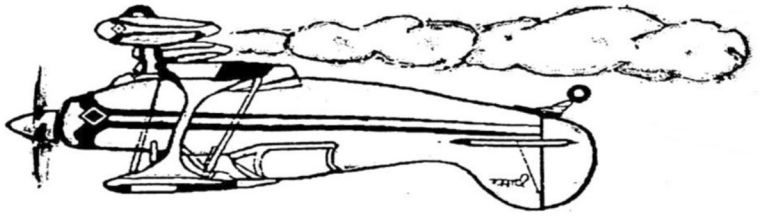
Boulder Aeromodeling Society



Flight Training Program

Program Syllabus & Application

Introduction

The BAS flight training program is intended to help interested individuals that have an interest in model aviation to learn to fly remote controlled aircraft. The program is established to provide instruction to both adults (19 and older) and youth ages 12–18.

Mission

The training program goal is to train lifelong members of the R/C aircraft community by offering a comprehensive program to help students who want to progress in the hobby. By providing club training aircraft, students can learn skills without having to make the financial commitment to purchase their own plane prior to having the opportunity to experience flying and successfully controlling an airplane.

Expectations for Students

AMA Membership

The student will be responsible joining the AMA, and maintaining an active AMA membership during the training period. This assures that students can fly and be covered by AMA liability insurance, as required by the City of Boulder.

Adherence to Rules

The student must abide at all times with the posted rules and regulations for field operation, including those of the AMA, City of Boulder, and Boulder Aeromodeling Society.

Instruction

Students should be able to commit several hours at the field at least once a week with their assigned instructor. Training should be done regularly, preferably every week on the same day, or as needed to accommodate the schedules of both the instructor and student.

Student will be responsible for transportation to and from the airfield.

Program Feedback

It is suggested that students maintain a logbook of their flights and their progress as communicated by the instructor. Upon completion of the program, students should provide feedback to the program coordinator so that best practices can be shared and adjustments can be made to the training program as necessary.

Equipment

The equipment will be club-provided trainer aircraft with full control capability (ie. elevator, aileron, rudder, and throttle). Club trainers will be equipped with dual transmitters that allow the instructor to determine who is controlling the aircraft and make corrections as necessary. These trainers will be set up and test flown prior to any sessions with the student, to get students flying quickly and eliminate the initial aircraft shakedown which can be frustrating to new pilots.

The choice of trainer types provided by BAS will be determined by the training coordinator and the club instructors. The initial trainers will generally be electric powered planes in the category of the E-Flite Apprentice, Alpha 450 or the Hobbico NexSTAR Mini EP. These planes represent a good choice due to their inherent stability, larger size, and thus opportunity for rapid skills advancement.

Students will be expected to assist the instructor with any repairs and maintenance needed for the aircraft during the training period. The student will be encouraged to purchase their own airplane upon graduation.

Curriculum

A standard curriculum has been developed which will allow students to seamlessly transition between instructors, while effectively gauging their progress. The curriculum will involve the following phases: a pre-flight field orientation, basic flight orientation, controlled flight patterns, takeoffs, landings, and a pilot proficiency assessment. These are described in detail in the sections below.

Pre-Flight Field Orientation

Pre-flight orientation should familiarize the student with the aircraft and its operation, along with field rules and pilot guidelines.

Pilots will proceed to the next phase after proper operation on the ground, by properly preparing the plane for flight and showing an understanding of the field rules.

Basic Flight Orientation

The student will begin by gaining familiarity with the flight controls and aircraft handling. This will usually start with taxiing on the runway centerline in both directions, to gain familiarity with the transmitter and different orientations. Once that is successful, the instructor will take the plane aloft, and transfer control to the student, who will practice level flights and making coordinated turns.

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During this time, the instructor will assess difficulties the student is having with keeping the aircraft aloft and coach the student towards controlled flight.

Pilots will proceed to the next phase after demonstrating the ability to make coordinated turns and maintain level flight with little intervention from the instructor.

Controlled Flight Patterns

During this phase, a number of flight patterns will be presented, designed to familiarize the student with different orientations of the aircraft, different turn directions, and controlling the direction of the aircraft more precisely. The student will be instructed to perform the following: racetrack circuits (clockwise and counterclockwise), figure 8 circuits (with turns both towards and away from the runway), and simulated (50 feet or above) landing patterns.

Pilots will proceed to the next phase upon demonstrating the ability to smoothly enter and exit turns in both directions without perceptible altitude change. Simulated landing patterns should track straight down the runway center for most of the length of the runway. Altitude control using the throttle, and control of airspeed will be demonstrated as well.

Takeoffs

During this phase, the student will be instructed to make controlled and safe takeoffs. Takeoff instruction shall be started after the student is reasonably comfortable with controlled flight patterns.

Landings

During this phase, the student will be instructed to make safe landings. Student should begin with aborted approaches, and taught to exercise judgment in aborting landings when the landing approach is bad. Only after the student appears to be making approaches that could be turned into successful landings will actual landings will be attempted.

Pilot will proceed to the next phase upon successful landing, without the plane leaving the runway edge, and with a safe taxi back to the taxiway.

Pilot Proficiency

During this phase, the student will be helped to refine his/her flying skills for advanced flight. Topics will include recovery from unusual attitudes, aborting landings, throttle control, aircraft trimming, windy or difficult condition flying, engine-out landings, and basic aerobatics.

Solo

During this phase, the pilot will practice the skills necessary to fly without an instructor's assistance. The instructor may still maintain buddy box control during this phase, but will allow the student to control all phases of flight.

The student will proceed to the next phase upon demonstrating the ability to perform an entire flight, from takeoff to landing, without instructor intervention. The instructor should feel comfortable in the student's ability to successfully fly solo in a variety of typical conditions (light wind, sun, etc.).

Graduation

After completing all previous phases, BAS instructors will generally provide support in setting up a new airplane that the student may have or buy, and will help the student get comfortable with their new plane during the first few flights, including using dual controls if desired.

Trainees under 19 years of age that complete the previous phases will be given a free one year Youth/Student membership to the Boulder Aeromodelers club.

Dismissal

If the instructor determines that the student is not following through with the commitments of the program, or the student is unable to develop the skills/ability necessary for safe flight, the instructor may recommend to the club officers that the student be dropped from the program.

Any student recommended to be dropped from the program may make an appeal to the club officers within thirty days presenting his/her position on their progress and commitment to complete the training program. Any decision by the club officers will be final.

Other reasons for dismissal include, but are not limited to: failure to obtain AMA membership, failure to abide by City or Club rules, or failure to regularly attend training sessions.

Boulder Aeromodeling Society

Flight Training Program

Student Application Form

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Fill out this form as completely as possible. Please print clearly. If necessary, attach up to ONE additional sheet of paper with responses.

Name: _____ Age (as of July 1): _____
Address: _____

_____

Phone Number: _____
E-Mail (if you have one): _____

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1. Do you have any other commitments that would make it difficult for you to devote several hours per week until graduating the program (approximately 6-8 weeks)?

_____
_____
_____
_____

2. Do you have any previous experience with radio-controlled models (including cars, boats, and aircraft or computer RC Flight Simulators)? If so, please list.

_____
_____
_____
_____

3. Have you had any classes or done any reading on how an airplane works and flies? If so, please list.

_____
_____
_____
_____

4. Do you have any interests or hobbies that would help you learn to build and fly model aircraft? If so, please list.

_____
_____
_____
_____

I have read the information in the Boulder Aeromodeling Society Training Program and if selected into the program, accept the conditions and requirements to proceed to graduation.

Student Signature: _____ Date: _____

Please complete this section if the student is under age 19.

Parent/Guardian of the above student has read the Boulder Aeromodeling Society Youth Training Program and City and Club rules and regulations, and consents to have their son/daughter enroll in the youth training program and support them in their efforts to graduate.

Parent/Guardian also releases the Boulder Aeromodeling Society and Instructors from any and all liability that could result from student, or instructor, actions in handling/flying the airplane and charging or maintaining the batteries.

Parent/Guardian Name (Printed): _____

Parent/Guardian e-mail: _____

Parent/Guardian Signature: _____ Date: _____

Upon completing this form, please email or mail to the club training coordinator (see the website contacts page for the address).