Radio Control Flight Training - Electric Airplanes

Introduction:

Discuss excerpts from the Des Moines Modelaires Field Rules

- **Membership in the Des Moines Modelaires**
    - Must have a current AMA membership.
    - Must have a current FAA registration.
- Only electric planes are allowed to fly before 10am or after sunset.
- **At West Field**
    - Do not fly near the home south of the field
    - Do not perform acrobatics over the farm east of the field when people are present.
    - Arm your electric motor at a flight station and not in the Pit Area.
    - Retrieval of downed aircraft from adjacent farm fields must be done on foot only.
- **General Flying**
    - Fly in accordance with the established traffic pattern.
    - Before taxiing onto a runway announce loudly "coming out" to let others know your intensions.
    - Before starting your takeoff roll announce loudly "taking off" to let others know your intensions.
    - Fly from the "Pit" side of the runway only. This includes all 3D activities and helicopter flights.
    - Absolutely no flying over the pit area.
    - Flying must be to the far side (away from the pit area) of the runway. This includes helicopters, quads and 3D flying.
    - Always take off into the wind, if a cross wind or no wind situation exists, the pilots present will decide which direction to fly.
    - After takeoff always turn 90 degrees away from the pit area and continue to fly in a rectangular or oval pattern.
    - When landing, announce loudly to the other pilots, "landing" to let others know your intensions
    - When retrieving an airplane from any part of the flying field:
        - Check traffic to be sure you can retrieve your aircraft safely.
        - Announce loudly "on the field" to let others know your intensions.
        - Retrieve your aircraft as quickly as possible.
        - When you are back behind the flight fence line, announce loudly "clear" to let others know you are safely off the flying field.
- **3D / Helicopter / Quad copter Flying / Gliders**
    - If you would like to fly a 3D plane, helicopter, glider, or quad copter clear of the active runway you must coordinate with pilots using the active runway and make sure they know your intentions.
    - You must be skilled enough to ensure your aircraft does not cross the active flying pattern in use.
- **FPV (First Person View) Flying**
    - Your aircraft must remain in sight at all times.
    - You must have an active spotter next to you at all times.
    - You must follow AMA published rules.

Always Coordinate and Communicate, remembering Courtesy is Contagious and Safety is No Accident.

Flight Lessons:
If you have not been cleared to fly alone and would like help/instruction you can come to the Monday evening training nights or schedule personalized training by contacting one of our instructors.
Our West Field Instructors are:

Denis Roy	DenisRoy81@gmail.com	249-1617
Pat Nestvedt	plnest@hotmail.com	201-8112
Scott Leonard	scott@sjleonard.com	494-2011

If you have any questions PLEASE ask.

We strongly recommend you start your flight instruction on a trainer airplane (such as the Horizon Hobby Apprentice available at Hobby Heaven) and then evolve to more advanced planes. A trainer plane will make your flying much less stressful, allow you to learn faster, simplify instruction, and likely make your airplane last a lot longer with less chance of a serious crash.

Since everyone learns at their own pace we cannot say how long it will take you to become a proficient and safe RC pilot. Like everything else in life, your success will all depend on your willingness to spend the time it takes and practice.

Note: Winds much over 15 mph usually prohibit training and do not help in learning to fly.

FLYING SAFETY

THINGS TO CHECK BEFORE YOU FLY

Before you rush out to the field to fly your plane it is a good idea to check out a few things first at home. Below is a list of things you should check.

- Has your transmitter been charged?
- Are all your batteries are fully charged?
- Are all servo mounting screws tight and there are no missing screws?
- Are all the screws in place and tight that hold the servo wheels/arms to the servo?
- Make sure the servo mounting rails are not loose or broken.
- Make sure all the plugs are pushed firmly into the receiver.
- Are the control linkages at the servo wheels/arms/control horns secure?
- Pull on the elevator, rudder, and aileron surfaces to make sure all the hinges are glued in well and still holding.
- Gently push on the vertical fin and stabilizer to make sure they haven't broken loose.

At the field:

- Wing is securely attached; rubber bands are new/good shape.
- All hinges are still secure and glued in well.
- Make sure all control linkage keepers are still attached.
- Check all control push-rods/brace wires to make sure they are securely attached.
- Make sure the canopy, and any hatches are secured.
- Check your wheels and landing gear making sure wheels spin freely and are secure.
- Do a ground "Range Check" before you fly!

Before your first flight your instructor may:

- Ask about/check your aircraft structure and center of gravity.
- Inspection of radio installation.
- Inspection of all linkages and control surfaces including controls for proper throw, direction and freedom of movement.
- Make sure you understand the controls (pitch, yaw, roll and power) and the affect they have on the aircraft in flight.
- The buddy box procedures used by the instructor to take control of the aircraft
- Show you what the transmitter control sticks do, what surface they move, and why.
- Fly and land the student's model to evaluate its performance and air worthiness. This flight determines any changes necessary for control throws and trims.

Lesson #1

Learn to fly/control the airplane and preparation for your first takeoff and landing by demonstrating aircraft control and accuracy of maneuvers

- Use of throttle
- Taxing and use of the rudder
- Fly a rectangular traffic pattern.
- Maintain level flight while turning to specific heading and altitude.
- Left and right turns to specific headings.
- Staying close to the field
- Compensate for wind drift during turns and level flight
- Fly a figure 8 pattern with little or no loss in altitude
- Fly a rectangular pattern, at a safe altitude, turning towards the runway lining up to land.
- **At any time, the instructor may take control for safety reasons.**
- **Repeat Lesson #1 until your instructor is comfortable with your abilities**

Lesson #2
Learn to take-off and land

- Use throttle controls correctly
- Taxi and use of the rudder
- Take-off explained
- Take-off on your own
- Fly a rectangular traffic pattern.
- Level flight, maintaining heading and altitude.
- Left and right turns to specific headings.
- Fly a rectangular pattern turning towards the runway while losing speed and altitude lining up to land.
- Landing and staying in control on the ground.
- Aborting a takeoff.
- Aborting a landing.
- **Lesson 2 will be repeated until you are very comfortable taking off, flying under control, and landing**

Lesson 3 (optional):
More advanced maneuvers

- Cross wind take-offs and landings
- Right and left steep turns (bank angle greater than 50 degrees),
- Loops
- Rolls
- Stalls
- Split S
- Cuban 8,
- Unusual altitudes
- Inverted flight

The Final Step:
When the instructor is comfortable with your skills he will “clear” you to fly on your own with limitations (such as wind speeds) or no limitations.

GOOD LUCK and GOOD FLYING!

DES MOINES MODELAIRES
AMA CHARTERED CLUB #740 ESTABLISHED 1936

Solo Certificate

_____ has successfully flown a Radio Control Airplane and demonstrated their ability to take off, control in flight, and land safely. They are now certified to fly solo at both Des Moines Modelaires Flying Fields.

Instructor: _____ Date: _____