



# Club Rules and Operating Disciplines

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

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

While DAC aims to stimulate enjoyment across diverse interest groups, it does not see it as possible to operate in a single environment with multiple safety standards for different models or flying styles. The Club's Rules and Operating Disciplines are hence based on a single underlying set of standards that aim to:

- Prevent collisions, or accidental 'shooting down' of models;
- Reduce risks by ensuring consistent, high standards of airmanship;
- Minimise the need for off strip landings wherever possible.

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

- **Club Rules** (Rules Version 1.4, Sept 2007; Annex A Version 1.4, Sept 2007)
  - These cover the mandatory requirements to allow safe and sustained operation of our Club and its facilities at Bulleen.
- **Operating Disciplines** (Version 1.4, Sept 2007)
  - These set the expectation for all members to use consistently high quality operational disciplines.

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

- Impounding of models or equipment;
- Temporary bans from flying;
- Fines;
- Expulsion from the Club.

All members flying at Bulleen 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 Disciplines causes another member's model to crash, property to be damaged or equipment to be damaged is expected to come to an amicable resolution with the person concerned**

# Club Rules and Operating Discipline



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# Club Rules

## 1) Definitions

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

- **Main Strip, Control Line Circle, Field Boundary** Aspects of the Bulleen Field as defined on the Field Layout diagram in Annex A to these Rules
- **Power Model** Any model using an internal combustion or other fuel powered engine (such as jet or rocket powered) capable of generating substantial noise. These are subject to strict limitations on flying hours and noise emissions.
- **Electric Model** A non-“Power Model” which uses an electric motor, is a glider or some other quiet model. DAC recognises this definition is not technically correct, but it is in common use and readily understood.
- **Control Line Model** A tethered model. This is the only type of model to be flown on the Control Line Circle(s).
- **Radio Control Model** A “non-tethered” model controlled through Radio Control equipment. “Radio Control” models are to be flown from the Main Strip only.

## 2) All Operations at the Bulleen Field

To operate<sup>1</sup> at the Bulleen field you must:

- a) Be a financial member and MAAA affiliated through either DAC or another Club. The only exclusion is your first two flying days at the field under the instruction of an Authorised Club Instructor. MAAA affiliation cards must be shown on request.
- b) Have passed the DAC flight proficiency test required for the flying session as set out in Annex A to these Rules or:
  - Be under the direct supervision of an DAC Authorised Instructor; or
  - Be MAAA Bronze Wing rated and be participating in a DAC organised competition under the supervision of a DAC designated Safety Officer.
- c) Observe Council agreement and Local Bylaws on use of the field as set out in Annex A to these Rules.
- d) Never fly a model generating more than 92 dba of noise, measured in line with DAC standards as set out in Annex A to these Rules, and never start a Power Model without a muffler

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<sup>1</sup> Turning on any radio control equipment, starting any engine (Electric or Power), or flying any model.

# Club Rules



- e) Ensure that any visitors present (including friends and family):
  - Are under the direct supervision and control of a DAC member;
  - If flying, sign the visitor's book and obey the Club Rules and Operating Disciplines;
  - Do not fly more than twice in any one year period without formal exemption by a Committee Member.
- f) Never fly any model or operate any transmitter, whilst under the influence of alcohol or any other drug that could affect your reactions or judgement.
- g) Never smoke within 10 metres of a Power Model or in the Clubhouse.
- h) Never allow dogs or other animals to be off a leash within 10 metres of a model.
- i) Give way to anyone doing mowing or other field maintenance.

## ***3) Model Airworthiness***

- a) You must not fly a plane with any known suspect component. Any model involved in an incident that could cause suspect components must be scrutinised by the Safety Officer, Committee Member or other experienced DAC Member. Models failing scrutiny will be grounded until repaired to the satisfaction of the scrutineer.
- b) You must present your model for scrutiny immediately when requested to any Safety Officer, Committee Member or experienced DAC Member.

## ***4) Incident Reporting***

Any incident that did, or could reasonably have caused, injury to people, damage to property, models or equipment must be reported to a Committee Member and recorded in the Incident Book kept in the Clubhouse. This includes:

- a) Any incident that causes actual damage to property, models or equipment (including single model incidents)
- b) Any landing outside the confines of the Field Boundary as defined on the Field Layout, even if it did not cause damage
- c) Any flight path close to people or property. Any dangerous, reckless, or out-of control flying.
- d) Loss of control which causes a breach to any Club Rules or Operating Disciplines

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

# Club Rules



## 5) Radio Control Models

For **Radio Control Models** flown at the Bulleen field you must:

- a) Never take-off, launch, land or fly (regardless of height):
  - West of the Main Strip;
  - Within 30 metres of any person not directly associated with the operation of model aircraft;
  - Over the pits, clubhouse, toilet block, control line area, car park, the archery field or high voltage transmission wires;
  - Over any area designated by the Safety Officer or his deputy of the day.
- b) Never fly outside the Field Boundary (defined on the Field Layout in Annex A to these Rules) on weekdays.
- c) Never fly more than 400 feet above ground level.
- d) Always take off, launch, fly and land:
  - From in front of the pilot area as defined in Annex A to these Rules;
  - According to flight direction in force at the time.
- e) Always stand in the pilot area when engaged in flight activities. If a pilot wishes to stand on the main strip for launch or takeoff he must obtain permission from those in the pilot area.
- f) Always use the transmitter frequency keyboard and obey the DAC Rules on transmitter handling:
  - 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;
  - Transmitters and associated frequency keys must stored be in the transmitter pound (whether it is in located in the clubhouse or outside) or in a closed case when not in use;
  - Frequency keys must be removed from the keyboard immediately after each flight;
  - All transmitters must be formally certified every two years and show a valid certification label for a single frequency on the transmitter or relevant module;
  - Transmitters must use frequencies valid for the Bulleen field – as shown on the frequency keyboard and set out in Annex A to these Rules..
- g) Never tune motors, perform minor adjustments or work on models while the model is on the Main Strip or taxiway. These activities must be done in the pits or on the taxiway (provided it does not obstruct other models).
- h) Never have more than the allowed number of planes in the air as set out in Annex A to these Rules.
- i) Never taxi in the pits. Carry your model from the pit area to the taxiway or Main Strip.
- j) Clearly announce your intent to the pilot area before walking onto the main strip, taxiing your model onto the field for takeoff or launching. Ensure all pilots understand your intent

# Club Rules



and have time to acknowledge or deny your request. You must not take-off or launch if permission is denied, it is unsafe to do so, in violation of Club Rules or in violation of Flight Procedures.

- k) 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.

## **6) Control Line Models**

For **Control Line** models flown at the Bulleen field you must:

- a) Always fly from the designated Control Line Circle, or from the back-up circle with permission of all present, safety warning signs erected on the pits side of the circle, and with a nominated safety officer on active watch duty.
- b) Ensure control-line models not flying remain a minimum of two metres from the outside of the flying circle.



# Club Rules – Annex A

## *A1) Usage of Facilities*

Usage of the Bulleen field is subject to the following conditions:

- a) DAC has exclusive use of the field on Wednesday afternoons and Sundays for Power flying subject to Local Bylaws. Local Bylaws dictate that Power Models **can only 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.
- b) DAC has exclusive use of the field for Electric Models outside the times above on Wednesday afternoons, Friday afternoons, Saturdays and Sundays.
- c) DAC members must recognise that non-members may not be aware of DAC's exclusive use rights. Members must use a combination of signs, pilot area cones and the windsock to warn non-members that flying is in progress (excluding park fliers within the confines of the main strip). Only with signs erected during exclusive use times can a DAC member ask non-members to keep clear of the area. Any request made must be made politely.
- d) Due to hour limitations, Power Model flying has priority over Electric Model flying during allowed Power flying hours.

## *A2) Flight Proficiency Levels*

There are four formal levels of flight proficiency, each requiring the pilot to demonstrate their skills to the satisfaction of a DAC Authorised Instructor. Ratings above Level 1 automatically qualify the pilot for the lower levels (eg, a Level 3 pilot is deemed to have passed Levels 1 and 2). The levels and tests are:

- 1) **Level 1 -- Weekend electric:**
  - Demonstrated Solo flight proficiency and safety test;
  - Practical knowledge of Club Rules and Operating Disciplines.
- 2) **Level 2 -- Mid-week electric:** As for Weekend electric plus demonstrated ability to fly within Field Boundaries.
- 3) **Level 3 -- Weekend power:** As for weekend electric plus MAAA Bronze Wings standard for the type of "Power" model being flown (fixed wing, helicopter)
- 4) **Level 4 -- Mid-week power:** As for Weekend power plus demonstrated ability to fly within the Field Boundaries

# Club Rules – Annex A



## **A3) Power Flying Procedures**

For the duration of any Power Model flying session (including pre and post flight):

- 1) The pilot area will be to the north of the pit exit approximately 10 metres out, with the taxiway behind the pilot area. Both are to be marked by cones
- 2) The Main Strip must be kept clear except for taking off and landing procedures. This means:
  - Models must be taxied on the taxiway – not Main Strip
  - Models are to land with engine running and taxi off the strip immediately
  - All landings must be announced clearly
  - “On the field” must be announced clearly prior to any person or model entering the Main Strip
- 3) The flight direction set by the current pilots in the pilot area will be used. Change of direction must be acknowledged by all pilots in the event of a significant wind shift.
- 4) Flight direction is defined by the prevailing wind. On days with no wind, flight direction will be right to left; planes will climb and turn away over the Access Road and Sports Fields at the north end of the field.
- 5) Flying must be either:
  - In a rectangular circuit pattern with direction defined by Flight direction
  - On the pattern line over the Carey tree line on the east side of the strip. The pattern line can only be used by a single, experienced pilot at a time and can only be used on Sundays. Members flying on the pattern line are responsible to keep watch for other planes with the expectation that other pilots are flying a predictable pattern
- 6) Any flying outside rectangular patterns or the pattern line must be approved by all pilots prior to commencement. This includes fun flying over the strip.
- 7) Field and pit area warning signs, and windsock, are to be used at all times. At least one warning sign must be placed between the northern end of the main strip and the access road.
- 8) There can be no more than:
  - Six models in the air on a Sunday;
  - Three models in the air on a Wednesday
- 9) The transmitter pound will be located outside the shed under the verandah.
- 10) If there is a heavy demand for a 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 Power 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.



# Club Rules – Annex A



## **A4) Electric Flying Procedures**

For the duration of any Electric Model flying session (including pre and post flight) the following exceptions to Power Model Procedures may be implemented:

- 1) The pilot area may be closer to the pit exit, but must be to the east of the pit exit and north of the clubhouse veranda. All Club rules still apply.
- 2) The transmitter pound can be located in the Clubhouse
- 3) A formal circuit pattern is not required.
- 4) The limit on the number of models flying at one time is:
  - 8 during weekends; and
  - 6 during weekdays
- 5) If only park flyers are being flown, less than two are in the air at any time, and they are being flown strictly within the confines of the Main Strip (not the Field Boundary), signage is not mandatory.
- 6) If there is a heavy demand for a particular style of flying from the Main Strip that conflicts with other members, flying will be broken into quarter or half hour blocks. Pilots must agree to time allocation within the allocated Power flying times. This includes multiple pilots wanting to use the Main Strip area for fun fly activity, structured flying etc.

These alterations are only allowed on the understanding that, at the request of any member at any time, full Power Model procedures will be reinstated, no questions asked.

## **A5) Noise Measurement**

Maximum noise measurement from within 2 metres from front, back and both sides of the model. Model at full power, 1 metre off the ground.

## **A6) Radio Control Frequencies**

At the Bulleen field, only radio control transmitters on the following frequencies are allowed:

- 1) 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 radio interference problems.
- 2) 29.725 to 29.985 MHz in 20KHz increments (29.725; 29.745; 29.765; 29.785 etc.)
- 3) 40.665 and 40.695 MHz
- 4) 2.4 GHz - refer to 2.4GHz equipment restrictions (A7)


No transmitter will be acceptable or allowed to be used unless it has been frequency certified (excluding 2.4GHz) by an independent authority, and displays the appropriate certification sticker. Frequency Certification must be current (within the past two years). The list of current testers and more information can be found on the VMAA website.

# Club Rules – Annex A




## A7) 2.4GHz Transmitter & Receiver Equipment

Your Committee has reviewed its decision regarding the use of 2.4GHz equipment (Transmitter & Receiver) and has agreed to certain 2.4GHz equipment being used at DAC. This approval is **Subject to the following conditions.**

1. The 2.4GHz transmitters and receivers must be used in accordance with the MAAA 2.4GHz Equipment Policy MOP058. This is on the MAAA website and a copy has been placed in the Clubhouse for your convenience. **READ IT BEFORE COMMITTING TO THE USE OF 2.4GHz EQUIPMENT.**
2. Only Equipment approved by the MAAA can be used with the exception that Spectrum DSM equipment (example DX6) and other equipment which is generally regarded as being only suitable for "Park Flyers" CANNOT be used. (DSM2 is allowed, see notes below)
3. Only the equipment that the committee has approved which bears the "C-Tick" , which shows compliance with Australian Standards, can be used.
4. Equipment must be installed and "range checked" in accordance with the manufacturer's instructions and consistent with safe modelling practices.
5. Frequency Keys **MUST** be used to ensure that no more than ten 2.4GHz transmitters are in use at any time.
6. This approval is subject to ongoing review and, should any safety issues arise, this approval to operate 2.4 GHz equipment at DAC can be suspended or removed at any time.
7. Members should note that cameras and other devices transmitting on 2.4GHz are now available. These **MUST NOT** be used at DAC.

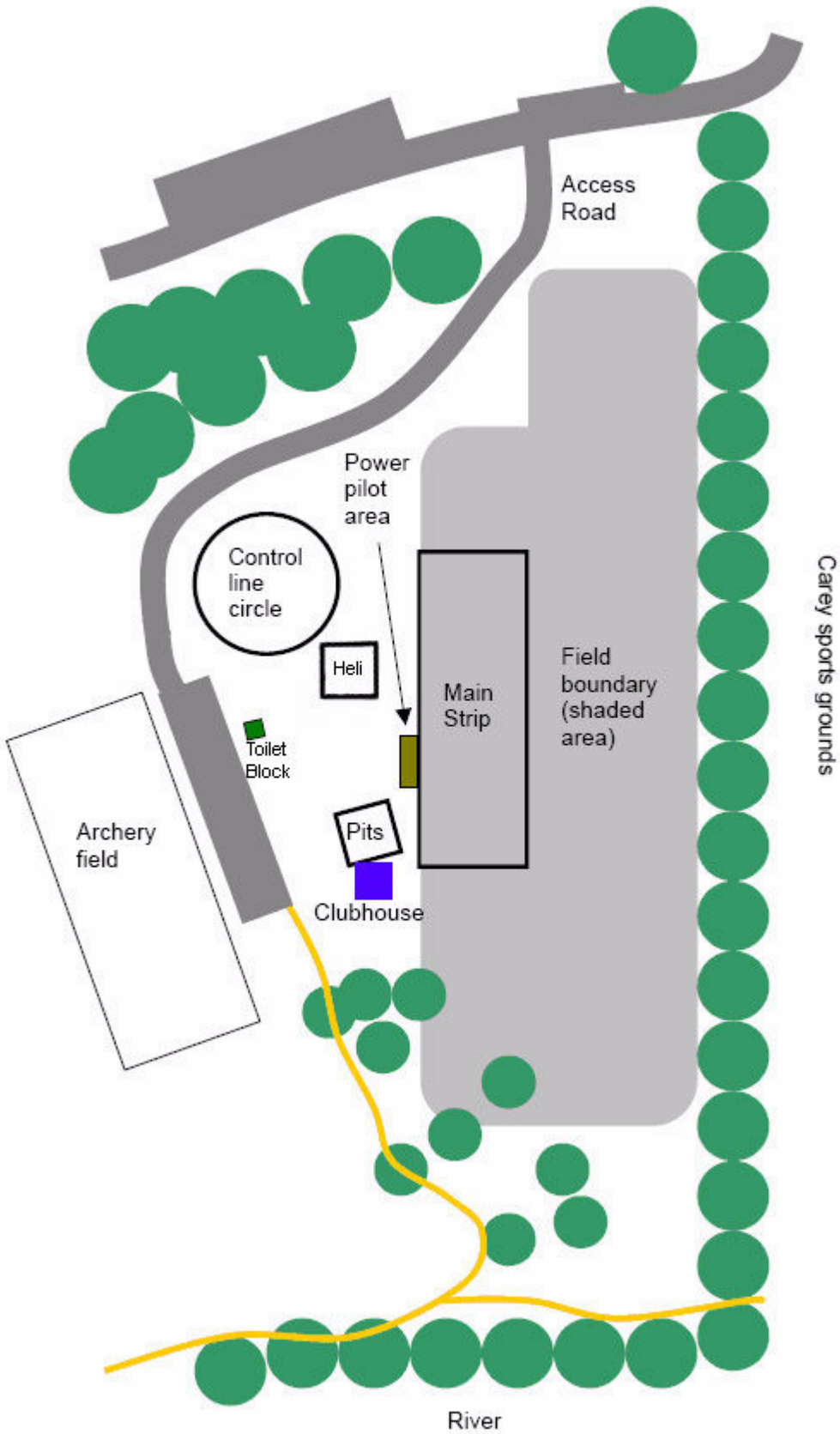
### NOTES – 2.4GHz Transmitter & Receiver Equipment

- The only systems that the MAAA has approved, which may be used at the DAC are currently: Spectrum DSM2 (example DX7, DX6i), Futaba FASST, and Xtreme Power Systems' XtremeLink. The approval excludes the "Spectrum DX6" sets (DSM technology) and, as stated, other equipment which is generally regarded as being only suitable for "Park Flyers", including receivers.
- Be aware that equipment purchased directly from overseas (or from some Australian importers) may appear to be the same as approved sets but if it does not have the "C-Tick"  then it is not allowed.
- This equipment is generally regarded as "line of sight" and people, trees and buildings between pilot and plane may cause interference, as may fog, cloud and high humidity.
- This technology continues to evolve and new equipment may come on to the market before it has been approved by the MAAA or DAC. Be aware before purchasing that such equipment may not be approved at DAC.
- 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.
- Whilst this technology may remove the problems of frequency clashes, all pilots are required to fairly share air time.
- Refer any queries to the DAC Committee members.

# Club Rules – Annex A



## A8) Field Layout (Bulleen Park)





# Operating Disciplines

Toilet 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 aeromodelling it extends far beyond flying disciplines. It includes the modeller's behaviour, equipment used, prevailing weather and field conditions.

Beyond the Club Rules, any pilot flying 'solo' at Bulleen is expected to be aware of and observe these Operating Disciplines. 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.

## *Your Equipment*

- 1) Ensure that the model selected is within your flying capability. If in doubt seek the advice of an experienced modeller.
- 2) 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.
- 3) 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
- 4) On models with rubber band secured wings use at least 10 or 12 new rubber bands each flying session.
- 5) Check your receiver battery charge before the first flight in a flying session and regularly during the session. If you don't have a battery checker, borrow one.
- 6) Turn your transmitter on before the model. This is critical to enable radio failure protection on PCM systems and good practice to ensure servo movement/pushrods are not moved to awkward positions on all radios.
- 7) 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.

# Operating Disciplines



- 8) 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.
- 9) Do not use second-hand materials or equipment if possible. Have any second-hand equipment professionally checked and certified.
- 10) If a model shows unusual behaviour, immediately stop and investigate. Unusual behaviour 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.
- 11) 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

## *At The Field*

- 1) 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) 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.
- 3) Never taxi or hand launch a model directly towards people or other planes (including the pits).
- 4) Experienced pilots will take initiative wherever possible to keep out of the flight path of beginners.
- 5) Have a good look around and talk to an experienced pilot about the field layout. The field is not at 90 degrees to the flight line, and there are gaps in the trees at both ends that are important for landing approaches.
- 6) DAC strongly recommends the use of model restraints for all Power Models.

# Operating Disciplines



## *Flying*

- 1) **Never** release your model whether for taxi or launch until it is on the taxiway, your radio's 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) **Never** take your eyes off your model when it is in the air.
- 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
- 4) Don't fly over your head or behind you.
- 5) 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.
- 6) Always announce clearly and loudly to others on the flight line when you have a model on or near the field (whether taking off or landing). They have their eyes and concentration 100% focussed on their model.
- 7) 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
- 8) 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.
- 9) 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.
- 10) 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.

# Operating Disciplines



## *General*

- 1) 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 the Safety Officer of the day, Committee Member, or the most senior or knowledgeable pilot in attendance.
  
- 2) 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.
  
- 3) 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.
  
- 4) Be vigilant against spectators when around models; they are unaware of how fragile and easily damaged models are.

Fly Safely -- and remember if in doubt, - do not fly. Check with a Safety Officer or experienced pilot.