



*Fédération
Aéronautique
Internationale*

IGC PROCEDURES FOR HANDICAPPED CLASSES

**TO BE USED IN CONJUNCTION WITH
SPORTING CODE SECTION 3, ANNEX A**

CLASS D (gliders)
Including Class DM (motorgliders)

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¹ FAI Statutes,	Chapter 1,	para. 1.6
² FAI Sporting Code, Gen. Section,	Chapter 4,	para 4.1.2
³ FAI Statutes,	Chapter 1,	para 1.8.1
⁴ FAI Statutes,	Chapter 2,	para 2.1.1; 2.4.2; 2.5.2; and 2.7.2
⁵ FAI By-Laws,	Chapter 1,	para 1.2.1
⁶ FAI Statutes,	Chapter 2,	para 2.4.2.2.5
⁷ FAI By-Laws,	Chapter 1,	paras 1.2.2 to 1.2.5
⁸ FAI Statutes,	Chapter 5,	paras 5.1.1, 5.2, 5.2.3 and 5.2.3.3
⁹ FAI Sporting Code, Gen. Section,	Chapter 4,	para 4.1.5
¹⁰ FAI Sporting Code, Gen. Section,	Chapter 2,	para 2.2
¹¹ FAI Statutes,	Chapter 5,	para 5.2.3.3.7
¹² FAI Statutes,	Chapter 6,	para 6.1.2.1.3

INTRODUCTION

This document is a collection of the rules specific to the glider classes that use handicaps in World and Continental Championships. Rules that apply to all competition classes are not here. They are in FAI Sporting Code Section 3, Annex A.

As a supplement to Annex A, this document shall be considered to be a part of the rules for World and Continental Championships.

This document contains the current handicap lists.

Unlike Annex A, this document may be republished at any time. New versions will be announced to the NACs and the current version will always be available on the IGC website.

There is the possibility that special handicap lists will be created for particular Championships. These special lists will be announced to the NACs and published on the IGC website, but they will not be included in this document.

PART 1
CLUB CLASS

1.1 Definitions and References

TCDS	Type Certificate Data Sheet from the country of registration, the country of manufacture, or EASA
RM	IGC Reference Mass, from Appendix 1
MTOM	Maximum Takeoff Mass allowed. To receive a score, the takeoff mass of the glider must be equal to or less than MTOM. MTOM is defined in para. 1.5, below.
Hmin	Minimum Handicap. (Hmin = 0,990 without adjustments – see para. 1.63)
Hmax	Maximum Handicap. (Hmax = 1,055 without adjustments - see para. 1.63)

1.2 Eligibility

1.2.1 In order to enter a Club Class competition, the glider to be used must

- be listed on the Club Class Handicap List (Appendix 1); or
- be listed on an IGC-approved list created for that Championship; or
- receive approval from the IGC Bureau

1.3 Documents

1.3.1 In addition to providing the documents required by Annex A, competitors wishing to enter a Club Class Championship must provide or refer to a valid Type Certificate Data Sheet (TCDS) issued by the country of registry, the country of manufacture, or EASA.

1.4 Equipment [Reserved]

1.5 Maximum Takeoff Mass (MTOM)

1.5.1 The takeoff mass must be less than or equal to the least of:

- Maximum certificated takeoff mass, according to TCDS
- Maximum certificated takeoff mass without waterballast, according to TCDS

1.6 Adjustments to handicaps

1.6.1 Mass

If the takeoff mass is greater than RM, then the handicap will be increased by 0,004 for each 10 kg or part thereof that the takeoff mass exceeds RM. Examples:

Takeoff Mass – RM	Handicap is increased by
0	0
>0 – 10,0	0,004
>10 – 20,0	0,008
etc.	etc.

The handicap will be reduced by 0,003 for each whole multiple of 10 kg that the takeoff mass is less than RM, but limited to a reduction of 0,006, as follows:

RM – Takeoff Mass	Handicap is reduced by
< 10	0
10,0 – <20,0	0,003
20	0,006

1.6.2 Winglets

The addition of winglets to a glider that was originally built and certified (and performance measured) without winglets, will increase the handicap by 0.004. Gliders originally built and certificated with winglets only are marked in the IGC Club Class List (Appendix 1).

1.6.3 Range of handicaps

Hmin and Hmax are the limits of the basic handicaps of the Club Class List (Appendix 1). The adjustments for mass or winglets outlined in para. 1.6.1 and 1.6.2 above and 1.9.2.2, may result in a handicap below Hmin or above Hmax for a specific configuration.

The MTOM listed in para. 1.5 may not be exceeded in any case.

1.7 **Procedures** [Reserved]

1.8 **Penalties** [Reserved]

1.9 **Notes**

This paragraph contains explanatory material.

1.9.1 Reference Mass for Club Class gliders

The IGC reference mass (RM) for each glider is determined by IGC and is listed in Appendix 1. RM is normally equal to the least of:

- Maximum certificated takeoff mass for the type, according to EASA TCDS
- Maximum certificated takeoff mass without waterballast for the type, according to EASA TCDS
- $MMNLP + A * SWM$, where

MMNLP = Maximum Mass of Non-lifting Parts for the type, according to EASA TCDS

A = Wing Area

SWM (Specific Wing Mass) = 12 kg/m² for unflapped gliders, or 13 kg/m² for flapped gliders.

Also note that, in the case of motorgliders, the reference mass is taken from the non motorized glider version.

Deviations from the figure calculated by the formula for RM are made in some cases in which gliders of the same type and performance (at equal wingloading) would have different RM due to different MMNLP.

The RM shown in the IGC Club Class List (Appendix 1) is the basis for the adjustments described in para. 1.6.

1.9.2. Modifications and adjustments to handicaps

1.9.2.1. Modifications that do not require adjustments to handicaps:

- turbulator tape, vortex generators, taping, sealing and masking of gaps
- end plates to ailerons and flaps
- bug wipers

1.9.2.2 Modifications that require adjustments to handicaps

- flying with winglets (see. 1.6.2)
- Other modifications that improve the performance will be evaluated by IGC Handicap Committee (sub-committee of Annex A) and may result in an adjustment to handicaps. Such adjustment will become into force as soon as details and figures are published with a new update of sc3ah on the FAI webpage.

Examples: wing-fuselage fairing, modification of wing profile, modification of wing tip other than by winglets, etc.

PART 2

20 METRE MULTI-SEAT CLASS

2.1 Definitions and References

2.2 Eligibility

- 2.2.1 All 20 Metre Multi-seat gliders are eligible. Handicaps are listed in Appendix 2. Gliders not appearing in Appendix 2 will normally receive a handicap of 1,00, subject to the approval of the IGC Bureau. The Bureau may also approve special handicaps for a particular reason and for a particular championship.

2.3 Documents

- 2.3.1 In addition to the documents required in Annex A, competitors wishing to enter a 20 Metre Multi-seat Class Championship must provide or refer to a Type Certificate Data Sheet (TCDS) issued by the country of registry, the country of manufacture, or EASA.

2.4 Equipment [Reserved]

2.5 Maximum Takeoff Mass (MTOM)

- 2.5.1 The takeoff mass must be less than or equal to the least of:

- Maximum certificated takeoff mass, according to TCDS
- 800 kg

2.6 Adjustments to handicaps

- 2.6.1 Addition of winglets does not affect handicaps.

2.7 Procedures [Reserved]

2.8 Penalties [Reserved]

Appendix 1

IGC Club Class List

1 April 2019

IGC Handicap	Glider Type	Flaps (f)	IGC Reference Mass [kg]	remarks
1.055	ASW 20, F (15m)	f	372	not eligible: ASW 20 b, c
1.050	ASW 24, B		365	
1.045	Discus a,b,CS		367	
1.045	LS 3, a	f	377	
1.040	Mosquito, B	f	368	
1.040	DG 200 (15m)	f	380	
1.040	Mini Nimbus	f	368	
1.040	Genesis 2		366	
1.040	Speed Astir II, IIb	f	400	
1.040	Glasflügel 304,B, HPH 304 CZ (15m)	f	369	
1.035	SZD 55-1		350	
1.030	LS 7		353	
1.025	PIK 20 A	f	380	
1.025	LS 4, a, b		356	
1.025	HPH 304 C		359	
1.020	PIK 20 B	f	370	
1.020	CB-15 CRYSTAL		350	
1.020	SZD 59 ACRO (15m)		375	with winglets only, already accounted for in IGC handicap
1.020	H301 Libelle	f	315	
1.015	DG 300, Elan		369	
1.015	Pegase 101, A,B,C,D,P,AP		361	
1.015	PIK 20 D	f	355	
1.010	Jantar Std. 2, 2M, Std.3		370	
1.010	SZD-48-3M, 3M1 "Brawo"		365	
1.005	Std. Cirrus B (16m)		350	winglets not allowed
1.005	Hornet, C		343	
1.005	LS 1f, LS 1f(45)		347	
1.000	ASW 19, B		362	
1.000	DG 100, G, Elan, G Elan		385	
1.000	Jantar Std.		364	
1.000	Std. Cirrus B(15m), CS11-75L, G		345	
0.990	ASW 15, B		352	
0.990	LS 1 0,a,b,c,d		329	
0.990	Std. Libelle, 201B,202,203		328	
<p>IGC Reference Mass is the basis for handicap adjustments (SC3AH 1.6) Compliance with certified MTOM or MTOM without water acc. TCDS is mandatory.</p>				

Appendix 2

IGC 20m Multi-Seat Class List
1 April 2019

IGC Handicap	Glider Type	Flaps (f)	MTOM in IGC 20m Multi-Seat Class [kg]	remarks:
1.05	Arcus T, M, E ASG 32, Mi, EL HPH304TS Twin Shark (all versions)	f	800	
1.04	Arcus (pure glider without MoP)	f	750	certified MTOM 750kg
1.01	Duo Discus (all versions with certified MTOM 750kg)	-	750	
1.01	LAK 12R 20m, LS11	f	750	
1.00	DG1000/1001 (all versions)	-	750	
1.00	Duo Discus (all versions with certified MTOM 700kg)	-	700	
Winglets are eligible without increase in handicap.				