



**BGA DECLARED TRAINING ORGANISATION
SAILPLANE TOWING COURSE PROGRAMME
(EXTRACTED FROM THE BGA DTO FULL COURSE PROGRAMME)**

4 SEP 2018

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PART 1 - INTRODUCTION AND GENERAL INFORMATION

The BGA Declared Training Organisation (DTO) exists to support the Part-FCL compliant training needs of BGA clubs.

The BGA DTO central supporting function is based in its BGA office site (described here as the BGA DTO office) and a delivers flight training from a number of BGA club sites (described here as BGA DTO sites).

a) BGA Declared Training Organisation Representatives Statement

This organisation, its personnel and training programmes comply with the requirements of Commission Regulation (EC) No 1178/2011.

All training aircraft used will hold a valid certificate of airworthiness and comply with Commission Regulation (EU) No1321/2014.

The DTO has developed a safety policy in accordance with DTO.GEN.210(a)(1)(ii) according to which all training activities are carried out. The safety policy is described in the BGA Safety Management System manual.

All training activities are carried out in accordance with the DTO training programme(s).

Changes to this declaration of cessation of training activities will be notified to the Competent Authority in accordance with DTO.GEN.115(d).

Pete Stratten
BGA DTO Representative

b) Sites

BGA club sites delivering a BGA DTO course programme must be authorised and listed by the BGA DTO office.

The BGA club site must be suitable for the training being carried out as assessed by the Local Head of Training.

The course instructor(s) and student(s) must have access to a dry, warm and light briefing and rest facility.

c) Personnel

The BGA DTO representative, based at the BGA DTO office, is Mr Pete Stratten. The representatives responsibilities include;

- Ensuring the DTO has the resources necessary to remain compliant
- Promoting safety
- Maintaining timely and effective dialogue with the Competent Authority

The BGA DTO Head of Training, nominally based at the BGA DTO office, is Mr Colin Sword. The Head of Training is responsible for ensuring that the training is carried out;

- in compliance with Part-FCL
- within the scope of the DTO declaration
- in accordance with the relevant training programme

A Local Head of Training (normally the BGA club CFI) is to be authorised and listed by the BGA DTO office. The Local Head of Training is responsible for;

- Ensuring the site complies with the BGA DTO requirements including adhering to the BGA safety management system and associated policies and procedures
- Ensuring that the training provided complies with Part-FCL and the course programme

- Ensuring sufficient resources are available to complete the training programme
- Local authorisation of the instructors via a published list (example Appendix 3)
- Periodic checking of instructor certificates of experience and medical certificates

Instructors delivering the Sailplane Towing flight training for this course programme are responsible for and must hold;

- a valid Flight Instructor or Class Rating Instructor rating appropriate for the class of aircraft being used
- a valid Sailplane Towing rating appropriate for the class of aircraft being used

Instructors delivering the Flight Instructor and Examiner Seminars will be individually approved by the DTO Head of Training and listed by the DTO office.

d) Aircraft

The Local Head of Training is to list all aircraft types and their registrations that are used at the site for training and supply the information and any updates to the BGA DTO office. The BGA DTO office will ensure the Declaration is updated as required.

e) Annual Review and Report

A BGA DTO management meeting will take place at least annually to at least review performance and any training safety and standards issues identified by the SMS and through examiner, instructor and student feedback. The meeting will include at least the DTO Representative, DTO Head of Training and the BGA Training Standards Manager.

The BGA DTO will collate an annual report into its activities.

The annual review and activity report will be submitted to the Competent Authority.

f) Application to Carry out Training as a BGA DTO site

Having confirmed the requirements have been met, the local Head of Training is to submit a completed BGA DTO site application form (Appendix 2). DTO training can take place at the site on receipt of confirmation from the BGA office.

PART 2 – SAFETY POLICY

All training carried out at BGA club sites should adhere to the BGA Safety Management System (SMS) including incident and accident reporting requirements. The BGA office is responsible for publication of the SMS and associated requirements.

<https://members.gliding.co.uk/library/safety/bga-safety-management-system-manual/>

<https://members.gliding.co.uk/reporting-an-occurrence/>

The course programme introduces the student pilot to new safety critical information related to towing. It is important that additional threats associated with sailplane training, as identified in the flying training programme below, are fully understood by the instructor and student.

The student pilot should be encouraged to report safety related issues experienced during training.

PART 3 - THE SAILPLANE TOWING COURSE PROGRAMME

a) Sailplane Towing Training

The Sailplane Towing Rating course will be carried out in accordance with this programme. It includes details of the structure of the training required that results in sailplane towing privileges on a Part-FCL licence.

b) Regulations and Publications

This programme complies with Part-FCL Implementing Rule (IR) at FCL.805 and Acceptable Means of Compliance (AMC)1 FCL.805, both of which should be referred to during the course.

Reference is made to the BGA Aerotowing Guidance Notes (available on the BGA member website). 'Aerotowing Gliders' (Marriott, J, 2011, AuthorHouse) is an acceptable alternative publication.

Reference is made to the BGA Safety Management System (available on the BGA member website)

c) Prerequisites / Limitations and Currency

FCL.805 sets out the Sailplane Towing prerequisites, limitations and currency requirements and must be referred to before commencing training.

d) Pilot Experience

In addition to the pre-requisites as set out in the IR and AMC, it is important that any prospective tow pilot has sufficient experience in the aircraft type being used to tow. Practical gliding experience ahead of completing the flying training element of the course programme will also be helpful to the prospective tow pilot.

e) Course Records

Course records must be retained by the BGA DTO site throughout the course and for 3 years after course completion. The records must include;

- Training programme provided
- Details of TK and flight training given to the student pilot
- Student pilot progress during the course
- Information on the licence and ratings held by the student pilot
- Expiry date of the student pilot medical

f) Course Content

The Sailplane Towing course has two sections:

1. Theoretical knowledge (details are at Part 5) including;
 - Regulations
 - Equipment
 - Techniques
2. Flying training (details are at Part 6)

g) Course Assessment

There is no assessment of competence or similar 'test' at the end of training. The assessment is carried out continuously by the Flight Instructor (FI) or CRI conducting the training. To facilitate the assessment, the course programme includes a 'completion standard', which aims to set out the standard expected before the FI or CRI will sign an exercise as completed.

h) Exercise and Course Completion

On satisfactory completion of each exercise, the student pilot and the FI or CRI should certify the training record (Appendix 1).

Following successful completion of the course, a course completion certificate (Appendix 4) should be completed and certified by the Local Head of Training. A copy should be held by the DTO site and a copy supplied to the trained pilot.

PART 3A – THEORETICAL KNOWLEDGE TRAINING

This syllabus is written to comply with AMC1 FCL.805. The student pilot should be encouraged to self-study the following topics using the references provided. There will be a short question and answer session at the start of the flying training to assess the level of student knowledge ahead of theoretical instruction as detailed below by the FI or CRI.

References:

- Part-FCL FCL.805 and AMC.1 FCL.805
- Part NCO and NCO.SPEC
- Risk Assessment and Checklist
<https://members.glidering.co.uk/library/safe-aerotowing-safety/nco-spec-sailplane-towing-generic-risk-assessment-checklist/>
- UK Air Navigation Order (note article 87)
- Aerotow Guidance Notes
<https://members.glidering.co.uk/library/power-flying/aerotowing-guidance-notes/>

Equipment used for sailplane towing:

The aircraft (including the glider), weights, other

Tow rope and rope retrieval systems

Sailplane towing techniques including:

(i) Signals and communication procedures

(ii) take-off (normal and crosswind);

(iii) in-flight launch procedures;

(iv) descending on tow;

(v) sailplane release procedure;

(vi) tow rope release procedure;

(vii) landing with tow rope connected (if applicable);

(viii) emergency procedures during tow;

(ix) safety procedures;

(x) flight performance when towing sailplanes;

(xi) look-out and collision avoidance;

(xii) performance data sailplanes, including:

(A) suitable speeds;

(B) Stall Characteristics in turns

PART 3B – FLYING TRAINING

The exercises of the towing training syllabus for towing sailplanes should be repeated as necessary until the student achieves a safe and competent standard.

Exercise (1) - Take – off and climb procedures with a glider in tow (normal and crosswind take-offs)

TEM – Risk assessment incl performance and stopping points, Lookout , Winch launch tow hooks, Pilot experience, Winch cables

- Risk assessment
- Normal take-off
 - Signals / radio
 - RPM
 - Hand on throttle / glider release?
 - Pitch and climb control as appropriate
 - Speed control / trim
- Aborted take-off (glider releases)
- Cross wind Take – off
- Selection of route
- Out of position glider and acceptable limits. Discuss unacceptable limits, eg glider too high on tow, symptoms and immediate release action

Completion standard - Students should demonstrate:

Suitable lookout procedures

Suitable speed control – once out of the wind gradient +/-10 Knots

Competent engine monitoring and handling

Safe piloting skills and airmanship such that the successful outcome of a procedure or a manoeuvre should never seriously be in doubt

Exercise (2) – 360° circles on tow with a bank of 30° and steeper

TEM – Lookout (high / low wing tugs), Glider unable to follow now out of airfield range

- Appropriate rate of roll and angle of bank for the pilot / situation
- Appropriate speed for glider / tug / climb performance

Completion standard - Students should demonstrate:
Suitable lookout procedures
Competent situational awareness with respect to wind direction, lift for the glider and the location of the airfield

Exercise (3) – Descending on tow

TEM – Lookout, bows in rope, snatching and therefore weak link breaking

- Gently!
- Communication with glider pilot

Completion standard - Students should demonstrate:
Appropriately smooth flying
Competent communication with the glider while maintaining situational awareness

Exercise (4) – Release procedure of the sailplane

TEM – Hitting the glider, Lookout

- Immediate actions in the tug
 - Hot engine, so avoiding shock cooling
 - Flaps
 - Beginning descent
 - Lookout
 - Circuits and further throttle management

Completion standard - Students should demonstrate:
Competent airmanship when separating with the glider and lookout procedures
Appropriate engine management in accordance with AFM and BGA Aerotowing handbook
Joining the circuit appropriately to achieve separation from other traffic

Exercise (5) – Landing with the tow rope connected

TEM – Hitting personnel and objects on the ground with the rope, snaring objects with the rope

- Heights over obstacles when landing
- Winding in the rope with the winch if fitted
 - Is the rope really in?

Completion standard - Students should demonstrate:
Appropriate risk assessments when overflying boundaries with respect to rope clearance

Exercise (6) – Tow rope release procedures in flight

TEM – Hitting objects / personnel on the ground

- Circumstances that warrant releasing the rope in flight
- When the runway is short
- Direction of rope drop.

Completion standard - Students should demonstrate:
Prioritisation of workload when attempting to drop the rope
Appropriate risk assessments when choosing where and when to drop the rope

Exercise (7) – Emergency Procedures

TEM – Causing a real emergency

- Engine failures
- Glider signals can't release
- Gliders with airbrakes open or drogue chute deployed

Completion standard – Student should demonstrate:
Appropriate prioritisation of tasks when dealing with any simulated emergencies
Appropriate level of flying skill and airmanship while dealing with simulated emergencies – airspeed should be managed at +/-10 kts

Exercise (8) – Signals and communication during tow

TEM – Ambiguous communication and confusion

- Control surface and positioning signals from and to the towing aircraft
- Use of the radio as a preference

Completion standard – Student should demonstrate:
Suitable use of signalling to achieve a safe tow in all circumstances, including emergencies

Appendix 2 - BGA club application to carry out training as a BGA DTO site

The completed application should be submitted to the BGA office. Training may take place following confirmation by the BGA office that the site and specified training course have been authorised and listed within the BGA DTO.

BGA Club Name				Site Name		
Course Required (please circle)	Sailplane Towing					
BGA Club Local Head of Training Details						
Full Name						
Email Address				Tel No		

I confirm that;

- I have read and fully understand the course programme and associated requirements
- The instructors used during the course(s) are listed by the site, including name, licence number, instructor rating held and expiry date
- The aircraft types used during the course have been listed including their registration markings and supplied to the BGA DTO office.
- The lists are kept up to date at the site and are available for inspection by the BGA and/or the CAA
- That I am aware that the course and DTO site arrangements may be audited by the BGA or the CAA

Local Head of Training Signature	
Date	

BGA USE ONLY – date confirmation sent to Local Head of Training:

Appendix 3 – Example instructor authorisation list

MUCH SOARING GLIDING CLUB INSTRUCTOR AUTHORISATION LIST

The following instructors are authorised to carry out training at the Much Soaring GC BGA DTO site as listed below;

Name	Instructor Rating Held	Instruction Authorised by the Local Head of Training
Orville Wright	FI(A)	Sailplane Towing (aeroplanes)
Chuck Yeager	CRI (A) FI(S)	Sailplane towing (aeroplanes) Sailplane towing (TMGs)

Signature: *Amy Johnson*

Date: *1st April 2019*

Name: *Amy Johnson*

Local Head of Training

Appendix 4 – BGA DTO Course Completion Certificate

I certify that (name)has completed the course of training for

(title).....on (date).....

At (BGA DTO site name).....DTO reference.....

The course consisted of.....flying hours and.....take-offs and landings / launches

The aircraft type(s) used during the course.....

Signature of Local Head of Training/Seminar Tutor..... Name.....

This course completion certificate should be completed and handed to the pilot/instructor/examiner who completed the course or seminar. A copy should be retained by the BGA DTO site local Head of Training.

Appendix 5 – Course Candidate Details

Course Candidate Name	
Gliding Club	
Phone number	
Email	
Licence held	
PIC hours and launches in sailplanes	
PIC hours and take-offs & landings in aeroplanes	
PIC hours and take-offs & landings in TMGs	
Medical expiry date	
Part-FCL ratings and other privileges held on sailplanes / TMGs / aeroplanes as applicable	