



**TRAINEE PILOT
LOGBOOK**
for
Fixed Wing Power Aircraft



MODEL AERONAUTICAL ASSOCIATION OF AUSTRALIA Inc.
MEMBER OF THE FEDERATION AERONAUTIQUE INTERNATIONALE

GOVERNING BODY FOR MODEL AERONAUTICS IN AUSTRALIA
A MEMBER OF THE AUSTRALIAN SPORT AVIATION CONFEDERATION INC



TRAINEE PILOT LOGBOOK

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M.A.A.A.Inc – TRAINEE PILOT LOGBOOK

INTRODUCTION: This logbook is designed to be used in conjunction with a pilot training system as set out in the MAAA Inc. Flight Instructor's Manual, as conceived by Mr. Bob Young of Silvertone Electronics, Past President of the Radio Control Aircraft Society of N.S.W. The sequence of this logbook follows that of the manual and throughout this logbook reference is made to the appropriate section of the Flight Instructor's Manual. As you progress through your training it will be recorded and signed-off by your Instructor. At the end of each section your Instructor will test your proficiency at that particular section and certify a pass to enable you to proceed onto the next section. The book is designed to take you through each stage of the learning process, progressing in sequence from Bronze to Gold Wings.

BRONZE WINGS. The Trainee Pilot must demonstrate COMPETENT BASIC SKILLS in those aspects of R/C powered aircraft flying, as set out in the Bronze Wings Test on pages 19 and 20 of this log book, to the satisfaction of the Trainee Pilot's club. The awarding of Bronze Wings is the responsibility of a recognised MAAA Instructor. Upon submission of the Bronze Wing certificate, included in this logbook, to the State MAAA Inc. affiliated body you will be awarded your MAAA Inc. Bronze Wings.

GOLD WINGS. Upon completion of your training your MAAA Instructor will complete the certificate section at the back of the logbook to the effect that you have successfully completed your full Wings for R/C flying. Upon submission of this certificate together with the prescribed fee to your MAAA Inc. affiliated State body you will be awarded your MAAA Inc. Gold Wings.

TRAINEE PILOT'S NAME: ----- CLUB:-----

ADDRESS: ----- MAAA Inc. No:-----

PRE-FLIGHT TRAINING - RULES, REGULATIONS & FLIGHT AREAS.

The Trainee Pilot should be fully acquainted with the requirements of Civil Aviation Orders and MAAA rules in relation to ceiling heights of flying operations, the allowable distance to fly from/over people, buildings, etc. Remember that the Civil Aviation Order is enforceable law.

It is your responsibility to find out what these rules are by talking to your Club Executive, Safety Officer or Instructor. The rules and regulations are also published on the M.A.A.A.(www.maaa.asn.au) and C.A.S.A.(www.casa.gov.au) web sites.

The Trainee Pilot should be knowledgeable of club rules and the operational procedure for the club's frequency system prior to any flight training or model testing.



Each individual club's flying site will have its own unique restrictions and limitations, because of the local layout. The Instructor must fully explain the allowed Flight Areas and Forbidden Areas.

Training Dates

Results

Instructor's Signature

Date Tested

Results

Instructor's Signature

PRE-FLIGHT TRAINING

1. DEXTERITY TRAINING: Using blindfold. Trainee Pilot must be able to locate all the transmitter controls quickly with no fumbling.
2. THEORY: Trainee Pilot must be able to name all major components of aircraft and define functions including effect of controls.
3. AIRFRAME & PRE-FLIGHT CHECKOUT: Trainee Pilot should be fully acquainted with and proficient at demonstrating this important aspect of flying operations. (See Section 3.2 in MAAA Inc. Flight Instructor's Manual).

NOTE: Dexterity training has, in the past, been overlooked and this has become obvious by the lack of awareness of the difficulties trainee pilots face in merely handling the transmitter controls. Consequently, some basic form of finger exercises should be given in order that controls can be located automatically and without distraction. Too often the trainee pilot is preoccupied in locating the required control instead of flying the aircraft. This is particularly important in coordinating the double axis control.

Training Dates Results Instructor's Signature

Date Tested Results Instructor's Signature

SINGLE STICK TO DUAL STICK TRANSITION

MAAA Inc. Flight Instructor's Manual Section 3.4.2 through to Section 3.4.7 and Section 3.4.9

The student will acquaint themselves with all flying controls and become proficient in their operation.

NOTE: The order laid out in the manual for the first flight is very important and should not be altered.

Training Dates	Results	Instructor's Signature
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Date Tested	Results	Instructor's Signature
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CO-ORDINATED TURNS

MAAA Inc. Flight Instructor's Manual Section 3.4.9 continued.

Coordinated turns both aileron and elevator for four channel control and elevator and rudder for two/three function control

Become proficient in coordinating sticks to make smooth controlled turns.

The trainee pilot will be shown the techniques utilised to make a coordinated turn, left or right, with minimal height loss incorporating both aileron and elevator or rudder and elevator.

Training Dates	Results	Instructor's Signature
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Date Tested	Results	Instructor's Signature
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RECTANGULAR CIRCUITS

Complete rectangular circuits (left and right) utilising 90 degree turns whilst maintaining constant height.

Rectangular Flight Circuit

Runway

○ Pilot Area

Training Dates

Results

Instructor's Signature

Date Tested

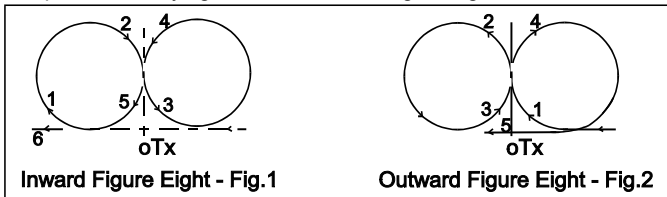
Results

Instructor's Signature

PRELIMINARY FLIGHT TRAINING **OUTWARD & INWARD FIGURE EIGHTS.**

MAAA Flight Instructor's Manual Section 3.5.1 through to Section 3.5.4.
The instructor will demonstrate the fundamentals of this exercise.

Perform horizontal figure eight manoeuvres flying both towards and away from the pilot.
Student will become proficient at flying the model in a flat figure eight circuit without loss of height.



Training Dates

Results

Instructor's Signature

Date Tested

Results

Instructor's Signature

PRELIMINARY FLIGHT TRAINING **RETRIMMING & ORIENTATION.**

MAAA Flight Instructor's Manual Section 3.9.1 through to Section 3.9.3.

Note: Instructors should demonstrate flying aircraft both in and out of trim and the degree to which all flying exercises can be simplified with the correct application of trim control. Reference should also be made to the note on page six about dexterity training and its application to trimming of aircraft and orientation when flying.

The trainee pilot will understand the importance of trimming the aircraft.

The trainee pilot will become familiar with the location of all trimming controls.

The trainee pilot will be efficient at re-trimming an out of trim aircraft.

Training Dates	Results	Instructor's Signature
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Date Tested	Results	Instructor's Signature
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For orientation development with the introduction of basic aerobatics refer to page 23 of this logbook.

STALL AND RECOVERY

The Instructor will demonstrate the fundamentals of this manoeuvre.

The student will be able to place the aircraft in a stalled position.

The student will be able to safely recover the aircraft from the stalled position.

Training Dates	Results	Instructor's Signature
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Date Tested	Results	Instructor's Signature
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TAXIING

On ground manoeuvre will be used for preliminary training prior to take off.

Become proficient at taxiing the model on the ground coordinating both throttle and rudder controls.

The trainee pilot will be able to taxi the model both towards and away from him/herself, in a straight line along the line of the runway at varying speed.

NOTE: At no stage is the trainee pilot or instructor to taxi the model straight towards him/herself or any other person.

Training Dates	Results	Instructor's Signature
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Date Tested	Results	Instructor's Signature
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TAKE- OFF

MAAA Flight Instructor's Manual Section 3. 7.3.

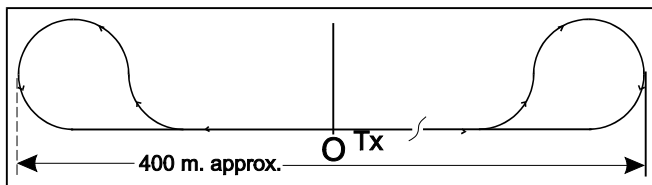
With most modern model aircraft take-off should be easily accomplished. Emphasis will be made on gradual application of power while keeping the aircraft straight, and using a little elevator to lift-off, then making a gentle climb out with wings level until safe altitude is reached. The trainee pilot will have observed his/her Instructor take-off on a number of occasions and should be well prepared for this stage of training.

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Date Tested	Results	Instructor's Signature
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INTERMEDIATE FLIGHT TRAINING PROCEDURE TURNS.

MAAA Flight Instructor's Manual Section 3.8.1 THROUGH TO Section 3.8.4.



Training Dates

Results

Instructor's Signature

Date Tested

Results

Instructor's Signature

LANDING CIRCUITS.

MAAA Flight Instructor's Manual Section 3.10.1, 3.10.2, 3.15.1, 3.16.1 and 3.16.2.

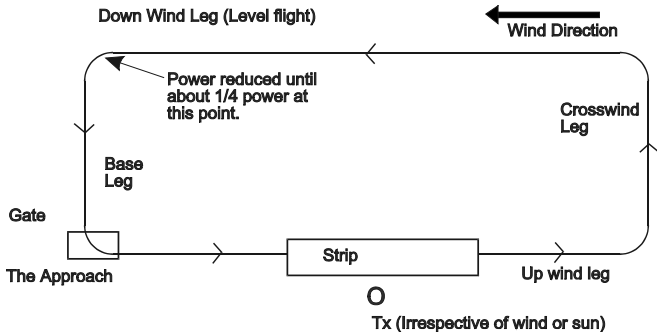
The Instructor will demonstrate the techniques of this manoeuvre in both directions and will gradually introduce the trainee pilot by approaching at gradually decreasing heights.

Trainee pilot to understand the principles of the landing approach.

Understand the principles of utilising both elevator and throttle during the approach process.

Capable of judging the correct distance, height and speed to commence the approach.

Demonstrate a landing approach from both left and right directions.



Training Dates

Results

Instructor's Signature

Date Tested

Results

Instructor's Signature

APPROACHES & LANDINGS.

MAAA Flight Instructor's Manual Section 3.11.1, through to 3.13.4 inclusive.

Safely land the aircraft from both left and right directions maintaining a constant course

By maintaining a constant course, safely perform a "go around" if approaches are incorrect.

THE APPROACH – summarised:

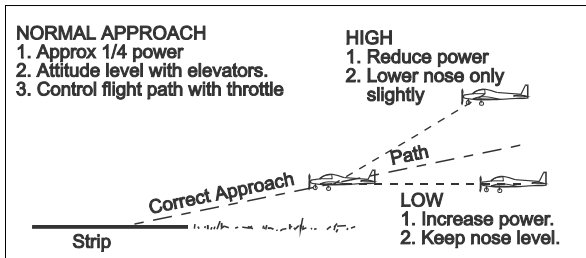
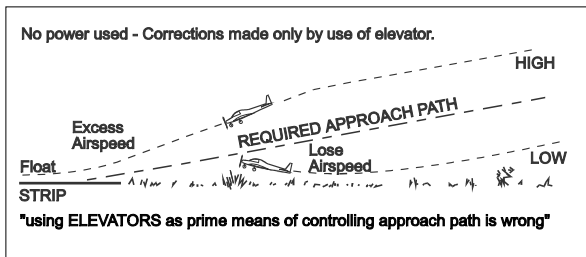
This must be understood and cannot be overemphasised to the trainee pilot.

Engine Assisted – $\frac{1}{4}$ power.

- a) Control nose attitude and therefore airspeed with elevators.
- b) Use throttle to place the aircraft where you want it to be.

NOTE: It is very important that the trainee pilot realise that when an approach or landing becomes difficult to control and/or out of reasonable tolerance of control, that the approach or landing should be aborted and to "go around" and be commenced again rather than persisting with complex situations which may not be controllable. Safe operation is VITAL.

Common Approach Faults:



- a) Down wind leg too close
- b) Base leg too close.
- c) Excessive speed prior to or during approach.
- d) Tailwind component on base leg and/or final approach.

For wind effect on approaches and landings refer to Section 3.17 of the MAAA Inc Flight Instructor's Manual.

Training Dates	Results	Instructor's Signature
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Date Tested	Results	Instructor's Signature
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SIMULATED DEAD STICK LANDING

MAAA Flight Instructor's Manual Section 3.14.1, through to 3.14.5 inclusive.

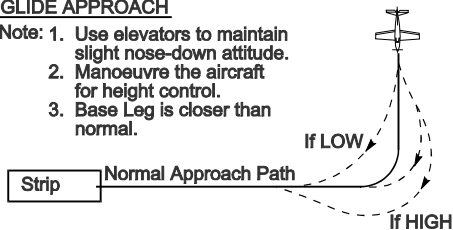
At the Instructor's discretion the power of the model will be reduced to idle and the trainee pilot shown the technique of gliding the aircraft to a position where a landing can be achieved.

The student will be capable of safely gliding the model without engine power to a position where a landing approach can be executed.

The student will be capable of executing an unpowered controlled landing to a predetermined point on the flying field.

GLIDE APPROACH

- Note: 1. Use elevators to maintain slight nose-down attitude.
2. Manoeuvre the aircraft for height control.
3. Base Leg is closer than normal.



Training Dates

Results

Instructor's Signature

Date Tested

Results

Instructor's Signature

BRONZE WINGS TEST

Bronze Wings are awarded when a member demonstrates, in the course of one session, that he/she has the competent basic skills as set out in the following tasks.

1. **DEXTERITY:**

Pilot must be able to locate all the transmitter controls quickly without fumbling.

2. **THEORY:**

Pilot must be able to name all major components of the aircraft and define functions including effect of controls and have a thorough knowledge of safety rules and regulations.

4. **AIRFRAME & PRE-FLIGHT CHECK:**

Check engine mounting, plumbing, centre of gravity location, throttle setting, under-carriage secure, and signs of structural or covering problems that could effect flight eg. controls neutral and control throws correct, presence of warps which could effect trim, state of battery and range check.

5. **TAKE OFF:**

Use gradual application of power while keeping the aircraft straight, and using a little elevator to lift off, then making a gentle climb out with wings level until safe altitude is reached.

6. **PROCEDURE TURNS:**

The pilot's ability to perform the following steps in the procedure turn will be monitored:

- a. Level flight segments should be straight and level.
- b. Aircraft should pass directly over the landing area.
- c. Turns should be at a constant altitude.
- d. Turns should be completed in order that upwind and downwind tracks are superimposed.

7. **TRIMMING :**
Pilot to show ability to trim aircraft in flight. Displacement and re-trimming both the primary roll control and elevator should be demonstrated.

8. **LANDING CIRCUITS :**
From both directions. As shown in the diagram with all turns of 90 degrees. With high performance aircraft the power needs to be reduced much sooner than at the turn onto base leg. The upwind and downwind legs are parallel to the landing strip. The first three legs are maintained at a constant height and a gradual approach angle is started at the beginning of the base leg.

9. **APPROACH & LANDING :**
With engine assisted landings (1/4 power) control the nose attitude and therefore airspeed with elevators and use the throttle to place aircraft at pilots discretion. The aircraft should be flown over the threshold at an altitude of about five feet, the throttle closed, and as the aircraft settles towards the ground the round-out or flare is initiated. The "hold-off" period is then commenced where the aircraft is gradually allowed to sink and settle on the ground in a slightly nose high attitude.

10. **SIMULATED DEAD STICK LANDING :**
At a safe and high position the trainee pilot will reduce throttle to idle and perform a descending circuit to show ability to safely glide the model without engine power to a position where a landing approach can be executed.

MODEL AERONAUTICAL ASSOCIATION OF AUSTRALIA INC.

Certification Of Pilot for he Award of MAAA Bronze Wings

This is to certify that: (Name)

of: (Address)

MAAA AUS Number Club

has demonstrated a degree of proficiency in safety procedures and radio controlled flying of model aircraft to be awarded the MAAA Inc. **Bronze** Flying Wings.

MAAA Instructor's Name: MAAA AUS Number

Signature Date

Address

This form should be forwarded to the MAAA Inc. affiliated State Body in your State for processing and award of the MAAA Inc. Bronze Flying Wings, provided free of charge by the MAAA.

The forms for certification of pilots for the MAAA ratings of Bronze and Gold Wings are also available as part of the Manual of Procedures on the MAAA web site.

www.maaa.asn.au

MOP027 Guidelines for the Award of M.A.A.A. Wings.

Fixed Wing Power

MOP076	MAAA016	Flight requirements and Test Check Sheet – Bronze Wings
MOP077	MAAA017	Flight requirements and Test Check Sheet – Gold Wings

Glider

MOP078	MAAA018	Flight requirements and Test Check Sheet – Bronze Wings
MOP079	MAAA019	Flight requirements and Test Check Sheet – Gold Wings

Helicopter

MOP080	MAAA020	Flight requirements and Test Check Sheet – Bronze Wings
MOP081	MAAA021	Flight requirements and Test Check Sheet – Gold Wings
MOP082	MAAA022	Flight requirements and Test Check Sheet – Instructor

GOLD WINGS TRAINING

FIXED WING AIRCRAFT –Powered

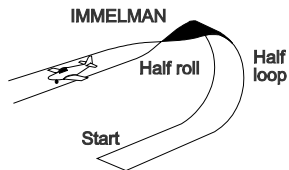
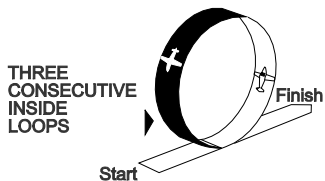
Gold Wings are awarded by an MAAA Instructor through a member's State/Territory Association when the pilot demonstrates, in the course of one flying session comprising of up to four flights, that he/she has the competent basic skills to perform the manoeuvres listed in the Gold Wings test at the back of this log book. Procedures and manoeuvres common to all flight shall be assessed on every flight to confirm consistency of standard. (eg. One good landing out of four would not be acceptable). At least one week must elapse between testing sessions of a candidate.

Simple Aerobatic Training

Orientation training is inserted into the training program at the Instructor's discretion and is best described as being part of training aimed at teaching or preparing the student to recover from difficult or out of control situations. This is best used as part of the monotony relief aspect of flight training and should include recovery from inverted flight, spins, loops, rolls, etc. Some of this training will form part of the training sequence leading up to Bronze Wings and will progress through constant solo practice, after Solo Bronze Wings rating has been achieved, with assistance being given by an instructor when requested.

ADVANCED FLIGHT INSTRUCTION **LOOPS & IMMELMAN TURNS.**

The Instructor will demonstrate the fundamentals of this manoeuvre.



The pilot will be able to smoothly perform these manoeuvres with the aircraft utilising both elevator and throttle without deviating to the left or right.

Training Dates

Results

Instructor's Signature

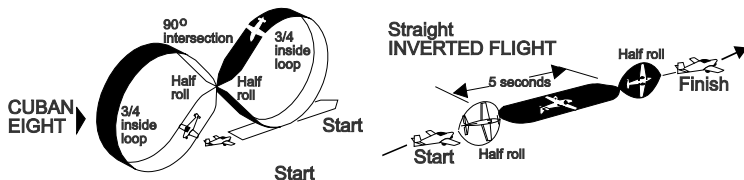
Date Tested

Results

Instructor's Signature

ADVANCED FLIGHT INSTRUCTION CUBAN EIGHT & INVERTED FLIGHT.

The Instructor will demonstrate the fundamentals of these manoeuvres.



The pilot will be able to smoothly perform the Cuban Eight showing ability to centre the manoeuvre, perform the looping parts of equal size and coordinate the half rolls on a 45° downward path at the centre of the manoeuvre.

Pilots will be able to smoothly perform the Inverted flight showing ability to maintain straight and level flight path.

Training Dates

Results

Instructor's Signature

Date Tested

Results

Instructor's Signature

ADVANCED FLIGHT INSTRUCTION THREE TURN SPIN.

The Instructor will demonstrate the fundamentals of this manoeuvre.

Pilots will be able to perform this manoeuvre showing ability to perform a stall into the spin and recovery after the three turns of spin in the same direction as the entry path.

Training Dates

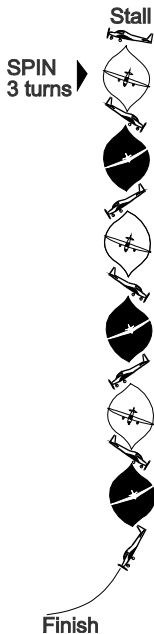
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Instructor's Signature

Date Tested

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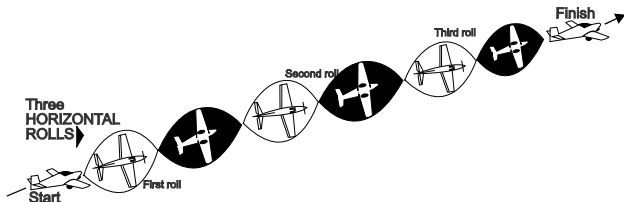
Instructor's Signature



ADVANCED FLIGHT INSTRUCTION

THREE CONSECUTIVE HORIZONTAL ROLLS.

MAAA Flight Instructor's Manual Section 4.1 through to Section 4.4.



The Instructor will demonstrate the fundamentals of this manoeuvre.

Students will be able to smoothly perform this rolling manoeuvre showing ability to maintain a straight and level flight path.

Training Dates	Results	Instructor's Signature
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Date Tested	Results	Instructor's Signature
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GOLD WINGS FLIGHT TEST

Fixed Wing Aircraft. Gold wings are awarded by a member's State/Territory Association when the member demonstrates, in the course of one flying session comprising of up to four flights, that they have the competent basic skills to perform manoeuvres listed below for powered aircraft. Procedures and manoeuvres common to all flights shall be assessed on every flight to confirm consistency of standard. (eg. One good landing out of four would not be acceptable). At least one week must elapse between testing sessions of a candidate.

Pre- Flight Training (This must be completed before flying)

- a. Dexterity of Pilot with equipment
- b. Theoretical Knowledge
- c. Pre-Flight Checks

Start Up

Taxi

Take- Off

Outward Figure of Eight

(Performed in both left & right direction)

Inward Figure of Eight

(Performed in both left & right direction)

Procedure Turn

(Performed in both left & right direction)

Immelman Turn

(Performed in both left & right direction)

Three Inside Loops

(Performed in both left & right direction)

Cuban Eight

(Performed in both left & right direction)

Three Turn Spin

(Performed up wind)

Inverted Flight

(Performed in both left & right direction)

Three Horizontal Rolls

(Performed in both left & right direction)

Landing Circuit

(Performed in both left & right direction)

Landing , Roll out and Stop

MODEL AERONAUTICAL ASSOCIATION OF AUSTRALIA INC.

Certification of Pilot for the Award of MAAA GOLD Wings

This is to certify that: (Name)

of: (Address)

MAAA AUS Number Club

has demonstrated a degree of proficiency in safety procedures and radio controlled flying of model aircraft to be awarded the MAAA Inc. **GOLD** Flying Wings.

MAAA Instructor's Name: MAAA AUS Number

Signature Date

Address

This form should be forwarded together, with the prescribed fee, to the MAAA Inc. affiliated State Body in your State for processing and award of the MAAA Inc. Gold Flying Wings.

Please complete the rear of this form for MAAA Inc. record and statistical purposes.

TRAINEE PILOT INFORMATION SHEET

Name of Trainee Pilot ----- Age: ----- MAAA Inc. No: -----

Club: ----- Type of aircraft used: - -----

Brand of Radio Equipment ----- No. Channels:----- Motor used: -----

Control functions used on training aircraft: -----

Builder of Aircraft: -----Scratch built/Kit/ARF: -----Covering/Finish: -----

How introduced to R/C Model Aircraft: -----

Have you flown Control Line or Free Flight Models: ----- How Long: -----

What categories of R/C Aircraft Interest you 1: ----- 2: ----- 3.-----

Are you interested in competition flying: ----- To What level: -----

How many lessons did you take to gain your Gold Wings: -----How long did it take: -----

Winter or Summer: ----- Did you first obtain your Bronze Wings: ----Easy/Hard: -----

When and where did you obtain you Bronze Wings? -----

Any other Comments: -----

----- Signed: ----- Date: -----

THE M.A.A.A. Inc. PILOT TRAINING PROGRAMME

This training program was originally conceived by Bob Young, of Silvertone Electronics, also past President of the Radio Control aircraft Society of N.S.W. He has contributed to the sport of flying radio controlled model aircraft for many years. Below are some of his contributions and achievements:

1955 – first flys single channel R/C Aircraft. 1963 – Purchased Silvertone Electronics from John Marquette. 1965 – flew first Australia designed and manufactured proportional R/C equipment. 1966 – Commenced production of the first Australian proportional R/C equipment. 1967 – Member of the Australian Trans-Tasman Aerobatic Team. 1968 – designed and manufactured the first Australian narrow band R/C equipment featuring dual control facilities and frequency interlock system. 1969 – further improved narrow band R/C equipment. Set Australian R/C aircraft speed record at the MAAA Australian National Championships at Wallacia. 1970 – Designed and built R/C equipment to operate a full-size Volkswagen TLE 1600 motor car by radio control for television commercial. Silvertone R/C equipment reviewed in American R/C Modeller magazine. 1971 – Designed and developed Silvertone R/C “Keyboard” for frequency control at flying field to take advantage of narrow bandwidth Silvertone R/C equipment. Details published in the Australian Airborne Magazine, Nos. 1 & 2. Member of the Australian R/C Aerobatics Team competing in the first World Championships in U.S.A. 1972 – Flew First R/C helicopter in N.S.W. at Silvertone, Riverwood. 1974 – Commenced the Silvertone R/C Flying School at Kingswood, the first commercial R/C training school in Australia. Developed the Silvertone “Weightlifter” mini remote-piloted vehicle for military use. Flew All-Arms target and I.R. missions for the Australian Army. 1977 to 1981 – designed and built robotic puppets for U.S.A. film industry use including three trips to Hollywood for film work. 1980 to 1983 – President of R.C.A.S. of N.S.W. Introduced RCAS Pilot Training Scheme and RCAS Newsletter for all members.