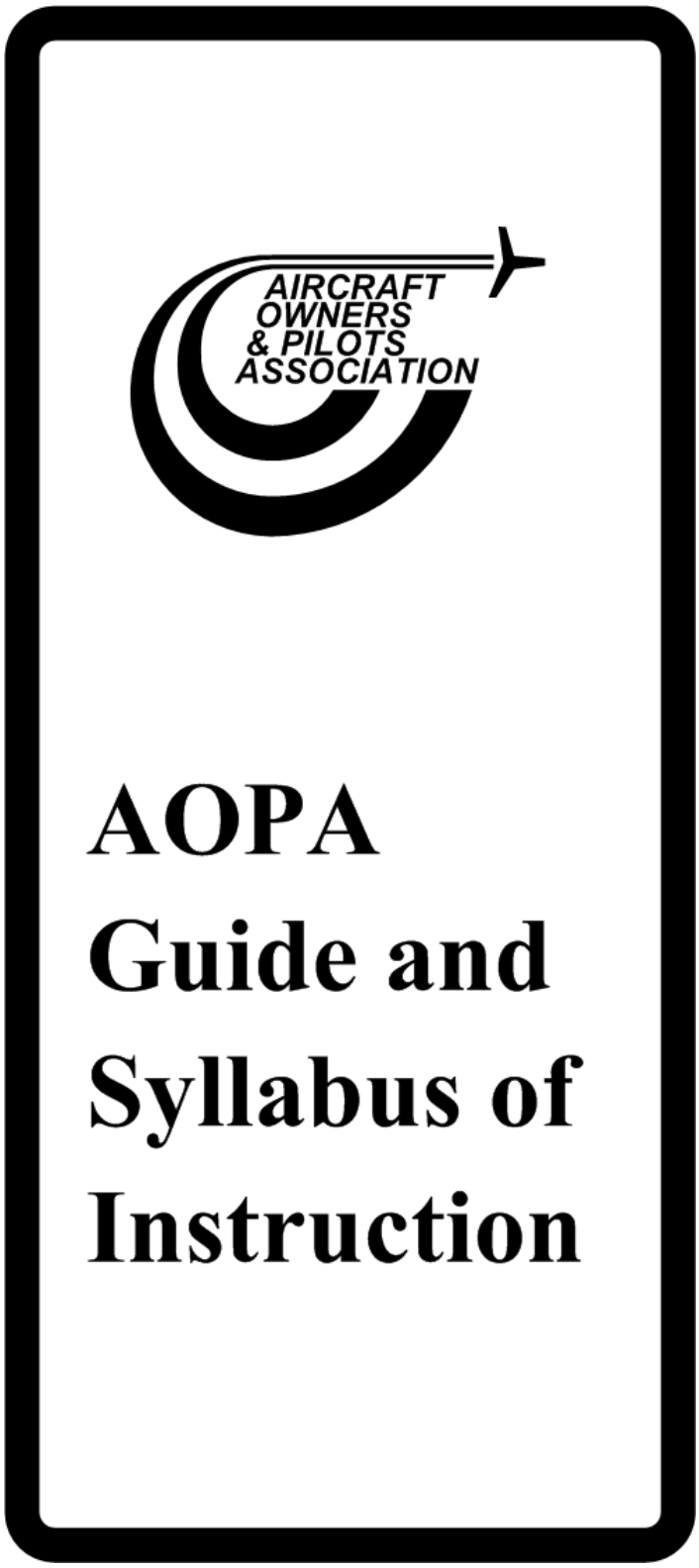

AOPA Guide and Syllabus of Instruction

THE BASIC AEROBATIC CERTIFICATE COURSE

PUBLISHED BY

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APPROVED AOPA SYLLABUS
BASIC AEROBATIC CERTIFICATE COURSE

3rd Revised Edition 2007

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FOREWORD

This Syllabus and Guide, produced by the Aircraft Owners and Pilots Association, in collaboration with the British Aerobatic Association, is issued with the approval of the BLAC Board of Management and AOPA Instructor Committee for courses leading to the issue of the AOPA Basic Aerobatic Certificate

Applicant's Name: .....

Address: .....

.....

Date Training Commenced .....

INTRODUCTION

This Syllabus and Guide to the AOPA Basic Aerobatic Course covers the learning of the basic aerobatic manoeuvres required to take part in Beginners events organised by the British Aerobatic Association (BAeA). However, it is appreciated that some pilots will wish to progress to more advanced manoeuvres, and the more specialised areas of competition and display aerobatics. Further training will be required before undertaking these more advanced manoeuvres. The AOPA Standard Aerobatic Course is the next step in this progressive training process.

The purpose of this publication is to give guidance to pilots who wish to obtain the AOPA Basic Aerobatic Certificate. The information it contains will also be needed by those Registered Training Facilities and Flying Training Organisations and the instructors who intend to supervise this training.

A copy of the syllabus must be held by the pilot undergoing the aerobatic training, and should be used as a record to ensure that all parts of the course have been satisfactorily completed prior to application for the Certificate. A signature block is incorporated after each relevant section for the instructor to sign when it has been completed.

FLYING TRAINING

The course consists of a minimum of eight hours dual flying with an instructor who is qualified to give aerobatic instruction. (Pilots who already have some aerobatic experience may qualify for a reduction in the flying hour requirement of this course).

AOPA recommends that pilots undertaking the Aerobatics course do not practice aerobatics solo until they have been trained and proved competent in spin recognition and recovery.

THEORETICAL KNOWLEDGE TRAINING

The theoretical knowledge section of the course will consist of a minimum of eight hours. Four hours of briefings/lectures must be given by a person qualified to instruct in aerobatic flying and the remaining hours may be carried out through self study under supervision.

Note: Due to the content of the course and the minimum number of flying hours required, it is particularly important that adequate theoretical knowledge instruction be given to the candidate prior to the instruction in the air.

COURSE OBJECTIVES

AOPA and the BAeA have designed this syllabus of instruction in order to encourage those pilots who wish to become proficient in the basic aerobatic manoeuvres to undertake the right training through a properly structured formal course.

Satisfactory completion of the course will enable the candidate to obtain the recognized AOPA Basic Aerobatic Certificate.

PROCEDURE TO OBTAIN THE CERTIFICATE

A candidate may commence the course at any time after qualifying for a Private Pilot's Licence or National Private Pilot's Licence. There are no minimum pre-entry hour or time requirements to enter the course of training.

The course of training is reflected in the syllabus contents shown on the following pages and upon completing the course candidates will be required to have their competence assessed in the air. The application forms for the issue of the certificate must be completed by the candidate and the instructor(s) conducting the course.

The air test must be given by an instructor registered with AOPA for this purpose. This flight is additional to the 8 hours required for the course.

Payment for the test has to be arranged between the candidate and the instructor giving the test, but a fee of £15 will have to be paid to AOPA to cover costs of administering the issue of the certificate. However, if the candidate is a pilot member of AOPA, this fee will be reduced to £10.

The application form consists of pages 11 and 12 of this syllabus. When the test has been satisfactorily completed, these pages should be removed and completed by the candidate, instructor and the person conducting the flight test section. Following this, the completed form, together with the appropriate fee, should be sent to the Administrative Secretary, AOPA, 50a Cambridge Street, London, SW1V 4QQ. Provided that the necessary requirements are met the candidate will be issued with the AOPA Basic Aerobatic Certificate.

ENVIRONMENTAL CONSIDERATIONS

Repetitive aerobatics can cause considerable annoyance to people living or working beneath. Instructors and candidates should be aware that this can lead to complaints, which in turn may lead to enforcement action and operating restrictions. AOPA is committed to defending the rights of General Aviation pilots, and can do so only if all concerned take into account the needs of other people. In this respect, pilots are advised to abide by the advice in the leaflet 'More Considerate Flying' produced by the General Aviation Awareness Council.

Recoveries from all manoeuvres must be completed by a minimum of 1,500 feet above the surface, and a maximum height must also be observed of 500 feet below the base of regulated airspace. Greater margins are likely to be wise until adequate experience has been gained.

EXEMPTIONS

A candidate who already has reasonable aerobatic experience and who wishes to obtain an AOPA Basic Aerobatic Certificate may apply for a flight competency test with any qualified instructor who is registered with AOPA for the purpose of conducting such tests. A satisfactory standard of performance on this test will be accepted as meeting the requirements for the issue of the Certificate. An application form completed by the candidate and signed by the instructor must be sent to AOPA together with the appropriate fee before the Certificate can be issued.

Important Note: The aerobatic manoeuvres covered in this syllabus must only be undertaken if the Owner's/Flight Manual/Pilot's Operating Handbook specifically states that these manoeuvres are permitted on the aeroplane type.

PRIMARY REFERENCE MATERIAL

The Air Navigation Order

LASORS -	Safety Sense Leaflet 19	Aerobatics
	Handling Sense Leaflet 2	Stall/spin awareness
	Handling Sense Leaflet 3	Safety in Spin Training

Owner's/Flight Manual/Pilot's Operating Handbook – for specific type

"**Basic Aerobatics**", Campbell and Tempest, 1984; Granada Technical Books, ISBN 0-246-11705-2

"**Better Aerobatics**", Alan Cassidy, 2003; Freestyle Aviation Books, ISBN 0-9544814-0-2

www.aopa.co.uk
www.aerobatics.org.uk

BASIC SYLLABUS (STAGE ONE)

THEORETICAL KNOWLEDGE INSTRUCTION

SUBJECTS	Instructor's Name and Signature
TECHNICAL SUBJECTS Legislation affecting aerobatic flying. Airframe and engine limitations – revision. Stalling and spinning – principles of flight	
PHYSICAL LIMITATIONS Body stresses – 'g' forces. Disorientation. Airsickness.	
LIMITATIONS APPLICABLE TO THE SPECIFIC AEROPLANE TYPE Load factors. Airspeeds. Engine (including inverted flight limitations).	
EMERGENCY DRILLS Use of parachutes. Aircraft abandonment	
ARESTI SYSTEM Notation for basic aerobatic manoeuvres (http://www.arestisystem.com)	

FLIGHT TRAINING

LONG BRIEFINGS

MANOEUVRE	Instructor's Name and Signature
Airmanship considerations – suitable area, including environmental aspects, adequate height above the surface, lookout. Revision of general handling manoeuvres Advanced turning (including maximum rate turns) Slow flight – level, climbing and descending in combination with turns.	

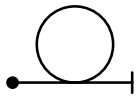
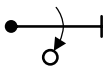
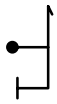
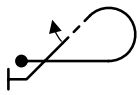
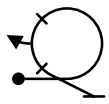
Stalling – entry and recovery from various flight attitudes and accelerated manoeuvre stalls. Recovery from the spiral dive.	
MANOEUVRE	**Instructor's Name and Signature**
Developed spins with emergency, non-precision, recovery.	
Recoveries from markedly unusual attitudes including 'near vertical' and 'semi-inverted' Importance of avoiding 'tail slides' and not exceeding the Vne and the 'rolling pull' "g" limitations. Restarting the engine in flight as applicable.	
Looping manoeuvres	
Rolling manoeuvres	
Yawing manoeuvres, stall turns (including forces on the aircraft in vertical flight)	
Combination manoeuvres and safe manoeuvre entry parameters (height and speed)	

FLIGHT EXERCISES

MANOEUVRE	Instructor's Name and Signature
Airmanship – Considerations as applicable to the flight exercise. General handling – revision Advanced turning (including maximum rate turns) Slow flight – level, climbing and descending in combination with turning flight at steeper bank angles.	
Stalling – entry and recovery from stall entries made in various flight attitudes Accelerated manoeuvre stalls and recoveries. Spin recoveries at the incipient stage from various flight attitudes. Recoveries from spiral dives.	
Developed spins with emergency, non-precision recoveries.	
Recoveries from markedly unusual attitudes including 'near vertical' and 'semi-inverted' Restarting the engine in flight as applicable.	

BASIC AEROBATIC MANOEUVRES

The sequence in which these are taught does not necessarily have to follow the order in which they are listed in the syllabus. In all cases, safe entry parameters, height and speed, must be considered.

MANOEUVRE	Symbol	Instructor's Name and Signature
Loop		
Aileron (Ballistic) Roll		
Barrel Roll		
Slow (level) Roll		
Stall Turn		
Half roll off the top of a Loop		
Half Cuban Eight (rolling on down line) or		
Half Loop up, half Barrel Roll down (Quarter Clover rolling downwards)		

In the build-up to the competency test sequence, students should learn to fly combinations of two or three of these basic aerobatic manoeuvres.

APPLICATION FOR THE BASIC AOPA AEROBATIC CERTIFICATE

Candidate's Name in full (BLOCK CAPITALS) .....

Address.....

.....

AOPA Membership No. (if applicable) .....

Work Telephone No:.....Home Telephone No:.....

Pilot's Licence No.:..... Total Flying Hrs: .....Hrs in Command.....

THIS FORM SHOULD BE ACCOMPANIED BY THE ADMINISTRATION FEE OF £15 (£10 FOR AN AOPA MEMBER). DO NOT SEND YOUR FLYING LOG BOOK UNLESS REQUESTED.

To be completed by the Instructor who has given the training.

Name of Training Organisation: .....

Address: .....

.....Telephone No.: .....

I certify that the above named candidate has received a minimum of 8 hours flight instruction and 8 hours theoretical knowledge training in accordance with the requirements of the AOPA Syllabus for the Basic Aerobatic Certificate and has reached the skill level required for a Competency Test.

Instructor's Name.....Signature.....

Aircraft Type:.....

FLIGHT COMPETENCY TEST

Instructor's Name (BLOCK CAPITALS).....

Signature .....Date.....

I certify that the above named candidate has successfully completed the Flight Competency Test for the AOPA Basic Aerobatic Certificate.

AOPA Office use only

	YES	NO	
Fee received	☐	☐	
Log Book required	☐	☐	Letter sent.....
Recommended for issue	☐	☐	

Signed ..... Date .....

AOPA BASIC AEROBATIC CERTIFICATE
COMPETENCY TEST FORM

General Handling & Manoeuvres	Pass	Fail	Comments & Queries for Debriefing
Engine/airframe – knowledge of limitations and safety aspects			
Pre-flight Procedures			
Slow Flight: Level, climbing, turning & descending			
Stall Entries and Recoveries from various flight attitudes			
Advanced (Maximum Rate) Turns			
Spins with non-precision recoveries			
Recoveries form Unusual Attitudes			
Loop			
Aileron (Ballistic) Roll			
Barrel Roll			
Slow (Level) Roll			
Stall Turn			
Half Roll off the top of a Loop			
Half Cuban (rolling on down line), or			
Quarter Clover rolling downwards			
Combination Sequence§			
Overall Airmanship			

FINAL ASSESSMENT PASS ☐

FAIL ☐

§ Ideally this will be the current BAeA Beginners sequence, see: http://www.aerobatics.org.uk/sequences/sequence.htm