Student Pilot Program

1.) **Instructor Relationship**

A student should check with the club instructor pilot list and establish contact with an instructor who is willing and able to conform with the students time limitations. We recommend that a new student avoid moving from instructor to instructor during the pre solo training if at all possible. The instructor may have some recommendations for additional equipment needed and where to get the needed supplies.

2.) **Required equipment for training**

A student pilot must have the following equipment to begin pilot training:

_____ A. AMA card (*or proof of enrollment*)

_____ B. Imperial R/C Club card (*or a temporary card*)

_____ C. Trainer aircraft (*built or under construction*) We strongly recommend a new student stay with the same aircraft

through out the entire training program.

_____ D. Modern narrow band 72mhz. Radio system.

_____ E. Transmitter flag and channel number attached indicating appropriate frequency used.

_____ F. Ground support equipment to operate aircraft. (*Flight box, glow starter, fuel, etc.*)

3.) **Initial aircraft orientation**

If the student is in the process of constructing their own aircraft, it is a good idea to let the instructor see how the construction is going so that anything that may need some attention can be taken care of without the student having to rework a potential problem area. The student and instructor may make provisions to meet at the field or a convenient place to discuss questions or problems, at the parties mutual discretion. Even ARF models may need some points looked at, so don't be afraid to ask questions. In any case, the instructor shall demonstrate and explain a thorough preflight inspection and develop an understanding of the following points and concepts with each student:

_____ A. Structural integrity – basic strength & resistance to inflight stresses.

_____ B. Weight & balance – effects of excessive weight and instability due to an improperly balanced model.

_____ C. Trueness & alignment – effects of warps and misalignments on flight characteristics.

_____ D. Security – hinges, pushrods, clevisis, keepers, servos, bolts and other fasteners in relation to engine vibration.

_____ E. Padding – radio equipment, servos and fuel tank protected from vibration, pinching and binding.

_____ F. Fuel proofing – protection of wood from oil & fuel leaks and residues.

_____ G. Radio care – antennae and wire routing, servo load limits, battery care and range checking.

_____ H. Frequency control – proper use of the impound system, flags and pins.

_____ I. Safety rules & courtesies – no fly zones, proper signaling of intentions and aircraft safety and noise management.

_____ J. Safety precautions – propellers, loose wires, jewelry, radio straps and other related hazards, including noise reduction.

_____ K. Weather considerations – lightning, gusts, crosswinds, rain and other conditions that require attention.

Basic training is successful when the student and instructor accomplish the above items, and the student is capable of demonstrating the flying skills explained below.

4.)**Pre solo level**

The student must only fly under the direct guidance of a club certified instructor until such a time as the following basic skills are known and demonstrated to the instructors' satisfaction. A buddy box system should be used in case the student needs assistance and the instructor needs to assume control of the aircraft.

_____ A. Straight & level flight – Maintain heading and level flight in any assigned direction and altitude at various power settings. (*Relationship of angle of attack to airspeed*.)

_____ B. Level turns – Maintain altitude and constant banking in turns. (*Lift vector in turns and banking-elevator relationship.*)

_____ C. Power climbs – shallow and steep power climbs with good heading control. (*Takeoff skills)*

_____ D. Glides and descents – controlling aircraft in descent, without diving, with good heading control. Gliding with the engine set at idle without losing heading, diving or stalling. (*Approach and landing skills)*

_____ E. Turns during climbs and descents – maintaining a turn while climbing and while descending. (*Takeoff and Landing preparation)*

_____ F. Rectangular patterns – combining skills of straight and level flight with turns, orientation, wind interpretation and correction while flying an accurate track pattern at low altitude about the runways. Rectangular patterns must be practiced both to the left and to the right. (*Traffic pattern preparation.)*

_____ G. Takeoffs – maintaining directional control of the aircraft and observing and avoiding hazards. Recovery from swerves and ground looping. Transition from rolling to flying. (*Correct departure procedures.)*

_____ H. Landings – gliding approaches with and without power, flaring and transition from flying to rolling with regards to directional control and observing and avoiding hazards. (*Judging approaches and missed approaches.*)

_____ I. Emergencies – The student should recognize the situation and initiate appropriate actions. Some typical situations simulated may be:

1.) Engine stops on takeoff – lower nose of aircraft to establish a safe glide and land straight ahead.

2.) Engine stops in flight or on approach – set up a safe glide path and land the aircraft. (*Don't panic!*)

3.) Ground loop/loss of control during takeoff – reduce power and try to regain directional control. Warn any pilots which may be in the path of the aircraft.

4.) Aircraft out of sight or in an unusual attitude – relax or release controls momentarily. Re-establish corrections without over controlling the aircraft.

5.) Bounce or ballooning (over flaring) on landing – add power and treat as a missed approach. If the aircraft heads towards people then cut power, yell out warning and glide in safely or put the aircraft down suddenly.

6.) Radio glitching or failing – bring aircraft closer and terminate flying immediately. Check to make sure the antenna is fully extended. Yell out for possible interference from another pilot.

7.) Other situations are at the instructors' desecration.

5. **Advanced student level**

When the primary instructor is ready to back away and allow the student to take off and land by his/her self, the pre-solo portion of training is over. The students should now be able to take off and land by themselves safely. The student now begins to acquire additional skills and maneuvers. Instructor interaction is still required and will include reviews of pre flight checks and safety issues. The instructor shall assign practice maneuvers and provide indirect supervision to the extent that the instructor must be present and ready to demonstrate maneuvers and assist the student, but does not need to be immediately ready to take over control of the aircraft. Students may use the assistance of other instructors, but must be ready to demonstrate basic skills and receive remedial instruction in the event that it is needed. It may be common for a student to forget some basic principals when they advance to more complex maneuvers. It is very important to emphasize that the student's work at this level should have specific goals to improve specific skills and maneuvers, such as:

_____ A. Takeoffs and crosswind takeoffs – improving directional control, smooth transitions and correct area departures. *(Basic understanding of torque & P-factor in takeoff and climbs.)*

_____ B. Landings and crosswind landings – accurate approaches, flaring and landings with minimum bounce.

_____ C. Traffic patterns and touch-and-go's – smooth rectangular and racetrack patterns to the left and right. Including smooth transitions from takeoff and landing and merging into traffic.

_____ D. Steep turns & figure 8's – level turns at a 45-60 degree banks, left and right. Level figure 8's, inside and outside.

_____ E. Recovery from unusual attitudes – rolls, stalls, split S's, spins and their causes and recoveries. Effect of load factor (G-force) on the airframe structure as well as "accelerated" stalls and spins.

_____ F. Out-of-trim conditions – learning how to properly trim an out of trim aircraft.

_____ G. Recap emergency procedures.

_____ H. Review club rules, regulations, safety issues, courtesies, as well as aircraft, engine and radio system knowledge.

Pilot certification – The student will demonstrate to the club chief flight instructor and another flight instructor or officer of the club that he has the skills and knowledge in the areas covered in the items A-H above. The demonstration shall be in the form of oral questions as well as practical demonstration of the students flying abilities in order to be certified.

Pilot Responsibilities

Pilots are to abide by the club rules, use common sense, strive for self-improvement and keep safety as a number one priority. All of our clubs resources are continually available to each new pilot, and they should feel free to ask for assistance or advice whenever needed. In the event that an instructor, safety officer or fellow member deems it necessary to provide remedial advice or reprimand a pilot, one should recognize that the intent is to maintain safety, courtesy and the enjoyment of our sport for the benefit of the majority. In the event of any disputes, the appropriate club rules and bylaws shall apply.

No fly zones

As a pilot, you must observe our airspace boundaries. All flying activities shall be North of the East-West main runway. There is to be no flying over the Badcock warehouse or their fuel station, which is located to the North East of their warehouse. Also, do not fly over the two Bulger buildings to the east of the flying field.

IRCC Safety Rules

1.) Flying is restricted to current IRCC club members and their guests. Sponsoring club members must be present for their guest to fly.

2.) On arrival at the field, all transmitters shall be turned off and placed in the transmitter impound area. All transmitters must display the proper frequency flag.

3.) A transmitter shall not be removed for use from the impound area until a proper AMA, MAAC, or current IRCC club card is place in the used frequency slot.

4.) Possession of the frequency pin is limited to fifteen (15) minutes when others are waiting for it.

5.) All models must comply with AMA safety requirements.

6.) All flying must be conducted North of the East/West runway. Helicopters may also use the designated hover pad.

7.) All flying must be performed with the pilot positioned on any of the designated pads. Pilots should always announce their intentions - Take off, Landing etc.

8.) Low, high-speed passes shall be made only parallel to the East-West runway, and, when other pilots are present, at least 50 feet north of the runway.

9.) Instructors will accept students only upon exhibit of a current AMA card and a current Imperial R/C club membership card.Only designated introductory pilots may fly others that do not possess valid AMA and membership credentials.

10.)Flight instructors and club officers are responsible for enforcing these rules. They are required to call infractions to the attention of the violator. Any member may do so if neither an instructor or club officer is present. It is expected that all such incidents will be handled tactfully and with discretion. We are trying to improve safety, not alienate anyone.

IRCC safety rules Rev. -1998
Imperial Student Pilot Guide & Checklist (rev. 10/01)