

MEMBERSHIP OF THE BGA

- a) Full Member Clubs. Clubs accepted by the BGA which have a minimum of 25 members.
- b) Associate Members. Clubs of less than 25 members and interested individuals.

It is a condition of membership that all flying operations shall be carried out in accordance with the Operational Regulations of the Association.

All applications for membership come before the Executive Committee for election.

Further information is available from the Chief Executive of the Association.

AGL	Above ground level	IGC	International Gliding Commission
AFIS	Aerodrome Flight Information Service	IFR	Instrument Flight Rules
AAIB	Air Accident Investigation Branch	IMC	Instrument Meteorological Conditions
AIS	Aeronautical Information Service	MGIR	Motor Glider Instructor Rating
AMSL	Above Mean Sea Level	Mb	Millibar
ANO	Air Navigation Order	MTOM	Maximum Take Off Mass
ATC	Air Traffic Control	NATS	National Air Traffic Services
AUW	All Up Weight	NPPL	National Private Pilots Licence
BGA	British Gliding Association	NOTAM	Notices to Airmen
BHP	Brake Horse Power	OSTIV	Organisation Scientifique et Technique Internationale du Vol a Voile
CAA	Civil Aviation Authority		
CAP	Civil Aviation Publication	P1	Pilot in charge
CFI	Chief Flying Instructor	P2	2 nd Pilot
CG	Centre of Gravity	PIC	Pilot in Charge
CofA	Certificate of Airworthiness	PPL	Private Pilots Licence
CPL	Commercial Pilots Licence	RAC	Royal Automobile Club
CTO	Chief Technical Officer	RAeC	Royal Aero Club
DI	Daily Inspection	SDR	Special Drawing Right
DfT	Department for Transport	SI	Statutory Instrument
DTI	Department of Trade and Industry	SLMG	Self Launching Motor Glider
EASA	European Aviation Safety Agency	UK	United Kingdom
FAI	Federation Aeronautique Internationale	u/t	Under training
FI	Flying Instructor	VFR	Visual Flight Rules
FIR	Flight Information Region	VMC	Visual Meteorological Conditions
FL	Flight Level	VS	Stalling Speed
GP	General Practitioner		
ICAO	International Civil Aviation Organisation		

LAWS and RULES

CONTENTS

THE BRITISH GLIDING ASSOCIATION	2
PREFACE.....	3
PART 1 LAWS AND RULES.....	4
1 GENERAL.....	4
Exemption from registration. Condition of flight. Night. Log books. Insurance.	
2 QUALIFICATIONS AND LICENCES	6
Minimum age. Exemption from licences. Declaration of fitness.	
3 AIRWORTHINESS.....	7
Exemption from legal CofA. BGA CofA. Recording of modification and overhaul.	
Daily inspection. Releases.	
4 LAUNCHING - (1) WIRE LAUNCHING	8
Serviceability of equipment. Weak link.	
LAUNCHING - (2) AERO-TOWING	9
Validity of tug CofA. Length of combination. Signals between pilots. Dropping of tow ropes.	
5 SIGNALS	10
Airfield signals. Warning. Glider lights. Launch signals. Aero-tow emergency signals.	
6 FLYING - (1) GENERAL	12
Dangerous flying and hazardous conditions. Rules of the air. Aerobatic prohibitions.	
Oxygen.Club flying membership. Harness. Thermal circling. Cloud flying. Defects.	
FLYING - (2) AIR TRAFFIC RULES.....	14
Aircraft equipment. Types of airspace. Visual and instrument flight rules. Quadrantal rule.	
Low flying. Aerodromes.	
7 INSTRUCTION AND PASSENGER CARRYING	21
CFI responsibility and status. Logging of flight time. Aerobatic training.	
8 MOTOR GLIDERS.....	22
Definition of a motor glider. Categories of motor gliders.	
9 ACCIDENTS	23
Reporting requirements. Telephone numbers. Incidents.	
10 RADIO.....	24
Requirements and licences. Call signs and procedures. Glider frequencies. Set specification.	
11 TRAILER LAWS AND RULES AS APPLICABLE TO GLIDER TRAILERS.....	27
Towing. Driving licence. Driving regulations. Good practice. Insurance. Towing abroad.	
Construction and lighting.	
12 CIVIL AVIATION AUTHORITY	38
UK PPL. NPPL.	
PART 2 BGA STANDARDS.....	39
13 BGA CERTIFICATES OF AIRWORTHINESS.....	39
14 EASA CERTIFICATE OF AIRWORTHINESS AND THE AIRWORTHINESS REVIEW CERTIFICATE	39
15 BGA AUTHORISED GLIDER INSPECTORS.....	39
16 BGA MEDICAL REQUIREMENTS	40
17 INSTRUCTOR RATINGS AND ENDORSEMENTS.....	46
18 OFFICIAL OBSERVERS	51
19 THE GLIDING CERTIFICATE	51
20 COMPETITIONS.....	55
PART 3 RECOMMENDED PRACTICES	56
PART 4 CODES OF PRACTICE.....	64
CONVERSION TABLES	73
AERODROME SIGNALS.....	74

LAWS and RULES

THE BRITISH GLIDING ASSOCIATION

The BGA is the national authority for sporting gliding in the United Kingdom under delegation from the Royal Aero Club which in turn is a member of the Federation Aeronautique Internationale (FAI). The BGA operates through an elected Executive Committee, specialist sub-committees and a small professional staff.

- **BGA SUB-COMMITTEES**

- - Airspace
 - Communications and Marketing
 - Competitions and Awards
 - Development
 - Instructors
 - Safety
 - Staff and Administration
 - Financial Advisory
 - Technical

LAWS and RULES

PREFACE

This booklet contains that part of aviation law which concerns every glider pilot. It also sets out the Operational Regulations of the BGA, these being mandatory for all members and member clubs of the BGA. In addition, Recommended Practices and Codes of Practice are described; while these are not mandatory, a prudent pilot would do well to observe them.

- The intention is to provide in one straightforward document all the relevant information. It should be stressed, however, that whilst every care has been taken in its preparation, only the appropriate statutes and statutory instruments have full legal significance. The Air Navigation Order, 2005 (Statutory Instrument 2005, No 1970, as amended) (ANO) and the Rules of the Air Regulations, 2007 (Statutory Instrument 2007, No 734) are updated periodically and consolidated every five years or so.
- Printed copies of Statutory Instruments are available from The Stationery Office (TSO), see web site <http://www.tso.co.uk/> and may be viewed on the Office of Public Sector Information web site <http://www.opsi.gov.uk/> and in certain libraries.
- The Civil Aviation Authority (CAA) also publishes CAP 393: "The Order and the Regulations" which incorporates "The Air Navigation Order" and "The Rules of The Air Regulations" which is also available in printed format from TSO or can be viewed and downloaded from the CAA web site at <http://www.caa.co.uk/cap393>

Additional information and rules concerning licensing and operational safety is contained in the CAA publication, LASORS (Licensing, Administration, and Standardisation; Operating Requirements and Safety). LASORS is updated on a regular basis. At the date of publication of this 16th edition of Laws and Rules, the current edition of LASORS is the 2008 edition. LASORS is available in printed format from TSO; a PDF can be downloaded from the CAA web site at from [http://www.caa.co.uk/docs/33/LASORS2008%20\(Bookmarked\).pdf](http://www.caa.co.uk/docs/33/LASORS2008%20(Bookmarked).pdf). Individual sections can also be viewed at <http://www.caa.co.uk/LASORS>

Within the lifetime of this edition of Laws and Rules, elements of EU Regulations affecting airworthiness and maintenance of gliders, and pilot qualifications, which are under development at the time of publication, may become effective and apply to BGA gliders and glider pilots. All pilots and owners are recommended to check the current situation with the BGA from time to time. Details will be made available on the BGA website (www.gliding.co.uk) as appropriate.

Inclusions and alterations to this updated edition (compared to Edition 15, April 2005) are marked ●

Minor wording changes, renumbering and alterations only to the Act in which the Law is specified, e.g. ANO 2005 replacing ANO 2000, are generally not marked unless there is also an addition, deletion or alteration in sense compared with the previous edition of this booklet.

Gender: All references in the text to "he/him/his" shall mean "she/her/hers" where applicable.

PART 1

LAWS AND RULES

1 GENERAL

THE LAW

● 1.1 REGISTRATION AND CERTIFICATION

EASA regulations concerning the registration and certification of aircraft, including gliders and self-sustaining sailplanes (turbos) became law on 28th September, 2003. UK gliders currently fall into one of two categories:

ANO 2005
Art 3
Art 4

- (i) EASA gliders
- (ii) Annex II gliders

EASA Gliders

The glider must have a UK registration (G-xxxx). For details of registration and marking of gliders refer to CAP523, available on the CAA web site at www.caa.co.uk/cap523.

The registered owner of any UK registered EASA glider must keep the CAA informed of any changes to the registration details, including change of ownership. The CAA Aircraft Registration Section is at The Aircraft Registration Section can be contacted at :

CAA House
45-59 Kingsway
London WC2B 6TE

Telephone 020 7453 6666 Email aircraft.reg@srg.caa.co.uk

EASA gliders will be transferred from BGA C of A status to EASA C of A status by application. Refer to the BGA for detail. As EASA gliders, they will be subject to EASA continuing airworthiness procedures, as described within BGA EASA aircraft continuing airworthiness approvals.

Annex II Gliders

A small number of glider types are permanently exempted from the new regulations. These will continue to be required to comply with existing National requirements. In other words, BGA Annex II gliders continue to comply with the established BGA C of A process.

- 1.2 Nothing shall be dropped from a glider, other than persons by parachute in an emergency, articles for the purpose of saving life, ballast in the form of fine sand or water, or tow ropes at an aerodrome (see para.4.15).

ANO 2005
Art 66,67

LAWS and RULES

- | | | |
|-------|--|--|
| 1.3 | No person may fly or be carried except in that part of the aircraft designed for the purpose; nor recklessly or negligently act in a manner likely to endanger the aircraft or cause the aircraft to endanger any person or property or be a stowaway. Dangerous goods may not be carried. | ANO 2005
Art 70, 71,
73,74,78,79 |
| 1.4 | "Night" starts half-an-hour after sunset and ends half-an-hour before sunrise, determined on the ground. | ANO 2005
Art 155 |
| 1.5 | A glider is defined as being in flight from the time when it first moves in order to take off, until it next comes to rest after landing. | ANO 2005
Art 155 |
| ● 1.6 | Every member of the flight crew of an aircraft registered in the United Kingdom shall keep a personal log book in which the following particulars shall be recorded:

(a) the name and address of the holder of the log book
(b) particulars of the holder's licence (if any) to act as a member of the flight crew
(c) the name and address of his employer (if any)

Particulars of each flight shall be recorded at the end of each flight or as soon thereafter as is reasonable practicable, including:

(a) the date, the places at which the holder embarked on and disembarked from the aircraft
(b) the type and registration marks of the aircraft
(c) the capacity in which the holder acted in flight
(d) particulars of any special conditions under which the flight was conducted
(e) particulars of any test or examination undertaken whilst in flight. | ANO 2005
Art 35 |

OPERATIONAL REGULATIONS

- 1.7 All club local regulations, in addition to the BGA Operational Regulations but not in place of or contrary to them, must be posted in a visible place in the club premises.
- 1.8 All clubs shall compile and keep such log books and flight time sheets as enable an accurate record of the club's flying operations to be kept.
- 1.9 Aircraft and gliders are required to comply with both EC Regulations and BGA Operating Regulations. EC Regulation 785 requires aircraft and gliders to be covered by third party insurance, full details of which are in the regulation. All gliders shall be covered by insurance for at least the minimum amounts that shall be decided from time to time by the BGA Executive Committee. These insurances shall be extended to cover the legal liability of the pilot while flying or otherwise operating the aircraft and the legal liability of the individual members of the insured club / syndicate to each other. At the time of publication, the minimum specified third party insurance including EC mandatory third party insurance requirements is:

LAWS and RULES

Single seat	£1,000,000 third party
Single seat, 500kg MTOM and above	£1,300,000 third party
Two seat combined policy of	£2,000,000 third party and
second seat with minimum 'passenger' seat allocation of	100,000 SDR
(equivalent to approximately	£85,000)

- 1.10 All gliders must have BGA approved identification markings displayed as large as practicable on each side of the fin and/or rudder (if not possible, on the fuselage) in a substantially vertical plane. All BGA certified gliders must have the BGA certification number displayed on at least one side of the aircraft. The number should be on the fin or fuselage in 20mm high characters in a contrasting colour. The preferred format is "BGA 9999".
- 1.11 All clubs shall allow site visits by BGA officials for safety and regulatory checks on their operations.
- 1.12 All clubs on admission to membership agree to accept and comply with the BGA regulations and, if found to be in breach, may face disciplinary action, including expulsion, as deemed appropriate by the Executive Committee.

2 QUALIFICATIONS AND LICENCES

THE LAW

- | | | |
|--|--|---|
| 2.1 | A person under the age of 16 years shall not act as pilot in command of a glider | ANO 2005
Art 37 |
| 2.2 | A person may act as a flight radiotelephony operator without holding an 'appropriate licence' as the pilot of a glider, not flying for the purpose of public transport or aerial work, if he/she does not communicate by radiotelephony with any Air Traffic Control Unit. | ANO 2005
Art 26
para
(2)(a)(i) |
| Note: An 'appropriate licence' in this context means a Flight Radiotelephony Operator's Licence which may be issued as a stand-alone licence, or in conjunction with a flight crew licence. Further information may be found in 'LASORS' Section B1 'Flight Radio Telephony Operator's Licence' on the CAA web site at http://www.caa.co.uk/LASORS | | |
| 2.3 | The holder of a Commercial Pilots' Licence (CPL) may not tow gliders for hire or reward unless he holds a Glider Towing Rating. The holder of a Private Pilots' Licence (PPL) or National Private Pilots' Licence (NPPL) may not tow for hire and reward. | ANO 2005
Part 5
Art 63 |

LAWS and RULES

OPERATIONAL REGULATIONS

- 2.4 The pilot in charge of a glider may not deliberately undertake a cross-country flight unless he holds a Bronze Badge with cross-country endorsement or higher qualification and carries with him maps marked clearly with the controlled and regulated airspace. (Refer page 14, Air Traffic Rules 6.17; page 52 Bronze Badge, 19.11; and page 53 Cross-Country Endorsement, 19.12).
- 2.5 Before flying in a glider a pupil is required to sign a declaration of physical fitness. Before starting to fly solo, the current NPPL Declaration of Medical Fitness to Fly must be endorsed by a General Practitioner with access to the pilot's medical records. Exemption exists for pilots holding a current JAA Class 2 Medical Certificate, Private or Commercial Pilot's licence, or equivalent Service Medical Certificate. Refer to Section 16, BGA Medical Requirements.

3 AIRWORTHINESS

THE LAW

- 3.1 All EASA gliders and motor gliders are required to have an EASA C of A with a valid Airworthiness Review Certificate (ARC). ANO 2005 Art 8

OPERATIONAL REGULATIONS

- 3.2 All gliders and motor gliders flying at BGA Club sites shall possess one of the following which shall be valid:
 - (a) EASA C of A with ARC or Permit to Fly
 - (b) BGA C of A or Permit to Fly, with card displayed in the cockpit;
 - (c) Equivalent service document;
 - (d) Equivalent service or civilian document for visiting aircraft from abroad.
- 3.3 The BGA requires that details of all modifications, repairs, replacements and inspections shall be entered without delay in the glider log book. Details of all major repairs and major modifications shall be forwarded to the BGA. Airworthiness Directives and Mandatory Inspections shall be complied with.
- 3.4 All gliders operated from BGA club sites shall be inspected before flying on each day. Club gliders shall be inspected by club approved persons who must sign that the glider is serviceable before it is flown on that day.
- 3.5 Except as otherwise permitted by the BGA Technical Committee, all gliders launched by winch, reverse pulley or auto tow shall be fitted with serviceable, automatic, back-releasing hooks.

Refer page 39, BGA C of A, EASA C of A and ARC, and BGA Authorised Glider Inspectors; Recommended Practices; page 58, RP20, Aerobatics.

LAWS and RULES

4 LAUNCHING - (1) WIRE LAUNCHING

THE LAW

- 4.1 A glider shall not be launched by winch and cable or by ground tow to a height of more than 60 metres above ground level, without the permission in writing of the Authority (CAA) and in accordance with any conditions in that permission. ANO 2005 Art 97

OPERATIONAL REGULATIONS

- 4.2 All equipment used for launching, including the wire, rope or cable, must have been inspected and approved as serviceable each day before being used. Winches and tow-cars shall, as a minimum, be checked for sufficient fuel, oil and water for the proposed launches and for serviceability of the cable cutting or releasing mechanism.
- 4.3 A weak link, not exceeding the breaking load approved by the manufacturer of the glider or the figure which is approved by the BGA Technical Committee shall be used on every winch or auto-tow launch except where the cable strength itself is below that figure. In the case of an aerotow, the breaking load of the weak link shall be determined by the flight manual of the tug aircraft or glider, whichever is the lower.
- 4.4 The glider end of all launching cables must be fitted with linked rings designed to fit the release mechanism of the glider. Distorted or cracked rings may not be used.
- 4.5 To ensure that the winch or car driver can see clearly when the cable is released, the glider end of the cable must be made visible by a flag, parachute or similar device. A suitable length of rope or cable must be inserted between the parachute and the release linked rings.
- 4.6 While work is being carried out on the cable, the winch engine should not be run, nor should any return mechanism be used unless additional safety measures are in place to prevent injury.
- 4.7 If the cable runs are nearer to each other than 60 metres:
a) Only one glider may be attached to a cable at any one time
b) After every launch the cable used must be drawn in to the winch before another cable is used.

Refer Recommended Practices, page 56, RP6-RP9, Car and Winch Launching; page 57, RP10-RP11, Signals.

- 4.8 All winches must be fitted with approved cable cutting guillotines

Refer BGA Winch Operators' Manual.

LAWS and RULES

LAUNCHING - (2) AERO-TOWING

THE LAW

- | | | |
|------|--|------------------------------|
| 4.9 | The Certificate of Airworthiness or Permit to Fly and / or the Flight Manual of the specific tug aircraft shall be endorsed for glider towing. (See also para. 2.3 and BGA Aerotowing Guidance Notes which includes glider types by groups, as agreed with the CAA.) | ANO 2005
Art 63 |
| 4.10 | The total length of the combination from nose of tug to tail of glider shall not, in flight, exceed 150 metres. | ANO 2005
Art 63 |
| 4.11 | The tug pilot is responsible for ensuring before take off, that the tow rope is suitable and serviceable, that the proposed flight can be safely made by the combination and that adequate signals have been agreed and can be made between the pilots and between the pilots and the ground crews, including emergency signals ordering the glider pilot to release, or informing the tug pilot that the glider cannot release (see paras.5.8-5.10). Also, the weight of the glider must not exceed that laid down for the tug aircraft (normally in the flight manual which forms part of the CofA). | ANO 2005
Art 63 |
| 4.12 | The commander of an aircraft (registered in the UK) shall satisfy himself before take off that the flight can be safely made, that the aircraft and its equipment are fit for use, that a certificate of maintenance review is in force where applicable, or that the aircraft has been maintained in accordance with its certification, that the aircraft is correctly loaded and carries sufficient fuel and oil. | ANO 2005
Art 14,52 |
| 4.13 | The glider shall be attached to the tug by means of the tow rope before the tug takes off. | ANO 2005
Art 63 |
| 4.14 | For the purpose of avoiding collision, the tug and glider shall be regarded as a single aircraft under the command of the tug pilot | SI 2007
No 734
Rule 8 |
| 4.15 | On airfields, tow ropes shall be dropped only in the area designated and in the direction of landing, unless agreed otherwise with Air Traffic Control or the person in charge of the aerodrome. | SI 2007
No 734
Rule 44 |

SI 2007, No 734 is the Rules of the Air Regulations, 2007.

OPERATIONAL REGULATIONS

- | | | |
|------|---|--|
| 4.16 | The sum of the tows made by the tug pilot and the glider pilot, in their respective capacities, shall not be less than six. | |
| 4.17 | It is the responsibility of the tug pilot to ensure visually that the glider is, in fact, released. | |

LAWS and RULES

- 4.18 An aerotow rope or weak link, if fitted, shall have a strength determined by the flight manual of the tug aircraft, or the breaking load approved by the manufacturer of the glider or the BGA, whichever is the lower. Refer Recommended Practices, page 57, RP12-RP13, Aero-towing.

5 SIGNALS

THE LAW

5.1 LIGHTS AND PYROTECHNIC SIGNALS

SI 2007
No 734
Rule 61

Character and colour of light or pyrotechnic	To an aircraft in flight	To an aircraft or vehicle on the Airfield
Continuous red light	Give way to other aircraft and continue circling	Stop
Red pyrotechnic light or red flare	Do not land; wait for permission	
Red flashes	Do not land; aerodrome not available for landing	Move clear of the landing area
Green flashes	Return to aerodrome; wait for permission to land	You may move on manoeuvring area
Continuous green light	You may land	You may takeoff (not applicable to a vehicle)
White flashes	Land at this aerodrome after receiving continuous green light and then, after receiving green flashes, proceed to the apron.	Return to starting point on the aerodrome.

- 5.2 No signal shall be made which is known as a signal in use, or which can be confused with any signal in these rules.

SI 2007
No 734
Rule 3

- 5.3 Airfield signals and marking: information is on page 75.

SI 2007
No 734
Rules 56-61

- 5.4 At night a glider shall display either a steady red light of at least 5 candela showing in all directions or alternatively, standard red, green and white aeroplane lights.

SI 2007
No 734
Rule 50

LAWS and RULES

OPERATIONAL REGULATIONS

- 5.5 An adequate system of communication must exist between the person in charge of launching and the winch or tow-car driver or tug pilot.
- 5.6 One of the following procedures must be used for all launches, other than bungee launches, unless a serviceable telephone or radio system is installed between the person in charge of the glider end of the cable and the winch or car driver or tug pilot.
- ONE BAT METHOD - Bats to be easily visible at the distance required:
- (a) Take up slack, take off path being clear: One bat moved to and fro in front of the body.
 - (b) All out: One bat moved to and fro above the head.
 - (c) Stop: One bat held stationary, vertically above the head.
- TWO BAT METHOD -
- (a) Take up slack, take off path being clear: One bat moved up and down
 - (b) All out: Two bats moved up and down.
 - (c) Stop: Two bats held vertically above the head.
- LIGHT METHOD –
- (a) Take up slack, take off path being clear: Dashes of one second duration and three seconds interval.
 - (b) All out: Quick dots at one second interval.
 - (c) Stop: Steady light. Light may not be red or green.
- 5.7 When telephonic or radio signalling is used, means must exist for an emergency stop signal which can be received, notwithstanding the noise of the engine.
- 5.8 When aero-towing, the order of the tug pilot to the glider pilot to release shall be the rocking of the tug laterally. This order must be obeyed immediately.
- 5.9 The signal by the glider that he is unable to release shall be that he flies out to the left side of the tug as far as is practicable and rocks the glider laterally. Refer Recommended Practices, page 57, RP10-RP11 Signals.
- 5.10 When aero-towing, the tug pilot shall indicate that the glider's airbrakes are open (or that the glider's drogue parachute is deployed) by wagging the rudder.

LAWS and RULES

6 FLYING - (1) GENERAL

THE LAW

- | | | |
|-----|--|--|
| 6.1 | A glider shall not be operated in a negligent or reckless manner so as to endanger life or property, nor flown in such proximity to another so as to create danger of collision, nor in formation without prior agreement of the pilots. | ANO 2005
Art 74 and
SI2007
No 734
Rule 8 |
| 6.2 | A pilot on meeting hazardous conditions in flight shall, as soon as possible, report to the appropriate air traffic control unit, information helpful to the safety of other aircraft. | SI2007
No 734
Rule 4 |
| 6.3 | The aircraft which has right of way shall maintain its course and speed, according to the following rules: | SI2007
No 734
Rule 8 |
| | (a) Converging. When two aircraft are converging at approximately the same altitude, the aircraft which has the other on its right shall give way. | Rule 9 |
| | (b) Head-on. When two aircraft are approaching each other head-on, or approximately so, each shall alter course to its right. | Rule 10 |
| | (c) Overtaking. Overtaking aircraft shall at all times keep out of the way of the aircraft which is being overtaken, by altering course to the right, provided that a glider overtaking another glider in the UK may alter its course to the right or to the left | Rule 11 |
| 6.4 | Whereas flying machines (aeroplanes) shall when converging give way to aero-tows and gliders and gliders shall give way to balloons, it is nevertheless the responsibility of all pilots at all times, to take all possible measures to avoid collision. | SI2007
No 734
Rule 8 |
| 6.5 | When landing, the lower aircraft has right of way but may not cut in front of another which is on the final approach, nor overtake that aircraft. If the pilot is aware that the other aircraft is making an emergency landing he shall give way to it. | SI2007
No 734
Rules
13,14 |
| 6.6 | Aerobatics are prohibited over congested or urban areas or within controlled airspace without the consent of the appropriate air traffic control unit. | SI2007
No 734
Rule 15 |
| 6.7 | Aircraft following roads, railways or other lines of landmarks in the UK shall keep such landmarks on their left. | SI2007
No 734
Rule 16 |
| 6.8 | Pilots must take all reasonable steps to ensure that oxygen is used during any period when the glider is flying above Flight Level 100 | ANO 2005
Art 54 |

LAWS and RULES

OPERATIONAL REGULATIONS

- 6.9 A person may not be flown in a glider owned or operated by a BGA club unless he becomes a member of that club.
- 6.10 No persons may fly in a glider unless they have individual cockpit harness which is kept fastened throughout the flight.
- 6.11 A glider joining another in a thermal shall circle in the same direction as that established by the first.
- 6.12 No glider shall enter cloud within a radius of 5 nautical miles of a gliding site, except from at least 200 feet from below the lowest part of the cloud.
- 6.13 No glider shall enter cloud unless all its occupants are wearing parachutes and have been instructed in their use.
- 6.14 Any newly-rigged BGA club aircraft or any BGA club glider which has been subject to adjustment or repair since its last flight, must be first flown by a pilot approved by the CFI or his deputy for that purpose.
- 6.15 The launching cable must not be attached to the glider until the pilot is ready to be launched, and the launching signals must not commence until the projected take-off path is clear.
- 6.16 Pilots must report any suspected defects or heavy landings to the instructor in charge before the glider is flown again.

Refer Recommended Practices, page 58, RP18-RP20 Aerobatics; page 58, RP21-RP24 Safe Soaring; page 60, RP30 Ice on Wings; page 60, RP31 Oxygen; page 62, RP35 First Aid; page 62, RP36, Firefighting.

LAWS and RULES

FLYING - (2) AIR TRAFFIC RULES

THE LAW

- 6.17 **Aircraft Equipment.** A glider shall be provided with 'adequate equipment' which includes maps, charts etc. necessary for the intended flight, including any diversion which may reasonably be expected.

ANO 2005
Art 19 and
Sched 4

Note: The above is an extract from the ANO covering only the most simple cases of glider flight (private flight and club instruction, by day). There are other requirements for aerial work or night flying for which the whole schedule should be consulted. The requirement for maps is commonly interpreted as being necessary for any glider flight more than 5 nautical miles from the gliding site.

- 6.18 **Definitions and classification of airspace.** The top and bottom limits of controlled airspace are given:
either (a) as heights in feet above sea level (eg. 2,500 ft). This applies to all heights at 3,000ft and below and to some of greater height;
or (b) as flight levels (FL). These are pressure levels and are defined as reading in hundreds of feet of a serviceable altimeter set to 1013.2 Hectopascals or millibars (units of identical magnitude). For example, an aircraft whose altimeter is reading 5,500ft on a pressure setting of 1013.2 will be at FL55.

UK airspace up to FL195 is divided into Flight Information Regions (FIRs) for administrative purposes and above the FIRs are the Upper FIRs (UIRs). Within the FIR and UIR the airspace is further divided into seven classifications, A,B,C,D,E, F and G which comply with ICAO (International Civil Aviation Organisation) standards (subject to certain differences which are noted in the UK AIP (Air Pilot), including definitions of special Visual Flight Rules (VFR) flight, Visual Flight Rules etc.). Airspace classified as A, B, C, D and E is Controlled Airspace. The ICAO classifications were introduced on 14th November 1991 and replaced previous UK designations (as noted below).

Each class may contain one or more of the following:

- **Airways.** Airspace in the form of a corridor, typically 10 nautical miles wide, although some are now 22 miles wide. Permanent IFR applies. No airways may be crossed by gliders, unless special exemptions are in force.

Temporary Class A airspace of short duration can be established for the purposes of safeguarding Royal aircraft, and its airspace must not be entered(previously known as Purple airspace/airway.)

Control Zones (abbreviated to CTR). These extend from the ground to a specified height. A Class A CTR (eg London Heathrow) must not be entered by a glider. Others may only be entered with clearance from Air Traffic Control.

LAWS and RULES

Control Areas (abbreviated to CTA). Some are referred to as Terminal Manoeuvring Areas or Terminal Control Areas (both abbreviated to TMA). Airspace similar to control zones, but which starts at a specified height above the ground and has an upper limit. Those in Class A must never be entered by a glider (except where special arrangements have been made, e.g. some formal Letters of Agreement provide limited access for certain gliding clubs).

Class A Controlled Airspace over the UK mainland includes the following:

All airways; London Control Zone (London CTR, i.e. Heathrow); London TMA (LTMA); Manchester Terminal Control Area (Manchester TMA); Daventry Control Area (Daventry CTA); Worthing Control Area (Worthing CTA); Cotswold CTA.

As from November 6, 1997, NO airways may be crossed by gliders. However there are agreements with Scottish clubs and the Derbyshire and Lancashire club for crossing certain sections of airways to assist their particular activity. Specific briefing by the CFI must be given before a pilot may undertake such a crossing.

- **Class B Controlled Airspace.** There is currently no Class B Controlled Airspace in the UK
- **Class C Controlled Airspace.** The entire airspace over the UK above FL195 is Class C Controlled Airspace. Gliders are no longer allowed to fly in this airspace without restriction. Specified areas have been agreed that can be activated by clubs using the procedure for glider operations in TRA(G). Refer to BGA website (www.gliding.co.uk/airspace) for local details.

Class D Controlled Airspace. Formerly Special Rules Airspace. All Class D airspace now requires an ATC clearance to enter and transit this airspace. Pilots will also be flying in VMC conditions. Any pilot wishing to enter it must:

- (i) contact the ATC unit and pass details of the aircraft's position, level and proposed track,
- (ii) obtain entry clearance
- (iii) listen out on the frequency whilst in that airspace
- (iv) comply with ATC instructions.

SI2007
No 734
Rules
27,29,30,31

The above rules apply to gliders in all Class D Areas:

Aberdeen CTR / CTA, Belfast CTR, Belfast City CTR/CTA, Birmingham CTR/CTA, Bournemouth CTR, Bristol CTR/CTA, Brize Norton CTR, Cardiff CTR/CTA, East Midlands CTR/CTA, Edinburgh CTR, Glasgow CTR, Leeds/Bradford CTR/CTA, Liverpool CTR, Lyneham CTR/CTA, London Gatwick CTR/CTA, London Stansted CTR/CTA, London City CTR, London Luton CTR/CTA, Manchester CTR/CTA, Newcastle CTR/CTA, Scottish TMA, Solent CTA, Southampton CTR/CTA, Teeside CTR/CTA.

There is a form to complete after flying through Class D airspace to

LAWS and RULES

provide statistics for both the BGA and the CAA. The form can be downloaded from the BGA web site (www.gliding.co.uk).

(See BGA Code of Conduct for Glider Flights through Class D Airspace, page 65)

- **Class E airspace.** Belfast Terminal Control Area and an area in the Scottish TMA to the north west of Glasgow. Any aircraft including gliders may fly in this airspace in VMC without Air Traffic Control clearance.

Class F airspace. All Advisory Routes (ADRs) within the UK FIR are Class F Airspace. Gliders may cross without restriction (but caution should be exercised).

Class G airspace. This comprises all UK airspace not covered by Classes A to F. (This was formerly known as 'Open FIR'.)

Since the publication of Edition 15 (April 2005) of Laws and Rules, there have been further comprehensive airspace changes. These have been described in the April/May 2006, 2007 and 2008 editions of Sailplane & Gliding and are detailed in the latest CAA aeronautical charts.

Other airspace types have not been included in the ICAO classifications. These include Aerodrome Traffic Zones (ATZs), Military Aerodrome Traffic Zones (MATZs), Danger, Prohibited and Restricted Areas, Radar Advisory Service Areas, AIAAs.

ATZ (Aerodrome Traffic Zone) of an airfield is the airspace from the surface up to 2,000 feet above it, and within 2 nautical miles (NM) radius from the mid-point of the longest runway, if that runway is 1,850 metres or less. For longer runways, the radius of the zone is 2.5 NM. Generally, all Government Aerodromes are notified for this purpose.

ATZs adopt the class of the airspace in which they are located. An aircraft shall not fly, take off or land in an ATZ without:
either permission from air traffic control if the airfield has ATC;
or satisfactory information from the aerodrome flight information unit or from the air / ground radio station, from which the pilot may judge whether it is safe to fly within the ATZ, where the aerodrome has Aerodrome Flight Information Service (AFIS) or Air / Ground (A/G) radio only.

MATZs (Military Aerodrome Traffic Zones) have rules (normally SFC to 3,000 ft. AAL in circle; 1,000-3,000 ft. AAL in stub) but these are not compulsory for civil aircraft – though care should be taken, particularly when crossing the extended centre line of the runway. An ATZ exists within a MATZ. Although civil recognition of a MATZ is not mandatory, pilots are to comply with the current Rules of the Air Regulations in respect of the ATZ. The notified hours of such an ATZ may vary from the notified hours of watch of the MATZ. Refer UK Air Pilot RAC Section 5 and supplements for details.

- 6.19 **Airspace Restrictions.** Flight within certain defined areas is prohibited. Included are atomic energy establishments, certain prisons,

military establishments etc. Refer UK Air Pilot RAC Section 5 and supplements for details.

Conditions hazardous to flight may exist within Danger Areas, Areas of Intense Air Activity, High Intensity Radio Transmission Areas, etc. For details again refer U.K. Air Pilot, R.A.C. Section 5. Charts of UK Airspace Restrictions and Hazardous Areas and UK Areas of Intense Air Activity, Aerial Tactics Areas and Military Low Flying System are available from AFE Ltd, 1a Ringway Trading Estate, Manchester M22 5LH. They are also available free to subscribers of the UK Air Pilot.

Unauthorised entry into many Danger Areas is prohibited within the Period of Activity as listed in UKAIP RAC 5-3, by reason of Byelaws made under the Military Lands Act 1982 and associated legislation. It is illegal as well as unwise to contravene these. They are also annotated on 1: 500,000 aeronautical charts. (Only those Danger Areas with upper limits exceeding 500 feet above ground level are listed in UKAIP – pilots should satisfy themselves that they are clear of firing ranges etc. if flying at or below 500 feet.)

- 6.20 **Visual Flight Rules (VFR).** Under VFR, a pilot is responsible for avoiding collision with other aircraft and for the safe conduct of his flight generally. Visual Meteorological Conditions (VMC) are weather conditions such that flight may be conducted in accordance with VFR. Aircraft which cannot comply with VFR automatically come under Instrument Flight Rules (IFR) and Instrument Meteorological Conditions (IMC) are weather conditions in which it is not possible to comply with VFR.

The chart on the following page shows clearly the meteorological conditions for VFR flying in all UK airspace classifications, both controlled and uncontrolled airspace. It also indicates the ATC service that can be provided and whether a clearance is required.

The airspace classification chart is available at
<http://www.caa.co.uk/docs/64/ATS%20Airspace%20Classification.pdf>

LAWS and RULES

- 6.21 **Instrument Flight Rules (IFR).** In IMC conditions outside controlled airspace above 3,000 feet amsl, power aircraft can expect to be flying according to the quadrantal height rule. This requires that aircraft flying on the magnetic tracks shown below shall maintain their indication shown against these tracks with the altimeter set to 1013.2 millibars:
- SI2007
No 734
Rules
32-37

Less than 90 degrees	odd '000s of feet	(eg FL 90)
90 but less than 180 degrees	odd '000s + 500 feet	(eg FL135)
180 but less than 270 degrees	even '000s of feet	(eg FL 80)
270 but less than 360 degrees	even '000s + 500 feet	(eg FL 125)

From 19,500 feet (FL 195) upwards, different rules apply. (Note: since gliders are always either climbing or descending and never in steady level cruising flight the “quadrantal rule” is irrelevant to them. There are therefore no special rules for IFR flight by gliders outside Controlled Airspace at **any** height except for minimum height specified in Rule 33 (an aircraft shall not fly at a height of less than 1,000 feet above the highest obstacle for 5 nautical miles, unless necessary for taking off / landing, or on a notified route for this purpose, or cleared by a competent authority, or flying at an altitude not exceeding 3,000 feet amsl and clear of cloud and in sight of the surface). Collision avoidance is solely by see-and-avoid and random separation.

SI2007
No 734
Rule 33

In controlled airspace, glider flight in IMC is forbidden without clearance from the appropriate ATC authority, unless specific exemptions are notified.

- 6.22 **Low Flying.** A glider shall not fly over any congested area below 1,000 feet above the congested area or the highest fixed object within a horizontal radius of 600 metres of the aircraft, whichever is the higher. Nor shall it fly over or within 3,000 feet of any open-air assembly of more than 1,000 persons (without specific CAA permission).
- SI2007
No 734
Rule 5

Exemption to the 1,000 foot rule exists for hill soaring, for normal take-off or landing at licensed airfields and for life saving.

A glider shall not fly closer to any person, vessel, vehicle or structure than 500 feet, except with the permission in writing of the Authority.

Exemption to the 500 foot rule exists for hill soaring, for normal take-off and landing, and for life saving.

“Congested area” in relation to a city, town or settlement means any area which is substantially used for residential, industrial, commercial or recreational purposes

ANO 2005
Art 155

LAWS and RULES

- | | | |
|------|---|-----------------------------|
| 6.23 | While flying in the vicinity of an aerodrome, the pilot shall conform to the pattern of traffic formed by other aircraft intending to land, or keep clear of the airspace in which the pattern is formed and make all turns to the left unless ground signals indicate otherwise. | SI2007
No 734
Rule 12 |
| 6.24 | Aeroplanes and gliders must not land on a runway unless it is clear of other aircraft. When landings are not confined to a runway, aircraft landing shall leave clear on their left those which have already landed. | SI2007
No 734
Rule 14 |
| 6.25 | Persons or vehicles shall not go on to the manoeuvring area of a licensed airfield without the permission of the person in charge | SI2007
No 734
Rule 41 |

OPERATIONAL REGULATIONS

- 6.26 To ensure that all pilots can comply with the law, clubs must receive or have access to navigational information concerning temporary hazards and permanent changes. This information is to be made available to all pilots. Under Article 52 of the Air Navigation Order 2005, the pilot of an aircraft must satisfy himself that the flight can be safely made taking into account the latest information available as to the route and the aerodromes to be used.

*Note: At the date of publication the source of information is Temporary Navigation Warning Information Bulletins and NOTAMS Class Two (Supplements to the UK AIP).

A downloadable FIR brief is now available from the NATS website at www.ais.org.uk.

7 INSTRUCTION AND PASSENGER CARRYING

THE LAW

- 7.1 Simulated instrument flying may not be carried out unless the aircraft has dual controls and a safety pilot who has an adequate field of vision and is able to communicate with the pilot. SI2007 No 734 Rule 23

INSTRUCTOR RATINGS AND ENDORSEMENTS

- 7.2 For detailed specifications for all BGA instructor ratings refer to Part 2, section 17 or to the BGA website (www.gliding.co.uk).

OPERATIONAL REGULATIONS

- 7.3 The Chief Flying Instructor (CFI) shall have responsibility for all matters concerning gliding operations on or from the club site and no flying may take place without his authority. His decision in flying matters is final. He may appoint rated deputies to carry out his instructions if absent, but he remains responsible for all flying matters.
- 7.4 No instructor shall be the CFI of more than one BGA club, unless the clubs operate from the same site. (see RP37).
- 7.5 Before carrying a club member in a glider, the pilot in charge must be authorised by his CFI and hold a Bronze badge or higher certificate and have at least 50 hours P1 on gliders. To give trial lessons, the pilot must have a Basic Instructor rating or higher instructor rating. The pilot must be in current practice, be familiar with the type of glider and method of launch (see also 2.5 and 6.9)
- 7.6 The CFI of a BGA club which accepts any flying member whose experience as pilot in charge of gliders is less than 10 hours must hold a current Full Instructor Rating with a CFI Endorsement.
- 7.7 Instruction may only be given by instructors holding a current BGA Full, Assistant or Basic Instructor rating. A Basic Instructor may only carry out instructional flights under the supervision of an instructor with a higher rating.
- 7.8 CFIs and instructors in sole charge of ab-initio courses must hold a Full Rating. Holders of Assistant Ratings may instruct only as specifically authorised by the CFI. Professional instructors must hold at least an Assistant Rating.
- 7.9 All flying instruction shall be given in accordance with the BGA regulations and syllabus.
- 7.10 All glider pilots are required to keep an adequate record of their flying to prove that they meet, as appropriate, BGA requirements for training and solo flying and for the renewal of ratings. (See section 1.6 for general requirements for logging glider flying and section 8.3 for logging flying in motor gliders.)

LAWS and RULES

- 7.11 Training in full aerobatics, involving inverted flying, may be given only on a dual-control two-seater by an instructor holding an Aerobatics Instructor Rating. All gliders used for aerobatics training (excluding spinning) must be fitted with a serviceable accelerometer, visible to the instructor.

Refer page 46, section 17 Instructor Ratings and Endorsements; page 58, RP17; page 58, RP18-RP20, Aerobatics.

8 MOTOR GLIDERS

THE LAW

- 8.1 A motor glider or powered sailplane is an aeroplane equipped with one engine having, with engine inoperative, the characteristics of a glider (sailplane) and defined in Joint Airworthiness Requirements (JAR22) as follows:

Maximum AUW	850 kg
Engine	Single spark or compression ignition
Weight / span ² (W/b ²) (W in kg., b in metres)	Not greater than 3
Maximum seats	2

There are also design requirements relating to glide ratio, stall speed, climb rate etc.

- 8.2 Motor gliders are sub-categorised as:

(a) **Touring Motor Glider (TMG):** a motor glider with an integrally mounted, non-retractable engine capable of taking off under its own power as defined in JAR22.

(b) **Self Launching Sailplane (SLS):** a motor glider with fully or partially retractable engine or propeller, capable of take-off under its own power as defined in JAR22.

(c) **Self Sustaining Sailplane (SSS):** a motor glider with a fully or partially retractable engine or propeller, unable to take off under its own power or prohibited from taking off under its own power by flight manual limitation.

● (d) **Microlight Sailplane:** A microlight powered sailplane in the UK is one designed to carry not more than two persons which has a Maximum Total Weight Authorised (MTWA) not exceeding 300kg for a single seat landplane or 450kg for a two seat landplane and must also have either a wing loading at the maximum weight authorised not exceeding 25kg per square metre or a stalling speed at the maximum weight authorised not exceeding 35 knots calibrated speed.

- 8.3 All flying carried out in self-launching sailplanes and TMGs must be recorded in a log book. More information is in section 1.6
- ANO 2005
Art 35

OPERATIONAL REGULATIONS

- 8.4 As for gliders, where appropriate.

9 ACCIDENTS

THE LAW

- 9.1 An accident resulting in death, serious injury or substantial damage to an aircraft must be reported to the police and the DTI Air Accidents Investigation Branch and confirmed in writing. The aircraft must not be moved without the permission of the AAIB other than to extract persons or animals (or certain other goods e.g. valuables, mail etc.) to avoid damage by fire or danger to the public or others. SI1996 No 2798

OPERATIONAL REGULATIONS

- 9.2 All accidents and all incidents which might have caused injury to persons or damage to aircraft must be recorded on the form supplied by the BGA within one month of the occurrence. If the accident is of sufficient severity to be reported to the AAIB, the BGA must be informed of its occurrence within 24 hours.

The BGA telephone number is 0116 253 1051
The AAIB telephone number is 01252 512299.

- 9.3 An accident is an occurrence between the time any person boards an aircraft with the intention of flight and such time as all persons have disembarked therefrom whereby:

- (a) any person suffers death or injury while in or upon the aircraft or by direct contact with the aircraft or anything attached thereto or dropped therefrom; or
- (b) the aircraft receives damage; or
- (c) property is damaged by direct contact with the aircraft or anything attached thereto or dropped therefrom.

- 9.4 An incident is an occurrence where:

- (a) damage to the aircraft or injury to persons or property occurs in circumstances other than those detailed in 9.3 above, e.g. ground handling or rigging or for which there is no obvious explanation; or
- (b) there is no damage or injury but merely an incident, e.g. fouling of the cable with the glider during launch, wrong or mistaken signalling, inadequate daily inspection, near collision, etc.

Refer Recommended Practices, page 62, RP35, First Aid; page 62, RP36, Firefighting.

- 9.5 An engineering occurrence is a fault or defect found during maintenance or at other times, but NOT involving an accident or incident that should, in the opinion of the inspector and in the interests of safety, be reported.

- (a) Findings identified as engineering occurrences NOT involving an accident/incident may be reported on BGA 1022 report form.
- (b) The BGA 1022 report form may also be used to form the "Engineer's Report" as required to complement the BGA accident / incident report.

10 RADIO

THE LAW

- 10.1 Under the Wireless Telegraphy (WT) Act 2006 it is an offence to install or use radio transmission equipment without a licence. The Office of Communications (Ofcom) is responsible for managing that part of the radio spectrum used for civil purposes in the UK as set out in the Communications Act 2003 and has contracted the Civil Aviation Authority (CAA), Directorate of Airspace Policy (DAP) to administer WT Act radio licences for aircraft, aeronautical ground stations and navigation aids on their behalf. Wireless
Telegraphy
Act 2006

All radio transmitting equipment fitted or carried in a glider (see para 10.2), or used on the ground to transmit messages to equipment fitted to or carried in a glider (see para 10.3), is required to be issued with a WT Act radio licence.

- Application forms for aircraft and aeronautical (ground) stations can be found on the CAA website, together with additional information on aeronautical radio licensing, at <http://www.caa.co.uk/radiolicensing> (select "Application Forms" from left hand side menu), together with the Radio Licensing Section contact details which are also given below:

Radio Licensing Section
Directorate of Airspace Policy
CAA House
K6G6
45 – 59 Kingsway
London WC2B 6TE

Tel: 020 7453 6555 (9am to 5pm Mon–Fri excl public holidays)
Fax: 020 7453 6556
E mail: radio.licensing@caa.co.uk

- 10.2 **Aircraft Radio Licences.** These are available in three forms:

- an Aircraft licence to cover the use of aeronautical radio equipment in a UK registered aircraft;
- an Aircraft licence to cover unregistered aircraft not intended to fly outside the UK; and
- an Aircraft Transportable licence to cover the use of a handheld VHF radio with an integral antenna and power supply on multiple aircraft.

- NOTE: An Aircraft fixed radio licence authorises the use of Aeronautical VHF hand portable radio equipment operating in the frequency band 118 to 137 MHz on the specified aircraft as a back up to the fixed radio without the need for a separate Aircraft transportable licence.

To apply for an Aircraft licence, you should obtain and complete CAA

LAWS and RULES

Form DAP 1902 (ACT1) and return it to the Radio Licensing Section with the appropriate licence fee payment.

- 10.3 **Aeronautical (Ground) Station Licences.** An Aeronautical Ground Station licence is required for any radio equipment used on the ground. A handheld or portable radio used on the ground to communicate with equipment in a glider, even when it has been issued with an aircraft transportable licence for when the radio is carried in a glider, is required to be issued with an Aeronautical (Ground) Station Licence.

ANO 2005
Art 124

- 10.4 **CAA Approval for Aeronautical (Ground) Stations.** An application for the issue of a WT Act Licence (made on form SRG1417) constitutes application for an Approval issued under Article 124. Form SRG 1417 can be found on the CAA website at <http://www.caa.co.uk/srg1417>.

For further information and advice please contact the CAA, Air Traffic Standards Department, CNS/ATM Standards Section, whose details are given below:

CNS/ATM Standards
UK Civil Aviation Authority
ATS Floor 2W
Safety Regulation Group
Aviation House
Gatwick Airport South
West Sussex
RH6 0YR

Telephone 01293 573522 / 573025
Fax 01293 573974
E mail CNSATM.Approvals@caa.co.uk

- 10.5 **Airborne VHF Radio Equipment Approval.** The CAA website contains detailed information about aircraft equipment approvals at <http://www.caa.co.uk/aea>. The database of aircraft equipment approved under the British Civil Airworthiness Requirements (BCARs) can be searched directly from the same page (select "Search AEA System" from left hand side menu).

The European Aviation Safety Agency (EASA) website at http://www.easa.eu.int/home/c_etso.html contains details of JTSO (Joint Technical Standard Order) Authorisations issued by the Joint Aviation Authorities (JAA) prior to the 28th September 2003 which have been transferred to EASA and ETSO (European Technical Standard Order) Authorisations issued since 28th September 2003 by EASA, both of which include aircraft equipment which may not be included in the BCARs Aircraft Equipment Approvals database.

The CAA Directorate of Airspace Policy, Radio Licensing Section staff will check whether the radio equipment declared on application forms for an aircraft (WT Act) radio licence is approved.

- 10.6 **Ground VHF Radio Equipment Approval.** The radio equipment used in Aeronautical Ground Radio Stations is required to comply with the Radio and Telecommunications Terminal Equipment Directive (R&TTED) 1999/5/EC from the 20th October 2005.

The CAA, Air Traffic Services Standards Department, CNS/ATM Standards Section, Communications Systems Specialists will check whether the radio equipment declared on application forms for an aeronautical (ground) station (WT Act) radio licence is acceptable

- 10.7 **Radiotelephony Callsigns and Communication Procedures.** The International Civil Aviation Organization (ICAO) Annex 10 and the International Telecommunications Union (ITU) Radio Regulations form the basis for the regulation and usage of radiotelephony callsigns.

Aeronautical Ground Stations are only permitted to use the callsign specified on the Article 124 Approval for the radio equipment.

ICAO Annex 10, Vol II, chapter 5 and ITU Radio Regulations art 19

The guidance in CAP 413 Radiotelephony Manual should also be followed whenever practicable as it provides a compendium of clear, concise, standardised phraseology, and associated guidance, for radiotelephony communication in United Kingdom airspace.

- 10.8 The Civil Aviation Authority (CAA), Directorate of Airspace Policy has assigned frequencies exclusively for the purpose of communications between gliders and Aeronautical Ground Stations that are used principally to communicate with gliders within the U.K. These frequencies are assigned on a shared basis and are not afforded any protection against mutual interference. A summary is given below:

Aircraft / Aircraft (Transportable)
117.975-137.000 MHz

Aeronautical Ground Station (General Aviation)
129.900 MHz, 130.100 MHz, 130.125 MHz, 130.400 MHz (Glider Ground Station - Standard), 129.975 MHz, (Glider Ground Station - Common Field Frequency)

The use of these assigned frequencies is determined by the BGA in agreement with the CAA and details can be found in RP34.

Notes: The aeronautical ground station operator does not require a Radio Station Operator's Certificate of Competence, unless an Air Ground Communication Service or other Air Traffic Service is being provided.

In an emergency, a glider pilot may use the VHF Emergency Service frequency of 121.500MHz in accordance with the United Kingdom Radiotelephony Manual (CAP 413) Chapter 8 Emergency Phraseology without having to hold Flight Radiotelephony Operators Licence.

Wireless Telegraphy (Limitation of Number of Licences) Order 2003, SI 2003 No 1902 and The Wireless Telegraphy (Limitation of Number of Licences) (Amendment) Order 2006, SI2006 No2786

- 10.9 Refer Recommended Practices, page 60, RP32-RP34, Radio.

11 TRAILER LAWS AND RULES AS APPLICABLE TO GLIDER TRAILERS

INTRODUCTION

- This Guide is in two parts. The first explains how the law affects you when towing a trailer and the restrictions imposed by your driving licence, the towing vehicle and the various road traffic laws, both in the UK and, in brief, in continental Europe. It also covers insurance issues affecting you, the tow vehicle, the trailer and its contents.

The second part explains the law about how trailers must be constructed and the lighting regulations, together with some helpful advice on maintenance.

In both these areas the law is extremely complex. We have tried to present it as clearly as possible, but it is inevitable that care and concentration are necessary to understand adequately how it affects you. As a starting point, we strongly suggest that you obtain (see the definitions in A1b just below) the MAM of your tow vehicle and trailer.

Note: The construction and use of trailers is covered by the Road Vehicles (Construction and Use) Regulations 1986 and Road Vehicles Lighting Regulations 1989 as amended by over 100 UK amendments and EU Directives. In addition various Road Traffic Acts and Driving Licence Regulations add to the complexity. This abstract is of legislation relevant to glider trailers as at 1 November 2006, and it should not be assumed that it necessarily applies to other types of trailer.

SECTION A - TOWING A TRAILER

- 11.1 What the Various Terms Mean
 - a) All **measurements** are **metric**. **Weights** are given in kgs, where 1000 kgs is equal to 1 Metric Tonne (within 2% of an Imperial Ton). **Lengths** are in millimetres and metres.
 - b) For vehicles and **trailers**, the **Maximum Authorised Mass (MAM)** is the maximum loaded weight of the vehicle or trailer permitted by the manufacturer. For cars and commercial vehicles, it is given on the vehicle VIN Plate or in the Manual. For trailers it must be displayed on a marking plate affixed to the near side of the draw bar or A-frame.
(It is NOT the ACTUAL loaded weight of the vehicle or trailer that counts but the manufacturer's permitted maximum weight – i.e., the design maximum for the trailer and its load. Some trailers built for 15 metre single seat gliders have a MAM of less than 750, which is a key dividing point; many are over that value. Open class and two seat glider trailers all exceed 750 MAM.)
 - c) You may find reference in some documents to **GVW** (Gross Vehicle Weight) or to **MTPLM** (Maximum Technically Permitted Laden Mass). For all practical purposes these are the same as MAM.
 - d) The **Vehicle Unladen Weight (VUW)** is defined as the empty weight excluding fuel, water and loose tools and equipment. Remember that the addition of a tow bar will add significantly to the VUW.

- e) The **Kerb Weight** is NOT the same as the VUW. The Kerb Weight is usually given in the manual and is normally defined as the empty weight plus a full tank of fuel and 75Kgs allowance for the driver (but check as definitions do vary between manufacturers).
- f) The **Maximum Train Weight (MTW)** is the maximum allowed sum of the towing vehicle and trailer **actual** weights, defined by the tow vehicle manufacturer. It is defined on the tow Vehicle Identification Plate where specified. For cars, there will also be a defined maximum trailer actual weight.
- g) The **Maximum Combined Weight** is NOT the same as the MTW. It is the maximum sum of the MAM of the towing vehicle and the MAM of the trailer permitted by the driver's licence (i.e., it is defined by MAMs and not actual weights).
- h) The **length of a trailer** excludes the draw bar or A-frame; these are also excluded in defining the front of the trailer.

● 11.2 Driving Licence

- a) You must have a driving **licence valid for the tow combination**. **Do not assume** that this will be the case, especially if you qualified since 1.1.97 or are over 70.

Table 1 shows the entitlement conferred by the different categories shown on your Driving Licence. In summary, these categories are:

- A for Motorcycles
 - B for Cars
 - C for Goods Vehicles (C1 for Light Commercial Vehicles (LCV) and C for Large Goods Vehicles (LGV))
 - D for Buses (D1 for mini buses and D for coaches and large buses)
 - +E indicates a permitted trailer MAM in excess of 750 Kgs
- b) **Please note that it is the MAM that counts** for both tow vehicle and trailer and **NOT** their actual weight.
 - c) If you gained your **licence after 1.1.97**, you will have only B or B Auto entitlement and an extra test is required for all other categories.
 - d) ****IMPORTANT**** A category **B licence will be adequate** with many car and glider trailer combinations, using Option 2 which allows combinations of towing vehicle and trailer up to 3500 Kgs total MAM, where the MAM of the trailer does not exceed the unladen weight (VUW) of the towing vehicle. Option 1 allows for larger tow vehicles (up to 3500 MAM) but only with the lightest trailers (up to 750 MAM). **You are very likely to exceed the B licence limitations if:**
 - the trailer is built for an open class or two seat glider
 - the tow vehicle is a large car, SUV, van or motorcaravan and will require to upgrade to at least B+E.
 - e) If you gained your **licence prior to 1.1.97** you normally retain entitlement to B+E, C1, C1+E, D1 and D1+E, though with some changes to limits; if you still have the old style green licence, the categories shown are quite different but normally cover these same categories.
 - f) On **reaching age 70**, you lose all except B, B+E (and Auto) unless you obtain medical certification at three-yearly intervals. The requirement is the same as that for solo glider pilots (see Para 2.5), but must be submitted on DVLA Form D4.

LAWS and RULES

Table 1 - Driving Licence Limitations

Licence Class Held		Towing Vehicle	Trailer	Max Combination Weight ¹	Min Driver Age
B*, B Auto	Option 1 ⁵	Max 3500 MAM	Max 750 MAM	Max 4250 MAM	17
B*, B Auto	Option 2	Max 3500 MAM less trailer MAM	More than 750 if trailer MAM < tow VUW	Max 3500 MAM	17
New drivers after 1.1.97 must pass an extra test to get B+E, and all C, C1, D, D1 (+E) ratings below					
B+E ²		Max 3500 MAM	More than 750	No licence limits	17
C1 ^{2,4}		3500 to 7500 MAM	Max 750 MAM	Max 8250 MAM	18
C1+E ^{2,4}		3500 to 7500 MAM	Over 750 MAM if trailer MAM < tow VUW	12000 MAM (8250 MAM if test passed before 1.1.97)	21 (18 if MTW < 7500)
D1 ²		Minibus with 9 to 16 pass seats	Max 750 MAM	No licence limits	21 ³
D1+E ²		Minibus with 9 to 16 pass seats	Over 750 MAM if trailer MAM < tow VUW	12000 MAM	21 ³
All drivers must pass an extra test to get C, D, (+E) ratings below					
C		Over 3500 MAM	Max 750 MAM	No licence limits	21 ³
C+E		Over 3500 MAM	Over 750 MAM	No licence limits	21 ³
D		Bus with >8 pass seats	Max 750 MAM	No licence limits	21 ³
D+E		Bus with >8 pass seats	Over 750 MAM	No licence limits	21
LGV drivers with C or D but not C1 or D1 must now pass an extra test to tow a trailer above 750 MAM.					

NOTES:

1. May be limited to a lower figure by the MTW of the towing vehicle (see vehicle plate)
2. This is a normal entitlement on pre-1.1.97 licence.
3. Min age 17 if member of armed forces
4. Vans and motor caravans over 3500 and up to 7500 MAM are in category C1 or C1+E.
5. It is expected that this option will be removed by 2010. It is not yet clear whether this will apply retrospectively (i.e., to those who qualified before the removal date).

11.3 Driving Regulations

- a) Vehicles and trailers are not permitted to use the outside lane of a three lane carriageway, except to overtake an exceptional load spanning two lanes.
- b) Maximum driving speeds are shown in Table 2.
- c) Passengers are forbidden in trailers.
- d) There is no Road Tax on private trailers.
- e) An MOT is not required for private trailers.
- f) (MTW over 3500) Provided that the tow vehicle is used only for the non-commercial carriage of goods for personal use, a Tachograph is not required.
- g) The trailer must display the same number plate at the rear as the towing vehicle. If the towing vehicle has new style number plates (for new vehicles, optional from 01.03.01 and mandatory from 01.09.01) the trailer number plate must also be the new style. The number plate must be illuminated between dusk and sunrise. It must not be obscured (now a fixed penalty offence so an easy one for the law to

LAWS and RULES

catch you with) and must be readable in normal daylight from 75 feet directly behind the vehicle, and 53 feet behind at 45 degrees to each side of the trailer centre line.

- h) If the towing vehicle has a defined MTW, it is an offence to exceed it.
- i) The towing vehicle must be fitted with an **audible warning** device which sounds when the direction indicators are used.
- j) **Hazard warning** lights may only be used (a) to warn of a temporary obstruction, and (b) on a motorway or unrestricted dual carriageway to warn following drivers of the need to slow down for an obstruction ahead.
- k) It is an offence to tow an **unbraked trailer** with a loaded weight exceeding the lower of 750 or 50% of the towing VUW.
- l) After 01.01.98, any tow vehicle (except commercial vehicles and motorcaravans) which was first marketed after 01.01.96 can only have EC Type Approved and tested tow bars fitted.
- m) Trailer contents must be properly secured, other than remaining in place by their own weight, so as not to present a hazard to other road users and pedestrians.

11.4 Good Driving and Towing Practice.

Although not necessarily legal requirements in the UK, the following driving practices are highly recommended by motoring organisations and therefore by the BGA.

- a) You should not tow a trailer that exceeds either the tow vehicle manufacturer's recommended towing weight or tow hitch nose weight. Doing so could invalidate both vehicle warranty and vehicle and trailer insurance. Recommended practice for braked trailers is not to exceed 85% of the kerbside weight of the towing vehicle.
- b) Snaking – if the combination starts to snake, NEVER brake hard. Slow down gradually and carefully, releasing the accelerator and then using the gears to slow. Hold the wheel firmly and steer straight ahead, and never into or against the snake. Bad snaking normally means that there is insufficient nose weight on the tow ball.
- c) Stabilisers should only be used in accordance with the manufacturer's instructions and should be checked annually.
- d) Emergency braking can cause the trailer to 'jack-knife'. Avoid the need by keeping a safe distance behind other vehicles.
- e) The driver should have ready access to a warning triangle (preferably two – place one behind and one in front of the combination when stopped, especially on single carriageway roads), a First Aid Kit, spare bulbs and high visibility jacket (all compulsory in many other EU countries).
- f) Modern glider trailers add up to 5 side/marker lights on each side and can overload the fuse capacities of the towing vehicle. Always carry spare vehicle fuses, but check, before upgrading a fuse, that you will not overload the tow vehicle's wiring.

LAWS and RULES

- g) The tow combination should have dipped headlights at all times, except where doing so would dazzle other drivers.
- - h) Although not a legal requirement, it makes good sense to affix a 'Long Vehicle' label to the rear of a glider trailer, especially so if you are towing with a long vehicle such as an estate car or motorcaravan. But please read Footnote 2 to Table 3 in Section B for the legal requirements of such signs.
 - i) Ensure you can monitor the trailer wheels through the wing mirrors, especially on single-axle trailers, so that a puncture does not become a catastrophe. For peace of mind, have the trailer tyres injected with a gel that automatically seals punctures.
 - j) Unless you have taken the extra driving licence towing tests, you should practice and become competent at reversing with a glider trailer attached before towing one on public roads.
 - k) Do not park a trailer for long periods with the hand brake applied to avoid the brake linings forming a rust bond and sticking fast to the inner surface of the drum. Use wheel chocks instead.

● 11.5 Insurance

- a) The increasing prevalence of fraudulent insurance claims has forced insurance companies to increase significantly their scrutiny of claims. As a result, you could well find your claim being rejected or the payment reduced if any aspect of your vehicle, trailer or load are not fully compliant with the law. Most insurance policies also include a clause requiring you to keep the insured property in good repair.
- b) Most tow vehicle insurance policies provide Third Party cover for an attached, towed trailer; this insures you for injury or damage caused by the trailer to third parties. However, since a glider trailer may be regarded as exceptional by some insurance companies, you are urged to check before you tow.
- c) Damage cover for the trailer and its contents requires a separate insurance policy.
- d) Be aware that many vehicle insurance policies now include a restriction clause removing all cover when the vehicle is 'used in or on restricted areas of airfields or airports'. You may thus be personally liable for any injury or damage accidents in these areas and you are strongly advised to find insurance without this exclusion.
- e) All trailer owners are urged to check that their trailer is roadworthy and complies with the relevant rules before setting out, otherwise insurance may be invalidated.
- f) If you have some form of recovery insurance on the tow vehicle, check that it covers your trailer. (In practice few recovery organisations will have vehicles able to carry a glider trailer.)

● 11.6 Towing Abroad

- a) Any vehicle or trailer which complies with UK legislation can be imported temporarily (6 months maximum in any 12 months) into another EU country without having to obtain local type approval. However, it must comply with local law where this differs from UK law, for example in respect of vehicle lengths, widths, heights and weights. Not all aspects of vehicle construction, use and lighting have yet been harmonised across the EU (the process is currently under

LAWS and RULES

way) so you are advised to check before travelling – see (g) below. In particular, the rules and their interpretation regarding side and rear marking of long trailers seems to vary from state to state.

- b) Speed limits when towing vary enormously between different EU countries – see Table 2 – and in some countries such as France it is common to find sections of peages, autoroutes and many rural roads signed for both solo vehicles and trailers with both higher and lower limits than those that apply generally. If you see a sign with a caravan pictogram, it is best to assume it also applies to you and your glider trailer. Note that many EU countries impose ‘on the spot’ fines for exceeding speed limits and may impound your vehicle if you are unable to pay. French police, amongst others, have become particularly active with surreptitiously placed mobile speed cameras.
- c) Most countries also have a minimum speed on motorways – if you cannot maintain this minimum (e.g., on hills), you must stay in the innermost lane.
- d) It is an offence in most Continental countries to carry any form of equipment that detects the presence of speed cameras, though passive equipment such as a location warning on a SatNav system is normally acceptable. It is also an offence to indicate the presence of speed cameras to other motorists.
- e) Take with you your driving licence, vehicle registration document, insurance certificates (tow vehicle and trailer), trailer spares and items listed in 4(e) and (f) above.
- f) Check that you are properly insured. Many UK car policies now restrict cover outside the UK to just the statutory minimum Third Party cover unless an extra premium is paid. Many also have limits as low as 14 days on the length of individual trips. Note that an Insurance Green Card is no longer necessary in EU countries, but check with your insurer. Your insurer can supply a Bail Bond for Spain.
- g) The motoring recovery organisations and the Caravan Club are excellent sources of information on regulations for tow combinations abroad and, if you are taking your trailer abroad, you are strongly recommended to check whether any special requirements apply to trailers of exceptional length, such as glider trailers.

LAWS and RULES

**Table 2 - Speed Limits and Other Information
(LOWER LIMITS MAY BE SIGNED)**

Country	Speed Limits with trailer kph(mph)				Maximum	Other Notes
	Built-up Areas	Other Roads	Motorways ¹	Motorway Minimum	Overall Length (Meters)	
Great Britain	48 (30)	80 (50)	97 (60)	none	18	
Andorra	40 (25)	70 (43)	none	none	18	
Austria	50 (31)	80 (50)	100 (62)	60 (37)	18.75	
Belgium	50 (31)	90 (56)	120 (75)	70 (43)	18	
Czech Republic	50 (31)	80 (50)	80 (50)	80 (50)		
France - normal	50 (31)	90 (56)	130 (80) ²	80 (50)	18	Illegal to drive on side lights only
France - wet roads	50 (31)	80 (50)	110 (68) ²	none	18	Illegal to drive on side lights only
Germany	50 (31)	80 (50)	80 (50)	60 (37)	18	
Italy	50 (31)	70 (43)	80 (50)	none	18.75	
Luxembourg	50 (31)	75 (47)	90 (56)	none	18	
Netherlands	50 (31)	80 (50)	80 (50)	60 (37)	18	
Poland	50 (31)	70 (43)*	80 (50)	40 (25)	18	*80 (50) where signed
Spain	50 (31)	70 (43)	80 (50) Note 1 applies to Autovias	60 (37)	18	Bail bond from your insurer strongly advised; 2 triangles & high visibility jackets for driver and passengers mandatory
Switzerland	50 (31)	60 (37)	80 (50)	60 (37)	18	

NOTES: 1. Dual Carriageways/ Divided Lane Highways often have lower limits.
 2. On Dual Carriageways and toll-free Autoroutes 110 (68) dry and 100 (62) wet.
 3. These limits apply only to combinations of less than 7500 MAM (3500 MAM in France).

11.7 Trailer Pre-tow Inspection.

Glider trailers are used for long journeys infrequently, so should be checked before any off airfield journey. A regular check in summer may avoid a retrieve mishap. If you always rig your glider without moving the trailer, it is especially important to check that the trailer is ready for a retrieve. This is the recommended list of regular inspections.

- a) Electrical - check plugs, sockets and cable and plug in the 7 pin plug and check all lights work satisfactorily. (Warning: Your trailer may blow tow vehicle fuses – see 4(f) above.)
- b) Tyres - check for tread wear, damage to side walls, pressures and ensure wheel nuts are tight. Tyres more than 5 years old, especially when parked in the same position for long periods, tend to develop 'flat spots' and damage to the side walls.
- c) Bearings - use two hands at 10-to-2 on each wheel to try rocking it to and fro in the direction of the axle. There should be a very slight movement. Any more requires the bearings to be adjusted. (Also check for high temperatures after a longish run.)
- d) Draw Bar - check all bolts tight, breakaway cable in good order, parking brake working and jockey wheel/stand adjusts satisfactorily. With trailer attached to car, move forward and brake - check all trailer brakes apply. Then check auto-reverse braking works. (If the trailer has brakes, they are legally required to work, even if the trailer MAM is under 750Kgs.)

LAWS and RULES

- e) Trailer Body - walk round (and inside when glider rigged) and check condition of body and trailer floor. Check mudguard mountings. Check doors securely closed.
- f) Nose Weight – a well-balanced trailer should have a nose weight on the tow ball of at least 50 Kgs up to 75 Kgs, but not above the maximum allowed by the tow vehicle manufacturer. Use a suitable length of wood and bathroom scales under the tow coupling to check the trailer when loaded. Inadequate nose weight is a major cause of trailer accidents caused by snaking. (Note: An empty glider trailer will probably not meet this requirement, so take especial care when towing one.)
- g) After Coupling Trailer – ensure that the trailer is roadworthy, correctly coupled to the tow vehicle with a working break-away cable, jockey wheel and trailer doors secured and trailer properly displays the tow vehicle number plate.

It is your **responsibility as driver** to ensure that the trailer combination passes all the above checks even if you are towing someone else's trailer on a friendly retrieve.

- 11.8 **Trailer Annual Inspection.** A more comprehensive inspection and service should be **carried** out annually. If the trailer is subject to high mileage, then a lubrication service should be carried out every 2000 miles on the coupling, brake linkages and wheel bearings. The trailer parts catalogue produced by Indespension (0800 720 720) gives an excellent step by step guide to trailer maintenance and servicing.

LAWS and RULES

SECTION B - TRAILER CONSTRUCTION AND LIGHTING

- 11.9 **Trailer Construction.** Table 3 summarises the regulations relevant to glider trailer **construction**. The Table excludes regulations that are unlikely ever to apply to a glider trailer so should not be taken as definitive for other types of trailer.

Table 3 – Trailer Construction

Trailer Feature	Rule	Notes and Observations
Trailer Dimensions		
Length	Excludes the draw bar or A-frame and tow coupling.	Measure from the front surface to the rear surface.
Maximum Length	Normally 7m but may exceed 7m if 'constructed and normally used for the conveyance of indivisible loads of exceptional length' such as a glider.	For indivisible loads max tow vehicle length 9.2m and max combination length 25.9m
Max Width	2.3m including wheels and mudguards	
Max Overhang	Not relevant to glider trailers	Refers to overhang behind the trailer
Rear Markers ²	Not required and not permitted if tow vehicle below 7500 MAM and/or the trailer below 3500 MAM.	e.g., 'Long Vehicle' or diagonal red/yellow markers not normally permitted on glider trailers – but see note 2 below
Labeling	All trailers must have a manufacturer's label on the draw bar near side displaying: Manufacturer; Chassis number; No of axles; Max weight for each axle; Max load on tow vehicle; Maximum trailer MAM; Year built.	This information is a legal requirement, even for imported glider trailers.
Trailer Braking		
Parking Brake	Must be fitted, able to hold the trailer stationary when detached on a 16% gradient (1 in 6.25) and capable of being operated by a person standing on the ground.	Need only operate on two wheels on the same axle of a four wheel trailer.
Trailer parking	Wheel chocks are required in many European countries as well as a parking brake.	An essential part of your trailer kit – any caravan dealer will have sets.
Requirement if trailer MAM less than 750 ¹	Trailer brakes not required provided the tow vehicle has a VUW at least twice the trailer laden weight.	May apply to a glider trailer, but it is the trailer MAM which must be under 750 and NOT the trailer loaded weight ¹ .
Requirement if trailer MAM exceeds 750 up to 3500	Trailer must be fitted with brakes which may be of the over-run type on at least two wheels (if more than four trailer wheels, special rules apply).	Only applies to trailers first used before 1 Jan 1968.
	Trailer must have brakes on all wheels. If fitted with a spring damped coupling, another may be fitted as a replacement item.	Only applies to trailers first used after 1 Jan 1968 but manufactured before 1 October 1982
	Trailer must be fitted with brakes on all wheels which may be of the over-run type. Brake wear must be compensated for. The sliding part of the brake control must be protected by a bellows. The tow coupling must include a hydraulic damper.	Trailers manufactured after 1 October 1982 or first used after 1 April 1983.
Auto-reverse brakes	Trailer brakes must be auto-reverse , disengaging automatically when then tow combination reverses and applying normally when then combination moves forward again.	Only trailers first used after 1 April 1989. (Auto reverse is achieved using special wheel hubs that sense reverse direction and disengage braking, so replace damaged hubs only with same sort and side.)
Secondary Coupling	Unbraked trailers built after 1 Jan 1997 must be fitted with a secondary coupling which provides some steering and keeps the draw bar off the ground in the event of a coupling failure.	This is also an option for single axle braked trailers up to 1500 MAM instead of an automatic braking device (next row).
Automatic Braking Device	Braked trailers must have a braking device that stops the trailer automatically if the tow coupling fails.	This is normally a breakaway cable (or chain) that applies the parking brake before snapping. It is strongly recommended that the cable is attached to the towing vehicle rather than the tow ball – special attachment brackets are available at any caravan shop.
Brakes if fitted	All brake fittings must work and be used even if not legally required.	If trailer under 750 MAM but has brakes, they must work.

LAWS and RULES

Suspension, Wheels and Tyres		
Suspension	All trailers must have a suspension system between each wheel and the trailer frame.	
Tyres	Tyres must be able to carry the trailer MAM at the maximum allowed legal speed. Re-cut tyres are not allowed. Radial tyres must be E marked . Do not mix radial and cross-ply tyres on the trailer. Any spare tyre must thus be of the same construction as those on the wheels.	Tyres degrade when not used. Caravan organisations recommend replacing tyres after 5 to 7 years. As a minimum, have them professionally checked annually after 5 years.
Tyre wear	As for vehicles - a minimum tread depth of 1.6mm over the central 75% of the tyre with no visible defects.	
Mudguards	All trailers must have wings (mudguards) to catch spray, etc.	
Mirrors	Tow vehicles registered after 1 June 1978 must have an offside wing mirror and either an interior mirror providing a view to the rear or a near side wing mirror.	Common sense suggests that mirrors should also afford a view of the trailer tyres so that any problem is seen quickly.

- NOTE: 1. Even though it is theoretically possible to have an unbraked trailer carrying a glider, it is strongly recommended that only braked trailers with hydraulically damped couplings are used in order to avoid the direct transmission of every braking and acceleration shock to the glider with the potential for damage.
2. It is permissible (but optional) for a glider trailer to carry a 'LONG VEHICLE' marker on the rear with the letters in reflective red provided that the background is in plain, non-reflective yellow. Trailers over 3500 Kgs and/or with tow vehicles over 7500 Kgs must carry markers consisting of red/yellow reflective diagonal stripes for combinations up to 11 metres, reflective markers indicating 'LONG VEHICLE' for combinations over 13 metres and either type of marker for combinations between 11 and 13 metres. However, regulations do not permit reflective yellow to be displayed on the rear of any other vehicle except on the number plate. You may wish to fit a suitably modified marker from a safety perspective

11.10 Trailer Lighting.

- a) Table 4 summarises the regulations applicable to trailer lights. The table should enable you to check your new or older trailer for legality.
- b) With the full complement of marker, side, rear and number plate lights (all on the same circuit) the fuse rating of many towing vehicles will be exceeded. Always check that you will not overload the wiring before uprating fuses, otherwise these trailer lights must be powered via a relay switched separate circuit from the tow vehicle battery.
- c) Where trailer width is a factor in determining the lighting requirements, it is the overall width including mudguards that counts.
- d) All lights must be type approved with an 'E' mark. This is normally embossed on the lamp cover and means that the unit is of the correct size and wattage. It is an offence not to use type approved parts.
- e) Front marker, rear side and indicator lights and rear reflectors must be visible with doors open. This makes side hinged rear doors almost certainly illegal.
- f) All trailers constructed since 1 October 1990 must have amber side marker lights and reflectors. Many imported trailers lack the lights and are therefore illegal.
- g) In general, all lights and reflectors must be visible along the axis perpendicular to their surface and at 45 degrees either side of this axis.
- h) If you are constructing or modifying a trailer, you are also recommended to consult a detailed parts specification such as those given in various trailer parts catalogues.

LAWS and RULES

Table 4 - Trailer Lights, Reflectors and Markers

Table 1: Trailer Lights, Reflectors and Markers							
Item	Colour	No of	Dist from Ground		Distance		Notes
			Min	Max	Max from side ⁹	Min between	
ALL TRAILERS							
Rear Reflecting Triangles	Red ¹	2 ³	350	900 (1200 ⁴)	400	600 (400 ⁵)	
Rear Side Lights	Red ¹	2 ³	350	1500 (2100 ⁴)	400	500 (400 ⁶)	
Rear Stop (brake) Lights	Red ¹	2 ³	350	1500 (2100 ⁴)	400	400	
Rear Fog Lights	Red ¹	1 or 2 ³	250	1000	between centre line and offside ²		Not required if trailer less than 1300 wide. Min 100 from stop light.
Rear Number Plate Light -see also 3g in Section A	White	1	N/A	N/A	N/A	N/A	Must be fitted so as to illuminate the number plate adequately. May be part of a light cluster if fitted as maker specifies.
Rear Direction Indicators	Amber	2	350	1500 (2300 ⁴)	400	500 (400 ⁶)	
Side Reflectors	Amber	Varies	350	1500	Max 4000 from front of draw bar, 1000 from rear, max 3000 between	Required on all trailers over 5000 in length (thus all glider trailers) but see Side Marker Lights below	
SPECIFIED TRAILERS ONLY							
Front Reflectors	White	2	350	900 (1500 ⁴)	150	600	Required if trailer built after 30 Sep 1990. May not be triangles.
Front Marker Lights	White	2 ³	None	1500 (2100 ⁴)	150	None	Only required if trailer more than 1600 wide.
Front End Outline Marker Lights	W/R ⁷	2 ³	None	Max possible	400	None	Only required if trailer more than 2100 wide. May be combined with front marker lights.
Rear End Outline Marker Lights	W/R ⁷	2 ³	None	Max possible	400	None	Only required if trailer more than 2100 wide
Side Marker Lights ⁸	Amber	Varies	None	2300	Max 4000 from front of draw bar, 1000 from rear, max 3000 between	Required on all trailers over 6000 in length built after 30 Sept 1990 (thus MOST glider trailers) ⁸	
Rear Marker Plate	Red/ Yellow	Not allowed unless towed by a vehicle with a MAM exceeding 7500 (see also note 2 to Table 3).					

- NOTES: 1. Red lights and reflectors must only be visible from the rear.
2. Single fog lights on the UK near side on imported trailers are both illegal and dangerous. The easiest step is to change to a matched pair³
3. A matched pair must be identical and the same height above ground and distance from the trailer sides.
4. Permitted if vehicle design prevents standard value.
5. Permitted if trailer less than 1300 wide
6. Permitted if trailer less than 1400 wide
7. White to front, Red to rear.
8. Side reflectors are required in addition to side marker lights. These are normally combined with the reflector as part of the amber plastic light cover. On trailers built before 1 Oct 1990, a single side marker light may be fitted showing white to the front and red to the rear, positioned between the trailer centre and 1530mm to the rear of the trailer centre.
9. The side of the trailer includes the mudguards.

Disclaimer: Whilst care has been taken in the assembly of this document, neither the author nor the publishers give any warranty, express or implied, as to its accuracy. It is the responsibility of those wishing to depend on the facts contained herein to check for themselves the original documents and any updates thereto.

● 12 CIVIL AVIATION AUTHORITY

The Civil Aviation Authority (CAA) is empowered by the Air Navigation Order (ANO) to grant Joint Aviation Authority (JAA) and United Kingdom flight crew licences and associated ratings. Further information on ratings and licences is published and updated by the CAA in LASORS.

PRIVATE PILOT'S LICENCE

- 12.1 **UK PPL (A).** The Private Pilot's Licence (Aeroplanes), PPL(A) was issued by the CAA until 30th June, 2002. The licence remains valid, provided that renewal is in accordance with CAA requirements and procedures.

The former PPL(A) SLMG has been replaced by the NPPL–SLMG (see below). No new PPL (A) SLMG licences are available but a PPL (A) SLMG licence issued before July 2002 will remain valid, provided that renewal is in accordance with CAA requirements and procedures.

- 12.2 **JAR–FCL–Private Pilot's Licence.** The Private Pilot's Licence for aeroplanes, JAR–FCL–PPL(A) is currently issued by the CAA.

For further details refer to the CAA's website at www.caa.co.uk/srg/

THE NATIONAL PRIVATE PILOT'S LICENCE (NPPL)

- 12.3 The National Private Pilots Licence (NPPL) is intended for private and recreational flying within the UK. Holders are restricted to a narrower range of aircraft than are available to JAR licence holders; training requirements are simpler and the medical is similar to the GP endorsed pilot declaration familiar to UK glider pilots. Three ratings are available: Simple Single Engine Aeroplanes (SSEA), Self Launching Motor Gliders (SLMG) and Microlights. Full details are available from the NPPL web site at <http://www.nppl.uk.com/>

PART 2

BGA STANDARDS

13 BGA CERTIFICATES OF AIRWORTHINESS

- 13.1 Annex II gliders should normally have a BGA Certificate of Airworthiness. This certificate must be renewed annually. At annual renewals, the inspection must be carried out to the satisfaction of an approved inspector or senior inspector. The Inspector or Senior Inspector must apply for renewal on Form BGA 267, which includes an inspection report and a weighing report (if applicable), and enclose the expired C of A and the appropriate fee. The weighing must be carried out whenever modification or repairs which might affect the weight or CG position have been carried out and at intervals not exceeding 8 years and realistic information must be available at all times. Details are available from the BGA Airworthiness Exposition and the airworthiness section of the BGA website.

In signing the BGA 267 form, the Inspector or Senior Inspector accepts responsibility for the airworthiness of the glider at the time of application. Further details on Airworthiness etc. can be found in the Airworthiness & Maintenance Procedures Manual (AMP). Fees are available from the BGA. Details of BGA inspectors in your local area can be obtained from the BGA

14 EASA CERTIFICATE OF AIRWORTHINESS AND THE AIRWORTHINESS REVIEW CERTIFICATE

EASA gliders are required to hold an EASA C of A. This certificate is validated annually by the issue of an Airworthiness Review Certificate (ARC). Details of the BGA approval process through which an EASA C of A ARC can be renewed or extended are found within the BGA Airworthiness Exposition and in the airworthiness section of the BGA website.

Details of fees and of BGA inspectors in your local area can be obtained from the BGA

15 BGA AUTHORISED GLIDER INSPECTORS

- 15.1 Application for appointment should be made to the BGA on Form BGA 221. Applicants are advised to obtain a syllabus from the BGA before submitting their application. The BGA requires applicants to be interviewed by a person approved to do so by the Chief Technical Officer (CTO). Suitably qualified inspectors may be granted authorisations further to the basic inspector rating, for example Senior Inspector. When approved, a BGA Inspector registration fee is payable to BGA by the applicant. BGA Inspector Authorisation is renewable annually. A BGA Inspector is entitled to charge a reasonable fee and expenses for an inspection; these amounts are payable directly to him.
- 15.2 The BGA Airworthiness Exposition supported by the BGA Airworthiness and Maintenance Procedures (AMP) should be referred to by BGA Inspectors and Technical Officers when implementing the BGA Airworthiness Code of Practice.

16 BGA MEDICAL REQUIREMENTS

- 16.1 **General.** It is a personal responsibility of pilots to be fit for flight. This includes recognising the adverse effects of short term illness, alcohol, drugs, or fatigue. In common with the other air sports, the BGA requires pilots to hold a NPPL medical declaration endorsed by their GP or an alternative and recognised medical certificate. Special provisions apply to competition pilots who come under the jurisdiction of the World Anti Doping Agency. They can be tested at any time and some 'recreational drugs' may be detectable for a very long time after use. Under the Railway and Transport Safety legislation it may be an offence to fly with more than 20mg/100ml of blood alcohol; this is a quarter of the level permitted to private road drivers.
- 16.2 **The NPPL Requirements.** The NPPL requires a declaration of fitness to be endorsed by a general practitioner with access to previous clinical records. A fee may be charged for this endorsement. The NPPL permits two levels of fitness, an unrestricted level that corresponds to the DVLA Group 2 [professional] driver and a restricted level that corresponds to the DVLA Group 1 [private] driver. When restricted, the NPPL does not permit the carriage of inexperienced passengers or pupils. Additional specific limitations may be applied in individual cases. In addition, the BGA imposes an age limitation for instructors. Details of these medical standards are published on the DVLA web site and are well known to general practitioners. The few variations, mostly ophthalmic, are shown on the CAA web site.
- 16.3 **Validity of Declarations.** A glider pilot must declare and obtain a GP endorsement of fitness to fly before first flying solo. After recovery from any serious illness or accident, the medical declaration must be renewed. Otherwise, the validity is:

Age of Pilot	Validity
Up to and including 44	Until 45th birthday or 5 years (whichever is longer)
45-59	5 years
60-64	Until 65 th birthday or 1 year (whichever is longer)
65 and over	1 year

Periods of validity are governed by the age of the pilot on the date when the form is endorsed and it is recommended that declarations be renewed during the month prior to expiry.

- 16.4 **Transitional Arrangements.** Self declarations in force before 1st March 2003 remain valid until the pilot reaches a birthday at which a renewal is required under the new rules. For example, a pilot who was aged 44 or less on 1st March 2003 does not need to comply with the new rules until reaching the age of 45; pilots aged 45 or over at 1st March 2003 should by now have complied with the new rules. Pilots with specific medical limitations will continue to be managed on a case-by-case basis.
- 16.5 **Acceptable alternative certificates.** For glider flying only, a JAA Class 2 Medical certificate, a Service Aircrew Employment Standard or Air Cadet Medical Certificate are all acceptable. For short term visitors to the UK, a medical certificate valid for gliding in their own country is acceptable, but these other certificates are not acceptable for permanent UK residents. For power flying, CAA validation is required for other than JAA medical certification.
- 16.6 **Ab Initio Pilots - Medical Requirements before First Solo.** Pre solo pilots may self declare their fitness. However, clubs and students should note that a minimum of a

LAWS and RULES

'restricted' NPPL 1 with a GP endorsement is required **before** the first solo flight can be undertaken.

- 16.7 **Disabled pilots.** It is the policy of the BGA to encourage disabled pilots to fly within the limits of their disability and subject only to the limits of public safety. However these pilots will require individual consideration and perhaps aircraft modification. Further advice is contained in the Medical Guidance Notes.

- 16.8 **Medical requirements for instructors.** Instructors in gliders normally need to hold an unrestricted NPPL medical declaration. Professional instructors are required by the BGA, in agreement with the **CAA**, to hold a JAA Class 2 medical certificate.

If an instructor is aged 70 or over, or holds only a restricted NPPL, that instructor may continue as a Restricted Instructor (see below) subject to the consent of the Senior Regional Examiner. However instructors holding a JAR Class 2 medical certificate, may continue to instruct within the limits of their ratings after reaching their 70th birthday.

Restricted instructors may undertake ground training and advanced instruction where the pupil pilot could reasonably be expected to make a successful landing following any incapacity of the instructor.

- 16.9 **Professional Instructors.** Defined for this purpose only, as a person receiving a wage/salary for instructing in gliders for any consecutive employment period of 12 calendar weeks or more.

- 16.10 **Freedom for a BGA club to set its own standards.** BGA member clubs are free to impose any medical standards that they wish, as long as the minimum standards above are met. However it is recommended that this is done only in individual cases and then following medical advice. In cases of concern, a club can require a member to seek and follow medical advice.

- 16.11 **Appeals and disputes.** In the event of uncertainty, complaint or dispute, reference can be made to the BGA Medical Advisor. If this fails to produce a resolution, arbitration can be sought from the Chief Medical Officer of the CAA.

- 16.12 **Administration.** The NPPL declaration form, together with the Notes for the GP and the Notes for the Pilot, are reproduced on the following pages. Copies are available from the CAA web site, the BGA office or the BGA web site. It is recommended that clubs obtain and hold photocopies of the medical documentation of their members.

- 16.13 **Further Guidance.** Further notes on the NPPL relating to specific medical conditions are on the CAA web site. Guidance concerning the driving licence standards is on the DVLA web site. Notes on the medical fitness required for glider pilots are available from the BGA office or can be downloaded from the BGA web site. Advice on specific problems can be obtained by clubs, general practitioners or individual pilots from a BGA medical adviser.

LAWS and RULES

- 16.14 Summary of medical requirements.

CATEGORY OF PILOT	FORMER REQUIREMENTS Valid until expiry	NEW REQUIREMENTS Effective from 1 st March, 2003
Pre-solo	Self-declaration to private driver standard.	Self-declaration
Solo in glider	Self-declaration to private driver standard	Restricted NPPL
Solo in SLMG	JAR Class 2	Restricted NPPL
Mutual in glider	Self-declaration to private driver standard	Restricted NPPL
Mutual in SLMG	JAR Class 2	Restricted NPPL
Instructor in glider	Self-declaration to PPL standard and GP endorsement	NPPL
Instructor in SLMG	JAR Class 2	NPPL
Instructor over 70 in glider	JAR Class 2	JAR Class 2
Instructor over 70 in SLMG	JAR Class 2	JAR Class 2
Restricted instructor in glider	Self-declaration to private driver standard and GP endorsement	Restricted NPPL
Restricted instructor in SLMG	JAR Class 2	Restricted NPPL
Passenger carrying in glider	Self-declaration to PPL standard and GP endorsement	NPPL
Passenger carrying in SLMG	JAR Class 2	NPPL
Tug pilot with PPL(A)	JAR Class 2	JAR Class 2
Tug pilot with NPPL	Not applicable	Restricted NPPL

The NPPL Medical Declaration Form together with notes to the pilot and notes to the GP are not included in this PDF version of Laws & Rules.

They can be downloaded from <http://www.caa.co.uk/docs/33/SRG1204.pdf>

The NPPL Medical Declaration Form together with notes to the pilot and notes to the GP are not included in this PDF version of Laws & Rules.

They can be downloaded from <http://www.caa.co.uk/docs/33/SRG1204.pdf>

The NPPL Medical Declaration Form together with notes to the pilot and notes to the GP are not included in this PDF version of Laws & Rules.

They can be downloaded from <http://www.caa.co.uk/docs/33/SRG1204.pdf>

17 INSTRUCTOR RATINGS AND ENDORSEMENTS

Refer to the BGA website (www.gliding.co.uk) for latest updates.

- It is the individual instructor's responsibility to ensure that his or her rating is valid before carrying out instruction. A record of rating validity card is supplied by the BGA on initial issue of a rating. Rating revalidations/renewals should be recorded on the card by the CFI. Replacements can be obtained from the BGA on request. Annual and three year checks or five year refresher training should be recorded in the instructor's logbook in addition to any required BGA paperwork. For further advice see www.gliding.co.uk/bgainfo/instructors

● 17.1 BGA BASIC INSTRUCTOR RATING

Requirements:

- Silver badge
- Minimum of 50 hours P1 on gliders
- Recommendation by CFI
- Completion of BGA approved Basic Instructor course
- Acceptance Test by CFI

Privileges:

May give basic instruction at CFI's discretion where the instructor has a valid certificate of medical fitness (see Medical Standards)

Renewal:

- Minimum of 20 hours and 30 launches in the 12 months previous to the renewal date of which 5 hours or 25 launches should be instructing and 10 hours or 50 launches should be solo
- Annual standardisation check with CFI or BI Coach/Examiner
- Refresher course every 5 years
- Recommendation for renewal from the CFI

● 17.2 BGA ASSISTANT INSTRUCTOR RATING

Requirements:

- Silver badge
- Minimum of 75 hours P1 on gliders, including 100 launches
- Recommendation by CFI
- Completion of BGA Approved Instructors' Course
- Acceptance Test by CFI
- Within 18 months of acceptance by CFI, completion of the 'BGA Assistant Instructor Rating Completion Course'

Privileges:

Instruction of students as specifically authorised by the CFI where the instructor has a valid certificate of medical fitness (see Medical Standards)

Renewal:

- Minimum of 20 hours in the 12 months previous to the renewal date of which 10 hours and 25 launches (or 100 launches) should be instructing and 10 hours and 10 launches (or 50 launches) should be solo
- Standardisation check with CFI at interval not exceeding 3 years
- Refresher course every 5 years
- Recommendation for renewal from the CFI

● 17.3 BGA FULL INSTRUCTOR RATING

Requirements:

- Silver badge
- At least 150 hours P1 on gliders
- Test by BGA Examiner

Privileges:

Instruction of students at all stages subject to the discretion of the CFI where the instructor has a valid certificate of medical fitness (see Medical Standards)

Renewal:

- Minimum of 20 hours in the 12 months previous to the renewal date of which 10 hours and 25 launches (or 100 launches) should be instructing and 10 hours and 10 launches (or 50 launches) should be solo
- Standardisation check with CFI at interval not exceeding 3 years
- Refresher course every 5 years
- Recommendation for renewal from the CFI

Note for Basic, Assistant and Full instructor ratings:

Motor glider time for Gliding Instructors' rating renewal counts as follows:-

- TMG hours count as nil
- SSS and SLS hours count in full

Note re Qualifications: Candidates with less than the minimum qualifications may be eligible to train as instructors subject to written exemption from the Chairman of the BGA Instructor Committee

17.4 CONVERSION OF AIR CADET INSTRUCTOR RATINGS TO BGA INSTRUCTOR RATINGS

The following conversions apply to Air Cadet Instructors who are current on conventional gliders. Those who are current only on motor gliders must first become current on conventional gliders and then follow the normal route through the BGA instructor ratings.

Air Cadets 'A' Category Instructors on conventional gliders may convert to a BGA Assistant Instructor Rating either by attending a BGA Assistant Instructors' course, or by local training with a Regional Examiner (RE) or a Senior Regional Examiner (SRE), as necessary to reach the required standard.

Air Cadets 'B' Category Instructors on conventional gliders may convert to a BGA Assistant Instructor Rating by attending a BGA Assistant Instructors' course or to a BGA Basic Instructor Rating, either by attending a BGA Basic Instructors' course or by local training with a BI Coach, RE or SRE.

Air Cadets 'C' Category Instructors on conventional gliders may convert to a BGA Basic Instructor Rating, either by attending a BGA Basic Instructors' course or by local training with a BI Coach, RE or SRE.

For any of the above conversions, the candidate must meet the normal BGA requirements of Silver badge and a currency of 20 hours gliding in the last 12 months, including at least 10 hours solo before any conversion takes place.

17.5 MOTOR GLIDER INSTRUCTOR RATINGS

Before giving gliding instruction in a self-launching motor glider, an instructor must hold a motor glider instructor rating. There are currently two entirely separate motor glider instructor ratings, the BGA MGIR and the CAA FI (SLMG). These two ratings are both gained and renewed separately.

● The BGA MGIR

Requirements:

- Either BGA Full Instructor Rating (gliders) or, for BGA MGIR Stage 1 only, a BGA Assistant Instructor Rating (gliders)
- Current SLMG PPL or PPL with SLMG or TMG rating or NPPL (SLMG).

Privileges:

Instructing gliding exercises in a motor glider, appropriate to the group and stage held and where the instructor has a valid certificate of medical fitness (see Medical Standards)

The Rating is issued separately on three groups of motor gliders:-

Group 1	Wooden Motor Gliders
Group 2	GRP Motor Gliders
Group 3	Retractable Engine Motor Gliders

In addition to the above groups, each group has three separate stages:-

Stage 1	Glider handling, upper air exercises, circuits, approaches and landings
Stage 2	Stage 1 exercises plus map appreciation and glider navigation
Stage 3	Stage 1 and 2 exercises plus simulated aerotow rope breaks, field selection and landing simulation and final glide simulation.

The BGA MGIR is issued by test with an RE/SRE (note: not all REs/SREs are motor glider examiners).

The BGA MGIR is renewed by test with an RE/SRE bi-annually and is entirely separate to the CAA FI (SLMG). Either a BGA Full Glider Instructor rating or a BGA Assistant Instructor rating, as appropriate, must be held to maintain validity of the BGA MGIR.

Renewal:

Either a BGA Full Glider Instructor rating or a BGA Assistant Instructor rating, as appropriate, must be held to maintain validity of the BGA MGIR.

The BGA MGIR is renewed bi-annually by test with an RE/SRE who also holds the rating concerned. The BGA MGIR is entirely separate to the CAA FI (SLMG).

- **The CAA FI (SLMG)**

A variety of different terms have previously been used to describe this single rating: “CAA MGIR”; “Restricted Flying Instructor Rating SLMG (MGIR)” & “FI (SLMG)”. This section uses the single term: FI (SLMG).

Requirements:

- Current BGA Full Glider Instructor Rating
- Current SLMG PPL or PPL with SLMG or TMG rating
- Completion of training and test conducted by BGA Examiner with a CAA FIE rating

Note: Candidates who do not hold the BGA Full Glider Instructor Rating must attend a CAA approved Flying Instructors' course run by a CAA approved flying training organisation

Privileges:

Instruction in SLMG aircraft under the auspices of the BGA.

Renewal:

The CAA FI (SLMG) is renewed bi-annually by test with a BGA Examiner with a CAA FE or FIE rating or JAR TMG examiner equivalent. Note: The requirement for a current BGA Full Glider Instructor Rating is for the initial issue of a CAA FI(SLMG) following BGA recommendation. It is not required for the subsequent renewal of the CAA FI(SLMG).

Note: For both the BGA MGIR and the CAA FI (SLMG) to remain valid, the instructor must maintain a current medical certificate as required by the relevant regulations.

17.6 BGA AEROBATICS INSTRUCTOR RATING

Requirements:

Candidates must hold a BGA Full or Assistant Instructor Rating and must attend and pass a dedicated aerobatics course, run by a BGA Aerobatics Examiner.

Privileges:

May teach specific advanced aerobatic manoeuvres as authorised by a BGA Aerobatics Examiner.

- 17.7 **THE CFI ENDORSEMENT**

This is a mandatory endorsement for the Instructor at a club who is responsible for flying standards where any flight training takes place.

At clubs where the club has formally notified the BGA that no flight training takes place **and** where no flying takes place by pilots with a lower qualification than a bronze badge with cross country endorsement, a non-instructor BGA endorsed senior pilot may be appointed to be responsible for flying standards.

CFI Endorsement Requirements:

- The CFI elect must hold a Full Rating (gliders) and have at least 150 hours P1 on at least six different types of glider or motor glider.
- Two years experience of instructing.

The endorsement will be issued, without charge, on receipt by the BGA of evidence of qualification as CFI elect from the Club Chairman, subject to the approval of a Senior Regional Examiner as authorized by the Chairman of the Instructors Committee.

If the Club does not give pre-solo (ab-initio) instruction then there is provision for a **Restricted CFI Endorsement**.

Restricted CFI Endorsement Requirements:

- Previously have held a BGA Instructor Rating
- Have 20 hours flying in gliders in the preceding 12 months
- Be in current cross-country practice.

Senior Club Pilot Endorsement Requirements:

- Have at least 150 total hours PIC on at least six types of glider or motor glider
- Hold the FAI Silver Badge

The endorsement will be issued, without charge, on receipt by the BGA of evidence of qualification as Senior Pilot elect from the Club Chairman, subject to the approval of the Chairman of the Instructors Committee.

● 17.8 HOW TO BECOME AN INSTRUCTOR

A pilot who wishes to become a rated instructor must first qualify as a Basic Instructor, (see para. 17.1 for requirements). Individual pilots should seek advice from their CFI regarding experience requirements and pre-course training. BGA instructor rating information, including the Basic Instructor and Assistant Instructor training syllabus, record and notes for the approved course are available as downloads at www.gliding.co.uk/instructors. Assistant Instructor courses are booked through the BGA office

17.9 SUSPENSION OF RATING

The rating of an instructor who has an accident, whilst flying gliders or motor gliders or whilst instructing in gliders or motor gliders, will automatically be suspended. Reinstatement of the rating can only take place on the authority of the Chairman of the Instructors' Committee and only if requested by the CFI of a BGA club.

● 17.10 BGA APPROVED COURSES

An approved BGA instructor course may be run by a BGA full rated instructor approved to do so by the BGA Instructors' Committee. A list of approved persons is held at the BGA office.

The Assistant Instructor course consists of nine full days training and a two-day completion course. An approved Basic Instructor course is normally a minimum two days training.

17.11 VALUE OF POWER FLYING TOWARDS GAINING INSTRUCTOR RATINGS

P1 flying experience on fixed wing aircraft will count towards gaining instructor ratings as follows: five P1 hours on fixed-wing aircraft equals one P1 hour on a glider provided that at least 35 hours, which must include 100 launches, has been carried out as P1 on gliders. A maximum of 10 of these 35 hours may be done on motor gliders without depreciation of the hourly value. Further motor glider time will be valued as power time.

LAWS and RULES

18 OFFICIAL OBSERVERS

- 18.1 BGA Official Observers are trusted and independent witnesses, authorised by the BGA to observe and verify details of flights qualifying for badges, records and championships in accordance with the regulations of the FAI and BGA.
- 18.2 An Official Observer may not act in such capacity for any flight in which he is pilot or passenger.
- 18.3 Instructors, holders of Silver badges or higher qualification, or persons actively connected with gliding for the previous three years are eligible for appointment.
- 18.4 Applications on the appropriate form must carry the recommendation of the Chairman and CFI of the club or school concerned. Applicants have to verify that they are familiar with the current version of the FAI Sporting Code.

19 THE GLIDING CERTIFICATE

- 19.1 The Gliding Certificate is issued by the BGA under delegation from the Royal Aero Club and indicates the standard of achievement reached by the pilot. The certificate is endorsed for each requirement met, i.e. pilot competency standards at A, B, Bronze, Cross-Country Endorsement and Glider Pilot Licence, and sporting achievement at Silver, UK 100 km Diploma, Gold, Diamonds, UK 750km Diplomas and 1,000 km and 2,000 km badges.
- 19.2 The A, B, and Bronze badges, the Cross-Country Endorsement and the UK 100 km Diploma and 750 km Diplomas are National Standards, set by the BGA. Two passport photographs of the pilot, signed on the back are required for the Bronze Badge. The Silver and Gold Badges, Diamonds and 1,000 km and 2,000km Badges are international standards laid down by the FAI. The respective requirements are summarised below. Application forms, including the fees payable, are obtainable from the BGA.
- 19.3 The definitive rules for the FAI Badge and Diploma claims are contained in the FAI Sporting Code.
- 19.4 The candidate must make at least 20 flights in a glider before attempting any tests, unless he is a qualified aeroplane pilot.
- 19.5 The candidate must be alone in the aircraft for each test, except for the UK 750 km and UK 1000km Two-seater Diplomas. FAI badge attempts may be flown in a motor glider, provided there is proof that the engine was stopped after launch and not re-started during the period of the attempt.
- 19.6 The Sporting Code should be consulted for requirements for logger, photographic and barograph evidence for FAI badge tests and UK diplomas
- 19.7 If photographic evidence of reaching turning points is used, the photographs must be taken in accordance with FAI requirements. (Note that photographic evidence will cease to be acceptable after the end of 2008).
- 19.8 Flights for A, B, and Bronze badges must be carried out separately and consecutively. For all other badges and diplomas, any number of tests may be completed on any flight.

LAWS and RULES

● 19.9 'A' BADGE

One solo circuit in a glider or motor glider in unpowered flight after the launch, followed by a satisfactory landing. An appropriate level of knowledge of rules of the air and local airspace restrictions must be demonstrated to the supervising instructor at the time of the first solo flight

19.10 'B' BADGE

A soaring flight of at least five minutes, at or above the previous lowest point after launch, followed by a satisfactory landing.

● 19.11 BRONZE BADGE

Minimum Experience. A minimum of 50 solo flights or 20 flights and 10 hours in a glider.

Soaring Flights. Two soaring flights, each of 30 minutes' duration, if launched by winch, car or bungee or each of 60 minutes after release from aerotow at a height not exceeding 2,000 ft.

General Skills. A minimum of three flights in a dual controlled glider with a Full Rated Instructor who will be satisfied during the BGA Bronze Badge General Skills Test that the candidate has the ability to operate the glider within its limitations, complete all manoeuvres with smoothness and accuracy, exercise good judgement and airmanship, maintain effective lookout, and maintain control of the glider at all times in a manner such that the successful outcome of a procedure or a manoeuvre is never seriously in doubt.

During the test, the candidate must demonstrate an appropriate level of practical skill and knowledge associated with the following;

- a) Pre-flight operations including glider assembly and inspection
- b) Techniques and procedures for the launching method(s) used, including appropriate airspeed limitations, emergency procedures and signals used
- c) Circuit flying, collision avoidance precautions and procedures
- d) Normal and crosswind approach and landing
- e) Control of the glider by external visual reference
- f) Understanding and recognition of the symptoms of the stall, stall with wing drop and full spin, followed by the correct recovery
- g) Satisfactory recovery from at least two launch failures or simulated launch failures.
- h) Demonstrate that they can obtain and interpret airspace, NOTAM and weather information appropriate for soaring flight

Field Landing Requirement. Two field landings into a field or, if a suitable field is not adjacent to the club site, into a marked area of the airfield. The altimeter should be covered or the millibar scale offset for this practice. If a marked area of the airfield is used, it must be so chosen that there is little or no undershoot and that the circuit and approach do not coincide with the normal circuit and approach to the airfield. The test may be carried out separately from the General Skills Test and in a motor glider.

Theoretical Knowledge Test. The candidate must pass the BGA Bronze Badge Theoretical Knowledge Test

Timing. The flying and ground tests must all be completed within the 12 months prior to the application.

19.12 CROSS-COUNTRY ENDORSEMENT

The Cross-Country Endorsement can only be issued if the applicant has already qualified and applied for a Bronze Badge Endorsement and has the approval of his or her CFI. The requirements are:

Soaring Flights. Two soaring flights, one of at least one hour duration and one of at least two hours' duration, after release. Each soaring flight must be under the supervision of a BGA instructor or Official Observer, who must complete and certify the report.

Field Selection. The candidate must demonstrate satisfactorily his or her ability to select or reject fields as to their suitability for landing. This exercise must be undertaken from the air but can be flown in a glider, motor glider or light aircraft.

- **Field Landings.** The candidate must make a minimum of two successful approaches in a motor glider towards a field landing area selected by the candidate. The altimeter should be covered or the millibar scale offset for this exercise. To qualify for the Endorsement, the approaches must be flown without any assistance or prompting from the instructor who must be satisfied that the candidate has demonstrated an adequate level of judgement and skill.
- **Navigation.** The candidate must demonstrate his ability to navigate, to the satisfaction of the full rated instructor. The candidate must plan a triangular task of at least 100 km, giving due consideration for any airspace requirements and to appropriate aspects of airmanship. The candidate must demonstrate to the full rated instructor during a BGA Bronze Cross Country Endorsement Navigation Skills Test the ability to read an aeronautical chart, to relate features shown on it with those features as they appear from the air and to orientate the map with respect to ground features.

This exercise can be flown in a glider, motor glider or light aircraft and only sufficient of the planned 100 km task need be flown to convince the instructor of the candidate's ability to navigate.

Timing. The requirements must be completed within 12 months of the second soaring flight.

- 19.13 THE GLIDER PILOT LICENCE

The BGA Bronze Badge with Cross Country Endorsement exceeds the ICAO glider pilot licence age, knowledge, experience and skill requirements. Where supported by an ICAO compliant medical certificate, the BGA glider pilot licence provides confirmation if required that the holder meets the requirements and standards of ICAO Annex 1 (glider pilot licence).

Applicants for the BGA glider pilot licence should apply using the form supplied by the BGA. Holders of an ICAO compliant glider pilot licence who wish to apply for a BGA glider pilot licence but do not hold the BGA Bronze Badge and Cross Country Endorsement should include a copy of their existing glider pilot licence and recent experience.

19.14 SILVER BADGE

- A **duration flight** of not less than 5 hours from release to landing.
- A **distance flight** of not less than 50km (31.07 Statute miles) made as either:
 - a) An undeclared flight in a straight line; or
 - b) A pre-declared flight where one leg is of 50km or more.In either case the loss of height between the start point (release height or logged point in the start zone) and the finish point (landing point or logged point in the finish zone) must not exceed 1% of the total distance flown.
- A **height gain** of at least 1,000 metres (3,281 feet).

19.15 100 KM DIPLOMA

The 100 km. Diploma consists of 2 parts:

- a) Completion of a pre-declared 100km closed circuit flight, set either as a triangle or as an out-and-return.
- a) Completion of a similar flight to that above, but at a minimum handicapped speed of 65km per hour. The handicap list from the current Competition Handbook is to be used.

Flights must take place within Europe under the supervision of a BGA Official Observer.

19.16 GOLD BADGE

- A **duration flight** of not less than 5 hours from release to landing.
- A **distance flight** of not less than 300km (186.4 Statute miles). This may be made as either:
 - b) An undeclared flight in a straight line; or
 - c) A pre-declared flight round up to 3 turn points to a finish point. If the finish point is the landing point then it doesn't need to be pre-declared. The turn points may be rounded in any order or not at all but each may only be turned once.
- A **gain of height** of not less than 3,000 metres (9,843 feet).

19.17 DIAMONDS

- A pre-declared **goal flight** of not less than 300km (186.4 Statute miles) flight flown over an out and return or triangular course.
- A **distance flight** of not less than 500 km (310.7 Statute miles) - requirements as for Gold Distance.
- A **gain of height** of not less than 5,000 metres (16,405 feet).

Diamonds may only be worn on Silver or Gold Badges.

19.18 1,000 KM AND 2,000 KM BADGES

The FAI awards badges for distance flights of 1,000 km and 2,000km or more. Requirements are as for Gold Distance.

19.19 UK 750 KM AND 750 KM TWO-SEATER DIPLOMAS

A distance flight of not less than 750 km, starting in the UK and flown, respectively, either solo or with two pilots – requirements as for Gold Distance.

20 COMPETITIONS

- 20.1 National Gliding Championships and Regional Competitions must be approved by the BGA and conducted in accordance with the current edition of the BGA Competitions Handbook.

PART 3

RECOMMENDED PRACTICES

The following Recommended Practices are for guidance. They are not mandatory but a prudent pilot would do well to observe them.

GROUND HANDLING

- RP1.** A glider should not be moved without crew on the into-wind tip and at the nose unless towed by a rigid tow bar and wingtip wheel. If towed by a vehicle using a tow rope, the tow rope should have a minimum length greater than the glider's semi-span. In stronger winds, additional precautions should be taken, particularly for lighter weight gliders. The crew numbers should be increased, the airbrakes opened and care should be taken to prevent the control surfaces from slamming.
- RP2.** The glider should be parked across wind, so that any gusts or unexpected shifts of wind will come from aft and not forward of the wing. Lightweight gliders should be parked with the into-wind wing weighted and the tail skid/wheel picketed or blocked on its lee side. A tyre jammed under the nose will help to prevent the tail jumping over the block in gusts. Heavier gliders, typically modern GRP types, can be parked with the downwind wing on the ground.
- RP3.** When un-parking to fly in strong winds, the pilot(s) should get into the cockpit before the glider is turned into wind. The tail should then be held UP and there should be a crew on each wingtip, only one of which should run with the wing for take off.
- RP4.** If the launch point slopes downhill, the glider should be prevented from over-running by a crew on each wingtip. They should both hold back until the take-off run starts, when only one should run.

LAUNCH POINT CONTROL

- RP5.** Clubs should appoint Launch Point Controllers responsible for the safe launching of gliders. They should be so positioned that they can see launch signals, the launching wires or ropes and all aircraft approaching to land.

CAR AND WINCH LAUNCHING

- RP6.** If there is any jerk or hesitation in power at the commencement of the launch, the winch or car driver must terminate the launch and wait for a fresh set of signals before re-starting. If the pilot suspects over-running or other failure at the start of the launch, he should release the cable at once. If the power slowly fades out during the launch, the pilot should abandon it and treat it as a launch failure.
- RP7.** The shock rope positioned between the launching cable parachute and the launching rings should be sheathed in a semi-rigid covering – such as plastic hose – to minimise the risk of the rope fouling the glider wheel or structure.
- **RP8.** Launch cables get crossed easily on a multiple pull-out. If the pull-out has not been straight, or it is suspected that the cables are close together, they should be separated before the start of the launch.

LAWS and RULES

RP9. The winch driver is responsible for understanding how to use the cable chopping equipment and should ensure that any cutting blade is sharp enough to be fully effective. (See BGA Winch Operators' Manual).

SIGNALS

- **RP10.** The launch point signaller is signalling to the winch or tow car on behalf of the glider pilot to be launched and should therefore face the glider and not the launching mechanism, so that throughout the time he is signalling, he can see that nothing is going wrong, or can interfere with the launch. He continues to be responsible for signalling until the glider is fully airborne and can be seen directly by the winch or tow car driver.
- RP11.** If the glider is being launched too fast, the pilot should yaw the glider from side to side with the rudder.

AERO-TOWING

- **RP12.** The minimum length of aerotow rope recommended is 150 ft. However, under special circumstances a short rope may be used. The operators' attention is drawn to the following factors which may cumulatively contribute to a hazardous situation:
 - a) Low experience of glider and/or tug pilot
 - b) Gliders fitted with C of G hook only
 - c) Glider's C of G towards the aft limit
 - d) Turbulent air in the take-off area
 - e) Rough ground in the take-off area
 - f) Significant cross-wind component.

Whilst aerotowing, in the event that the glider's airbrakes are open (or that the glider's drogue parachute is deployed) and the combination's climb rate remains adequate, the tug pilot should delay the signal to check and close the airbrakes until a safe circuit height is reached. The delay is to minimise the consequences of the glider pilot confusing this signal with the signal to release.

RP13. After releasing the cable, the glider should turn away so that the tug aircraft pilot can see clearly that the glider is free.

POSITIVE PRE-FLIGHT CONTROL CHECKS

RP14. After a glider has been rigged, whenever possible, an independent check should be made of structural and flying control connections. When provided for by the manufacturer, safety pins should be inserted. On flying control systems which are not designed to connect automatically on rigging, in order to check for correct connection, the cockpit controls should be held central and a push-pull load should then be applied in turn to each control surface after it has been connected. The independent rigging check should be recorded in the glider's daily inspection book.

RP15. The BGA recommended cockpit pre-flight check is:

- C CONTROLS working freely and in the correct sense.
- B BALLAST securely fastened; correct cockpit load.
- S STRAPS. Harness for occupant(s) done up correctly and tightly.

LAWS and RULES

- I INSTRUMENTS working and set as required
- F FLAPS check operation and set for take-off.
- T TRIM check operation and set for take-off.
- C CANOPY shut and properly locked.
- B BRAKES check operation, closed and properly locked.
- E EVENTUALITIES consider launch failure and other options.

It will be noted that this procedure makes 'Eventualities' the final check before take-off.

PARACHUTES

- **RP16.** A parachute is considered to be personal equipment and not part of the aircraft. The owner should ensure that it is checked regularly by a competent individual or organisation. The interval should not be greater than the manufacturer's recommendation, but if the parachute has become wet or had oil or acid spilled over it, or if the release pins under the flap are bent, it should be sent for re-packing and servicing forthwith.
- RP17.** Serviceable parachutes should be worn by the occupant(s) of gliders operated from BGA sites, subject to the glider being fitted to accept the occupant(s) wearing parachute(s).

AEROBATICS

- RP18.** The CFI should lay down minimum heights for aerobatics at his club and no aerobatics should be done below this height without special permission.
- RP19.** The CFI is responsible for the authorisation of all aerobatic flights carried out from the club site in either club or privately owned gliders. Before authorising a flight in which advanced aerobatics, including rolling and inverted manoeuvres are to be carried out, the CFI should ensure that the flight has been authorised by a BGA approved Aerobatics Instructor. The authorisation should be in writing if the Aerobatic Instructor is not present at the time of the flight and should specify minimum heights for the manoeuvres intended and should also specify weather minima and recency requirements for the manoeuvres to be carried out.
- RP20.** Any pilot pulling more than 3.5g in the air (or exceeding the 'g' loading permitted by the glider's Flight Manual) should report this and the aircraft should not be flown again until it has been inspected and a log book entry made and signed by an approved inspector. Damage incurred by one pilot may result in structural failure when the aircraft is being flown by another pilot.

SAFE FLYING IN THERMALS

RP21. JOINING A THERMAL

Gliders established in a thermal have right of way. All pilots shall circle in the same direction as any glider already established in the same area of lift.

If there are gliders thermalling in opposite directions, the joining glider shall turn the same direction as the nearest (least vertical separation).

LAWS and RULES

The entry to the turn should be planned so as to keep continual visual contact with all other aircraft at or near the planned entry height.

The entry should be flown at a tangent to the circle so that no aircraft, already turning, will be required to manoeuvre in order to avoid the joining aircraft.

RP22. SHARING A THERMAL

Pilots should adhere to the principle of “see and be seen”.

When at a similar level, never turn inside, point at or ahead of another aircraft unless you intend to overtake and can guarantee safe separation.

Leave the thermal if, in your judgement, you cannot guarantee adequate separation.

Look out for other aircraft joining or converging in height.

RP23. LEAVING A THERMAL

Look outside the turn and behind, before straightening.

Do not manoeuvre sharply unless clear of all other aircraft

RIDGE SOARING

- RP24.** (a) Make all turns outwards, away from the ridge.
(b) Gliders meeting head-on, alter course to the right
(c) The glider with the ridge on its right has right of way.
(d) A glider overtaking another glider must pass between that glider and the ridge
(e) Approaching gliders must both be able to turn right in order to increase separation. This is best achieved in practice, when gliders are sharing a ridge, if the gliders with the ridge on their right fly closer to the ridge and those with the ridge on their left fly further away from the ridge.
(f) Comply with any special rules peculiar to a particular hill site.

None of the above (RP21-RP24) absolves the pilot from the responsibility to take any necessary action to avoid a collision.

GLIDER CONSPICUITY

- RP25.** It is possible that gliders may be rendered more conspicuous in certain conditions by applying large, bright coloured patches. As coloured surfaces absorb more heat and this can appreciably weaken the resin used in the construction of Glass Fibre Reinforced Plastic and Carbon Fibre Reinforced Plastic gliders, it is strongly recommended that before applying colour in such cases, the guidance and advice of the glider manufacturer or the BGA Technical Committee is sought.

UNDERCARRIAGE WARNING SYSTEMS

- RP26.** The fitting of systems that warn the pilot of a glider that the undercarriage is not lowered during the landing approach IS NOT RECOMMENDED. This is because if such a system is fitted and is activated then the pilot is likely to attempt to lower the undercarriage during the final stages of landing. This could result in mishandling the aircraft, so causing an accident.

LAWS and RULES

It is also recommended that if the glider is seen on the approach wheel-up, no attempt is made to warn that pilot, using radio or other means, for the same reason. The pilot should be allowed to land wheels-up.

AUDIO VARIOMETERS

RP27. Gliders operating from BGA sites should be equipped with audio variometers and the pilots trained in their use.

WEATHER

RP28. To reduce to an acceptable level the chance of electrical strikes down the winch wire, winch launching or car towing should not take place (a) if lightning strikes have been observed, or (b) it is anticipated they are imminent within 5 miles (i.e. 25 seconds between flash and thunder). In thundery conditions, storms develop rapidly as well as drift with the wind. During the passage of a storm, the wind can be extremely gusty and variable in direction. Gliders should be put under cover before a storm strikes.

RP29. In hilly country orographic cloud may form well below general cloud base and lower than high ground. It may develop rapidly and extensively. In conditions in which the formation of orographic cloud is likely, or on the first appearance of such cloud, pilots, particularly if inexperienced in instrument flying, should land so as to avoid being caught in or above cloud, close to the ground.

ICE ON WINGS

RP30. Gliders should not be launched with hoar frost, rime, frozen rain or snow on the wing surface, or if it is wet and the temperature is at or below freezing. Even small amounts of roughness on the wing can have a disastrous effect on both its efficiency and the stalling speed. Before flying, the wing and tailplane surfaces must be cleaned of all traces of frost and snow and be dry.

OXYGEN

RP31. For flights above 10,000ft amsl all pilots are recommended to use a supplementary oxygen supply with a visible contents gauge. In the event of illness in the air for any cause, a descent should be made to below 10,000 ft.amsl.

RADIO

RP32. EQUIPMENT

The airborne and ground equipment should be maintained and operated such that it does not cause any avoidable interference to other users of the radio spectrum.

RP33. RADIOTELEPHONY CALL SIGNS

The callsign is used in radiotelephony to clearly identify the parties involved in communications and should be formed by a combination of an appropriate word or phrase, typically an aerodrome or location name, and an appropriate suffix to indicate the type of Air Traffic Service or Radio Communication Service being provided.

LAWS and RULES

The Civil Aviation Authority (CAA), Directorate of Airspace Policy, maintain a record of Aircraft and Aeronautical Ground Stations callsigns as part of the WT Act licensing process. The callsigns proposed by applicants for WT Act licences and ANO Article 124 Approvals are checked to ensure that they are in accordance with acceptable formation rules for the particular Air Traffic Service or Radio Communication Service. The applicant may be advised to reconsider a proposed callsign in the case of duplicate callsigns, or where there is the possibility of confusion with reserved callsigns or suffixes used by other Air Traffic Services or Radio Communication Services.

Aircraft **Gliders** – should use one of the following displayed numbers, given in the order of preference:- Registration letters (where a glider is registered with the UK CAA); Competition alpha-numeric number; the Trigraph (T/G) also known as “Three-Letter Coding”, all with the optional suffix “Glider”.

Aeronautical Ground Stations

Vehicles – should use either the suffix “MOBILE”, or “RETRIEVE”

Portables – Should use the suffix “MOBILE”, “WINCH”, “LAUNCH” or “LAUNCHPOINT” where a portable station is used at the winching or launching point in addition to the fixed station.

Fixed – Should either use the suffix “BASE” or “GLIDER BASE”.

Notes: The suffix “RADIO”, previously used for Common Glider Field Frequency (CGFF) Aeronautical (Ground) Radio Stations, is now reserved for Air Ground Communication Service use only.

More than one callsign may be registered with the CAA where the radio equipment is used in different aircraft, at different locations or for communication with different aircraft.

RP34. FREQUENCY UTILISATION

The following table outlines the Primary and Secondary uses of the various frequency assignments as determined by the BGA. The alternative ‘Secondary Use’ frequencies should only be used when the ‘Primary Use’ frequencies are very busy.

	Primary Use	Secondary Use
130.125 MHz	Training (lead and follow) Other cross-country location messages	Local and other flying Competition start and finish lines
130.1 MHz	Competition start and finish lines Local and other flying	Training (lead and follow)
130.4 MHz	Cloud flying and relaying cross-country messages only.	
129.975 MHz	As a control frequency within a 10 NM. radius and up to a height of 3,000ft. above certain approved airfields. (CGFF - Common Glider Field Frequency)	
129.9 MHz	For ground retrieval purposes only*	

LAWS and RULES

* This frequency is shared and used for communications associated with parachuting, hang gliding and para gliding.

Every effort should be made to use the alternative frequency only when the primary channel is very busy.

FIRST AID

RP35. A first aid box should be kept in a prominent and easily accessible place in the club premises and the telephone numbers of the local emergency services displayed beside the club telephone.

FIREFIGHTING

RP36. Firefighting equipment including, as a minimum, CO₂ (carbon dioxide) and multi-purpose dry powder portable extinguishers and an axe or crowbar, should be kept on a quickly mobile vehicle whenever aeroplanes or gliders are operating from the field. Each extinguisher should be labelled with instructions for use and the type of fire for which it is suitable.

INSTRUCTING

RP37. There will only be one CFI for each BGA site.

PILOT SAFETY

RP38. It is recommended that all gliders, whether club or privately owned, should be equipped by the owners/operators with cushions containing energy absorbent materials. (Conventional soft foam actually stores energy and can be dangerous in an accident). The cushions should have attachments compatible with the glider for which they are provided and be secured so that they cannot move or foul any controls, even under extreme attitudes or accelerations.

RP39. The loading limitations to be adhered to for any particular glider are those specified in the C of A document, to be repeated on the cockpit placard. While the C of A limits over-ride those in the Flight Manual, the restrictions / dispensations that have been negotiated should be clear from the cockpit placard. Lighter pilots must use ballast to comply with the aircraft placard and to ensure safe flight. It is further recommended that when an additional margin of safety is required, eg. during type conversion and for inexperienced pilots, an effective cockpit load of at least 15kg. (33lbs.) in excess of the placard minimum should be established, again using ballast if necessary. In all cases, additional ballast should be mounted in an appropriate installation secured in the aircraft so that it cannot move, even under extreme attitudes or accelerations.

PUBLIC SAFETY

RP40. Clubs have a duty of care towards visitors and members of the public who are not club members. It is recommended that non-members should always be escorted by a club member whilst on the airfield or in close proximity to aircraft.

RP41. Where members of the public have a right of way, eg. a footpath or bridleway on or around the area used for launching or landing gliders, then they must be allowed to exercise those rights and if necessary, launching must stop temporarily in order to ensure their safe passage.

INSURANCE

RP42. Although minimum third party legal liability cover is required as an Operational Regulation, further insurance cover is advisable in order to provide protection against claims arising other than as a direct result of an aircraft accident (e.g. winch cable accidents) and also to provide comprehensive cover for loss or damage to club property. An Airfield Operator's Liability policy should provide the necessary cover.

PART 4

CODES OF PRACTICE

The Codes of Practice which follow have been agreed between the BGA and the relevant authorities and associations. In some cases, they provide guidance on procedures to be followed; in others, they incorporate legal requirements which must be observed.

CP1. CODE OF CONDUCT FOR PILOTS WHEN LANDING IN FIELDS

If glider pilots are to continue to enjoy their sport, it is vital that the goodwill of farmers and landowners is retained. A great deal is owed to many farmers who have given help and consideration to pilots who have arrived in fields as uninvited guests.

Most cross-country flights in gliders are planned to end at an airfield; however, it must be emphasised that if a glider pilot fails to reach his destination and has to make a forced landing in a field, he incurs certain responsibilities.

The following code has been agreed with the National Farmers' Union and is intended to be a reminder of the conduct expected of all pilots. It is essential that all pilots should be aware of this code before they are first cleared for cross-country flying and that they are reminded of it from time to time.

THE CODE

- 1) Select a field that is not only safe to land in but one which should cause least inconvenience to the farmer.
- 2) Particular care should be taken when standing grass and cereal crops cover large areas of the countryside, for landing in these will damage the crops as well as the glider.
- 3) Care should be taken to land as far away from livestock as possible.
- 4) Immediately after landing and securing the glider, endeavour to discourage onlookers from coming into the field. For this reason it is preferable not to land in a field next to a housing estate.
- 5) Contact the farmer or his representative and explain the circumstances of the forced landing. Pay for any telephone calls. If unable to find him at the time, obtain his name, address and telephone number and contact him, without fail, as soon as possible.
- 6) Keep the retrieve vehicle off the field if it is likely to do any damage, unless permission is obtained; it may be better to manhandle the glider to the vehicle.
- 7) Ensure that no animals escape while the gate is open and ensure that all gates opened are properly closed before leaving.
- 8) If any damage has been done, exchange names and addresses with the farmer as well as giving the address of insurers covering the glider. All gliders should be adequately insured against third party risks.

● FOOTNOTE

Glider pilots are required to carry third party liability insurance cover. If any damage occurs, either to a crop or to a farmer's property, as the result of a field landing, then the glider pilot is advised to inform the farmer straightaway that compensation will be payable – provided that it is properly assessed.

CP2. CODE OF PRACTICE FOR GLIDERS FLYING IN CLASS 'D' AIRSPACE

THE CODE

- 1) Glider pilots should plan to route their flights through Class D airspace when it is clear that there are advantages from so doing, such as better weather and shorter track distance
- 2) Flights should try to spend the minimum of time in Class D airspace. Pilots should avoid circling on or close to the runway extended centre-lines, since this may well interfere with departing or arriving traffic.
- 3) Keep the controller informed if, for any reason, for example, massive sink, you have to change your planned course.
- 4) Good lookout is vital at all times and glider pilots should be prepared to initiate avoiding action notwithstanding their right of way priority. Gliders are not always visible on radar.
- 5) Competition tasks should NOT be set through Class D airspace. Where a task leg has to be set close to Class D airspace the Air Traffic Control (ATC) unit should be informed. When possible, control point(s) should be established to help ensure that gliders remain outside the airspace.

CP3. PARACHUTING DROP ZONE PROCEDURES

THE CODE

- 1) The list of parachute sites and the appropriate contact ATC frequency is on the aviation **maps** as a block of information.
- 2) Contact the ATC unit and they will be able to say if the site is active. The glider pilot can then request the Dropping Zone (DZ) frequency to obtain the current activity.
- 3) By talking directly to the parachute site, one may either be allowed to cross safely, if they are having a break, or fly around the zone if they are busy.
- 4) In the event of receiving a nil response from the parachute site frequency, the glider pilot should act on the strategic information given by the ATC unit and remain clear of the site.
- 5) YOU WILL NEVER SEE A FREE FALL PARACHUTIST IN TIME TO TAKE AVOIDING ACTION. **IF IN DOUBT KEEP OUT.**
- 6) The major sites at Langar, Peterborough / Sibson and Weston-on-the-Green are very busy.
- 7) Be sure to make in-flight calls to ascertain actual status of DZs on your route. A Radio Telephony (R/T) licence is not required. The full list of all parachute sites including military can be found on the AIS website (www.ais.org.uk). Select menu options Publications/ UKAIP/ E Route Data/ ENR Index/ ENR 5.5.3.1. This will show all information and contact details. It is always best to try to contact the parachute site by telephone for pre-flight briefing when task setting. Some sites only inform the parent ATC unit when the drop aircraft is airborne although they are likely to be active all day.

● CP4. **CODE OF PRACTICE FOR GLIDERS FLYING NEAR CONTROLLED AIRSPACE**

The CAA has very real concerns with the large number - nearly 600 annually - of infringements of controlled airspace, most of which are caused by General Aviation aircraft. Very few lead to an Airprox report but they do concern working controllers. Glider pilots are responsible for very few airspace infringements, in part due to GPS navigational equipment supporting dead reckoning navigation. That is the dilemma. Glider pilots can and do fly close to controlled airspace boundaries but the controllers do not know the glider pilot's intentions and as a consequence route aircraft under their control at least three miles away from glider showing on their radar screen. The BGA understands that glider pilots are fully entitled to fly right up to the edge of controlled airspace – unfortunately in most cases the controllers do not know if the radar trace will stop at the edge.

The BGA must be active in helping to alleviate controllers 'infringement' concerns and this code will help them to have a 'Known Traffic' situation.

THE CODE

- 1) Glider pilots intending to stay outside controlled airspace but operating within 1nm or 2km horizontally from controlled airspace, or flying over controlled airspace (for example the RAF Brize Norton zone) should endeavour to contact the appropriate Air Traffic Control (ATC) unit to explain their intention.
- 2) The ATC unit will recognise a glider if the radio-call includes 'glider' and the BGA competition number or trigraph. The following information should be passed to the controller - glider position, height, intention (eg 'staying clear of the zone') and any service request (or 'no service required')

CP5. CODE OF PRACTICE FOR GLIDING LESSONS

This code of practice sets out the legal position for flying training at BGA affiliated gliding clubs in the UK. It is the only means by which payment can be made by a member of the public for the privilege of flying in a glider. It is intended to ensure that there is a complete understanding of the legal position. The individual receiving the lesson is considered to be a member of the flight crew and not a passenger and therefore the flight is not public transport as defined in Article 145(2)(a) of the Air Navigation Order, 2005, which provides that a flight shall be for the purpose of public transport if valuable consideration is given or promised for the carriage of passenger(s) on that flight. A passenger is defined at Article 144(1) of the Order as being a person other than a member of the flight crew. Therefore, flights which fall outside those covered by this Code, and for which valuable consideration is given or promised, may be deemed to be "Public Transport" and as such may be illegal.

THE CODE

- 1) The instructor must clearly explain the purpose of the flight to the student. The primary intention of the instructor in carrying out the flight is to give flying instruction and the primary intention of the student is to receive flying instruction, and as such the student is a member of the flight crew.
- 2) The student, instructor and if applicable, the pilot of the aeroplane towing the glider, shall be members of the club operating the flight.
- 3) The instructor carrying out the flight shall hold a valid British Gliding Association instructor rating and be current in flying practice.
- 4) The flight shall be conducted in accordance with instructional procedures laid down within the British Gliding Association Instructors Manual.
- 5) New trainees will generally have little knowledge of how gliders (and powered aircraft) operate, and must be supervised when on an operational part of the airfield. A safety brief shall be given, regarding the general operation of gliding sites and the specific hazards which may be encountered.
- 6) A thorough pre-flight briefing shall be given, not necessarily by the instructor undertaking the flight, indicating the purpose of the flight and how the flight is to be conducted. The student must be made aware that on an instructional flight, the gliding club is not required to comply with public transport requirements applicable to passenger carrying flights.
- 7) Clubs wishing to advertise the availability of flying instruction to potential members must clearly indicate that such flights are "LESSONS".

● CP6. CODE OF PRACTICE FOR TASK SETTING

This Code of Practice set out below is a guide for all task setters whether they be setting tasks for a group of pilots at their club or tasks for Regional or National Competitions.

THE CODE

- 1) **Duty to avoid justifiable complaints.** All pilots have a duty to avoid causing justifiable complaints from other air users, and to avoid all airspace that is restricted to gliders unless they have specific permission to enter such airspace. Permission can be negotiated beforehand such as for competitions, or be obtained at the time by R/T from the relevant Air Traffic Control unit or the organisation in charge of the activity concerned. For individual pilots flying tasks of their choice, the choice of routing and heights to achieve this is the responsibility of the pilot. However, when a task is set for an organized group of gliders on a given day, the responsibility is incurred by the individual and the organization involved in setting the task.
- 2) **Organised Task Groups.** The BGA has agreed that, unless different arrangements have been made with the appropriate Air Traffic Control Unit or airfield/activity authority, the following rules apply:
 - a. Direct Tracks between Start, Turning & Finish Points (Waypoints). The direct tracks between Waypoints (WPs) set for organized groups of gliders must not be set through or under Class A -E controlled airspace which has a base of 3500 ft AGL or below (i.e. generally 4000 ft AMSL depending on altitude of terrain), unless this can be positively justified such as in the case of clubs whose sites are under low base controlled airspace and need tracks (and sometimes WPs) under the low base airspace in order to depart and return, also where there is no alternative such as in soaring areas constrained by large areas of low base airspace such as Kent. Such direct tracks include any through or under Class D and E controlled airspace for which a dispensation exists for single gliders to penetrate in VMC without prior agreement, but this dispensation does not apply to organized task groups. For the latest listings of airspace as it applies to gliders, see the latest BGA Laws and Rules Edition 15 and the annual airspace update in S&G April/May.
 - b. Waypoints near Airfields. For organized groups of gliders, WPs should not be set in the Air Traffic Zones (ATZs) of airfields or in a notified parachuting zone, except by prior arrangement or if known not to be active on the day or at the time concerned. In the case of airfields listed as active which do not have an ATZ, the airfield itself should not be set as a WP except by prior arrangement or known not to be active on the day or at the time concerned.

NOTE: Airfield ATZs are of 2 nautical miles radius unless the airfield has a runway longer than 1850 metres, in which case the ATZ is of radius 2.5 nautical miles. ATZs and parachuting zones are marked on the 1:500,000 CAA air map, and are listed in the 'Air Pilot'. Some airfields with only a small amount of activity are notified as airfields but NATS do not designate a formal ATZ. In all cases, the definition of an 'active airfield' is one currently listed as such in the UK 'Air Pilot' as currently amended.

LAWS and RULES

- c. Visual Reporting Points (VRPs).. VRPs for licensed airfields are marked on the 1:500,000 air map. VRPs at major airports should not be used for organised task groups due to possible conflicts with powered traffic. An awareness of the location of VRPs is useful as they can be used in Local Agreements (e.g. with Lyneham and Brize Norton) to define the boundaries of airspace available to gliders. A list of all VRPs and their co-ordinates is available from the CAA web site at <http://www.caa.co.uk/default.aspx?categoryid=64&pagetype=90&pageid=4936>
- d. Applicability to all organised task groups. This applies not only to BGA-approved Competitions, but to any task or route set for a group of gliders as opposed to a single glider, and therefore applies, for instance, to local club tasks to be flown by several gliders at once on a given day. The person setting the task has the responsibility for ensuring that this BGA Code of Practice is followed.
- e. **Always check for NOTAM's** in the task area and always check the Red Arrows web site www.raf.mod.uk/reds for their activity.

INDEX

A

AAIB 23
Accidents 23, 62
Advisory Routes 14
Aerobatics 7, 12, 13, 22, 48, 57
Aerobatics Instructor Rating 22
Aerodrome Traffic Zones 14
Aerodromes 14, 20
Aerotowing 8, 10, 47, 56
Air Cadets 46
Air Navigation Order 3, 20, 38, 67
Air Traffic Control 9, 16, 19, 46, 64, 65
Air Traffic Rules 7
Airspace Restrictions 16
Airworthiness 7, 22, 39
Airworthiness Directives 7
Assistant Instructor Rating 46, 48

B

Back-Releasing Hooks 7
Basic Instructor Rating 46
Bronze Badge 7, 50, 52

C

Certificate of Airworthiness 7, 9, 39
CFI 13, 14, 21, 45, 46, 48, 49, 50, 52, 57, 61
CFI Endorsement 21, 49
Civil Aviation Authority 4, 7, 8, 9, 19, 38, 47, 48, 73
Class D Airspace 14, 64
Commercial Pilots' Licence 6
Competitions 2, 54
Conspicuity 58, 73
Controlled Airspace 14, 19
Cross-Country Endorsement 7, 50, 52
CTO 39

D

Daily Inspection 56
Danger Area 16
Declaration 7
Diamonds 50, 53
Diplomas 50
Driving Licence 28
DVLA 40, 41, 42

E

Emergency Signals 9
Engineering Occurrence 23
Equipment 14

F

Field Landings 52
Firefighting 13, 23, 61
First Aid 13, 23

Flight Level 14
Frequency Utilisation 60
Full Instructor Rating 21, 47

G

Gold Badge 50, 53
GP 40, 41, 42
Ground Handling 23, 55
Guillotines 8

H

Harness 57
Heavy Landings 13

I

Ice 13
Incidents 23
Indespension 34
Inspectors 7, 39
Instruction 21, 45, 46, 48
Instrument Flying Rules 16, 19
Insurance 5, 31, 62

J

JAR 38, 41, 42
Joining a Thermal 13, 58

L

Launch Point Control 55
Leaving a Thermal 58
Legal Liability 5, 62
Log Book 5, 7, 22, 57
Low Flying 16, 19

M

Mandatory Inspections 7
Medical Requirements 40, 42
Military Aerodrome Traffic Zones 14
Motor Glider Instructor Rating 47, 48
Motor Gliders 47

N

Night 5
NPPL 6, 7, 38, 42, 47

O

Official Observer 50, 52, 53
Open FIR 14
Oxygen 13

LAWS and RULES

P

Parachute 4, 8, 55, 57, 65
Parachuting 65
Passenger 42
Pilot Safety 61
Private Pilots' Licence 6, 38, 42, 47, 48
Professional Instructors 21, 41
Public Safety 61
Public Transport 67

R

Radio 16, 26, 65
Radio Telephony Licence 65
Radiocommunications Agency, 24
Ridge Soaring 58
Right of Way 12, 57, 58, 62, 64

S

Self Launching Sailplanes 22, 46
Self Sustaining Sailplanes 22, 46
Sharing a Thermal 58
Signals 8, 9, 10, 13, 20, 55, 56, 73

Special Rules Airspace 14
Suspension of Rating 49

T

Terminal Manoeuvring Area 14
Touring Motor Glider 22
Towing Rating 6

U

UK AIP 14, 20

V

Variometers 59
VFR 14, 16
Visual Meteorological Conditions 14, 16
VMC 14, 16

W

Weather 16, 57, 59, 64
Winch Launching 8
Winch Operators' Manual 8, 56

LAWS and RULES

CONVERSION TABLES

METRES		FEET	KILO GRAMS		POUNDS
0.305	1	3.281	0.454	1	2.205
0.610	2	6.562	0.907	2	4.409
0.914	3	9.843	1.361	3	6.614
1.219	4	13.123	1.814	4	8.818
1.524	5	16.404	2.268	5	11.023
1.829	6	19.685	2.722	6	13.228
2.134	7	22.966	3.175	7	15.432
2.438	8	26.247	3.629	8	17.637
2.743	9	29.528	4.082	9	19.842
3.048	10	32.808	4.536	10	22.046
6.096	20	65.617	9.072	20	44.092
7.620	25	82.021	11.340	25	55.116
15.240	50	164.042	22.680	50	110.231
30.480	100	328.084	45.359	100	220.462

KMS		ST. MILES
1.609	1	0.621
3.219	2	1.243
4.828	3	1.864
6.437	4	2.485
8.047	5	3.107
9.656	6	3.728
11.265	7	4.350
12.875	8	4.971
14.484	9	5.592
16.093	10	6.214
32.187	20	12.427
40.234	25	15.534
80.467	50	31.069
160.934	100	62.137

KMS		NAUT. MILES
1.843	1	0.5396
1 nautical mile = 6,080 feet		
METRES/ SEC		KNOTS
0.515	1	1.943

To convert temperature in °C to °F:
multiply by 9/5 and add 32.

1 cu. ft. of water weighs 62.4lb.

Wing loadings:
 $1\text{lb/ft}^2 = 4.88\text{kg/m}^2$
 $1\text{kg/m}^2 = 0.205\text{lb/ft}^2$

Pressure:
 $1\text{lb/in}^2 = 0.07\text{kg/cm}^2$
 $1\text{kg/cm}^2 = 14.223\text{lb/in}^2$

ICAO Alphabet			
A	Alpha	N	November
B	Bravo	O	Oscar
C	Charlie	P	Papa
D	Delta	Q	Quebec
E	Echo	R	Romeo
F	Foxtrot	S	Sierra
G	Golf	T	Tango
H	Hotel	U	Uniform
I	India	V	Victor
J	Juliet	W	Whiskey
K	Kilo	X	X-Ray
L	Lima	Y	Yankee
M	Mike	Z	Zulu

LAWS and RULES

THIS PAGE IS INTENTIONALLY LEFT BLANK

LAWS and RULES

THIS PAGE IS INTENTIONALLY LEFT BLANK

AERODROME SIGNALS

The signals for aircraft may be displayed in the signals square or out on the airfield. In the signals square they will be smaller in size than if outside. Details of the equivalent signals to people on the ground are given, but without illustration.

1. A red and yellow striped arrow pointing in a clockwise direction means that a right-hand circuit is in force. The equivalent ground signal is a green flag.
 2. A white double cross means that glider flying is in progress. (The large airfield double cross indicates an area which should be used only for gliders under Rules of the Air Regulations Section IX; it is also required as a cable launching conspicuity marking by CAA cable launching permissions, although this use is not provided for by the ANO or the Rules of the Air Regulations). The equivalent ground signal is two red balls one above the other, suspended from a mast.
 3. A white dumb-bell means that aircraft and gliders are confined to paved surfaces.
 4. A dumb-bell with black bars means that take-offs and landings must be made on a runway, but movement on the ground is not confined to paved areas.
 5. A red L displayed on the dumb-bell means that light aircraft may fly from the runway or from a special light aircraft area.
 6. A large white L indicates a part of the airfield which shall be used only by light aircraft.
 7. A white T means that take-offs and landings shall be parallel to the shaft of the T and towards the cross arm.
 8. A white disc at the head of the landing T means that the direction of landings and take-offs may not be the same. The equivalent ground signal is a black ball suspended from a mast.
 9. A white letter H signifies that helicopters shall take off and land only within the designated area.
 10. A black C on a yellow board shows pilots where to report.
 11. A red panel with a yellow bar means that the manoeuvring area is in a poor state, and special care should be taken when landing.
 12. A red panel with a yellow cross means that the aerodrome is unsafe and that landing is prohibited.
 13. Two or more white crosses on paved areas means that the section marked is unfit for use by aircraft. Not illustrated.
 14. A yellow cross shows where tow ropes, etc. shall be dropped.
 15. A checkered red and yellow flag or board means that traffic on the airfield may only move on the manoeuvring area and apron with permission of the air traffic control unit.
 16. Orange and white striped markers on the airfield are boundary indicators for areas not fit for use (the areas are marked with white crosses) and when spaced 45 metres apart or on structures they indicate the boundary of the aerodrome.
 17. A broken and a continuous white line on the surface indicates a holding or stop line.
-