by the following responsibility to their fellow members:

A person, who through neglect, carelessness or breach of the Club Rules and Operating Guidelines causes another member's model to crash, or property or equipment to be damaged, is expected to come to an amicable resolution with the person concerned.

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1 CLUB RULES

1.1 DEFINITIONS

Terms in common use at DAC, and used in these Rules, are defined below.

- 1.1.1 The areas of the **DAC Field** as defined on the Field Layout diagram in Section 1.10, and also:
- **Flying Areas:** the three areas where models are allowed to fly: Main Flying Area, Control Line Area and Heli Area (Training)
 - **Operational Areas:** Flying Areas plus Pilot Area, Main Strip, Taxiway, Pattern Box and Pits
 - **Clubhouse:** includes the Veranda
- 1.1.2 **Operate:** Turning on any radio control equipment, starting any motor (electric or IC) or flying any model.
- 1.1.3 Types of Model:
- **Power Model (IC):** Any model using an internal combustion (IC) or other fuel powered engine.
 - **Other Model:** Any model other than Power Model (IC).
- 1.1.4 Types of Model Control:
- **Radio Control Model:** A non-tethered model controlled through Radio Control equipment.
 - **Control Line Model:** A tethered model.
- 1.1.5 **Free Flight Model:** A model neither tethered or under Radio Control.
- 1.1.6 **DAC Authorised Trainer:** A DAC member approved by the DAC Committee to train non-MAAA Bronze wing rated pilots.
- 1.1.7 **Public Holidays:** For the purpose of these rules and disciplines shall be treated as Weekends.

1.2 ALL OPERATIONS AT THE DAC FIELD

To Operate at the DAC Field you must:

- 1.2.1 Have a minimum MAAA Bronze Wing rating for the model type being flown, and either be:
- A financial member of DAC; or
 - A financial member of another MAAA affiliated club operating within DAC's visitor policy; or
 - A financial member of another MAAA affiliated club, participating in a DAC organised competition, under the supervision of a DAC designated Contest Director; or
- 1.2.2 Be under the direct supervision of a DAC Authorised Trainer

- 1.2.3 Have DAC Committee Weekday Approval to fly other than on Weekends or Public Holidays, unless under the supervision of a DAC Authorised Trainer.
- 1.2.4 Observe DAC agreements with Manningham City Council and Local Bylaws on use of the field
- 1.2.5 Never fly a model heavier than 7kg without DAC Committee Approval
- 1.2.6 **Obey Power Model (IC) flying time restrictions:** Local Bylaws allow Power Models (IC) only to be flown at the following times:
- On Wednesdays between: 1:00pm and 2:30pm; 2:45pm and 4:15pm; 4:30pm and 5:30pm;
 - On Sundays **during daylight saving time** between: 10:00am and 11:30am; 11:45am and 1:15pm; 1:30pm and 3:00pm; 3:15pm and 4:45pm; 5:00pm and 6:30pm;
 - On Sundays **outside daylight saving time** between: 11:45am and 1:15pm; 1:30pm and 3:00pm; 3:15pm and 5:30pm.
- Power Models (IC) have reasonable priority over Other Models flying during allowed Power Model (IC) flying hours.
- 1.2.7 **Obey Noise restrictions:** Never fly a model which exceeds the noise limit for its type and time of flying. Noise measurement is done at 2 metres from front, back and both sides of the model, with the model at full power and 1 metre off the ground. Noise limits are:
- Power Model (IC), or Other Models flying during allowed Power Model (IC) flying times – a peak on any individual reading of 92db(A).
 - Other Models flying outside Power Model (IC) flying times – a peak on any individual reading of 89db(A)¹
- 1.2.8 Never start a Power Model (IC) without a muffler.
- 1.2.9 Ensure that any visitors present (including friends and family):
- Are under the direct supervision and control of a DAC member and are only in Flying Areas if directly involved in the flying of the model;
 - If flying, are to be signed into the visitor's book by their supervising DAC member, be supervised at all times, and obey the Club Rules and Operating Guidelines;
 - Do not fly more than four times in any one financial year period without formal exemption by the Committee.
- 1.2.10 Children under 12yrs old are to be under strict control at all times and to be kept out of Operational Areas unless actively involved in flying.
- 1.2.11 Never fly any model or operate any transmitter, whilst under the influence of alcohol or any other drug that could affect your reactions or judgment.
- 1.2.12 Never smoke in the Clubhouse (including Veranda), or in Operational Areas

¹ Current working guideline under review by Committee – in practice needs to sound significantly less than Power Model (IC) limit.

- 1.2.13 Never allow dogs or other animals to be within the Clubhouse (including Veranda) or Operational Areas.
- 1.2.14 Give way to anyone doing mowing or other field maintenance.
- 1.2.15 Never fly a model on Total Fire Ban Days for the Victorian Central District.
- 1.2.16 Only charge LiPo batteries in LiPo safe bags in the Clubhouse.
- 1.2.17 Never tune motors, perform minor adjustments or work on models whilst in a designated Flying Area.

1.3 MODEL AIRWORTHINESS

- 1.3.1 You must not fly a model with any known suspect component, and you must present your model for scrutiny if requested. Models failing scrutiny will be grounded until repaired to the satisfaction of the scrutineer.
- 1.3.2 Any model involved in an incident that could have been caused by suspect components must be scrutinised by Committee Member or DAC Authorised Trainer.

1.4 INCIDENT REPORTING

Any incident must be reported to a Committee Member and recorded on an Incident form (available in the Clubhouse). This is for both managing any direct issues raised, and ensuring learning to minimise risk of recurrence. Incidents include:

- 1.4.1 Any incident, including equipment failure, that causes actual damage to 3rd party property or injury to a person or animal.
- 1.4.2 Any landing outside the Flying Area in use by the model, even if it did not cause damage
- 1.4.3 Any flight path within 30 metres of people not directly associated with the flying of model aircraft
- 1.4.4 Any dangerous, reckless, or out-of control flying.
- 1.4.5 Loss of control which causes a breach to any Club Rules or Operating Guidelines

It is the responsibility of all members present or knowing of an incident to ensure details are recorded in the Incident Forms.

1.5 RADIO CONTROL MODELS

For **Radio Control Models** flown at the DAC Field you must make all possible endeavours to:

- 1.5.1 Avoid take-off, landing or flying (regardless of height):
 - West (Club house side) of the Main Strip unless flying helicopters on Heli Area (Training) – this includes the Pits, Clubhouse, toilet block, Control Line Area, car park, the archery field or high voltage transmission wires and adjacent sporting facilities.

- Within 30 metres of any person not directly associated with the operation of model aircraft;
- Over the road and car park to the North of the main strip and the sports facility to the East of main strip.
- Over any area designated by a Committee Member(s) or designated representative on the day as a “no flying area” because of outside events.
- In or over any area inhabited by people.

1.5.2 Flying must be either:

- In a rectangular circuit pattern according to current flight and wind directions in the Main Flying Area
- On the pattern line (inside the East Boundary Line). Members flying on the pattern line are responsible to keep watch for other planes with the expectation that other pilots are flying in a predictable manner
- In designated Heli Area (Training) in accordance with its restrictions
- Any flying outside rectangular patterns in the Main Flying Area (including simultaneous Heli/3D flying, fun flying over the strip, use of the pattern line, and use of the Heli (Training) Area for any model greater than 1,000g) must be approved by all pilots prior to commencement.

1.5.3 Always take off, fly and land in the designated Flying Areas:

- From the pilot area to the north of the pit area with the taxiway behind, the pilot area is to be marked with cones along front of the pilot area and the windsock is to be used.
- According to flight direction in force at the time.
- Always stand in the pilot area when engaged in flight activities. If a pilot wishes to stand on the main strip for takeoff he must obtain permission from those in the pilot area.
- Flying whilst seated in the Pilot Area can only occur with DAC Committee approval.
- To provide adequate separation from the pits and spectators, helicopter and 3D flyers shall stand at the northern end of the Pilot Area, and fly models no closer than 9m from Pilot Area.

1.5.4 Never have more than the allowed number of planes in the air at one time. Absolute maximums are:

- On weekends and public holidays – 8 in the Main Flying Area
- On other days – 4 in the Main Flying Area

In practice the number of models that can be flown simultaneously from the strip will be dependent upon a number of factors, including:

- Weather conditions
- The respective sizes and types of planes to be flown
- Their compatibility when flown together

- The experience and skill of the respective pilots
- The flying styles and heights that are to be flown (e.g. 3d, pattern, circuits, gliding)
- Mutual agreement between the pilots

It may be on occasions that there are as few as one (1) in the air at a time.

- **Main Strip Operations:** All efforts must be made to keep the main strip clear except for taking off and landing procedures. This means Models must be taxied on the taxiway – not the main strip
 - All landings, take offs and entry onto the field must be announced clearly.
 - Never walk onto the Main Strip, taxi your model onto the field or take off without permission from the pilots in the Pilot Area.
 - Ensure all pilots understand your intent and have time to acknowledge or deny your request. You must not take-off if permission is denied, it is unsafe to do so, in violation of Club Rules and Operating Guidelines.
- 1.5.5 **Never taxi in the pits.** Carry your model from the pit area to the taxiway or Main Strip.
- 1.5.6 **Dead-stick landings:** Must be announced clearly and have absolute priority over all other model movements. Models on landing approach have priority over any model airborne or taking off.
- 1.5.7 **Heavy demand of field:** If there is a heavy demand for conflicting flying styles from the Main Strip on any given day, flying will be broken into quarter hour blocks. Pilots must agree to time allocation within the allocated Model flying times. This includes multiple pilots wanting to use the Main Strip area for fun fly activity or multiple students at the early stage of learning.
- 1.5.8 **FPV & UAV:** FPV (First Person View) and UAV (Unmanned Aerial Vehicles) equipment is not to be used at DAC. Refer to MAAA MOP065 and MOP066.

1.6 CONTROL LINE AREA

- 1.6.1 Only Control Line models may be Operated from the Control Line Area
- 1.6.2 For **Control Line** models flown at the DAC Field you must:
- Always fly from the designated Control Line Circle,
 - Ensure control-line models not flying remain a minimum of two metres from the outside of the flying circle.

1.7 HELICOPTER RULES AND RESTRICTIONS

- 1.7.1 At all times the over-riding requirements is safety and **risk minimisation**. Weather or other conditions may preclude use of the helipad.
- 1.7.2 **Heli Area (Training)** use: This area is subject to ongoing safety review and has been approved for:

- Helicopter flying is only permitted for existing Bronze(P) fixed wing or Bronze(G) glider members
- Electric helicopters only, one at a time, and subject to conditions set out in Table 1 below;
- Flying limited to Bronze(H) wings test manoeuvres and trainee helicopter pilots only;
- Corner flags should be in place during use
- There is a strict 30 m exclusion zone for spectators that are not DAC members. If this separation is not achievable, the helicopter must not be flown
- Helicopter pilot positioning at the helicopter area is subject to the prevailing wind. Where possible, the best view of the main strip and the greatest degree of separation of helicopter pilot from the air traffic on the main strip is achieved with the helicopter pilot standing on the edge of the helipad that is closest to the toilet block
- Height of ordinary manoeuvres is limited to 3m, with the exception of specific Bronze(H) wing landing manoeuvres
- No manoeuvres are to be conducted at a speed beyond “walking pace”
- Flying Helicopters >1000g requires permission from the Main Strip Pilot Area if in use.

Table 1

Minimum Proficiency Rating	Description	Area Limits	Model testing requirement	Max loaded flying weight
Beginner	Has never flown outdoor helicopter model before, or not yet attained stable hovering skills below.	Must stay within the flags, and not above eye height	Model must initially be pre-tested by a DAC Authorised Trainer	1000g
Stable Hovering	Can demonstrate Bronze(H) wings manoeuvres 2,3 & 4 using <1Kg model	Must stay within flags and height limit	Model must initially be pre-tested by a DAC Authorised Trainer	2500g
Bronze(H) Wings	Can set up own models / transmitter and hover models	Must stay within flags and height limit	Self-test model	3500g

1.8 MAIN FLYING AREA USE BY BRONZE(H) WING HELICOPTER PILOTS:

- 1.8.1 **Helicopter pilot position:** To provide adequate separation from the pits and spectators, helicopter and 3D flyers shall stand at the northern end of the pilot area, and fly model no closer than 9m from Pilot Area.

- 1.8.2 Higher level flying of fixed wing aircraft above helicopters may be allowed simultaneously if the pilots have appropriate skill levels; manoeuvres are restricted; weather permits and pilots agree.

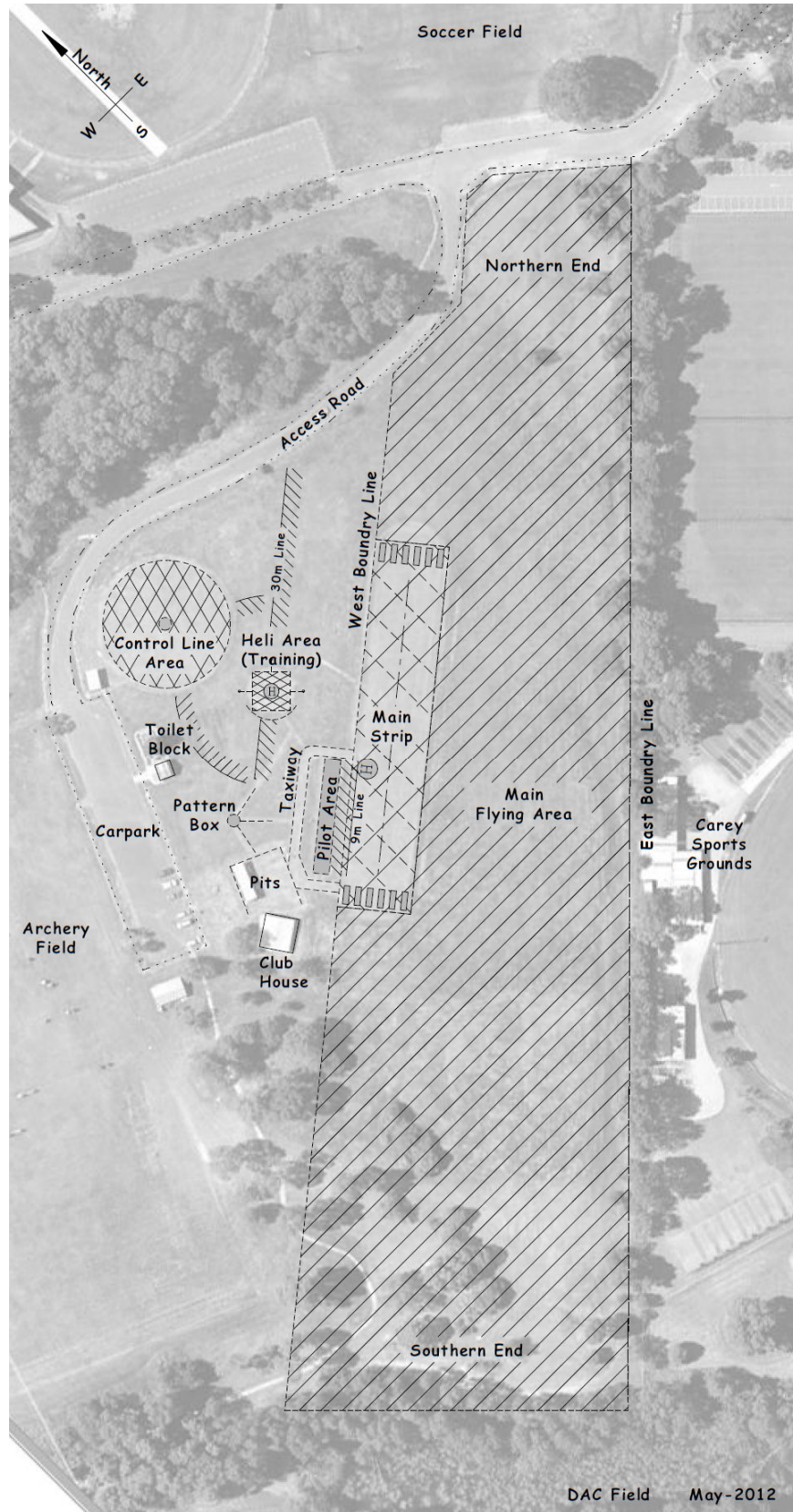
1.9 TRANSMITTER AND RECEIVER EQUIPMENT AND USE

- 1.9.1 **Transmitter Use:** Always use the transmitter frequency keyboard and obey the DAC Rules on transmitter handling:
- At DAC , only radio control transmitters on the following frequencies are allowed:
 - 36.010 to 36.590 MHz in 20KHz increments (odd channels - 36.010; 36.030; 36.050 etc.) NOTE - 36.150 MHz not permitted at DAC due to potential radio interference problems.
 - 29.725 to 29.985 MHz in 20KHz increments (29.725; 29.745; 29.765; 29.785 etc.)
 - 40.665, 40.675, 40.685 and 40.695 MHz
 - 2.4 GHz
 - A frequency key clearly marked with your name and frequency must be in the appropriate slot in the frequency keyboard at any time your transmitter is turned on at or near the field (including for 2.4 Ghz equipment);
 - All transmitters (29 and 36 MHz) – must be formally certified every two years by a recognized tester and show a valid certification label for a single frequency on the transmitter or relevant module. A list of current testers and information can be found on the VMAA website.
 - 2.4 GHz and any other approved GHz frequencies must meet MAAA requirements plus need to be full range if model is greater than 100g.
 - A range check is required before the first flight of a new or repaired model or radio equipment installation. This must be in accordance with the manufacturer's instructions and consistent with safe modeling practices.
 - The committee retains the right to request inspection of radio equipment and if the equipment is found to not comply with the above, or if an inspection request by a committee member is refused, then that equipment cannot be used at DAC.
- 1.9.2 2.4GHz or other Ghz Transmitters and Receiver Equipment is subject to the following conditions:
- The 2.4GHz transmitters and receivers must be used in accordance with the MAAA 2.4GHz Equipment Policy MOP058. **READ IT BEFORE COMMITTING TO PURCHASING OR THE USE OF 2.4GHz EQUIPMENT.**
 - Only Equipment approved by the MAAA can be used – with the exception that if the **equipment is generally regarded as being only suitable for "Park Flyers" it CANNOT be used at DAC** on models greater than 100g. Models under 100g can have MAAA approved "Park Flyer" receivers and be flown in a confined area - Width of runway (30m) and length of Pilot Area (40m).

1.9.3 Cameras and other devices transmitting on 2.4GHz MUST NOT be used at DAC.

1.9.4 2.4GHz equipment must be capable of doing a ground range check

1.10 DAC FIELD LAYOUT



2 OPERATING GUIDELINES

2.1 SAFETY

Safety is defined as "the state of being safe" or "freedom from danger". It is more than an adherence to rules. Safety is a state of mind. In aero modeling it extends far beyond flying disciplines. It includes the modeler's behavior, equipment used, prevailing weather and field conditions.

Beyond the Club Rules, any pilot flying 'solo' at the DAC Field is expected to be aware of and observe these Operating Guidelines. DAC members should maintain these or equivalent practices at all times, and should expect that all around you follow the same disciplines. These practices are the minimum based on respect for other members and club facilities.

2.2 EQUIPMENT

- 2.2.1 **Flying capability:** Ensure that the model selected is within your flying capability. If in doubt seek the advice of an experienced modeler.
- 2.2.2 **Construction of models:** Construct all models strictly in accordance with plans and specifications, paying particular attention to stressed areas, e.g. the mounting and securing of the bell-crank in a control-line model.
- 2.2.3 **Model Check:** Have new models thoroughly checked prior to flight by an experienced pilot, preferably not at the flying field. Also make sure you:
 - Try hard to pull control surfaces off — better to find out they're loose in the workshop than in the air
 - Lightly smooth the back edges of propellers — in case someone tries to flick start or turnover the engine model (and cuts their fingers)
 - Fully tighten the propeller nut. Tighten it as far as you can while being careful not to strip or cross the thread (use of a 12" spanner on an IC engine would be typical)
 - Perform a range check before the first flight each day
 - Leave the receiver charge lead accessible
- 2.2.4 **Rubber bands:** On models with rubber band secured wings use at least 10 or 12 new rubber bands each flying session.
- 2.2.5 **Receiver battery:** Check your receiver battery is fully charged before the first flight in a flying session and regularly during the session. If you don't have a battery checker, borrow one.
- 2.2.6 **Turn on sequence:** Turn your transmitter on before the model. Enable radio failure protection on PCM systems and good practice to ensure servo movement/pushrods are not moved to awkward positions on all radios.
- 2.2.7 **Propellers:** Discard scratched or cut propellers immediately. An 8" diameter propeller travelling at 15,000 RPM has a tip speed of 357 MPH. It takes little imagination to appreciate the damage that can be caused by a disintegrating propeller blade at this speed.
- 2.2.8 **LiPo batteries:** Don't use LiPo batteries if puffed or damaged. DAC strongly recommends the use of LiPo safe bags when charging at home and when transporting LiPo's

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- 2.2.9 **Control line models:** Inspect control line models on each flying day. Checks must include lines for kinks and fraying, joints and connectors at attachment to the control handle and model.
- 2.2.10 **Second-hand equipment:** Do not use second-hand materials or equipment if possible. Have any second-hand equipment professionally checked and certified.
- 2.2.11 **Model unusual behavior:** If a model shows unusual behavior, immediately stop and investigate. Unusual behavior is normally caused by some change in model components, whether it be component failure, wear, adjustment or otherwise. Resolve the problem and have it verified by an experienced pilot prior to next flight.
- 2.2.12 **Receiver fail safes:** Receiver fail safes where available must be enabled and set to cut motor power and set control surfaces to keep model as close to flying area as possible to minimize out of flying area landings.
- 2.2.13 **Doubts (it will be all right):** Don't fly if you have any doubts about the performance of any of the critical components of the model, particularly:
- Engine
 - Control surface movement or response
 - Control surface connectors

2.3 AT THE FIELD

- 2.3.1 **Spinning Propellers:** Don't become complacent with spinning propellers. Never lean over a spinning propeller or attempt to start a Power model when it is not adequately restrained. Hold electric models as if the engine could start at any time (this can and does happen due to radio glitches, accidental bumps to a transmitter, turning the model on before the transmitter etc.).
- 2.3.2 DAC strongly recommends Electric models are setup with an explicit transmitter throttle hold button or switch forcing the throttle to off. This should be used when the model is in the pits or being carried.
- 2.3.3 If flying with a neck strap:
- Keep the strap well clear of propellers. A neck strap can easily become tangled in a propeller and pull your face toward it.
 - Make sure it cannot flop and hit transmitter controls (throttle by far the most dangerous) while you are starting, picking up, carrying or putting down the model.
- 2.3.4 **Never** taxi or take-off a model directly towards people or other planes (including the pits)
- 2.3.5 **Transmitter model memory:** Check your transmitter has correct model memory selected and ensure that control surfaces move in the correct directions.
- 2.3.6 **Experienced pilots:** Experienced pilots will take initiative wherever possible to keep out of the flight path of beginners.

- 2.3.7 **Field Layout:** Have a good look around and talk to an experienced pilot about the field layout. The field is not at 90 degrees to the pilot area, and there are gaps in the trees at both ends that are important for landing approaches.
- 2.3.8 **Model Restraints:** DAC strongly recommends the use of model restraints for all Power Models.

2.4 FLYING

- 2.4.1 **Model release:** Never release your model whether for taxi or launch until it is on the taxiway, your radio's (36MHz) aerial is fully extended and you are ready to control the model. After landing, do not turn your transmitter off, retract the aerial or put down the transmitter until the model's engine is stopped and the model's receiver is turned off. This ensures your model is under the control of your transmitter, and minimises the risk of interference from other signals (which have been known to cause a fully open throttle on a model while under no control).
- 2.4.2 **Watch your model:** Never take your eyes off your model when it is in the air.
- 2.4.3 **Weather conditions:**
- Sun: Note sun position prior to takeoff. Ensure you can comfortably fly without flying near or into the sun prior to takeoff.
 - Rain: Never fly when it is raining. Water can short the transmitter electrics or the power system on an Electric model.
 - Wind: Note the wind direction and strength before taking off. Be 'wind aware'. At minimum this means:
 - Take-off and land into the wind
 - Do not fly too far downwind on moderate wind days
 - Do not fly on strong wind days – wait for the wind to subside
- 2.4.4 Don't fly over your head or behind you.
- 2.4.5 **Sunglasses:** Always wear a sun visor and sunglasses (unless there is zero risk the sun will appear). Only fly if visibility conditions permit clear identification of the model at all positions around the field.
- 2.4.6 **Pilot Area procedure:** Always announce clearly and loudly to others on the pilot area when you have a model on or near the field (whether taking off or landing). They have their eyes and concentration 100% focused on their model.
- 2.4.7 **Loss of radio control:** If you appear to lose transmitter contact with a plane in the air or experience severe interference ('glitching'):
- Shout loudly, announcing your frequency in case someone has turned on a transmitter on your frequency
 - Raise your transmitter aerial as vertical and high as you can
 - If you have time, turn your transmitter off and on again

2.4.8 **If in trouble:** If in doubt, ask — whether in the air or on the ground. If you get in trouble in the air shout for help, you have nothing to lose even if help doesn't make it in time.

2.4.9 **Emergency landing:**

- Dead stick landings are emergency landings. If someone announces a dead stick landing when you are on or near the field, remove your plane from the field until they have landed. If you are on landing approach, go around. If you have a dead stick yourself, announce it loudly and assume you have priority.
- There are no excuses for emergency landings caused by pilot misjudgements or laziness (such as running out of fuel or battery). If you have one, work out why and do your best to ensure it does not happen again.

2.5 GENERAL

2.5.1 **New members, visiting members, and potential members:** New members, visiting members, and of course potential members need guidance. As a member of our DAC, you are personally responsible for safety, help and assistance to these people. Alternatively, direct them to a Committee Member or the most appropriate senior or knowledgeable pilot in attendance.

2.5.2 **Spectators:**

- You were once a spectator and can appreciate the fascination our models create. Be aware that spectators have little knowledge regarding models, equipment and the dangers they present. This is especially true with regard to children. It is your duty to maintain our safety record by taking any action required to prevent accidents. Take friendly but firm control of their proximity to our models -- particularly models with running engines.
- Pay special attention to spectators in close proximity to the Control Line Circle. It is difficult for the pilot to gauge spectator closeness to his flying model.
- Be vigilant against spectators when around models; they are unaware of how fragile and easily damaged models are.

2.5.3 **Windsock and pilot area cones:** Members must use a both pilot area cones and the windsock to alert the public that flying is in progress. Any request to the public to keep clear of flying activities must be made politely.

2.5.4 **Non-members:** DAC members must recognise that non-members may not be aware of DAC's exclusive use of the field for the flying of model aircraft.

2.5.5 **Fly Safely** -- and remember if in doubt, do not fly. Check with a Committee Member or experienced pilot.