Instructor Guide

## **The field – fundamental safety, rules**

* How training works: walk don’t run toward solo proficiency
* Flyers under the age of 12 must be accompanied by a parent/guardian during training
* Provisional flyers must be supervised by their trainer (via "buddy box" or alternate)
* Fly from a fenced pilot station only; never fly over the pits or behind pilot stations
* Callouts make for safe, courteous flying – see signs at each flying station

## **Review equipment**

* Plane, control surfaces, Tx controls, Bind (tx/Rx connection), safe on/off sequence, how buddy box works. Call out range check previously confirmed.

## **Pre-flight run-through**

* Do pre-flight inspection
* Explain what you will practice in this lesson
* Describe the Demonstrate, Practice, Proficient sequence

## **First flight**

* Brief the plan on the ground
* Tell them it may be challenging
* Be encouraging, calm. Praise their performance at every opportunity
* Go over “my airplane/your airplane” communication about who has control. Tx control positions should mirror current pilot ready for handover.
* Taxi aircraft and take off. Fly somewhat close, with slow to medium speed
	+ Trim aircraft and demonstrate simple maneuvers
* Observe whether student wants to use thumbs or “pinch”. Emphasize light gentle touch
* In flight, introduce one axis at a time with plane flying away from student
	+ Pitch – gentle roller coasters
	+ Roll – left and right about 30-45 degrees
	+ Let student try flying straight.
	+ Show the airplane will fly itself (mostly) in between corrections
* If student is ready and not stressed, introduce turns

## **Preparing for next flights**

AMA membership is required! Cheaper for juniors and seniors; then club membership (free for under 19).

Expectations: students should complete their initial training in **4 weeks** or so, at which time they have received enough instruction to fly safely under supervision (longer or shorter per instructor discretion).

* Introduce benefits of computer R/C simulators: we like RealFlight.
* Review equipment in more detail
	+ Batteries: care and safety
	+ Planes that make a good first airplane after graduation
	+ List of required eqpt (TX, plane, charger, batts, lipo bag, battery tester)
* Students should be ready to purchase their own plane and make their own arrangements to meet supervisors at the field (encourages commitment, frees instructors for new students).

## **Ongoing Training and Prep for Proficiency**

### [Phase 2](https://www.mar-c.org/a/szz/library/files/27271) BASIC ORIENTATION and PATTERN

* Trim for Level Flight
* L-R Wing Rock flying toward pilot
* Level Turns, High Oval Pattern
* Climbing Turns (by adding power)
* Descending Turns (by reducing power)
* Rectangular High Pattern
* Rectangular Low Pattern
* Figure 8's (introduction)

### [Phase 3](https://www.mar-c.org/a/szz/library/files/27271) APPROACH AND LANDING

* Slow Flight, Stall, and Recovery
* Trim at approach speed
* Demo approach pattern visual cues – Left and Right
* Stabilized Approach
* Go-Around - controlled, straight ahead
* Flare and Touchdown from Left Flare and Touchdown from Right
* Approach in Crosswind
* Dead Stick Landing

### [Phase 4](https://www.mar-c.org/a/szz/library/files/27273) TAKEOFF

* Straight line on takeoff roll
* Controlled rotation and liftoff
* Straight ahead climb
* Takeoff in Crosswind

### [Phase 5](https://www.mar-c.org/a/szz/library/files/27274) ADVANCED ORIENTATION

* Figure 8's with good altitude control
* Demo ways to regain orientation
* Loop
* Immelman turn & Half Cuban-eight Roll

Review the detailed training material in the links at [Training and Education | Marymoor R/C Club (mar-c.org)](https://www.mar-c.org/training-education)