AMA Charter # 1572

Club Organization and Rules

Established and Adopted:

July 11, 2015

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A	New Adoption	07/11/2015	T. Cox
REV.	**Revision Record**	**Date**	**Approved**

Membership

All persons interested in radio controlled model aviation and who are current members of the Academy of Model Aeronautics (AMA) are welcome as Club members. Only Club members, their invited guests and Student Pilots assigned to a club AMA Introductory Pilot Instructor may use the field. Both Club members and guests must have a current AMA membership card in their possession when flying. Non-AMA Student Pilots must be under the direct supervision of a club appointed AMA Introductory Pilot Instructor at all times. Under AMA rules, "buddy-box" flying by an AMA member and a non-member (spectator, friend, relative, etc.) is permitted but only on a once-per-person basis. "Buddy-box" flying is defined as two transmitters linked either wirelessly or by a connecting cable. Passing a single transmitter back and forth does not qualify. This means that all new persons who are receiving flight instruction must be AMA and Club members before instruction starts unless they are participating as a Student Pilot in the AMA Introductory Pilot Program.

Unfortunately, there can be no exceptions to the AMA membership requirement for club members, since the Club's insurance coverage is dependent on compliance. The AMA insurance policy provides specifically that "coverage is not valid for clubs or chapters if anyone who is not an AMA member is allowed to fly on the site(s) being used by these groups unless they are participating in the AMA Introductory Pilot Program." See Appendix for more information on this program.

Meetings

General membership meetings are held quarterly during the calendar year, beginning in January. Special meetings are called by the President as needed.

Club Grounds

Per our land use agreement with the land-owner, the trees on the property are protected and are not to be tampered with in any way. Anyone caught cutting or trimming a tree will be immediately dismissed and banned from the club with no refund of club dues.

Safety

RC flying can be dangerous— for this reason, safety is everyone's responsibility. If a Club member sees something taking place that is, or is perceived as, dangerous or in violation of AMA or Club rules, he or she should immediately bring it to the attention of the person involved. An attempt should also be made to inform the Club Safety Officer of the incident. Repeated violations of safety will result in loss of Club membership (see Grievance Procedure outlined in Club by-laws), as well as forfeiture of all Club dues.

Club Safety Rules

The following are Club safety rules, which must be complied with by all Club members at all times. All model operation must be done in accordance with the *Official Academy of Model Aeronautics National Model Safety Code*, which all members should be familiar with. As stated in the *Academy of Model Aeronautics National Model Safety Code*, violations will void the insurance. A copy of the *Academy of Model Aeronautics National Model Safety Code* is posted and shall be maintained at the field shelter.

1. No person shall be allowed to fly without current AMA and Volunteer Aeromodelers Club memberships. Guest flying privileges are available to current AMA members when

accompanied by a Volunteer Aeromodelers Club member, and is limited to two (2) visits before membership must be applied for.

2. Current AMA membership cards with the current Volunteer Aeromodelers Club sticker attached shall be placed in the appropriate slot in the frequency box before the transmitter is turned on. When frequency sharing is required, pilots shall limit frequency use to 15 minutes.
3. All engines over .09 cubic inch displacement are required to have an effective muffler.
4. Fueling and engine runs are not permitted in the spectator areas.
5. Arming of electric motors and electronic speed controllers are not permitted in the spectator areas.
6. The pit area and flight line are restricted to pilots and crew only. No children shall be allowed in the pit area or on the flight line except as a pilot or student pilot under adult supervision.
7. Spectators, including family members, should remain behind the fence at all times.
8. It is each pilot's responsibility to properly maintain his or her aircraft and to ensure it is in good working order. Pre-flight checks must always be performed to avoid any obvious mechanical or electrical failures.
9. Engine runs in the pit area shall be limited to starting and initial tuning. Fixed wing aircraft should use the engine start-up fixtures for extensive ground runs and/or engine break-in runs. Helicopters are limited to idle runs with no rotation while in the pit area. Aircraft too large for use in the engine start-up fixtures must be secured to the ground for extensive ground runs and/or engine break-in runs with the front of the aircraft facing towards the runway.
10. Fixed wing aircraft may be taxied from the start pads to the runway for takeoff. Taxiing from the runway back to the pit area is not allowed. Takeoffs from the pit area are prohibited for all models, except for hand launch models (including, but not limited to, sailplanes, micros, 3D foamies, etc). Such hand launch models should be launched away from the spectator and pit areas from the location between the pits and the runway. Glide testing can and should be performed in the tall grass south of the runway, only if all pilots are aware of this activity and it does not interfere with any landing in progress.
11. All flying shall be with the pilots positioned on the north side of the runway. The pilot stations shall be used when more than one pilot is flying.
12. Pilots should stand on one of the concrete pilot station markers except when taxiing to and from the pits. This spacing will give adequate clearance between pilots and the runway and reduce the likelihood of radio interference.
13. It is strongly recommended that no one fly alone. Each pilot should have a spotter when flying. This is critically important, particularly when more than one aircraft is in the air. The spotter should be cognizant of what is going on around the pilot at all times, and provide feedback to the pilot in order to avoid any mishaps in the active airspace or runway.
14. The north edge of the runway establishes the flight line. Pilots shall notify other pilots of their intentions by calling out "TAKEOFF", "LANDING", "DEAD STICK", etc. Landing aircraft have the right-of-way at all times. Flying over the runway is restricted to takeoff, departure, approach and landing when others are flying. Under no circumstances shall a model be flown closer than 25 feet to any person.
15. If more than one model is flying, a rectangular traffic pattern will be flown to avoid mid-air collisions. The pattern direction will be determined by the current wind direction and/or pilots verbal agreement.
16. 3-D maneuvers such as torque rolls and hovering are prohibited over the runway and in the flight line pattern when any other models are flying. These maneuvers may be performed over the grass south of the flight line and inside the flight line pattern. Pilots must show consideration for the other flyers when performing these types of maneuvers.
17. When the wind direction results in landings to the east, the trees at the west end of the field can make landing difficult. Pilots may elect to execute a procedure-turn landing to avoid the trees. Caution shall be used during this type of approach to assure that the landing aircraft maintains adequate separation from other models and does not fly into the "NO-FLY ZONE" between the runway and the pit area. This restriction includes not flying over the cemetery across Luttrell Road.

18. During and/or after a crash, try to refrain from loud obscenities— they won't help your aircraft or the Club's image.

HELICOPTER SPECIFIC OPERATIONS

Because of the unique manner in which helicopters operate (vertical takeoff & landing and the ability to hover), helicopters may operate at the field in one of two ways:

1. The model may be started and placed upon the runway the same as a fixed wing model. The model must make the same type of takeoff as a fixed wing aircraft and must be flown in the traffic pattern. Landings will be made from the traffic pattern onto the runway. The model will be picked up and removed from the runway.
2. There is a helicopter takeoff pad available at the west end of the field near our field's west property line. This pad is outside of the NO-FLY zone. Helicopters are permitted to takeoff and hover over this pad. Helicopters may also takeoff from the pad and may maneuver to the south to assume the current pattern. Takeoffs and landings must be made on or near the pad. There will be no flying in the NO-FLY zone (pits and spectator area).
3. Prolonged helicopter hovering should be performed at the designated helipad and not over the runway.

Helicopter Operation Safety Requirements:

- Engine starting in designated pit areas only. The rotor head of the helicopter must be held securely while the engine is running and the helicopter is behind the flight line.
- All helicopters will be inspected by someone other than the owner/pilot prior to being flown at the Club field, or after being repaired due to significant crash damage.
- Any novice pilot must be accompanied by another pilot as an observer, when any other person is at the field.

Frequency Control

A frequency control board, with one clip for each 72 mhz channel in use is provided. When a clip is removed, the member or guest places his current AMA Membership Card in the clip behind the appropriate channel number. Those who are flying in a Spread Spectrum/2.4 GHz band or equivalent are required to place their membership card inside the frequency control box as well. The card is mandatory - no card, no fly.

Before turning your transmitter "on" for any reason, you must have the clip for your channel pinned to your transmitter. Only the person with the clip is permitted to turn "on". When your flight, or checkout, is completed, return the clip and remove your AMA card promptly, so others may fly. As a reminder to stay turned "off", make it a practice to lower your antenna when you do not have the clip. Do not lose or take home a clip.

The Club policy is that if anyone turns "on" a transmitter without having the clip and a crash results, they will pay for the crashed plane at its full value. Be careful, not sorry.

Pilot Proficiency

New Club members must demonstrate a level of proficiency before they will be allowed to fly solo at the Club field. New Club members will be paired with a Club instructor who has been designated as an AMA Introductory Pilot Instructor. The new Club member must successfully demonstrate the required flight proficiency maneuvers as outlined in the following sections. Note that there are very different requirements for airplanes and helicopters.

Airplane Flight Proficiency Maneuvers

Demonstration of proficiency to fly a model airplane alone shall consist of performance of maneuvers consistent with the AMA Introductory Pilot Program (AMA Document #921), in a satisfactory manner while being observed by the appropriate Club Introductory Pilot Instructor. The required maneuvers for model airplane pilot proficiency are described in detail in the Appendix of this document.

Helicopter Flight Proficiency Maneuvers

Demonstration of proficiency to fly a model helicopter alone shall consist of performance of maneuvers consistent with the International Radio Controlled Helicopter Association (IRCHA) Pilot Proficiency Program Level I and II, in a satisfactory manner while being observed by the appropriate Club Introductory Pilot Instructor. The required maneuvers for model helicopter pilot proficiency are described in detail in the Appendix of this document.

Aircraft Flight Worthiness

Safety is critically important for any aspect of our hobby. Aircraft maintenance is a key part of maintaining a high degree of safety for those enjoying the hobby at the Club flying site. It is the responsibility of each Club member to ensure their aircraft is in proper working order and flight worthy.

Thank you for your help to make our hobby and neighbors as safe as possible.

Technical inspections of all aircraft are subject to the following:

- Any new member to the Club is ***required*** to have each of his/her aircraft inspected by their appointed Club instructor.
- Any new member to the Club, who has not attained solo flight status, who is 1) preparing to maiden a newly constructed aircraft, or 2) an aircraft that has been recently crashed and is being maidened subsequent to the crash is ***required*** to have each of his/her aircraft inspected by their appointed Club instructor.
- Any Club member who is 1) preparing to maiden a newly constructed aircraft, or 2) an aircraft that has been recently crashed and is being maidened subsequent to the crash is ***highly encouraged*** to have each of his/her aircraft inspected by another experienced Club member.

Airplane Technical Inspections

Anyone flying airplanes at the Club flying site should adhere to the following:

- Condition of propeller and propeller nut is tight.
- Engine, engine mount, and muffler are secure.
- Interior control rods, cables, servos, and antenna must be secured properly, routed properly, and move freely.
- All control surfaces and linkages must be secure and move freely. Metal clevis' must have jamb nuts and be loctite'd. All types of clevis' must have fuel tube safety keepers. Conduct pull test on hinges and a load test on control surfaces.
- Name, address, phone number, and AMA registration numbers are displayed on or in the aircraft.
- Wheels and gear must be secure and roll free.
- Wing hold down system is secure.
- Range check radio with antenna down (72 MHz only) to 50 feet, and battery check aircraft and radio.

Helicopter Technical Inspections

Because of the uniqueness of helicopters and the manner in which they are typically flown, somewhat different safety rules will apply than those governing fixed wing aircraft. However, the basic concepts of safety applied to fixed wing aircraft will apply to helicopters. All helicopters will be safety inspected, all helicopter radios will be checked, and flight pattern restrictions are in place.

- All helicopters will be inspected by someone other than the owner/pilot prior to being flown at the Club field, or after being repaired due to significant crash damage. It is expected that the owner will accomplish a similar inspection prior to every flight session, after having achieved initial compliance with inspection criteria.
- The safety inspection will consist of the following items as a minimum. The inspector can pursue any additional items deemed appropriate.
    - Throughout the helicopter, check for loose or missing fasteners.

- Throughout the helicopter, check for loose metal to metal parts.
- In the tail rotor group, check for excessive slop in controls and drive mechanism. Check for cracked or damaged rotor blades.
- In the main rotor group, check for excessive slop in controls and various lever arms on the mechanism. Check for excessive slop in the swash plate. Check main blades for cracks or damage, and check that blade weights appear to be properly installed.
- Check servos for proper mounting, presence of output arm screws and output arm wear at Z-bends. Check for firm pigtail plug connections, and that pigtails are protected from chafing against the helicopter structure.
- If equipped, check gyro for proper attachment in that foam mounting tape has appropriate adhesion.
- Check that the radio components are securely attached or contained, and have reasonable protection from vibration. Check the antenna for appropriate routing, and that it is protected from chafing and breaking.
- If helicopter has not been previously flown, or has been repaired from crash damage, check all control throws for proper direction and reasonable movement.
- The radio system will be checked for appropriate battery voltage, both transmitter and receiver, with the assumption the pilot has fully charged the system prior to the inspection. The checking instrument may be either the pilot's or the inspector's, as agreed to by both parties. The pilot will demonstrate a satisfactory antenna collapsed range check suitable to the radio system in use.

- If the helicopter pilot chooses to fly from a runway flight station in the normal fixed wing flight pattern, then all the fixed wing flight boundary rules and Field Marshal requirements also apply to the helicopter pilot.

REPEATED VIOLATION OF ANY OF THESE SAFETY RULES WILL RESULT IN A REVIEW OF YOUR MEMBERSHIP ELIGIBILITY BY THE CLUB AND COULD RESULT IN THE LOSS OF YOUR MEMBERSHIP

The Volunteer Aeromodelers Club Field Safety Rules are intended to document the minimum safety requirements for "our" flying site. Our club's ability to maintain a safe flying field is the responsibility of every member. The club's right to use the field is not guaranteed! Questions or comments concerning the Volunteer Aeromodelers Club Safety Rules should be directed to the club officers who may be contacted via the email addresses and phone numbers posted on the current newsletters.

APPENDIX

AMA Introductory Pilot Program
(Applies to all categories of model flying — RC, CL, and FF)

Please Note: This program is not intended to alter or replace any instructor program offered by AMA chartered clubs for their AMA members. This program is intended to introduce the non-AMA member to aeromodeling while providing liability insurance coverage to the non-AMA member and the chartered club. This program is optional.

A non-AMA member may fly at a chartered club site and receive member liability insurance protection as long as he/she is flying under the direct supervision of a club-designated Introductory Pilot Instructor. The Introductory Pilot Instructor must hold a current AMA Open membership with the "Intro Pilot" classification. Supervised instruction must take place at an AMA chartered club's site, and must be closely supervised. The non-AMA member will have the same liability insurance coverage that other AMA members receive, solely while under the direct, one-on-one supervision of the Intro Pilot Instructor, for a period of 60 consecutive days starting from the first session. No other AMA benefits are provided to the non-AMA member.

Participation in this program is on a one-time basis only. This program covers assisting new modelers through education and training activities only, and does not constitute permission to fly in any organized event of AMA members or clubs, sanctioned or otherwise. No AMA card will be issued to the non-AMA member during the 60 day introduction period.

If the non-AMA member's model is used, it should be carefully checked and the Intro Pilot Instructor should fly it until familiar with it. High performance aircraft should not be used for training. For radio control clubs, if the non-members radio is "buddy-box" ready, its use is recommended.

Chartered clubs are requested to have a reasonable number of AMA members as Intro Pilot Instructors. A club officer must complete the Introductory Pilot Instructor Designation form and submit it to AMA HQ online, by fax, or through US Mail. A person may be designated as an Intro Pilot Instructor by more than one chartered club. The designation will renew automatically each year. At the time of an individual's first-time designation, AMA will verify that the designee is a current member. In subsequent years, it will be the club's responsibility to verify and assure that all of its designated Intro Pilot Instructors are current AMA members prior to any non-AMA member student training. Signing up online can easily be done at anytime on the AMA Web site.

All record keeping is the responsibility of the chartered club and its designated Intro Pilot Instructors. Using forms provided by AMA, clubs shall establish and maintain up-to-date records showing date of enrollment and date of termination for each non-AMA member enrolled in the program. Neither the club nor the Intro Pilot Instructor is permitted to charge any training fees. The granting, duration, and revocation of Intro Pilot Instructor status is at the sole discretion of the chartered club. Requests to remove Intro Pilot Instructor designations can be made by either the individual instructor or by the applicable chartered club and have to be submitted in writing to the attention of AMA's introductory pilot program, intropilot@modelaircraft.org.

The Intro Pilot Instructor must instruct the non-AMA member in club-related site safety rules. Each non-AMA member must be given a copy of the AMA National Model Aircraft Safety Code, and a copy of this document,along with any other introductory material the club feels is appropriate.

Policy limits for model aircraft are $2,500,000 per occurrence involving bodily injury and/or property damage. This coverage is provided as "excess" to other applicable coverage the non-AMA member, club or Intro Pilot Instructor may have including homeowners insurance. The $250 property damage claim deductible is waived by AMA and is not the responsibility of either the Introductory Pilot Instructor or the non-AMA member student during this training period. No liability protection is provided to the non-AMA member when flying away from the chartered club

site, with or without the Intro Pilot Instructor. Neither AMA, the chartered club, nor the Intro Pilot Instructor shall be liable for any damage to a non-AMA member's aircraft.

A report to AMA HQ of any incident is the responsibility of the Intro Pilot Instructor and the chartered club. A telephone report by the close of business the following business day, followed by a written report, is required. During normal business hours call (765) 287-1256.

Clubs are encouraged to develop and implement their own formal training program. Contact AMA for information, suggestions, and samples of programs being used by other clubs.

Summary of Introductory Pilot Program: Instructions for Clubs and Pilots

Clubs:

1. The Intro Pilot Instructor designees must be a current member of AMA and should be experienced instructors. Three-month trial members cannot be designated Intro Pilots.
2. Fill out Form #1, the Intro Pilot Instructor Designation form or register on the AMA website for instructors here. The form must be completed by a club officer.
3. When the Designation Form is processed, the Intro Pilot Instructor will receive a supply of Student Registration Forms. Xerox copies are acceptable, you can request more copies from AMA HQ. For students, click here. The form must be completed by a club officer.
4. As your Intro Pilot Instructors sign up students, keep copies of their Student Registration Forms in the club's files.
5. Official Introductory Pilot Program rules and regulations should be kept on hand by each Club, and every Intro Pilot Instructor should be familiar with the rules.

Intro Pilot Instructors:

1. Once you've been designated as one of your club's Intro Pilot Instructors, you need to have a supply of the Student Pilot Registration Form. You should also have a supply of the "Welcome to Aeromodeling" package provided by AMA. These can be requested from AMA HQ.
2. Have your student fill out the Student Pilot Registration Form #2.
3. Send the Registration Form to AMA HQ. The forms can be submitted online; faxed to (765) 289-4248; emailed to intropilot@modelaircraft.org; or mailed to AMA HQ. It's important for the Student Registration Form to be submitted to AMA HQ within 48 hours of the student's first flight.
4. Give each student copies of the official AMA Introductory Pilot Program outlining its procedures and the AMA National Model Aircraft Safety Code.
5. Proceed as usual with your program of flight instruction. The student is covered under the AMA's liability insurance policy, as long as he/she is flying at the club site under your direct, one-on-one supervision, for a period of 60 days of the student's first flight.
6. If there is an incident that may involve a claim on the AMA's insurance policy, it is the responsibility of the Intro Pilot Instructor and/or club officers to make a telephone report to AMA HQ by the close of business the following business day. A follow up, written report is also required.

Questions?

Call AMA HQ between the hours of 8 a.m. and 5 p.m. Eastern Standard time, Monday through Friday. (765) 287-1256 ext. 299; Fax (765) 289-4248; E-mail intropilot@modelaircraft.org.

Airplane Flight Proficiency Maneuvers

Demonstration of proficiency to fly a model airplane alone shall consist of performance of the maneuvers consistent with the AMA Introductory Pilot Program (AMA Document #921), in a satisfactory manner while being observed by the appropriate Club Introductory Pilot Instructor. The required maneuvers for model airplane pilot proficiency are described below.

1. **Preflight**. Demonstrate knowledge of aircraft systems and perform preventive maintenance inspection on aircraft.
2. **Engine Start**. Demonstrate knowledge of ground support equipment and perform a safe engine start.
3. **Take-off**. Perform take-off while maintaining heading (no more than two wingspans from runway centerline)
    a. Perform a smooth rotation
    b. Perform a controlled transition to level flight at predetermined altitude and heading
4. **Rectangular Pattern** (at altitude). Perform rectangular pattern while:
    a. Maintaining constant altitude
    b. Compensating for drift
5. **Climbing and Descending Turns**. Perform climbing and descending turns while:
    a. Maintaining smoothness of control
    b. Compensating for drift
    c. Controlling airspeed
6. **Horizontal Figure 8** (from both directions). Perform horizontal Figure 8 while:
    a. Maintaining constant altitude
    b. Compensating for drift
    c. Maintaining symmetrical circles
7. **Stall Recovery** (at altitude).
    a. Perform power-on stall & recovery (at safe altitude)
    b. Perform power-off stall & recovery (at safe altitude)
8. **Steep Turns** (bank angle greater than 50 degrees). Perform (3 each direction) high G-turns while:
    a. Maintaining constant altitude
    b. Compensating for drift
9. **Loops**. Perform 3 consecutive loops while:
    a. Maintaining heading
    b. Compensating for drift
    c. Maintaining symmetrical circles
10. **Missed Approaches**. Perform (3 missed) approaches while:
    a. Maintaining directional control of aircraft at low airspeed
    b. Transitioning to flight configuration
11. **Touch & Goes**. Perform 3 touch & goes in both left and right hand pattern (6 total) while:
    a. Maintaining heading (no more than two wingspans from centerline)
    b. Landing within a 10-meter long predetermined touch down zone
    c. Transitioning smoothly to take-off configuration
12. **Full Stop Landing**. Perform full stop landing while:
    a. Maintaining airspeed control
    b. Maintaining heading (no more than two wingspans from centerline)
    c. Landing within a 10-meter long predetermined touch down zone
    d. Maintaining centerline heading during roll-out
13. **Simulated Deadstick Landing**. Perform simulated deadstick landing—when called for by Contest Director (power stays at idle during maneuver) while:
    a. Maintaining airspeed control
    b. Maintaining heading (no more than two wingspans from centerline)
    c. Maintaining centerline heading during roll-out

Helicopter Flight Proficiency Maneuvers

Demonstration of proficiency to fly a model helicopter alone shall consist of performance of maneuvers consistent with the International Radio Controlled Helicopter Association (IRCHA) Pilot Proficiency Program Level I and II, in a satisfactory manner while being observed by the appropriate Club Introductory Pilot Instructor. The required maneuvers for model helicopter pilot proficiency are described below.

IRCHA Pilot Proficiency Level I

Level I is the most basic of the program and is characterized by the pilot becoming SAFE and Proficient in the Hover and its related phases. Pilot position for most of the maneuvers shall be from the position of Tail-in towards the pilot.

1. **Take-off**.
    a. The take-off should be performed straight up from the landing area, at a constant rate of climb, with little lateral deviations.
    b. Come to a complete stop without any vertical bounce or dip, and little to no lateral wobble or drifting.
    c. The landing area is defined as a 36”/(1meter) diameter circle.
2. **Stationary Hover**.
    a. After the take-off, coming to a complete stop with little to no vertical bounce, dip, lateral drifting, or wobble.
    b. Hold in the Stationary Hover for one (1) minute.
    c. The Stationary Hover should give the appearance of being under total control.
3. **Hover Laterally**.
    a. From take-off area hover forward ten (10) feet, hold for ten (10) seconds.
    b. From there hover backward twenty (20) feet, hold for ten (10) seconds.
    c. From there hover forward ten (10) feet until you are over the landing area, then hover to the left ten (10) feet, hold for ten (10) seconds.
    d. From there hover to the right twenty (20) feet, hold for ten (10) seconds.
    e. From there hover back to the left ten (10) feet until you are over the landing area.
    f. Land with the skids completely within the landing area.
4. **Multiple-level Hover**.
    a. Take-off, hover for five (5) seconds.
    b. Climb straight up two (2) meters; hold for five (5) seconds.
    c. Descend vertically two (2) meters; hold for five (5) seconds.
    d. Land with the skids completely within the landing area.
5. **3/4 Rear View Hovering**.
    a. Take-off to Hover, Hold for five (5) seconds.
    b. Rotate the nose of the Helicopter either left or right forty-five (45) degrees, hold for five (5) seconds.
    c. Rotate the nose of the Helicopter back to straight ahead, hold for five (5) seconds.
    d. Continue rotating the nose of the helicopter forty-five (45) degrees to the other side, hold for five (5) seconds.
    e. Rotate the nose back to straight ahead, hold for five (5) seconds.
    f. Land with the skids completely within the landing area.
6. **Full Lateral View Hovering**.
    a. Same as 3/4 View Hovering, but in steps b and d rotate ninety (90) degrees instead of forty-five (45) degrees.
7. **Diagonal Hovering**.
    a. After take-off from the landing area within center of a 10 meter/yard box, from Stationary Hover, maintaining a constant heading, move the helicopter diagonally to a corner of the box, hold for five (5) seconds, then return to the center of the box.
    b. Repeat with the remaining 3 corners of the box.
    c. Land with the skids completely within the landing area.
8. **Circle Hovering**.
    a. *Tail-in Circle*.

i. Take-off, hold hover for five (5) seconds.
ii. Move the helicopter to the right; keeping the tail pointed at the pilot, in a circle around the pilot, until the helicopter is hovering over the take- off point.
iii. Move the Helicopter to the left, repeating step ii above.
iv. Land with the skids completely within the landing area.

b. *Constant Heading Circle*.
i. Take-off, hold hover for five (5) seconds.
ii. Move the helicopter to the right, keeping the tail pointed in the same direction; complete a ten (10) meter circle in front of the pilot until the helicopter is hovering over the take-off point.
iii. Move the Helicopter to the left, repeating step ii above.
iv. Land with the skids completely within the landing area.

IRCHA Pilot Proficiency Level II

Level II is an intermediate level of proficiency and completion of this level takes the pilot to the level of a well-rounded pilot capable of performing Basic Flight skills. Intrinsic to this level is successfully completing all components of Level I, then advancing to the ability to FLY the Helicopter in circuits.

1. **Complete Level I**.
2. **Taxi Out**.
   a. Take-off from the landing area to an eye-level hover; hold momentarily.
   b. Hover forward slowly for no less than ten (10) meters.
   c. Turn into the prevailing wind direction and continue straight and level for no less than ten (10) meters.
   d. Either proceed to Climb-Out or Land within the landing area circle.
3. **Climb-Out**.
   a. After Taxi Out, begin ascent by gradually increasing power/collective.
   b. Continue to climb until an altitude of approximately fifty (50) feet.
   c. Climb out should be parallel to flight path and at a moderate speed.
4. **90-Degree Turns**.
   a. After climb out, turn 90 degrees in a direction away from pilot and spectators.
5. **Flying Box**.
   a. After completing the Climb out and first 90 degree turn continue to fly straight and level.
   b. Execute another 90 degree turn, same direction as before.
   c. Continue as before until a box or rectangle has been formed.
6. **180-Degree Turns**.
   a. While flying straight and level, execute a turn hold this turn until the helicopter has come around back to the same direction it has just come from, straighten out and continue in straight and level flight.
   b. Turns should be made turning away from the pilot to the right and left.
   c. Turns should be made turning toward the pilot to the right and left.
7. **Straight and Level Flight**.
   a. Fly from the Left to the Right.
   b. Fly from the Right to the Left.
8. **Figure of Eight - Constant Heading, Hovering**.
   a. Take-off to eye-level, hold momentarily.
   b. While maintaining constant altitude, speed and heading begin a forward hovering circle to either the right or the left.
   c. As the helicopter reaches the take off point continue hovering forward and complete a circle in the opposite direction from before.
   d. Stop over take off point, descend vertically and land completely within the landing circle.
9. **Figure of Eight - "Lazy 8"**.

a. With the helicopter flying straight and level after it passes the pilot make a turn that is greater than 180 degrees away from the pilot.
b. After the helicopter passes in front of the pilot, execute another turn that is greater than 180 degrees, away from the pilot.
c. This maneuver must be done flying from both left to right (first turn to the left, counter-clockwise) and right to left (first turn to the right, clockwise).

10. **Figure of Eight – Flying**.
    a. With the helicopter flying straight and level after it passes the pilot make a 270-degree turn away from the pilot; the helicopter will now be pointed directly at the pilot.
    b. After the helicopter is pointing at the pilot, execute a 360 degree turn in the opposite direction. The helicopter will again be pointing directly at the pilot.
    c. After the helicopter is pointing at the pilot again, execute a 90 degree turn, in the same direction as the first 270 degree turn.
    d. This maneuver must be done starting from both left to right (first 270 degree turn to the left, counter-clockwise) and right to left (first 270 degree turn to the right, clockwise).
11. **Traffic Pattern Approach to Landing**.
    a. From straight and level flight, after the helicopter passes the pilot execute a 180 degree turn away from the pilot.
    b. Start to reduce speed and power.
    c. After the helicopter passes the pilot execute a 180 degree turn towards; continue to reduce power/collective so as to descend at a gradual angle to the landing zone.
    d. This must be done starting from both the right and the left.
12. **Translational Descent**.
    a. This is similar to the Traffic Pattern Approach, but the descent angle should be much greater (about 45 degrees) and the descent continues all the way to the landing.
    b. This must be done starting from both the right and the left.
13. **Landing**.
    a. This landing is to be completed as part of a Translational Descent, but this has the added requirement that both the take off and landing must be within a one (1) meter circle. The skids must be completely within the landing circle.
    b. This must be done starting from both the right and the left.
14. **Beginning Aerobatics**.
    a. *Stall Turn*.
        i. Starting from straight and level flight after the helicopter passes the pilot the helicopter is smoothly pulled vertical (Aft Cyclic).
        ii. When the vertical climb stops, the helicopter is rotated 180 degrees about the yaw axis.
        iii. The helicopter is allowed to fall the same distance that it climbed at the beginning of the maneuver before pulling the helicopter back to straight and level flight.
        iv. This maneuver must be done both to the right and the left of the pilot.
    b. *Inside Loop*.
        i. Starting from straight and level flight after the helicopter passes the pilot the helicopter is smoothly pulled through a loop (Aft Cyclic).
        ii. As the helicopter is "on its back" the pilot should reduce collective so as to keep the loop as round as possible.
        iii. This maneuver must be done starting from both the right and the left of the pilot.
    c. *Pirouette*.
        i. From a stationary hover, execute a tail rotor only turn of 360 degrees to either the right or the left.
        ii. This maneuver must be done in both directions, to the right (clockwise)
        iii. and the left (counter-clockwise).