

# **Mid Arkansas Radio Control Society, Inc.**

## **Member Manual**

**AMA Chartered Club #107**  
**Central Airport Road, North Little Rock, AR**  
[www.themarcs.org](http://www.themarcs.org)

July 2011

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## ACKNOWLEDGEMENT

In this latest version of the MARCS manual much information has changed and some has been removed for clarity. I would like to acknowledge the previous efforts put into making this what it has become today by Bill Johnson and Earl Glover. The initial drafts were composed by them. Their work laid the foundation for this version. The last page of this manual contains some advice for new pilots... much of what is contained in there came from Bill Johnson, but I felt it should be updated to reflect the changes in the hobby (electric power, 2.4 Ghz, etc), and so I couldn't leave it as is. However the idea behind that page, and much of the information in it came from Bill. I just expounded on it and modified it a bit! So I left Bill's name in the credits at the top as well as adding mine.

Ryan McCon  
July 2011

## HISTORY

MARCS is the oldest club in Arkansas, and one of the early clubs to be chartered by Academy of Model Aeronautics (AMA) with charter number 107 out of almost 4000 chartered clubs. MARCS' constitution dates back to the mid sixty's.

Members flew at several locations prior to obtaining the present location, the site of the old North Little Rock airport. Over the years the flying site has slowly been expanded and improvements added. Two buildings serve as a club house and storage facility, along with two sun shades with work tables. Electricity has been installed, and most recently a playground area for children.

The runway is approximately 125 ft. wide and 450 ft. long. The surface is grass that is mowed very short by the club members. The flying field meets AMA minimum setbacks.

One of the original founders was **William Bishop**, he worked to obtain the present location and his name appears in the original constitution. For his contribution to the club the field was named in his honor: "**BISHOP FIELD**".

During the 70's, and through the mid 80's, MARCS held an annual three day **RAZORBACK CLASSIC** on Memorial Day weekend. Flyer's came from a half dozen state to compete in the Pattern and Scale events. They could use the points earned here to work up higher in the AMA pattern events. In the 90's, an annual spring event (**CARTI**) used to be held. Currently MARCS has various fun fly, swap meet, and cookout events and invites other local clubs/pilots to participate.

MARCS is a nonprofit corporation in the state of Arkansas. As a chartered AMA club each member **MUST** be a member of the Academy of Model Aeronautics. AMA members are provided liability and property insurance. It also provides a number of other privileges and services.

# MARCS Today

## ORGANATIONAL STRUCTURE

### Elected Officers:

- President
- Vice-president
- Secretary
- Treasurer
- Safety Officer

### Appointed Officials:

- Tech Officer
- Field Maintenance Chairman
- Event CD's and event chairmen
- Newsletter editor
- Webmaster
- Others as needed

### Membership

As required by the constitution, officer elections are conducted in November of each year.

The field is open daily for member flying, except for the grass cutting day, which is normally on Thursday. Monday, Friday and the weekends are the heaviest use days. On Wednesdays many of the members and others fly float planes at Lake Willastein in the Maumelle City Park.

Special activities are scheduled annually to include at least five events. Examples are:

- Chili fly-in on New Years day
- Pancake Breakfast fly-in
- Chili cookout fly-in
- Float Fly at Lake Willastein
- Christmas Dinner with wives/significant others

Instructors are available to help students, and in some cases to test fly a new plane. All types of R/C planes are flown including helicopters. Control line planes are limited to times when the field is not used heavily and they must give way to other planes. The field is adequate for most R/C planes up through quarter scale.

As of December 2002, MARCS is now a GOLD LEADER CLUB in AMA. This is the highest leadership level for any club, and denotes that we do a number of community programs. Whatever members' aeromodeling interests are, there is something for everyone.

## **BEFORE YOU ARE A MEMBER**

New applicants for membership, who are not already AMA members, will be given an AMA application form. The MARCS membership card will be held until confirmation of the AMA membership. AMA applications may be mailed, faxed, or applied for electronically. Fax or email should only take one or two days. Electronic applications can have confirmation almost instantly.

New AMA members will receive a packet of information including:

1. Personal AMA card
2. AMA Safety code
3. Subscription to MODEL AVIATION
4. Other AMA information

## **BEFORE YOU FLY**

The field, and flying safety rules included in this manual are especially important. They should be reviewed for an understanding as to what is required for all MARCS members. They are a combination of the AMA rules, and rules specific to MARCS BISHOP FIELD. Therefore most will be common to any other club field you may visit.

Some of the field rules are posted on the north side of the club house. The fly/no fly zone is posted on the south side of the club house.

## **BISHOP FIELD SECURITY LOCKS**

The field is restricted to the general public; only MARCS members and their guest can use the field. Each of the gates and the buildings have locks. It is each member's **responsibility** to ensure that the site is secure when leaving. Any guest present **must** depart when the last member leaves.

## **NEWSLETTER**

All current members receive the monthly newsletter MISH MASH either via our web site ([www.themarcs.org](http://www.themarcs.org)), email, or by regular mail if the member does not have a computer. It serves to keep the members informed about club activities, future events, the date and time of the next meeting, and many other items of interest.

## **MONTHLY MEETING**

Date: First Thursday of each month except December. Holidays may require rescheduling.  
Time: 6:30 pm  
Place: The Whole Hog Café on Cantrell.

Members are encouraged to bring their newly built or assembled plane for the rest of the members to see and hear your comments about the plane. (SHOW & TELL)

Members will be rewarded with a \$5.00 gift certificate to a hobby shop. To earn the gift certificate bring a new plane not more than 30 days old since the completion of the building or assembly. It may have been flown prior to the meeting. Any kit built, scratch built, ARF, ARTC, glider, rubber, R/C, FF or U/C is eligible. Builders may show planes they have completed for others provided the 30 day rule applies. However, rebuilds, planes previously shown, purchases from others and Hobby Shop ceiling Queens do not qualify for the new plane category nor the \$5.00 certificate.

Changes to these rules will be voted on at the monthly meetings. If you have a proposed rule change bring it up at a meeting. It will be discussed and voted on there.

## FLIGHT INSTRUCTORS

Many MARCS members are willing to instruct new students. Not all pilots have the necessary experience, time or want to instruct. Members who want to be an instructor should advise the current president. MARCS maintains several radios and cables in the clubhouse that are suitable for use in a “buddy box” type of situation for instruction. New members needing instruction should ask the MARCS president for assistance in locating an instructor.

## BEGINNING PILOTS

New members starting out in R/C flying should try to team up with an instructor as soon as possible. Having an instructor will greatly increase success and maximize the learning process. **Student pilots are not allowed to fly by themselves without passing the pilot skill test.** A “Buddy Cord” between the beginner and the instructor transmitter is required, this allows the instructor to regain instant control of the student plane sometimes without the student knowing. This feature is available on almost all the current transmitters.

**Different brand transmitters will not** work together even though they may be on the same frequency. Note, when two transmitters are connected together with a cord their frequencies do not have to be the same. Trainer cords and transmitter boxes are (in the storage cabinet) in the club house. Instructors will review the safety rules, inspect the plane, and start to teach the basics of flight.

Do not attempt to fly without help, as mentioned before, it is against MARCS and AMA rules. It also could result in the destruction of the airplane and possible personal injury. **Flying into the restricted areas could result in the loss of Bishop Field.**

When the instructor feels that the student has gained the necessary skills to solo, a short proficiency check flight will be flown. **Two** MARCS members will observe using the pilots test as a guide. The pilot test is available on the website and printed copies should be available in the clubhouse. Instructors will explain each requirement on the test. The test requirements are also detailed in the MARCS Flight Proficiency Program document which can be found on the club website as well as a copy in the clubhouse.

After obtaining a pilot rating it can be immediately upgraded to “Advanced Pilot” or “Expert Pilot” rating. The requirements for these are also detailed in the MARCS Flight Proficiency Program document.

Pilots that are new to MARCS are required to be checked out using the pilot test.

## AMA and MARCS FIELD SAFETY RULES

At Bishop Field you are to follow all AMA rules, in addition to some expanded rules developed over the years to cover unique location requirements. AMA rules will not be listed in this manual since they are included in the AMA membership packet.

Remember, when everyone follows these rules everyone is safer and has a better time. Not following the rules could result in an accident, injury, or worse, it has happened before. **In case of an accident if AMA basic rules were not being followed, AMA could refuse insurance coverage, which could mean the loss of the field.**

- Only members of MARCS and their guests are permitted to fly at this (Bishop) field. Guests must show their current AMA card.
- MARCS membership cards must be with you when at the field. You must be capable of producing the card if asked by a fellow MARCS member.
- AMA Safety Rules are enforced at this field, refer to the sign on the north side of the club house.
- **Do Not Litter.** Trashcans have been removed from the field, but removing your trash is YOUR responsibility. Cigarette butts should be disposed of in the PVC pipe attached to the shade cover on the north/east side of the field.
- No alcoholic beverages allowed.
- Children **must** be supervised at all times by their parents/guardians to prevent their injury, or their possibly damaging another’s planes or equipment Parents are responsible for any damages caused

by their children, never assume others will watch them. Radio control airplanes and helicopters are dangerous and can kill. It is the parents' responsibility to ensure the safety of their children while at Bishop Field.

- Children/Guests should be in the spectator areas or the playground. Not in the pit areas and on the flight lines.
- Guests who are current AMA members may use the field a maximum of **three times** before joining MARCS.

## TRANSMITTER OPERATIONS

- Frequency pins are required on **all** transmitters in use. 2.4 Gigahertz Spread Spectrum transmitters **are included**. Special orange pins will be available for the 2.4 ghz users.
- When your aircraft is set up and you are ready to fly obtain a frequency pin from the pin board and place your MARCS membership card in the pin slot.
- Transmitters should be placed in the impound rack when not in use. **Do not turn on** your transmitter without the club channel pin in your possession. **Remember you own what you crash or cause to crash by turning on your transmitter when another member is using that channel with the pin in their possession!**
- Limit your pin use normally to 15 to 20 minutes to allow others who might be on your channel a chance to fly (72 Mhz radios).
- Return your transmitter and the pin to the rack **ASAP** after your flight others may be waiting.
- For 72Mhz radios all transmitters in use must be manufactured after January 1994 or have the gold sticker label, "**RCMA/AMA**" attached. Older radios not gold stickered **must not** be used.

## FLIGHT OPERATIONS AT MARCS & MOST OTHER FIELDS

- **Do not fly** over the restricted areas. Refer to the sign near the transmitter board.
- Pilots and pit crews only allowed on the flight line.
- All aircraft must be **adequately restrained** prior to and during engine start for safety!
- Aircraft must be facing the runway (nose first) prior to engine start. MARCS has restraining ropes available at the field.
- Pilots must stay on a designated pilot station – **Do NOT** stand in or block taxiway openings while flying.
- Pilots declaring "**Deadstick**" have absolute priority over all others. **Clear the runway area – ASAP!** All planes on **final approach** have the "**Right of Way**" during normal flight. Prior to taxing onto the runway check for traffic, and do not taxi out in front of a plane that's on a final landing approach.
- All pilots must check the established traffic pattern direction for take-off and landing. Generally pilots should follow the traffic pattern to avoid mid-air collisions. This is especially important for takeoffs and landings.
- All pilots must be made aware of and agree to any changes in the pattern direction prior to making the change for any reason.
- **Do not taxi** the plane into the pit area. Kill the engine as soon as it is in-between the berms. This applies to electric airplanes as well as glow/gas powered ones.
- Announce your intentions for unusual actions, i.e., deadstick, on the runway, ect. Always ensure there is no in-coming traffic prior to your walking onto the runway.
- When performing aerobatic maneuvers it is the responsibility of the pilot to be aware of, and avoid other pilots. This is particularly important in the area over the runway. In general acrobatic maneuvers should be performed in the airspace across from you, above the far side of the runway (west side of the runway).
- Pilots flying '3-D' or stunt type flying, both helicopter and airplane, must do so in a controlled and safe manner. If you are flying over the runway area you must be aware of all other pilots, and their aircraft and not endanger them with your flying. Other club members have the right to ask you to stop flying when they are in the air if they feel that your flying endangers them or their aircraft. If anybody calls out that they are landing or taking off you must clear off the runway area immediately. This also applies to aircraft of any type that are flown close to the runway area – for example small electric aircraft, foam

aircraft, helicopters, indoor type planes, etc.

- No starting of engines on the runway.
- Pilots may request a stand-down of all flying to test fly a new/repared plane or for the pilots test.
- Break-in or prolonged running of engines in the pit area is not permitted. Use the area on the far side of the port-a-potties for this.
- All training **must** be done with a buddy box system. AMA & MARCS require this because of safety, buddy cords and trainer transmitters are available in the club house.

## **FIELD PROTOCOL**

### **FIRST FLYER AT THE FIELD**

Open the Club house.

### **LAST FLYER AT THE FIELD**

Return the frequency pin(s), pin board, mats, chairs, and other MARCS items to the club house. Ensure that all electrical devices are turned off (except refrigerator) and **lock** the club house and the gate(s) prior to departing. Make sure all remaining guests leave with you!

### **CELL PHONES**

Cell phones may NOT be used while flying, standing on the flight line, or while on the runway. They can be a distraction and you might miss somebody yelling at you to watch out because their plane is about to hit you. Cell phones may be used only in the pit area and other areas of the club.

### **FOR YOUR SAFETY**

It is not a good practice to fly alone, no matter how experienced you may be, bring a friend or partner. Any accident, however small may quickly become very serious or life threatening without help.

### **SHOOT DOWNS**

If a member causes someone's plane to go down, due to a violation of the rules, you may have to pay for a new plane, engine, radio or repair.

### **JUNIOR MEMBERS**

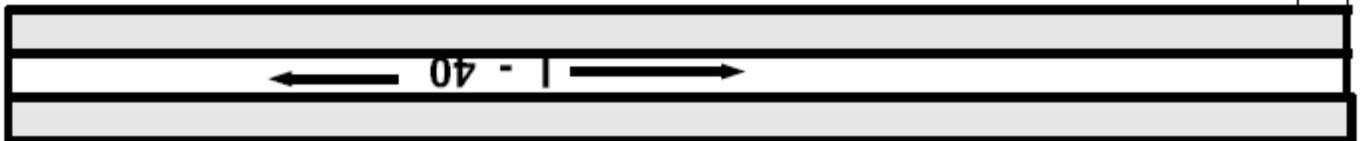
Junior members (under 16) must be accompanied by an adult at all times. Other MARCS members cannot be responsible for their safety.

### **VIOLATIONS**

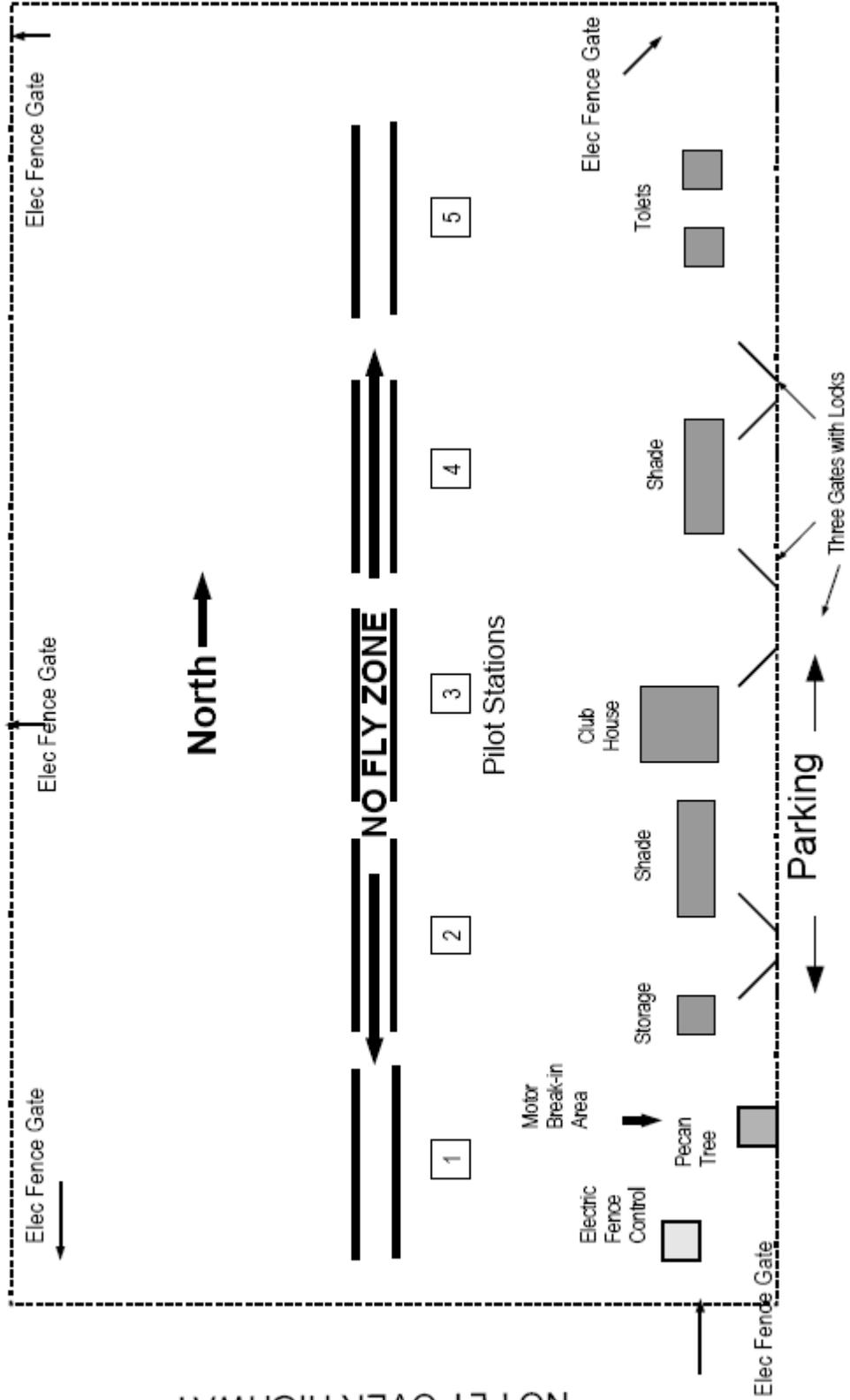
Repeated violations of the safety rules can result in the loss of individual flying privileges and/or being kicked out of MARCS. The rules exist for a reason. Repeated intentional violation of them could result in MARCS losing the field.. Members who knowingly disregard rules and fly where he/she shouldn't or in an unsafe manner in violation of club rules will be told to "Pack up and leave". They (individually) have no right to infringe on the rights of all the other club members and possibly endanger others. Either fly within the rules or land the plane. Many times these actions can be resolved by talking to the member and pointing out safer flight protocol and the reasons for them. Please inform any club officer if the violations continue and the member does not wish to comply with MARCS rules.

### **AMA INSURANCE**

Do not allow non-AMA members to fly. They do not have valid insurance for model flying! Homeowners insurance is no longer adequate or allowed at any AMA chartered field.



NO FLY OVER HIGHWAY



Central Airport Road

# **PLANE ADVICE FOR R/C FEVER**

## **TRAINERS, ENGINES & RADIOS**

**By Bill Johnson, supplemented by Ryan McCon**

**RESIST THE URGE** to buy the best looking “Hot Rod” or scale plane you see in the hobby shops or catalogs. Visit the field and talk with several pilots observe some of the trainers (there are usually several present most times) to see which one may be best suited for you. Also look in the hobby shops and get their advice if you haven't been to the field.

We know that trainers may not always be the best looking planes but remember, full scale pilots have to start out with trainers and so must you. You may think a trainer won't be any fun but believe us when we say that a trainer will provide all the excitement (and more) that you can stand for a while. Your instructor can show you some of the maneuvers it can do.

### **Three ways you can start out:**

1. Buy a plane (or have one built for you) that is ready to fly. Consult several members prior to your purchase.
2. Purchase an “almost ready to fly” (ARF) plane and complete the assembly. Takes about one to two weeks.
3. Purchase a good kit and do all of the assembly yourself. This will take two to six weeks or more.

Everyone has different expectations pertaining to what they want. Time, abilities, space and money available for the project. As simple as some planes are, or seem to be, if this is your first project, evaluate all these things carefully to see what course of action will be right for you. While you are at the field or hobby shop, check prices. On average a 55 to 65 inch wingspan plane, 4 channels transmitter and power system (electric or glow) will cost you about \$350-400. Ground support equipment will add another \$50.00 or more. You don't need to get all of your support equipment at once and you don't have to buy the very best. It's usually best to wait a week or more so you can make a better informed decision. In today's world of RC you also need to decide if you want to power it with electric power or the more traditional glow fuel. Each have their advantages and disadvantages. Talk to some club members and learn what you can. Most of us are friendly and more than willing to talk!

### **WHICH PLANE? WHICH RADIO?**

We recommend an “**ARF**” or a “**Brand name**” kit trainer if you like to build or have had models before. It should have a 55 to 65 inch wingspan, and a .40 to .46 2-cycle engine for power, or equivalent electric power. High wing configuration and tricycle style landing gear is the preferred setup. It should also use “4-channels” for control. Ailerons, elevator, rudder and throttle.

As for radios, again there are several good choices. Some have features not found on others, etc. but they all work well. FUTABA and JR/Spektrum radios are the leading brand at MARCS. 2.4 Ghz or ‘Spread Spectrum’ is the way to go now. There are also other excellent radio brands available. Purchase one with 4 or more channels of control. If you plan on sticking with the hobby consider at least a 7 channel system. The programming features make them very worthwhile, and they don't cost that much more than the low end systems.

It **must** also have the ability to use a trainer cord if you are a beginning pilot and need instruction. MARCS instructors will not teach you any other way. Stay with the middle priced radios and engines, don't be overly concerned about a radio with all the “bells and whistles” for now or the most powerful engine/motor. Here again, seek the advice of other club members, especially ones that fly similarly to your interests and fly the same type of aircraft you are interested in.