

How Training Works

Marymoor R/C Club, Redmond, WA
AMA Charter 1610



Your First Day of Training

- A little check-in paperwork
- Our Tech Inspectors check out your airplane before it flies.
- Meet an instructor.
- Learn about the “Buddy Box” system that connects two transmitters so that your instructor can ensure safe flying
- Your first flight using the club trainer, or your own airplane



Your Own Plane -

- After your introductory flight on the club trainer, you will be expected to have your own equipment:
 - **Plane**
 - **Transmitter**
 - **Extra batteries and/or charger if electric**
 - **Appropriate ground equipment for your plane**
- Before coming to the field with your plane, assemble it to the best of your ability. Follow instructions carefully.
- Before flying any new plane, a MAR/C Tech Inspector will examine your plane using the checklist on the next pages

Before flying, a MAR/C Tech Inspector will check your plane using this checklist

MARC PREFLIGHT CHECKLIST

Pilot Name _____

Aircraft Description _____ Power: Nitro ___ Electric ___ Glider ___

General: Radio Brand _____ Freq: 2.4GHz _____ 72MHz _____ Channel _____

1. Transmitter is in Imbound (if required) _____
2. Aircraft power is OFF _____
3. Check flight battery: 4c/5volts, 5c/6volts. Elec. Based on motor requirements. _____

ENGINE AREA:

1. Engine / Motor are secure in mount. _____
2. Muffler, accessories, prop are secure and installed correctly. _____
3. Check prop for damage. _____
4. Was prop balanced prior to installing? _____
5. Check nose wheel installation for security. (if required) _____
6. For nitro power check firewall and nose area for fuel proofing. _____
7. For nitro power check fuel tank installation, tank security, secure fill and feed line's: _____
8. If cowl is used check for secure installation. _____

ELECTRONIC INSTALLATION:

1. Are servos mounted correctly, rubber mount, grommet flange against mounting surface. _____
2. Check that wires are routed to preclude hang up on servo arm motion. _____
3. Are all mounting screws tight? Is control arm screw tight? _____
4. Check that control rods are secure with supports to prevent flexing. _____
5. Attachment of control rods to servo is secure and non binding. _____
6. Receiver is secured and isolated from vibration. _____
7. Check that antenna are installed correctly for the selected receiver. _____
8. Check that battery is secured and is isolated from vibration. _____
9. For electric need to verify that battery is not damaged/puffed, that hold down is adequate to prevent movement in flight, and correct connection to motor/ESC. _____
10. Check that all clevises have "safety" tubing to prevent opening in flight. _____

TAIL AREA :

1. Check fin and stabilizer for solid mounting. _____
2. Pull test fin to rudder hinges and stabilizer to elevator hinges. _____
3. Check rudder and elevator control horn and clevises for secure mounting. _____
4. If required check tail wheel for secure mounting and non-binding steering. _____

WING:

1. Check for damage, warps, center section reinforcement and/or wing joiner for two piece wing. _____
2. Pull test aileron hinges, check control linkage , control horn security and clevises. _____
3. Check wing mounting for secure attachment hold down; dowels or bolt hold down. _____
4. Before installing WING, insure required AMA identification data is applied. (Gen rule 6) _____
5. Install Wing: prefer nylon bolts or minimum of 10 new rubber bands. _____
6. Visually check overall alignment of wing, fin, and stabilizer. _____

Before flying, a MAR/C Tech Inspector will check your plane using this checklist (page 2)

BALANCE:

1. Check CG; fuel tank empty, use main SPAR if location is unknown. Correct as required. _____
2. Insure battery is installed when checking CG for electrics. _____
3. Note: For low wing aircraft, turn model over to check CG. _____
4. If possible check lateral balance. _____

POWER ON CHECKS:

CHECK FREQUENCY BOARD TO ENSURE YOUR CHANNEL IS AVAILABLE (72 MHZ) PRIOR TO
POWER ON CHECKS. PLACE MEMBERSHIP CARD IN CORRECT SLOT. FOR 2.4 GHZ PLACE CARD
IN ANY OPEN SLOT ON 2.4 GHZ BOARD.

1. If the aircraft is electric powered, tie down and insure that throttle stick is in idle position. _____
2. Turn on transmitter: check battery is 10 volts min. (Maybe lower voltage on some 2.4) _____
3. Check that control surfaces move in correct direction and throttle idle to full is correct. _____
4. Check that control throw is sufficient for flight. _____
5. Check that the control surface is trimmed to the primary flight surface. _____
6. NOTE: For electrics motor should be turning during range check. _____
7. Perform radio "range" check: for 72 MH, one section of antenna out @90 to 100 ft. _____
8. Range check for Spektrum: enter range mode (press and hold bind button) @ 90 ft. _____
9. TIE DOWN AIRCRAFT PRIOR TO ANY ENGINE OPERATION/ADJUSTMENT. _____
10. Start engine, perform power test/idle test, LOW trim shut off. _____
11. For electrics check whether ESC is set to "hard brake" or "free-wheeling". _____
12. If required, set up "buddy box" to insure compatibility with primary transmitter. _____
13. If required and if available perform 90db test. _____

INFORM FLIGHT SCHEDULER AND FLIGHT INSTRUCTOR OF ANY DISCREPANCIES NOTED:

INSPECTORS NAME _____ DATE _____

Early Flights

- When you begin your flights, your instructor will walk you through a pre-flight inspection or ask you about your inspection.
- Instructor will taxi your aircraft.
- Instructor will take-off and depart the runway.
- Once your aircraft is trimmed the instructor will turn the aircraft over to you

Training Expectations

- Every Tuesday evening check out your logbook and a buddy box.
- Get your name on the instructor waiting list
- Meet with your instructor
 - Ask questions!
 - Instructor will ask about your progress. Tell them what phase you are working on (see section 5)
 - Make a plan for the upcoming flight
- After each flight, get your name on the list to be assigned to the next available instructor. You will likely fly with a different instructor each flight
- Return the logbook and buddy box after your last flight of the evening

When are you Done?

- A solo flight and quiz, when you are ready. See end of section 5 for details.
- Most solo near the end of the summer.
- After you pass, you are a “Youth”, or “Full” (adult) member, and may fly by yourself without buddy box and instructor.
- However, pilots less than 12 years of age must be supervised by an adult, full club member
- Use of computer RC simulators is highly encouraged. Students learn faster, especially in the early stages.
 - [Great Planes Real Flight v. 7](#)
 - [Horizon Hobbies Phoenix R/C flight sim](#)
 - For Mac computers, [Aerofly RC7](#)
- Good pilots never stop learning!

Disclaimers

MAR/C provides advice. After you gain solo flight privileges, *only you* are responsible for your model aircraft readiness, your actions, and abilities

Any instructions provided by the manufacturers of equipment such as but not limited to aircraft, radio controls, batteries, motors or engines and anything installed in your airplane have precedence over any advice provided by instructors, this document, or the mar-c website..

Flying and teaching techniques vary widely in our hobby, and vary from one instructor to another.

The goal of this document is to encourage some standardization and provide a practical minimum amount of knowledge.

Version Information

Version	Author	Date	Description
1.5	Brian Kelly	April 2017	Aligned Flight Training Syllabus with new flight log. Misc corrections and refinements
1.6	Brian Kelly	4/19/2017	Misc edits, repaired links, to prepare for website update
1.7	Brian Kelly	4/26/2017	Corrections and misc edits
1.8	Brian Kelly	9/28/2017	Updated Proficiency Check and misc edits
2.0	Brian Kelly	Nov 2018	Broken into separate standalone chapters for quicker access on the website.