Model Aeronautics Association of Canada
Flight Training Course

Cecil Marshall 11945L on the left training Terry Bariciak 88290J at the Soo Modellers field in Sault Ste Marie On

Photo credit; Mark Primavera

Revised; February 2017

MAAC Flight Training Course

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MAAC Flight Training Course

Introduction

Welcome to the Model Aeronautics Association of Canada training program. This program will teach you the basics of flying radio controlled model aircraft and is MAAC's best effort to assist you in the process.

The main focus of the training is on 'Fixed Wing' aircraft which is recommended as a basis for flying other aircraft. The basic "manoeuvres" in this course apply for flying Multi-Rotor aircraft or helicopters.

The Safety Guidelines presented in this Training guide also apply to water based aircraft (i.e. floatplanes, seaplanes, etc.).

There is nothing in this program that guarantees that you will become a successful R/C pilot. Nor, are there any expectations on how long it will take to complete this program. Like everything else, your success will all depend on your willingness to spend the time and practice.

This program is a series of lessons designed to build upon previous lessons to develop the skill and confidence, which will allow you to thoroughly enjoy your new hobby.

Upon completion of these lessons, you will be ready to take your "A Wings" test. This test is designed such that you can demonstrate to the club's satisfaction that you are able to control your plane safely. After passing this test, you will be allowed to fly without an instructor present.

Hopefully, the completion of your "A Wings" is only the beginning of your learning and will serve as an incentive to get out and fly. Where you go from here is up to you. Good Luck and enjoy!

Reminder

You must learn to crawl before walking and walk before running. For this reason, MAAC strongly recommends that you start your flight instruction on a trainer and then evolve to more advanced planes.

A trainer will enable you to learn easier and it will simplify your instructor's roles. Your plane will last you longer with less chance of a serious crash.

Remember, even the jet fighter pilots learn to fly in trainers before advancing to jets; - leave the scale planes until after you have learned to fly.

SAFETY FIRST, FUN SECOND

MAAC Flight Training Course

Thank you to the Victoria Radio Control Modellers Society for letting MAAC use their Flight Training Course which will become the national standard.

PROGRESS CHECK LISTS

Student to present 'progress' check list to Instructor prior to each days training. The instructor will initial each item when covered.

FLIGHT PROFICIENCY

INSTRUCTORS NOTE: You are to demonstrate each step of the particular lesson to be learned.

Show the student what it looks like. When the student understands the control input sequences and reasons for them, then give student control. You are to initial and date each sequence when the student has shown he/she has mastered it.

Field Layout (Please review with student to ensure understanding)

	Inst. Initial
☐ Parking	_____
☐ Gate (rules, keys)	_____
☐ Transmitter Compound	_____
☐ Frequency Board & Flyer Identification – Identification Pins (construction and use)	_____
☐ Flying Boundaries explained	_____
☐ Flying site property	_____
☐ Flying restrictions	_____
☐ Runway (Pilot positions)	
☐ Windsock - Pits; Taxi OUT - After passing last aircraft Taxi IN.	_____
☐ Engine off before entering Pit area	_____
☐ Flying restrictions for Members without "A" Wings	_____
☐ Club Information Test completed	_____

Aircraft

- ☐ Engine
- ☐ Radio (receiver and servos)
- ☐ Fuel system
- ☐ Balance
- ☐ Flight Controls: Direction and throw; Hinges and Clevises etc.; Dual Rates (deactivate)
- ☐ Explanation of Battery Charging requirements

Student/Instructor Notes:

FLIGHT PROFICIENCY PROGRESS

INSTRUCTORS NOTE: You are to demonstrate each step of the particular lesson to be learned.

Show the student what it looks like. When the student understands the control input sequences and reasons for them, then give the student control. You are to initial and date each sequence when the student has shown they have mastered it.

	Initial	Date
1. Taxiing out - right and left turns	_____	_____
2. Taxiing in - right and left turns	_____	_____
3. Taxi down center of runway at medium speed	_____	_____
4. Straight and Level Flight	_____	_____
5. Left Turns maintaining height	_____	_____
6. Right Turns maintaining height	_____	_____
7. Trim for level flight various power settings	_____	_____
8. Horizontal 8s	_____	_____
9. Tracking over runway at 150 ft.-75 ft.-25 ft.	_____	_____
10. Slow Flying	_____	_____
11. Trimming for slow flying	_____	_____
12. Stalls and recovery	_____	_____
13. Take off, Climb, Level off - reduce power and trim	_____	_____
14. Landings (Discuss why take off and land into wind)	_____	_____
15. Take off; trim for level, slow flight, and land.	_____	_____
16. Overshoots	_____	_____
17. Touch and Goes	_____	_____
18. Dead Stick Demo - by instructor only, S turns etc.	_____	_____
19. "A" Wings practice	_____	_____

20. Recommended for "A" Wings test Date _____ _____

Airfield Layout

Insert the Airfield (s) Layout here; This document will not allow this so the student should be given a site layout - same one registered with MAAC.

Lesson 1: Instructor - Student Responsibilities

You are about to embark upon the Primary Flight Training Course of Model Aeronautics Association of Canada.

Although your may seek instruction from any club instructor your primary instructor is: Name: _____ Phone:_____

The instructor will work with you and monitor your progress.

Your instructor has met the qualifications of MAAC. In doing so has accepted the responsibility to teach you to become a responsible and safe pilot who can be proud of their flying abilities and an enjoyable fellow club member. If the instructor ignores their responsibility, you may be a pilot who is a hazard to yourself and other persons wherever you fly. You may seek training assistance from any other club instructor. However you should look to your designated instructor as your primary source of assistance.

You may not take your "A" Wings test until your instructor, or the Chief Instructor has signed below indicating that you have completed the elements of your primary training program and you are ready for your "A" Level Wings test.. Your must pass your "A" Wings test before you are allowed to fly at the club field without supervision.

As a student, you have shown interest to acquire your first trainer aircraft; seek out the Local Club and join this training program. It is your responsibility to apply yourself diligently to learn and apply the material presented in this course. By doing so, you will learn the minimum amount of information and skills to allow you to safely enjoy radio controlled flight.

Each section of this course deals with a different aspect of flying a radio controlled model aircraft.

Your instructor will explain and demonstrate each element of each lesson. Where applicable the element will demonstrated in the air "*using your aircraft*". You will have opportunities to perform each element and receive an evaluation from your instructor. In each lesson there is a space for a club instructor to "initial" that the material has been reviewed with you. It is important that you keep your training program with you at all times and ensure that instructors initial elements after they have been covered. Other club instructors will use the initials and notes to assist you when your instructor is absent.

I recommend that _____ take the MAAC "A" Wings test/quiz.

Instructor; _____

Lesson 2: Aircraft Familiarization

Purpose: To teach the student how to properly pre-flight their model.

Objective:
At the completion of the lesson the student should be able to inspect their model and identify any deficiencies that could cause a malfunction or safety hazard. They will be able to start and adjust the engine properly.

Elements:

☐ Inspection of aircraft structure, center of gravity and longitudinal balance.

☐ Inspection of radio installation.

☐ Inspection of all linkages and control surfaces including controls for proper throw, direction and freedom of movement

☐ Engine, fuel system installation and security (including propellers).

☐ Instructor's demonstration of safe engine starting procedure and starting of engine.

☐ Student starts and adjusts engine

☐ Instructor teaches student how to identify rich and lean engine settings.

☐ Instructor teaches student how to adjust the idle mixture to get optimum performance from that type of engine.

Evaluation:

Student should be able to perform lesson objectives.

THIS LESSON SHOULD BE REVIEWED AS NECESSARY AT THE START OF ALL LESSONS IN THE PRIMARY TRAINING COURSE.

Student/Instructor Notes:

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Lesson 3: Field Procedures

Purpose:

To familiarize the student with all safety aspects associated with model aircraft both on the ground and in the air. Also to ensure good flying habits per MAAC Guidelines which are used at all MAAC/AMA (Academy of Model Aeronautics -United States)

Objective:

At the completion of the lesson the student will be aware of all MAAC and Club safety rules and field procedures. The student shall also be able to perform a pre-flying session and pre-flight check list.

Elements:

MAAC SAFETY AND FIELD RULES

- ☐ Student to be given a copy of your clubs Flying Site Rules.
- ☐ Current MAAC/AMA membership card (or photocopy) to be prominently displayed on a frequency pin. MAAC insurance is mandatory to fly.
- ☐ "A" Wings qualification before solo flying.
- ☐ No taxiing in the pit area - Turn Engines off when clear of runway after landing.
- ☐ There will be absolutely **NO FLYING**:
  1. Over any general area where people or equipment/vehicles are active.
  2. Behind the flight line no matter how far away from the runway. No flying over the pits, car parking.

Note: The presence of people or equipment/vehicles in 'the overfly area' could easily require that no flying take place at all!

- ☐ Maximum aircraft flying at a time per club rules.
- ☐ MAAC noise limits apply measured at 3 meters (10 feet) with full throttle. As of April 1999, MAAC noise guide lines are:
  - ☐ 98 dba @ 3 meters on hard surface
  - ☐ 96 dba @ 3 meters on soft surface
- ☐ When flight line is busy; Flight Station possession time is limited to 15 minutes (recommended) per flight.
- ☐ *All aircraft shall be flown in a safe manner with consideration to others at the field.*
- ☐ *Aircraft shall be flown in a fashion so as to minimize the noise footprint as perceived in adjacent areas.*

Lesson 3: Field Procedures cont;

☐ Unaccompanied spectators (any observer who is not a club member unless invited) and animals must stay out of the pit area.

☐ No "engine break in" the pit area while other members are flying.

☐ Follow club procedures for Transmitter control. 72Mhz radios require impound control for safety to avoid frequency conflicts - Flyers with radios on 2.4 GHZ are recommended to use the board.

☐ 72Mhz transmitters shall display the appropriate MAAC frequency flag at all times.

☐ No 72Mhz transmitter shall be switched on without the appropriate MAAC recommended frequency pin (with pilot name and channel number) first being attached to the frequency board. When the transmitter is turned off, the pin is to be removed from the frequency board by the pilot and the transmitter returned to the impound.

☐ No flying before club posted times.

☐ Pilots shall announce their intention to take off or land.

☐ Landing aircraft shall have the "right of way".

☐ Fly a "wagon wheel" circuit when two or more aircraft are present in the air spotters are Strongly advised (a must at some clubs).

☐ When in the pit area, aircraft shall be placed between the pilot and the runway to enhance awareness of the potential hazards posed by already flying aircraft.

☐ Importance of MAAC and MAAC safety rules.

- Link to MAAC: MSD 03 - All Model Aircraft - has been reviewed by the student.

☐ Enforcement of MAAC safety rules

Note: *If you are flying in another flying field or country it is up to* ***YOU*** *to find out what the club rules are* ***before*** *you fly. (The program wants you to be a good guest.)*

Notes:

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Lesson 4: Radio & Pre-Flight Checks-Student should be able to perform lesson objectives <u>before each flying session:</u>

☐ Range Check - correct model on radio must be done before the first flight of the day.

- Consult Radio manual for range check procedure.

☐ Overfly area is clear of people & vehicles before each flight.

Pre-Start

☐ Frequency/Identification Board - Peg in Place

☐ Receiver Battery - Voltage Check

☐ Radio Antenna - set o.k.

☐ Radio Transmitter - On, Radio Receiver - On and Checked for Interference (All control surfaces stable.)

☐ Transmitter Operation Check - Aircraft Control surfaces checked for correct direction.

☐ Throttle set

Start

☐ Aircraft Secure

☐ All Clear - Ahead (prop) and Behind

☐ Run Up - Mixture Set (engine testing to take place in testing area)

☐ Idle - Reliable

☐ Fail Safe Check completed - engine running - secure aircraft - Turn transmitter off - engine should go to minimum or shut off.

Pre-Takeoff

☐ Fly over area clear of people & vehicles - Checked

☐ Engine - Full Power Performance O.K.

☐ Controls - Free and Correct

☐ Rate Switches - Set

☐ Trims - Set for Take-off

☐ Timer - On

☐ Wind Sock - Checked

☐ Runway - Clear

☐ "Announce" - intention to take off to other pilots on flight line.

Evaluation: **THIS LESSON SHOULD BE REVIEWED AS NECESSARY AT THE START OF ALL LESSONS IN THE PRIMARY TRAINING COURSE.**

Lesson 5: Flight Familiarization

Purpose:

To introduce the student to controlling the model in flight - "Directional Control".

Objective:

To allow the student to become familiar with the model's controls and their use in flight. The use of a 'Buddy Box' - cable or wireless - is STRONGLY recommended.

Elements:

☐ On the ground; instructor to familiarize the student with controls (pitch, yaw and power) and what kind of affect they will have on the aircraft in flight.
The procedures used by the instructor to give the transmitter to the student and taking over during the flight will be explained.

> Note: *As each instructor has different preferences concerning the process of exchanging the transmitter the student should ensure they have reviewed and understands this procedure with new instructors.*

☐ Instructor flies and lands the student's model to evaluate its performance and air worthiness.
This flight determines any changes necessary for control throws and trims. If the instructor can trim the aircraft without landing the aircraft, the transmitter will be passed to the student or **the use of a buddy box is strongly recommended.**

☐ With the assistance and direction of the instructor, the student will start the process of becoming familiar with the controls.

☐ The student will strive to keep the model in level flight and follow turning instructions given by the instructor.

☐ When the student becomes tired or disoriented, pass the transmitter back to the instructor or ask the instructor to take control from the buddy box.

Note: It is the student's responsibility to pass the transmitter back to the instructor in time for the instructor to take corrective action to prevent a crash. Concentrate on flying within your ability. If you become disoriented or confused, pass the transmitter back to the instructor.

Evaluation:

The lesson is complete when the instructor has determined that the student is able to determine and execute proper control inputs to achieve a desired change in the model's attitude.
Proficiency and accurate control are not critical at this point.

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Lesson 6: Flight Maneuvers

Purpose:

To acquaint the student with the basic flight maneuvers.

Objective:

To teach the student to properly control the model during basic maneuvering.

Elements:

- ☐ Level flight and trim. (Ailerons and elevator)
- ☐ Banked turns. (30 degrees)
- ☐ Straight climbs. (add power and trim)
- ☐ Climbing turns.
- ☐ Gliding. (idle power and trim)
- ☐ Disorientation. (Silhouette and R+L reversal with inbound aircraft).

NOTE: An explanation of disorientation and the use of trim should proceed this lesson. The five maneuvers should be taught in the order listed, if possible.

Evaluation:

The lesson is complete when the student can perform the maneuvers without assistance from the instructor. Each maneuver should be done with a reasonable degree of accuracy. Example:
Turns should be fairly smooth and altitude maintained fairly well.
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Lesson 7: Accuracy Maneuvers

Purpose:

To teach the student to perform the five basic maneuvers to a standard that will develop proficiency in their executions.

Objective:

To develop the skill and ability of the student to control the model in a specific manner.

Elements:

☐ Level flight, maintaining heading and altitude.

☐ Level flight at reduced power; maintaining heading, altitude and trim.

☐ Left and right turns to specific headings.

☐ Climbing turns to specific headings.

☐ Use of rudder for turns and maintaining straight flight at slower speeds.

☐ Power off (idle) glides that require the student to maneuver the model to a specific area and approximate altitude.

Example: Have the student close the throttle over the south end of the field at 200 ft and glide to the north end at an altitude of about 100 ft.

NOTE: Keep in mind that the object is to develop skill and ability, AND an awareness of the model's position relative to directions and altitude. Don't insist on mechanical precision. Review disorientation with the student if necessary.

Evaluation:

The lesson is complete when the student can maneuver the model at the instructor's directions and can demonstrate an ability to control the model in an accurate manner.
Notes:

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Lesson 8: Orientation Manoeuvres

Purpose:

To develop the judgment, skill and ability necessary for the student to make a landing.

Objective:

To teach the student to control the model regardless of its heading or direction relative to them self. (Directional Control)

Elements:

☐ Figure 8 - the student must fly a figure 8 pattern consisting of two 360 degree turns, one left and one right. The student must place the maneuver in front of them self at a safe distance and altitude.

☐ The student must fly a rectangular pattern at a safe altitude, with the upwind leg adjacent the landing area.

NOTE: The instructor will designate the size, altitude, and distance of both maneuvers.

Evaluation:

The lesson is complete when the student can fly the Figure 8 without experiencing disorientation and can fly both right and left rectangular patterns consistently and accurately.

Notes:

Lesson 9: Stalls

Purpose:

For the student's understand stalls, their cause and avoidance.

Objectives:

To teach the student to recognize and recover from stalls.

Elements:

☐ Pre-flight discussion of stalls; what causes them and how to recover.

☐ Practice of stalls by the student with power and without power.

☐ Stalls in turns. (Take-off, departure stalls)

NOTE: Take-off and departure stalls are almost impossible to set up with most trainers, but do occur in more advanced models. Therefore, it is recommended that, at a high altitude, power be reduced to about 1/3 throttle, and a steep climbing turn entered. The stall entry will look similar to a spin entry with the model rolling towards the high wing. During this lesson it should be emphasized to the student that a stall can occur at any airspeed and is a function of angle of attack.

Evaluation:
The lesson is complete when the student understands the cause of stalls and has demonstrated the lesson elements and proper recovery.
Notes:

Lesson 10: Take-off

Purpose:

To teach the student how to make a normal take-off.

Objective:

To teach the student how to control the model during take-off.

Elements:

- ☐ Discussion of the effects of torque during take-off and initial climb.
- ☐ Use of rudder.
- ☐ Use of throttle.
- ☐ Use of elevator.
- ☐ Student makes a normal take-off INTO wind.

Evaluation:

The lesson is complete when the student has successfully taken off and established a normal climb with adequate airspeed. The student must also demonstrate adequate directional control during take-off.

Notes:

Lesson 11: Approaches to Landing

Purpose:

To prepare the student for their first landing.

Objective:

To develop the student's ability to visualize and perform a stable controlled approach to landing.

Elements:

☐ Review of Lesson 6. (Slow Flight and Gliding)

☐ Discussion of proper landing techniques.

☐ Student flies a rectangular pattern as in Lesson 6, but reduces power and establishes an appropriate glide on the base leg and continues the approach until over the end of the runway, at which point add power and go around. The minimum altitude at the end of the maneuver should be no less than 20 ft.

☐ As the student becomes comfortable with the maneuver; the altitude should be lowered until the instructor is confident that the model can glide to the runway at reduced power.

☐ Landing; At this point the instructor will tell the student to continue the approach and land.

NOTE: The chances of a successful landing will be increased if the instructor reminds the student to reduce the power. It may be necessary to talk the student through the flare and touchdown.

Evaluation:

The lesson is complete and the student can advance to supervised solo flight after the student has successfully landed the model several times and is comfortable with the maneuver.

Notes:

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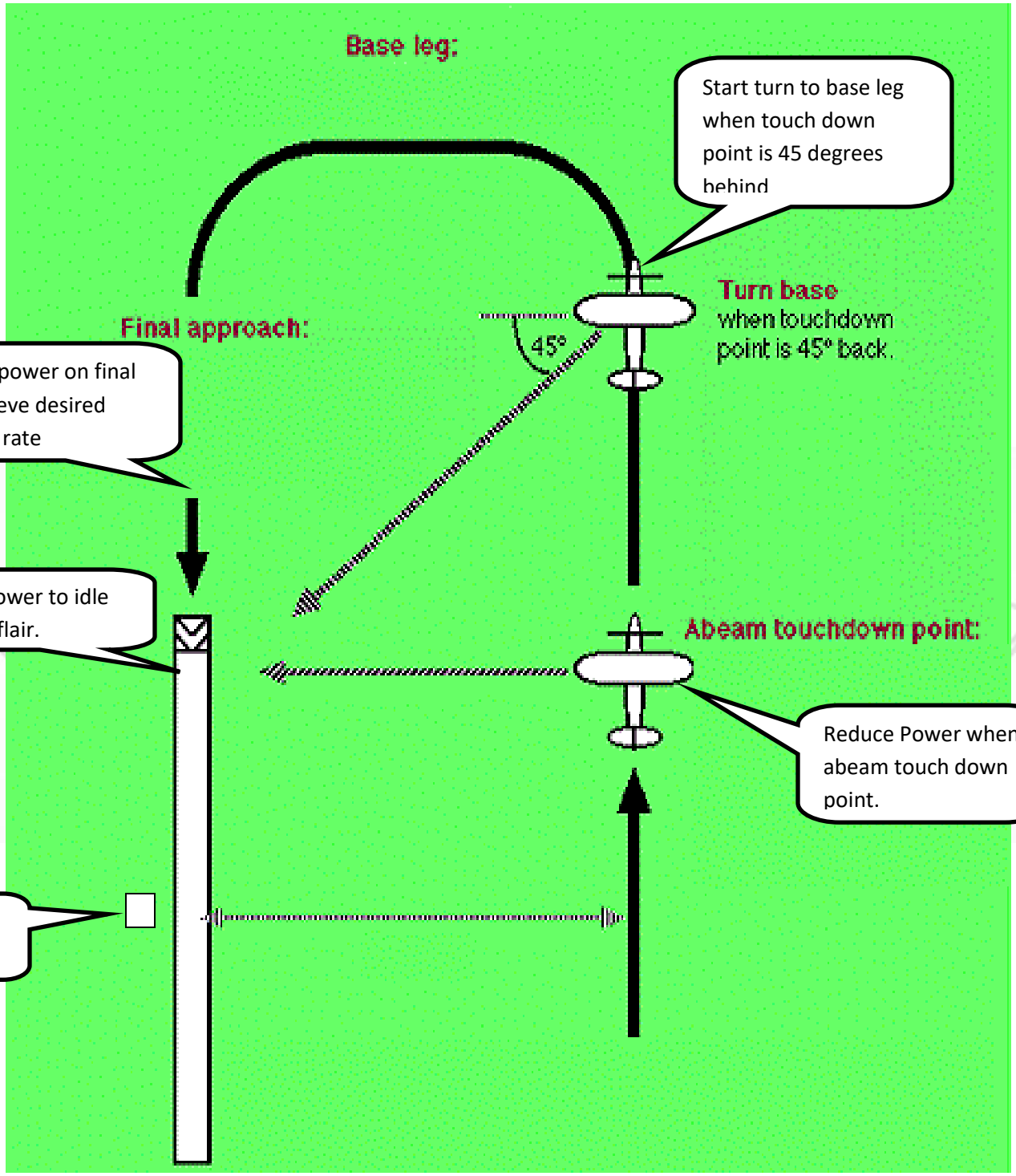
Standardized Landing Approach



From "Soo" Club Training Manual

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Lesson 12: Solo Flight

Purpose:

Confidence building exercise.

Objective:

The student is to perform a solo flight demonstrating the knowledge and skill objectives of the previous eleven lessons to the instructor.

Elements:

☐ Pre-flight discussion to answer questions and resolve any problems that concern the student about the lesson.

☐ Student performs a flight, under the instructor's supervision, starting with a thorough pre-flight and ending with the properly shutting down the transmitter and receiver. Transmitter back to impound if 72mhz.

☐ Instructor monitors student's performance, but assists only when necessary.

Evaluation:

The lesson is complete and the student signed off for solo flight ONLY after demonstrating a practical knowledge of all course objectives AND has observed all safety and field operating rules, and has successfully flown their model unassisted.

Notes:

Lesson 13: Emergency Procedures

Purpose:

To prepare the student for the unexpected.

Objective:

To acquaint the student with safe procedures to be used in emergencies.

Elements:

☐ Discussion of possible in-flight problems and how to deal with them.

☐ Unusual attitude training (optional): a) loops; b) rolls.

☐ Student performs dead stick landing.

☐ Cross wind take-off and landings (optional).

Evaluation:

The elements of this lesson are only suggestions and there is no minimum performance requirement. The objective is to provide the student with insights that will assist in safely dealing with the unexpected. Experience will teach the student the rest.

"IF THE STUDENT DOESN'T LEARN, THE INSTRUCTOR HASN'T TAUGHT."

Note:

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Lesson 14: Wings Program

Purpose: To allow the student to achieve and demonstrate flight proficiency.

Objective:

At the completion of the lesson the student should prepare for the Wings program and be able to practice the "A" level wings maneuvers in preparation for the "A" level wings flight proficiency tests.

Elements:

☐ Discussion of Wings program levels A through D - Link to: MAAC Wings Program page location.

☐ Discussion of "A" wings maneuvers; Take off, straight flight, flat figure eight, 360 degree landing circuit, landing under power, and maneuver expectations.

☐ Supervised flight in which student practices and demonstrates "A" Wings maneuvers.

☐ Review and critique.

Evaluation:

The student should understand how to perform each of the "A" wing maneuvers.

Notes:

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Wings Quizzes - Check off the correct answer to the following True or False

Club Procedures	**T**	**F**
1.The Frequency Board, at the Club Field, may not be used when 5 or less flyers are present.	☐	☐
2. During normal flying times 3 transmitters may be in use providing only 2 aircraft are actually flying.	☐	☐
3. Every transmitter shall be placed in the impound upon arrival at the field.	☐	☐
4. No Flying before 8:00 am or after 8:30 p.m.	☐	☐
5. Vehicles must park by the road unless unloading or loading by the Pits. The one exception is if less than 4 vehicles are present and one of the flyers is an instructor.	☐	☐
6. Guest flying privileges shall be (4) times per year and in the company of a member who is responsible for the guest.	☐	☐
7. Flying is not permitted over the pits except on final landing approach.	☐	☐
8. Pilots shall announce their intent to land or take off.	☐	☐
9. Full throttle engine noise level is to meet MAAC noise limits and must be checked before flying "the first time" by a club noise meter.	☐	☐
10. Aircraft are not to fly at altitudes less than 50 ft. when above people in 'fly over' area.	☐	☐
11. The only time aircraft that are allowed to be flown over the pits is during fun flies.	☐	☐
12. Only instructors may start an engine on the runway.	☐	☐
13. Taxing in the pits is not permitted.	☐	☐
14. Every member must have an " A " Wings rating to fly alone at the field.	☐	☐
15. Ways to reduce engine noise are:		
1. Use a larger propeller.	☐	☐
2. Use less Nitro.	☐	☐
3. Stuff muffler with brass scrubbing material.	☐	☐
4. Richen the high speed mixture.	☐	☐
Quiz answers are on page 25		

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Safety	***T***	***F***
1. At medium speeds, it is safe to adjust the High Speed Needle from directly in front of the airplane.	☐	☐
2. Care must be taken to keep spectators away from, in front of, or in line with the propeller arc when running up a motor.	☐	☐
3. Chicken sticks are for sissies.	☐	☐
4. Taxing is not permitted within 20 ft. of the Pits.	☐	☐
5. It is safest to set Dual Rates so that low rate produces.	☐	☐
1. Only a little control throws.	☐	☐
2. About half throw.	☐	☐
3. About 80 to 90% of full throw.	☐	☐
6. Always charge your batteries the night before flying.	☐	☐
7. It is wise to check your airborne battery before every flight.	☐	☐
8. Sometimes it is OK to turn on your radio without checking the frequency board.	☐	☐
9. If a transmitter is left on in a car:		
1. It won't bother anyone's airplane because it is shielded by The metal car body.	☐	☐
2. It might cause someone's airplane to "glitch".	☐	☐
3. It could cause someone's airplane to crash.	☐	☐
4. Because the transmitter is not in the compound the owner is not responsible	☐	☐
10. If one person without MAAC insurance flies at the field it will void the MAAC Field (Land Owners) Policy.	☐	☐
11. MAAC Insurance covers ***"does not"*** cover loss of personal/club property and personal injury.	☐	☐
12. 1The "Flight Line" is: 1. Something attached to gliders.	☐	☐
2. Divides the Pits from the Runway.	☐	☐
3. Is an extension of the "Pit" edge of the runway that goes horizon to horizon.	☐	☐
13. Proof of MAAC Insurance is absolutely necessary when flying at any MAAC Field.	☐	☐
14. MAAC insurance is VOID if you *intentionally* fly behind the Flight Line.	☐	☐
15. It is the pilots responsibility to know the MAAC safety requirements for **"Special Interest Groups"**. Otherwise MAAC insurance could be null and void.	☐	☐

questions.

Quiz Answers are on page 25

MAAC Flight Training Course

Check off the correct answer to the following True or False questions.

Aerodynamics:	**T**	**F**
1. An aircraft will balloon when coming out on a turn if:		
a. It is turning into wind.	☐	☐
b. The back pressure on the stick controlling the elevator is not released coming out of the turn.	☐	☐
c. If the aircraft is allowed to dive in the turn due to a lack of "up" elevator.	☐	☐
2. The stalling speed of an aircraft is the same when traveling upwind as downwind.	☐	☐
3. Attitude controls airspeed and throttle controls height.	☐	☐
4. A spin is when one wing is stalled and auto rotation sets in.	☐	☐
5. An aircraft rolls about its centre of gravity.	☐	☐
6. An aircraft Yaws about its vertical axis.	☐	☐
7. Rudder controls or prevents Yaw.	☐	☐
8. Ailerons can produce yaw.	☐	☐
9. Most aircraft will recover from a spin by just letting the sticks return to neutral.	☐	☐
10. During take-off most aircraft Yaw to the left and require rightrudder.	☐	☐
11. In other than calm conditions, the take off run must always be into the wind.	☐	☐
12. Taking off into wind gives the aircraft maximum airspeed and minimum ground speed.	☐	☐
13. The airspeed of an aircraft will remain the same when flying upwind Or downwind.	☐	☐
14. The ground speed of an aircraft will change when turning upwind or downwind.	☐	☐

Club		Safety		Aerodynamics	
1	F	1	F	1.a	F
2	T	2	T	1.b	T
3	T	3	F	1.c	T
4	T	4	T	2	T
5	F	5.1	F	3	T
6	T	5.2	F	4	T
7	T	5.3	T	5	T
8	T	6	T	6	T
9	F	7	T	7	T
10	F	8	F	8	T
11	F	9.1	F	9	T
12	F	9.2	T	10	T
13	T	9.3	T	11	T
14	T	9.4	F	12	T
15.1	T	10	T	13	T
13.2	F	11	T	14	T
13.3	T	12.1	F		
13.4	T	12.2	F		
		12.3	T		
		13	T		
		14	T		
		15	T		

Revision History

Date	Revision	Reason
2001	© 2001 Model Aeronautics Association of Canada	Victoria RC Aeromodellers original Document
2003	Adopted as the MAAC Flight Training Porgram	Well done and applies MAAC guidelines
2017	Updated Document to current modern practises	Some Material out of date
2017	Put a photo on the cover page	Add a little colour to the doc.
2017	Put Hyperlinks on the table of contents	Ease of moving through the doc.
2017	Page 25 Question 11 - "It is best to have a "Rider" on your house insurance As Well As MAAC coverage." (True) Changed to: "MAAC Insurance covers loss of personal property and personal injury." (False)	Original wording did not apply to actual Insurance Coverage.
2017	Page 25 Question 13 - "MAAC Insurance is absolutely necessary when flying at our	Wording was too Black and White' needed to clarify and

	field. MAAC insurance is VOID if you fly behind the Flight line." (True) Changed; "MAAC Insurance is absolutely necessary when flying at our field." (True) "MAAC insurance is VOID if you ***intentionally*** fly behind the Flight Line." (True)	added Intentionally.
2017	"He & His" has been removed from all of the document. Updated to include the use of 2.4Ghz radios and lack of 72Mhz radios. Added Lesson 4: Lesson 4: Pre-Flight Checks Added "Range Check must be done before the first flight of the day." Changed Impound requirements to: - "Follow club procedures for Transmitter control. 72Mhz radios require impound control for safety to avoid frequency conflicts 2.4 radios are not a problem." *Added:* ***Note:*** *If you are flying in another flying field or country it is up to* ***YOU*** *to find out what the club rules are* ***before*** *you fly.* *Reworded:* Transmitter Operation Check - Aircraft Control surfaces checked for correct direction. Added: Fail Safe Check completed - engine running - Turn transmitter off & engine should go to minimum idle or off. Added: Correct Model on Radio?	• Changed to student to remove gender in all of document; this is not an exclusive male Club/Hobby. • Original Document did not have reference to 2.4 radios, they were not available. • Lesson 3 was too long in dealing with "Radio and Field procedures". • Following MAAC Guidelines • Updated for 2.4 radios • Updated to remind people to ensure understanding of local rules as a guest at any field in the world. • A check to ensure student understands this is a major cause of aircraft loss. • A basic Safety Check not in previous documents • A basic Safety Check not in previous documents
2017	Added: The use of a 'Buddy Box' - cable or wireless is STRONGLY recommended. Added Standardized Landing Approach from Soo club manual.	• Wireless Buddy Bozes were not available at original printing. • A good learning diagram.